

## Framework of Research Activities of TBU in Zlín

This document forms Appendix 3 to the Implementation Plan of the Strategic Plan of TBU in Zlín (hereinafter referred to as “TBU in Zlín”) for 2020. Its mission is to present a framework vision for the orientation of the higher education institution in research, experimental development and innovations (hereinafter referred to as “R&D&I”). Its detailed elaboration will be subject of the subsequent self-evaluation report of TBU in Zlín for the purpose of evaluation of the higher education institution in Modules 3, 4 and 5 of the current methodology of the Research, Development and Innovation Council of the Government of the CR – Methodology 17+.<sup>1</sup> At the same time, its main points will form part of the Strategic Plan of TBU in Zlín for the period of 2021 to 2025.

The hereby presented framework vision focuses on four interrelated, cross-cutting areas connected with the management and long-term conceptual development of R&D&I at higher education institutions. They include:

- (1) Missions and visions of TBU in Zlín in R&D&I.
- (2) Aims and strategies for its fulfilment for the period of the following strategic plan (2021 to 2025).
- (3) Connection to the fulfilment of national and supranational strategic aims and measures in the sphere of R&D&I.
- (4) Institutional tools for the implementation of research strategy of TBU in Zlín with emphasis on the support for qualitative research and innovative environment.

### (1) MISSIONS AND VISIONS IN R&D&I

TBU in Zlín is a public higher education institution of a university type with six Faculties and other four component parts. It offers studies in three degrees in degree courses focused on humanities, technology as well as arts based on the ECTS credit system. TBU in Zlín can be characterized by advanced science and research particularly in the areas of polymer engineering, cybernetics, information technology, artificial intelligence and economics and marketing.

Research at TBU in Zlín is carried out mainly in research centres, which are specialized units within the University organizational structure focused on basic and applied research.<sup>2</sup> They include two research centres established within the implementation of the projects of the national research excellence – Centre of Polymer Systems (CPS) and the Centre for Security and Information Technologies (CEBIA-Tech) and another four research units within the Faculties of TBU in Zlín: Polymer Centre (PC), Centre for Applied Economic Research (CAER), Research Centre of the Faculty of Humanities (RC of FHS) and Footwear Research Centre (FRC), whose knowledge transfer is implemented via the Technology Transfer Centre (TTC).

The central **vision of TBU in Zlín** is a systematic development and interconnection of educational and R&D and creative activities, which is reflected in its mission “**Erudire et Creare**” / “**Educate and Create**”. It is followed up by all the missions of the higher education institution that have been undertaken so far and formulated in the strategic plans, as well as future visions of TBU as a higher education institution and a research organization.

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<sup>1</sup> Available from: <https://www.vyzkum.cz/FrontClanek.aspx?idsekce=799796>

<sup>2</sup> Available from: <https://www.utb.cz/univerzita/o-univerzite/struktura/vyzkumne-jednotky-a-parky/>

With regard to this fact, the vision of TBU in Zlín during the period of the last Strategic Plan 2016-2020 (hereinafter referred to as “TBU SP 2016-2020”) was transformation into an educational and R&D **institution closely interconnected with the entrepreneurial environment and the development of activities characteristic of the Entrepreneurial University**.<sup>3</sup> This vision followed the successful implementation of the key visions of TBU in Zlín between 2011 and 2015, when the mission of the University was the development of knowledge, abilities and skills, finding new ideas and helping give them life, serving the society as well as the individuals in the spirit of the Bata-inspired values that the University cherishes.<sup>4</sup>

With regard to the currently valid Strategic Plan of TBU in Zlín for 2016 to 2020, the strategic aims pursued so far by the University include the following:

- (1) Building a university with an established reputation in the educational system of higher education.
- (2) Ensuring high-quality research with eligible outputs in disciplines implemented at TBU in Zlín with a high level of usefulness for a continuous development of the region.
- (3) Continuing with the development of a natural international environment at TBU in Zlín.
- (4) Using the knowledge potential and the conditions for the transformation of TBU in Zlín to the category of entrepreneurial university.
- (5) Strengthening the activities carried out by the University in the area of social responsibility in- and outside the institution.

