

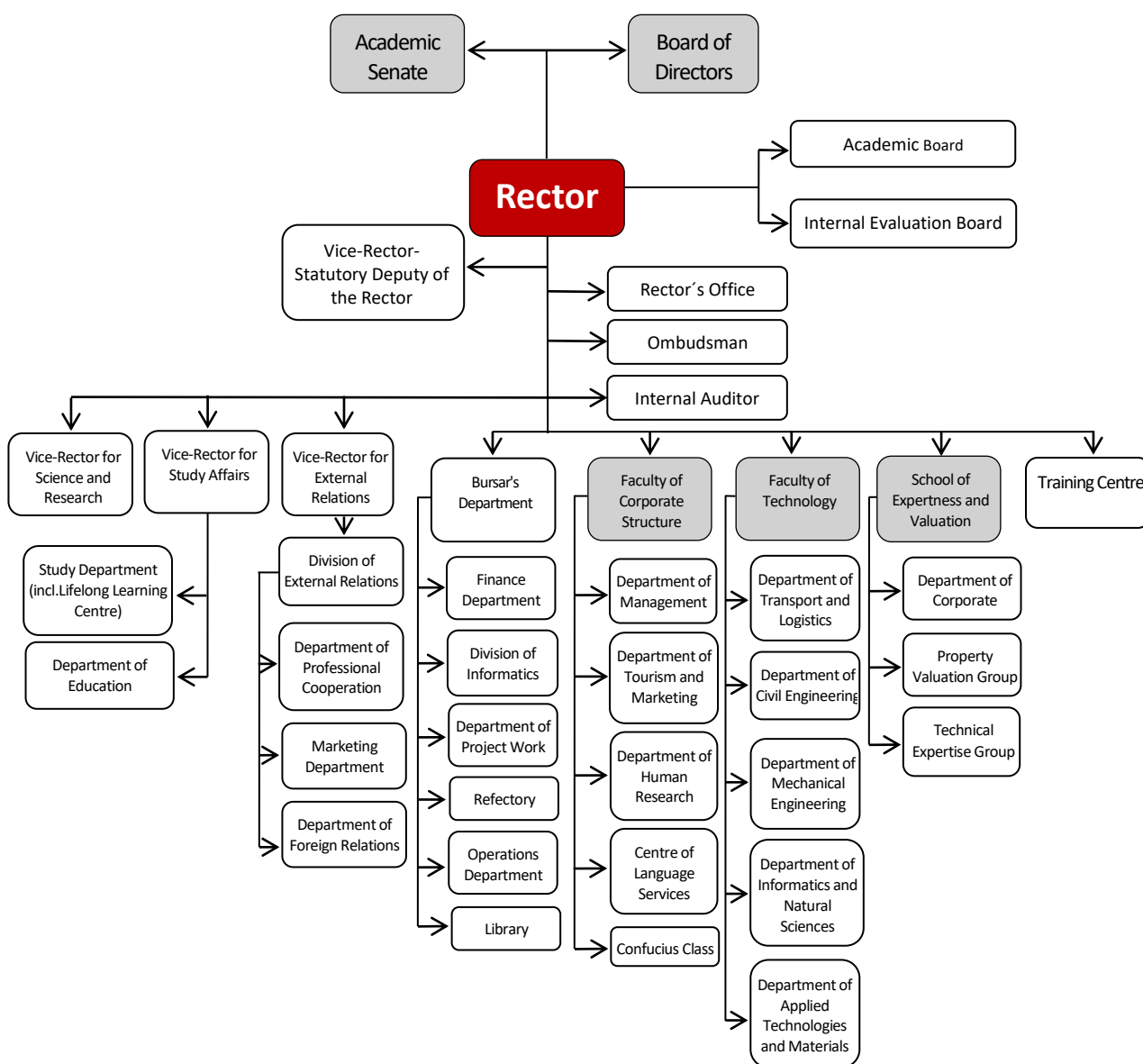
SELF-EVALUATION REPORT FOR EVALUATION OF RESEARCH ORGANIZATIONS IN THE SEGMENT OF HIGHER EDUCATION INSTITUTIONS IN YEAR 2025

HIGHER EDUCATION INSTITUTION NAME: Institute of Technology and Business in České Budějovice

COMPANY REGISTRATION NUMBER (CRN): 75081431

THE LIST OF EVALUATION UNITS IN MODULE 3: Faculty of Corporate Strategy; Faculty of Technology; School of Expertness and Valuation

ORGANIZATIONAL STRUCTURE OF THE HIGHER EDUCATION INSTITUTION



THE HIGHER EDUCATION INSTITUTION CONTACT PERSON

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Signature (Rector), stamp

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Introductory information about the evaluated higher education institution

The HEI briefly introduces itself. The organizational chart, the position of the HEI within the research, development and innovation system and the system of HEIs in the Czech Republic may be commented on, the mission and vision, the size of the HEI, the number and focus of the units evaluated will be briefly presented.

Maximum 500 words.

The Institute of Technology and Business in České Budějovice has an organizational structure ensuring the definition of the competence, powers and responsibilities of the school's self-governing bodies, senior employees forming a functional integrated whole continuously updated in accordance with the societal challenges in the field of science and research.

The organisation and management of VSTE respects the principle of process management and the principles of the learning organisation. It is set up to enable effective management, coordination and cooperation between the various bodies, senior staff, and other school personnel. The structure of the school is designed to promote transparent decision-making processes, effective communication and optimal distribution of authority and responsibility among the academic and administrative units of the institution. The Rector, as the statutory representative of the school, is responsible for its overall management and strategic development, while Vice-Rectors specialise in key areas such as student affairs, science and research, international cooperation or development and infrastructure. The Bursar is responsible for the economic activities of the Institute and the administration of its funds. At the same time, the Bursar ensures the functionality of the "Central laboratories of the VSTE" as a material and technical base for the Institute's publishing activities, especially application and contract research. The organizational structure also includes academic and administrative bodies such as the Academic Senate, the Board of Directors and the Internal Evaluation Board and other professional boards that are involved in the management of the school in terms of academic self-governance, management and evaluation of the quality of education and publishing activities in interconnectedness and continuity. The Institute's internal regulations also regulate the rules for the functioning of the various departments, their cooperation, and the methods of communication between academic and administrative units. This system enables a flexible response to the current challenges and needs of the school, supports effective management and contributes to the long-term development of VSTE as a dynamic and modern educational institution.

VISION

VSTE will establish itself as a renowned regional higher education institution with a unique position in the field of professional education in the South Bohemia Region, with economic, social, and environmental responsibility, providing quality, modern, and flexible education in Bachelor's and Master's degree programs for Czech and foreign students, a recognised centre of applied research and innovation with a great commercial potential, with graduates as leaders, entrepreneurs, and visionaries capable of responding to the current and future needs of the labour market while reflecting the challenges of the 21st century.

MISSION

As an open, professionally oriented institution, VŠTE is committed to providing high-quality higher education with a focus on social responsibility, tailored to meet the needs of industry and practice. The university will engage in research and development in areas with high practical application, addressing issues of sustainable development and striving to minimize the environmental impact of its activities. The principles and practical aspects of sustainable development will be integrated into communication with both the academic community and the public, particularly within the South Bohemia region.

SWOT ANALYSIS

Strengths

- Dynamic growth of the institute compliant with its potential.
- Professional orientation of the institute
- Creative activities linked to the corporate sector.
- Growth of contract research incl. business vouchers.
 - Growth in demand for specific appl. res. from companies.
- Synergies due to links: Institute – corporate sector - state administration and local authorities
- Growth in transfer of new knowledge to corporate and social spheres.
- Significant growth in research projects from TA CR and COST projects.
- Development of consulting activities for corporate sector.
- Development of basic experimental research.
- Membership of scientific bodies and institutions in the CR.
 - Active participation in professional associations.
 - Development of intellectual property protection.
- Membership of numerous domestic scientific journals.
- Own editorial activities (3 scientific journals).
 - SP transformation in corporate management, strategy, HRM and marketing.
- Establishment of the School of Expertness and Valuation and its growing appraisal, expert and research activities.
- Growing involvement of students in creative activities.
- Respect for the institute in wider society for its creative activities.
- Implementation of stage I of the construction of central labs.
- Extent and quality of creative activity comparable with other tertiary institutes and universities.

Weaknesses

- Absence of doctoral study programmes.
- Absence of habilitation and professor proceedings.
- Lack of high quality academics from internal sources.
- Insufficient development of international scientific and technical cooperation.
- Insufficient representation on editorial boards of foreign scientific journals.
 - Insufficient representation in scientific bodies of foreign scientific institutions.
- Low frequency of exchange of academics between ITB and foreign scientific institutions.
- Lack of recognition from the scientific community abroad.
 - Insufficient funds for new investments in the construction of facilities for science and research.
- Low language literacy among some academics.
- Existing technical facilities (laboratory) do not correspond with the dynamic development of ITB.
- Absence of accommodation and social facilities for top scientists from abroad.

Opportunities

- Growing demand for contract research.
- Growing demand for applied research.
- Growing cooperation with the private and public sectors and the application sphere.
- Intensifying digitizing and automation processes
- Growing importance of technical branches in social practice.
- Government support for innovation and the national strategy for the development of industry and social sciences.
- Growing importance of MSV for the stabilization of the national economy
- Globalization process in progress.
- Development of modern methods in research, including artificial intelligence.
- Completion of the highway network and the link this creates to neighbouring countries.
 - Construction of a research centre in CB for the work of foreign scientists.
- Growing prestige of the institute.

Threats

- Competition from institutes with similar focus in and outside the region.
- Unstable corporate sector.
- Limited funds from the Ministry of Education as a consequence of a drop in economic activity.
 - Occurrence of extraordinary social phenomena.
- Fluctuations in the financial performance of the state.
- Drop in economic activity in EU and on world markets.
- Unstable political environment.

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Technology, Institute of Technology and Business in České Budějovice

FORD: 2 - Engineering and technology

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

The evaluated unit will describe its mission and vision and provide a general self-reflection of the societal contribution of R&D&I, along with its long-term goals in the fields it develops. The distribution of research activities by type of research will also be commented on.¹ The evaluated unit will describe its organisational structure and size (staffing, number of students, number of study programmes implemented, etc.) based on the data provided in annex tables 3.1.1 to 3.1.6.

Maximum 1000 words.

This is a non-rated indicator that serves as an introduction to the evaluated unit, providing context for data in indicators 3.2-3.7.

Self-assessment:

The Department of Civil Engineering focuses on applied research, the integration of academic education with practice, and the development of innovative construction technologies. Its mission is to prepare professionals capable of responding to the current challenges of the construction industry, including sustainability and digitalization. Its research activities are focused primarily on applied and experimental research, with an emphasis on collaboration with industrial partners, public administration and professional organizations. The Department offers the Bachelor's and Master's programs in Civil Engineering and cooperates on projects funded by TACR, Ministry of Industry and Trade, or the Ministry of Culture of the CR. The Faculty of Technology (FT) has long been strengthening its cooperation with the business sector and participates in the preparation and implementation of research and innovation projects, providing professional practice for students, thus supporting the transfer of R&D&I results to society. The Department of Transport and Logistics (KTL) is also an integral part of FT, cooperating intensively and diligently with external partners from both the academic and corporate spheres during numerous research projects. Joint projects across collaborations with other universities, research organizations, or companies emphasize the promotion of interdisciplinary research. These collaborations contribute to the integration of different disciplines and strengthen the research potential of the School. KTL offers the Bachelor's degree program in Transport Technology and Management and the follow-up Master's degree program in its Czech version, Master's degree programme in Logistics, as well as the English version of this programme, and cooperates on a number of projects funded mainly by the European Union (Interreg), TACR, or the Ministry of Education and Science (within the framework of Inter-Excellence). Environmental Research Department (ERD) focuses primarily on scientific research and project activities. It has a strong background and experience in contract research, project management, consultancy, and other related activities. One of the key topics addressed is metallic materials, including ferrous and non-ferrous metals, their production, processing technologies and applications. Additionally, the department investigates the use of 3D printing for both metallic and non-metallic materials, as well as processes related to digitization and measurement. A central objective of the research is to improve production efficiency, reduce energy and material consumption, and minimize waste generation. In the fields of electronics and cybernetics, research activities include the design of electronic devices, circuit board fabrication, assembly, burn-in, and testing, including advanced electromagnetic compatibility testing. In the field of cybernetics, the focus is on practical applications in data networks, their configuration, and advanced security. The

¹ Basic, applied, contract, artistic research (see Definition of Terms in Methodology HEI2025+).

cybernetics area also includes algorithm development, with an emphasis on automation and data processing from real-world operations.

The Materials Centre under the ERD focuses on R&D activities in the field of organic materials and their practical applications. The Department also participates in teaching in the Bachelor's degree programs – Mechanical Engineering and Control Processes in Mechanical Engineering – and follow-up Master's degree programs (Mechanical Engineering and Business Economics).

The Department of Mechanical Engineering (DME) covers a wide range of engineering fields, particularly materials engineering, mechanical design, industrial engineering, and production automation. In terms of scientific research, it focuses on innovative applied research in materials technology for mechanical engineering and industrial processes. DME maintains close cooperation with numerous industrial companies, research institutions, and universities both domestically and internationally. It participates in various projects (TACR, ERASMUS+, etc.) and fosters knowledge sharing between business and research sectors. The department is also involved in CEEPUS mobility programs with several foreign universities, allowing its students and faculty to engage in study stays and internships abroad. DME offers the Bachelor's (Bc.) and Master's (NMgr.) degree programs in "Mechanical Engineering," preparing students for technical careers. The focus is primarily on enhancing the quality of education through the introduction of new teaching approaches, linking theory with practice, providing a comprehensive view of technological processes, and involving students in projects centred on innovative technologies. The goal is to prepare graduates with an interdisciplinary perspective and a creative approach to problem-solving. Graduates are successfully employed in fields such as structural and process engineering, engineering technology, and public administration. Key employers include MOTOR JIKOV Group, Jihostroj, CZECHINVEST, BOSCH, etc.

Table 3.1.1 - Staffing per FTE²

Academic/ Expert's position	Total / of which women are					
	2019	2020	2021	2022	2023	Total
Professor	5,784/1,000	6,081/1,163	7,683/1,877	8,55/2,00	7,85/2,00	35,948/8,04
Associate Professor	18,164/2,486	17,556/3,427	19,106/4,665	20,89/6,55	19,85/6,65	95,566/23,778
Assistant Professor	27,857/16,127	33,425/12,044	38,842/15,859	36,47/12,13	41,70/12,70	178,294/68,860
Assistant	18,613/9,243	19,673/9,593	22,474/11,373	26,85/13,45	34,65/16,85	122,26/60,509
R&D Personnel ³	101,480/67,236	119,585/77,978	118,036/77,905	26,15/8,90	24,50/9,65	389,751/241,669
Researchers in other categories ⁴						
Technical and economic staff ⁵						
Scientific, research and development staff involved in teaching activities						
Early career researchers ⁶	15,204/5,353	19,748/6,447	27,018/9,504			61,97/21,304
Total ⁷	187,102/101,445	216,068/110,652	233,158/121,183	268,96/138,72	252,42/124,63	1157,708/596,63

² The average number of hours worked is calculated as the ratio of the total number of hours actually worked during the reference period, from 1 January to 31 December, by all staff (including agreement on work activity, excluding agreement on work performance) to the total annual working time pool per full-time employee. The full-time status of the worker in the evaluated unit is always reported. If an employee holds more than one type of full-time job within the evaluated unit, the total sum of the two shall be reported.

³ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

⁴ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

⁵ Who participates in the management and support of R&D&I in the institution.

⁶ See Definition of Terms in Methodology HEI2025+.

⁷ The entry 'Total' sums up the following categories: professor, senior lecturer, assistant professor, assistant, other scientists, research and development workers, scientists not falling into other categories and technical and administrative workers.

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

3.1.2 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2019 (numbers of physical employees and personnel)⁸

Academic/ Expert's position	Up to 29 years		30-39 years		40-49 years		50-59 years		60-69 years		70+	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	2	0	0	0	3	1	3	0
Associate Professor	0	0	2	1	8	1	4	1	6	2	3	0
Assistant Professor	1	1	21	7	11	5	4	2	1	0	0	0
Assistant	3	2	8	3	2	1	3	2	1	1	0	0
R&D Personnel ⁹												
Researchers in other categories ¹⁰												
Technical and economic staff ¹¹	40	27	30	23	20	15	8	3	3	0	1	0
Scientific, research and development staff involved in teaching activities												
Early career researcher ¹²	2	1	9	3	6	1	3	1	0	0	1	0
Total ¹³	46	31	70	37	49	23	22	9	14	4	8	0

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D Personnel, Researchers in other categories and Technical and economic staff are mutually exclusive, i.e. one staff member is reported in only one category. The categories of scientific, research and development staff involved in teaching activities and early career researchers are reported collectively for all the above-mentioned categories.

⁸ The total number of employees/workers as of 31st December of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

⁹ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

¹⁰ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

¹¹ Who participates in the management and support of R&D&I in the institution.

¹² See Definition of Terms in Methodology HEI2025+.

¹³ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I Personnel, Researchers in other categories and technical and economic staff.

3.1.3 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2023 (numbers of physical employees and personnel)¹⁴

Academic/ Expert's position	Up to 29 years		30-39 years		40-49 years		50-59 years		60-69 years		70+	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor					3		1	1	5	2	3	
Associate Professor			4	1	11	5	5	1	3	1	4	1
Assistant Professor			24	4	17	8	9	3	1	1		
Assistant			12	3	6	4	2	1	4	2		
R&D Personnel ¹⁵	9	4	17	6	9	2	2	1	3	1	2	
Researchers in other categories ¹⁶												
Technical and economic staff ¹⁷	25	17	48	31	21	17	12	10	6	2	1	
Scientific, research and development staff involved in teaching activities												
Early career researcher ¹⁸			3	2								
Total ¹⁹	34	21	108	47	67	36	31	17	22	9	10	1

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

Table 3.1.4 – Students

Type of study	2019		2020		2021		2022		2023		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Undergraduate	3330	1423	3083	1315	2734	1175	2449	1017	2382	978	13978	5908
Master's ²⁰	463	220	421	209	516	283	500	245	436	187	2336	1144

¹⁴ The total number of employees/workers as at 31.12. of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

¹⁵ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

¹⁶ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

¹⁷ Who participates in the management and support of R&D&I in the institution.

¹⁸ See Definition of Terms in Methodology HEI2025+.

¹⁹ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

²⁰ All master's degree students are listed, regardless of the length of their programme of study.

Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning Courses	358	164	64	35	145	58	175	71	160	73	902	401
Total	415	1807	356	1559	339	1516	312	1333	297	1238	1721	7453
	1		8		5		4		8		6	

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / of which specialized study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	0	5/2	0	5	0	6/1	0	6/3	0	6/3	0	28/9
Master's	0	3/1	0	3	0	5	0	5/2	0	5/2	0	21/5
Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning courses	0	12	0	5	0	5	0	5	0	6	0	33
Total	0	20/3	0	13	0	16/1	0	16/5	0	17/5	0	82/14

Note: For each SP type, enter the number of SPs in Czech language in the first cell and insert the number of SPs in English language after the slash in the same cell (e.g. 15/3), enter the number of professional SPs in Czech language in the second cell and insert the number of professional SPs in English language after the slash. Follow a similar procedure in the last column of the table (Total).

3.1.6 – R&D&I capacities

Research groups	FORD	FORD [%]	Predominant type of research	total ratio of the field [%]
1. Natural Sciences	1.1 Mathematics	2	Basic research	13
	1.2 Computer and information sciences		Select	
	1.3 Physical sciences	4	Balanced basic and applied research	
	1.4 Chemical sciences	5	Balanced basic and applied research	
	1.5 Earth and related environmental sciences	2	Applied research	
	1.6 Biological sciences		Select	
	1.7 Other natural sciences		Select	
2. Engineering and Technology	2.1 Civil engineering	15	Applied research	77
	2.2 Electrical engineering, Electronic engineering, Information engineering	7	Applied research	
	2.3 Mechanical engineering	15	Applied research	
	2.4 Chemical engineering		Select	
	2.5 Materials engineering	25	Applied research	
	2.6 Medical engineering		Select	
	2.7 Environmental engineering	8	Applied research	
	2.8 Environmental biotechnology		Select	
	2.9 Industrial biotechnology		Select	
	2.10 Nanotechnology	2	Select	
	2.11 Other engineering and technologies	8	Applied research	
	3.1 Basic medicine		Select	

²¹ The total number of study programs for which admission proceedings was announced in the given academic year.

3. Medical and Health Sciences	3.2 Clinical medicine		Select	
	3.3 Health sciences		Select	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Select	
	4.2 Animal and Dairy science		Select	
	4.3 Veterinary science		Select	
	4.4 Other agricultural sciences		Select	
5. Social Sciences	5.1 Psychology and cognitive sciences		Select	10
	5.2 Economics and Business	2	Applied research	
	5.3 Education		Select	
	5.4 Sociology		Select	
	5.5 Law		Select	
	5.6 Political science		Select	
	5.7 Social and economic geography	8	Applied research	
	5.8 Media and communications		Select	
	5.9 Other social sciences		Select	
6. Humanities and the Arts	6.1 History and Archaeology		Select	
	6.2 Languages and Literature		Select	
	6.3 Philosophy, Ethics and Religion		Select	
	6.4 Arts (arts, history of arts, performing arts, music)		Select	
	6.5 Other Humanities and the Arts		Select	
Total		100 %	-	100 %

RECOGNITION BY THE RESEARCH COMMUNITY

3.2 Recognition by the research community

The evaluated unit will briefly comment on its position in the research community. It shall consider individual and other prestigious R&D&I awards, participation of its academic staff in the editorial boards of international scientific journals, elected membership in professional societies, major invited lectures given by the evaluated unit's academic staff abroad or by foreign scientists and other relevant guests at the evaluated unit. Additionally, it will address the involvement of staff in the evaluation of national or European project/programme calls over the period of 2019–2023 based on the data provided in annex tables 3.2.1 to 3.2.5 (max. 10 most relevant items). If necessary, the evaluated unit shall list any additional services to the scientific community that it considers relevant.

Maximum 1000 words.

Self-assessment:

The Department of Civil Engineering actively contributes to the research community through membership in professional societies and editorial boards of scholarly and scientific journals. In 2019–2023, the members of the Department participated in reviewing articles for international journals, evaluating project applications, and presenting their research at conferences. The Department also organized professional seminars and conferences, thus supporting the development of civil engineering. The Department of Transport and Logistics (KTL) has undertaken numerous research projects, including those within the CEEPUS and ERASMUS+ programs. The Department publishes the peer-reviewed scholarly journal LOGI, which is indexed in SCOPUS and is a candidate for inclusion in Web of Science. Additionally, it organizes the international LOGI conference, where peer-reviewed articles are published in prestigious indexed journals. Notably, a department member won the "European Satellite Navigation Competition 2015" with a project on the use of drones for biological protection at airports.

VSTE is strongly practice-oriented, which is reflected in the compulsory student practical training in the final year of study. The Department of Transport and Logistics cooperates with major companies, such as ČD Cargo, Česmad Bohemia, České dráhy, Bosch, Budějovický Budvar, and others. It is a member of professional associations, including the Czech Logistic Association and the Confederation of Industry and Transport of the Czech Republic. The department has been accredited by the European Logistics Association, which enables students in the Logistics program to obtain the internationally recognized cEJLog certificate.

Since 2021, members of the ERD have regularly participated in the METAL conference and other key events, such as MODERN METALLURGY IRON AND STEELMAKING. Doc. Socha is an editor of the journal Metals and a reviewer for TACR projects; Doc. Frischer is a member of the OPTAK selection committee at Ministry of Industry and Trade. The Materials centre publishes in Q1/Q2 scientific journals and collaborates with prestigious editorial boards. Prof. Bureš is a member of the Organic Chemistry Expert Group and regularly delivers lectures at international conferences.

The DME is a long-term partner in Erasmus+ KA2 projects focused on precision agriculture and digital education. Notable projects include BENEFIT, which supports Palestinian scientists in precision agriculture, and NET, which promotes the integration of ICT in education. The DigiCamp project, addressing the mitigation of negative aspects of distance education, was featured in a European Commission Study on STEM teaching.

VSTE is also engaged in international projects, such as the "Danube Digital Transformation Network of Active SMEs Training and Knowledge Transfer Centres" within the Interreg DANUBE program, which focuses on the digital transformation of small and medium-sized enterprises. The Institute maintains active cooperation with numerous foreign universities through the CEEPUS program, facilitating student and academic staff exchanges.

Current CEEPUS networks:

- RO-0058-17-2425 – Quality in Production Engineering (ranked 4th in the 2024 network evaluation)
- PL-0033-20-2425 – Logistics in the Context of Industry 4.0 (ranked 3rd)
- PL-0701-13-2425 – Engineering as a Communication Language in Europe (ranked 38th)
- RO-0013-20-2425 – Environmentally Oriented Technologies (ranked 30th)
- RO-0202-18-2425 – E-learning in Research and Production (ranked 13th)
- SK-0405-16-2425 – Renewable Energy Sources (ranked 59th)

VSTE departments and research centres are actively involved in the international research, foster cooperation with industry, and actively contribute to scientific development.

Table 3.2.1 - Prestigious R&D&I awards granted during the evaluation period

The evaluated entity's staff person's name, surname, and title(s)	Award	Institution granting the award
Prof. Ing. Filip Bureš, Ph.D.	Best contribution in catalysis	United Scientific Group, CCE, Las Vegas, 2023

Note: Provide up to 10 examples.

Table 3.2.2 Participation of academic staff of the evaluated unit in editorial boards of international scientific journals during the evaluation period

Name, surname and academic title(s) of the employee of the evaluated entity	Title of the scientific journal, ISSN
Ing. Jaroslav Pokorný, Ph.D.	Special Issue Editor, MDPI Buildings, 2075-5309
Doc. Ing. Jan Fořt, Ph.D.	Special Issue Editor, MDPI Polymers, 2073-4360
Doc. Ing. Ondrej Stopka, Ph.D.	Eksploatacja i Niezawodność – Maintenance and Reliability, ISSN 1507-2711 (WoS Q1)
Doc. Ing. Rudolf Kampf, Ph.D.	The Archives of Automotive Engineering – Archiwum Motoryzacji, eISSN: 2084-476X (WoS, Scopus) Promet - Traffic & Transportation Journal Online ISSN: 1848-4069 (Scopus, WoS)
Doc. Ing. Rudolf Kampf, Ph.D. (editor in chief) Doc. Ing. Ondrej Stopka, Ph.D. (assistant of editor in chief) PhD. Maria Stopkova (editorial board member) PhD. Martina Hlatká (editorial board member) Assoc. Prof. Jan Lizbetin (editorial board member) Ing. Patrik Gross (Secretary Editorial) PhD. Vladimír Luptak (Secretary Editorial)	LOGI – Scientific Journal on Transport and Logistics; eISSN 2336-3037 (Scopus)
Doc. Ing. Ondrej Stopka, Ph.D.	Rail vehicles; ISSN 0138-0370
Prof. Ing. Filip Bureš, Ph.D.	Dyes & Pigments, member of the editorial board Organics, member of the editorial board
Doc. Ing. Ladislav SOCHA, MBA, Ph.D.	Editor, Special Issue Metals, Modern Trends in Foundry, 2075-4701 Editor, Special Issue Metals, Advanced Processes in Metallurgical Technologies, 2075-4701
Doc. Ing. Marta Harničárová, PhD., Doc. RNDr. Milena Kušnerová, Ph.D.	Editors, Special Issue Coatings - Thermodynamic Aspects of Coating Preparation, Especially for Corrosion Protection
Prof. Ing. Jan Valíček, Ph.D. Doc. Ing. Marta Harničárová, PhD.	Editors, Special Issue Mathematics - Neural Networks and Modelling Applied in Engineering Editors, Special Issue Applied Sciences - Applications of Advanced Structured Materials

Note: Please provide up to 10 examples of academic staff participation in editorial boards of international scientific journals (e.g. editor, editorial board member, etc.).

Table 3.2.3 The most important invited lectures delivered by the academic staff of the evaluated unit at foreign institutions during the evaluation period

Name, surname and academic title(s) of the employee of the evaluated entity	Title of invited lecture	Name of the hosting institution, or the name of the conference/event	Year
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Doc. Ing. Ondrej Stopka, Ph.D.	1. Development Cooperation in the Construction of Logistics Centres in the Czech Republic and Slovakia. 2. Current Development Trends in the Implementation of Integrated Transport Systems in Various Regions of the Czech Republic and Slovakia. Existing Approaches and Key Elements of City Logistics in the Czech Republic, Slovakia, and other countries.	University of Žilina In the framework of "Lecture and Research Stays for Academic, Scientific, and Research Workers (the Ministry of Education, Youth and Sports)"	2023
Ing. Jan Pečman	Influence of road longitudinal terrain profile on vehicle kinetic energy recovery and mitigation of selected transport negative aspects	Conference: Transport Problems '2023, Katowice, Poland	2023
Doc. Ing. Ondrej Stopka, Ph.D.	Modelling the designs in terms of logistics service centre placement: a case study	Conference: TRANSPORT OF THE 21ST CENTURY, Warszawa, Poland	2023
Doc. Ing. Ondrej Stopka, Ph.D.	Development Trends of Electric Vehicles in the Context of Road Passenger and Freight Transport	Conference: Automotive safety 2020, KIELCE – CEDZYNA, Poland	2020
Prof. Ing. Filip Bureš, Ph.D.	Visible Light-Mediated Organic Transformations Catalyzed by DicyanoPyraZine	CCE, Las Vegas, USA	2023
Prof. Ing. Filip Bureš, Ph.D.	HALOGENS: Invaluable Auxiliaries in the Chemistry of Organic Materials	HalchemX, Lodz, Poland	2022
Prof. Ing. Filip Bureš, Ph.D.	Organic Push-Pull Molecules with Tuneable Properties: Towards DicyanoPyraZine Photoredox Catalyst	CECP, Bad Hofgastain, Austria	2020
Prof. RNDr. Vladimír Šepelák, DrSc.	Highly Non-Equilibrium Oxides Prepared by Mechanosynthesis	51st IUPAC General Assembly 104th Canadian Chemistry Conference and Exhibition CCCE 2021; Canada	13 - 20 August 2021
Prof. RNDr. Vladimír Šepelák, DrSc.	Structural Disorder- Magnetism Relationships in Mechanosynthesized Complex Oxides	2 nd International Meet on Magnetism and Magnetic Materials MAGNETISMMEET2023; Rome, Italy	16 - 18 March 2023
Prof. RNDr. Vladimír Šepelák, DrSc.	Local Structural Disorder-Magnetism Relationships in Nanostructured & Nonequilibrium Complex Oxides	XXXVII International Conference on the Applications of the Mössbauer Effect - ICAME 2023; Cartagena, Colombia	3 - 8 September 2023

Note: Provide up to 10 examples.

Table 3.2.4 - The most important lectures by foreign scientists and other guests relevant to R&D&I at the evaluated unit during the evaluation period

Name, surname and academic title(s) of the employee of the evaluated entity	Employing institution of the lecturer at the time of the lecture	Title of the lecture	Year
Doc. Vladislav Zitrický	University of Žilina	Differences in international west-east transport law	2022
Prof. Jozef Gašparík	University of Žilina	Scheduling in railway transport	2022
Dr. Jacek Caban	Politechnika Lubelska, Poland Laboratories at the Politechnika Lubelska	Laboratories at the Politechnika Lubelska	2022

Dr. Lumír Pečený	University of Žilina	Transport laboratory at the UNIZA, Žilina, SR	2022
Prof. Pawel Drozdziel	Politechnika Lubelska, Poland	The problems of the diesel engine start-up	2022
Doc. Ing. Juraj Čamaj, PhD.	University of Žilina	Railway traffic management system in the conditions of the Slovak infrastructure manager	2023

Note: Provide up to 10 examples.

Table 3.2.5 - Involvement in the evaluation of national/European research project/programme calls relevant to the R&D&I area at the unit during the evaluation period

Name, surname and academic title(s) of the employee of the evaluated entity	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	Year
Ing. Michal Kraus, Ph.D.	EPSILON 2, ZÉTA 1-2, THÉTA 1-3 (Opponent's Review for the Opponent Procedure)	TA CR	2020-2023
doc. Rudolf Kampf, Ph.D.	COST – LD12052 COST TRAM – Chairing Evaluation Panels	COST Action	2018-2020
doc. Rudolf Kampf, Ph.D.	The Country For The Future - rapporteur	Ministry of Industry and Trade of the CR	2020-2023
doc. Rudolf Kampf, Ph.D.	Doprava 2020+, ÉTA, TREND, Beta 2, SIGMA - rapporteur	TA CR	2018-2023
doc. Rudolf Kampf, Ph.D.	Basic/applied research	Agentúra na podporu výskumu a vývoj (APVV)	2019 - 2023
doc. Ing. Ondrej Stopka, Ph.D.	DOPRAVA 2020+ (opponent)	TACR	2021-2022
Prof. Ing. Filip Bureš, Ph.D.	Basic/applied research (23 reviews)	APVV Slovakia	2019-2023
Prof. Ing. Filip Bureš, Ph.D.	Preludium/OPUS (2 reviews)	NSC Poland	2020-2023
Doc. Ing. Robert Frischer, Ph.D.	Member of the OPTAK selection committee at the Ministry of Industry and Trade	MIT	2023
Doc. Ing. Ladislav Socha, MBA, Ph.D.	ZÉTA 2, 4; TREND 3, 6; DOPRAVA 2020 (Opponent's Review of the Project Proposal)	TA CR	2019-2022

Note: Provide up to 10 examples.

RESEARCH PROJECTS

3.3 Research projects

The evaluated unit shall list at most 10 (considered most significant by the evaluated unit) research projects/activities (regardless of whether they are supported by public funds or based on contract research²²) that it has implemented or participated in during the period of 2019–2023²³. This should be done from the full list in annex tables (Table 3.3.1–3.3.2)²⁴, regarding particularly the results achieved or the application potential of the projects. The unit should also describe how the research projects contributed to the mission and purpose of the evaluated unit. If the evaluated unit has been a participant in listed project, it shall indicate which other entities were involved and describe its contribution to the project. The interdisciplinary aspects of the projects will also be commented on, along with any collaboration with other units of the evaluated HEI.

Maximum 300 words per project.

Self-assessment:

- KTL:
Project COST CA16222 “Wider Impacts and Scenario Evaluation of Autonomous and Connected Transport” - Management Committee European Cooperation in Science and Technology, H 2020; 2017-2021
- INTER-EXCELLENCE Research and Development Projects, subprogram VES 19 INTER-COST, titled Autonomní mobilita v kontextu rozvoje regionu LTC19009 (Autonomous Mobility in the context of Regional Development); Ministry of Education, Youth and Sports; 2019-2021
- TACR TL02000559 - Bezpečná města pro chodce a seniory (Safe Cities for Pedestrians and Seniors); TACR; 2019-2022
- Implementace městské logistiky do procesu plánování udržitelné městské mobility (Implementation of Urban Logistics in the Sustainable Urban Mobility Planning Process); TACR; 2022-2024

ERD:

Nové scintilační systémy pro detekci ionizujícího záření/New Scintillation Systems for ionizing Radiation Detection (CZ.01.1.02/0.0/0.0/20_321/0024977, Application): The project was carried out from 2021 to 2023 by Nuvia a.s. in cooperation with KATMV. The main objective was to obtain a new organic luminophore (KATMV) for the preparation of a polymer detector for ionizing radiation (Nuvia). A functional sample and prototype of the detector were developed.

Fotoresponzivní azo-polymerní materiály aplikovatelné jako tepelný sensor/Photoresponsive Azo-Polymer Materials Applicable as Thermal Sensors (TQ03000624, TACR): Ongoing project (2024-2025) carried out within KATMV in cooperation with Synpo a.s. and MITrganiX. The goal is to develop a suitable molecular azo-switch (KATMV), prepare it in kilogram quantities (MITrganiX), and integrate it into a polymer material (Synpo), which will serve as both a light and thermal sensor. Světlem tvrditelné polymerní systémy s inovativními fotoiniciátory pro 3D tisk a další aplikace/Light-Curable Polymer Systems with Innovative Photoinitiators for 3D Printing (FW10010110, TACR): Ongoing project (2024-2026) conducted by SPA 2000 s.r.o. in cooperation with KATMV and Synpo a.s. The aim of the project is to develop new photoinitiators (KATMV) for initiating polymerization reactions (Synpo) and offer these formulations for commercial use (SPA 2000).

Výzkum a vývoj mobilní solární nabíjecí stanice pro elektromobily/Research and Development of a Mobile Solar Charging Station for Electric Vehicles – CZ.01.1.02/0.0/0.0/20_321/0024561. Completed project addressing the possibility of charging electric vehicles off main routes without reliable access to the power grid, using a deployable photovoltaic system and a 150 kWh battery.

Pokročilá diagnostika a adaptivní autonomní systémy kontroly a měření u robotizovaných výrobních pracovišť/Advanced Diagnostics and Adaptive Autonomous Control Systems for Robotic Manufacturing Workplaces – CZ.01.1.02/0.0/0.0/20_321/0025077. Completed project focused on the production of automotive parts using AI and advanced diagnostics to monitor output quality.

Výzkum a vývoj tvarových forem z vytvrditelných ocelí pro lití zinkových slitin při aplikaci moderních technologií aditivní výroby, tepelného zpracování, povrchových úprav a numerických simulací / Research and Development of Molds from Hardenable Steels for Zinc Alloy Casting Using Modern Additive Manufacturing, Heat Treatment, Surface Finishing, and

²² For the definition of contract research for the purposes of evaluation in the HE segments, see Article 2.2.1 of the Community Framework for State Aid for Research, Development and Innovation 2014/C 198/01.

