

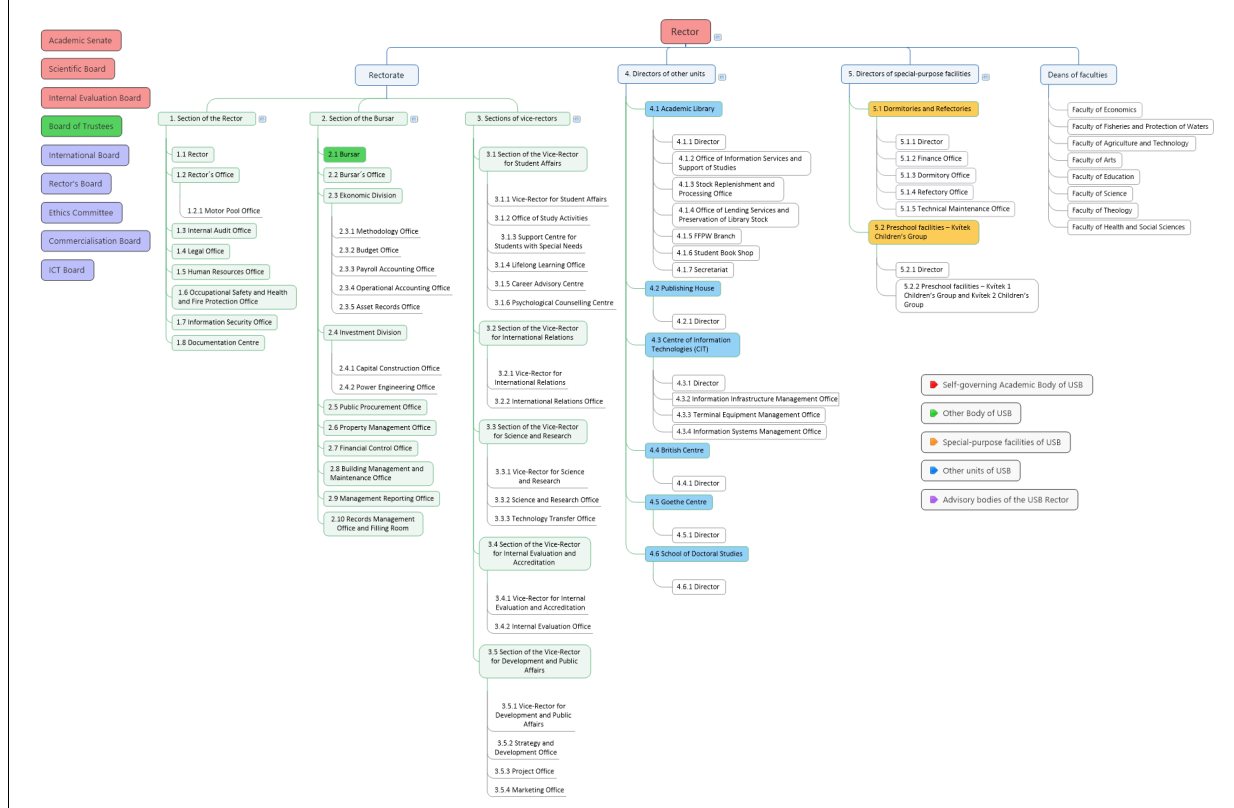
SELF-EVALUATION REPORT FOR EVALUATION OF RESEARCH ORGANIZATIONS IN THE SEGMENT OF HIGHER EDUCATION INSTITUTIONS IN YEAR 2025

HIGHER EDUCATION INSTITUTION NAME: University of South Bohemia in České Budějovice (USB)

COMPANY REGISTRATION NUMBER (CRN): CZ60076658

THE LIST OF EVALUATION UNITS IN MODULE 3: 8

ORGANIZATIONAL STRUCTURE OF THE HIGHER EDUCATION INSTITUTION



HIGHER EDUCATION INSTITUTION WEBSITE (HTML LINK): www.jcu.cz

THE HIGHER EDUCATION INSTITUTION CONTACT PERSON

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Signature (Rector), stamp

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.

Description:

The University of South Bohemia in České Budějovice (abbreviated as “USB”) is a modern public university offering a unique experience in various study programs. We educate about 9,000 students at eight faculties in about 200 bachelor’s, master’s, and doctoral programs. We are proud to be a centre of excellence in education and research, specializing in the natural sciences, humanities, and social sciences. In addition to the faculties, USB has other research-related workplaces such as the Technology Transfer Office, Academic Library, Publishing House, and the School of Doctoral Studies. With six other Czech universities, USB is a member of the Research Universities Association, a group comprising Czech universities with the best research record. While some of our faculties conduct internationally competitive research, the creative activities at other faculties make them highly competent regional players contributing to public policy formation and producing solutions relevant to society.

Although we continue building mainly on our traditions and strong disciplines, we at the same time remain open to new trends and needs of practice and society. Our mission and vision are formulated in our most important strategic document, the USB Strategic Plan 2021-2030. The mission of USB as a research organization is to independently perform basic and applied research and publicly disseminate its results through teaching, publishing, or knowledge transfer. Our broad vision is then put as an aspiration to be

- a sought-after, friendly university offering motivational study and a work environment,
- a university able to compete at both European and global levels,
- a university with a unique identity that significantly benefits the city as well as the region,
- an academic institution broadly supporting its students as well as employees.

Inseparable from good research is an obligation from both the university and the individual faculties to create and maintain a positive research culture, starting from low-level conditions as a clean, sufficiently spacious, and suitably equipped research environment through incentives for the development of both individual researchers and whole research groups, up to transparent and stimulating institutional research policies, such as the USB Code of Conduct, USB Gender Equality Plan, and USB Career Regulations. USB is also a proud recipient of the “HR Excellence in Research Award” (shortly HR Award) for excellence in caring for human resources in a scientific environment.

Every day, we attempt to implement a ONE-USB policy and a ONE-USB corporate feeling. The USB Strategic Plan 2021-2030, formulated in 2021 and including the USB’s mission and vision, is our key strategic document. Based on this, faculties prepare their own strategic plans, using the USB one as the framework for adopting faculty-specific missions, visions, and needs. Since 2024, regular meetings have occurred among the rector and all deans at which cross-faculty collaboration, actual and future USB and faculty plans, and inter-faculty and faculty-rectorate conflicts are discussed.