All these strategic aims, as well as the follow-up priority aims, were formulated and implemented with respect to the Long-Term Strategic Plan for Education, Science, Research, Development, Innovation, Art and Other Creative Activities for the Area of Higher Education Institutions for the Period of 2016 to 2020 (hereinafter referred to as “SP HEI 2016-2020”),<sup>5</sup> Higher Education Development Framework until 2020<sup>6</sup> (hereinafter referred to as “Framework of HEI 2020”) and the International Competitiveness Strategy of the Czech Republic for the Period of 2012 to 2020 (Hereinafter referred to as “CR Strategy for 2012-2020”).<sup>7</sup>

In the following period of the plan (2021 to 2025) the primary mission of TBU in Zlín is to continue with the established orientation of the University in terms of the **implementation of the internationally acclaimed research with significant relevance to the needs of the society**. When formulating this vision, we follow the Innovation Strategy of the Czech Republic for the years 2019-2030, which is its starting point.<sup>8</sup> Through this vision, TBU in Zlín intends to contribute to an increase in competitiveness of the Czech Republic in key areas of education and R&D&I that are developed at the higher education institution, and that are based on the elements of the national innovation strategy: polytechnic education, innovation and research centres, national start-up and spin-off environment, digital state, production and services and smart marketing.

## **(2) AIMS AND STRATEGIES OF THE R&D&I**

The strategy of TBU in Zlín in the sphere of R&D&I between 2021 and 2025 is the systematic **increase in the quality, effectiveness and international dimension of R&D and creative**

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<sup>3</sup> Available from: [https://www.utb.cz/mdocs-posts/strategicky\\_zamer\\_2016\\_2020/](https://www.utb.cz/mdocs-posts/strategicky_zamer_2016_2020/)

<sup>4</sup> Available from: <https://www.utb.cz/mdocs-posts/dlouhodoby-zamer-na-roky-2011-2015>

<sup>5</sup> Available from: <http://www.msmt.cz/vzdelavani/vysoke-skolstvi/dlouhodoby-zamer>

<sup>6</sup> Available from: <http://www.msmt.cz/vzdelavani/vysoke-skolstvi/ramec-rozvoje-vysokeho-skolstvi>

<sup>7</sup> Available from: <http://www.msmt.cz/vyzkum-a-vyvoj/strategie-mezinarodni-konkurenceschopnosti-cr-pro-obdobi-let>

<sup>8</sup> Available from: <https://www.vyzkum.cz/FrontClanek.aspx?idsekce=866015>

**activities in such a manner as to contribute in the most effective way possible to the implementation of the national innovation strategy for 2030 and the initial mission of the public higher education institution.** In this respect, TBU in Zlín intends to support excellent research teams focusing on priorities of the national innovation strategy, as well as to harmonize the quality of R&D and creative activities across the whole University. In this case, the aim of the harmonization is to implement internationally competitive R&D and creative activities at all component parts of TBU in Zlín that will comply with the standards of excellence in research and development set by the European Research Council.<sup>9</sup> For this purpose, the higher education institution formulates the key goals for the development of R&D&I that it intends to implement within the following strategic plan. The aims are divided into five sub-areas focused on the main domains of R&D&I at TBU in Zlín.

**(A) Area of basic research:**

- Enhancement of the quality of R&D and creative activities with the aim of interannual increase in the number of publication outputs indexed in monitored databases (WoS and Scopus) in Q1 and Q2 (outputs evaluated within Module 2 of Methodology 17+).
- Increase in the total volume of R&D and creative activities with the aim of interannual increase in the number of publication outputs indexed in monitored databases (WoS and Scopus) and increase in their citation rate.
- Enhancement of the quality of R&D and creative activities with the aim of interannual enhancement of the average assessment of outputs of TBU in Zlín that are not subject to evaluation by means of bibliometric analyses and are evaluated within Module 1 of Methodology 17+.
- Enhancement of the quality of the results of artistic activities with the aim of interannual increase in the number of outputs evaluated as AKX to BKX according to the RAO methodology for 2021-2025.
- Increase in the number of outputs of R&D and creative activities in cooperation with international partners (strategic extension of integration to the international research infrastructure).

**(B) Area of project activities:**

- Increase in the total number of submitted and granted projects of basic and applied research for the period of 2021 to 2025, with the use of motivation tools which have a positive impact on the variable component of salary and with the help of specialized seminars and trainings.
- Increase in the total number of submitted and granted international projects of basic and applied research for the period of 2021 to 2025. Support for activities focused on international networking in R&D&I through professional and expert groups and associations will constitute an integral part of the area.
- Increase in the number of projects of basic and applied research submitted/implemented in cooperation with international partners (extension of integration to the international research infrastructure).