²³ Regardless of whether the projects are completed or still ongoing, provided that at least part of the project was implemented during the evaluation period.

²⁴ The evaluated unit shall only fill tables that are relevant to it.

Numerical Simulations (FW03010323, TACR): Project carried out from 2020-2024 by GD Druckguss s.r.o. in cooperation with a consortium of research institutions, including VSTE (ERD). The goal was to develop 3D-printed moulds for pressure casting of zinc alloys using both standard and cobalt-free tool steels. ERD conducted dimensional analysis, quality control of castings, and numerical simulations.

Výzkum a vývoj tvarových forem z materiálu H-13 a DIEVAR pro tlakové lití hliníkových slitin při aplikaci moderních technologií aditivní výroby, tepelného zpracování, povrchových úprav a numerických simulací / Research and Development of Moulds from H-13 and DIEVAR Materials for Aluminum Alloy Casting Using Modern Additive Manufacturing, Heat Treatment, Surface Finishing, and Numerical Simulations (FW03010609, TACR): Project carried out from 2020-2024 by MOTOR JIKOV Fostron a.s. in cooperation with a consortium of research institutions, including VSTE (ERD). The goal was to develop 3D-printed mold coMITnents for aluminum alloy casting to replace conventional materials. ERD conducted dimensional analysis, operational testing, quality control of castings, and numerical simulations.

Výzkum a vývoj rafinačních technologií pro zvýšení kvality hliníkových slitin určených pro vysoce náročné odlitky / Research and Development of Refining Technologies to Improve the Quality of Aluminum Alloys for High-Performance Castings (TH04010449, TACR): Project carried out from 2019-2022 by MOTOR JIKOV Slévárna a.s. in cooperation with VSTE (ERD). The project focused on developing complex production technologies for high-pressure and low-pressure aluminum alloy casting. ERD conducted operational testing, physical and numerical modeling, and casting quality monitoring.

Výzkum a vývoj technologie recyklace zinkového odpadu při výrobě vysoce jakostních odlitků ze slitin zinku / Research and Development of Zinc Waste Recycling Technology for High-Quality Zinc Alloy Castings (TH04020055, TACR): The project developed a recycling technology aimed at reducing primary material use and improving the efficiency of zinc alloy casting processes. ERD carried out laboratory experiments and analytical work.

Výzkum a vývoj komplexní technologie výroby odlitků z vysoce jakostních tvárných litin / Research and Development of Comprehensive Technology for Manufacturing Castings from High-Quality Ductile Cast Iron (FV40036, MIT): Project carried out from 2019-2022 by KOVOSVIT MAS Foundry a.s. in cooperation with VSTE (ERD). The goal was to develop comprehensive technology for the production of cast iron for room and low temperatures. ERD participated in operational testing, material analysis, and numerical simulations.

Výzkum a vývoj zdokonalených technologických postupů výroby odlitků tvárné litiny s implementací 3D skenování do procesu řízení kvality /Research and Development of Improved Technological Processes for Ductile Iron Castings with the Integration of 3D Scanning into Quality Control (FV40346, MIT): Project carried out by MOTOR JIKOV Slévárna a.s. in cooperation with VSTE (ERD). The project focused on developing improved technological processes for the production of ductile iron castings through the advanced use of 3D scanning in quality control. ERD conducted metallographic, chemical, and material analysis, numerical simulations, and 3D scanning of castings.

Table 3.3.1 Projects supported by public funds

As a beneficiary							
Provider/I nvestor	Program/Grant scheme	Name of the project	Funding (in thousand CZK/EUR)				
			2019	2020	2021	2022	2023
TACR 33ZNP016	PROSTŘEDÍ PRO ŽIVOT	SS01020515 - Health-Safe Surfaces Based on Recycled Rubber SS01020515	140,6 25/5,5 73721 75980 975	1573, 75/62, 37613 95164 487	1573,75 /62,376 139516 4487	265/1 0,503 36900 51526	
TACR 33MMD0 08	ÉTA	TL02000017 - Intergenerational Management to Support Digitalization in Construction	837/3 3,174 79191 43876	990/3 9,239 00118 90606			
TACR 33BMS00 9	ÉTA	TL02000559 - Safe Cities for Pedestrians and Seniors	2081, 817/8 2,513 55529 13199	2129, 817/8 4,416 05231 86682	2321,81 7/92,02 604042 80618		
TACR 33IML035	DOPRAVA	Implementation of urban logistics in the planning process of sustainable urban mobility (CK03000085) (TACR),			2293,06 8/90,88 656361 47444	2228, 068/8 8,310 26555 68767	978,534 /38,784 542211 6528

TACR 33MFS034	SIGMA	Methodology for Corporate and School Mobility Plans (CK03000135)			1959,39 /77,661 117717 0036	2021, 14/80, 10860 08719 778	924,07/ 36,6258 422512 881
INTER- EXCELLENCE, subprogram INTER- COST 33AMK01 1	INTER- EXCELLENCE, subprogram INTER-COST	Autonomous Mobility in the Context of Regional Development LTC19009	1,62/0 ,0642 09274 67300 83	1356, 25/53, 75544 98612 763			
MC CR 33OFT040	NAKI	DH23P03OVV012 Restoration of Hard Plaster Facades from the First Half of the 20th Century				1072/ 42,48 91002 77447 5	1179/46 ,730083 234244 9
MIT CR 33BDW03 6	OPPIK APLIKACE VÝZVA IX	CZ.01.1.02/0.0/0.0/21_374/0027275 - Research and Development of an Innovative Building Data Warehouse (BDW) Line to Ensure Quality and Process Control in Construction and Maintenance			388,257 /15,388 703923 9001	2100, 071/8 3,237 05905 66785	
MIT CR 33BKO037	APLIKACE – VÝZVA IX.	CZ.01.1.02/0.0/0.0/21_374/0026791 - Zero-Emission Sewer and Waste Cleaning			708,032 /28,063 099484 7404	2018, 088/7 9,987 63376 93222	
MIT CR 33KFO038	APLIKACE – VÝZVA IX.	CZ.01.1.02/0.0/0.0/21_374/0026861 – Development of Software Architecture Using Quantum Physics Principles for Real-Time Logistics Process Optimization					1,624/0, 064367 816091 954
INTERREG Programme Danube Region 30DDT031	INTERREG Programme	DRP0200391- Danube Digital transformation Network of Active SMEs training and knowledge transfer centres					359,805 03/14,2 61
Interreg CENTRAL EUROPE 30OGP03 5	Interreg CENTRAL EUROPE	CE0200713 - Optimizing and greening Public Transport networks through Integration with Urban Planning and data-driven approaches					717,389 82/28,4 34
Ministry of Education, Youth and Sports LUABA 14LUA001	INTER- EXCELLENCE, subprogram INTER-ACTION	LUABA24085 - Analysis and optimization of Czech German worker mobility to promote cross-border cooperation					922/36, 543797 066983 7

24BIE036	Erasmus +	PROJECT 2019-1980/001-001 "BENEFIT" Boosting Innovation in Education and Research of Precision Agriculture in Palestine/ Podpora inovací ve vzdělávání a výzkumu zemědělství v Palestině	983,0 8695/ 38,96 5	786,1 54185 /31,15 95			
24DER040	Erasmus +	PROJECT 2021-1-CZ01-KA220-SCH-000031553 "DIGICAMP" DigiCAMP - Digital Education Readiness and Collaborative Virtual Environment for Math, Informatics and Physics education	0/0		5287,70 34/209, 58		1321,92 585/52, 395
24NPV035	Erasmus +	ERASMUS + PROJEKT 2019-1-SK01-KA201-060658 "NET" New Approach in Educational Technology	368,4 5892/ 14,60 4	368,4 5892/ 14,60 4	184,229 46/7,30 2		
In total			20841 47,7/8 2814, 9	7204, 417/2 84,2	17715,8 /580,5	7814, 2/308, 3	<u>6404,3/</u> <u>252,6</u>

As a participant						
Provider ²⁵	Name of the project	Funding (in thousand CZK/EUR)				
		2019	2020	2021	2022	2023
In total						

Table 3.3.2 - Contract research activities

Provider ²⁶	Activity	Revenues (in thousand CZK/EUR)				
		2019	2020	2021	2022	2023
OPPIK MIT CR	CZ.01.1.02/0.0/0.0/20_358/0028010 Design of a Device for Monitoring Electric Energy Consumption				492/19,50	
OPPIK MIT CR	CZ.01.1.02/0.0/0.0/20_358/0028011 Design of a Universal Electronic Power Supply for Sensor Technology				490/19,42	
OPPIK MIT CR	CZ.01.1.02/0.0/0.0/20_358/0028034 Design of an Algorithm for Dimensional Analysis of Castings				496/19,66	
OPPIK MIT CR	CZ.01.1.02/0.0/0.0/20_358/0028099 Strength Calculations and Simulations for Verifying the Correctness of Chair Design in the Pre-Production Phase					490/19,42
OPPIK MIT CR	CZ.01.1.02/0.0/0.0/20_358/0028061 Design of a Battery-Powered Electronic Power Supply for Advanced Sensor Technology					490/19,42
OPPIK MIT CR	CZ.01.1.02/0.0/0.0/20_358/0028091 Minimization of Water Consumption in Material Regeneration of By-					499,5/19,80

²⁵ Ibid.

²⁶ In case of a foreign contractor, the country of origin of the contractor should be stated as [Country Name]

	Product from the Recycling of Multi-Layer Packaging					
In total					1478/58,3	1479/58,34

Note: List and describe contract research activities with a revenue in a given calendar year, regardless of the amount of financial revenue.

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts²⁷, on society (e.g. description of how the results are used by various users, the range of persons/institutions for which the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

ERD:

Scintillation N/G detector (a functional sample): It was created by the project CZ.01.1.02/0.0/0.0/20_321/0024977 together with Nuvia. It is a new phosphor capable of neutron and gamma discrimination. The implementation of the phosphor into the regular production of detectors within Nuvia a.s. is currently underway.

HighLum scintillation detector (prototype): It was created by the project CZ.01.1.02/0.0/0.0/20_321/0024977 together with Nuvia. New device developed at KATMV, which was incorporated into a polymer matrix by Nuvia a.s. The developed system demonstrates a 10% higher efficiency compared to the standard product and is now part of Nuvia a.s. portfolio as a high-volume scintillation detector for portal gates used in detecting the movement of radioactive materials.

ERD results are also partially focused on electronics and automation, with semi-operational validation and industrial designs serving as effective outcomes. The industrial designs are intended to protect the layout of the PCB circuitry, providing effective defence against direct copying of the device. These results are co-owned with industrial partners and are actively utilized in operational environments.

The output of the project CZ.01.1.02/0.0/0.0/20_321/0024561 was an autonomous charging station for electric vehicles, which ensures charging services even in areas without connection to the power grid. The internal batteries are charged from an in-house PV power plant with a capacity of 8 kW, expandable up to 32 kW. The integrated 153 kWh battery is capable of fully charging two cars at a rate of 22 kW.

The outputs of the project CZ.01.1.02/0.0/0.0/20_321/0025077 enabled streamlining of the production process of workpieces for the automotive industry and relieving human operators from repetitive tasks focused on the output quality control. This repetitive work was psychologically demanding for workers, requiring reduced hourly shift subsidies, among other measures. The use of AI and camera systems allowed for the complete replacement of human operators, enabling their reassignment to other tasks.

The output of the project CZ.01.1.02/0.0/0.0/20_321/0025266 was aimed at facilitating work in the forestry sector by developing a vehicle with autonomous elements for navigating rough terrain. An AI system was created to recognize trees for obstacle avoidance, enabling the vehicle to pull heavy loads like trees in forest undergrowth, effectively replacing horses.

The ERD outputs are also in the foundry industry, with a focus on implementing modern manufacturing technologies in industrial environments. The main project outputs are functional samples and certified technologies with direct applications for industrial partners. Technologie výroby tvarové části formy z materiálu BÖHLER AMIT M789/ Technology for the production of the mould part of the BÖHLER AMIT M789 (certified technology): it was developed within the project FW03010323 in cooperation with GD Druckguss s.r.o. Using knowledge gained from previous functional samples, a technology for additive mould production was developed using the environmentally friendlier cobalt-free tool steel BÖHLER AMIT M789. This technology is currently being implemented in production at GD Druckguss s.r.o.

²⁷ See Terms definition.

A mould part made from DIEVAR material (functional sample) was developed through project FW03010609 in collaboration with MOTOR JIKOV Fostron a.s. Additive manufacturing technology was applied to create a functional part of a die-casting mould made from Dievar tool steel. Organic design principles were employed to reduce material consumption and lighten the part during production. In operational testing, the additively manufactured part exceeded the service life of conventional parts and is now in use on the casting machines at MOTOR JIKOV Slévárna a.s.

The complex production technology: melting → out-of-furnace processing → casting production from high quality ductile iron → compressors → shipbuilding (certified technology): it was created within the project FV40036 in cooperation with KOVOSVIT MAS Foundry a.s. The developed complex production technology for producing castings from high-quality ductile iron significantly reduced the reaction time in the casting production, decreased the technological time for out-of-furnace processing of liquid metal by 25 %, and improved the reproducibility of the melt processing, leading to a reduction in the scrap rate by 0.1 weight percent. This technology has been implemented in the operations of KOVOSVIT MAS Foundry a.s.

An advanced technology for producing KARDAN-type ductile iron castings (certified technology): it was created within the project FV40346 in cooperation with MOTOR JIKOV Slévárna a.s. This comprehensive solution includes production technology for embedded materials, metallurgical processing of metal, and the use of numerical simulations and 3D measurements. The overall time from model design to customer approval of casting samples was reduced by approximately 30%, while costs associated with model corrections and re-sampling were also lowered. This technology has been implemented at MOTOR JIKOV Slévárna a.s.

The technology for recycling zinc waste in the production of thick-walled castings ZP0410 (certified technology): it was developed within the project TH04020055 in cooperation with GD Druckguss s.r.o. The developed technology enables the use of substantial amounts of secondary raw materials, significantly reducing waste production. This technology has been implemented in the operational conditions of GD Druckguss s.r.o.

Table 3.4.1 - Overview of research results in the period under evaluation

Type of result ²⁸	Year of application	Name
Utility model	2020	VYSOKÁ ŠKOLA TECHNICKÁ A EKONOMICKÁ V ČESKÝCH BUDĚJOVICÍCH. Mobile Green Wall. Původci: Radomír BOCEK, Michal KRAUS a Jaroslav ŽÁK. Česká republika. Užitený vzor CZ 34 156 U1. 30. 6. 2020.
Utility model	2020	VYSOKÁ ŠKOLA TECHNICKÁ A EKONOMICKÁ V ČESKÝCH BUDĚJOVICÍCH. Ecological Animal Crossing over Roads Původci: Radomír BOCEK, Michal KRAUS a Jaroslav ŽÁK. Česká republika. Užitený vzor CZ 34 157 U1. 30. 6. 2020.
Utility model	2020	PUV 2018-34678, Lightweight concrete Mix
Utility model	2019	Device for the Destruction of Organomineral Oil Emulsions
Patent	2020	Device for Ecological Processing of Waste Packaging
Patent	2020	Method of phosphorus recovery from wastewater, in particular from sludge water
Patent	2020	METODO DI RECUPERO DEL FOSFORO DA ACQUE REFLUE, IN PARTICOLARE DA ACQUE FANGOSE
Patent	2020	METODO DI RECUPERO DEL FOSFORO DA ACQUE REFLUE, IN PARTICOLARE DA ACQUE FANGOSE
Functional sample	2023	Scintillation N/G Detector
Prototype	2023	HighLum scintilační detektor
Industrial design	2023	Scintillation N/G Detector. Robert Frischer, Jakub Uhlíř. EUIPO 015022284-0001
Pilot plant	2023	Diagnostic System for Assessing the Quality of final Products in the MAKINO Production Line. Robert Frischer, Ondřej Grycz, Ondřej Grycz, Tomáš Prášil.

²⁸ Specify the specific type of result. Add rows as needed.

Industrial design	2023	Motif of Conductive Connections in the Power Supply for Sensor Systems. Ladislav Bakay, Ladislav Jamroz. Robert Frischer. EUIPO 015022089-0001
Industrial design	2023	Switched Power supply for Battery Charging from solar Photovoltaic source. Robert Frischer, Jakub Uhlíř. EUIPO 015022175-0002
Industrial design	2023	Switched Power Supply for Sensor and Control Circuits from Battery Source. Robert Frischer, Jakub Uhlíř. EUIPO 015022175-0001
Certified technology	2021	Zinc Waste Recycling Technology for the Production of Thick-Walled Castings ZP0410
Functional sample	2022	Test Samples from H11 Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Mould Shape Part from H11 Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Test Samples from BÖHLER AMIT M789 Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Mould Shape Part from BÖHLER AMIT M789 Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Test Samples from H13 Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Mould Shape Part from H13 Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Test Samples from DIEVAR Material – Additive Printing, Heat Treatment, and Surface Finishing
Functional sample	2022	Mould Shape Part from DIEVAR Material – Additive Printing, Heat Treatment, and Surface Finishing
Certified technology	2022	Complex Refining Technology for Challenging Aluminium Castings: Rocket Cover Type: Shaft Furnace – Degassing Equipment – Pressure Die Casting
Certified technology	2022	Complex Refining Technology for Challenging Aluminium Castings: Stroke Cylinder Type: Induction Furnace – Degassing Equipment – Low Pressure Die Casting
Certified technology	2022	Zinc Waste Recycling Technology for the Production of Thin-Walled Castings
Certified technology	2022	Advanced Technology for Manufacturing Cast Iron Castings of KARDAN Type
Certified technology	2022	Advanced Technology for Manufacturing Cast Iron Castings of SPINDEL type
Certified technology	2022	Advanced Technology for Manufacturing Cast Iron Castings of KARDAN type
Certified technology	2022	Advanced Technology for Manufacturing Cast Iron Castings of SPINDEL type
Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Manoeuvring elements → shipbuilding
Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Compressors → shipbuilding
Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Gearboxes → energy industry
Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Gearboxes → Railway transport
Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Manoeuvring elements → shipbuilding

Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Compressors → shipbuilding
Certified technology	2022	Complex Manufacturing Technology: melting→ off-furnace processing → Casting of High-quality Ductile Cast Iron → Gearboxes → Railway transport

Note 1: Please list and describe the results already applied in practice or heading towards application in practice with existing or prospective impact on the society (e.g. domestic or foreign patents, sold licenses, spin-offs, prototypes, varieties and breeds, methodologies, significant analyses, surveys, expert outputs for policymaking or other forms of non-publication outputs, etc.). Indirect results of research, development and creative activities with documented societal impact, e.g. expert activities, services to the public/government/scientific community, may also be reported.

TRANSFER OF RESULTS INTO PRACTICE

3.5 Transfer of results into practice

The evaluated unit shall briefly describe its system for transferring results into practice. It shall also indicate up to five of the most typical users of its results, whether in the university environment or in the non-university application/corporate sphere, detailing how it collaborates with them and how it seeks out new users (using a maximum of five specific examples).

It will also indicate whether and how it commercialises R&D&I results (e.g. selling licences, setting up start-up or spin-off companies, etc.)²⁹, providing brief description of the commercialisation methods used. The effectiveness of the transfer of results and the commercialisation of R&D&I results will be described using a selection of results (max. five) listed in annex table (Table 3.4.1).³⁰

Additionally, the evaluated unit shall briefly comment on the funds received during the period of 2019–2023 from non-public, non-grant sources (e.g. licences sold, spin-off revenues, donations, etc.). A full summary shall be provided in annex table (Table 3.5.1).

Maximum 500 words plus 200 words for each provided example of finding a new user of results and commercialization.

Self-evaluation:

VSTE Faculty of Technology (FT) employs a multilayered system for transferring research results into practice. Key instruments in this system include contract research, innovation vouchers, collaborative projects with companies, licensing and exploitation agreements, direct technology and know-how transfer, and intellectual property sharing. This system is supported by a research management structure (Deputy Director for R&D), laboratory infrastructure, and analytical tools such as ETMS.

As an integral part of VSTE, the Faculty of Technology is connected to the external environment through an extensive network of professional links at various levels of cooperation and is actively involved in professional associations and organizations. Additionally, personal ties and past successful collaborations play an important role, alongside connections through regional structures such as the Jihočeská hospodářská komora. Examples of typical users of the results, along with their own contributions, are provided below and, where relevant, placed in a deeper context. The significant increase in R&D activities at VSTE (FT) during the 2019-2023 reporting period also illustrates the identification of new users through the aforementioned network of contacts and existing, developing connections.

Typical/new users of successfully completed project outputs:

MOTOR JIKOV Group (typical/new user 1), a major regional entity with a global presence, has been engaged in long-term successful collaborative applied research and experimental development through TA CR and MIT projects. These efforts have focused on the development of certified technologies/pilot plants, semi-processes/software directly applied to the production process of companies within the group. The group's direct involvement in the results is guaranteed. There has been a gradual transition from projects focused on optimizing foundry technologies in MJ Slévárenská's product portfolio,

²⁹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³⁰ If the commercialisation of R&D&I results is carried out in this way.

such as ductile iron (project FV40346) and aluminium alloys (project TH04010449), to more advanced tools and analytical methods. This progression continues with projects related to the optimization of the MAKINO automated robotic line (MJ Strojírenská, project EG20_321/0025077).

Here, it is possible to mention a specific result (Annotated deliverable 1), which is not only part of the actual operation but also holds commercialization potential: R (software): A system for adaptive and autonomous control of robotic production workplaces (2023). It is the main milestone and output of the project. The software includes a communication API for robotic workstations, a database system, a sensor subsystem, an evaluation part, a smart scheduler, and a reporting subsystem. The software integrates all the knowledge and findings gained from the project's R&D activities. It operates on a stand-alone Workstation where all data is communicated either via an ethernet network or through an industrial bus using a converter. The output of the implementation is a functional, fine-tuned diagnostic system that can be deployed in the operational conditions of the MAKINO production line, on the production lines of the MJG Group, and, in cooperation with TIESSE PRAHA s.r.o. (the main implementer of KAWASAKI robotization in the Czech Republic, or its parent company TIESSE for Europe) on a wide range of applications both within the Czech Republic and internationally. Additionally, cooperation with universities (University of West Bohemia in Pilsen and Technical University of Liberec) has been conducted in the development and testing of mould parts made from additively manufactured materials, such as DIEVAR and H13 (MJ Fostron, project FW03010609 and its outputs). These outputs have been implemented into production, are protected as part of the shared know-how of the participants, and are used to further develop the participants' activities, both commercial and non-commercial. New projects incorporating more advanced analytical methods and approaches are still being prepared and submitted.

GD Druckguss (typical/new user2), part of the GD Group, is still a medium-sized company with a significant presence in Germany. It has been engaged in long-term collaborative applied research and experimental development focused on critical aspects of zinc alloy casting production for industries such as furniture, electrical, and potentially automotive, through TACR projects. The first collaborative project (TH04020055) addressed the issue of using recoverable materials (recycling) in zinc alloy production without compromising product quality. To expand the range of portfolio outputs, we describe here in more detail one of these projects, TH04020055, Annotated Deliverable 2: Z/B (Certified technology (Ztech): Technologie recyklace zinkového odpadu při výrobě tenkostěnných odlitků (Technology for zinc waste recycling for thin-walled casting production) ZP0410. A final verification of the zinc waste recycling technology for thin-walled casting production was conducted between September 2022 and December 2022. A total of 21 melts were carried out over 37.8 days, with a total volume of 104.8 tonnes. All of these melts met the quality parameters set by the customers for whom the project outputs are intended.

Another successfully completed project, similar to that of the MJ Group, focused on the implementation of additively manufactured moulded parts for inserts, but with different materials (H11 and eco-friendly AMIT M789) and for die-casting of zinc alloys. Once again, University of West Bohemia in Pilsen and Technical University of Liberec were involved in the collaboration on this project. The outputs have been put into production, are protected as part of the shared know-how of the participants and are used to further develop the participants in both commercial and non-commercial activities. Since 2023, collaborative research has been carried out in cooperation with the GD Group within the framework of project FW06010486, which expands the scope of cooperation into the field of digitization of the actual production process. New projects are still being prepared to continue the trend towards digitization and robotization.

NUVIA a.s. (typical/new user3), a subsidiary of the globally significant VINCI Group, operates as a leading provider of radiation protection and detection solutions across various industries, ranging from nuclear power to healthcare. FT was the only other participant in the project EG20_321/0024977, whose main deliverable (Annotated deliverable 3) was G/A (prototype Gprot): the 500x500x50 EtPTP detector, a two-component system incorporating a single phosphor, which exhibits a 10% higher scintillation efficiency compared to the standard product. The prototype detector, featuring the new phosphor, holds potential for applications utilizing large-volume scintillators, such as in portal gates and other systems designed to detect the movement of radioactive material. However, the current production cost is significantly higher compared to standard manufacturing processes. In collaboration with the partner, efforts will continue to identify methods for reducing the economic intensity of production in order to lower costs and enhance the competitiveness of the new material. This result holds considerable potential for licensing, provided it aligns with the company's commercial interests.

EKAZ Praha a. s. (typical/new user 4), a Czech company specializing in construction, has become an industrial partner of the Faculty of Technology (FT) in collaboration with the Czech Technical University. This partnership focuses on solutions for health-safe surfaces based on recycled rubber, achieved through the successfully completed project SS01020515. The main deliverable, protected by intellectual property rights (Annotated deliverable 4), is as follows: F/U (utility model Fuzit): Utility model number 35930 – Thermal-acoustic insulating panel. The technical solution pertains to the field of acoustic panels, specifically designed as barriers to noise propagation, and noise barriers constructed from these panels, which feature enhanced thermal insulation properties. This result is being exploited by the main beneficiary, with the potential for patenting in alignment with its business strategy.

T.W.I. spol. s r.o. (typical/new user 5), a Czech company specializing in energy systems, including photovoltaic power plants and thermal systems, participated as a partner in further collaborative applied research and experimental development under the successful project EG20_321/0024561. The main output of this project (Annotated deliverable 5) is as follows: G/A (prototype Gprot): Mobile Autonomous solar Charging Station, Alternative power supply: Grid power supply Primary power supply: Photovoltaic array of panels Nominal voltage: 850 V PV plant output: 8 kW Maximum PV power input: 30 kW Electric vehicle charging: Yes, integrated charger Payment gateway: Yes, connected to internal system Battery capacity: 154 kWh Storage space: Yes, up to ½ container. The result is used for commercial purposes by the main beneficiary with the possibility of licensing in accordance with its business strategy.

The above list outlines the most economically significant activities and outcomes of R&D conducted within the FT. These examples were selected as they best align with the key criteria of point 3.5 of the self-evaluation, particularly the synergy between newly acquired partners from both industry and research organizations, along with proven, concrete outputs with practical applications. Additionally, these examples highlight the social relevance of advancing knowledge, particularly in the implementation of advanced production technologies, recycling, further optimization of robotic workstations, radiation protection, addressing health risks in playgrounds linked to the use of recycled materials, and innovative solutions for autonomous electric vehicle charging.

In addition to the above, the FT has also engaged in a variety of other R&D activities, encompassing both collaborative and contract research, as well as tailored activities in sectors such as construction, transport, logistics, and engineering. This includes work in training, applications, methodologies, and data analysis, as detailed in other chapters of the FT Self-Evaluation. Larger projects that follow a similar approach, as outlined in the aforementioned examples, are currently in progress, with some in the ongoing phase and others still being proposed and submitted.

These examples demonstrate that, during the period under review, the FT has not only broadened its capacity to translate R&D outcomes into practical applications but has also established a systematic approach to forging long-term partnerships with industrial enterprises and academic institutions. These collaborations extend well beyond the typical scope of a regional university and illustrate that, even with a limited institutional framework, it is possible to develop solutions that have significant practical and social impact.

Given its size and status as the youngest public university in the Czech Republic, VSTE does not have the robust infrastructure for R&D output transfer that larger universities might possess. Nonetheless, VSTE has proven its capability to execute meaningful transfers in partnership with external organizations, strategically optimizing its available resources to ensure that research outcomes are effectively integrated into real-world practice.

Table 3.5.1 - Summary of non-public revenues received during the period under evaluation

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
Total					

Note: Enter funds raised for R&D&I from non-public sources besides grants or contract research (e.g. licences sold, spin-off company revenues, donations, etc.) in the calendar year.

POPULARIZATION OF VAVAI

3.6 The most important activities in the field of popularization of R&D&I and communication with the public

The evaluated unit shall briefly describe its main activities related to the popularisation of R&D&I and communication with the public (e.g. popularisation lectures, citizen science initiatives, etc.) during the period of 2019–2023 and provide up to 10 examples that it considers the most significant.

Maximum 500 words plus 200 words for each example given.

Self-assessment:

In the period from 2019 to 2023, the Department of Civil Engineering actively engaged in the popularization of science and research within the fields of civil engineering and sustainable development. Key activities in this regard included the conference *Building Defects*, where innovations in civil engineering and construction were presented. The Department also organized a nationwide conference titled *Sdílení pracovních kompetencí napříč generacemi* (Sharing Work Competence Across Generations), which focused on digitalization and cross-generational cooperation in the construction industry. As part of the CEEPUS program, the Department participated in the teaching of the European context of construction and organized professional seminars for the public on sustainable materials and the energy efficiency of buildings.

In the period from 2019 to 2023, the Department of Transport and Logistics actively engaged in the popularization of science and research in the fields of transport, logistics, and environmental sustainability. For example, the Department publishes issues and annual volumes of the international peer-reviewed scientific journal *LOGI – Scientific Journal on Transport and Logistics* (Online ISSN 2336-3037), which features contributions from authors across several countries and different scientific institutions. Nearly every year (except for 2020-2023), the Department also organizes the international scientific conference *LOGI*, with peer-reviewed articles from several conference editions being included in special issues of indexed journals and conference proceedings. Some of these have been incorporated into the Web of Science database. Going forward, it is planned to regularly include outcomes from the *LOGI* conference in WoS (SCOPUS) indexed publications.

As part of the prestigious international competition for projects and concepts utilizing satellite navigation systems, “European Satellite Navigation Competition 2015”, an academic staff member of the Department submitted the winning project, titled “*Biologická ochrana letišť za pomoci dronů*” (*Biological Protection of Airports Using Drones*). The project’s recognition includes support in the form of an individual grant and space at the VZLÚ Scientific and Technology Park in Prague.

Additionally, the Department owns a Mavic 3 Thermal drone and regularly conducts demonstrations at public events, such as DronFest, MakerFaire, Adventures with Technology, Open Door Day at VSTE, Night of Scientists, and others.

VSTE, specifically the Department of Transport and Logistics, is a member and collaborator with several significant professional associations, including Česká logistická asociace, Svaz spedice a logistiky, Svaz průmyslu a dopravy ČR, Aliance pro bezpilotní letecký průmysl, z.s., Technologická platforma silniční doprava and Jihočeská hospodářská komora. The Department of Transport and Logistics has also been accredited by the European Logistics Association. VSTE became the second university and the first public university in the Czech Republic to receive this prestigious accreditation. This accreditation allows students of the Logistics study program to obtain the international logistics certificate *CEJLog* without the need for certification exams. Each graduate of the Logistics study program can request the issuance of a certificate from the European Logistics Association, and based on this certificate, they can use the internationally recognized title *EJLog*.

During the evaluation period, ERD was regularly and actively involved in presenting the university during several Open Days held annually. During these events, prospective students had the unique opportunity to familiarize themselves with the modern laboratory equipment of the Department and gain insight into ongoing research projects.

Since 2022, the Department has also been regularly participating in the nationwide popularization event *Night of Scientists*, where the general public is introduced to scientific work and innovative projects conducted at the Department in an engaging manner.

IMPLEMENTATION OF RECOMMENDATIONS

3.7 Implementation of the recommendations in Module 3

The evaluated unit will briefly describe how it has implemented the recommendations for Module 3 from the previous evaluation period, if applicable.

Maximum 1000 words.

Self-assessment:

Following the recommendations of the International Evaluation Panel (IEP) from the preceding evaluation period, the Faculty of Technology (FT) at the Institute of Technology and Business in České Budějovice took several targeted steps in the period from 2019 – 2023 to enhance the impact of research and technological development on society and strengthen collaboration with the application sphere.

1. Organization and co-organization of international conferences, workshops and lectures with social impact

Following the IEP recommendations, the Faculty has intensified the organization of professional events focused on addressing current societal challenges and transfer of R&D&I outputs into practice. The Department of Transport and Logistics (DTL) continues to develop the international scientific conference LOGI, which has established itself as a respected platform for experts in logistics, transport, and Industry 4.0. Peer-reviewed conference papers are published in scientific journals indexed in Scopus or Web of Science (WoS). The Department of Civil Engineering (DCE) regularly organizes the conference “Building Defects” focused on sustainable construction and use of advanced materials. The academic staff of the FT frequently participate in organizing major international conferences, either as members of organizing committees or as part of commissions for international events such as Metal and Modern metallurgy (ERD).

All departments at the Faculty of Technology (Department of Informatics and Natural Sciences, Department of Mechanical Engineering, Department of Civil Engineering, Department of Transport and Logistics, Environmental Research Department/**Department of Applied Technology and Materials Research**) are actively involved in organizing and providing professional support for VSTE events, such as “Týden odborných přednášek” (Week of Professional lectures), Open days, and Night of Scientists, where the R&D portfolio of the Faculty is regularly presented to students, professionals, and the general public.

Furthermore, academic staff participated in numerous international conferences and lecture stays through Erasmus+ or CEEPUS mobility programs (e.g., in Poland, Austria, Italy, Türkiye, China) as well as by hosting foreign experts from partner universities. FT established collaboration with institutions such as TU Wien (Austria), University of Žilina (Slovakia), University of Aveiro (Portugal), Silesian University of Technology (Poland), and Boğaziçi University (Türkiye). These activities contribute to the internalization of research and teaching activities and foster joint research outputs, including articles published in Metals and Materials.

2. Support for patents, licences, and spin-offs

A significant progress in intellectual property protection was recorded. Project outputs were partially protected through industrial designs, particularly in electronics, PCB layout, and automation. Share ownership agreements were established with application partners, and commercialization was implemented in areas such as scintillation detectors, light-curable polymer systems, and additively manufactured moulds made of cobalt-free alloys. The research infrastructure of ERD (renamed in 2024 as the Department of Applied Technology and Materials Research – KATMV) facilitates both the development and transfer of these output.

The Faculty of Technology aligns closely with VSTE strategic objectives, as it does not operate under a faculty structure in this domain. This reflects the broader shift in knowledge protection, emphasizing data management and collaborative research over patent protection, which often entails high costs with limited real-world impact. Participation in collaborative R&D projects (e.g., FW06010486 or TL02000559) ensures that know-how is protected within consortia, offering better security than patent databases. Notable collaborations include partnerships with Synpo a.s. on polymer systems.

In this context, the establishment of a physical incubator space and the strengthening of competencies in technology scouting and business development are under consideration.

3. Systematization and transparent presentation of results

All research, publishing, and technology transfer activities are recorded in the internal ETMS (Excellent Top Manager System), which tracks not only traditional publication outputs but also practical implications (licences, patents, implementation in

companies, analyses for policymaking, etc.). This system ensures high transparency and supports strategic management and research team development.

Additionally, all outputs are systematically processed within the VSTE IS, which is linked to SRA and IGS projects and integrates research findings with student theses. R&D results are then submitted to the Ministry of Education, Youth and Sports for inclusion in the national ISR&D&I database, in compliance with M17+ processes.

4. Cooperation with companies and region

A key aspect of implementing the IEP recommendations was intensive cooperation with the application sector. The most common users of outputs include MOTOR JIKOV, Bosch, Budějovický Budvar, ČD Cargo, Synpo, GD Druckguss, Spa 2000, etc. Forms of cooperation include collaborative and contract research, student internships, tailored analyses, innovation vouchers, and technology transfer initiatives. This often leads to tripartite projects involving students, researchers, and company representatives. To actively seek new industry partners, cooperation with regional and national agencies (Jihočeská agentura pro podporu inovačního podnikání, Jihočeská hospodářská komora, CzechInvest, etc.).

5. International dimension and European patent strategy

Besides the international dimension accepted at other departments, FT recognizes the importance of pursuing European patent applications, although it is aware of the financial and procedural challenges involved. An action plan and expert support framework have been developed to assess the potential of specific research outputs for European patent protection. Additionally, partnerships with international IP experts have been established to facilitate this process.

6. Support facilities and strategic unit for spin-offs and R&D&I

The Faculty of Technology has established a position of a Deputy Director for Science and Research to ensure the coordination of all creative activities, project applications, and organize regular research meetings and knowledge exchange. The members of individual departments are engaged in training, mentoring, and sharing knowledge with junior researchers. All researchers are provided with administrative, professional, and technical support, including access to laboratories, databases, and specialized software. Existing research infrastructure is leveraged for efficient technology transfer, including testing chambers, material analysis systems, drones, and automation tools.

As part of VSTE, FT adheres to the institution's central strategies, including spin-off support and R&D&I development.