SWOT ANALYSIS	
Strengths Clearly defined university mission and vision Excellent level of research fields in natural sciences and a very good level of research fields in humanities Respected USB Technology Transfer Office at both national and international levels, with its head presiding over the transfer community association, Transfera.cz, in Czechia Well-defined strategies and processes in plenty of research-related aspects Well-defined and broadly accepted methodology of USB budget construction based on research quality Excellent collaboration with the Czech Academy of Sciences, but also with the city of České Budějovice, South Bohemian Regional Office, ministries, and companies Improving the level of internationalization of USB academic life (best mark A++ in the FEIS (Favorable Environment for International Students) evaluation) Excellence and openness to the world (CENAKVA, Czech Arctic Research Station, member of three ESFRI infrastructures) Modern research infrastructure	Weaknesses Despite substantial improvement in recent years, the conception of a common USB identity is still not firmly rooted The level of research fields in social sciences is comparatively weak We still face a lower proportion of women in leadership positions and among staff with the highest qualification There is a need to increase the pedagogical competencies of academic staff A relatively low proportion of foreign academic staff Insufficient accommodation capacities for early career researchers Insufficient spatial capacities for offices or laboratories for new research teams or directions; faculties are spatially fully saturated
Opportunities To increase the proportion of excellent, multi-authored papers in which USB researchers are corresponding authors To fully exploit the recently established USB School of Doctoral Studies for improving the quality of PhD studies at USB To work further on building USB identity, to further improve within-USB communication	Threats Reform in financing PhD students coming with the revised and recently approved Higher Education Act will likely cause a drop in the number of PhD students A declining demographic curve will likely cause a drop in the number of PhD students in middle term Relatively low wages at all levels of career of both

strategies To further improve cross-faculty collaboration and foster interdisciplinarity via innovative motivating instruments	academic and non-academic staff endanger sustainability Competition among HEIs for limited financial capacity
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SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Economics

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 on¹. 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:

Mission and vision of the faculty

FEC presents itself as an important educational and research institution whose mission is to create and develop an independent creative environment supporting cognition in economic disciplines and information technologies, creation of innovation, transfer and capitalisation of knowledge based on the cooperation between teachers, students, representatives of the business sphere and public institutions in South Bohemia, in the CR and abroad. The faculty strives for the creation of innovation, transfer, and capitalisation of knowledge by means of cooperation between teachers, students, representatives of the business sector, and public institutions in South Bohemia, in the Czech Republic, and abroad. The faculty builds its vision on the support of quality education, research, and development that contribute to the sustainable development of the region and society. Since its establishment in 2007, it has achieved numerous successes. It was ranked among the best faculties of economics of the Czech Republic in the evaluated period. The scientific-research activity of the staff of the Faculty of Economics of USB is particularly oriented towards topics related to business economics and management and to the socioeconomic factors of regional development. It deals with applied research in cooperation with important businesses and institutions of the region. The faculty is the first Fairtrade faculty in the Czech Republic and keeps on developing related activities. The organization of an interuniversity competition, InvestDay (a contest in student business ideas), also makes the faculty unique.

The mission and the vision of the social contribution of the research, development, and innovation for the Faculty of Economics of USB particularly focus on the support of sustainable development, and at the general level on the improvement of quality of life in society.

¹ Basic, applied, contract, artistic research (see Definition of terms).

The main research goals and spheres developed at FEC in the monitored period were as follows:

1. Economics, finance, and business management.
2. Economy, public sector economy and finance, regional economy and regional development, environmental economy.
3. Trade, marketing, and tourism.

Self-reflection on the social contribution of R&D&I

The scientific research activity of the Faculty of Economics is closely linked to the industry and the needs of the South Bohemian region. The faculty focuses on applied research in economics and management of businesses, socioeconomic factors of the regional development, modern information technologies, and innovation. This approach contributes to the solution of current challenges and problems faced by regional businesses, institutions, and public administration. The faculty also actively contributes to the transfer of knowledge into practice, which strengthens its position as a key partner in the development of the region. Further development of a multidisciplinary approach, strengthening of international relations, and improvement of the quality of scientific outcomes are among the further goals of the faculty.

The Faculty of Economics (FEC) actively supports the university's strategy of inter-faculty cooperation by connecting economics with IT, law, education, and natural sciences. These collaborations enhance education, research, and practical knowledge application. Students benefit through involvement in interdisciplinary projects and workshops. In partnership with the Technology Transfer Centre, FEC develops and implements innovations in transport and logistics. Notable projects include fish aquaculture optimization, computational thinking development, and smart farming systems. A key achievement is the Bioeconomy Initiative, which involves multiple faculties and promotes sustainable development through joint courses and applied research.

The long-term goals in the spheres developed by the faculty

The following are among the main goals of the faculty:

- Strengthening of the quality of education and its adaptation to the labour market needs.
- Development of the research focused on the applied issues of economy, management, and innovation with the impact on sustainability.
- Support for internationalisation by means of international cooperation in education and research.
- Involvement of students in research activities and projects through cooperation with businesses and institutions.
- Improvement of the social contribution of science and research by means of interdisciplinary projects with emphasis on sustainability and innovation.

The distribution of research activities by type of research

The research activities can be divided into:

1. Basic research

It consists of theoretical studies focused on the development of new economic theories and models. The outcomes of basic research are published in leading scientific journals.

2. Applied research

This is based on the cooperation with businesses and public institutions on the solution of economic problems.

3. Experimental development – covering testing and implementation of innovative methods, particularly in information technologies and business processes.

4. Innovation and technologies

This includes the development of new technologies and methods that might be applied to the practice. It also includes experimental development, pilot projects, and testing new economic models and technologies in real conditions.

5. Prototypes and demonstration

Creation of prototypes and demonstration of new solutions before their final implementation.

6. Social research

This particularly consists of the analysis of the impacts of economic policies and measures on society.

The organizational structure and the size of the faculty

The Faculty of Economics is divided into 6 departments: Department of Applied Economy and Economics, Department of Management, Department of Applied Mathematics and Informatics, Department of Regional Management and Law, Department of Trade and Tourism, and Department of Accounting and Finance. Apart from these departments, FEC has 11 centres and offices: Law Centre, Language Centre, Science and Research Office, International Office, Student Affairs Office, Finance Office, Personnel Office, IT Centre, Project Centre, Lifelong Learning Centre, and Technical Office.

Staffing

More than 50 academic staff members ensure a high level of education and research work at the faculty. The faculty, moreover, cooperates with external experts from the practice, which enables us to link the theory to the real needs of the market and society.