**(C) Area of doctoral programmes (hereinafter referred to as “DP”):**

- Increase the attractiveness of studies by means of involvement of doctoral students in internal (IGA, RVO projects) as well as external projects within R&D&I.

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<sup>9</sup> Available from: <https://www.evropskyvyzkum.cz/cs>

- Reduce the dropout rate in DP by means of specialized courses and seminars for doctoral students that will help increase professional competencies and soft skills of students and supervisors.
- Maintain the number of students in DP at TBU from the previous period by means of scholarship and personnel policy applicable also to students of Bachelor’s programmes (involvement in R&D&I projects, summer internships, scholarship incentives) and by means of PR tools popularizing doctoral studies.

**(D) Area of technology transfer and social relevance**

- The area of technology transfer at TBU in Zlín will continue to be dealt with in a centralized manner by the Technology Transfer Centre (hereinafter referred to as “TTC”), which is an organizational unit of the University Institute.
- Draw up and initiate the implementation of the strategy for further development of the TTC.
- Support R&D and creative activities with significant social impact by means of internal projects in accordance with the regional and national RIS3 strategy particularly on the area of development of creative industry and secure society.

**(E) Support for R&D&I**

- Fully implement the system of human resources management in R&D&I.
- Support further development of research centres through strategic projects funded from the institutional support resources.
- Apply the principles of internal reallocation of resources intended for long-term conceptual development of the research organization on the basis of internal projects and qualitative parameters and in accordance with the principles of Methodology 17+.
- **Encourage internationalization of research** by means of long-term and short-term mobility of international experts at TBU in Zlín within projects financed from the European Structural Funds, by Erasmus+ and Freemover programmes. Identical programmes will be used for the support of mobility of academic staff and researchers at top-class research units. The tool is complemented by an internal competition focused on the support for internationalization among employees and students and the development of international environment (Internal competition within the D indicator).

**(3) NATIONAL AND INTERNATIONAL CONTEXT OF R&D&I**

The strategy for R&D&I used so far at TBU in Zlín is based on a number of national and supranational documents and strategies: e.g. SP of HEI 2016-2020, Framework of HEI 2020 and the Strategy of the CR 2012-2020, Europe 2020 and RIS3 strategies. The Table below shows particular priority aims of the TBU SP 2016-2020 relevant to R&D&I and their connection to the SP of HEI 2016-2020.

**Table 1 Link between TBU SP 2016-2020 and SP of HEI 2016-2020**

Aim of the TBU SP 2016-2020	Aims/Measures of the SP of HEI 2016-2020
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<p>Enhance the quality of R&amp;D and creative activities implemented at TBU in Zlín with the aim of interannual increase in the number of publication outputs indexed in the monitored databases (recorded for the purposes of the Information Register of R&amp;D Results) and increase in their citation rate.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – support for excellent research, p. 17)</p>
<p>Implement the evaluation of the results of R&amp;D and creative activities by means of the Register of Artistic Outputs (RAO) to the institutional system of evaluation of teaching and R&amp;D and creative activities.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – implement a new methodology for the purpose of funding of R&amp;D&amp;I, p. 17)</p>
<p>Improve the quality of structure for the transfer of the results of research, development and innovations to the practice, in particular – encourage the involvement of TBU in Zlín in applied research and development funded from non-public resources. Set out a stable mechanism for the support for the development of the Technology Transfer Centre.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – develop competencies for the transfer of knowledge to the application sphere and strengthen capacities for the transfer of knowledge, p. 19) SP of HEI 2016-2020 (Indicators to the Priority aim 5, Quality and relevant research, development and innovation, DC5, p. 23)</p>
<p>Ensure sustainability and development of research centres built with the support of funding from the R&amp;DfI OP. Set out a stable and transparent mechanism for the distribution of institutional funding in such a manner as to take into account the strategic benefit of the centres for further development of TBU in Zlín.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – sustainability of research centres from the R&amp;DfI OP, p. 18)</p>
<p>Extend the integration of research infrastructure of TBU in Zlín to international research networks and intensively participate in the preparation and implementation of international research projects. Develop active participation in international research communities. Build infrastructures ensuring project activities.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – internationalization of R&amp;D&amp;I, p. 18)</p>
<p>Admit young project researchers (post-docs) as a potential source of staffing for high-quality R&amp;D and creative activities at TBU. Offer grant incentives for young researchers, allowing their career development.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – support for excellent research, p. 17)</p>
<p>Create conditions for the establishment of project interfaculty research teams with the aim of increasing the potential and the number of outputs of R&amp;D and creative activities.</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – support for excellent research, p. 17)</p>
<p>Develop a system for the management of human resources in research and development, on the basis of which the</p>	<p>SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – implement a new</p>