Summary:

The implementation of the EIP recommendations was successfully completed. During the evaluation period, the impact of research on practical application was strengthened, industry collaboration was expanded, facilities for the development of spin-off companies were established, and a long-term strategy for transparent recording and evaluation of R&D&I outputs was set up. The activities undertaken not only align with the recommendations from the previous evaluation but also systematically contribute to fulfilling the institution's mission as a professional and research-driven organization with a strong regional and international presence. Significant progress has been made in research commercialization, the professionalization of R&D&I management, increasing the visibility of departmental activities, and advancing internationalization efforts. Establishing an active scientific community with a tangible societal impact is now a key component of the strategy of the Faculty of Technology.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Consolidated student registers	Table 3.1.4	https://sims.msmt.cz/
VSTE Information system	Table 3.1.5	https://is.vstecb.cz/?lang=en

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Corporate Strategy, Institute of Technology and Business in České Budějovice

FORD: 5 - Social sciences

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

The evaluated unit will describe its mission and vision and provide a general self-reflection of the societal contribution of R&D&I, along with its long-term goals in the fields it develops. The distribution of research activities by type of research will also be commented on.³¹ The evaluated unit will describe its organisational structure and size (staffing, number of students, number of study programmes implemented, etc.) based on the data provided in annex tables 3.1.1 to 3.1.6.

Maximum 1000 words.

This is a non-rated indicator that serves as an introduction to the evaluated unit, providing context for data in indicators 3.2-3.7.

Self-assessment:

The Faculty of Corporate Strategy completely renders itself identified with the mission and vision of the Institute of Technology and Business, which are set in the Strategic Intention accounting for the whole institution.

The FCS contributes to fulfilling the mission and vision of the ITB through research and pedagogical activities defined in the areas of economic disciplines. Scientific activity is concentrated in departments (Department of Management, Department of Marketing and Tourism, Department of Human Resources Management). Furthermore, the Centre of Language Services, which provides the teaching of foreign languages, and the Confucius Class, which is a project of ITB and Shanghai University of International Business and Economics, operate within the faculty. The aim of the class is to provide the effective teaching of the Chinese language to a wide spectrum of participants and to present the ancient Chinese culture, customs in commercial deals or social contact, and Chinese reality.

The Faculty of Corporate Strategy completely identifies itself with the mission and vision of the Institute of Technology and Business, which are set in the Strategic Intention accounting for the whole institution.

The FCS contributes to fulfilling the mission and vision of the ITB through research and pedagogical activities defined in the areas of economic disciplines. Scientific activity is concentrated in departments (Department of Management, Department of Marketing and Tourism, Department of Human Resources Management). Furthermore, the Centre of Language Services, which provides the teaching of foreign languages, and the Confucius Class, which is a project of ITB and Shanghai University of International Business and Economics, operate within the faculty. The aim of the class is to provide the effective teaching of the Chinese language to a wide spectrum of participants and to present the ancient Chinese culture, customs in commercial deals or social contact, and Chinese reality.

³¹ Basic, applied, contract, artistic research (see Definition of Terms in Methodology HEI2025+).

Table 3.1.1 - Staffing per FTE³²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	5,784/1,000	6,081/1,163	7,683/1,877	8,55/2,00	7,85/2,00	35,948/8,04
Associate Professor	18,164/2,486	17,556/3,427	19,106/4,665	20,89/6,55	19,85/6,65	95,566/23,778
Assistant Professor	27,857/16,127	33,425/12,044	38,842/15,859	36,47/12,13	41,70/12,70	178,294/68,860
Assistant	18,613/9,243	19,673/9,593	22,474/11,373	26,85/13,45	34,65/16,85	122,26/60,509
R&D Personnel ³³	101,480/67,236	119,585/77,978	118,036/77,905	26,15/8,90	24,50/9,65	389,751/241,669
Researchers in other categories ³⁴						
Technical and economic staff ³⁵						
Scientific, research and development staff involved in teaching activities						
Early career researchers ³⁶	15,204/5,353	19,748/6,447	27,018/9,504			61,97/21,304
Total ³⁷	187,102/101,445	216,068/110,652	233,158/121,183	268,96/138,72	252,42/124,63	1157,708/596,63

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

3.1.2 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2019 (numbers of physical employees and personnel)³⁸

³² The average number of hours worked is calculated as the ratio of the total number of hours actually worked during the reference period, from 1 January to 31 December, by all staff (including agreement on work activity, excluding agreement on work performance) to the total annual working time pool per full-time employee. The full-time status of the worker in the evaluated unit is always reported. If an employee holds more than one type of full-time job within the evaluated unit, the total sum of the two shall be reported.

³³ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

³⁴ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

³⁵ Who participates in the management and support of R&D&I in the institution.

³⁶ See Definition of Terms in Methodology HEI2025+.

³⁷ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

³⁸ The total number of employees/workers as of 31st December of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	2	0	0	0	3	1	3	0
Associate Professor	0	0	2	1	8	1	4	1	6	2	3	0
Assistant Professor	1	1	21	7	11	5	4	2	1	0	0	0
Assistant	3	2	8	3	2	1	3	2	1	1	0	0
R&D Personnel ³⁹												
Researchers in other categories ⁴⁰												
Technical and economic staff ⁴¹	40	27	30	23	20	15	8	3	3	0	1	0
Scientific, research and development staff involved in teaching activities												
Early career researcher ⁴²	2	1	9	3	6	1	3	1	0	0	1	0
Total ⁴³	46	31	70	37	49	23	22	9	14	4	8	0

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D Personnel, Researchers in other categories and Technical and economic staff are mutually exclusive, i.e. one staff member is reported in only one category. The categories of scientific, research and development staff involved in teaching activities and early career researchers are reported collectively for all the above-mentioned categories.

3.1.3 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2023 (numbers of physical employees and personnel)⁴⁴

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor					3		1	1	5	2	3	
Associate Professor			4	1	11	5	5	1	3	1	4	1
Assistant Professor			24	4	17	8	9	3	1	1		
Assistant			12	3	6	4	2	1	4	2		

agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

³⁹ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

⁴⁰ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

⁴¹ Who participates in the management and support of R&D&I in the institution.

⁴² See Definition of Terms in Methodology HEI2025+.

⁴³ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I Personnel, Researchers in other categories and technical and economic staff.

⁴⁴ The total number of employees/workers as at 31.12. of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

R&D Personnel ⁴⁵	9	4	17	6	9	2	2	1	3	1	2	
Researchers in other categories ⁴⁶												
Technical and economic staff ⁴⁷	25	17	48	31	21	17	12	10	6	2	1	
Scientific, research and development staff involved in teaching activities												
Early career researcher ⁴⁸			3	2								
Total ⁴⁹	34	21	108	47	67	36	31	17	22	9	10	1

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

Table 3.1.4 – Students

Type of study	2019		2020		2021		2022		2023		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Undergraduate	3330	1423	3083	1315	2734	1175	2449	1017	2382	978	13978	5908
Master's ⁵⁰	463	220	421	209	516	283	500	245	436	187	2336	1144
Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning Courses	358	164	64	35	145	58	175	71	160	73	902	401
Total	4151	1807	3568	1559	3395	1516	3124	1333	2978	1238	17216	7453

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ⁵¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	0	5/2	0	5	0	6/1	0	6/3	0	6/3	0	28/9
Master's	0	3/1	0	3	0	5	0	5/2	0	5/2	0	21/5

⁴⁵ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

⁴⁶ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

⁴⁷ Who participates in the management and support of R&D&I in the institution.

⁴⁸ See Definition of Terms in Methodology HEI2025+.

⁴⁹ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

⁵⁰ All master's degree students are listed, regardless of the length of their programme of study.

⁵¹ The total number of study programmes for which admissions have been announced in a given academic year.

Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning courses	0	12	0	5	0	5	0	5	0	6	0	33
Total	0	20/3	0	13	0	16/1	0	16/5	0	17/5	0	82/14

Note: For each SP type, enter the number of SPs in Czech language in the first cell and insert the number of SPs in English language after the slash in the same cell (e.g. 15/3), enter the number of professional SPs in Czech language in the second cell and insert the number of professional SPs in English language after the slash. Follow a similar procedure in the last column of the table (Total).

3.1.6 – R&D&I capacities

R&D&I field	FORD	FORD share [%]	Predominant type of research	Total share of industry group [%]
1. Natural Sciences	1.1 Mathematics		Zvolte položku.	
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences		Zvolte položku.	
	1.5 Earth and related environmental sciences		Zvolte položku.	
	1.6 Biological sciences		Zvolte položku.	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	
	2.2 Electrical engineering, Electronic engineering, Information engineering		Zvolte položku.	
	2.3 Mechanical engineering		Zvolte položku.	
	2.4 Chemical engineering		Zvolte položku.	
	2.5 Materials engineering		Zvolte položku.	
	2.6 Medical engineering		Zvolte položku.	
	2.7 Environmental engineering		Zvolte položku.	
	2.8 Environmental biotechnology		Zvolte položku.	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology		Zvolte položku.	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	
	4.2 Animal and Dairy science		Zvolte položku.	
	4.3 Veterinary science		Zvolte položku.	
	4.4 Other agricultural sciences		Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	100%
	5.2 Economics and Business	100%	Balanced basic and applied research	
	5.3 Education		Zvolte položku.	

	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts		Zvolte položku.	
Total		100 %	-	100 %

RECOGNITION BY THE RESEARCH COMMUNITY

3.2 Recognition by the research community

The evaluated unit will briefly comment on its position in the research community. It shall consider individual and other prestigious R&D&I awards, participation of its academic staff in the editorial boards of international scientific journals, elected membership in professional societies, major invited lectures given by the evaluated unit's academic staff abroad or by foreign scientists and other relevant guests at the evaluated unit. Additionally, it will address the involvement of staff in the evaluation of national or European project/programme calls over the period of 2019–2023 based on the data provided in annex tables 3.2.1 to 3.2.5 (max. 10 most relevant items). If necessary, the evaluated unit shall list any additional services to the scientific community that it considers relevant.

Maximum 1000 words.

Self-assessment:

The Faculty of Corporate Strategy has been striving to establish a stable position in the research community in the Czech Republic and in the international context. In the institution's relatively short history (the faculty was created in 2015), the employees have succeeded in integrating into the scientific community, where they continue to develop their activities.

The faculty staff are members of editorial boards of renowned international scientific journals in the field of management, strategic management, human resources management, entrepreneurship, and sustainability. The journals in consideration are published in various European countries (e.g., in Switzerland, Great Britain, Poland, Albania, Serbia, Slovakia, etc.). The faculty experts are also members of scientific committees of international conferences, e.g., the International Conference on Resilience and Sustainable Regions.

Internalisation in science and education is a significant factor in future development. The faculty staff use mobilities within the Erasmus program to enter and maintain networking across the scientific community and to participate in international project consortia. The faculty organised international scientific conferences in the Czech Republic in the monitored period. The faculty staff participate in expert conferences held in Czechia and abroad and are invited to lectures in foreign institutions (see tab. 3.2.3). The list of ITB lectures realised by foreign scientists is provided in table 3.2.4. These lectures are significant for the further scientific development of both academics and students, who are able to meet the trends and approaches applied in other countries. The topics of lectures maximally reflect research themes and the focus of the Faculty of Corporate Management in both cases.

The faculty members actively participate in evaluating the R&D&I results. For instance, Ing. Milan Talíř acts as a reporter, assigned consultant and evaluation expert for the Technology Agency of the Czech Republic, or as an evaluator of bilateral Czech-USA projects in the INTER-EXCELLENCE program (Ministry of Education, Youth and Sports). Prof. Jan Váchal is an expert commission member of the Research Institute for Soil and Water Conservation, or a member of the National Agency for Agricultural Research in the Czech Republic. Doc. Petra Pártlová is a R&D&I member of Czech research, development, and innovation evaluation within the Council for Research, Development, and Innovations of the Government Office of the Czech Republic. Doc. Zdeněk Čaha is a member of the 'Humanities and the Arts' expert panel as well.

The participation of faculty academics in scientific boards of universities, which proves their respect by the scientific community, is also significant. Prof. Jan Váchal used to be a member of the grand scientific council of the Czech University of Life Sciences in Prague. Doc. Jarmila Straková is in the Scientific Board at the Faculty of Economics at the University of South Bohemia in České Budějovice and the Operational-economic Faculty at the Czech University of Life Sciences in Prague. Doc. Petra Pártlová is on the scientific board of the Faculty of Public Policy at VSD University (Slovakia) and the Social-economic Faculty at the Jan Evangelista Purkyně University in Ústí nad Labem. Doc. Zdeněk Čaha is a member of the ITB academic board and the College of European and Regional Studies academic board.

Table 3.2.1 - Prestigious R&D&I awards granted during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of the award	Awarding institution

Note: Provide up to 10 examples.

Table 3.2.2 Participation of academic staff of the evaluated unit in editorial boards of international scientific journals during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
doc. PhDr. František Pollák, PhD.	International Journal of Strategic Management and Decision Support Systems in Strategic Management (ISSN 1821-3448) Member of Editorial Board
Ing. Jaroslav Kollmann, MBA	CIT Review Journal (ISSN 2960-2831) Member of Editorial Board
doc. et doc. PaedDr. Mgr. Zdeněk Caha, Ph.D., MBA, MSc.	Littera Scripta, ISSN 1802-503X (printed version), ISSN 1805-9112 (online version) Member of Editorial Board
doc. et doc. PaedDr. Mgr. Zdeněk Caha, Ph.D., MBA, MSc.	Auspicia, ISSN 1214-4967 (printed version), ISSN 2464-7217 (online version) Vice-Chairman of the Editorial Board
Ing. Iveta Kmecová, Ph.D.	Auspicia, ISSN 1214-4967 (printed version), ISSN 2464-7217 (online version) Member of Editorial Board
doc. PhDr. František Pollák, PhD.	Frontiers in Psychology, sekcia Organizational Psychology Member of Editorial Board
doc. Ing. Jarmila Straková, Ph.D., MBA	Global Journal of Entrepreneurship and Management (ISSN 2720-4545) Member of Publishing Board
doc. PhDr. František Pollák, PhD.	IntechOpen, UK Member of Publishing Board
prof. Ing. Jan Váchal, CSc.	WSB University Research Journal (ISSN 1643-7772) Member of Editorial Board
doc. PhDr. František Pollák, PhD.	Strategic Management Journal (ISSN 0143-2095) Member of International Publishing Board

Note: Please provide up to 10 examples of academic staff participation in editorial boards of international scientific journals (e.g. editor, editorial board member, etc.).

Table 3.2.3 The most important invited lectures delivered by the academic staff of the evaluated unit at foreign institutions during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Invited lecture title	Name of host institution, or name of conference or event	Year
Ing., Iveta Kmecová, PhD.	How to motivate SME employees to higher work efforts?	EMFSA 2021: Economics, Management, Finance and Social Attributes of Economic Systems Conference, Pula, Croatia	2021
doc. Ing. Jarmila Straková, Ph.D., MBA	Changes in Corporate business Environment Caused by Globalisation Processes	ISAL – Higher Institute of Administration and Languages, Madeira	2022
Ing., Milan Talíř, MBA	Change Management	Hogeschool Rotterdam, Netherlands	2022
Ing., Iveta Kmecová, PhD.	Time management – an important managerial skill leading to personal efficiency	Pedagogical University of Krakow, Poland	2022
doc. et doc. PaedDr. Mgr. Zdeněk Caha, Ph.D., MBA, MSc.	Labour market and labour retention; Factors affecting corporate-organizational stability	Faculty of Economics and Informatics, J. Selye University, Komárno	2022

doc. Ing. Petra Pártlová, Ph.D.	Strategic management; International marketing	International Business Academy Erhvervsakademi Kolding	2022
Doc. PhDr. František Pollák, PhD.	Customer age as a determinant of preferences for information sources Empirical analysis of a case from Central Europe	EMFSA 2022: Economics, Management, Finance and Social Attributes of Economic Systems Conference, Pula, Croatia	2022
Ing., Jaroslav Kollmann, MBA	Strategic Management	Tampere University of Applied Sciences, Finland	2023
Ing. Iva Klementová, Ph.D..	Employee motivation and development	Univerzity of Lodz, Fakulty of management	2023
doc. et doc. PaedDr. Mgr. Zdeněk Caha, Ph.D., MBA, MSc.	Corporate education in the Czech Republic	Univerzity of Lodz, Fakulty of management	2023

Note: Provide up to 10 examples.

Table 3.2.4 - The most important lectures by foreign scientists and other guests relevant to R&D&I at the evaluated unit during the evaluation period

Name, surname and title(s) of the lecturer	Lecturer's employer at the time of the lecture	Invited lecture title	Year
doc. Dr. Mario Bogdanović	Istrian University of Applied Sciences in Pula, Croatia	„Entrepreneurship as a psychosocial phenomenon: How to create	2021
Dr. Erjona Deshati	CIT, Albania	Vision, Mission, and Analysis of the External Environment where the Firm Operates	2022
prof. dr. hab. Henryk Noga	Pedagogical University of Krakow, Poland	Teacher Competencies and innovation methods and his roles in on-line education of professional subject	2022
Prof. Dr. rer. oec. Sean Patrick Saßmannshausen	OTH Regensburg, Germany	Promoting modern trends in teaching with respect to Best Practice	2022
Dr. Olena Vrublevska	Lviv University, Ukraine	Marketing in a frangible world	2022
prof. Ing. Miloš Hitka, PhD.	Technical University in Zvolen, Slovakia	Organizational culture	2022
Prof. Katarzyna Wojtaszczyk	University of Lodz, Poland	What's new in HRM? New functions, new methods, new tools	2023
Dr. Dariusz Czakowski,	Akademia Kujawsko-Pomorska, Poland	Economy of sustainable development	2023
Ayşegül Elçi, Öğr. Gör.	Bingol University, Turkey	Psychoanalysis theories, S. Freud and J. Lacan; Formalism and New criticism; Deconstruction and Cultural Studies	2023
Dr. Sean Morga	TAMK, Finland	Features, benefits and values in the context of change management	2023

Note: Provide up to 10 examples.

Table 3.2.5 - Involvement in the evaluation of national/European research project/programme calls relevant to the R&D&I area at the unit during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	Year
prof. Ing. Jan Váchal, CSc.	Czech-Moravian Chamber for Land Consolidation of the Ministry of Agriculture of the Czech Republic and ÚPU Prague	Member of the evaluation commission "Zpřístupnění pozemků" at ČMKPÚ and MZe ČR and ÚPÚ Praha	2018 - 2023
prof. Ing. Jan Váchal, CSc.	Scientific Grant Agency of the Slovak Republic – Slovak Academy of Sciences	Member of the VEGA-SAS Evaluation Board	Since 2019
prof. Ing. Jan Váchal, CSc.	National Agency for Agricultural Research Czech Republic	Member of the Evaluation Board	2018 - 2022
prof. Ing. Jan Váchal, CSc.	"Field Roads" at the Czech-Moravian Chamber for Land Consolidation (ČMKPÚ) and the Ministry of Agriculture of the Czech Republic (MZe ČR) and ÚPU Prague	Member of the Expert Committee at ČMKPÚ and MZe ČR and ÚPÚ Praha	Since 2010
prof. Ing. Jan Váchal, CSc.	Research Institute for Soil Monitoring and Protection, Prague	Member of the Export Committee and Scientific Council for Rural Development	Since 2015
doc. PhDr. František Pollák, PhD.	VEGA – Slovak Academy of Sciences, Slovak Republic	Project evaluator	Since 2021
doc. PhDr. František Pollák, PhD.	Research Agency (Slovak Republic)	Expert evaluator	Since 2021
Ing. Milan Talíř, MBA	Technology Agency of the Czech Republic	Rapporteur and designated consultant and evaluation expert	Since 2023
Ing. Milan Talíř, MBA	Ministry of Education, Youth and Sports	Bilateral projects CR-USA in the INTER-EXCELLENCE II program, subprogram INTER-ACTION	Since 2023
Petra Pártlová, doc. Ing., Ph.D.	Office of the Government of the Czech Republic, Research, Development and Innovation Council	Member of the Czech R&D&I evaluation for the national R&D&I evaluation in the Czech Republic	Since 2022
doc. et doc. PaedDr. Mgr. Zdeněk Caha, Ph.D., MBA, MSc.	Office of the Government of the Czech Republic, Council for Research, Development and Innovation	Member of the expert panel Humanities_and_the_Arts	Since 2022

Note: Provide up to 10 examples.

RESEARCH PROJECTS

3.3 Research projects

The evaluated unit shall list at most 10 (considered most significant by the evaluated unit) research projects/activities (regardless of whether they are supported by public funds or based on contract research⁵²) that it has implemented or participated in during the period of 2019–2023⁵³. This should be done from the full list in annex tables (Table 3.3.1-3.3.2)⁵⁴, regarding particularly the results achieved or the application potential of the projects. The unit should also describe how the research projects contributed to the mission and purpose of the evaluated unit. If the evaluated unit has been a participant in listed project, it shall indicate which other entities were involved and describe its contribution to the project. The interdisciplinary aspects of the projects will also be commented on, along with any collaboration with other units of the evaluated HEI.

Maximum 300 words per project.

Self-assessment:

In the evaluation period, the Faculty of Corporate Strategy undertook four projects funded by the Technology Agency of the Czech Republic, one as a beneficiary and three as an additional participant. The project “Stabilization and Development of SMEs in Rural Areas “ (TL01000349) focused on analysing the outflow of SMEs from rural regions and developing methodologies, software, and practical manuals to support them. VŠTE collaborated with Brno University of Technology and other organizations.

The project “Digital Transformation for Business Model Innovation in SMEs in the Czech Republic “ (TL02000215) developed methodologies and software to enhance SME innovation capacity, including technical manuals and publications. The beneficiary was Brno University of Technology, with VŠTE and other institutions as participants.

The project “Restart MSP“ (TL04000191) examined the impact of the COVID-19 pandemic on SMEs and identified key success factors for their recovery. VŠTE cooperated with the Research Institute for Entrepreneurship and Innovation and the Czech Chamber of Commerce.

The project “Optimization of Custom Batch Production “ (FW01010460) developed a system utilizing IoT and AI to optimize production processes, increasing management flexibility and international competitiveness. VŠTE worked alongside VUSTE-APIS, s.r.o.

All projects had a high application potential and contributed to VŠTE's mission in the field of science, research and regional development. The contract research of the Institute of Corporate Strategy responded to the needs of external entities, such as Fontea, VM Motor, STS Prachatice and Viscofan CZ, with the aim of optimising processes, increasing efficiency and profitability. In the future, the Faculty of Corporate Strategy plans to continue in this direction and further develop cooperation with external partners.

⁵² For the definition of contract research for the purposes of evaluation in the HE segments, see Article 2.2.1 of the Community Framework for State Aid for Research, Development and Innovation 2014/C 198/01.

⁵³ Regardless of whether the projects are completed or still ongoing, provided that at least part of the project was implemented during the evaluation period.

⁵⁴ The evaluated unit shall only fill tables that are relevant to it.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ⁵⁵	Project name	Support (in thousands CZK/EUR) ⁵⁶				
		2019	2020	2021	2022	2023
Technology Agency of the CR (ÉTA program, 1 st public competition)	Stabilization and Development of SMEs in Rural Areas prostru 02/2018–01/2021	789/31,27	1110/44	207/8,16		
Total		789/31,12	789/31,27	1110/44		
In the role of another participant						
Provider ⁵⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Technology Agency of the CR (ÉTA program, 2 nd public competition)	Digital Transformation for Business Model Innovation in SMEs in the Czech Republic 02/2019–01/2022	287/11,38	311/12,33	259/10,27	75/2,97	
Technology Agency of the CR (ÉTA program, 4 th public competition)	Restart SMEs: Specification of the Impact of the COVID-19 Pandemic on SMEs and Identification of Factors for a Successful Response to the Crisis Situation, as well as Defining Development Scenarios Based on the Impact Typology and SME Categories 10/2020–09/2022		110/4,36	425/16,85	333/13,2	
Technology Agency of the	Optimization of Custom Batch		1035/41,02	1035/41,02	508/20,13	508/20,13

⁵⁵ If the provider is from abroad, please indicate the provider's country of origin in brackets. For the determination of the country of origin of the provider, the place of residence of the provider is decisive.

⁵⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

⁵⁷ Ibid.

CR (Trend program Trend, 1 st public competition, subprogram "Technologičtí lídři")	Production Management in Real-Time Using IoT and Digital Technologies 01/2020–06/2023					
Total		287/11,38	1438/57	1719/68,13	1443/57,19	508/20,13

Table 3.3.2 - Contract research activities

Client ⁵⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Fontea, a. s.	Use of the method of self-scheduling shifts (VŠTE as the supplier of expert services for the Innovation Voucher within the project "Optimization and practical testing of improved workforce organization processes using specific software")			150/5,95		
VM Motor	Innovation Voucher – Innovation of production and support processes in terms of their quality, efficiency, and profitability, including an implementation plan for a company focused on the development and servicing of sports motorcycles.					499/19,78
STS Prachatice, a.s.	Innovation Voucher – Optimization of the production and sales process using the PVA model.				499/19,78	
Viscofan CZ, s. r. o.	Contract research – Identification of the company's most and least profitable items.					
External partners	Translations, proofreading			28/1,11	51/2,02	127/5,03
ZŠ Prachatice	Teaching activity of the Department of Human Resources Management (Burn-out syndrome) – contract activities				8/0,32	
HEMP PRODUCTION CZ, s.r.o.	Marketing campaign			20/0,79		
Mektec Manufacturing Corporation Europe CZ s.r.o.	Employee shadowing – optimization of personnel processes		15/0,59			
CENTES, spol. s r.o.	Innovation Voucher - Implementation of the BVAP Matrix (Budweis Value Added Process) into business in the sector of production and supply of industrial parts					
NAVEL, spol. s r.o.	Innovation Voucher - Product portfolio analysis and proposal of measures to improve the					

⁵⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

	efficiency of production processes and company management					
DOC Mercury	Contract activity – comprehensive marketing services, communication and marketing research					
Bouda Burgers	Contract activity – Marketing research					
Déhora Česká republika	Coaching and professional qualification courses					
Total			15/0,59	198/7,85	558/22,12	712/28,22

Note: List and describe contract research activities with a revenue in a given calendar year, regardless of the amount of financial revenue.

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts⁵⁹, on society (e.g. description of how the results are used by various users, the range of persons/institutions for which the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

The most significant results of the Faculty of Corporate Strategy include certified methodologies developed within research projects funded by the Technology Agency of the Czech Republic. These methodologies consist of recommended practices and procedures certified by the relevant public administration body, ensuring the repeatability and reliability of results for specific users.

Notable projects include “Stabilization and Development of SMEs in Rural Areas” (TL01000349), which provides a methodology aimed at enhancing the competitiveness of small and medium-sized enterprises (SMEs) through targeted policies and practices fostering economic growth. Another key project, “Digital Transformation for Business Model Innovation in SMEs in the Czech Republic” (TL02000215) focuses on digital transformation, strengthening innovation capacity, and increasing competitiveness. “Restart MSP” (TL04000191) offers structured guidance for navigating crisis situations such as the COVID-19 pandemic, helping businesses build resilience in challenging times.

Important software tools include “SME Financial Performance Indicators FPI” developed with the project “Stabilization and Development of SMEs in Rural Areas”. This tool enables optimizing financial parameters of companies using artificial intelligence. Additionally, “Optimization of Custom Batch Production Management in Real-Time Using IoT and Digital Technologies” (FW01010460) provides tools for production optimization and risk assessment. The SME Digital Maturity Assessment Software, developed under project TL02000215, assists enterprises in identifying digital transformation opportunities and improving business performance.

These methodologies and software tools have demonstrated positive societal impacts, fostering sustainability and accessibility for business users, particularly SMEs. The gender dimension has been considered through an inclusive approach in the design and implementation of both methodologies and tools.

⁵⁹ See Terms definition.

Table 3.4.1 - Overview of research results in the period under evaluation

Type of result ⁶⁰	Year of application	Name
Certified methodology	2021	Methodology for the stabilisation and development of SMEs in rural areas
Manuals for SME management	2021	- Personnel management in SMEs in rural areas - Strategic management and decision making – a prerequisite for competitiveness and profitability of SMEs - Rural environment – a base for stability and development of SMEs in the Czech Republic - Principles, procedure and implementation of innovation process in SMEs in the Czech Republic
Software	2021	Software to determine the value generation potential of SMEs
Certified methodology	2022	Digital transformation for innovation of business models in SMEs in the Czech Republic
Manuals for specific areas	2022	Practical guidelines for assessing the level of digital maturity, providing tools, methods and models and recognition opportunities for business model transformations based on innovative solutions for all dimensions of the business model: value proposition, value creation along the value chain and value preservation
Software	2022	Software to assess the level of digital maturity and identify opportunities for business model transformation in SMEs enabled by digital technologies
Methodology (Output type: "Other")	2020	Methodology for the adaptation of SMEs in the service sector to the implementation of Society 4.0 principles, practices, methods and tools
Certified methodology	2022	Development scenarios for SMEs in relation to the situation after COVID-19 pandemic
Software	2022	System for optimising the management of custom piece production in real time
Validated technology	2022	Proven technology for the management of custom piece production in real-time optimization, pilot application in STS Prachatice, a.s.

Note 1: Please list and describe the results already applied in practice or heading towards application in practice with existing or prospective impact on the society (e.g. domestic or foreign patents, sold licenses, spin-offs, prototypes, varieties and breeds, methodologies, significant analyses, surveys, expert outputs for policymaking or other forms of non-publication outputs, etc.). Indirect results of research, development and creative activities with documented societal impact, e.g. expert activities, services to the public/government/scientific community, may also be reported.

⁶⁰ Specify the specific type of result. Add rows as needed.

TRANSFER OF RESULTS INTO PRACTICE

3.5 Transfer of results into practice

The evaluated unit shall briefly describe its system for transferring results into practice. It shall also indicate up to five of the most typical users of its results, whether in the university environment or in the non-university application/corporate sphere, detailing how it collaborates with them and how it seeks out new users (using a maximum of five specific examples).

It will also indicate whether and how it commercialises R&D&I results (e.g. selling licences, setting up start-up or spin-off companies, etc.)⁶¹, providing brief description of the commercialisation methods used. The effectiveness of the transfer of results and the commercialisation of R&D&I results will be described using a selection of results (max. five) listed in annex table (Table 3.4.1).⁶²

Additionally, the evaluated unit shall briefly comment on the funds received during the period of 2019–2023 from non-public, non-grant sources (e.g. licences sold, spin-off revenues, donations, etc.). A full summary shall be provided in annex table (Table 3.5.1).

Maximum 500 words plus 200 words for each provided example of finding a new user of results and commercialization.

Self-assessment:

- The application of research results into practice primarily occurs at the level of research projects. The users of these results are external entities, including:
- Manufacturing and commercial companies (e.g., STS Prachatice, a. s.)
- Chambers and associations (e.g., Chamber of Commerce of the Czech Republic, Association of Small Entrepreneurs and Tradesmen)
- Entities active in regional development (Krajské sdružení NS MAS Jihočeského kraje)
- Research institutions (e.g., VUSTE-APIS, Výzkumný ústav pro podnikání a inovace, z.ú.)
- Other higher education institutions (e.g., Brno University of Technology).
- At the level of contract research, the users of the results are primarily companies from various sectors, including manufacturing, business, and services).
- Specific examples of cooperation with STS Prachatice, a. s.
- Cooperation within the research project Optimization of Custom Batch Production Management in Real-Time Using IoT and Digital Technologies (FW01010460): The aim of the project was the development, research, and verification (through pilot application) of a unique, reusable optimization system for managing custom piece production in real time. This system used big data generated in various production sections, processed with artificial intelligence and Industry 4.0 principles, to provide optimized solutions for subsequent decisions in production management via ICT. (The project also involved cooperation with the research organization VUSTE-APIS).
- Optimization of the production and business process using the PVA model. The Faculty of Corporate Strategy provided expert services for the Innovation Voucher. An analysis of the current state of the company's production and business processes was conducted through a process map. This included the application of an input PVA model, which evaluated the contribution of individual products to the margin for each production option as well as for the entire production process, identifying their profitability or loss rate).

Specific example of cooperation with the Chamber of Commerce of the CR, the Association of Small Entrepreneurs and Tradesman, Krajské sdružení NS MAS Jihočeského kraje, and Výzkumný ústav pro podnikání a inovace:

- Cooperation on the research project Optimization of Custom Batch Production Management in Real-Time Using IoT and Digital Technologies (TL01000349): The project aimed to address the negative trend of the outflow of small and medium-sized enterprises from rural area. As part of the project, an in-depth analysis was carried out, leading to the development of a certified methodology and software. These tools incorporate acceleration and innovation principles, methods, and procedures designed to maximize added value and support the sustainable development of SMEs in rural regions.

Specific examples of cooperation with companies:

⁶¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

⁶² If the commercialisation of R&D&I results is carried out in this way.

- Fontea, a. s. – Implementation of self-scheduling of shifts: The Faculty of Corporate Strategy provided expert services under the Innovation voucher within the project Optimization and practical testing of the improved workforce organization process using a specific software. As part of this collaboration, a study was conducted that included survey findings and an analysis of the provided data. The study also offered explanations and guidance on the successful implementation of self-scheduling, identified potential risks, and outlined key measures to mitigate these risks within the operational environment of Fontea.
- VM Motor – Innovation of manufacturing and support processes to enhance quality, efficiency, and profitability in a company specializing in the development and servicing of sport motorcycles. The collaboration includes process analysis of core and non-core operations, economic and financial evaluation, process mapping, and guidance on the expected return on financial investments. The goal is to significantly increase efficiency or reduce operational costs through strategic process improvements.

Cooperation with users of research results is conducted comprehensively. The Faculty maintains an extensive network of contacts with regional business entities and actively identifies potential areas for future cooperation. It develops tailored solutions to meet the specific needs of companies and then addresses them with a specific offer to use the research results for their purposes. Within the process of applying the results in practice, a close cooperation of the research team and the implementation team in the company is established. The research team often present in the company and is actively involved in the company's operations, fostering communication across its departments. Even after the conclusion of contract research activities, contact with the company is maintained to monitor the implementation of proposed measures and explore further collaboration opportunities.

Cooperation with other universities is facilitated through the scientific community network, in which academic staff from the Faculty of Corporate Strategy actively participate. Beyond the corporate sector, selected research findings are integrated into university teaching, providing students with practical insights into real-world corporate environments. This approach enhances graduates' preparedness for the labour market.

The commercialization of research outcomes follows legal regulations, including securing a share in the commercial use of developed software tools. However, some research results (see Table 3.4.1) did not generate financial income from commercialization. During the evaluation period, no start-ups or spin-off companies were established at the Faculty.

Table 3.5.1 - Summary of non-public revenues received during the period under evaluation

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
Implementation of self-scheduling of shifts – VSTE provides expert services under Innovation voucher with the project Optimization and practical testing of the improved workforce organization process using a specific software (Fontea, a. s.)			150/5,95		
Innovation voucher – Innovation of manufacturing and support processes to enhance quality, efficiency, and profitability in a company specializing in the development and servicing of sport motorcycles (VM Motor)					499/19,78
Innovation voucher – Optimization of the production and sales process using the PVA model (STS Prachatice, a. s.)				499/19,78	
Contract research – Identification of the company's most and least profitable items (VISCOFAN CZ, s. r. o.)					
Translations, proofreading (external partners)			28/1,11	51/2,02	127/5,03
Teaching activity of the Department of Human Resources Management (Burn-out syndrome) - Zakázková činnost (Základní škola Prachatice)				8/0,32	
Marketing campaign (HEMP PRODUCTION CZ, s.r.o.)			20/0,79		
Employee shadowing – optimization of personnel processes (Mekttec Manufacturing Corporation Europe CZ s.r.o.)		15/0,59			
Total		15/0,59	198/7,85	558/22,12	712/28,22

Note: Enter funds raised for R&D&I from non-public sources besides grants or contract research (e.g. licences sold, spin-off company revenues, donations, etc.) in the calendar year.

POPULARIZATION OF VAVAI

3.6 The most important activities in the field of popularization of R&D&I and communication with the public

The evaluated unit shall briefly describe its main activities related to the popularisation of R&D&I and communication with the public (e.g. popularisation lectures, citizen science initiatives, etc.) during the period of 2019–2023 and provide up to 10 examples that it considers the most significant.

Maximum 500 words plus 200 words for each example given.

Self-assessment:

The Institute of Technology and Business in České Budějovice (VSTE) has consistently supported the popularization of science and technology among students, professionals, and the general public. The goal of this initiative is to make scientific knowledge more accessible, inspire the younger generation to pursue studies in technical and economic fields, and foster interdisciplinary collaboration. As part of these efforts, VSTE regularly publishes press releases in regional and national media and maintains close cooperation with South Bohemian Television, which produces the program *Život na VŠ* six times a year. This program showcases the most interesting projects and activities at the university, thus contributing to the popularization of science and education.

Most significant popularization events:

International Technical Olympiad

Another significant popularization initiative is the International Technical Olympiad, organized within the Technical and Educational Consortium. This competition provides primary and secondary school students with an opportunity to present their technical projects and gain valuable experience. The aim of the Olympiad is to introduce the younger generation to the possibility of studying technical fields and to encourage creative thinking in the areas of technology and innovation.

International conferences and specialized seminars

VSTE also organizes many expert conferences and seminars that contribute to the dissemination of scientific knowledge and foster the exchange of expertise among professionals. Key events include:

- Building Defects – a conference focused on diagnosing and preventing building defects.
- ICPPCT (International Conference on Pollution Prevention and Clean Technologies)
- ICDPN (Conference on Data-processing and Networking 2024) – a conference dedicated to data processing and network technologies.
- Smart Region Tour – a series of expert meetings centred around the concept of smart regions.
- Innovative Economic Symposium – a forum focused on innovations in the economy and industry.
- Other popularization activities
- VSTE also engages in a variety of other popularization activities, including:
 - Open days and school tours, primarily aimed at high school students interested in learning more about studying at VSTE.
 - Týden odborných přednášek (A week of professional lectures): during this week, the academic staff and practitioners present current trends and challenges in technology, economics, and management.
 - Participation in external events, such as Vzdělání a řemeslo (Education and Crafts), Dobrodružství s technikou (Adventures with Technology), Maker Faire, Gaudeamus, and others. At these events, VSTE actively presents its study programs, research projects, and laboratory equipment.
 - Týden Akademie věd (Academy of Sciences Week). During this week, VSTE opens its laboratories to the public and presents selected scientific projects.