Number of students and study programmes

There are 1284 students currently studying at the Faculty of Economics in bachelor's, master's, and doctoral programmes. The faculty offers professionally and academically oriented study programmes, which include fields focused on economics and management, information technologies, regional development, and environmental issues. Students can participate in study stays abroad, which increases their competencies in the global labour market.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	1.94/1.33	2.76/1.78	3.0/1.8	3.74/1.83	4.80/1.71	15/4
Associate Professor	14.30/5.78	14.47/5.82	14.75/5.38	19.27/8.14	20.24/8.57	28/13
Assistant Professor	46.96/20.71	42.31/18.42	38.07/15.18	28.61/9.59	29.35/10.73	53/23
Assistant	0	0	0	4.99/1.92	5.26/0.72	15/7
Other R&D Personnel ³	0	0	0	0	0	0
Researchers in other categories ⁴	4.08/1.64	3.77/1.69	3.45/1.79	2.48/1.31	1.93/1.10	7/3
Technical and economic staff ⁵	2/2	2/2	2/2	2/2	2/2	2/2
Scientific, research and development staff involved in teaching activities	65.2/28.82	61.54/27.02	56.97/23.36	57.76/22.48	60.8/22.73	117/50
Early career researchers ⁶	4.5/2.5	3.7/2.7	4.2/2.7	2.3/1.8	3.8/2.8	12/8
Total ⁷	69.28/31.46	65.31/29.71	61.27/26.15	61.09/24.79	63.58/24.83	120/52

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

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..

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

⁷ 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.

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

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	00	0	1	0	0	0	2	2	1	0
Associate Professor	0	0	1	0	8	1	2	1	4	2	4	2
Assistant Professor	0	0	12	4	26	12	5	3	4	1	2	1
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
Other R&D Personnel ⁹	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	1	1	2	1	1	0	1	1	0	0	0	0
Technical and economic staff ¹¹	0	0	1	1	1	1	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	0	0	1	0	0	0	1	1	0	0	0	0
Early career researcher ¹²	0	0	0	0	0	0	0	0	0	0	0	0
Total ¹³	1	1	17	6	37	14	9	6	10	5	7	3

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.

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 i

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/ 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	4	0	0	0	2	0	5	3
Associate Professor	0	0	0	0	9	3	8	5	3	1	1	0
Assistant Professor	1	0	7	6	22	6	4	0	2	2		
Assistant	2	2	1	0	1	0	1	0	1	0	1	0
Other R&D Personnel ¹⁵	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	0	0	0	0	1	0	1	1	0	0	0	0
Technical and economic staff ¹⁷	0	0	0	0	2	2	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	0	0	0	0	0.15	0	1	1	0	0	0	0
Early career researcher ¹⁸	0	0	0	0	0	0	0	0	0	0	0	0
Total¹⁹	3	2	8	6	39.15	11	15	7	8	3	7	3

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.

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

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.

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	907	586	885	546	960	604	935	568	1063	649	2731	1686
Master's ²⁰	358	268	362	271	342	232	247	154	297	194	891	600
Doctoral	34	20	40	26	43	25	46	29	45	27	85	47
Lifelong Learning courses	39	32	34	27	22	18	42	31	193	133	270	175
Total	1338	906	1321	870	1367	879	1270	782	1598	1003		

Table 3.1.5 - Study programmes in Czech/English

Type of study	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	14/1	1/0	18/1	2/0	20/1	2/0	19/1	2/0	16/0	2/0	20/1	2/0
Master's	5/2	0	10/1	0	10/1	0	12/1	0	12/1	0	14/2	0
Doctoral	3/1	0	3/1	0	6/2	0	7/3	0	7/3	0	7/3	0
Lifelong Learning courses	4	N/A	3	N/A	2	N/A	41	N/A	5	N/A	12	N/A
Total	22/4	1/0	31/3	2/0	36/4	2/0	38/5	2/0	35/4	2/0	41/6	2/0

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

Discipline Group	FORD	FORD share [%]	Predominant type of research	Total share of Discipline Group [%]
1. Natural Sciences	1.1 Mathematics	19	Basic research	61 % (DISCIPLINE GROUP 5)
	1.2 Computer and information sciences	8	Applied research	
	1.3 Physical sciences		Basic research	
	1.4 Chemical sciences		Select the item	
	1.5 Earth and related environmental sciences		Select the item	
	1.6 Biological sciences		Select the item	
	1.7 Other natural sciences		Select the item	
2. Engineering and Technology	2.1 Civil engineering		Select the item	
	2.2 Electrical engineering, electronic engineering, information engineering		Select the item	
	2.3 Mechanical engineering		Select the item	

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

²¹ The total number of study programmes for which admissions have been announced in a given academic year.

	2.4 Chemical engineering		Select the item	
	2.5 Materials engineering		Select the item	
	2.6 Medical engineering		Select the item	
	2.7 Environmental engineering		Select the item	
	2.8 Environmental biotechnology		Select the item	
	2.9 Industrial biotechnology		Select the item	
	2.10 Nanotechnology		Select the item.	
	2.11 Other engineering and technologies	6	Applied research	
3. Medical and Health Sciences	3.1 Basic medicine		Select the item	
	3.2 Clinical medicine		Select the item	
	3.3 Health sciences		Select the item	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	6	Applied research	
	4.2 Animal and Dairy science		Select the item	
	4.3 Veterinary science		Select the item	
	4.4 Other agricultural sciences		Select the item	
5. Social Sciences	5.1 Psychology and cognitive sciences		Select the item	
		41	Balanced and applied research	
	5.2 Economics and Business		Select the item	
	5.3 Education		Select the item	
	5.4 Sociology		Select the item	
	5.5 Law		Select the item	
	5.6 Political science		Select the item	
		20	Balanced and applied research	
	5.7 Social and economic geography		Select the item	
	5.8 Media and communications		Select the item	
	5.9 Other social sciences		Select the item	
6. Humanities and the Arts	6.1 History and Archaeology		Select the item	
	6.2 Languages and Literature		Select the item	
	6.3 Philosophy, Ethics and Religion		Select the item	
	6.4 Arts (arts, history of arts, performing arts, music)		Select the item	
	6.5 Other Humanities and the Arts		Select the item	
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 Economics was significantly involved in scientific research in 2019–2023 and its prestige and its position in the research community can be documented by the following activities: doc. Ing. Eva Cudlínová, CSc. won the Milada Paulová award for contribution in bioeconomy in 2023. This award is awarded by the Ministry of Education, Youth and Sports of the Czech Republic. This award was granted in appreciation of her significant role in the development of bioeconomy not only in the Czech Republic.

Participation in editorial boards of international scientific journals:

Academic staff members of the evaluated unit are actively involved in publishing and editorial boards of prestigious scientific journals, e.g.: Open Computer Science, Economics and Environment, Agriculture Economics. Doc. Kamil Pícha as the chief editor of scientific journal Deturope.

Invited lectures given by the academic staff abroad:

The following are among the most important invited lectures:

Ing. Jiří Alina, Ph.D., Northeastern Illinois University, College of Arts and Sciences, Department of Economics, USA, on the topic of Congestion calculation models.