quality of R&D and creative activities will be managed and influenced, on the level of relevant component parts as well as on the institutional level	methodology for the purpose of funding of R&D&I, p. 17)
Develop an internal system of evaluation of the quality of R&D and creative activities of particular teams at TBU allowing identification of its strengths and weaknesses and reflected in the strategic management of the given team of a higher quality.	SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations, funding – implement a new methodology for the purpose of funding of R&D&I, p. 17)
Develop cooperation with domestic research institutions and with the research units of the Academy of Sciences of the CR.	SP of HEI 2016-2020 (Priority aim 5, Quality and relevant research, development and innovations – develop cooperation with external partners for the purpose of increasing the relevance of R&D&I, p. 19)

#### (4) INSTITUTIONAL TOOLS FOR THE IMPLEMENTATION OF RESEARCH STRATEGY AND THE SUPPORT FOR QUALITATIVE RESEARCH AND INNOVATIVE ENVIRONMENT

TBU in Zlín uses the following institutional tools for the implementation of its research strategy with an emphasis on the support for qualitative research and innovative environment:

- (1) **Financial tools** in the form of a budget of TBU in Zlín. The Institutional Support for Long-Term Conceptual Development of Research Organization (hereinafter referred to as “LTC德罗”) is directly allocated within the budget rules, which will be used in 2020 in accordance with the recommendation by the MEYS to strengthen the sustainability of research infrastructures built within the R&D&I OP. Furthermore, resources for the LTC德罗 will be allocated to organizational units according to the internal indicator of R&D&I defined in the Budget Rules, therefore, they will go to the authors of the outputs. For the support of conceptual development at relevant component parts of TBU in Zlín, a part of the allocated resources will be dependent on the implementation of internal projects in accordance with the strategy of the MEYS. Another financial tool is the financial support provided for university research purposes (URP), which systematically supports R&D and creative activities carried out by students in DP and MP implemented at TBU in Zlín.<sup>10</sup>
- (2) The tools for the strategic management of R&D&I at TBU also include **internal regulations** regulating the activities of the Internal Grant Agency, which administers projects funded from the URP resources, directives relevant to protection of intellectual property rights, publication of results via the TBU University Press.<sup>11</sup>
- (3) In terms of the tools for the support for qualitative research, the Rector’s Directive SR/8/2019 plays the key role, regulating the manner of **evaluation of academic staff and researchers** according to TBU in Zlín, including R&D and creative activities and the manner of individual management of R&D and creative activities (arrangement of career plans and their periodical assessment).<sup>12</sup> An important component of the career development is the increase in the number of graduates from doctoral programmes, the

<sup>10</sup> Available from: <https://www.utb.cz/veda-a-vyzkum/projekty/>

<sup>11</sup> Available from: <https://nakladatelstvi.utb.cz/>

<sup>12</sup> Available from: <https://www.utb.cz/univerzita/uredni-deska/vnitri-normy-a-predpisy/>



number of Associate Professors and Professors supported also by internal rules and regulations.

- (4) The main indicators of the quality of R&D and creative activities are monitored and assessed in the long-term within the **Report on Internal Evaluation of the Quality of Activities Carried Out at TBU**, where one of the modules is focused directly on the quality of R&D and creative activities that is continuously monitored through the Module E. (Indicators E<sub>1</sub> to E<sub>5</sub>).<sup>13</sup>
- (5) Last but not least, the tools for the implementation of research strategy include the feedback on the quality of R&D and creative activities and the implementation of the strategy of TBU in Zlín from external entities. In this respect, the higher education institution was evaluated by means of the project funded by the call Development of Capacities for Research and Development (TBU DoCfRaD), in which both research centres of the University won the HR Award certificate.<sup>14</sup> An external international evaluation process – Institutional Evaluation Programme within the EUA – was also commenced in 2019. The evaluation process shall be completed in 2020.<sup>15</sup>

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<sup>13</sup> Available from: <https://www.utb.cz/univerzita/uredni-deska/ruzne/zprava-o-vnitrnim-hodnoceni-kvality-utb-ve-zline/>

<sup>14</sup> Available from: <https://www.utb.cz/hr-award-hrs4r/>

<sup>15</sup> Available from: <https://www.iep-qaa.org/>