Podcast na Okružní

In 2023, VSTE expanded its presence into the digital space with the launch of the Podcast na Okružní (Podcast in Okružní). This initiative reaches a broader audience and features interviews with experts from various fields. The podcast has garnered thousands of views, becoming an important tool for popularizing science. In line with the so-called Third role of university, the Faculty of Corporate Strategy conducts a variety of activities aimed at popularizing the results of its research activities. Below are selected examples of events engaging the general public:

Organization of Noc vědců (Night of Scientists): This event, tailored to different age groups, provides the public with the opportunity to explore the campus, visit specialized classrooms and laboratories, and try hands-on activities with equipment like eye-tracking devices and VR environments.

Týden vzdělávání dospělých (Adult Education Week): A global event promoting adult participation in education. It aims to motivate individuals to engage in lifelong learning opportunities offered by the Faculty of Corporate Strategy, while also encouraging employers to invest in the continuous education of their employees. The event includes sample courses, knowledge tests, and other activities related to lifelong learning.

Appearances on regional television on the topic of science: VSTE regularly participates in programs aired on Jihočeská televize, a regional broadcaster with a viewership of approximately 300,000 weekly. There is also space for the presentation of research institutions. The audience share of this television station is steadily increasing, according to data from Jihočeská televize. Notable recent appearances include contributions from doc. Ing. Petra Pártlová, Ph.D., doc. Ing. Jarmila Straková, Ph.D., MBA, Ing. Daniel Chamrada, or Mgr. Štěpánka Jenešová.

Articles in the press (student magazine Student published by VSTE, other regional periodicals): The Student magazine is aimed at students, staff, visitors, and partner institutions of VSTE. It provides up-to-date information about events at the university, highlights interesting projects, showcases collaborations with industry, and much more.

Participation in regional and international fairs and workshops: Employees and, in some cases, students from the Faculty of Corporate Strategy regularly participate in workshops organized by both domestic and international higher education institutions, as well as state and local government entities. They also take part in fairs focused on career development and professional choices.

Social networks: The Faculty actively promotes its activities also through social media platforms, such as its LinkedIn profile. This is further supported by profiles of academic staff with a significant number of followers, e.g., doc. et doc. PaedDr. Mgr. Zdeněk Čaha, Ph.D., MBA, MSc., Ing. Michal Ruschak, MBA, and doc. Ing. Petra Pártlová, Ph.D.

Project Common Language – Common Future: This language education project, aimed at primary and secondary schools, organized joint meetings between schools, employers, and university representatives. The goal of these events was to promote the future professional prospects of students in the cross-border labor market, with a focus on preventing the outflow of young talent from the region.

Interreg cross-border cooperation: These projects aim to strengthen the competencies of future graduates for their application in the cross-border labour market. The Faculty cooperates with the South Bohemian Chamber of Commerce, the Chamber of Commerce of the Czech Republic, JAIP, JVTP. A specific example is the *GREENPACT* project, which focuses on enhancing the skills of existing SMEs in the service sector, as well as future entrepreneurs (referred to as *Futurepreneurs*—young people at the beginning of their careers, including VSTE students). This project also prepares them for the application of circular economy principles.

IMPLEMENTATION OF RECOMMENDATIONS

3.7 Implementation of the recommendations in Module 3

The evaluated unit will briefly describe how it has implemented the recommendations for Module 3 from the previous evaluation period, if applicable.

Maximum 1000 words.

Self-assessment:

During the evaluation period, the Faculty of Corporate Strategy continued to implement applied research projects, primarily funded by the Technology Agency of the Czech Republic. On a national scale, it is one of the key providers of support for applied research. These projects are based on close collaboration with external entities and address topics with significant practical application potential. The projects listed in Table 3.3.1 also have relevance beyond the South Bohemian Region. The dissemination of results to potential users is ensured through publication on the project and VSTE websites, as well as through the Central Project Registry. The subsidy recipient is always VSTE, as the Faculty of Corporate Strategy does not have legal personality.

Further development also took place in the area of international cooperation projects. One notable example is the *GREENPACT* project, supported by Interreg Central Europe. This project aims to enhance the skills of existing SMEs in the service sector, as well as future entrepreneurs, by preparing them for the application of circular economy principles. The project is being implemented by an international consortium of academic and non-academic institutions from Germany, Croatia, Slovakia, and the Czech Republic.

The Faculty of Corporate Strategy has a project support system in place, provided by the Development Officer (administrative assistance in preparing project applications and during project implementation) and by the Secretary (administrative

assistance in financial aspects of both the application and the project implementation). The Faculty can also rely on other support departments established at the level of the institution, such as the Project Department and the Department of External Relations.

Recommendation 3.3

Contract research activities during this evaluation period were primarily focused on regional cooperation. An increase in the volume of financial resources for contract research is evident, as shown in Table 3.3.2. The use of so-called Innovation Vouchers has been instrumental in accelerating cooperation, allowing companies to obtain financial support for research activities provided by the university. The expansion of contract research activities beyond the region can be pursued in future periods, once the Institute of Research and Development has secured sufficient reference orders.

Recommendation 3.4

Income from non-public sources during the monitored period was generated through contract research and commissioned activities. Details on contract research activities are covered in Recommendation 3.3.

During this period, there was also an increase in commissioned activities, not only in the areas of language education and lifelong learning courses. These activities align with the Faculty's thematic focus and include services such as marketing surveys, optimization of human resources, and the identification of a company's most and least profitable products. Examples of completed contracts are provided in Table 3.3.2. The Institute also offers teaching courses through the Lifelong Learning Centre of VSTE. These courses include language courses, the Pedagogical Minimum, and professional qualification exams. The Lifelong Learning Centre manages participant registrations and payment administration, which is why these activities are not included in Tables 3.3.2, and 3.5.1.

Recommendation 3.5 a 3.6

Several research projects were completed during the monitored period, leading to the achievement of the planned research results, which have the potential to impact society. These include:

Certified methodologies refer to summaries of recommended practices and procedures that have been certified by a competent public administration body. This certification is based on international agreements, standards, or similar documents with clearly defined and published competencies for specific areas, fields, or industries. The certification ensures that users following these procedures will obtain conclusive and repeatable results. Software tools, such as those used to predict future EVA (Economic Value Added) Equity (i.e., shareholder value), are designed to optimize the combination of inputs, enabling the company to achieve the desired EVA Equity value.

- Software tools, such as those used to predict future EVA Equity (i.e., shareholder value) are designed to optimize the combination of inputs, enabling the company to achieve the desired EVA Equity value.
- Proven technology that facilitates the optimization of processes to enhance competitiveness, particularly in relation to international competition.

A detailed description and other examples of research results with a potential impact on the society are presented in Section 3.4 of this Report.

Recommendation 3.7

During the monitored period, interaction with external entities was significantly strengthened. These include companies such as STS Prachalice a. s., Viscofan CZ, s. r. o., VM Motor, Déhora Czech, etc., and many business entities and professional organizations. At the national level, collaboration extended to organizations with nationwide scope, including the Chamber of Commerce of the Czech Republic, the Research Institute for Entrepreneurship and Innovation, and the Association of Small and Medium-Sized Enterprises and Tradesmen.

International cooperation with the non-academic sector has also expanded. Notably, the following organizations are involved in the implementation of the international GREENPACT (Interreg Central Europe) project: ENAIP Veneto Social Enterprise; Region of Veneto - Department of Labour (Italy), City of Rijeka (Croatia) and Stuttgart Region Economic Development Corporation (Germany).

Recommendation 3.8

Applied research projects generate outcomes intended for practical application by the relevant target groups, including Certified methodologies, Software, and Validated technologies. Given the nature of applied research in economic fields, patent protection of intellectual property was not pursued during the evaluation period.

Recommendation 3.9

The curriculum of accredited study programs is continuously enhanced with elements of entrepreneurial education. The objective is to equip graduates not only with theoretical knowledge but also with practical skills applicable to potential entrepreneurial endeavours. The advancement of these initiatives has been significantly supported by the implementation of cross-border cooperation projects under the Interreg program (Entrepreneurship Competences on the Czech-Bavarian Labor Market; Support of Modern Trends in Teaching with Respect to Best Practice).

Entrepreneurial competence development is not confined to students of economic disciplines but is also accessible to students of technical fields. The Faculty of Corporate Strategy has developed a comprehensive online course on entrepreneurial competencies and additional support is available through the Career Centre.

Since 2024, VSTE has been a participant in the Cross-border Startup Point initiative, which seeks to establish and foster a dynamic startup ecosystem capable of transcending national border and capitalizing on the advantages of a shared workspace. In 2025, the Bavarian-Czech Student Incubator will be launched under the auspices of the Faculty of Corporate Strategy, providing direct support for the development of student business plans aimed at application within the Bavarian-Czech border region.

Recommendation 3.10 and 3.11

In accordance with the EIP Recommendations, in the monitored period, collaboration with institutions in the South Bohemia Region was strengthened at both national and international levels. International cooperation extends beyond cross-border initiatives to include partnerships with institutions across Europe. The engagement of the staff of the Faculty of Corporate Strategy in the international scientific community is specified in Sections 3.2.2, 3.2.3, 3.2.4, and 3.2.5

At the level of Faculty, the competition "Studentská vědecká a odborná činnost" (Student Scientific and Professional Activities) was organized in the evaluation period to support students of economic study programs in their independent research and creative scientific endeavours. This initiative contributes to the enhancement of their argumentation skills, academic writing proficiency, and presentation skills.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Consolidated student registers	Table 3.1.4	https://sims.msmt.cz/
VSTE Information system	Table 3.1.5	https://is.vstecb.cz/?lang=en

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: The School of Expertness and Valuation, Institute of Technology and Business in České Budějovice

FORD: 5 - Social sciences

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

The evaluated unit will describe its mission and vision and provide a general self-reflection of the societal contribution of R&D&I, along with its long-term goals in the fields it develops. The distribution of research activities by type of research will also be commented on.⁶³ The evaluated unit will describe its organisational structure and size (staffing, number of students, number of study programmes implemented, etc.) based on the data provided in annex tables 3.1.1 to 3.1.6.

Maximum 1000 words.

This is a non-rated indicator that serves as an introduction to the evaluated unit, providing context for data in indicators 3.2-3.7.

Self-assessment:

The School of Expertness and Valuation undertakes the mission and vision of Institute of Technology and Business, pursuing the Strategic Aim of the whole institution.

The School's tasks involve research and educational activities in the relevant economic areas and expert's activities. The School comprises the following departments: Economics Group, Department of Corporate Finances, Business Economics Group, Technical Expertise Group, Property Valuation Group and Law Group). Educational and research and expert's activities involve all departments.

The School of Expertness and Valuation coins the motto "We only do things we understand." The School shares the vision to be a leader in the fields of the expert's licence (see the text below) in the Czech Republic and undertakes the mission to educate and train prospective experts effectively and professionally do their job. The School of Expertness and Valuation staffs forensic experts, academic workers and practicing professionals. The School of Expertness and Valuation was established on 1st July 2015. Pursuant to the resolution of the Ministry of Justice the School was registered into the 1st section of the register of the institutes of expertness on economics under Act No. 36/1967 Sb., Act on Experts and Interpreters as amended. The School is entitled to give expert opinions in the area of financial assets, valuation of enterprises, reviewing and evaluating the reconstruction of companies, reviewing and evaluating relationships, contracts, prices and other elements according to the Commercial Code, accounting files, intangible property valuation, non-monetary deposits, investments, wages and real and personal property valuation. In 2016, the School obtained the expert licence for Mechanical Engineering, including machine construction, technological equipment, transportation and manipulation techniques, production and material engineering (systems and processes, manufacturing machines and equipment), assessing the technical condition (quality, reliability and safety) of manufacturing machines and equipment including identifying the cause of machine and equipment breakdowns.

In summer 2018, along with Economics and Mechanical Engineering, the School obtained a licence for Civil Engineering, including residential, industrial and agricultural buildings, assessing and supervising whether orders meet the requirements for the documentation in BIM (Building Information Modelling). The School blends the scientific and real-world views, making every expert's opinion on par with the latest scientific findings in the respective area.

⁶³ Basic, applied, contract, artistic research (see Definition of Terms in Methodology HEI2025+).

The School of Expertness and Valuation guarantees the follow-up Expertness study programme accredited in 2019 for the ten following years. This unique programme extends the students' professional knowledge and skills. The School's staff also teach subjects of other study programmes, including Corporate Economics, Human Resource Management and Business Analyst (Bachelor study programmes) and Corporate Economics and Mechanical Engineering (follow-up Master study programme). The School of Expertness and Valuation conducts research in Economics, focusing on economic issues in complex company valuation, corporate financial analysis, corporate environmental economy, circular economy, corporate future development and its values, the development of key corporate indicators, stock markets and the relationship between the economic parameters and a specific industry. The School's research activities overlap into expertness and valuation, including the company and real property valuation and technical expertness.

On top of standard solutions, these areas are resolved using AI – artificial neural networks. Despite their widespread use and high potential, neural networks are not considered useful for resolving corporate economic issues in the business environment. This ingenious tool can prevent an enterprise from going bankrupt or predict the development of various elements affecting economic parameters. The School sees high potential in applying AI (neural networks) to economic practice.

The School also conducts applied research, collaborating with practicing partners on projects on the valuation of companies, real and personal property, motor vehicles and machinery. The institution also deals with accounting, tax records, investments, wages, numerating damages, injury and losses, processing economic analyses, expert's activities in civil and mechanical engineering. The School also carries out contractual research, project activities including preparing and implementing projects funded by the EU and Czech Technological Agency. These activities contribute to developing the scientific base of the institution and applying research findings in practice.

Table 3.1.1 - Staffing per FTE⁶⁴

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	5,784/1,000	6,081/1,163	7,683/1,877	8,55/2,00	7,85/2,00	35,948/8,04
Associate Professor	18,164/2,486	17,556/3,427	19,106/4,665	20,89/6,55	19,85/6,65	95,566/23,778
Assistant Professor	27,857/16,127	33,425/12,044	38,842/15,859	36,47/12,13	41,70/12,70	178,294/68,860
Assistant	18,613/9,243	19,673/9,593	22,474/11,373	26,85/13,45	34,65/16,85	122,26/60,509
R&D Personnel ⁶⁵	101,480/67,236	119,585/77,978	118,036/77,905	26,15/8,90	24,50/9,65	389,751/241,669
Researchers in other categories ⁶⁶						
Technical and economic staff ⁶⁷						

⁶⁴ The average number of hours worked is calculated as the ratio of the total number of hours actually worked during the reference period, from 1 January to 31 December, by all staff (including agreement on work activity, excluding agreement on work performance) to the total annual working time pool per full-time employee. The full-time status of the worker in the evaluated unit is always reported. If an employee holds more than one type of full-time job within the evaluated unit, the total sum of the two shall be reported.

⁶⁵ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

⁶⁶ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

⁶⁷ Who participates in the management and support of R&D&I in the institution.

Scientific, research and development staff involved in teaching activities						
Early career researchers ⁶⁸	15,204/5,353	19,748/6,447	27,018/9,504			61,97/21,304
Total ⁶⁹	187,102/101,445	216,068/110,652	233,158/121,183	268,96/138,72	252,42/124,63	1157,708/596,63

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

3.1.2 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2019 (numbers of physical employees and personnel)⁷⁰

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	2	0	0	0	3	1	3	0
Associate Professor	0	0	2	1	8	1	4	1	6	2	3	0
Assistant Professor	1	1	21	7	11	5	4	2	1	0	0	0
Assistant	3	2	8	3	2	1	3	2	1	1	0	0
R&D Personnel ⁷¹												
Researchers in other categories ⁷²												
Technical and economic staff ⁷³	40	27	30	23	20	15	8	3	3	0	1	0
Scientific, research and development staff involved in teaching activities												
Early career researcher ⁷⁴	2	1	9	3	6	1	3	1	0	0	1	0

⁶⁸ See Definition of Terms in Methodology HEI2025+.

⁶⁹ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

⁷⁰ The total number of employees/workers as of 31st December of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

⁷¹ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

⁷² The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

⁷³ Who participates in the management and support of R&D&I in the institution.

⁷⁴ See Definition of Terms in Methodology HEI2025+.

Total ⁷⁵	46	31	70	37	49	23	22	9	14	4	8	0
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Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D Personnel, Researchers in other categories and Technical and economic staff are mutually exclusive, i.e. one staff member is reported in only one category. The categories of scientific, research and development staff involved in teaching activities and early career researchers are reported collectively for all the above-mentioned categories.

3.1.3 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2023 (numbers of physical employees and personnel)⁷⁶

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor					3		1	1	5	2	3	
Associate Professor			4	1	11	5	5	1	3	1	4	1
Assistant Professor			24	4	17	8	9	3	1	1		
Assistant			12	3	6	4	2	1	4	2		
R&D Personnel ⁷⁷	9	4	17	6	9	2	2	1	3	1	2	
Researchers in other categories ⁷⁸												
Technical and economic staff ⁷⁹	25	17	48	31	21	17	12	10	6	2	1	
Scientific, research and development staff involved in teaching activities												
Early career researcher ⁸⁰			3	2								
Total ⁸¹	34	21	108	47	67	36	31	17	22	9	10	1

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D personnel, researchers in other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

⁷⁵ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I Personnel, Researchers in other categories and technical and economic staff.

⁷⁶ The total number of employees/workers as at 31.12. of the calendar year in question is to be entered, irrespective of the level of time worked, but only in an employment relationship (including agreement on work activity, excluding agreement on work performance). Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

⁷⁷ The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

⁷⁸ The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

⁷⁹ Who participates in the management and support of R&D&I in the institution.

⁸⁰ See Definition of Terms in Methodology HEI2025+.

⁸¹ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

Table 3.1.4 – Students

Type of study	2019		2020		2021		2022		2023		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Undergraduate	3330	1423	3083	1315	2734	1175	2449	1017	2382	978	13978	5908
Master's ⁸²	463	220	421	209	516	283	500	245	436	187	2336	1144
Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning Courses	358	164	64	35	145	58	175	71	160	73	902	401
Total	4151	1807	3568	1559	3395	1516	3124	1333	2978	1238	17216	7453

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ⁸³ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	0	5/2	0	5	0	6/1	0	6/3	0	6/3	0	28/9
Master's	0	3/1	0	3	0	5	0	5/2	0	5/2	0	21/5
Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning courses	0	12	0	5	0	5	0	5	0	6	0	33
Total	0	20/3	0	13	0	16/1	0	16/5	0	17/5	0	82/14

Note: For each SP type, enter the number of SPs in Czech language in the first cell and insert the number of SPs in English language after the slash in the same cell (e.g. 15/3), enter the number of professional SPs in Czech language in the second cell and insert the number of professional SPs in English language after the slash. Follow a similar procedure in the last column of the table (Total).

3.1.6 – R&D&I capacities

R&D&I field	FORD	FORD share [%]	Predominant type of research	Total share of industry group [%]
1. Natural Sciences	1.1 Mathematics		Zvolte položku.	
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences		Zvolte položku.	
	1.5 Earth and related environmental sciences		Zvolte položku.	
	1.6 Biological sciences		Zvolte položku.	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and	2.1 Civil engineering		Zvolte položku.	5

⁸² All master's degree students are listed, regardless of the length of their programme of study.

⁸³ The total number of study programmes for which admissions have been announced in a given academic year.

Technology	2.2 Electrical engineering, Electronic engineering, Information engineering		Zvolte položku.	
	2.3 Mechanical engineering		Zvolte položku.	
	2.4 Chemical engineering		Zvolte položku.	
	2.5 Materials engineering		Zvolte položku.	
	2.6 Medical engineering		Zvolte položku.	
	2.7 Environmental engineering		Zvolte položku.	
	2.8 Environmental biotechnology	5	Balanced basic and applied research	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology		Zvolte položku.	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	
	4.2 Animal and Dairy science		Zvolte položku.	
	4.3 Veterinary science		Zvolte položku.	
	4.4 Other agricultural sciences		Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	95
	5.2 Economics and Business	95	Balanced basic and applied research	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts		Zvolte položku.	
Total		100 %	-	100 %

RECOGNITION BY THE RESEARCH COMMUNITY

3.2 Recognition by the research community

The evaluated unit will briefly comment on its position in the research community. It shall consider individual and other prestigious R&D&I awards, participation of its academic staff in the editorial boards of international scientific journals, elected membership in professional societies, major invited lectures given by the evaluated unit's academic staff abroad or by foreign scientists and other relevant guests at the evaluated unit. Additionally, it will address the involvement of staff in the evaluation of national or European project/programme calls over the period of 2019–2023 based on the data provided in annex tables 3.2.1 to 3.2.5 (max. 10 most relevant items). If necessary, the evaluated unit shall list any additional services to the scientific community that it considers relevant.

Maximum 1000 words.

Self-assessment:

The School of Expertness and Valuation of Institute of Technology and Business in České Budějovice is active in the international research community in economic and technological expertness, property valuation and corporate economics. Its members serve on editorial boards of renowned scientific journals on corporate finances, economics, sustainability, etc., doing reviews in prominent scientific periodicals, including indexed databases like Web of Science and Scopus. Academic workers elected by academic communities. For example, Marek Vochozka has been an Expert in Economics since 2011. His expertise involves reviewing and assessing the reconstructions of companies, including corporate mergers, property transfer to a partner, partition and legal form changes, assessing and reviewing relationships, contracts, prices and other elements according to the Commercial Code, accounting files. His proficiency also covers in Intangible Property Valuation, financial assets, non-monetary deposits, investments, wages. He is also an Expert in Economics in the field of Real Property Valuation as of 8. 6. 2015. He is also a member of the Regional Court in České Budějovice, specializing in assessment and prices, corporate economy, wages, supplier-customer relationships and accounting. Jaromír Vrbka has been appointed an Expert in Economics in the following fields: assessment and prices and real property; as of 2015, he has also been an Assessor in Personal Property Valuation, Commercial Company Property Valuation; as of 2016, he has been a Member of the Regional Court Committee in České Budějovice in Economics in the field of assessments and prices of real property. Zuzana Rowland has been an Expert in Economics as of 2015 in various economic fields, specializing in financial assets and corporate valuation; she has also been a Member of a working group called A Permanent Regional Conference for South Bohemia, managing a Regional Action Plan for promoting education in South Bohemia (Educational Working Group). Simona Hašková has been a Member of the Czech Association for Operations Research. The School frequently hosts and participates in international scientific conferences. Its workers are regularly invited to lectures at universities in Europe and the world. The School has invited prominent foreign experts in economics, finances, sustainability, etc., including professors from South Korea, China, Mongolia, Poland, Hungary, Kosovo or Ukraine.

Table 3.2.1 - Prestigious R&D&I awards granted during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of the award	Awarding institution

Note: Provide up to 10 examples.

Table 3.2.2 Participation of academic staff of the evaluated unit in editorial boards of international scientific journals during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
doc. Ing. Simona Hašková, Ph.D.	EMS (Ekonomicko-manažerské spektrum), ISSN 1337-0839
doc. Ing. Vojtěch Stehel, MBA, PhD.	EMS (Ekonomicko-manažerské spektrum), ISSN 1337-0839
Ing. Jakub Horák, MBA, PhD.	Journal of Innovations and Sustainability, ISSN 2367-8151
prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c.	Smart Governance, ISSN 2832-4366
Ing. Jakub Horák, MBA, PhD.	Sustainable Economies, ISSN 3029-2743
prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c.	Agricultural Economics, ISSN 0139-570X
doc. Ing. Zuzana Rowland, MBA, PhD.	Sustainable Economies, ISSN 3029-2743
doc. Mgr. Petr Šuleř, PhD.	Journal of Tourism and Services, ISSN 1804-5650
doc. Ing. Zuzana Rowland, MBA, PhD.	Journal of Tourism and Services, ISSN 1804-5650
doc. Ing. Jaromír Vrbka, MBA, PhD.	Littera Scripta, ISSN 1805-9112

Note: Please provide up to 10 examples of academic staff participation in editorial boards of international scientific journals (e.g. editor, editorial board member, etc.).

Table 3.2.3 The most important invited lectures delivered by the academic staff of the evaluated unit at foreign institutions during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Invited lecture title	Name of host institution, or name of conference or event	Year
Ing. Jakub Horák, MBA, PhD.	Evaluation of Performance and Financial Health of a Business	University of West Attica, Athens, Greece	2022
doc. Mgr. Petr Šuleř, PhD.	Fake news in global economy	Innovative Economic Symposium 2023 – Economic Consequences of/in a Turbulent World, Prishtina, Kosovo	2023
Ing. Tomáš Krulický, MBA, PhD.	Business Valuation	International Scientific Conference: Economics, Management, Finance and Social Attributes of Economic Systems (EMFSA 2022), Pula, Croatia	2022
Ing. Jakub Horák, MBA, PhD.	Neural Networks in Business	Akdeniz University, Antalya, Türkiye	2023
doc. Ing. Simona Hašková, Ph.D.	A Prognosis of non-Bankruptcy Tendency Based on the Fuzzy Approach	Innovative Economic Symposium 2021, New Trends in Business and Corporate Finance in COVID-19 Era, Seoul, South Korea	2021
doc. Mgr. Petr Šuleř, PhD.	Better Results of Artificial Neural Networks in Predicting ČEZ Share Prices	International Scientific Conference: Economics, Management, Finance and Social Attributes of Economic Systems (EMFSA 2020), Pula, Chorvatsko	2020

doc. Ing. Zuzana Rowland, MBA, PhD.	An Analysis of Correlation and Forecast of CZK to EUR in the Unstable Global World	20th International Scientific Conference Globalization and Its Socio-Economic Consequences v Rajeckých Teplicích, Slovakia	2020
Ing. Pavel Rousek, Ph.D.	Consumption and Non-Consumption Expenditure in Keynesian Cross of Selected Two-Sector Economies	Innovative Economic Symposium 2020 Stable Development in Unstable World, Samara, Rusko	2020
doc. Ing. Jaromír Vrbka, MBA, PhD.	New Methods of Business Credit Assessment	20th International Scientific Conference Globalization and Its Socio-Economic Consequences v Rajeckých Teplicích, Slovakia	2020
Ing. Tomáš Krulický, MBA, PhD.	Business Administration, Financial Analysis	International Guest Lectures Week 2019, Riga, Lotyšsko	2019

Note: Provide up to 10 examples.

Table 3.2.4 - The most important lectures by foreign scientists and other guests relevant to R&D&I at the evaluated unit during the evaluation period

Name, surname and title(s) of the lecturer	Lecturer's employer at the time of the lecture	Invited lecture title	Year
Prof. Taehee Lee	Kookmin University, Seoul, South Korea	Tax base erosion, Google tax and platform market competition in Korea	2019
Prof. Pengfei Sheng	Henan University, Henan, China	The nexus between household wastewater emissions and urbanization in China	2019
Prof. Zanabazar Altanchimeg	National University of Mongolia, Ulaanbaatar, Mongolia	The factors effecting entrepreneurial intention of university students: case of Mongolia	2019
Dr. Maxim Kiselev	Kremenchuk Mykhailo Ostrohradskyi National University, Kremenchuk, Ukraine	Predicting and decision making in complex systems	2019
Dr. Natalia Pletneva	Peter the Great St. Petersburg Polytechnic University, St. Petersburg, Russia	Problems of transformation in the tourism industry in the digital economy	2019
Doc. Ing. Katarína Valášková, PhD.	University of Žilina, Žilina, Slovakia	An Analysis of the Financial Health of Companies	2023
prof. UE dr hab. inż. Lukasz Wroblewski	Akademia WSB, Dąbrowa Górnicza, Poland	Social and Marketing Aspects of Relationship Shaping on the Cross-Border Market	2022
Dr. Lili Jantyk	Budapesti Corvinus Egyetem, Budapest, Hungary	Economic Performance of the Hungarian Beer Industry in the Context of V4 Countries	2022
Prof. Yulia Kostinets	Kyiv National University of Technologies and Design, Kyiv, Ukraine	Development of internal tourism and hospitality	2022
Prof. Besnik A. Krasniqi	University of Prishtina, Priština, Kosovo	Topics, trends and theories in family business research	2023

Note: Provide up to 10 examples.

Table 3.2.5 - Involvement in the evaluation of national/European research project/programme calls relevant to the R&D&I area at the unit during the evaluation period

Name, surname and title(s) of the evaluated unit's staff member	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	Year
prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c.	Peer evaluator for project quality assessment (various calls)	Interreg V-A Austria – Czech Republic	Since 2014
prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c.	Evaluator of project proposal content (various calls)	Cross-border cooperation Czech Republic – Free State of Bavaria.	Since 2014
prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c.	Registered evaluator of grant applications (various calls)	Technological Agency of the Czech Republic	Since 2015
prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c.	Evaluator of research results (various calls)	Office of the Government, Research, Development and Innovation Council	Since 2016
doc. Ing. Simona Hašková, Ph.D.	Registered grant application evaluator	Technological Agency of the Czech Republic	Since 2018

Note: Provide up to 10 examples.

RESEARCH PROJECTS

3.3 Research projects

The evaluated unit shall list at most 10 (considered most significant by the evaluated unit) research projects/activities (regardless of whether they are supported by public funds or based on contract research⁸⁴) that it has implemented or participated in during the period of 2019–2023⁸⁵. This should be done from the full list in annex tables (Table 3.3.1–3.3.2)⁸⁶, regarding particularly the results achieved or the application potential of the projects. The unit should also describe how the research projects contributed to the mission and purpose of the evaluated unit. If the evaluated unit has been a participant in listed project, it shall indicate which other entities were involved and describe its contribution to the project. The interdisciplinary aspects of the projects will also be commented on, along with any collaboration with other units of the evaluated HEI.

Maximum 300 words per project.

Self-assessment:

The School of Expertness and Valuation at the Institute of Technology and Business in České Budějovice is actively engaged in a range of comprehensive project activities that align with the long-term objectives of the Institution. Currently, the focus is on the continuous and systematic quality enhancement, strengthening partnerships with the application sector, development of infrastructure, transfer of research activities into the application sector, and improving graduate employability. The School has a long-standing and ongoing collaboration with several higher education institutions, both in the Czech Republic (e.g., with the University of West Bohemia in Pilsen, the University of South Bohemia in České Budějovice – Faculty of Economics, Czech Technical University – Faculty of Civil Engineering) and abroad (Ostbayerische Technische Hochschule Regensburg within the Interreg program, Slovak university of Agriculture in Nitra, Budapesti Corvinus Egyetem, Akademia WSB within V4 international project “Minibreweries”). These partnerships facilitate the mutual exchange of professional knowledge and experience across institutions with diverse focuses, both domestically and abroad. As a result,

⁸⁴ For the definition of contract research for the purposes of evaluation in the HE segments, see Article 2.2.1 of the Community Framework for State Aid for Research, Development and Innovation 2014/C 198/01.

⁸⁵ Regardless of whether the projects are completed or still ongoing, provided that at least part of the project was implemented during the evaluation period.

⁸⁶ The evaluated unit shall only fill tables that are relevant to it.

the School is able to implement more meaningful, dynamic, and impactful projects, enriching the overall quality and relevance of the initiatives undertaken.

During the evaluation period, the School of Expertness and Evaluation was involved in two projects funded by the Technology Agency of the Czech Republic, acting as the beneficiary in one case and as a participant in the other.

Innovative public procurement in the area of SMART CITY solutions, TQ01000323

The objective of the project is to create a methodology and a training system for public administration officers in innovative public procurement in the field of SMART CITY, which will support the implementation of the Smart Cities concept (hereinafter referred to as the Concept). As part of the project, a comprehensive methodology will be developed, the draft of which will be discussed with relevant partners and the Ministry for Regional Development of the Czech Republic. The methodology will address the individual pillars of the concept. Additionally, four professional workshops will be organized for state administration, and local government officials, as well as practitioners. Another goal of the project is to create e-learning for public administration officers, based on the developed methodology. This will serve to improve their understanding of the system for awarding innovative public contracts in SMART CITY solutions and provide relevant, clear information. Work on the project in 2024 proceeded according to the set plan. All deliverables were completed, including in-depth interviews, reports from the workshops, and the e-learning syllabus. Furthermore, based on the interviews and feedback from workshops, the developing methodology was revised, which will be the main output of the entire project. In 2024, the project team met regularly and held discussions with representative from the application guarantor, i.e., the Ministry for Regional Development of the Czech Republic, to ensure that the Ministry's goals were effectively aligned with municipal needs and the academic research conducted by VSTE AND THE University of South Bohemia, Faculty of Economics. In addition, meetings and negotiations with practitioners were organized. The aim is for the research to be valuable not only to society as a whole but also in supporting the correct implementation of the current legislation. In 2024, no unforeseen events occurred, except for the change in the principal investigator. The project is now ready to move forward in its substantive phase to the next stage of implementation planned for 2025.

The Impact of Energy Price Fluctuations on Consumer Behaviour in the Czech Republic TS01010120

The overarching objective of this project is to model and interpret the effects of various price levels on consumer and investor behaviour, including the impact of selected political, legislative, and tax measures. The research focuses on analysing price indicators and market elasticity in response to these changes. For investors, the relationship between environmental energy savings and the financial benefits of such measures plays a crucial role. A key factor influencing decision-making is the level of awareness among investors or other stakeholders responsible for evaluating and implementing these measures. The project thus examines socio-economic aspects through a methodology designed to establish market support mechanisms that facilitate the adoption of new technologies.

One of the projects is funded from Visegrad funds.

22210017, Minibreweries as developers of regional tourism in the V4 region

This project focuses on promoting regional tourism within the V4 region. In its initial phase, the project aims to assess the actual contribution of microbreweries to regional tourism development by monitoring key tourism indicators (accommodation capacity, the number of overnight stays in specific locations, the utilization of services, the number of foreign visitors, etc.) before and after the establishment of a microbrewery. This data will then be compared with broader tourism trends in the region. In the second phase, the project will conduct a comprehensive analysis of microbreweries across the V4 countries, examining their number, ownership structures, service offerings, products, marketing strategies, and the impact of the COVID-19 pandemic. Additionally, a case study will be carried out on the establishment and operation of a microbrewery in each participating country. For this purpose, one partner microbrewery from each country will be selected to provide insights. The project's primary objective is to demonstrate the role of microbreweries in regional tourism development and to support their further growth and establishment within the V4 countries. This growth encompasses both the microbreweries' own services and those provided by affiliated businesses. As microbreweries are recognized as tourist attractions, they can create a positive synergistic effect, enhancing the appeal of other attractions in the region and increasing overall visitor engagement.

Innovation voucher

Optimization of internal processes aimed at significant enhancement of effectiveness and reduction of costs of Balsac papermill s.r.o. CZ.01.01.01/05/23_009/0004513

The project's output is a Final Report that includes an initial analysis of the management and maintenance process, a graphical process map outlining inputs, outputs, and interconnections, as well as a protocol for proposing changes.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ⁸⁷	Project name	Support (in thousands CZK/EUR) ⁸⁸				
		2019	2020	2021	2022	2023
European Regional Development Fund	Support for Modern Trends in Education with Regard to Best Practices – č. 261			69/2,73	50/1,98	46/1,82
Technological Agency of the Czech Republic	Expert Study on Determining the Average Lifespan of Selected Buildings in the Czech Republic (TITACSU011)			450/17,84		
Grantová agentura Akademia aurea	Application of Artificial Neural Networks in Business Valuation Using an Appropriate Income Approach			191/7,57		
Grantová agentura Akademia aurea	Application of Artificial Neural Networks in Managing Shareholder Value as the Primary Goal of the Company			196/7,77		
Technological Agency of the Czech Republic	Methodology for Quantifying the Share of Self-Builders in the Value of New Family Houses and Renovations of Existing Family Houses (TITACSU035)			712/28,22	954/37,81	
Ministry of Industry and Trade of the Czech Republic	Design of an Uninterruptible Power Supply for Measuring Equipment Powered at 230 V (CZ.01.1.02/0.0/0.0/20_358/0028106)				491/19,46	
Ministry of Industry and Trade of the Czech Republic	Design of a Streaming Platform for Terrestrial Digital Broadcasting within a Local Network (CZ.01.1.02/0.0/0.0/20_358/0028088)				494/19,58	
Technological Agency of the Czech Republic	Methodology for Corporate and School Mobility Plans (CK03000135)				1568/62,15	1617/64,09
Visegrad Grant (International Visegrad Fund)	Minibreweries as developers of regional tourism in the V4 area. 22210017				12,624/0,5	

⁸⁷ If the provider is from abroad, please indicate the provider's country of origin in brackets. For the determination of the country of origin of the provider, the place of residence of the provider is decisive.

⁸⁸ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

Technological Agency of the Czech Republic	Innovative Public Procurement in the Field of SMART CITY Solutions (TQ01000323)					128/5,07
Total				1618/64,13	3569,6/141,48	1791/70,99
In the role of another participant						
Provider ⁸⁹	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Technological Agency of the Czech Republic	Adaptation of the Knowledge-Intensive Services Sector to the Conditions of Society 4.0 (TL02000136)	383/15,18	389/15,42	366/14,51		
Technological Agency of the Czech Republic	Methodology for Calculating the Value of Non-Residential Buildings in the Government Sector (TITACSU920)		600/23,78			
Total			383/15,18	989/39,2	366/14,51	

Table 3.3.2 - Contract research activities

Client ⁹⁰	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Prefa Hubenov s.r.o.	Design of an Uninterruptible Power Supply for Measuring Equipment with a 230V Power Supply					491/19,46
M-line software s.r.o.	Development of a Streaming Platform for Terrestrial Digital Broadcasting within a Local Area Network					494/19,58
DEOS	Research and Development of Drive Systems for a Specialized Machine for Shredding Compressed Bales of Paper Waste from Sanitary Production					490/19,42
Total						1475/58,46

Note: List and describe contract research activities with a revenue in a given calendar year, regardless of the amount of financial revenue.