Doc. Ing. Petr Řehoř, Ph.D., ISAL, Portugal, on the topic of Change management.

Prof. PhDr. Miloslav Lapka, CSc., at the University of Missouri, USA on the topic of soil degradation from the point of view of sociology.

Prof. RNDr. Tomáš Mrkvička, Ph.D., at European Meeting of Statisticians, Poland, on the advantages of non-parametric measurement in statistics.

Lectures given by foreign scientists at the evaluated unit:

The Faculty of Economics has hosted important guests from abroad, for example:

Prof. Ryozi Miura from the Hitotsubashi University, Japan, with a lecture on Jensen's alpha in a market model.

Prof. Karl Bruckmeier from the University of Lisbon, Portugal, with the topic of sustainability and economics.

Prof. Zoltán Gál from the University of Pécs, Hungary, with a lecture on the dependence of Eastern and Central Europe on FDI.

Involvement in the evaluation of national or European projects:

Academic staff members were active in the evaluation of projects as chairs or members of evaluation boards: e.g., prof. Ing. Martin Macháček, Ph.D., chairman of evaluation panels of GACR (2019–2023), doc. Ing. Eva Cudlínová, CSc., within the evaluating calls of the European Science Foundation, e.g., FWO-FRP-2022 Soc-Sci.

As further services to the scientific community we can mention the active involvement of the members of the Department of Regional Management into the establishment of the Platform for Bioeconomy of the CR and the South Bohemian Association for Bio-Economy, which is based in the Faculty of Economics in České Budějovice, which strengthen the interdisciplinary cooperation in sustainability.

The above-described activities document the important position of the evaluated unit within the national as well as international contexts.

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

Name, surname and degree(s) of the evaluated unit's staff member	Name of the award	Awarding institution
Eva Cudlínová, doc., Ing., CSc.	Milada Paulová award for 2023 for contribution in the field of bioeconomy	Ministry of Education, Youth and Sports of the Czech Republic

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 degree(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
Ladislav Beránek, prof., Ing., CSc.	Open Computer Science, DE GRUYTER Poland, Warsaw, Poland, ISSN 2299-1093 Ladislav Beránek is a member of the Editorial Board.
Roberto Bergami, Dr.	International Journal of Economics and Business Research ISSN online 1756-9869; ISSN print 1756-9850 Roberto Bergami is a member of the Editorial Board
Eva Cudlínová, doc., Ing., CSc.	Economics and Environment/ Ekonomia i Środowisko, Wydawnictwo "Ekonomia i Środowisko" Białystok, Poland, ISSN 2957-0387, ISSN 2957-0395 Eva Cudlínová is a member of the Programme Council.
Miloslav Lapka, prof., PhDr., CSc.	Agriculture Economics, ISSN 0139-570X (Print) ISSN 1805-9295 Miloslav Lapka is a member of the Editorial Board.
Martin Macháček, prof. Ing., Ph.D.	Politická ekonomie, ISSN 2336-8225 (Online), 0032-3233 (Print) Martin Macháček is a member of the Editorial Board.

Kamil Pícha, doc., Ing., Ph.D.	Deturope, Regional Science Association of Subotica, Serbia, ISSN 2247-1189 Kamil Pícha is the Editor-in-Chief.
Luboš Smutka, prof. Ing. Ph.D.	Entrepreneurial Business and Economics Review, ISSN: 2353-8821 Luboš Smutka is a member of the Consulting Editors International Editorial Advisory Board
Luboš Smutka, prof. Ing. Ph.D.	Problems and Perspectives in Management, ISSN: 1727-7051 Luboš Smutka is a member of the Editorial Board.
Luboš Smutka, prof. Ing. Ph.D.	The journal AGRIS on-line Papers in Economics and Informatics (ISSN 1804-1930) Luboš Smutka is a member of the Editorial 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 degree(s) of the evaluated unit's staff member	Title of the invited lecture	Name of the host institution, or name of the conference or event	Year
Jiří Alina, Ing. Ph.D.	Road infrastructure investment	Georgia Southern University, Northeastern Illinois University	2019
Jiří Alina, Ing. Ph.D.	Congestion calculation models	Northeastern Illinois University, College of Arts and Sciences, Department of Economics,	2022
Eva Cudlínová, doc. Ing. CSc.	Wilderness Protection in the Czech Republic Sumava National Park	International Conference "Perspective on Ecological Integrity in Science and Law" (24.6. 2019 – 29.6.2019), Università degli studi di Trieste, Trieste, Italy	2019
Renata Klufová, doc. RNDr. Ph.D.	Demographic Ageing in Europe - focused on V4 countries	El Colegio de Michacán, Centro de Estudios Rurales, Mexico	2022
Miloslav Lapka, prof., PhD., CSc.	The Problem of Soil Degradation from a Sociological Point of View – The Case of Czech Republic	Division of Applied Sciences in the College of Agriculture, Food and Natural Resources (CAFNR), University of Missouri, USA	2019
Tomáš Mrkvička, prof. RNDr. Ph.D.	Advantages of nonparametric testing in spatial statistics	European Meeting of Statisticians, Warsaw, Poland	2023
Petr Řehoř, doc. Ing. Ph.D.	Change management	ISAL, Portugalsko	2023
Zdeněk Strnad, JUDr. Ing. Ph.D.	Insolvency from the Czech point of view by the Year 2019 focused on 2 key elements: the insolvency of consumers and the new insolvency process	Faculty of Law; Faculty of Business Administration) - Ton Duc Thang University, Ho Chi Minh City, Vietnam.	2019
Jaroslav Vrchota, doc. Ing. Ph.D.	Types of strategies:	ISCAP, Portugal	2022