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts⁹¹, on society (e.g. description of how the results are used by various users, the range of persons/institutions for which

⁸⁹ Ibid.

⁹⁰ If the client is from abroad, indicate in brackets the country of origin of the client.

⁹¹ See Terms definition.

the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

1. Certified methodology: Stabilization and Development of SMEs in Rural Areas The certified methodology for the project: "Stabilization and Development of SMEs in Rural Areas " is aimed at enhancing competitiveness and economic performance of small and medium-sized enterprises. It outlines principles, practices, and methods designed to accelerate SME growth and generate higher value added in the Czech Republic. The methodology covers key SME activities that are crucial for enhancing competitiveness and economic performance (finance and economics, management and strategy, rural area development, innovation, human resources and education, administrative, legislation). The application of this methodology is expected to demonstrably increase SME competitiveness, ensure their sustainability, help overcome the impact of the COVID-19 pandemic, and contribute to stabilizing rural areas, including boosting the engagement of local residents.
2. Methodology for Calculating the Value of Non-Residential Buildings in the Government Sector. The objective of the TACR project TITACSU920 "Methodology for Calculating the Value of Non-Residential Buildings in the Government Sector" is to develop a method for the qualified valuation of non-non-residential building in the government sector, taking into account NACE classification, type, age, and condition of the buildings. The valuation is based on data collected during extraordinary survey conducted in Q2-Q3 2018. The proposed methodology is applied to quantify the stock of non-residential buildings at replacement cost, broken down by age, NACE classification, and building use for a selected year. The proposal fully considers the significant internal heterogeneity of the valued properties, which arises from their geographic distribution across the Czech Republic, diverse usage types, varying ages, and different building sizes.
3. SME Financial Performance Indicators. The main objective of the web-based tool "SME Financial Performance Indicators" (hereinafter referred to as IFV), developed under project TL01000349, is to model and simulate financial performance and provide proposals aimed at improving innovation strategies and sustainability of SMEs in the market. Through an instructional example, the user can view the software's output in the form of a financial analysis, including the calculation of EVA Equity. The input variables are continuous predictors (material consumption, costs of goods sold, personnel costs, depreciation of fixed assets, interest expenses) and categorical predictors (region, CZ-NACE classification). The output is a comprehensive financial analysis of SMEs, covering profitability, activity, liquidity, and debt ratios, along with EVA Equity.
4. Method of phosphorus recovery from wastewater, in particular from sludge water. The method of phosphorus recovery from wastewater, particularly from sludge water, utilizes biochar with enhanced sorption capacity. This is achieved by suturing the biochar with iron, obtained from a solution prepared by dissolving iron waste in HCl or a 10% FeCl₃ solution. The filter is then neutralized using a 5% NaOH solution and subsequently washed with water. Once the iron-saturated biochar is rinsed with clean water, treated wastewater from a sewage treatment plant is pumped through it, allowing for the capture of phosphorus. The recovered phosphorus is then utilized as a fertilizer, providing freely available phosphorus for plant growth.
5. Functional sample of autonomous smart grilling station for testing. ITB Engineering Production s.r.o. conducted semi-operational tests of a working prototype of an autonomous smart barbecue station to verify its functionality in real-world conditions. Testing was carried out at ITB's premises and at the co-researcher VŠTE's facilities.
6. The project objectives were successfully met, confirming the station's practical applicability. All data from the testing are available to the originators of the project.

Methodology for Adaptation of the Knowledge-Intensive Services Sector to the implementation of principles, procedures, methods and tools of Society 4.0 The methodology for adapting SMEs in the service sector to the principles, practices, methods, and tools of Society 4.0 serves primarily as a guide for micro, small, and medium-sized enterprises in their transition to the conditions of Society 4.0. It can also be used as a motivational and educational tool, helping SMEs identify and assess opportunities and risks arising from the development of technical, economic, social, and environmental conditions in the context of Industry 4.0 and Society 4.0. Additionally, the methodology supports the activities of external application guarantors of the project "Adaptation of the Knowledge-Intensive Services Sector to the Conditions of Society 4.0" (TL02000136) and other institutions. It is publicly available on the project website (<https://azis.zcu.cz/>). The proposed methodology has been developed in consultation with stakeholders and will be further verified and tested in practice with a selected sample of companies in collaboration with six external application guarantor (Krajská hospodářská komora v Plzeňském kraji; Úřad práce ČR, krajská pobočka v Plzni; Úřad práce ČR, krajská pobočka v Českých Budějovicích; Jihočeská

hospodářská komora; Krajský úřad Jihočeského kraje; Jihočeská společnost pro rozvoj lidských zdrojů, o.p.s.). Feedback from these external guarantors confirms that the methodology's content and approach align with the needs and expectations of SMEs in the service sector. Its implementation is expected to enhance productivity and work quality, leverage competitive advantages offered by Society 4.0 technologies and tools, and increase the knowledge and motivation of SME owners, managers, and employees. For example, Krajský úřad JČK has continuously integrated the project outputs into various events organized for SMEs at the South Bohemian Science and Technology Park (Digitální transformace 2023 – 21.2.2023; The Data Edge – 24.4.2023; Workshop Digitální kancelář v JVTP – 3.4.2023). The project design also incorporated a gender dimension in the composition of the project team. Sustainability has been a key consideration throughout the project and is further ensured by the transfer of its outcomes to SMEs through the application guarantors.

Table 3.4.1 - Overview of research results in the period under evaluation

Type of result ⁹²	Year of application	Name
Certified methodology	2021	Stabilization and Development of SMEs in Rural Areas
Certified methodology	2020	Methodology for Calculating the Value of Non-Residential Buildings in the Government Sector
Software	2020	SME Financial Performance Indicators
Patent	2020	Method of phosphorus recovery from wastewater, in particular from sludge water
Semi-operation, proven technology, variety, breed	2023	Functional sample of autonomous smart grilling station for testing
Methodology	2020	Methodology for Adaptation of the Knowledge-Intensive Services Sector to the implementation of principles, procedures, methods and tools of Society 4.0
Expert opinions – financial analyses for the company DTTK SICAV plc Malta (Tipsport)	2021-2025	Expert opinions – financial analyses for the company DTTK SICAV plc Malta (Tipsport)
Construction and technical description for the city of Příbram	2023	Construction and technical description for the city of Příbram
Expert opinions of the Ministry of the Interior	2023	Expert opinions from the Ministry of Interior
Expert opinions for regional courts	2021-2024	Expert opinions for regional courts

Note 1: Please list and describe the results already applied in practice or heading towards application in practice with existing or prospective impact on the society (e.g. domestic or foreign patents, sold licenses, spin-offs, prototypes, varieties and breeds, methodologies, significant analyses, surveys, expert outputs for policymaking or other forms of non-publication outputs, etc.). Indirect results of research, development and creative activities with documented societal impact, e.g. expert activities, services to the public/government/scientific community, may also be reported.

⁹² Specify the specific type of result. Add rows as needed.

TRANSFER OF RESULTS INTO PRACTICE

3.5 Transfer of results into practice

The evaluated unit shall briefly describe its system for transferring results into practice. It shall also indicate up to five of the most typical users of its results, whether in the university environment or in the non-university application/corporate sphere, detailing how it collaborates with them and how it seeks out new users (using a maximum of five specific examples).

It will also indicate whether and how it commercialises R&D&I results (e.g. selling licences, setting up start-up or spin-off companies, etc.)⁹³, providing brief description of the commercialisation methods used. The effectiveness of the transfer of results and the commercialisation of R&D&I results will be described using a selection of results (max. five) listed in annex table (Table 3.4.1).⁹⁴

Additionally, the evaluated unit shall briefly comment on the funds received during the period of 2019–2023 from non-public, non-grant sources (e.g. licences sold, spin-off revenues, donations, etc.). A full summary shall be provided in annex table (Table 3.5.1).

Maximum 500 words plus 200 words for each provided example of finding a new user of results and commercialization.

Self-assessment:

The application of research results into practice primarily occurs at the level of research projects and innovation vouchers (see below):

DEOS: Research solution for the drives of a special machine for separating compressed bales of paper waste from hygienic production.

The main objective of this innovation voucher is to design, develop, and test a specialized machine for breaking up compressed bales of paper waste from sanitary production and potentially other similar materials. DEOS Technology s.r.o. has long been involved in the field of shredding and sorting. When working on new projects, the company frequently encounters the need to invent and test entirely new technical solutions for specific applications.

M-line software s.r.o.: Design of a Streaming Platform for Terrestrial Digital Broadcasting within a Local Network

In principle, the project primarily involves the creation of a streaming platform comprising DVBT receivers, mini computers for stream processing, a storage platform for stream storage, a block for antenna signal distribution, and a firewall for data traffic control.

As part of the assignment, the design and configuration of the network hardware were carried out, along with the preparation of a final report summarizing the development of the prototype streaming platform as specified. This report was created to provide a clear description of the streaming platform for terrestrial digital broadcasting within a local area network. Additionally, it includes software in the form of an ISO image, which can be further modified based on client or customer requirements. A lab report was also produced, detailing the design process, the steps taken and the rationale behind key decisions.

Prefa Hubenov s.r.o.: Design of an Uninterruptible Power Supply for Measuring Equipment Powered at 230 V

The project primarily involves creating a circuit diagram for an electronic device, designing a printed circuit board, and optimizing its conductive paths. As part of the assignment, an uninterruptible power supply was designed for a measuring device operating on a 230 V power supply. A laboratory report was produced, detailing the design process, the steps taken, and the rationale behind key decisions.

The application of research results into practice primarily occurs at the level of research projects. The users of these results are external entities, including:

- Manufacturing and commercial companies (e.g., STS Prachatice, a. s.)
- Chambers and associations (e.g., Chamber of Commerce of the Czech Republic, Association of Small Entrepreneurs and Tradesmen)
- Entities active in regional development (Krajské sdružení NS MAS Jihočeského kraje)
- Research institutions (e.g., VUSTE-APIS, Výzkumný ústav pro podnikání a inovace, z.ú.)
- Other higher education institutions (e.g., Brno University of Technology).

⁹³ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

⁹⁴ If the commercialisation of R&D&I results is carried out in this way.

At the level of contract research, the users of the results are primarily companies from various sectors, including manufacturing, business, and services.

Specific examples of cooperation with STS Prachatice, a. s.

- Cooperation within the research project Optimization of Custom-made Production Management in Real-Time Using IoT and Digital Technologies (FW01010460): The aim of the project was the development, research, and verification (through pilot application) of a unique, reusable optimization system for managing custom piece production in real time. This system used big data generated in various production sections, processed with artificial intelligence and Industry 4.0 principles, to provide optimized solutions for subsequent decisions in production management via ICT. (The project also involved cooperation with the research organization VUSTE-APIS).
- Optimization of the production and business process using the PVA model. The Faculty of Corporate Strategy provided expert services for the Innovation Voucher. An analysis of the current state of the company's production and business processes was conducted through a process map. This included the application of an input PVA model (evaluation of the contribution of individual products to the margin for each product operation and the entire production process, identification of their profitability or loss rate).

Specific example of cooperation with the Chamber of Commerce of the CR, the Association of Small Entrepreneurs and Tradesman, Krajské sdružení NS MAS Jihočeského kraje, and Výzkumný ústavem pro podnikání a inovace:

- Cooperation on the research project Stabilization and Development of SMEs in Rural Areas (TL01000349): The project aimed to address the negative trend of the outflow of small and medium-sized enterprises from rural area. As part of the project, an in-depth analysis was carried out, leading to the development of a certified methodology and software containing acceleration and innovation principles, methods, and practices as tools to maximize added value.

Specific examples of cooperation with companies:

- Fontea, a. s. - Implementation of self-scheduling of shifts: The Faculty of Corporate Strategy provided expert services under the Innovation voucher within the project Optimalizace a praktické testování zlepšeného procesu organizování pracovní síly s využitím specifického software. As part of this collaboration, a study was conducted that included survey findings and an analysis of the provided data. The study also offered explanations and guidance on the successful implementation of self-scheduling, identified potential risks, and outlined key measures to mitigate these risks within the operational environment of Fontea.
- VM Motor – Innovation of manufacturing and support processes to enhance quality, efficiency, and profitability in a company specializing in the development and servicing of sport motorcycles: The project focuses on optimizing processes and services aimed at significant enhancement of efficiency and reduction of corporate costs using process analysis of core and supporting operations, economic and financial analysis, process mapping, and guidance on the expected return on financial investments.

Cooperation with users of research results is conducted comprehensively. The Faculty maintains an extensive network of contacts with regional business entities and actively identifies potential areas for future cooperation. It develops tailored solutions to meet the specific needs of companies and then addresses them with a specific offer to use the research results for their purposes. Within the process of applying the results in practice, a close cooperation of the research team and the implementation team in the company is established. The research team often present in the company and is actively involved in the company's operations, fostering communication across its departments. Even after the conclusion of contract research activities, contact with the company is maintained to monitor the implementation of proposed measures and explore further collaboration opportunities.

Cooperation with other universities is facilitated through the scientific community network, in which academic staff from the Faculty of Corporate Strategy actively participate. Beyond the corporate sector, selected research findings are integrated into university teaching, providing students with practical insights into real-world corporate environments. This approach enhances graduate preparedness for the labour market.

The commercialization of research outcomes follows legal regulations, including securing a share in the commercial use of developed software tools. However, some research results (see Table 3.4.1) did not generate financial income from commercialization. During the evaluation period, no start-ups or spin-off companies were established at the Faculty.

Table 3.5.1 - Summary of non-public revenues received during the period under evaluation

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
Implementation of self-scheduling of shifts – VSTE provides expert services under Innovation voucher			150/5,95		

with the project Optimalizace a praktické testování zlepšeného procesu organizování pracovní síly s využitím specifického software (Fontea, a. s.)					
Innovation voucher – Innovation of manufacturing and support processes to enhance quality, efficiency, and profitability in a company specializing in the development and servicing of sport motorcycles (VM Motor)					499/19,78
Innovation voucher – Optimization of the production and sales process using the PVA model (STS Prachatice, a. s.)				499/19,78	
Contract research – Identification of the most and least profitable items in the company (VISCOFAN CZ, s. r. o.)					
Translations, proofreading (external partners)			28/1,11	51/2,02	127/5,03
Teaching activities of the Department of Human Resource Management (Burn-out syndrome) – Custom services (Základní škola Prachatice)				8/0,32	
Expert activities of the School of Expertness and Valuation	2063/81,77	1906/75,54	5602/222,04	3491/138,37	8255/327,19
Marketing campaign (HEMP PRODUCTION CZ, s.r.o.)			20/0,79		
Employee shadowing – optimization of personnel processes (Mektec Manufacturing Corporation Europe CZ s.r.o.)		15/0,59			
In total	2063/81,77	1921/76,14	5800/229,88	4049/160,48	8967/355,41

Note: Enter funds raised for R&D&I from non-public sources besides grants or contract research (e.g. licences sold, spin-off company revenues, donations, etc.) in the calendar year.

POPULARIZATION OF VAVAI

3.6 The most important activities in the field of popularization of R&D&I and communication with the public

The evaluated unit shall briefly describe its main activities related to the popularisation of R&D&I and communication with the public (e.g. popularisation lectures, citizen science initiatives, etc.) during the period of 2019–2023 and provide up to 10 examples that it considers the most significant.

Maximum 500 words plus 200 words for each example given.

Self-assessment:

The Institute of Technology and Business in České Budějovice (VSTE) has consistently supported the popularization of science and technology among students, professionals, and the general public. The goal of this initiative is to make scientific knowledge more accessible, inspire the younger generation to pursue studies in technical and economic fields, and foster interdisciplinary collaboration. As part of these efforts, VŠTE regularly publishes press releases in regional and national media and maintains close cooperation with South Bohemian Television, which produces the program Život na VŠ six times a year. This program showcases the most interesting projects and activities at the university, thus contributing to the popularization of science and education.

Most significant popularization events:

International Technical Olympiad

Another significant popularization initiative is the International Technical Olympiad, organized within the Technical and Educational Consortium. This competition provides primary and secondary school students with an opportunity to present their technical projects and gain valuable experience. The aim of the Olympiad is to introduce the younger generation to the possibility of studying technical fields and to encourage creative thinking in the areas of technology and innovation.

International conferences and specialized seminars

VSTE also organizes many expert conferences and seminars that contribute to the dissemination of scientific knowledge and foster the exchange of expertise among professionals. Key events include:

- Building Defects – a conference focused on diagnosing and preventing building defects.
- ICPPCT (International Conference on Pollution Prevention and Clean Technologies)
- ICDPN (Conference on Data-processing and Networking 2024) – a conference dedicated to data processing and network technologies.
- Smart Region Tour – a series of expert meetings centred around the concept of smart regions.
- Innovative Economic Symposium – a forum focused on innovations in the economy and industry.

Other popularization activities

VSTE also engages in a variety of other popularization activities, including:

- Other popularization activities
- VSTE also engages in a variety of other popularization activities, including:
- Open days and school tours, primarily aimed at high school students interested in learning more about studying at VSTE.
- Týden odborných přednášek (A week of professional lectures): during this week, the academic staff and practitioners present current trends and challenges in technology, economics, and management.
- Participation in external events, such as Vzdělání a řemeslo (Education and Crafts), Dobrodružství s technikou (Adventures with Technology), Maker Faire, Gaudeamus, and others. At these events, VSTE actively presents its study programs, research projects, and laboratory equipment.
- Týden Akademie věd (Academy of Sciences Week). During this week, VSTE opens its laboratories to the public and presents selected scientific projects

Podcast na Okružní

In 2023, VSTE expanded its presence into the digital space with the launch of the Podcast na Okružní (Podcast in Okružní). This initiative reaches a broader audience and features interviews with experts from various fields. The podcast has garnered thousands of views, becoming an important tool for popularizing science.

The School of Expertness and Valuation is actively contributing to the popularization of R&D&I and raising awareness of economic and valuation topics among both the professional and general public. Its key activities in this area include organizing professional and outreach events, engaging with media, sharing knowledge through social networks, and hosting conferences and workshops.

Process of preparation of expert opinions – communication with the general public takes place during the commissioning and preparation of expert opinions/expert statements, e.g., consultations on the assignment, the purpose of the expert opinion, and during the convening and subsequent holding of the local inquiry.

- Organization of the conference Expertise in Technical and Economic Fields. Since 2022, the School has been organizing an annual conference in cooperation with the Association of Forensic Experts of the Czech Republic. The topics of the lectures include the attorney's perspective on expert opinions and expert questioning, a practical view of insurance for experts, and the methodological procedure for drafting expert opinions. The speakers include the representatives from the Ministry of Finance of the CR, the Ministry of Justice of the CR, and other experts. Both professionals and general public are invited.
- Active appearances in TV and radio programs, providing interviews and expert analyses, e.g., the appearance of Ing. Pavel Rousek, Ph.D. on Studio ČT24 in 2023 discussing the final offer for the construction of a new block at Dukovany; the appearance of prof. Ing. Marek Vochozka, MBA, Ph.D., dr. h.c. on Studio ČT24 discussing changes in the leadership of the Ministry of Health in 2020; the appearance of doc. Ing. Vojtěch Stehel, MBA, PhD. on ČT24 discussing the dangerous roundabout on Okružní street in České Budějovice; appearances by doc. Stehel, prof. Vochozka or dr. Horák in the "Podcast in Okružní", etc.
- Sharing of scientific knowledge and research results through social networks – creating content for the general public particularly through MVochozka Lab – Student, i.e., websites for VSTE students in economic programs. It includes study materials, lectures, presentations, profiles, news, and interesting information from the field, as well as other sections for students from VSTE and other schools.

– Expert minimum course – The School organize the Expert minimum course, which provides participants with fundamental knowledge and skills necessary for conducting expert activities in property valuation, business economic, and related disciplines. The target group includes not only professionals from finance, accounting, construction, and other fields but also state administration employees, VSTE students, and the general public. – Organizing workshops for students – The School has long been supporting the development of students' professional knowledge and practical skills through workshops organized under the SVV (Specifický vysokoškolský výzkum, Specific University Research) projects. These workshops integrate theoretical knowledge with its practical application in expertise, valuation, and business economics. During the evaluation period, approximately 10 such workshops were organized (either in person or online due to the COVID-19 pandemic), each attended by around 10 – 15 students and 2-4 academic staff members. The School also supports students' participation in the SVOČ (Student Research and Professional Activities) competition. – The School's participation in the Night of Scientists – Since 2018, the School has been an active participant in the Night of Scientists, a nationwide event aimed at popularizing science and research among the general public. The goal is to present topics such as property valuation, expertise, and financial analysis in an engaging and interactive way. Visitors can explore the School's laboratories and facilities, try working with high-tech equipment (3D scanner, thermal imaging, drones, CNC, material shredder, etc.), experience the virtual reality environment, etc. Organizing the Innovative Economic Symposium (since 2015) – In cooperation with foreign universities and institutions, the School annually hosts a conference addressing current topics and challenges in economics, business finance, sustainability, and macroeconomic trends. The event serves as a platform for sharing the latest research findings, discussion on innovation in economic theory and practice, and fostering collaboration between academia, industry professionals, and the general public.
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IMPLEMENTATION OF RECOMMENDATIONS

3.7 Implementation of the recommendations in Module 3

The evaluated unit will briefly describe how it has implemented the recommendations for Module 3 from the previous evaluation period, if applicable.

Maximum 1000 words.

Self-assessment:

The School of Expertness and Valuation (SEV) continued to implement applied research projects during the period under review, funded primarily by the Technology Agency of the Czech Republic. It is one of the key providers of applied research support on a national scale. These projects are based on close cooperation with external entities and address topics with significant practical application potential. The projects listed in Table 3.3.1 are also of importance outside the South Bohemian Region. The dissemination of results to potential users is ensured through publication on the project and VSTE websites and also through the Central Project Register. The recipient of the subsidy is always VSTE, as SEV does not have legal personality. Further development has also occurred in the area of international cooperation projects. One notable example is the GREENPACT project supported by Interreg Central Europe. This project aims to improve the skills of existing small and medium-sized enterprises in the service sector and future entrepreneurs by preparing them to apply the principles of the circular economy. The project is implemented by an international consortium of academic and non-academic institutions from Germany, Croatia, Slovakia and the Czech Republic. Although the main investigator from VSTE is the Faculty of Corporate Strategy, SEV employees are also involved in the project.

SEV has a project support system in place, which is provided by a separate Department of Project and Expert Support (4-5 employees in total). The SEV can also rely on other support departments established at the institution level, such as the Project Department and the Department of External Relations.

Recommendation 3.2

The evaluated entity participated in the implementation of projects funded by TACR, Visegrad, and Interreg, focusing on applied research in economics, economic trends, and sustainability (e.g., TA ČR TL01000349 - Stabilization and Development of SMEs in Rural Areas; TA ČR TL02000136 - Adaptation of the Knowledge-Intensive Services Sector to the Conditions of Society 4.0; Support for Modern Trends in Teaching with Regard to Best Practices; Visegrad Fund No. 22210017 - Minibreweries as Developers of Regional Tourism in the V4 Region). In cooperation with the Czech Statistical Office, projects were carried out under the TACR BETA2 program, focusing on the methodology for assessing the value of non-residential buildings in the government sector, the preparation of an expert study to determine the average lifespan of selected

structures in the Czech Republic, and the development of a methodology for estimating the share of self-built activities in new construction and renovations of detached houses. Research projects are discussed in more detail in section 3.3 of this report.

Recommendation 3.3

In the area of socio-economic studies, an analysis was conducted on the potential construction of a supermarket in Mladá Vožice, assessing its impact on the regional economy and demographic factors influencing the commercial infrastructure. Within the framework of the Operational programme Enterprise and Innovation for Competitiveness, collaboration with ITB Engineering & Production s.r.o. was established through an innovation voucher, leading to the development of new systems, procedures, and methods for optimizing production and non-production processes. In cooperation with Sinop CB, a.s., a methodology for determining the adjusted selling price index was developed. Contract research projects (Application of results in practice) are discussed in more detail in section 3.5 of this report.

Recommendation 3.4

SEV is an expert institute for the fields of Economics, Construction and Mechanical Engineering, and provides independent expert opinions and expert statements in many areas (see <https://www.vstecb.cz/en/expertness-activity/>). During the years 2019-2023, SEV prepared around 160 opinions, consultations and other expert analyses. The income from individual assessments ranges from 50 to 150 thousand CZK. It depends a lot whether the assessment is commissioned by a public authority, where the amount is set by valid decrees, or a commercially commissioned assessment. In the monitored period, the faculty also implemented the Expert Minimum course within the Lifelong Learning Center. The aim of the one-day course is the basic preparation for the performance of expert activities of future experts for the performance of their activities within the meaning of the law and the implementing decree as amended. Since 2022, SEV has been organizing the conference Expertise in Technical and Economic Disciplines in cooperation with the Association of Forensic Experts of the CR. An important aspect of these conferences has been discussions on spin-off companies and startup initiatives, which provided opportunities for networking between academia, entrepreneurs, investors, and representatives of public administration. This conference thus contributed to the integration of scientific research and practice, providing a platform for cooperation between universities and the private sector.

Recommendation 3.5 a 3.6

Several research projects leading to the achievement of planned research results that have the potential to impact society were completed during the reporting period. These include:

- Certified methodologies are summaries of recommended practices and procedures that have been certified by a competent public authority. This certification is based on international agreements, standards or similar documents with clearly defined and published competencies for specific areas, disciplines or industries. Certification ensures that users following these procedures obtain convincing and repeatable results.
- Software tools, such as those used to predict future EVA Equity (i.e. shareholder value), are designed to optimize the combination of inputs, which allows the company to achieve the desired EVA Equity value.
- Proven technology that facilitates process optimization to increase competitiveness, especially in relation to international competition.

Cooperation with ITB Engineering Production s.r.o. was expanded, resulting in the creation of a patent. Several projects have been addressed within the framework of international research with international partner institutions, including the aforementioned GREENPACT project or projects under the auspices of the Visegrad Fund or Interreg (see Chapter 3.3 of this report). A detailed description and further examples of research results with potential impact on society are provided in Section 3.4 of this report.

Recommendation 3.7

In the monitored period, interaction with external entities was significantly strengthened. These include companies such as DEOS Technology s.r.o., M-line software s.r.o., Prefa Hubenov s.r.o., STS Prachatice, a. s., chambers and associations (e.g., Chamber of Commerce of the Czech Republic, Association of Small Entrepreneurs and Tradesmen), entities active in regional development (Regional Association of NS MAS of the South Bohemian Region), research institutions (e.g., VUSTE-APIS, Research Institute for Business and Innovation, z.ú.), other higher education institutions (e.g., Brno University of Technology). International cooperation with the non-academic sphere has also expanded. The following organizations are involved in the implementation of the international GREENPACT project (Interreg Central Europe): ENAIP Veneto Social Enterprise; Veneto Region - Ministry of Labour (Italy), the city of Rijeka (Croatia) and the Stuttgart Region Economic Development Corporation (Germany).

Recommendation 3.8 and 3.9

Applied research projects generate outputs intended for practical application by relevant target groups, including certified methodologies, software and proven technologies. Given the nature of applied research in economic fields, only one patent

protection of intellectual property was addressed in the evaluated period (patent 2020 - Method of phosphorus regeneration from wastewater, especially from sludge water). A functional sample of an autonomous, smart grilling station was also created in cooperation with ITB. ITB Engineering Production s.r.o. tested the project outputs, when pilot tests of an autonomous, smart grilling station were carried out. The aim of the result was to verify the functionality of the solution in operating conditions. The testing took place both at the premises of ITB and at the premises of the co-investigator VŠTE. More detailed information can be found in section 3.4 of this report. In the monitored period, the faculty also implemented the Expert Minimum course within the Lifelong Learning Center. The aim of the one-day course is the basic preparation for the performance of expert activities of future experts for the performance of their activities within the meaning of the Act and the implementing decree as amended. Every year during the monitored period, the faculty organized the international scientific conference Innovative Economic Symposium (<https://www.ies-conf.com/>) and since 2022 the conference Expertise in Technical and Economic Disciplines in cooperation with the Association of Forensic Experts of the CR.

Recommendation 3.10 and 3.11

In accordance with the recommendations of the EIP, cooperation with institutions in the South Bohemian Region at both national and international levels was strengthened in the monitored period. International cooperation goes beyond cross-border initiatives and includes partnerships with institutions throughout Europe. The involvement of SEV staff in the international scientific community is described in chapters 3.2.2, 3.2.3, 3.2.4 and 3.2.5. At the faculty level, the competition "Student Scientific and Professional Activities" was organized in the evaluated period to support students of economic study programs in their independent research and creative scientific endeavors, which contributes to the improvement of their argumentation skills, professional writing and presentation skills. The best works were published in peer-reviewed journals.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Consolidated student registers	Table 3.1.4	https://sims.msmt.cz/
VSTE Information system	Table 3.1.5	https://is.vstecb.cz/?lang=en

SELF-EVALUATION REPORT FOR MODULES 4 AND 5

HIGHER EDUCATION INSTITUTION NAME: Institute of Technology and Business in České Budějovice

COMPANY REGISTRATION NUMBER (CRN): 75081431

MODULE 4 – VIABILITY

ORGANISATION AND MANAGEMENT OF R&D&I

4.1 Organisation and management of R&D&I

The HEI will briefly describe its organisational structure⁹⁵ and describe the R&D&I management system including the role of the HEI's central management, the management of faculties, and the HEI's institutes in organizing and managing R&D&I. It should also describe the role and structure of the technical and economic apparatus.

Maximum 1000 words.

Self-assessment:

The Institute of Technology and Business in České Budějovice (hereinafter referred to as VSTE) has an organizational structure ensuring the definition of the competence, powers and responsibilities of the school's self-governing bodies, senior employees forming a functional integrated whole continuously updated in accordance with the societal challenges in the field of science and research.

The organizational structure of VSTE respects the non-university character of the school, its professional profile, the existence of faculties as basic organizational units and its own organizational and management system called ETMS (intellectual property of VSTE) "Excellent Top Manager System" developed and continuously innovated as an organizational and management tool for managing processes and quality standards of activities of employees and all departments including the field of science and research.

The organisation and management of VSTE respects the principle of process management and the principles of the learning organisation. It is set up to enable effective management, coordination and cooperation between the various bodies, senior staff, and other school personnel. The structure of the school is designed to promote transparent decision-making processes, effective communication and optimal distribution of authority and responsibility among the academic and administrative units of the institution. The powers and responsibilities of individual bodies, senior staff and other entities are clearly defined in the Statutes of the VSTE, the Organisational Regulations of the VSTE and other internal regulations of the school. These documents set out the competences of the Rector, Vice-Rectors, the Bursar, Heads of Faculties, Deputy Heads of Faculties, including representatives for science and research, and other management staff. This ensures that all key areas of the Institute are appropriately adjusted.

The Rector, as the statutory representative of the school, is responsible for its overall management and strategic development, while Vice-Rectors specialise in key areas such as student affairs, science and research, international cooperation or development and infrastructure. The Bursar is responsible for the economic activities of the Institute and the administration of its funds. At the same time, the Bursar ensures the functionality of the "Central laboratories of the VSTE" as a material and technical base for the Institute's publishing activities, especially application and contract research. The organizational structure also includes academic and administrative bodies such as the Academic Senate, the Board of Directors and the Internal Evaluation Board and other professional boards that are involved in the management of the school in terms of academic self-governance, management and evaluation of the quality of education and publishing activities in interconnectedness and continuity. The Institute's internal regulations also regulate the rules for the functioning of the various departments, their cooperation, and the methods of communication between academic and administrative units. This system enables a flexible response to the current challenges and needs of the school, supports effective management and contributes to the long-term development of VSTE as a dynamic and modern educational institution.

Evidence and evaluation of creative activity

Academic staff are obliged to enter all relevant outputs of their creative activity into the system, such as scientific papers, monographs, chapters in professional books, outputs of applied research (e.g. patents, software, certified methodologies)

⁹⁵ A graphical representation of the organisational structure will be provided as an annex.

and other publications, in accordance with the Methodology for the Evaluation of Research Organisations and Programmes of Special Purpose Support for Research, Development and Innovation. The Institute of Technology and Business has a sophisticated methodology for the evaluation of creative activities, which is fully in line with the National Policy of Research, Development and Innovation of the Czech Republic. This evaluation system reflects the specifics of technical and economic disciplines and emphasises the quality, originality, and practical applicability of research outputs. Internal evaluation of the creative activities of academic staff is an important part of the Institute's strategy and contributes to its long-term development.

Harmonisation of the educational field with science and research and the third role of the school

Creative activity at VSTE is closely linked to teaching through project-oriented teaching, student scientific and professional activities and internships. Outcomes and new knowledge are regularly reflected in updated study materials, thus directly transferring the latest knowledge into teaching. A crucial element is also the involvement of experts from practice in pedagogical activities, which strengthens the synergistic effect between the school's scientific research activities and the implemented teaching. VSTE actively participates in international research projects and mobility programmes (e.g. Erasmus+, CEEPUS), which confirms its active involvement in the international scientific community. The school participates in projects such as Greenpact, BENEFIT or Minibreweries as developers of regional tourism, which shows a reasonable level of involvement in global research activities. VSTE has long been cooperating with industrial partners in the framework of innovation vouchers, applied research and internships. Projects funded by the Technology Agency of the Czech Republic and the Ministry of Industry and Trade support the direct application of research results in business practice. The school is also involved in technology transfer, thus contributing to the development of the innovation environment in the region. Overall, VSTE effectively meets the requirements for linking research with teaching, international cooperation and practice, thus ensuring a high level of institutional stability. A major area includes contract research and business vouchers, whose outputs are directly implemented in business practice, which is highly appreciated by its representatives.

VSTE has a flexible organizational structure with elements of a matrix structure with a fully functional R&D&I management system built on its own management, recording, control and monitoring system ETMS. It is designed to support flexibility and rapid response to changes in higher education, legislative requirements and labour market needs with continuous innovation and modernisation in line with the new societal challenges of the 21st century. The links and relationships between the school's bodies are framed by precisely defined competencies, responsibilities and desired outcomes, thus ensuring a high level of organisation and management, effective decision-making and the long-term development of the institution as a modern, competitive and developing higher education institution.

HTML links to additional documentation

[Statut VŠTE](#)

R&D&I QUALITY MANAGEMENT AND SUPPORT SYSTEM

4.2 System of support for a quality R&D&I environment and incentive measures for quality science

The HEI will briefly describe the systemic incentive measures/tools to support quality R&D&I (if applicable). For each measure/tool described, an example will be provided to illustrate the effectiveness of the measure/tool in practice (e.g. number of projects supported by internal grants, statistics on the use of advisory systems, number of newly established research teams, etc.). The description will pay particular attention to:

- A system of support for attracting national and international projects of projects.
- A system for project consultancy/management/administrative support.
- Science management (e.g., personnel and financial capacity for R&D&I transfer, personnel and financial capacity of the project acquisition support system, science managers, data analysts, business and innovation advisors, etc.).
- The existence of internal funding schemes.
- Strategy/opportunities for establishing new research teams (including international ones) and supporting them within the HEI (e.g. sharing of R&D&I equipment, laboratory and information facilities, administrative support, etc.).
- Support system for students and early career researchers⁹⁶.
- a system to support excellent science (e.g. support for excellent scientists, research teams, PhD students, collaborations, infrastructure, etc.).
- A system of support for interdisciplinary research and collaboration within the HEIs.
- The concept of providing conditions for the emergence of new, high quality research directions/topics, especially those with application potential.

Maximum 300 words per point.

Self-assessment:

- Every year the Department of Transport and Logistics submits several applications for national and international projects (typically in collaboration with other institutions or companies at national or international level), in which it is usually successful:
- Processes which streamline project submission and management are implemented.
- The Institute supports the transfer of outputs into practice thus increases the number of innovations in practice.
- A budget is allocated for every project to support research teams
- Projects link different disciplines at VSTE
- the Institute focuses on creating the conditions for excellence in research and development (R&D&I) through various support tools. Key elements of the system include:
- Grant and subsidy mechanisms - the Institute actively uses national and international financial resources to develop scientific projects and support innovation.
- Strategic management of research activities - Prioritization of research areas and targeted support for high quality scientific outputs.
- Promoting collaboration - Stimulating interdisciplinary collaboration between different disciplines and supporting research teams at national and international level.
- Infrastructure facilities - Investment in modern research equipment and laboratory facilities to enable efficient research implementation.
- Incentive schemes - Programmes to support young scientists, researchers, and academics to make scientific careers more attractive.
- Department of Civil Engineering supports scientific research activities through the Specific University Research (SVV) and the Internal Grant Competition (IGS). These instruments provide funding for research projects conducted by academics and students, with an emphasis on applied research in the field of civil engineering. The projects conducted under the SVV and IGS focus on innovative building materials, progressive technologies and sustainable development of the civil engineering. The remaining support points are not relevant.
- VSTE systematically promotes a quality research environment through strategic measures aimed at stimulating scientific excellence and innovation. Key initiatives include the provision of internal grant support, administrative and technical assistance in the preparation of project applications and active involvement in international research networks. Emphasis is placed on the promotion of interdisciplinary research, sharing of research infrastructure and the effective transfer of scientific outputs into practice. The Institute also develops strategic partnerships with academic and industrial entities to strengthen the application potential of research and to ensure the long-term sustainability of scientific activities. Overall, the Institute invests purposefully in improving the quality of science and

⁹⁶ Student grants, support for PhD students, postdocs and early career scientists.

research, focusing not only on funding but also on systemic support for scientists and their interconnection with practice.