Petra Vysušilová, Bc. MSc	Conducting research in tourism marketing	Multimedia University Melaka	2023
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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 degree(s) of the evaluated unit's staff member	Lecturer's employer at the time of the lecture	Invited lecture title	Year
Karl Bruckmeier, prof.	University of Lisbon, Free University of Berlin, Stockholm University	Sustainability and economics: Interdisciplinary knowledge integration	2019
Zoltán Gál, prof. Dr.	Full professor in Finance at the University of Pécs, Hungary and senior researcher at the Centre for Economic and Regional Research.	FDI DEPENDENT DEVELOPMENT IN CENTRAL & EASTERN EUROPE: Financial dependencies, catching up and policy alternatives.	2023
Selvi Kannan, Dr.	Victoria University Business School, Melbourne)	Leading and Managing of Innovation in VUCA	2021
Bekhzod Kuziboev, Dr.	Urgench State University, Uzbekistan	What is Environmental Economics?	2023
Ryozo Miura, prof. Ph.D.	Hitotsubashi University, Japan	Jensen's alpha in the CAPM market model from the viewpoints of asymptotic accuracy of estimation of beta and of asymmetry of residual distributions	2019
Lucie Crespo Stupková, Ph.D.	The Colegio de Michoacán, Mexico	Negative externalities of protected agriculture – case study of plastic greenhouses in Mexico	2019
Michael G. Wenz, Assoc. Prof.	Northeastern Illinois University, Chicago	Post - Crisis Survival Budgeting	2020
Dorota Molek Winiarska, Assoc. Prof.	Wroclaw University of Economics and Business), Poland	Costs and consequences of work-related stress	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 degree(s) of the evaluated unit's staff member	Name of the research project/programme call	Name of the authority/guarantor of the project/programme call	Year
Eva Cudlínová, doc. Ing. CSc.	Y4P 2nd Call La Rochelle POE 2023 FWO-FRP-2022 Soc-Sci FWO-PDOC-2021 Soc-Sci AXA-Theme-2020 Lille-Young Researchers 2020 FWO-FRP-2019 Soc-Sc	European Science Foundation	2019-2023
Zuzana Dvořáková Líšková, doc. RNDr., Ph.D.	Slovak Research and Development Agency	Ministry of Education, Research, Development and Youth of the Slovak Republic	2019,2020
Zuzana Dvořáková Líšková, doc. RNDr., Ph.D.	Earth 3	Technology Agency of the Czech Republic	2022

Zuzana Dvořáková Líšková, doc. RNDr., Ph.D.	Éta 2 Programme	Technology Agency of the Czech Republic	2022
Ivana Faltová Leitmanová, doc. Ing. CSc.	Support for basic research VEGA	Scientific Grant Agency of the Ministry of Education, Research, Development and Youth of the Slovak Republic	2020
Miloslav Lapka, prof. PhDr. CSc.	ÉTA Programme	Technology Agency of the Czech Republic	2019- 2021
Martin Macháček, prof. Ing. Ph.D.	Standard grant project for basic research – Discipline committee Social Sciences and Humanities GACR – Chairman	Grant Agency of the Czech Republic	2021- 2023
Martin Macháček, prof. Ing. Ph.D.	Standard grant project for basic research. Evaluating panel P402 GACR – Chairman	Grant Agency of the Czech Republic	2019- 2023
Martin Pělucha, prof. Ing., Ph.D.	Standard grant project for basic research. Evaluating panel P403 - member	Grant Agency of the Czech Republic	2021- 2025
Ladislav Rolínek, doc. Ing. Ph.D.	Support for basic research VEGA	Scientific Grant Agency of the Ministry of Education, Research, Development and Youth of the Slovak Republic	2019
Dagmar Škodová Parmová, doc. Dr. Ing.	ÉTA Programme	Technology Agency of the Czech Republic	2020- 2021
Dagmar Škodová Parmová, doc. Dr. Ing.	Programme for the support of applied research and development of the national and cultural identity for 2016 – 2022	Ministry of Culture of the CR	2021

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:

The evaluated research projects have contributed significantly to fulfilling the mission and vision of FEC by promoting innovation, sustainability, and regional development. Projects such as **SIP-**

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.

SME (Interreg V-A) and **Exchange rate prevention system (TACR)** have supported small and medium-sized enterprises (SMEs) by enhancing their competitiveness and financial stability, aligning directly with FEC's commitment to applied research and economic growth. Initiatives like **POWER4BIO (HORIZON 2020)** and **Diversification of the impact of bioeconomy (Ministry of Agriculture of the Czech Republic)** have strengthened regional bioeconomic strategies, fostering sustainable entrepreneurship and responsible business practices. Interdisciplinary projects such as **Bankruptcy as a win (TACR)** and **Readiness of SMEs for stress management interventions (Visegrad Fund)** have provided practical solutions for crisis management and workplace well-being, reinforcing the link between academic research and real-world business challenges. These projects have also demonstrated the faculty's ability to integrate research findings into educational programs, equipping students with knowledge applicable to modern economic and business environments.

Cooperation at international and as well as national levels has played a crucial role in advancing the faculty's strategic objectives. Partnerships within the **Visegrad Group (Visegrad Fund) projects**, focusing on population aging and stress management in SMEs, have expanded research networks and strengthened FEC's international recognition. The projects **Sustainable development at the local level (TACR)** and **Innovative public procurement for SMART CITY solutions (TACR)** have emphasized sustainable and socially responsible innovation, contributing to long-term regional planning. These initiatives have not only supported public institutions and enterprises but also aligned with the faculty's strategy of fostering interdisciplinary cooperation between academia, industry, and public administration. By addressing environmental, economic, and social challenges, the evaluated projects have reinforced FEC's reputation as a leading research and educational institution committed to sustainability, innovation, and regional prosperity.

Selected projects:

Service innovations process for SMEs (SIP-SME)

Provider: Interreg V-A

Project leader: University of Applied Sciences Upper Austria

Co-researcher: FEC

Other project partners: South Bohemian Science and Technology Park (Jihočeský vědeckotechnický park, a.s.)

Solution period: 2017–2019

The SIP-SME project significantly contributed to fulfilling the faculty's mission and vision by supporting innovation management in SMEs and fostering knowledge transfer through collaboration between academia, businesses, and public administration. By integrating expertise from SME managers in border regions, it encouraged independent and interdisciplinary cooperation, reinforcing the faculty's innovation ecosystem. Additionally, the project played a crucial role in regional development by supporting SMEs in South Bohemia and Upper Austria through applied research and partnerships with local enterprises and institutions.

Aligned with the faculty's vision, the project enhanced SME competitiveness and innovation, contributing to regional economic growth, sustainability, and an improved quality of life. It also fostered cross-border collaboration between SMEs, local economies, and universities, supporting the faculty's goal of building strong partnerships. Moreover, project insights enriched the faculty's educational programs, equipping students with knowledge on innovation and regional development and preparing them to tackle modern economic challenges effectively.

The SIP-SME project significantly advanced the faculty's mission and vision, reinforcing its role in research, innovation, and regional progress.

Exchange rate prevention system

Provider: Technology Agency of the Czech Republic (TACR)

Project leader: FEC

Solution period: 2018–2020

The project supported SMEs, the backbone of the regional economy, by providing an exchange rate prevention system that helped them manage financial risks, enhancing their stability and competitiveness. This aligns with the faculty's focus on applied research and regional development. By offering tools and methods to quantify exchange rate risk, the project also increased financial literacy among entrepreneurs, supporting the faculty's mission to provide quality education that prepares individuals for modern economic challenges.