- Faculty of Technology has long been strengthening its cooperation with the business sector and participating in the preparation and implementation of research and innovation projects, as well as providing professional practice for students, which leads to the transfer of R&D&I results to society. Department of Transport and Logistics (KDL) is also an integral part of the Faculty, and it cooperates intensively and diligently with external partners from both the academic and corporate spheres during numerous research projects.
- Collaborative projects across collaborations with other universities and other research organisations or businesses emphasise the promotion of interdisciplinary research. These collaborations contribute to the integration of different disciplines and strengthen the research potential of the Institute.
- VSTE focuses on applied research with special emphasis on cooperation with industry.
- For example, the Department of Transport and Logistics is currently a project partner in the research projects LUABA24085 "Analysis and optimization of Czech-German worker mobility to promote cross-border cooperation" (Locomotion) (2024-2026) or CL02000106 TACR „ Public Transport Planning with Regard to Environmental Impact" (2025-2027).
- Employees are usually also involved in internal grants of the university with mandatory involvement of students in their implementation - IGS, SVV. Students are rewarded and motivated by special-purpose scholarships within the project. Often the topic of the project is also linked to their final theses.

Environmental Research Department (ERC) is focused on scientific research activities carried out mainly through domestic subsidy titles of the MIT - Application, TRIO and TA CR - TREND, THĚTA. It is also involved in internal grant calls, such as the Specific University Research (SVV) and the Internal Grant Competition (IGS). These instruments enable the funding of research projects of academic staff and students, with an emphasis on applied research in the field of industrial technologies focused on engineering, analytical chemistry, automation and cybernetics, in close cooperation with industrial partners. Projects implemented within MIT, TA CR, SVV and IGS focus on the development and optimisation of technologies for the foundry industry, design of electronic devices including advanced electromagnetic compatibility tests, cyber applications in data networks, their configuration and advanced security, as well as organic materials and their practical applications. ERC also develops cooperation with foreign universities in its research activities.

HTML links to additional documentation:

[Dokumentový server VŠTE](#)

[Statut VŠTE](#)

4.3 Quality control system for R&D&I environment

The HEI will briefly describe the system of internal and external evaluation of research units, including the following aspects:

- Internal and external evaluation of R&D&I quality: This includes the evaluation of R&D&I by the HEI 's authorities, the evaluation of research teams (if such a system exists), and the involvement of international scientific councils or other independent advisory bodies in quality control and of R&D&I management.
- The ethical aspects of research: This includes adherence to ethical principles and good scientific practice, compliance with related legislation (codes of ethics, ombudspersons, ethics committees and ethics hotlines, and systems for reporting whistleblowing and ethical misconduct).

The HEI shall demonstrate the functioning of the quality control systems in the R&D&I environment by examples (e.g., brief information on the evaluations carried out and their results, specific examples of the use of whistleblowing or the handling of ethical violations, etc.).

Maximum 500 words plus 200 words for each example described (max. five).

Self-assessment:

The "Vice-Rector for Science and Research" is responsible for the implementation of the R&D&I management system, he/she manages this area and acts on behalf of VSTE within the scope defined and delegated by the Rector. He/she manages science and research methodologically within the Institute and the relevant faculties (Faculty of Corporate Strategy (ÚPS), Faculty of Technology (ÚTT) and School of Expertness and Valuation (ÚZO). The Institute is headed by the Director who appoints a Deputy Director for Research, Development and Publishing Activities to coordinate and manage R&D&I at the Faculty. This deputy is responsible for the coordination of projects, research, publication and editorial activities of the faculty, for events (conferences, seminars, workshops, etc.) organized by faculty members, for the assignment of student assistants, and for assisting faculty members with professional growth. During the academic year, regular meetings are held between the Vice-Rector for Science and Research and the representatives of the faculties in

this area, and then the representatives of the faculties coordinate these activities at the individual professional departments or specialised workplaces. The Institute uses the Excellent Top Manager System (ETMS) to effectively manage research activities and evaluate results. This system enables systematic registration of creative and project activities of academic staff, their involvement in grant schemes and cooperation with the application sphere. ETMS also serves as a tool for evaluating research results based on defined criteria and provides the basis for strategic decisions in science and research. Thanks to this system, the school can effectively promote excellence in research and deepen cooperation with industrial partners, thus strengthening its position as an institution with application-oriented research and strong links to practice. This system enables transparent and efficient management of scientific results in accordance with the National Policy on Research, Development and Innovation of the Czech Republic.

Principle of internal and external quality evaluation system with specification on R&D&I

At VSTE, quality assurance in the field of science and research is set up at two levels, namely in the internal and external evaluation system of R&D&I. The two levels are interconnected and harmonized during the process assurance in terms of the set quality parameters of R&D&I.

Internal quality evaluation

It covers all areas of the school's activities (education, science and research, third role and support and complementary activities). The internal quality evaluation of R&D&I respects the general principle of process management applied at the VSTE, starting with the monitoring activities, the actual control process and ending with the preparation of the relevant internal quality evaluation reports for the year in question. In the case of identified shortcomings and the development of a set of measures to improve the current situation, these measures are implemented with subsequent monitoring of their effectiveness and benefits. As an example, contract research has been strengthened, where the ETMS has increased the incentive for each academic staff member in this parameter. Positive results were registered in 2022, followed by 2023. This can be documented by the doubling of the number of corporate vouchers in 2024 compared to the previous year. Similarly, the positive impact of the increase in points rating for excellent publication outputs in 2020 can also be noted, as their representation within all publication activities is continuously increasing and will continue to do so in 2025. The internal evaluation respects the organisational structure of the school, holistic, school-wide, including the relevant faculties of the school, vice-rectorates, the bursar's office, sections up to the level of the relevant departments. The evaluation used the legislation valid both at the level of the Ministry of Education of the Czech Republic and at the level of VSTE, or organizational, economic, personnel, development, balance and analytical. Feedback from the student community was also used in the form of a questionnaire survey or personal interviews with students. In 2024, the requirement of the Internal Evaluation Board to strengthen feedback was fully implemented. The solution was to intensify the involvement of other stakeholders in the quality evaluation process, i.e. graduates, regular employees, representatives from the corporate sector, social organisations and international students. Another recommendation is to specify the content and timing of individual issues set by the Internal Quality Assessment Board, or to increase the transparency of the quality evaluation process of the VSTE outside the academic environment of the school in appropriate forms. One of the building blocks of the quality evaluation process at VSTE is the Internal Quality Evaluation Board (RVHK). At regular meetings of the Board, the issue of creative activities in the context of fulfilling the required accreditation criteria by the accreditation authority is always addressed in cooperation with the educational issues.

External evaluation of R&D&I

The process of external quality evaluation primarily focuses on the implementation of measures arising from the external quality assessment conducted by the National Accreditation Office (NAU) and the International Evaluation Panel. In response to the NAU's recommendations, the main focus was on improving the staffing quality in existing and new study programs (Bachelor's and follow-up Master's degree programs). In the area of R&D&I, key issues addressed included the increase in research projects related to the relevant study program, as well as raising the proportion of publications in the highest categories within the context of the courses offered, with particular emphasis on course and study program guarantors. The effectiveness of the measures taken is evidenced by the fact that all economic degree programs have been accredited by NAU for a period of 10 years. Based on the recommendations of the International Evaluation Panel, one of the strategic priorities for the period 2026-2030 will focus on strengthening and improving the following areas: technology transfer, upgrading research infrastructure, fostering international cooperation in securing research projects, and creating new research topics and teams. The concept for international cooperation in R&D&I, particularly regarding research projects and grants, is currently being finalized, with full implementation scheduled for 1 June 2025, and beyond.

Ethical aspect of creative activities within R&D&I at VSTE

The fundamental documents outlining the ethical requirements for the behaviour and actions of employees and

students in the field of research and development at VSTE are the VSTE Employee Code of Ethics and the VSTE Student Code of Ethics. These documents define the core standards of conduct across various areas of the institution's activities, ranging from education and creative work to public relations. They also specify the authority and responsibility of individual managers in addressing concerns that suggest a possible breach of the Code of Ethics. Article 5 on page 4 of the Employee Code of Ethics outlines VSTE's stance on this issue: the institution's commitment to ethical principles, stating: "VSTE has decided to adopt the Code of Ethics as a reflection of its efforts to fulfil the role of universities as symbols of education and culture in society."

At VSTE, the implementation of ethical standards is supported by established, effective internal mechanisms. Any potential breaches of ethical principles and standards are addressed within the organizational structure, with clear competence relations, and can be escalated to the VSTE Ethics Committee, as outlined in the Rector's Measure No. 10/2014. The VSTE ethical codes are continuously updated to address new societal challenges, such as security in higher education institutions (HEIs), cybersecurity, data protection, and safeguarding scientific outputs.

The highest body overseeing adherence to ethical principles at VSTE is the VSTE Ethics Committee, established on January 1, 2020. It serves as a permanent advisory body to the Rector and comprises a chairman and three members, with the chairman also serving as the Vice Rector for Science and Research. The 2023/2024 Ethics Committee Activity Report notes that the committee did not discuss any complaints or violations of the VSTE Code of Ethics by employees. Furthermore, following the Rector's Measure No. 2/2024, the position of Student Ombudsman was established.

Examples of R&D&I environment control systems

- A. Evaluation of scientific activity within the ETMS (Electronic Research Management System) is one of the key criteria for the professional development of academic staff, particularly in habilitation and professorial procedures. This system enables the monitoring of individual and team performance and fosters excellence in science and research.

Benefits of ETMS:

- Transparency in the recording and evaluation of research activities
- Support for strategic management of research at the institution
- Effective integration of research with the application sphere
- Basis for the funding and development of research projects

Thanks to the ETMS, the Institute of Technology and Business in České Budějovice is able to efficiently manage and support its staff's scientific research activities, enhancing its position as a modern research institution with an application-oriented focus.

- B. Practical functioning of the module PROJECTS in ETMS with respect to the requirements of the Government Council for Science and Research

The PROJECTS module in the ETMS is used for comprehensive management of the University's project activities, ensuring transparent registration, management, and monitoring of projects in accordance with the requirements of the Government Council for Science, Research and Innovation (RVVI) and current legislation on research and development funding in the Czech Republic.

The module enables the management of projects across the following categories:

Institution-wide projects – strategic and institutional projects of the institution

Research projects – scientific research and innovation projects

Faculty projects – internal research and development activities of individual faculties

This classification ensures effective access to projects at various levels across the institution and assists in meeting the requirements of the National Policy on Research, Development, and Innovation (Národní politika výzkumu, vývoje a inovací).

Process of recording and approval of project plans

Each project is entered into the system using a standardized form that includes the following elements:

- Project title
- Main researcher
- Project description
- Project partners
- Project objectives and benefits
- Project budget
- VSTE co-financing requirements
- Alignment with the strategic focus of the Institution and faculty
- Compliance with the requirements of the funding body

- Realism of budget and co-financing
- Administrative and staffing capacity for project implementation.

Benefits of the PROJECTS module in ETMS

- It enables registration of projects at all stages of their implementation
- It ensures clear monitoring of project status for institutional management
- It allows transparent management of funding and resource allocation
- It facilitates efficient handover of responsibilities in case of personnel changes
- It is fully compatible with RVVI (Government Council for Science, Research and Innovation) methodology and national science and research policy

ETMS provides the institution with an effective tool for project activity management and enables meeting the requirements for quality, sustainability, and transparency of scientific research in line with the RVVI policy and the government's strategy for science and innovation.

The Institute of Technology and Business in České Budějovice has a well-developed system for internal and external evaluation of all creative activities, fully aligned with the national policy on research, development, and innovation of the Czech Republic and the fully operational Internal Quality Assessment Board. Internal evaluation of the creative activities of academic staff is a crucial part of the institution's strategy and contributes to its long-term development. The institution uses the Excellent Top Manager System (ETMS) to effectively manage research activities and assess outcomes. This system enables systematic recording of publishing and project activities of academic staff, their involvement in grant schemes, and their cooperation with the application sphere. ETMS also serves as a tool for evaluating research results based on established criteria and provides the foundation for strategic decision-making in science and research. Thanks to this system, the institution can effectively promote excellence in research and strengthen cooperation with industrial partners, thereby reinforcing its position as an institution with application-oriented research and strong connections to practice. VSTE has incorporated ethical standards governing the conduct of members of the academic community in the VSTE Code of Ethics for Employees and the VSTE Code of Ethics for Students, with compliance ensured through established and tested internal mechanisms. The implementation of ethical principles and standards is supported by verified internal mechanisms. The VSTE Codes of Ethics are functional and are continuously updated based on feedback from staff and students, as well as suggestions from the school ombudsman.

4.4 Sustainability and resilience of R&D&I

The HEI will describe the arrangements for sustainability and increasing the resilience of R&D&I, if such a system exists, and provide examples of its implementation. These include:

- The sustainable development concept (strategy, objectives, plan and implementation).
- Social responsibility strategy.
- A knowledge transfer system, if it is established at central level.⁹⁷
- The third role, the transfer of R&D&I results to society and interaction with local actors.
- The concept of research data management (data collection, access and sharing of data, use of the information obtained for R&D&I management, responsibility for data files, archiving and backup of data).
- Ethics and personal data protection.
- Intellectual property protection.
- Ensuring institutional resilience (resistance to foreign influence, cyber security, risk prevention, prevention of misuse of R&D&I and knowledge transfer results, a system to prevent or mitigate the negative impacts of R&D&I and knowledge transfer in society).
- Digitisation and the use of smart technologies.
- The institutional strategy for Open Science 2.0/Open Access (if one exists), including information on the operation of the institutional repository or similar tools.
- A system for training undergraduate and postgraduate students as well as staff in the field of intellectual property protection and technology transfer.

The HEI will demonstrate the effectiveness of its procedures by examples (e.g., the number of people trained in intellectual property protection and technology transfer, data on the usage of Open Access repositories, handling of risk incidents, etc.).

Maximum 300 words per point.

Self-assessment:

The institution will describe the measures for sustainability and resilience of R&D&I, provided such a system exists, and use examples to demonstrate how it is implemented. These measures shall include:

1. Sustainability concept (strategy, objectives, plan, implementation);
2. Corporate social responsibility strategy;
3. Knowledge transfer system, if established at a central level;^[1]
4. The third role, transfer of R&D&I results to civil society and interacting with local stakeholders;
5. Research data management concept (collection, access and sharing of data, utilization of information for R&D&I management, responsibility for datasets, archiving, and data backups);
6. Ethics and data protection;
7. Protection of intellectual property;
8. Ensuring institutional resilience (resistance to external influence, cybersecurity, risk management, prevention of R&D&I result misuse and knowledge transfer results, systems to prevent or mitigate negative impacts of R&D&I and knowledge transfer);
9. Digitization and the use of smart technologies;
10. Institutional strategy for Open Science 2.0/Open Access (if applicable), including information on the operation of the institutional repository or similar tools;
11. System for training undergraduate and postgraduate students and staff in IP protection and technology transfer.

The institution will demonstrate the effectiveness of the procedures employed providing examples (e.g., the number of people trained in IP protection and technology transfer, data on the use of Open Access repositories, handling of risk incidents, etc.).

VSTE has the potential to become a model institution in the area of sustainable development and social responsibility in the South Bohemia Region with a nation-wide reach. The concept of sustainable development is contained in the approved document "Sustainable Development Strategy (SUS) 2030" and the "Implementation Plans for Respective Years". The sustainability of the institution is declared by the vision and mission set and gradually implemented:

⁹⁷ If the knowledge transfer system is decentralised to the unit level, the HEI shall describe how the system works.

[1]

VISION

VSTE is a socially, economically, and environmentally sustainable higher education institution aligned with the goals of the SDGs.

MISSION

As an open, professionally oriented institution, VSTE aims to provide high-quality higher education with a strong emphasis on social responsibility. It will respond to the needs of practice, conduct research and development in fields with high application potential, and address sustainability issues to minimize the environmental impact of its activities. Theoretical and practical aspects of sustainable development will be integral to communication with the academic community and the public, particularly in the South Bohemia Region.

The concept of social responsibility is deeply ingrained in the South Bohemia Region and is thus “genetically” embedded in the mindset of VSTE employees and students. While the South Bohemian landscape is considered relatively well-preserved, it also faces significant environmental threats. This duality helps explain why local residents, including members of the VSTE academic community, exhibit heightened sensitivity to and awareness of negative environmental changes occurring in the region. This existing value framework among South Bohemian inhabitants serves as a foundation for research activities, directing efforts toward the most pressing environmental challenges. The emphasis on environmental issues is reflected in the school's previous strategic materials related to creative activities and collaboration with industry and other stakeholders. The institution's Strategic University Research (SUR) has identified sustainability as one of the most significant challenges and opportunities, while also recognizing the associated risks and limitations. A key expression of social responsibility at VSTE is the systemic integration of education, research, and the institution's third mission. This positions VSTE as a unique institution with the potential to contribute to the educational, creative, and environmental landscape of the South Bohemian region in the future.

The system of knowledge transfer to the user sphere, managed, implemented, and evaluated at the central level through the activities of individual Institutes, relies on the development of creative activities that generate new knowledge, technologies, and practical solutions. This process is contingent on the advancement of technical disciplines such as engineering, construction, transport, and logistics—areas in which VSTE, as the only higher education institution in the region, makes a tangible and significant contribution to the sustainable development of South Bohemia. At the same time, economic disciplines are developed in parallel, focusing on the principles of the knowledge and circular economy and the sustainable development of both manufacturing and service enterprises. The innovation potential of the South Bohemia Region remains below the desired level compared to other Czech regions. In this context, the development of technical and professional fields represents a crucial contribution to addressing this regional socioeconomic challenge. As a professionally oriented university, VSTE fulfils its mission by strengthening cooperation with the business sector, increasing the number of joint research projects with specific enterprises, and expanding contract research. These efforts demonstrate the institution's commitment to social responsibility in relation to corporate practice.

The involvement of the institution and its academic staff in the governing and administrative bodies of districts, regions, and other professional and social institutions reflects the institution's strategic commitment to fulfilling all three pillars of sustainable development, including its third role.

Due to VSTE's professional and regional focus, the transfer of scientific knowledge is naturally embedded in its activities. These priorities are outlined in the Long-term Plan for 2020–2025 and will be carried forward into the upcoming strategic plan, while also being fully incorporated into the SUR until 2030. The main objective is:

To increase the share of research, development, and innovation activities focused on sustainable development and ensure the transfer of new knowledge to the user sector.

These efforts address not only pressing contemporary issues but also long-term challenges such as digitalization, automation, robotics, and the application of AI in the corporate sector. Addressing these emerging trends requires new scientific methods and approaches, including interdisciplinary collaboration, domestic and international teamwork, the creation of sustainable financial resources, and the provision of state-of-the-art technical facilities. The establishment of specialized research centres at VSTE, in cooperation with selected enterprises in the region, demonstrates that the school management considers these issues both relevant and essential—now and in the future. The transfer of research outcomes in these key areas is a fundamental expression of VSTE's social responsibility towards the region. The strategic goal of the school's research activities is to enhance their effectiveness by aligning them with the core needs of users, while increasingly emphasizing practical application and commercialization. The production of high-quality, respected, and practically utilized research outputs will further strengthen VSTE's standing among research institutions both nationally and internationally.

VSTE's third role and social responsibility are integral to its teaching, educational, and research activities. As a regional higher education institution, VSTE remains primarily focused on serving the needs of the South Bohemian region.

The main goal can be defined as follows:

VSTE, as an integral part of the educational, creative, and environmental environment of the South Bohemia Region, will contribute to the social development of the region through its activities, grounded in new knowledge and based on the principles of sustainable development. The goal is to foster and strengthen civic awareness and responsibility by promoting environmentally responsible behaviour within both the academic and wider civic communities. By 2030, five

main strategic areas will have been proposed, with a detailed breakdown of the relevant actions. Actions related to R&D&I will be outlined as follows:

Measures:

1. Develop a system for the active involvement of the institution in regional development programs, including those of the city and local authorities. This should also involve the creation of supportive implementation tools by VSTE.
2. Enhance collaboration between VSTE and the business sector, particularly within the South Bohemia region, focusing on specific research activities, methodological and advisory services, contract research, as well as professional and social activities organized jointly by the school, businesses, and other educational institutions.
3. Increase the visibility and accessibility of the Lifelong Learning Centre to the public in the South Bohemia Region.
4. Ensure the transfer of new knowledge to broader social practices by promoting science and research in the field of sustainable development.
5. VSTE recognizes the provision of equal opportunities for all employees as a cornerstone of its development. It is undeniable that the effective implementation of equal opportunities contributes significantly to the qualitative development and sustainability of the institution. In practice, this entails the implementation of the following measures.
6. Innovate and regularly evaluate the VSTE Employee Code of Ethics to ensure its continued relevance and effectiveness.
7. Increase the number of academic staff and students participating in the work of regional governing bodies, as well as those of the Statutory City of České Budějovice, districts, and other professional and social institutions.
8. Utilize social and promotional events aimed at the South Bohemian public (e.g., Night of Scientists, Open Days) to raise awareness among citizens and children about the importance of addressing environmental protection.
9. Increase the scientific research potential of the institution by establishing strategic partnerships with businesses and research centres.

The Institute of Technology and Business in České Budějovice (VSTE) actively fulfils its third role by transferring the results of research, development, and innovation (R&D&I) to society and engaging with local stakeholders. Our objective is not only to advance academic knowledge but also to contribute to the sustainable development of the region, foster innovation, and improve the quality of life for its inhabitants.

The outputs of the institution's applied research focus primarily on technical and economic disciplines, with a direct impact on business and public administration. Through contract research and joint projects, the institution assists companies in implementing innovative technologies, optimizing processes, and enhancing their competitiveness. The institution actively promotes knowledge transfer through professional workshops, consultations, and publications.

The institution maintains close cooperation with the South Bohemia Region, the City of České Budějovice, local businesses, and other institutions. It supports the development of startups, encourages student entrepreneurship, and fosters student involvement in real-world projects. In partnership with local governments and non-profit organizations, the school addresses local challenges such as transportation infrastructure, sustainable development, and digitalization.

Open science and the popularization of research are central to the mission of the school. The institution organizes lectures, expert conferences, and public discussions to present project results. The goal is to make academia accessible to all and ensure that the innovations produced at VSTE have a tangible impact on society.

VSTE fulfils its third role through the following activities:

1. Participation in science fairs and public events.
2. Cooperation with companies on research and innovation projects.
3. Providing student practical training in cooperation with companies.
4. Organizing professional conferences.
5. Participation in the programs of the Technology Agency of the Czech Republic.
6. Cooperation with regional partners on development projects.

Supporting the transfer of technology and knowledge into practice.

PERSONNEL POLICY

4.5 Structure of human resources

The HEI shall describe the current state, age structure, degree of internationalization and development trends of the staff involved in R&D&I, along with their distribution by a job title and gender for the period of 2020–2024 as detailed in annex tables (Tables 4.5.1 to 4.5.3) (including the provision of technical and economic facilities).

Maximum 1000 words.

Self-assessment:

The VSTE undertakes and submits projects related to human resources development across the entire institution. Other focus areas include the enhancement of the working environment, increasing transparency and openness of VSTE as an R&D institution at regional, national, and international levels, as well as supporting the overall framework for human resources management. This includes defining the approach to human resources care, establishing rules for selection

procedures, implementing a system for regular staff training, and supporting quality research and education, including fostering early-career researchers and staff.

VSTE actively supports the professional development of its staff, as evidenced by the table below, which demonstrates the increase in the number of professors and associate professors. In terms of generational balance, these positions have been consistently maintained over the long term.

4.5.1 Staff involved in R&D&I of the university (FTE) in the period under review

Academic/professional position	Total 2020	Of which women [%]	Of which foreign [%] ⁹⁸	Total 2024	Of which women [%]	Of which foreign [%]
Professor	6,081	19,12 %	5,92 %	7,60	32,89 %	33,95 %
Associate Professor	17,556	19,52 %	20,49 %	20,62	31,77 %	32,59 %
Assistant Professor	33,425	36,03 %	26,48 %	40,28	25,02 %	22,02 %
Assistant	19,673	48,76 %	4,22 %	24,7	52,63 %	12,91
R&D Personnel ⁹⁹	0	0	0	0	0	0
Researchers in other categories ¹⁰⁰	23,05	28,85 %	6,16 %	26,55	26,36 %	6,59 %
Technical and economic staff ¹⁰¹	119,585	65,21 %	3,18 %	122,42	65,59 %	5,55 %
Early career researcher ¹⁰²	19,748	32,65 %	0	16,25	36,6	21,5 %
Scientific, research and development staff involved in teaching activities	0	0	0	0	0	0
Total number of foreign nationals						

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, research and development staff, scientific staff not falling into other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.

Note: The average number of hours worked is calculated as the ratio of the total number of hours actually worked during the reference period, from 1 January to 31 December, by all staff (including agreement on work activity, excluding agreement on work performance) to the total annual working time pool per full-time employee. The full-time status of the worker in the evaluated unit is always reported. If an employee holds more than one type of full-time job within the evaluated unit, the total sum of the two shall be reported.

4.5.2 Percentage of HEI's staff involved in R&D&I, categorized by age structure, job title, and gender in the year 2020 (number of physical employees and staff)

Academic/professional position	Under 29 years [%]		30-39 years [%]		40-49 years [%]		50-59 years [%]		60-69 years [%]		70 years and over [%]	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	27.27 %	33.33 %	9.1 %	0	27.27 %	33.33 %	36.36 %	0
Associate Professor	0	0	15.38 %	50 %	34.62 %	11.11 %	15.38 %	25 %	19.23 %	40 %	15.38 %	25 %
Assistant Professor	0	0	47.73 %	14.29 %	36.36 %	56.25 %	15.91 %	28.57 %	0	0	0	0

⁹⁸ Researchers with Slovak citizenship are not considered foreign.

⁹⁹ The category "Other scientific, research and development personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

¹⁰⁰ The category "Researchers not falling under other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

¹⁰¹ Who participates in the management and support of R&D&I in the institution.

¹⁰² See Definition of Terms in Methodology HEI2025+.

Assistant	16%	75 %	40%	40%	28 %	42.86 %	12 %	66.67 %	4 %	100 %	0	0
Early career researcher ¹⁰³	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ¹⁰⁴	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰⁵	27.27 %	33.33 %	39.39 %	38.46 %	18.18 %	16.47 %	6.06 %	50%	6,06 %	0	3,03 %	0
Technical and economic staff ¹⁰⁶	40.68 %	68.75 %	26.27 %	70.97 %	16.95 %	75 %	11.86 %	57.14 %	3,39 %	0	0,85 %	0
Scientific, research and development staff involved in teaching activities	0	0	0	0	0	0	0	0	0	0	0	0

Note: The total number of employees/workers as of 31.12. of the calendar year in question is to be given, irrespective of the proportion of full-time equivalents, but only in an employment relationship, i.e. not including persons working parttime agreements. Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

4.5.3 Percentage of HEI's staff involved in R&D&I, categorized by age structure, job title, and gender in the year 2024 (number of physical employees and staff)

Academic/professional position	Under 29 years [%]		30-39 years [%]		40-49 years [%]		50-59 years [%]		60-69 years [%]		70 years and over [%]	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	38.46 %	20 %	7.69 %	100 %	38.56 %	40 %	15.38 %	0
Associate Professor	0	0	14.28 %	25 %	42.86 %	41.67 %	17.86 %	20 %	10.71 %	33.33 %	14.29 %	25 %
Assistant Professor	2.04 %	0	51.02 %	16 %	22.45 %	45.45 %	22.44 %	27.27 %	2.04 %	100 %	0	0
Assistant	27.27 %	55.55 %	33.33 %	36.36 %	27.27 %	66.67 %	3.03 %	0	9.09 %	66.67 %	0	0
Early career researcher ¹⁰⁷	0	0	0	0	0	0	0	0	0	0	0	0
R&D personnel ¹⁰⁸	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰⁹	13.04 %	50 %	28.26 %	30.77 %	30.44 %	21.42 %	13.04 %	33.33 %	13.04 %	16.16 %	2.17 %	0
Technical and economic staff ¹¹⁰												
Scientific, research and												

¹⁰³ See Definition of Terms in Methodology HEI2025+.

¹⁰⁴ The category "Other scientific, research and development personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

¹⁰⁵ The category "Researchers not falling under other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

¹⁰⁶ Who participates in the management and support of R&D&I in the institution.

¹⁰⁷ See definitions in Methodology HEI2025+.

¹⁰⁸ The category "Other scientific, research and development personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

¹⁰⁹ The category "Researchers not falling under other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

¹¹⁰ Who participates in the management and support of R&D&I in the institution.

development staff involved in teaching activities												
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Note: The total number of employees/workers as of 31.12. of the calendar year in question is to be given, irrespective of the proportion of full-time equivalents, but only in an employment relationship, i.e. not including persons working parttime agreements. Other types of contractual relationships under the Civil Code that involve purchase of services are not included.

4.6 Academic and Research Careers

The HEI will briefly describe the central system for HR recruitment, placing particular emphasis on recruitment from outside the HEI, especially from abroad, as well as system of career development of academic and research staff, if such system exists. Information will be provided on:

- Career development rules and legislation related to the recruitment and career development of domestic and foreign employees (e.g. Career Code, HR Award, OTMR policy, etc.).
- International tenders.
- The process of new employee adaptation and mentoring.
- Transparent distribution of institutional time, attitudes towards chaining of contracts and senior academic positions.
- Rules for filling senior positions in the context of R&D&I.
- The rules and support system of sabbaticals.
- Measures for the return of workers after a stay in an external workplace, including a foreign workplace.
- Arrangements for workers to return after maternity/parental leave or other career breaks (e.g. caring for family members).
- Other relevant information at HEI discretion.

The HEI shall provide a reference to an existing career code or similar document (if one exists). The HEI shall describe the effectiveness of the systems used with examples (e.g. a model example of the adaptation process, a specific anonymised example of an academic's career path, statistics on the return after maternity/parental leave or career breaks before and after the implementation of the measures, etc.).

Maximum 300 words per point.

Self-assessment:

Academic and research staff at VSTE are trained through a combination of internal courses offered by the university and external training providers. To facilitate this, an 'HR development fund' is employed, where each department sets a training plan prior to the start of the new year and organizes the necessary courses for their team members. Human resources management is overseen by department managers, who handle subordinate staff management. From a professional standpoint, the Department of Corporate Strategy, specifically the Department of Human Resources Management, is responsible for human resources management. This department also offers courses in the Human Resources Management study programme. The administrative processes related to recruitment and selection are managed by the HR department in collaboration with the heads of individual departments. Training procedures for staff vary across departments. However, all new employees receive training in OHS, IS VSTE, and ETMS upon starting employment.

A standardized procedure for staff training is established within the institution, supported by the implementation of a career code.

4.7 Gender equality measures

The HEI will briefly describe the measures relating to the application of gender equality in the areas required for assessment criteria 4.5, 4.6, with an emphasis on:

- Gender equality in recruitment and career development.
- Legislation and documents regulating gender equality (e.g. Gender Equality Plan, Action Plans, strategic documents for equality, including links to overarching strategies, etc.).
- The filling of leadership positions (including gender balance in leadership positions, see Table 4.7.1).
- Nominations to professional bodies.
- Evaluation and remuneration.
- Measures to reconcile the work and family life of researchers (flexible working hours, flexible forms of work, maternity/parental leave management, facilitating child/dependent care, age management in relation to gender).
- Measures to eliminate negative workplace behaviour such as mobbing and sexual harassment.

The HEI shall provide evidence of the examples from practice (e.g. use of flexible working hours, dealing with cases of mobbing or sexual harassment, compliance with the principles of gender equality in HEI professional bodies, etc.).

Maximum 300 words per point.

Self-assessment:

VSTE does not currently have a formally developed Gender Equality Plan; however, it has long implemented practices that ensure equal access regardless of gender, age, nationality, or other personal characteristics. Equal remuneration is enshrined in internal pay regulations and other related documents, which reward employees primarily based on their performance and expertise.

To support the work and life balance of its employees, the institution offers flexible working conditions, such as part-time work, the option of flexible working hours, and access to a nursery. Additional benefits include an extra week of leave for parents, providing a total of six weeks.

In the area of promoting gender equality at VSTE in 2023, cooperation with Jihočeská agentura pro podporu inovací (JAIP) was established within the project NOstereotype - ACTIVITIES PROMOTING GENDER-FREE CHOICE OF STUDY FIELD AND PROFESSION /Activities Contributing to the Gender-Non-Stereotypical Choice of study fields and Professions (registration number CZ.03.01.02/00/22_020/0000854). The aim of the project is to break down gender stereotypes that influence young people's decisions regarding the choice of study fields and subsequent career paths. Key outputs of the project include the development of a Methodology for Conscious Decision-Making in the Selection of Study Fields and Professions, which will subsequently be integrated into the VSTE curriculum.

4.7.1 Gender balance in management positions

Senior staff	2020		2024	
	Men	Women	Men	Women
Rector	1	0	1	0
Vice-Chancellor	2	0	3	1
Dean ¹¹¹	3	1	3	0
Academic Senate	7	1	7	2
Scientific/Artistic/Academic Council	15	1	19	4

¹¹¹ or other head of a relevant work unit of a higher education institution under Section 22(1) of the Higher Education Act performing R&D&I activities, regardless of the designation.

Quaestor	1	0	0	1
Board of Directors	0	0	8	1

Note: If one person holds more than one of these positions within the HEI, he/she will be counted in each.

4.8 Mobility of academic and research staff (including sectoral and inter-sectoral mobility)

The HEI shall describe in a concise and structured manner its strategies and objectives for the mobility of academic and research staff (including PhD students), with particular emphasis on mobility related to the development of excellent science and interdisciplinary (intersectoral) mobility. The HEI shall identify potential barriers to mobility, including gender-based barriers. The HEI shall provide information on long-term stays abroad by its own academic staff or, conversely, by foreign staff at the HEI being evaluated.¹¹²

The achievement of the set objectives will be demonstrated by the HEI by describing specific examples of mobility or by brief statistics on mobility during the period of 2020–2024.

Maximum 500 words plus 200 words for each example given (max. five examples with a specific description of the relevance of mobility to the stated objectives).

Self-assessment:

Institute of Technology and Business in České Budějovice (VSTE) systematically supports the mobility of academic and research staff as a key tool for developing scientific excellence, know-how sharing, and fostering internationalization of teaching. The institution's strategy in this area focuses on the following:

- Strengthening the teaching and research mobility of academic staff within Erasmus+ KA131, CEEPUS, and bilateral agreements.
- Developing intersectoral mobility by promoting exchanges between academia and industrial partners, particularly in techno-economic fields).
- Supporting the participation of academic staff in international research projects under Horizon Europe, Erasmus+ KA2, and other international grant schemes.
- Facilitating long-term research stays abroad.
- Attracting international experts and scholars—the institution is developing a visiting professor strategy to enhance the internationalization of teaching and research.

Barriers to mobility and their solutions

VSTE has identified several obstacles to the development of academic mobility:

- Administrative and financial burden – digitalization of processes through the online mobility management tool ISOIS and the simplification of grant administration.
- Low motivation of academics for long-term mobility – targeted support in the form of individual incentives and financial aid.
- Gender-based barriers – support for staff with families through scholarships and flexible travel options (e.g., short-term mobility, hybrid research formats).

Academic staff regularly undertake stays at partner universities, where they participate in joint projects and publications in international peer-reviewed journals.

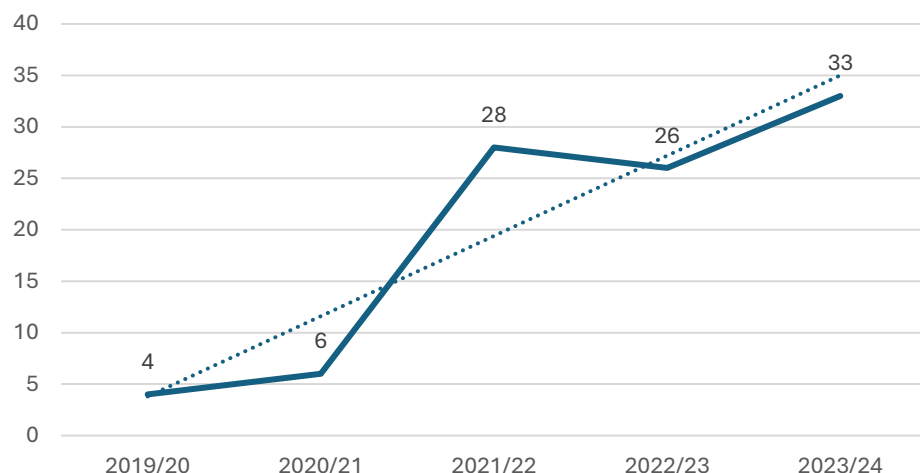
Brief statistics on academic staff mobility (2020–2024) Academic staff mobility at VSTE showed an upward trend, although the period 2020–2021 was significantly influenced by the COVID-19 pandemic. In the academic year 2021/2022, the number of mobility stays increased significantly, reaching an all-time high of 33 stays in 2023/24. This increase is attributed to the expansion of the partner network, enhanced administrative support for mobility, and a targeted international cooperation strategy.

Number of Erasmus+ outgoing academics

Academic year	Number of mobility stays
2019/20	4
2020/21	6
2021/22	28
2022/23	26
2023/24	33

¹¹² Long-term mobility means an uninterrupted period of more than three months.

Academic staff mobility within Erasmus+



A long-term goal of VSTE is to maintain the upward trend in mobility and their greater focus on research cooperation and interdisciplinary activities.

Examples of best practices in academic staff mobility

Long-term research mobility at the University of Aveiro, Portugal, 2021

Participant: Ing. Veronika Jelínková

Host institution: University of Aveiro, Portugal

Description of the activity:

Ing. Veronika Jelínková from the Environmental and Research Department completed a three-month mobility stay at the University of Aveiro in Portugal, where she conducted research in the field of organic chemistry.

During her stay, the participant:

- Cooperated with colleagues on experiments focused on the synthesis of low-molecular-weight organic compounds.
- Gained new expertise and practical experience in organic compound synthesis.
- Arranged for joint publication of research findings in scientific journals.
- Established new professional connections that may lead to further international research projects.

This mobility has contributed to the development of international research, facilitated the sharing of scientific knowledge, and enabled transfer of innovative approaches to teaching and practice at VSTE.

Seismological cooperation and seismic wave modelling in Turkey, 2024

Participant: doc. RNDr. Ivo Opršal, Ph.D.

Host institution: Kandilli Observatory and Earthquake Research Institute, Bogazici University, Turkey

Description of the activity:

The mobility at the Kandilli Observatory and Earthquake Research Institute at Bogazici University provided significant professional and scientific benefit to academician Ivo Opršal. During his mobility, he collaborated with Assoc. Prof. Gülüm Tanircan, focusing on key topics in seismology, including modelling of seismic wave propagation, the influence of surface geology, and hybrid models in seismic analysis.

The research cooperation centred on seismic activity in the Osaka and Eskişehir regions, with the primary goal of enhancing seismic risk assessment methods and identifying potentially hazardous sites, such as areas near landslides, volcanic formations, and tectonic faults.

Throughout the stay, continuous knowledge exchange took place, enabling the comparison of various methodological approaches in the field of earthquake research. Thus, the mobility enhanced the participant's professional competencies but also facilitated the establishment of international collaboration among researchers and students in the field of seismology.

In addition to its professional benefit, the mobility also fostered intercultural cooperation and strengthened VSTE's international research network, which is essential for the future involvement of VSTE into research projects focused on seismic risk assessment and their mitigation.

Teaching mobility at the Rotterdam University of Applied Sciences, 2022

Participants: Ing. Jaroslav Kollmann, doc. Ing. Jarmila Straková, Ph.D., Ing. Milan Talíř

Host institution: Rotterdam University of Applied Sciences, the Netherlands

Description of the activity:

Three academics from the Department of Management at the Faculty of Corporate Strategy completed teaching mobility at the Rotterdam University of Applied Sciences, where they focused on strategic corporate management and strategy implementation. Their lectures included the following topics:

- Fundamentals of strategic corporate management – key principles and current trends in corporate management.
- Change management in companies – historical development of change management approaches and value added analysis in corporate processes.
- Presentation of research data in management – results of studies and application of management methods in practice.

During the mobility, discussions took place regarding potential research collaboration, data exchange between institutions, and student involvement in international projects. The mobility strengthened professional relations between the participants and the host university, paving the way for future cooperation in research and education.

Professional mobility in Norway at the Arctic University of Norway, 2022

Participant: Ing. Martin Dědič

Host institution: The Arctic University of Norway, Norway

Description of the activity:

Ing. Martin Dědič from the Department of Civil Engineering completed a professional mobility stay at the Arctic University of Norway. The mobility was focused on digital technologies in civil engineering and the differences in teaching approaches at VSTE and the Arctic University of Norway.

Key activities:

- Discussion on the application of BIM (Building Information Modelling) and other digital innovations in construction.
- Gaining knowledge on laboratory equipment and advanced teaching methods in technical fields.

The participation in a conference on water conservation extended the participant's expertise in sustainability and environmental engineering. The experience enhanced the participant's presentation and language skills, fostered new international contacts, and facilitated the transfer of innovative teaching approaches to VSTE.

Virtual mobility in cooperation with the Silesian University of Technology, 2020

Participants:

doc. Ing. Ladislav Socha, MBA, Ph.D.

doc. Ing. Karel Gryc, MBA, Ph.D.

Host institution: Silesian University of Technology, Poland

Description of the activity:

In 2020, two VSTE academics completed a virtual mobility stay in cooperation with the Silesian University of Technology in Poland. The initially planned face-to-face teaching mobility, focused on applied research in aluminium alloy refining, had to be conducted virtually due to the COVID-19 pandemic.

During the mobility:

- Laboratory experiments were carried out at both universities.
- Academics held regular consultations regarding the results obtained and measurement methodology.
- A physical model was jointly developed, along with the associated measurement methodology, which was subsequently incorporated into the teaching of study programs in Mechanical Engineering and Business Economics.
- Based on this collaboration, a scientific article was prepared and published in the international impact factor journal Metals.

This mobility demonstrates that even in conditions with limited face-to-face mobility, it is possible to effectively develop international scientific cooperation, improve the quality of teaching, and support academic staff's publishing activities.

Summary of the benefits of academic mobility:

- Enhancement of international research cooperation – establishment of new collaborative partnerships for data exchange and joint projects.
- Strengthening of expertise – exchange of advanced teaching and research methods.
- Innovation transfer to teaching – integration of cutting-edge methods and technologies into the teaching process at VSTE.
- Advancement of presentation and language competence – enhancement of participants' abilities to effectively present research and professional topics in the international academic settings environment.
- Development of long-term research collaborations – creation of opportunities for further mobility and research activities.
- Support for scientific research – facilitation of laboratory experiments, development of research methodologies, publication of outputs.
- Contributions to scholarly publishing - preparation and submission of articles to high-impact peer-reviewed journals.

These mobility experiences underscore the active participation of VSTE's academic staff in the global academic community and confirm the pivotal role of such international engagements in advancing both the quality of education and scientific research.

RESEARCH INFRASTRUCTURE

4.9 Research infrastructure

The HEI will describe the system for acquiring/optimizing expensive instruments and equipment, as well as refurbishing outdated expensive instruments. The HEI will also briefly present the internal organisation of the research infrastructure (including technology, expensive instruments, and instrumentation)¹¹³. The HEI will describe the system of sharing (including external research entities) of instruments and instrumentation, including expensive instruments and instrumentation units, referred to as 'core facilities' (if such a system exists). The HEI will demonstrate the effectiveness of the systems with examples (e.g., specific instruments acquired/optimised and their relevance to the achievement of research objectives, examples of sharing of expensive instruments and instrumentation, statistics on sharing of expensive instruments and instrumentation, etc.). The HEI will briefly comment on the data in Table 4.9.1.

The HEI shall also indicate whether it hosts large research infrastructure projects. The name and a brief description will be provided.

Maximum 500 words plus 200 words for each example given (max. five examples).

Self-assessment:

The VSTE students may use a library and electronic information inventory, including bibliographic and full-text databases available via license contracts and systematic references to publicly accessible information sources. The electronic information inventory is available via the institution intranet and the internet pursuant to licence contracts. Users may access the internet, publicly accessible electronic information sources and school-subscribed information sources via Wi-Fi in the computer study hall. Within licenced electronic information sources (EIS), institution websites contain references comprising a clear overview of the most sought-after and the most used publicly accessible databases in which students can easily navigate. The databases inform about articles, periodicals, compilations from economics, technology, natural and applied sciences, political sciences, teaching, history and philosophy. These databases include ANL, Česká národní bibliografie, DOAJ, Econlib, ERIC, EZB, Google scholar, JIB, TECH, IReL, RePEc, etc.

The institution has also access to licensed databases as follows:

- ProQuest STM Package is a full-text multimedia database focused on technical and natural sciences
- ProQuest Central is an expansion of the previous database including humanities and social sciences, comprising one of the most comprehensive worldwide databases. A multi-professional database, containing most of the ProQuest production, follows the footsteps of ProQuest 500 International, involving more than 25 most popular and specialized databases available on the platform. ProQuest Central informs about more than 160 fields, including commerce and economics, science and technology, health and medicine, literature and linguistics, society and culture and arts and history.
- Web of Science covers a multi-professional bibliographic and citation database focused on gathering source data for bibliometrics. Created by an American company Clarivate Analytics, the database is analogous to well-known Science Citation Index database, informing about the citation rate of scholarly articles and the updates of bibliographical figures of the articles from more than 12,000 prominent worldwide scientific and professional journals from various fields. The citation database involves five parts: natural sciences, social sciences, humanities and two parts of conference journals on natural sciences and humanities.
- ČSN refers to an electronic register, covering comprehensive bibliographic data on all standards, full-text standards, technical regulations and documents. The database informs about an easy navigation through ČNS, sorting ČNS, monthly updates on ČNS news and ČSN and TNK activities.

The institution students have free access to these systems during their studies, which they highly appreciate when writing their theses.

The IT department of VSTE ensures the quality IT services for the students as follows:

- Technical support helps students quickly and efficiently solve hardware, software and network issues.
- Regular maintenance helps prevent the outage of systems and teaching facilities.
- Effective safety measures protect students' data, ensuring safe access to information.
- Training and training courses help students effectively use available technologies and services.
- System optimization involves continuously monitoring the system performance and optimizing based on user feedback.

¹¹³ The definition of research infrastructure is set out in the Framework for State Aid for Research, Development and Innovation (2014/C 198/01) and Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in accordance with Articles 107 and 108 of the Treaty.

- Active communication with students and feedback helps the IT department make corrections and improvements.
- Updates and innovations involve regularly updating software and the systems of the VSTE electronic infrastructure including the implementation of new technologies.

The IT department runs a ticket system for recording, administering and monitoring the requirements for the technical support, handling reported incidents. The system allows IT staff to effectively organize and resolve problems, ensuring high-quality services.

As the infrastructure is continuously modernized, the institution enjoys the following benefits:

- Purchasing new laboratory equipment
- Introducing new systems of effectively using the research facilities
- Multi-professional collaboration within research consortia
- Defining long-term strategic goals for developing research infrastructure, including plans for receiving external funds

The department of Civil Engineering of VSTE boasts modern research infrastructure on the experimental analysis of building materials and digital technologies. Laboratories with advanced equipment, including Matest testing press set, multifunctional cutting machines, environmental chambers and Keyence VHX-7000 digital-optical microscope allowing detailed material analysis are the key elements. ATLAS Xenotest Alpha using xenon irradiation allows simulating solar radiation and assessing light stability and wind resistance of the samples. The institution shares the equipment with industrial partners and academic institutions, using the laboratories for research projects and customized material testing. These investments significantly encourage research activities, teaching and students' research involvement.

The institution continuously develops its research infrastructure, ensuring optimal conditions for research activities. Investing in modern laboratory equipment, implementing the system of sharing machine equipment and participating in international research networks lead to highly effective research and innovation. Strategic planning and the regular equipment upgrade ensure high-quality research and encourage multi-professional collaboration. By tapping into available funds and participating in international projects, the school achieves scholarly excellence and healthy technological development.

VSTE pursues modernizing and optimizing its research infrastructure to support a quality teaching process and applied research, systematically investing in developing laboratories and research facilities. The institution new labs involve 3D printer and robotization. Students' access to the latest technologies and machines leads to high-quality education, preparing graduates for the competitive labour market. The institution also has transport, logistics and drone labs and premises for warehouse logistics, planning to build laboratories for supporting the teaching of technologies and railroad transport management. The labs serve students and researchers, allowing sharing the facilities within the institution. The collaboration with external subjects, including South-Bohemian institutions, platforms and companies shows the potential for sharing the research infrastructure outside academic grounds.

The laboratory of warehouse logistics involves modules as follow:

- A warehouse module divided into multiple types of warehouse shelves, manipulation and package techniques
- A module of information systems for supporting warehouse and transportation management (LOGI and LORI) and creating warehouse (logistics) units (software CapePack)
- A module of the automatic identification of technologies (RFID set, code readers, terminal stations, bar code etiquette and RFID tags printers)
- A module of testing the mechanical and environmental strain of logistic elements (abrasion testers, environmental chambers). This field has great potential in collaborating with the Department of Communications of the Institution of Žilina in Žilina, where the lack of up-to-date equipment for testing mechanical and environmental resistances of RFID and EAN codes prevents the team of local specialists from efficiently developing RFID technologies.

Machines, material and equipment are purchased according to R&D&I projects, Innovation vouchers or internal school grants. Radars and cameras for measuring traffic flows were applicable in other projects and small-scale institution commercial activities. Milesight AI Pro Bullet Plus Network Cameras for traffic surveys were purchased from Project LUABA24085 'Analysing and optimizing Czech German labour mobilities for encouraging cross-border cooperation' (2024-2026) and thermal drones Mavic 3 Thermal from the National Recovery Plan Project.

Within the National Recovery Plan 'Green Deal', the Department of Transport and Logistics will be provided with the equipment for measuring environmental impacts of transport.

The Environmental Research Department continuously participates in the project on cybernetics, foundry industry, mechanical engineering, chemistry and energetics. Top-class computing infrastructure for supporting projects and research and development ensures high-quality outcomes in data processing and AI. New laboratories for furnishing and enlivening electronic facilities, labs for advanced electromagnetic testing and research rooms for robotics and logistics were built. ERD also boasts laboratories for measuring mechanical properties, metallography, dimensions and behaviour of metals, using two simulation software programs for foundry industry. The research infrastructure of ERD involves a laboratory of physical modelling and 3D print, ensuring material testing in operating conditions of foundries using various measuring gadgets. ERD possesses a fully equipped research room for organic synthesis and facilities for precise chemical

analysis. To efficiently handle research data for academic purposes, the facilities are available to all teachers. The multi-professional collaboration between technical and humane fields encourages the cooperation between experts from various branches, offering new insights into data processing.

Owning long-term sustainable and modernized equipment, EDR strives for the incorporation in other research projects and remain the technological top-class in the region.

4.9.1 Summary of expenditure/costs on research infrastructure and equipment for the period under review (including related non-investment and personnel costs).

Costs/expenses in thous. CZK/EUR/year	2020	2021	2022	2023	2024	Total value of assets ¹¹⁴
Costs/expenses related to the acquisition of small fixed assets for R&D&I	775.6/30.6	193.3/7.63	262.9/10.3	281.8/11.12	378.7/14.93	1892.3/74.65
Cost of repairs and maintenance of equipment	21/0.83	-	-	-	1/0.04	22/0.87
Acquisition of tangible (DH) and intangible (DN) assets for R&D&I (investments)						
Of which software	507.1/20	273.3/10.78	309.7/12.22	346.2/13.66	200/7.89	1636.3/64.55
Of which other intangible fixed assets	-	-	-	-	-	-
Of which land, buildings and structures	-	-	-	-	-	-
Other intangible fixed assets (machinery, apparatus, equipment, etc.)	474.7/18.73	168.3/6.64	344.3/13.58	257.3/10.15	355.9/14.04	1600.5/35
Total infrastructure spending in years ¹¹⁵	1778.4	361.6	507.4	539.1	935.6	4122.1

¹¹⁴ Enter the sum of the row.

¹¹⁵ Enter the sum of the column.

FINANCES

4.10 Budget and structure of financial resources

The HEI shall provide and comment on an overview of the total R&D&I budget in the period of 2020–2024, broken down by organisational units of the evaluated HEI and by source of funds (Table 4.10.1). The HEI shall also comment on the shares of total costs/outputs covered by public and non-public sources by type of R&D&I for the period under evaluation as shown in Table 4.10.2.

As complementary data, the university will provide an overview of prestigious research projects obtained during the period of 2020–2024 (ERC¹¹⁶, MSCA¹¹⁷, HHMI¹¹⁸, HFSP¹¹⁹, NSF¹²⁰, Horizon Europe¹²¹, NIH¹²², Wellcome Trust¹²³, EDF¹²⁴, OP JAK¹²⁵, OP TAK¹²⁶, NPO¹²⁷, GA ČR¹²⁸, TA ČR¹²⁹ etc.). Include information on the amount of funding received and whether the HEI were principal investigator or co-investigator in Tables 4.10.3, 4.10.4 and 4.10.5.¹³⁰

In addition, the HEI will describe in more detail up to five of the most important projects from the list of prestigious individual projects abroad (ERC, MSCA, HHMI, HFSP, NSF, etc.), providing basic information at the HEI's discretion and regardless of the funder: title, field of expertise, agency, amount of funding, other project participants, and other relevant information as appropriate.

A maximum of 500 words plus 200 for each example of a prestigious international individual project given.

Self-assessment:

The Institute of Technology and Business in České Budějovice actively participates in project calls and collaborates with regional companies on contract and applied research, utilizing both public and private sources of funding.

In 2024, VSTE received earmarked support for R&D – specifically for university research – amounting to CZK 1 813 thousand; in operational funds, it was CZK 1 613 thousand, and investment funds totalled CZK 200 thousand. The grant was fully utilized in accordance with the funding program's regulations.

Public funding accounted for 75.6% of VSTE's total R&D budget in 2024, with 23.5% coming from international public sources and 0.9% from the other funding sources. Applied research consistently represented the largest share of R&D activities across all years (see Table 4.10.2.).

In 2024, VSTE received an institutional support grant for research and development totalling CZK 5 934 thousand in operational funds. The grant was fully utilized in accordance with the funding program's regulations.

Between 2023 and 2026, the Faculty of Corporate Strategy is implementing a project co-funded by the Interreg Central Europe entitled Futurepreneurs and SMEs for a Sustainable Central Europe | Certification Scheme (GREENPACT). The project aims to enhance the skills of SMEs in the sectors of services and creative industry and prepare them for the

¹¹⁶ The European Research Council (ERC) is part of the 'Excellent Science' pillar of Horizon Europe. The ERC funds cutting-edge research by supporting individual Principal Investigators and their research teams.

¹¹⁷ Marie Skłodowska-Curie Action (MSCA) is part of the "Excellent Science" pillar of Horizon Europe and is also aimed at supporting young researchers, including PhD students.

¹¹⁸ Howard Hughes Medical Institute - a non-profit organization in the USA significantly supporting international biomedical research.

¹¹⁹ Human Frontier Science Program - an international programme to support research, particularly in the natural sciences and computer science.

¹²⁰ National Science Foundation (USA).

¹²¹ Horizon Europe - the EU's 9th Framework Programme for research and innovation, running from 2021-2027.

¹²² National Institutes of Health (NIH) - an agency under the United States Department of Health and Human Services. NHI is a major player in project support for biomedical research.

¹²³ major UK private foundation supporting mainly biomedical research.

¹²⁴ European Defence Fund.

¹²⁵ Operational Programme Jan Ámos Komenský - Priority 1 - Research and Development - multiannual programme under the Ministry of Education, Youth and Sports. Within the framework of the OP JAK it is possible to draw financial resources from the European Structural and Investment Funds (ESIF) in the period 2021-2027.

¹²⁶ Operational Programme Technologies and Applications for Competitiveness. The European Regional Development Fund (ERDF) is available in the period 2021-2027 to co-finance business projects in the areas of research, development and innovation, digitalisation and digital infrastructure, business development, smart and sustainable energy and the circular economy.

¹²⁷ National Recovery Plan - under Pillar 5 - Research, Development and Innovation of the National Recovery Plan, the Recovery and Resilience Facility (RRF) is available for the period 2022-2026.

¹²⁸ Grant Agency of the Czech Republic.

¹²⁹ Technology Agency of the Czech Republic.

¹³⁰ The military and the police HEIs, as parts of the organisational unit of the state, are treated specifically in terms of the possibility to participate in the projects.

application of circular economy principles. Within the project, a transnational strategy, an action plan, and a self-assessment tool will be developed to help businesses evaluate their contribution to the circular economy and identify areas for improvement. Companies will also have an opportunity to implement practical measures to enhance business practices and sustainability. Additionally, the project includes a pilot corporate training program on the circular economy.

The project is implemented in cooperation with partner organizations from Germany (Stuttgart Media University; Stuttgart Region Economic Development Corporation), Italy (ENAI Veneto Social Enterprise; Region of Veneto – Department of Labour), Croatia (STEP RI Science and Technology Park of the University of Rijeka Ltd; City of Rijeka), Slovakia (Ekonomická univerzita v Bratislave) and the Czech Republic (VSTE, Chamber of Commerce of the Czech Republic). Eight other institutions from these countries participate in the project in the role of associate partners.

The total budget of the project amounts to EUR 1 809 930 EUR, out of which 80% funded by the European Regional Development Fund.

Project COST CA16222 „Wider Impacts and Scenario Evaluation of Autonomous and Connected Transport” - Management Committee, 2018-2021

Autonomous vehicle (AV) trials are currently taking place worldwide and Europe has a key role in the development of relevant technology. Yet, very limited research exists regarding the wider implications of the deployment of such vehicles on existing road infrastructure, since it is unclear if and when the transition period will start and conclude.

It is anticipated that improved accessibility and road safety will constitute the primary benefits of the widespread use of AVs, whilst co-benefits may also include reduced energy consumption, improved air quality or better use of urban space. Therefore, the focus of this COST Action is on observed and anticipated future mobility trends and implications on travel behaviour, namely car sharing, travel time use or residential location choice to name a few. Other important issues to be explored under different deployment scenarios are social, ethical, institutional and business impacts.

To achieve this, it is essential to culminate co-operation between a wide range of stakeholders at a local, national and international level, including academics and practitioners. Consequently, this COST Action will facilitate collaboration within Europe and beyond about this emerging topic of global interest.

Project COST TU1408 „Transport and Urban Development - Air Transport and Regional Development” - Management Committee, 2015-2019

The air transport sector is a major contributor to the globalization of the economy. Its growth was accompanied and to a certain extent caused by liberalization. The growth in traffic levels has led to congestion, at both major airports and in airspace, and to a lack of service on thin routes, thus mainly affecting core regions and remote regions. This Action investigates the relationship between air transport and regional development. The benefits that may be derived from it are both scientific and societal in nature. They include a better understanding of that relationship focusing on Europe; policy recommendations on how air transport infrastructure and service improvements should be made in order to support economic competitiveness and social cohesion; and the constitution of a network of researchers dedicated to air transport and its economic, social and environmental implications aligned with Europe 2020 strategy.

HTML links to additional documentation:

<https://www.cost.eu/actions/ca16222>

<https://www.cost.eu/actions/tu1408/>

4.10.1 Total budget of the HEI

Name of the HEI unit	Total budget in thous. CZK/EUR	Percentage of public funding in the Czech Republic	Share of public funding from abroad in %	Percentage of funding from other sources
VŠTE	291219/11542,57	75,6	23,5	0,9

4.10.2 Share [%] of total costs/outputs by type of R&D&I paid from public and non-public sources

	2020	2021	2022	2023	2024	Total
Basic research	1620	1356	0	0	908	3884
Applied Research	33526	53237	58531	66513	70699	282506
Experimental development and innovation	0	0	0	0	4829	4829
Total	100	100	100	100	100	100

Note: For definitions see Definition of Terms in Methodology HEI2025+.

4.10.3 Projects supported by a foreign provider

12.10 Projects supported by a foreign provider							
In the role of beneficiary							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
European fund for regional development/ State budget of the CR	Czech Republic – Free State of Bavaria Cross-border Cooperation Programme 2014-2020	Common Language – Common Future 02/2020–01/2023	55.68/2.21	119.4/4.73	100.71/3.99	4.96/0.2	0
European fund for regional development/ State budget of the CR	Interreg Bavaria – Czech Republic 2021–2027	Simulated Project Office (SiPMO) 04/2024–03/2027	0	0	0	0	39.3/1.56
European fund for regional development	Czech Republic – Free State of Bavaria Cross-border Cooperation Programme, Cíl EÚS 2014 - 2020 INTERREG V	Supporting Modern Trends in Instruction with Regard to Best Practice – No. 261	42.52/1.69	151.6/6.01	104/4.12	46/1.82	
Visegrad Grant (International Visegrad Fund)	Strategic Grant	Minibreweries as developers of regional tourism in the V4 area. 22210017			12.62/0.5		
Total			98.2/3.87	271/10.7	217.33/8.57	50.96/2.01	39.3/1.56
In the role of another participant							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
European fund for regional development/ State budget of the CR	Interreg Central Europe	Futurepreneurs and SMEs for a Sustainable Central Europe Certification Scheme (Greenpact) 04/2023–03/2026	0	0	0	19.36/0.77	54.36/2.15

Total				19.36/ 0.77	54.36/ 2.15
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Note: For co-sponsorship projects, please only indicate the amount of funding for the evaluated HEI.

4.10.4 Projects supported by the Czech provider

In the role of beneficiary							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
OP JAK	-	-	0	0	0	0	0
NPO (National Recovery Plan – NRP)	3.2.1 Transforming universities to adapt to new forms of learning and changing labour market needs)	VSTE –National Recovery Plan			20773 /823.35	41546 /1646,69	
NPO	Adaptation of schools - Promoting green skills and sustainability in universities	Developing green skills and promoting sustainability at VSTE					
Technology Agency of the CR	Program Éta. 1. VS	Stabilization and Development of SMEs in Rural Areas 02/2018–01/2021	44.4/1.76	8.28/0.33			
Technology Agency of the CR	Programme of public procurement in applied research and innovation for the needs of the state administration	Expert Study on Determining the Average Lifespan of Selected Buildings in the Czech Republic (TITACSU011)		450/17.84			
Grant Agency Akademia aurea	6th Call	Application of Artificial Neural Networks in Business Valuation Using an Appropriate Income Approach		191/7.57			
Grant Agency Akademia aurea	6th Call	Application of Artificial Neural Networks in Managing Shareholder Value as the Primary Goal of the Company		196/7.77			
Technology Agency of the CR	Programme of public procurement in applied research and innovation for the needs of the state administration BETA2	Methodology for Quantifying the Share of Self-Builders in the Value of New Family Houses and Renovations of Existing Family Houses (TITACSU035)		712/28.22	954/37.81		
Ministry of Industry and Trade	OPPIK 2014-2020	Design of an Uninterruptible Power Supply for Measuring Equipment Powered at 230 V (CZ.01.1.02/0.0/0.0/20_358/0028106)			491/19.46		
Ministry of Industry and Trade	OPPIK 2014-2020	Design of a Streaming Platform for Terrestrial Digital Broadcasting within a Local Network (CZ.01.1.02/0.0/0.0/20_358/0028088)			494/19.58		
Technology Agency of the CR	3.VS DOPRAVA 2020+	Methodology for Corporate and School Mobility Plans (CK03000135)			1568/62.15	1617/64,09	739/29,29

Technology Agency of the CR	1.VS SIGMA - DC3	Innovative Public Procurement in the Field of SMART CITY Solutions (TQ01000323)				128/5,07	1114/44,15
Technology Agency of the CR	ÉTA 2	TL02000017 Intergenerational Management to Support Digitalization in Construction. In Collaboration with SWIETELSKY Construction Ltd.	837/3 3.17	990/3 9.24			
Technology Agency of the CR	ÉTA 2	TL02000559 Safe Cities for Pedestrians and Senior	1710/67.78	1704/67.54	1857/73.6		
Technology Agency of the CR	SIGMA DC 2	TQ03000624 Photoresponsive Azo-Polymer Materials Applicable as Thermal Sensors					861/3 4,13
Total			2591.4/102.71	4251.28/16 8.51	26137/1035.95	43291/1715.85	2714/107.57
In the role of another participant							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
TA CR 33ZNP016	PROSTŘEDÍ PRO ŽIVOT	Health-Safe Surfaces Based on Recycled Rubber SS01020515	1406/55.73	1574/62.39	1574/62.39	265/1 0.5	
TA CR 33OŘZ	TREND	Optimization of Custom Batch Production Management in Real-Time Using IoT and Digital Technologies	1017/40.31	1035/41.02	1035/41.02	508/2 0.13	
TA CR 33MMD008	ÉTA	Intergenerational Management to Support Digitalization in Construction	837/3 3.17	990/3 9.24			
TA CR 33RTH006	EPSILON	Research and Development of Zinc Waste Recycling Technology for the Production of High-Quality Zinc Alloy Castings	1313/52.04	1313/52.04	1313/52.04		
TA CR 33TRZ007	EPSILON	Research and Development of Refining Technologies to Improve the Quality of Aluminum Alloys for High-Demand Castings	2500/99.09	2500/99.09	2500/99.09		
TA CR 33BMS009	ÉTA	Safe Cities for Pedestrians and Seniors	1710/67.78	1704/67.54	1857/73.6		
TA CR 33SRP004	ÉTA	Stabilization and Development of SMEs in Rural Areas	1110/44	207/8.2			
TA CR 33ESU019	BETA	Expert Study on Determining the Average Lifespan of Selected Buildings in the Czech Republic (TA CR),		450/1 7.84			
TA CR 33PSD027	BETA	Methodology for Quantifying the Share of Self-Builders in the Value of New Family Houses and Renovations of Existing Family Houses		712 /2 8.22	954/3 7.81		
TA CR 33WTF023	TREND	Research and Development of Molds Made from Hardenable Steels for Die Casting of Zinc Alloys Using Modern Additive Manufacturing, Heat Treatment, Surface Finishing, and Numerical Simulation		1921/76.14	1921/76.14	1921/76.14	1921/76.14
TA CR 33WTH024	TREND	Research and Development of Molds Made from H-13 and HEATVAR Materials for Die Casting of Aluminum Alloys Using Modern Additive Manufacturing, Heat Treatment, Surface Finishing, and Numerical Simulation Technologies		2412/95.6	2412/95.6	2412/95.6	2412/95.6
TA CR 33IML035	DOPRAVA	Implementation of urban logistics in the planning process of sustainable urban mobility (CK03000085) (TA CR),			1100/43.6	1050/41.62	450/1 7.84
TA CR 33IVZ049		Innovative Public Procurement in the Field of SMART CITY Solutions (TQ01000323)				128 /5 .07	1114/44.15

TA CR 33MFS034	SIGMA	Methodology for Corporate and School Mobility Plans (CK03000135)			1568/ 62.15	1617/ 64.09	739/ 9.29
Technology Agency of the CR	Program Éta, VS2	Digital Transformation for Business Model Innovation in SMEs in the Czech Republic 02/2019–01/2022	12.44/ 0.49	10.36/ 0.41	3/0.12		
Technology Agency of the CR	Program ÉTA, VS4	Restart SMEs: Specification of the Impact of the COVID-19 Pandemic on SMEs and Identification of Factors for a Successful Response to the Crisis Situation, as well as Defining Development Scenarios Based on the Impact Typology and SME Categories 10/2020–09/2022	4.4/0. 17	17/0.6 7	13.32/ 0.53		
Technology Agency of the CR	Program Trend, VS1 (Subprogram 1 "Technology leaders")	Optimization of Custom Batch Production Management in Real-Time Using IoT and Digital Technologies 01/2020–06/2023	40.68/ 1.61	41.4/1 .64	41.4/1 .64	20.32/ 0.81	
Technology Agency of the CR	2. VS ÉTA 2	Adaptation of the Knowledge-Intensive Services Sector to the Conditions of Society 4.0 (TL02000136)	389/1 5.42	366/1 4.51			
Technology Agency of the CR	Program veřejných zakázek v aplikovaném výzkumu a inovacích pro potřeby státní správy (Programme of public procurement in applied research and innovation for the needs of the state administration) BETA2	Methodology for Calculating the Value of Non-Residential Buildings in the Government Sector (TITACSU920)	600/2 3.78				
Technology Agency of the CR	1.VS THÉTA 2	The Impact of Energy Price Changes on Consumer Behaviour in the Czech Republic (TS01010120)					361/1 4.31
Ministry of Culture of the CR	NAKI	DH23P03OVV012 Restoration of Hard Plaster Facades from the First Half of the 20th Century				1072/ 42.49	1179/ 46.73
Ministry of Industry and Trade of the CR	OPPIK APLIKACE VÝZVA IX	CZ.01.1.02/0.0/0.0/21_374/0027275 - Research and Development of an Innovative Building Data Warehouse (BDW) Line to Ensure Quality and Process Control in Construction and Maintenance				1602/ 63.5	
Ministry of Industry and Trade of the CR	APLIKACE VÝZVA VIII.	CZ.01.1.02/0.0/0.0/20_321/0023812 - Development and Validation of a New Technology for Industrial Automation and Digitalization of the Production Process of Zinc Pigments Obtained through Recycling and Waste Utilization		441/1 7.48	1210/ 47.96	163/6. 46	
Ministry of Industry and Trade of the CR	APLIKACE VÝZVA VIII.	CZ.01.1.02/0.0/0.0/20_321/0025266 Advanced Equipment for Autonomous Mobile Machines			1553/ 61.55	1164/ 46.14	
Ministry of Industry and Trade of the CR	APLIKACE VÝZVA VIII.	CZ.01.1.02/0.0/0.0/21_374/0026706 Development of the Innovative Grill Zone Platform			672/2 6.63		1891/ 74.95

Ministry of Industry and Trade of the CR	APLIKACE VÝZVA VIII.	CZ.01.1.02/0.0/0.0/20_321/0025077 - Advanced Diagnostics and Adaptive Autonomous Systems for Control and Measurement at Robotic Production Workstations			3019/ 119.6 6	359/1 4.23	
Technology Agency of the CR	TREND 6	FW06010486 Digitalization of the Zinc Alloy Die Casting Process by Combining Modern Virtualization Tools and Methods				3408/ 135.0 8	3408/ 135.0 8
Technology Agency of the CR	TREND 10	FW10010243 Digitalization of the Wire Winding Process Using Modern Digital Image Processing Methods					3285/ 130.2
Technology Agency of the CR	TREND 10	FW10010110 Light-Curable Polymer Systems with Innovative Photoinitiators for 3D Printing and Other Applications					1480/ 58.66
Technology Agency of the CR	THÉTA 2	TS01030096 Innovative Thermal Energy Storage System Based on Recycled Waste Materials					731/2 8.97
Total			10939 .52/43 1.54	15693 .76/61 9	21190 /836	14628 /577	18973 /748

Note: Please summary list GA CR, TA CR and other departmental projects. For co-sponsor projects, please indicate the financial volumes for the HEI. Projects financed from EU structural funds and focused exclusively on R&D&I (e.g. OP JAK, OP TAK, NPO) and projects financed from regional sources focused exclusively on R&D&I list individually. For co-sponsoring projects, please indicate the financial volumes for the evaluated HEI only.

4.10.5 Projects supported from non-public sources

In the role of beneficiary						
Provider / Investor	Project name	Support (in thousands CZK/EUR)				
		2020	2021	2022	2023	2024
Fontea, a. s.	Využití metody samoplánování směn (VSTE dodavatelem expertní služby Inovačního vouchery v rámci projektu Optimalizace a praktické testování zlepšeného procesu organizování pracovní síly s využitím specifického software) / Implementation of self-scheduling of shifts – VSTE provides expert services under Innovation voucher with the project		150/5. 95			
VM Motor	Innovation voucher – Innovation of manufacturing and support processes to enhance quality, efficiency, and profitability in a company specializing in the development and servicing of sport motorcycles				19.96/ 0.79	
STS Prachatice, a.s.	Innovation voucher – Optimization of the production and sales process using the PVA model			19.96/ 0.79		
CENTES, spol. s r.o.	Innovation voucher – Implementation of BVAP (Budweis Value Added Process) matrix in business within the sector of manufacturing and supply of industrial parts					19.8/0 .78
NAVEL, spol. s r.o.	Innovation Voucher – Analysis of the Product Portfolio and Proposal of Measures to Improve the Efficiency of Manufacturing Processes and Company Management					19.8/0 .78
Viscofan CZ, s. r. o.	Contract research – Contract research – Identification of the most and least profitable items in the company				3.44/0 .14	
DOC Mercury	Contract activity – comprehensive marketing services, communication and marketing research					3,48/0 ,14
Bouda Burgers	Contract activity – Marketing research					60/2,3 8
External partners	Translations, proofreading		1.12/0 .04	2.04/0 .08	5.08/0 .2	7,24/0 ,29
Déhora Česká republika	Coaching and professional qualification courses					6/0,24
ZŠ Prachatice	Teaching activity of the Department of Human Resources Management (Burn-out syndrome) – contract activities			0.32/0 .01		

HEMP PRODUCTION CZ, s.r.o.	Marketing campaign		0.8/0.03			
Mektec Manufacturing Corporation Europe CZ s.r.o.	Employee shadowing – optimization of personnel processes	0.6/0.02				
Nadace ČEZ	New Virtual Reality Classroom at VSTE in České Budějovice					200/7,93
Nadace ČEZ	Tree Planting on the VSTE Campus		14.8/0.59			
Total		0,6/0,02	166.72/6.61	22.32/0.88	28.48/1.13	316.32/12.54
In the role of another participant						
Provider / Investor	Project name	Support (in thousands CZK/EUR)				
		2020	2021	2022	2023	2024
Total						

Note: Indicate, for example, sponsorship donations, resources generated from other own economic activities, foreign subsidy programmes of private entities.

4.11 Rules for the use of institutional support for the LCDRO

The HEI will describe the strategy and rules for the use of institutional support for the LCDRO in the management of institutionally supported research activities (e.g., prioritisation of research topics by the HEI according to individual needs, internal grant agencies, incentive tools, support for excellent science) and the method for distribution of institutional support to individual departments/research teams for the period of 2020–2024. The impact on the management of institutionally supported research activities will be described by the HEI using specific examples (e.g. distribution of institutional support in the period of 2020–2024 depending on the evaluation results, examples of supported excellent science projects, etc.).

Maximum 500 words plus 200 words for each example given (max. five examples).

Self-assessment:

Due to its size, the Institute of Technology and Business in České Budějovice (VSTE) is not divided into sub-organizational units. Institutional support for ensuring the Long-Term Conceptual Development of a Research Organization (DKRVO) is used in line with its principles and rules for its provision, in alignment with the Strategic Plan of the institution and its annual updates in research, development, and innovations.