The development of a web application introduced an innovative solution to exchange rate risk, transferring academic research into practical business applications and reinforcing the faculty's vision of fostering innovation and knowledge capitalization. Additionally, through the analysis of historical exchange rate data, the project led to the creation of a tool with high professional value, strengthening the faculty's research excellence and national recognition. By addressing exchange rate risk, the project contributed to economic stability for SMEs, benefiting both the regional and national economy and supporting the faculty's mission of sustainable development and societal well-being.

Overall, the TACR project TL01000348 successfully combined research, education, innovation, and sustainability, reinforcing the faculty's role as a key educational and research institution with regional and international impact.

POWER4BIO: Empowering regional stakeholders for realizing the full potential of European bioeconomy

Provider: European Union – HORIZON 2020

Project leader: FUNDACION CIRCE – Centro de Investigación de Recursos y Consumos Energéticos (Spain)

Co-researcher: Faculty of Economics, University of South Bohemia (FEC)

Solution period: 2018–2021

The POWER4BIO project (2018-2021) significantly contributed to the fulfilment of the mission and vision of the Faculty of Economics of the University of South Bohemia in České Budějovice by supporting regional development, innovation and education, which are the key pillars of the faculty's strategy.

The project engaged regional stakeholders in transitioning to a bioeconomy, aligning with the faculty's mission to support regional development through applied research. By fostering collaboration among academia, industry, and public institutions, it strengthened both regional and international partnerships. Through the development of bioeconomy strategies and business model catalogues, the project promoted innovation and environmentally responsible entrepreneurship, reinforcing the faculty's commitment to sustainable regional development and responsible business practices.

Additionally, the project provided training for regional stakeholders in bioeconomy, entrepreneurship, finance, and sustainability, supporting the faculty's goal of delivering quality education and preparing students and professionals for modern economic challenges. As part of the EU Horizon 2020 programme, it enhanced the faculty's international prestige, with the exchange of

best practices across Europe further strengthening its research reputation and academic standing. Furthermore, by increasing public awareness of the bioeconomy's role in economic growth and environmental protection, the project contributed to the faculty's mission of improving societal well-being through research, innovation, and education.

Overall, **POWER4BIO** advanced the faculty's strategic goals by fostering sustainability, innovation, and knowledge transfer, reinforcing its role in regional and global development.

Diversification of the impact of bioeconomy on strategic documents of the forestry and timber sector as a basis for state administration and the proposal of strategic objectives until 2030

Provider: Ministry of Agriculture of the Czech Republic, National Agency for Agricultural Research

Project leader: Czech University of Life Sciences in Prague / Faculty of Forestry and Wood Technology

Co-researcher: Faculty of Economics, University of South Bohemia (FEC)

Solution period: 2019 – 2021

The project addressed strategic issues in the forestry bioeconomy, a crucial sector for sustainable development. By formulating strategic goals and recommendations for forestry and wood-processing industries, it contributed to the growth of South Bohemia, aligning with the faculty's regional focus on applied research. Collaboration between academia (ČZU, FEC) and major enterprises supported innovation and knowledge transfer, reinforcing the faculty's vision of fostering innovative projects and sustainable economic growth.

The project's outputs, including publications and conceptual developments, strengthened the faculty's research excellence and international recognition, enhancing its academic prestige. By addressing sustainability in forestry and timber industries, it promoted environmentally and socially responsible entrepreneurship, further supporting the faculty's commitment to sustainable business practices. Additionally, the project enriched student education by integrating research results, providing access to current knowledge and practical experience, and preparing students for leadership roles in the modern economy.

By fostering innovation, sustainability, and education, the project effectively supported the faculty's mission to build a creative, independent environment and contribute to regional and societal development.

Management and legal simulation application 'Bankruptcy as a Win'

Provider: Technology Agency of the Czech Republic (TACR)

Project leader: Faculty of Economics, University of South Bohemia (FEC)

Solution period: 2019–2022

The project developed an innovative online application simulating insolvency proceedings and crisis decision-making, providing a hands-on tool that prepares students for real economic challenges and aligns with the faculty's mission of delivering practical, high-quality education. Integrating managerial and legal aspects, this interactive game bridges theory with practice and fosters innovative thinking, while its trademark protection underscores the faculty's commitment to innovation and knowledge transfer. Beyond benefiting economic students, the project also serves senior judicial officials, strengthening collaboration between academia and public institutions and supporting the faculty's mission to create partnerships for sustainable economic and social solutions. Additionally, the application functions as both an educational tool and a practical aid for crisis management in businesses, contributing to economic stability and regional growth—key elements of the faculty's mission. By developing this original educational tool, the

faculty reinforced its research reputation, with the project's outputs, including the online application and manuals, showcasing its ability to create impactful solutions recognized both nationally and internationally.

The 'Bankruptcy as a Win' project significantly advanced the faculty's strategic goals in education, innovation, collaboration, regional development, and research excellence, further strengthening its role as a leading academic and research institution.

Sustainable development at the local level – connecting theory and practice

Provider: Technology Agency of the Czech Republic (TACR)

Project leader: Charles University / Centre for Environmental Issues

Co-researcher: FEC

Solution period: 2019–2022

The project contributed to the fulfilment of the faculty's mission and vision, which focuses on sustainable development, regional development and improving the quality of life through education, research and innovation. The project supported regional sustainability by developing a certified methodology and lifelong learning system for local actors, aligning with the faculty's mission of promoting environmentally and socially responsible entrepreneurship. By engaging local action groups and regional institutions, it contributed to regional development in the Czech Republic, fulfilling the faculty's goal of supporting applied research and knowledge transfer. Introducing innovative lifelong learning approaches and applying scientific knowledge in practice, the project reinforced the faculty's commitment to fostering innovation and knowledge capitalization. With a focus on enhancing skills for sustainable development, it prepared professionals to tackle modern economic challenges, aligning with the faculty's mission to educate future leaders. Utilizing the latest scientific knowledge, the project strengthened the faculty's reputation in economic research, with publications of results enhancing its recognition at both national and international levels. Furthermore, by developing strategies for decision-making that consider environmental, social, and economic aspects, the project supported the faculty's vision of sustainable and responsible business practices. Through collaboration with institutions and practical application of research, the project significantly contributed to the faculty's mission in education, research, innovation, and regional development.

Spaces of silent sustainability: self-provisioning and sharing

Provider: Czech Science Foundation (GACR)

Project leader: Masaryk University / Faculty of Science

Co-researcher: FEC

Solution period: 2019–2023

The project focused on the current and socially crucial topic of the sharing economy and self-provisioning. Through this research, the faculty demonstrated its orientation towards excellence in economic research, support for regional development and sustainable development, and it also contributed to improving the quality of life in society.