VSTE has implemented a structured system for evaluating the quality of R&D outputs, internal reporting, and control mechanisms for research activities. The distribution of institutional support is centralised and is based on the performance evaluation of individual researchers and research teams, carried out through the ETMS (Excellent Top Manager System). This system monitors publication, project, and application outputs, and serves as both a management and motivational tool.

Institutional support is used to cover salary costs of researchers, operational infrastructure for research, and the renewal of technical equipment. Since 2021, the support has been strictly allocated for non-investment purposes. The university uses this funding to reinforce high-performing research teams with strong application potential, with particular emphasis on environmental research and sustainability.

Example 1: 2020 – development of research infrastructure and technical facilities and equipment

In 2020, the total amount of institutional support provided under DKRVO reached CZK 5,189,282, comprising CZK 2,087,782 in current (non-investment) funds and CZK 3,146,150 in capital (investment) funds. The investment part was allocated to laboratory equipment and the modernisation of research infrastructure. The non-investment portion was used to purchase small tangible fixed assets and licences intended for research purposes. This support enabled the continuation of research activities and contributed to the systematic development of the research environment.

Example 2: 2021 – Allocation of support to researcher's salaries

In 2021, institutional support totalled CZK 5,301,187 and was used exclusively to cover personnel costs of staff engaged in research activities. The allocation of funds was performance-based, reflecting metrics in the ETMS system, particularly in relation to publication and project outputs. The objective was to stabilise and develop human resources in research, with a focus on enhancing the quality and relevance of R&D outcomes.

Example 3: 2022 – Targeted support for high-performing teams and ETMS

In 2022, institutional support totalled CZK 5,686,950 and was primarily allocated to research teams demonstrating outstanding performance, as evaluated by the ETMS system. A part of the funding was also used for the technical

administration of the ETMS system and the enhancement of its analytical capabilities. This support contributed to strengthening research outputs, particularly in technical disciplines, and facilitated the preparation of project proposals for national funding competitions (e.g. TAČR).

Example 4: 2023 – Personnel and system support for analytical tools

In 2023, the institutional support again amounted to CZK 5,686,950 and was allocated to cover the salaries of staff providing analytical and methodological support for research activities, as well as the administration of the ETMS system and the generation of reporting outputs for both internal and external evaluations. This investment supported the advancement of the research environment, the professionalisation of research management, and the provision of evidence for R&D performance.

Example 5: 2024 – Environmental laboratories and operating costs (non-investment)

In 2024, support in the amount of approx. CZK 5,934,115 was allocated primarily to an environmentally focused research unit (the Department of Applied Technologies and Materials Research). The funding was used to cover operational costs, upgrading of software tools, and purchasing of small tangible fixed assets for experimental research. It also supported personnel costs for specialised staff, thereby ensuring the continuity and excellence of material and environmental research teams.

Institutional Support for the Long-Term Conceptual Development of a Research Organization (RVO) is utilized at the Institute of Technology and Business in České Budějovice (VSTE) in full accordance with the principles of targeted research funding. The allocation of funds is anchored in the university's internal regulations and is approved annually by the relevant bodies of academic self-governance. A key management tool for this support is the use of quantified Key Performance Indicators (KPIs), which reflect both research outputs and the university's developmental goals in the field of science and research.

The KPIs are set annually in connection with the strategic plan of VSTE and its updates, particularly in areas such as supporting excellent science, sustainable development, and strengthening the professional profile of the institution. Among the main indicators are, for example, the number of publications in journals indexed in Web of Science (including differentiation by quartile), secured research projects, student involvement in research, or the implementation of expert reviews and consultations for the application sector.

RVO resources are allocated annually based on the evaluation of KPIs achieved in the previous period and the approved plans for the upcoming period. The budget framework is also designed to motivate increased performance and quality of outputs – departments with higher research activity and quality results are allocated greater support. As part of the controlling cycle, regular evaluation meetings with heads of departments and research teams are held, during which priorities and resource allocation are adjusted accordingly.

Given the relatively low initial level of institutional support (e.g., CZK 5.2 million + CZK 1.3 million for the evaluation panel in 2020), the university decided on strategic co-financing of these activities from its own resources. This decision resulted in an increase in funding to CZK 5.9 million from RVO, CZK 1.6 million from Specific University Research (SVV), and CZK 19.3 million from research projects in 2024. This allowed the university to:

- increase the number of projects supported by grant agencies (e.g., an increase of [X]% compared to 2020),
- boost publication output by [Y]%, and
- expand student involvement in research activities across faculties.

An important motivational element for research teams is the fact that, in the case of successful acquisition of grant funds, all indirect costs remain with the respective department – without the need to transfer them to the rectorate. This policy has contributed to increased interest in participating in both national and international funding competitions.

RVO resources in individual years have primarily been used for:

- salary support for academic and research staff involved in research projects,
- acquisition of research infrastructure (especially in 2020),
- development of excellent teams, such as the Environmental Research Unit (now the Department of Applied Technologies and Materials Research), which has repeatedly achieved above-average results in publications and project performance within the university.

Special emphasis has been placed on systematic support for young researchers and students, particularly through SVV projects. This segment has grown from CZK 0.253 million in 2020 to CZK 1.812 million in 2024 and has systematically contributed to the development of a research culture and the professional growth of master's level students.

This system of managing institutional support and its targeted distribution has enabled the university not only to maintain research activity but also to demonstrably improve its quality over time.

NATIONAL AND INTERNATIONAL COOPERATION

4.12 Important collaborations in R&D&I

The HEI will describe specific cases of R&D&I collaboration at the national level (maximum five examples) and the international level (maximum five examples), including examples of concrete results and impacts in the field of R&D&I beneficial for the HEI during the period of 2020–2024.

Maximum 300 words per example.

Self-evaluation:

International level:

1. GREENPACT: Futurepreneurs and SMEs for a Sustainable Central Europe Certification Scheme, reg. no. CE0100090 (Interreg Central Europe), 2023 – 2026.
2. Support for Modern Trends in Education with Regard to Best Practices reg. no. 261 (Cíl EÚS Česká republika – Svobodný stát Bavorsko), 2019 – 2022.
3. Project Erasmus+ KA2 "Partnerships for Cooperation" call was the "New Approach In Educational Technology" (NET) project, which focused on the application of ICT in education. The ICT integrated into education flexibly and successfully incorporates didactic tools and aids, particularly through modern teaching methods, electronic educational materials, YouTube educational channels, interactive software, interactive robotic hardware, virtual reality, video processing, animations, illustrative images, multimedia posters, and educational online games. This project was assessed as 'Good practice' by the European Commission.
4. The DigiCamp project "Digital Education Readiness and Collaborative Virtual Environment for Math, Informatics, and Physics Education" (Erasmus+ KA2) focused on innovative solutions to eliminate the negative aspects of distance education that became apparent during the pandemic, especially in primary and secondary schools. In particular, the project emphasized the active involvement of all stakeholders and provided teachers with a user guide for online learning to better organize their educational activities. The DigiCamp project utilized virtual reality and a 3D virtual world as a learning environment, allowing teachers to conduct distance learning in virtual reality while remaining in direct contact with students, simulating a classroom experience. This technology offered significant advantages for the engaging presentation of knowledge and leveraged the potential of digital technologies to teach subjects that are typically less popular, such as mathematics, computer science, and physics. The project's goal was to create a virtual learning environment that would promote a modern approach to teaching these subjects. The project was included in a European Commission study on the promotion of STEM education in Europe.
5. Projects "Boosting Innovation in Education and Research of Precision Agriculture in Palestine" (BENEFIT), focusing on precision agriculture using innovative technologies, particularly (ICT), Global Navigation Satellite System (GNSS) data, remote sensing and proximity data acquisition.

National level:

1. Digitální transformace pro inovace obchodních modelů v malých a středních podnicích v České republice (Digital Transformation for Business Model Innovation in SMEs in the Czech Republic) (TA CR – TL02000215)
2. Optimalizace řízení zakázkové kusové výroby v reálném čase využitím IoT a digitálních technologií (Optimization of Custom-made Production Management in Real-Time Using IoT and Digital Technologies) (TA CR - FW01010460)
3. Within the project CK03000085 „Implementace městské logistiky do procesu plánování udržitelné městské mobility“ (Implementation of urban logistics in the planning process of sustainable urban mobility) (2022–2024) – cooperation with the University of Logistics, Přerov in developing a methodology for urban logistics – freight transport as part of sustainable urban mobility
4. National cooperation was established with the University of Pardubice, Synpo a.s., Nuvia a.s. and the Chinese Academy of Agricultural Sciences (J. Mater. Chem. A 2023, 11, 3753, DOI: 0.1039/d2ta09699d) a University of Bordeaux (J. Photochem. Photobiol. A, Chem. 2024, 449, 115390, DOI: 10.1016/j.jphotochem.2023.115390).

VSTE cooperates with several foreign universities within the CEEPUS program (six networks in total), which allows students and teaching staff to complete several-week study stays or internships at selected international

HTML links to additional documentation:

[Dokumentový server VŠTE](#)

STUDIES

4.13 Doctoral studies

The HEI will briefly describe the organisation of the doctoral studies (if there are any doctoral study programmes¹³¹). HEI will comment on:

- Structure and organization of studies.
- A system of cooperation between PhD students and their supervisors.
- Basic statistics (including drop-out rate, student workload, etc.).
- Information on promotion and recruitment schemes.
- Cooperation within doctoral studies (e.g., Czech Academy of Sciences, application sphere, building open study programmes for foreign nationals and creating international networks of study programmes, "joint degree", "cotutelle", etc.).
- Student care system (e.g. counselling, wellbeing care, career guidance).
- A system for tracking the future careers of graduates¹³².
- Other relevant data, such as the existence of a doctoral school, basic soft skills courses, etc. at the discretion of the HEI.

The HEI shall support this with appropriate examples (e.g. a model example of doctoral student cooperation with their supervisor, statistics on collaboration within doctoral studies, specific examples within doctoral studies, statistics on the use of student care systems, etc.).

Maximum 300 words per point.

Self-assessment:

Ph.D. studies are not implemented at the Institute of Technology and Business in České Budějovice

IMPLEMENTATION OF RECOMMENDATIONS

4.14 Implementation of the recommendations in Module 4

The HEI will briefly describe how it has implemented the recommendations for Module 4 from the previous evaluation period, if applicable.

Maximum 1000 words

Self-assessment:

Recommendations 4.1–4.5: Transparent Research Strategy and Support Infrastructure

During the evaluated period (2014–2018), the Institute of Technology and Business in České Budějovice (VŠTE) did not yet have a transparent research funding strategy or fully defined research priorities. This has since been rectified by the implementation of the ETMS system, formally introduced by Directive No. 2/2018. The ETMS serves as a comprehensive internal management tool for planning, monitoring, and evaluating research activities, financial allocation, and staff development. Key modules—GOALS, ACTIVITIES, and PROJECTS—support strategic research direction, objective performance evaluation, and transparent project administration. The university also plans to further strengthen the institutional support for intellectual property management through specialised internal units.

¹³¹ If the HEI does not organise any doctoral programme, it will explicitly state this information in the self-evaluation report.

¹³² The HEI will list the top five highest ranked graduates in academia, the private sector, and public administration over the past five years.

Recommendations 4.10–4.13: Internationalisation and Mobility

Internationalisation is one of VŠTE's strategic priorities, as reflected in its Long-term Plan for 2021–2027. Through programmes such as Erasmus+ and CEEPUS, the university has significantly increased international mobility for students and staff. The ETMS system facilitates the planning and evaluation of mobility activities, ensuring alignment with strategic goals and objective impact measurement. Emphasis is placed on two-way mobility, long-term institutional cooperation, and the transformation of exchanges into structured international projects. The selection policy for participants is based on transparent criteria, ensuring fairness and performance orientation.

Recommendations 4.14–4.18: Doctoral Studies and Gender Equality

Although VŠTE does not currently run its own doctoral study programmes, it systematically supports staff participation in doctoral education through institutional partnerships and career planning. The HR module in ETMS allows for the creation of individual development plans, including PhD studies, training, and research goals. In accordance with its human resources strategy, the university also implements measures to support work-life balance and gender equality. Efforts are ongoing to develop support structures that encourage increased participation of women in academic leadership and research. Future self-assessment reports will include more detailed statistical data to reflect these developments.

Recommendations 4.19–4.20: International Research Grants

VŠTE has committed to strengthening its strategic approach to international grant applications. The PROJECTS module in ETMS enables lifecycle management of internal and external projects—from planning to implementation and sustainability. Standardised procedures ensure alignment with institutional goals and efficient resource use. The university has also expanded its research support services, particularly in preparing applications for European grant schemes. These efforts aim to establish a visible long-term trend in securing international R&D funding, with a clear link to institutional development priorities.

Recommendations 4.21–4.23: Research Units and International Advisory Structures

During 2014–2018, VŠTE did not operate formal research centres. Since then, the university has begun establishing research teams and internal units, supported by infrastructure development and ETMS-based planning. While a dedicated international advisory board has not yet been formally established, the role is currently fulfilled by the Academic Council, which includes members from external academic and professional institutions. In future, the university intends to extend this structure to include international experts as part of its strategy for enhancing research governance and strategic guidance.

Recommendations 4.24–4.25: Research Infrastructure and Best Practices

VŠTE continues to invest in research infrastructure, with a focus on accessibility for both internal and external stakeholders. This includes laboratory upgrades, expansion of software and experimental tools, and the development of shared spaces with industry and public-sector partners. The university systematically evaluates successful projects to identify and generalise examples of good practice, which inform further infrastructure and organisational development. Open access and data transparency are being improved through the Open Science II project, including the creation of an institutional repository that balances openness with protection of intellectual property.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 4

Document name	No. criteria	Location (link in HTML)
COST ACTION CA16222		https://www.cost.eu/actions/ca16222
COST ACTION TU1408		https://www.cost.eu/actions/tu1408/
STATUTE OF INSTITUTE OF TECHNOLOGY AND BUSINESS IN ČESKÉ BUDĚJOVICE		Statut VŠTE
Regulation No. 13/2017 RESEARCH PROJECTS		Dokumentový server VŠTE
Regulation No. 2/2020 RULES OF SPECIFIC UNIVERSITY RESEARCH AT ITB		Dokumentový server VŠTE
Provision No. 25/2017 CONTRACTUAL RESEARCH		Dokumentový server VŠTE

Regulation No. 2/2014 SYSTEM OF START-UPS AND SPIN-OFFS FUNCTIONING		<u>Dokumentový server VŠTE</u>
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MODULE 5 - STRATEGY AND POLICIES

5.1 Mission and vision of the evaluated institution in R&D&I

The HEI will briefly describe its mission and vision with emphasis on R&D&I in general and its R&D&I capacities in the implemented R&D&I fields¹³³ (Tables 5.1.1 and 5.1.2). In particular, the HEI's vision covers the following five-year period and must relate to the strategic objectives of the Provider, the National Policy on Research, Development, and Innovation of the Czech Republic 2021+, the Gender Equality Strategy 2021-2030, and other higher national and supranational strategic documents in the field of R&D&I (Table 5.1.3). The HEI shall complement the description with active references to its Strategic plan for the teaching, scholarly, scientific, research, development, artistic, and other creative activities of the higher education institution (regarding the results and recommendations from the previous evaluation period, if the evaluated HEI participated in it). The HEI shall describe how the vision and mission were implemented during the period of 2020–2024.

Maximum 2000 words.

Self-assessment:

The VSTE strategic framework is based on the integral concept of three building blocks: EDUCATION – SCIENCE AND RESEARCH – THIRD ROLE

VISION

VSTE will establish itself as a renowned regional higher education institution with a unique position in the field of professional education in the South Bohemia Region, with economic, social, and environmental responsibility, providing quality, modern, and flexible education in Bachelor's and Master's degree programs for Czech and foreign students, a recognised centre of applied research and innovation with a great commercial potential, with graduates as leaders, entrepreneurs, and visionaries capable of responding to the current and future needs of the labour market while reflecting the challenges of the 21st century.

MISSION

As an open, professionally oriented institution, VSTE is committed to providing high-quality higher education with a focus on social responsibility, tailored to meet the needs of industry and practice. The university will engage in research and development in areas with high practical application, addressing issues of sustainable development and striving to minimize the environmental impact of its activities. The principles and practical aspects of sustainable development will be integrated into communication with both the academic community and the public, particularly within the South Bohemia region.

Strategic framework for the long-term plan for the period 2026-2030

Education:

- Develop competencies directly relevant to life and work in the 21st century,
- Enhance the availability and relevance of flexible education formats,
- Position itself as the leading institution for management education in the South Bohemia Region.
- Attract students from both the region and outside, including foreign students.
- Educate graduates who are leaders, innovators, and business visionaries.
- Offer modern digital learning platforms and flexible educational models.
- Ensure that graduates are equipped to manage and implement sustainable business models.

Science and Research

- Establish VSTE as a recognized centre of applied research and innovation in the South Bohemia Region.
- Commercialization of research and innovation will be a key focus in supporting the university's research activities.
- Play a pivotal role in bridging academia and industry by actively supporting entrepreneurial and commercial ventures with a regional emphasis.
- Provide a flexible, efficient, and effective research infrastructure that meets the needs of both academia and industry.
- Foster the creation of spin-off and start-up companies and ensure the commercialization of business activities through a business incubator.
- Establish and operate an entrepreneurial hub to connect students, alumni, and academics with entrepreneurs from the region and beyond.

Third role

- Develop long-term strategic partnerships with regional companies and institutions.
- Use social responsibility as an integrating tool for educational and creative initiatives
- Foster personal development, interpersonal relationships, and mental well-being
- Promote equal opportunities for all staff as a key component of the school's development
- Develop a clear communication strategy towards the region, regional authorities, and the municipal government.

¹³³ For so-called R&D&I capacities, see Definition of Terms in Methodology HEI2025+.

In the Long-term plan for the period 2020-2025, the following priority and operational objectives were formulated in science and research:

Priority objective 1: To establish VSTE as a recognised scientific research institution through specialised expert teams conducting high-quality research in interdisciplinary fields aligned with the school's profile

- Operational objective 1: Increase the quality and quantity of R&D&I outputs, evaluated according to Methodology 17+.
- Operational objective 2: Create conditions for the establishment of independent research institutes.
- Operational objective 3: Foster cooperation with strategic partners R&D
- Operational objective 4: Strengthen the internationalisation of R&D

Priority objective 2: To establish itself as a flexible higher education institution with a modern research infrastructure and effective internal staff development mechanisms capable of responding to the needs of business practice, administrative bodies, management institutions, and the wider community.

- Operational objective 5: Ensure the continuous development of research infrastructure and staff capacity.
- Operational objective 6: Increase the share of contract research and research-related contracts in the university's budget.

It can be confirmed that the objectives outlined in the 2020-2025 implementation plans of the Long-term Plan will be fully achieved, both in terms of scope and quality.

General Self-Reflection on the Societal Benefits of Scientific Research: The Forthcoming Long-term Plan for 2026-2030
High-quality scientific research is essential for fostering high-quality educational activities. This synergy between research and education is central to the development strategy for the coming period.

The VSTE strategic research priorities will include:

- Supporting research activities in basic, applied, and contract research, with a particular focus on sustainable development.
- Motivating staff and students to engage in research activities in the fields of environmental and sustainable development
- Integrating sustainability and environmental considerations as core parameters in the final reports of research activities.
- Participating in sustainable regional initiatives in collaboration with the regional and municipal authorities of České Budějovice.
- Actively engaging in environmental and social initiatives originating outside the university, including relevant awareness-raising, promotional, and research activities.
- Contributing to waste management solutions in line with the principles of a circular economy in targeted areas of the region.
- Addressing the challenges of Smart Cities, efficient governance, and other contemporary environmental issues.
- Implementing at least five projects focused on the development of environmentally beneficial technologies.
- Providing substantive and critical discussion and public debate on sustainability and environmental topics, with contributions from qualified internal and external experts.
- Leveraging collaboration with corporate practice to advance educational and awareness-raising activities in the fields of environmentalism and sustainability.
- VSTE will contribute to the cultivation of the academic environment within the institution and the wider South Bohemian region by popularising the research outputs of the university's academic staff, including newly acquired knowledge in the field of sustainable development.

5.1.1 R&D&I capacities of HEI in the year 2025

Field of Research	FORD	FORD share [%]	Predominant type of research	Total share of field of reaserch [%]
1. Natural Sciences	1.1 Mathematics	1	Basic research	7
	1.2 Computer and information sciences		Zvolte položku.	
		2	Balanced basic and applied research	
	1.3 Physical sciences			

	1.4 Chemical sciences	3	Balanced basic and applied research	
	1.5 Earth and related environmental sciences	1	Applied research	
	1.6 Biological sciences		Zvolte položku.	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering	7	Applied research	46
	2.2 Electrical engineering, Electronic engineering, Information engineering	4	Applied research	
	2.3 Mechanical engineering	7	Applied research	
	2.4 Chemical engineering		Zvolte položku.	
	2.5 Materials engineering	12	Applied research	
	2.6 Medical engineering		Zvolte položku.	
	2.7 Environmental engineering	4	Applied research	
	2.8 Environmental biotechnology		Zvolte položku.	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology	1	Zvolte položku.	
	2.11 Other engineering and technologies	11	Applied research	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	
	4.2 Animal and Dairy science		Zvolte položku.	
	4.3 Veterinary science		Zvolte položku.	
	4.4 Other agricultural sciences		Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	47
	5.2 Economics and Business	42	Applied research	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law	1	Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography	4	Applied research	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts		Zvolte položku.	
Total		100 %	-	100 %

5.1.2 Target R&D&I capacities of HEI for the next five-year period

Field of Research	FORD	FORD share [%]	Predominant type of research	Total share of field of reaserch [%]
1. Natural Sciences	1.1 Mathematics	1	Basic research	6
	1.2 Computer and information sciences		Zvolte položku.	

	1.3 Physical sciences	1	Balanced basic and applied research	
	1.4 Chemical sciences	3	Balanced basic and applied research	
	1.5 Earth and related environmental sciences	1	Applied research	
	1.6 Biological sciences		Zvolte položku.	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering	7	Applied research	58
	2.2 Electrical engineering, Electronic engineering, Information engineering	5	Applied research	
	2.3 Mechanical engineering	5	Applied research	
	2.4 Chemical engineering		Zvolte položku.	
	2.5 Materials engineering	17	Applied research	
	2.6 Medical engineering		Zvolte položku.	
	2.7 Environmental engineering	5	Applied research	
	2.8 Environmental biotechnology		Zvolte položku.	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology	1	Applied research	
	2.11 Other engineering and technologies	18	Applied research	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	
	4.2 Animal and Dairy science		Zvolte položku.	
	4.3 Veterinary science		Zvolte položku.	
	4.4 Other agricultural sciences		Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	36
	5.2 Economics and Business	33	Applied research	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography	3	Applied research	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts		Zvolte položku.	
Total		100 %	-	100 %

5.1.3 Relation to the strategic objectives of the provider and strategic documents in the field of R&D&I

Strategic document	Follow-up
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National Research, Development and Innovation Policy of the CR 2021+	V ŠTE applies research outputs in cooperation with businesses through contractual research and innovation vouchers. The ETMS system is used for research evaluation and strategic management.
Internationalization Strategy of Higher Education until 2030	VSTE actively participates in programs such as Erasmus+, CEEPUS, and Horizon Europe. The Institution supports the mobility of academic staff and engagement in international research networks.
National Open Access Strategy (Open Access)	Research results are made accessible through professional publications and popularization activities. VSTE also plans to develop an institutional repository.
Digital Transformation Strategy of the CR	VSTE carries out research projects focused on digital technologies (e.g., BIM, IoT, cybernetics, automation) and uses ETMS as a central management tool.
Strategy of Sustainable Development of the CR	VSTE addresses projects focused on transport and its environmental impact, material recycling, and the development of ecological technologies.

5.2 Research and development objectives

The HEI will describe its intentions and goals for the next five-year period. The objectives in the field of research development, innovation, and knowledge transfer as well as the objectives in the field of cooperation with public administration, entrepreneurs, and non-profit organisations will be described in relation to the mission, vision and disciplinary capacities of the HEI. Furthermore, the objectives for the development of the HEI as a research organisation will be described, in the areas of human potential development, institutional resilience, the implementation of open science and adherence to the principles of ethics, scientific integrity, and good practice, and their interrelationship with R&D&I objectives. The objectives described must be consistent with the Strategic plan for the teaching, scholarly, scientific, research, development, artistic and other creative activities of the higher education institution.

Maximum 2000 words.

Self-assessment:

The Institute of Technology and Business in České Budějovice (VSTE) establishes strategic goals in the fields of research, development, innovation, and knowledge transfer, reflecting its mission, vision, and disciplinary focus. The primary objective is to further solidify the institution's position as a leading research entity that contributes to the advancement of technical and economic disciplines, with a direct impact on practice through applied research. A particular emphasis will be placed on an interdisciplinary approach, the effective application of modern technologies, and the expansion of cooperation with key partners from the business sector, public administration, and non-profit organizations.

In the domain of research and development, the priority is to enhance both the quality and quantity of scientific outputs, in accordance with the research evaluation methodology. The aim is to achieve excellence in applied research, support the establishment of specialized research teams, and foster conditions for the creation of independent research institutes. VSTE will develop research activities in high-application areas such as digitalization, automation, Industry 4.0, sustainability, energy innovation, and smart mobility. The institution will also actively promote participation in research grants and contract research, focusing on engagement in international research consortia and programs.

In the field of innovation and knowledge transfer, VSTE will establish effective mechanisms for collaboration with industrial partners and other relevant entities. The objective is to increase the volume of contract research and commercialize research outcomes through licensing, patents, and spin-off companies. Additionally, VSTE will support the innovative entrepreneurship of students and graduates, create conditions for technology transfer, and contribute to the development of the regional innovation ecosystem. In this regard, the institution will strengthen its ties with innovation centres, technology parks, and business incubators.

Collaboration with public administration, entrepreneurs, and non-profit organizations will be further enhanced to foster a strong link between academia and practice. The institution will focus on research topics with significant societal impact, supporting regional development, digitization of public administration, sustainable energy management, and modernization of transportation infrastructure. In partnership with the public sector, VSTE will actively contribute to the formulation of strategic documents and initiatives aimed at advancing the economic and social development of both the region and the nation as a whole.

Another critical objective is to develop VSTE as a research organization with a focus on human potential, institutional resilience, open science, and scientific integrity. The institution will systematically support the career development of academic staff, strengthen their involvement in the international scientific community, and develop robust internal research support systems. The planned objectives in research, development, and innovation are aligned with the strategic priorities of the institution and fully consistent with national and European policies in science and research.

The emphasis on research excellence, active cooperation with the application sphere, institutional development, and the support of scientific integrity will contribute to the long-term sustainability and competitiveness of the institution, both at the national and international levels.

5.3 Institutional tools and measures for the implementation of the research and development strategy

The HEI will describe its institutional and strategic tools (e.g., strategic management tools, tools created to support the implementation of research objectives, legal and organisational norms in relation to R&D&I support, etc.) that are designed to fulfil the research and development objectives for the next five-year period (Table 5.3.1), with an emphasis on:

- Supporting quality R&D&I.
- Excellent science.
- Innovative environment and increasing the international or disciplinary competitiveness of the HEI's research activities.
- Development of human potential.
- Institutional resilience.
- Adherence to ethical principles, scientific integrity and good practice in R&D&I.

Maximum 2000 words.

Self-evaluation:

The Institute of Technology and Business in České Budějovice has established a sophisticated methodology for evaluating creative activity, which aligns fully with the National Policy of Research, Development, and Innovation of the Czech Republic. This evaluation system takes into account the specificities of technical and economic disciplines and places significant emphasis on the quality, originality, and practical applicability of research outputs. The internal evaluation of the creative activities of academic staff plays an integral role in the school's strategy and contributes to its long-term development.

The institution utilizes the Excellent Top Manager System (ETMS) to manage research activities effectively and evaluate results. This system enables the systematic recording of academic staff's publication and project activities, their involvement in grant schemes, and their collaboration with the application sphere. ETMS also functions as a tool for evaluating research results based on established criteria, thereby informing strategic decisions in the field of science and research. Thanks to this system, the School can effectively promote excellence in research and foster deeper cooperation with industrial partners, thus strengthening its position as an institution focused on application-oriented research and solid connections with practice.

The evaluation of research and creative activities at the Institute of Technology and Business in České Budějovice (VSTE) takes place at multiple levels and is in alignment with the national policy on research, development, and innovation of the Czech Republic. The evaluation process is closely connected with the funding of research activities and the strategic management of the institution.

1. Evaluation of research results

VSTE employs the national research evaluation mechanism (M17+), which is a key tool for evaluating research outputs and directly funding research activities.

Publication and research outputs are consistently recorded in the Electronic Creativity Monitoring System (ETMS) and subsequently validated in accordance with the requirements of the Rada vlády pro výzkum, vývoj a inovace (Government's Research, Development, and Innovation Council) (RVVI).

2. Regular evaluation of research activities and bibliometric monitoring

VSTE conducts an annual evaluation of the research activities of its institutes, including an analysis of publication activity, the proportion of projects receiving external funding, and involvement in applied research.

This evaluation includes regular bibliometric monitoring, which tracks the quality and quantity of publication outputs, including their reception within the professional community (citation indices, impact factor of journals, etc.).

The results of this evaluation form the basis for the allocation of institutional support for science and research.

3. Decentralized analyses of the research environment

In addition to systematic evaluation at the level of the institution, ad hoc bibliometric analyses are also carried out at the level of individual institutes.

These analyses facilitate the flexible management of research activities, the identification of strengths and weaknesses in publishing, and the support for the development of excellent research teams.

The results of these analyses contribute to strategic decision-making and the establishment of internal measures to enhance research performance.

4. Evaluation of application-oriented research and collaboration with industry

In contrast to universities that focus primarily on basic research, VSTE emphasizes applied research, the results of which are directly relevant to industrial and business practice.

Consequently, the evaluation also includes an assessment of the contribution of research outputs to the application sphere, such as the number of innovations implemented, cooperation with commercial partners, and participation in contract research.

VSTE has specialized laboratories that focus on the technical and environmental aspects of research.

The evaluation of these laboratories assesses not only publication outputs but also their involvement in international research projects, collaboration with industry, and the transfer of technology into practice.

The importance of evaluation for the development of research at VSTE

Through regular evaluation of research activities, VSTE is able to:

- Ensure a transparent and objective allocation of resources for research activities
- Strengthen excellence in applied research and increase its impact on practice
- Identify key areas for development and international collaboration
- Support the strategic management of research activities at the institute level

Thus, the research evaluation system at VSTE not only complies with the requirements of national authorities but also promotes the long-term development of applied research and its practical application in industry and the public sector.

The Institute of Technology and Business in České Budějovice is committed to integrating creative and educational activities, as well as fostering cooperation with foreign partners and practice. VSTE has a research support system that bridges creative activities with educational activities, international collaborations, and practical applications.

At VSTE, creative activities are closely tied to educational activities, especially within the context of applied research and students' professional practice. Unlike universities focused on basic research, VSTE emphasizes linking research with the needs of industrial and business practice, ensuring the practical applicability of acquired knowledge.

Quality assurance of research and creative activities at VSTE includes the regular evaluation of the research activities of academic staff and research teams, harmonization of evaluation procedures with national evaluations of science and research, and the strategic development of research capacities at VSTE. The quality assessment is based on evidence from **the ETMS**, which records all outputs of research and publication activities, including research projects.

Research activity evaluations are carried out at VSTE in the following ways:

- Annually, through bibliometric monitoring and analysis of research output within individual institutes and projects.
- Once every five years, in line with national evaluation processes, based on bibliometric evaluations and expert assessments by internal and external evaluators.

Relevant internal and external stakeholders are involved in the internal evaluation process. The evaluations conducted serve as a basis for strategic decisions regarding the development of science and research, including the allocation of funding to support excellence, particularly in applied research.

Through these measures, VSTE ensures the systematic support of the quality of research, creative, and related activities, which contributes to its competitiveness and its connection to applied research in practice.

5.3.1 Institutional tools and measures for the implementation of the research and development strategy

Name of instrument/measure	Description of the tool/measure	Implementation status	Year
ETMS – Excellent Top Manager System	Information system for recording, managing, and evaluating research activities	https://etms.vstecb.cz/login-page Fully implemented, used across all faculties	
Internal Grant Competition (IGS)	Support for research projects of academics and students	Conducted annually, systematically evaluated	
Specific University Research (SVV)	Support for projects with focus on applied research	Currently implemented, projects include students and connect education with practice	
Innovation Vouchers and Contract Research	Cooperation with business and transfer of R&D results into practice	Implemented regularly, growing number of vouchers	
Support for International Mobility	Erasmus+, CEEPUS, Horizon Europe and bilateral cooperation	Currently implemented, growing mobility trend	
Popularization of Science and the Third Role of VSTE	Night of Scientists, Open days, Lectures for public	Implemented regularly, positive societal impact	

5.4 Implementation of the recommendations in Module 5

The HEI will briefly describe how it has implemented the recommendations for Module 5 from the previous evaluation period, if applicable.

Maximum 1000 words

Self-evaluation

Throughout the period 2020 – 2024, the Institute of Technology and Business in České Budějovice adhered to and effectively implemented the recommendations of the International Evaluation Panel for Module 5 in the academic environment of the school. The validity and supporting evidence of the claims will be demonstrated both in terms of R&D&I development plans and the practical implementation of outcomes.

During the evaluation period, VSTE systematically fulfilled its development milestones, transitioning towards a trajectory of qualitative growth. On a practical level, all strategic materials were designed in a pro-growth, execution-driven mode with a strong focus on application and commercialization, aligned with the professional profile of the school. This approach was reflected in the institution's emphasis on addressing the real needs of the region, researching new technologies with high innovation potential and added value, and strengthening the process of internationalization. To achieve these objectives, VSTE established dynamic and flexible research teams and centres in line with its development goals in R&D&I. The long-term vision is to transform these teams into independent research departments capable of delivering excellent outputs, primarily serving the needs of key business entities in the South Bohemia Region.

One of the prerequisites for high-quality research and creative activities is ensuring continuous development and modernization of research and scientific infrastructure, along with the provision of adequate personnel facilities. The staffing strategy of the school in the field of R&D&I is designed to ensure that research teams are composed of employees who will be a long-term asset both for the team and the institution. The strong correlation between high quality R&D&I outputs and a well-structured academic and research workforce is becoming increasingly apparent. These key contributors require state-of-the-art technical and instrumental support for their research activities, which is funded in accordance with the developed financial strategy for R&D&I based on the principles of efficiency, commercialization, and return. For this purpose, the measure "Principles for the support and handling of research grants in accordance with the strategic directions of the VSTE" was adopted by the school management in 2025. These principles are already being fully implemented throughout the entire scientific and research framework of VSTE.

Through the internal control and evaluation tool for R&D&I, it can be confirmed that all priority and operational objectives set for the period 2020–2024 in the field of R&D&I have been successfully met, with the exception of Operational Objective 4 – Ensuring the development of research infrastructure and staff capacity. This objective, related to the completion of the second stage of laboratory instrumentation, is scheduled for full completion by 30 June 2025 under the PPSŘ program (Program for Supporting Strategic Management of Higher Education Institutions), including installation, calibration, and

testing activities. The growing intensity of internationalization, along with the uniqueness and originality of creative activities—particularly in the area of contractual research—has been consistently documented throughout this period. The nature of creative and research activities requires procedural and professional continuity, which is embedded in the preparation of strategic materials up to 2030. The preparatory activities started in 2024. A broad discussion on the further direction of R&D&I at VSTE until 2030, involving its entire hierarchical management and competence structure, ranging from the school management, through special teams, institutes, and relevant specialized research teams marks a qualitative shift in the preparation of strategic materials in R&D&I. As an example of this process, the widely discussed vision for the institution by 2030 envisions, quote: *"VSTE will become a recognized centre of applied research and innovation with high commercial potential and added value, increasing international dimensions, and graduates who are leaders, entrepreneurs, and visionaries capable of responding to current and future labour market demands with a timeless approach to human resource management while reflecting the challenges of the 21st century."* Upon reaching consensus from the entire academic community (by April 30, 2025), this vision will serve as a guiding framework for the school's behaviour and actions in the field of science and research over the long term.

The principle of interconnectedness and harmonization across all VSTE conceptual materials serves as a key integrating element within the school's strategy. A notable example of this is the implementation of the *Sustainable Development Strategy 2030*, developed and approved by the Ministry of Education in 2024. This document is incorporated into newly formulated strategic development plans, extending beyond science and research. The UN Sustainable Development Goals are fully respected here, elaborated in all subsystems and areas of the VSTE starting from the area of strategic management, through economics and administration to the third role of the school. Applied research, mainly focused on the South Bohemia region, with high environmental value, documents the real implementation of the principles anchored in the SDGs.

In summary, the recommendations and themes outlined by the International Evaluation Panel for Module 5 have been fully considered not only during the 2020–2025 period but also in the strategic plans for R&D&I extending to 2030. The continuity, coherence, and overall integration of VSTE's conceptual and development materials provide a strong foundation for addressing the evolving societal challenges of the 21st century in the field of science and research.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 5

Document name	No. criteria	Location (link in HTML)
Study and Examination Regulations of VŠTE)	5.1	https://is.vstecb.cz/auth/do/vste/uredni_deska/1905433/1905495/ENG_Study_and_Examination_rules_of_the_institute_of_T_a_B_CB_2020.pdf
Schedule of the Academic Year 2024/2025	5.4	https://abroad.vstecb.cz/schedule-of-the-academic-year/