The project significantly contributed to the faculty's mission by expanding understanding of domestic production and sharing networks, enriching research in alternative economic models, and reinforcing the faculty's role as a creative knowledge hub. By involving educators, students, entrepreneurs, and public institutions, it fostered interdisciplinary cooperation, aligning with the faculty's mission to build strong partnerships. Additionally, the research provided insights applicable to policy decisions, supporting knowledge transfer and capitalization—core elements of the faculty's commitment to practical impact.

Aligned with the faculty's vision, the project advanced sustainable entrepreneurship and social responsibility by examining self-provisioning and shared networks. Its findings on the environmental effects of self-provisioning contributed to the faculty's international recognition through research publications. Focusing on Central Europe, the project also supported regional policy and development, reinforcing the faculty's commitment to South Bohemia's growth. Furthermore, by analysing participant motivations in informal networks, it provided new insights into social and environmental factors, supporting the faculty's vision of fostering innovative and sustainable solutions.

The project enriched scientific knowledge and strengthened the faculty's position as a leader in education and research, actively addressing modern societal challenges and promoting sustainable development.

Are countries of the Visegrad group (V4) ready for the consequences of population aging?

Provider: Visegrad Fund

Project leader: Faculty of Economics, University of South Bohemia (FEC)

Other project partners: Częstochowa University of Technology, Faculty of Management; Slovak University of Agriculture in Nitra, Faculty of Economics and Management; Comenius University in Bratislava, Faculty of Natural Sciences; University of Debrecen, Faculty of Economics and Business

Solution period: 2020–2021

The project significantly contributed to the faculty's mission by fostering international cooperation among V4 academic institutions, enabling knowledge sharing and the development of innovative research-based solutions. By focusing on demographic aging, a key socio-economic challenge, it generated valuable insights for economics and public policy. Collaboration with experts from government, social work, and healthcare further bridged academia and practice, reinforcing interdisciplinary cooperation. Additionally, methodological recommendations for V4 countries provided effective solutions for demographic aging, supporting sustainable regional growth. The faculty's research excellence was strengthened through an internationally recognized monograph, enhancing its academic impact, while the project also reinforced long-term faculty objectives by deepening collaboration between academia and public institutions.

Aligned with the faculty's key objectives, the project advanced economic research by addressing the economic and social implications of demographic aging, producing valuable findings. Through publications and an international workshop, it increased the faculty's national and international prestige. The project also emphasized socially responsible entrepreneurship by recommending strategies for demographic adaptation with a focus on social responsibility and sustainability. Moreover, its formulated recommendations offer actionable measures to improve the quality of life for the aging population, highlighting its practical impact.

By linking high-quality research with real-world challenges, the **VISEGRAD project** strengthened the faculty's reputation, emphasizing cooperation, innovation, and sustainable development.

Readiness of small and medium-sized enterprises in the V4 countries for stress management interventions

Provider: Visegrad Fund

Project leader: FEC

Other project partners: Wroclaw University of Economics and Business (Poland); University of Presov (Slovakia); Budapest University of Technology and Economics (Hungary)

Solution period: 2023–2024

The project significantly contributed to the faculty's mission by focusing on SMEs and providing practical tools for stress management at both organizational and individual levels. This initiative aligned with the faculty's commitment to regional sustainability through collaboration with local businesses and public institutions. By introducing new approaches to workplace stress and working with top universities from Poland, Slovakia, and Hungary, the project reinforced the faculty's goal of achieving national and international recognition through high-impact research publications.

Advancing stress management innovations, the project played a crucial role in supporting SMEs as they navigated digitalization and sustainability challenges, fostering economic growth both regionally and across V4 countries. Additionally, by addressing workplace stress, it contributed to employee well-being and the creation of sustainable work environments, supporting the faculty's mission to enhance societal prosperity. Through international collaboration with V4 universities, the faculty further strengthened its position as a hub for education, research, and innovation, promoting knowledge exchange and best practices. Furthermore, by tackling workplace stress as a key component of sustainable business practices, the project reinforced the faculty's vision for socially responsible enterprises.

This **international project** exemplifies how the **Faculty of Economics** fulfils its mission through applied research, innovation, and global collaboration, significantly contributing to regional and international development.

Innovative public procurement in SMART CITY solutions

Provider: Technology Agency of the Czech Republic (TACR)

Project leader: Institute of Technology and Economics in České Budějovice

Co-researcher: Faculty of Economics, University of South Bohemia (FEC)

Solution period: 2023–2026

With its focus on innovation, education and cooperation with the public sector, the project supports the strategic objectives of the faculty in several key aspects.

The project contributes to the faculty's mission by developing a methodology and training system for public administration clerks, supporting SMART CITY solutions at local, regional, and national levels. This initiative aligns with the faculty's commitment to enhancing regional development and quality of life through applied research and institutional collaboration. By creating educational modules and workshops for public officials, the project promotes knowledge dissemination in modern economic and technological trends, fulfilling the faculty's educational mission.

Focusing on innovative public procurement for SMART CITY solutions, the project fosters entrepreneurship and economic growth while contributing to social prosperity, reinforcing key pillars of the faculty's strategy. Additionally, by advancing applied research excellence and collaborating with key partners, including the Ministry of Regional Development, the project enhances the faculty's national standing. Supporting SMART CITY initiatives, it also promotes environmentally and socially responsible approaches to urban and regional growth, aligning with the faculty's focus on sustainability and responsible development.

This project strengthens FEC as a leading institution in education, research, and innovation, significantly contributing to regional development and fulfilling its strategic mission.

Table 3.3.1 – Projects supported by public funds

In the role of beneficiary

Provider ²⁵	Project name	Support (in thousands of CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
TACR	TACR: Management and legal simulation 'Bankruptcy as a win'	1 226/48.4	925/37.4	1 203 /47.5	879/34.7	
TACR	Exchange rate prevention system	1 913/75.5	69/2.7			
VISEGRAD Fund	Are countries of the Visegrad Group (V4) ready for the consequences of population aging?		24/0.95	216/8.5		
VISEGRAD Fund	Readiness of small and medium-sized enterprises in the V4 countries for stress management interventions					45/1.8
Total		3139/123.8	1018/40	1419/56	879/34.7	45/1.8
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands of CZK/EUR)				
		2019	2020	2021	2022	2023
<u>EU HORIZON</u>	<u>EU: HORIZON 2020: POWER4BIO: emPOWERing regional stakeholders for realising the full potential of European Bioeconomy</u>	674/25.5	870/34.3	365/14.4		
GACR	New approaches to modelling and statistics of random sets 19-04412S	523/20.6	420/16.6	487/19.2	108/4.3	
GACR	Spaces of silent sustainability: self-provisioning and sharing 19-10694S	300/11.8	261/10.3	351/13.8		
TACR	Innovative public procurement in SMART CITY Solutions					116/4.6
TACR	Digitization of project management teaching using the concept of serious games, virtual and augmented reality with regard to current business needs					21/0.8
TACR	Sustainable development at the local level – connecting theory and practice	673/26.5	682/26.9	459/18.1	9/0.36	
NAZV	Diversification of the impact of the bioeconomy on strategic documents of the forestry and timber sector as a basis for state administration and the proposal of strategic objectives until 2030 - 391	468/18.5	515/20.3	401/15.8		
INTERREG	Interreg V-A: SIP-SME (Service Innovations Prozess für Klein-und Mittelunternehmen	1 538/60.7				
Total		4176/164.7	2748/108.4	2063/81.4	117/4.6	137/5.4

²⁵ If the provider is from abroad, please indicate the provider's country of origin in brackets.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

²⁷ Ibid.

Table 3.3.2 – Contract research activities

Client ²⁸	Activity name	Revenue (in thousands of CZK/EUR)				
		2019	2020	2021	2022	2023
AGROTEAM CZ s.r.o.	Contract research and creation of the study 'Production efficiency of selected commodity'					41/1.61
PEKÁRNA SRNÍN s.r.o.	Preparation of the final assessment for the project 'Digitization and automation of processes in the Srnín Bakery'					3/0.12
MADETA A. S.	Contract research 'Data analysis from annual reports for a business chain'					20/0.79
PLZEŇSKÝ PRAZDROJ	Implementation of contract research					20/0.79
TEPLÁRNA ČESKÉ BUDĚJOVICE	Providing a presentation for the public under the title 'Virtual reality, as part of the promotion of Teplárna České Budějovice, a.s.'				15/0.6	
TEPLÁRNA ČESKÉ BUDĚJOVICE	Consulting service in the implementation of the survey 'Perception and satisfaction with the services of Teplárna České Budějovice, a.s.'				170/6.7	
SOUTH BOHEMIAN REGION	Evaluation of the socio-economic impacts of the project at the beginning of the project, including submission of a summary evaluation report (2021)				18/0.71	
SOUTH BOHEMIAN REGION	Evaluation of the socio-economic impacts of the project at the beginning of the project, including submission of a summary evaluation report (2021)				12/0.47	
INSPIRO a.s.	Technical and user documentation for the application 'Acquisition and interactive display of data about individual completed trips in the GUI'	11/0.43				
SOUTH BOHEMIAN REGION	Evaluation of the socio-economic impacts of the project at the beginning of the project, including submission of a summary evaluation report (2019)	30/1.18				
STATUTORY CITY OF ČESKÉ BUDĚJOVICE	Population forecast for the city of České Budějovice 2018-2048/2050	25/0.98				
TEPLÁRNA ČESKÉ BUDĚJOVICE	Research on 'Attitudes and perceptions of Teplárna ČB a.s.' - proposal draft, questionnaire and evaluation	90/3.6				
Local Action Group	Processing of the Evaluation Report	13/0.51				
Local Action Group	Preparation of the Evaluation Report for the mid-term evaluation of the implementation of the strategy CLLD 2014-2020	13/0.51				
Local Action Group SUMAVSKO, z.s.	Processing of the Evaluation Report SCLLD 'Lively and Happy Šumavsko' as part of the Šumavsko project, z. s. II. reg. no. CZ.06.4.59/0.0/0.0/15_003/0010090	7/0.28				

²⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

Local Action Group TŘEBOŇSKO o.p.s.	Preparation of the Evaluation Report for the Local Action Group Třeboňsko, o.p.s. as part of the project 'Operating and Animation Expenses of MAS Třeboňsko' II. reg. no. CZ.06.4.59/0.0./ 0.0/15_003/001079	13/0.51				
Local Action Group SDRUŽENÍ RŮŽE z.s.	Preparation of the Evaluation Report for mid-term evaluation of the implementation of the Strategy for Community-led Local Development of the Local Action Groups of the Sdružení Růže z. s. as part of the project: Management and administrative ability of the Local Action Group Sdružení Růže II? CZ.06.4.59/0.0/0.0/15_003/0010842	13/0.51				
Local Action Group POMALŠÍ	Preparation of the Evaluation Report for the Local Action Group Pomalší as part of the project no. CZ.06.4.59/0.0/0.0/15_003/001056	13/0.51				
Local Action Group BLATENSKA	Preparation of the Evaluation Report for the Local Action group Blatenska, o.p.s.	13/0.51				
INSPIRO a.s.	Development of application 'Acquisition and interactive display of data about individual completed trips in the GUI'	42/1.66				
ŠUMAVA NATIONAL PARK ADMINISTRATION	Coordination of students in the processing of topics focused on the behaviour of individual types of visitors when choosing a destination in the Šumava National Park and subsequent preparation of a final report	4/0.16				
UNIVERSITÄT FÜR BODE Institut für Landschaftsentwicklung, Erholungs- und Naturschutzplanung	Development of an electronic questionnaire in the SurveyToGo software, processing of pretest results and modification of the questionnaire, checking its technical functionality and implementing additional questionnaires above the agreed limit.	5/0.2				
Total		<u>292/11.5</u>			<u>215/8.5</u>	<u>84/3.31</u>

Note: List and describe contract research activities with 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 impacts²⁹ 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-evaluation:

The evaluated research project outcomes at FEC bring significant positive impacts on society in various fields, including business, financial stability, education, and sustainable development. Tools such as **SIP-SME**, **E-Start**, and the **Industry 4.0 assessment tool** help enterprises improve innovation strategies, manage financial risks, and prepare for digitalization, thereby enhancing competitiveness and economic stability. Applications like **We Go Together** and **Bankruptcy as a Win** contribute to community development and financial literacy, while methodological outputs and the **sustainability development portal** provide key resources for regional planning and support environmental and social aspects of development.

Most of the outputs promote inclusivity and accessibility, with the gender dimension explicitly considered in some cases by ensuring equal access for users. A strong emphasis is placed on sustainability, whether through optimizing business processes, reducing economic risks, or supporting environmentally friendly innovations. Overall, these outputs strengthen the connection between research, the business sector, and the public, thus contributing to greater economic and social resilience and holding the potential to generate long-term benefits in innovation, financial stability, and sustainable development.

SIP-SME application

The SIP-SME application is a software tool that was developed as part of a cross-border project in the Interreg V-A Austria-Czech Republic programme. SIP-SME allows companies to assess their innovation readiness through a simple self-assessment questionnaire, where managers can determine the key areas of resources needed for the implementation of innovations.

The main advantage of the tool is saving time and identifying possible risks before launching a project. Based on extensive research, analysis of regional conditions and feedback from experts and pilot users, the tool was optimized to be understandable and easy to use. SIP-SME works as a web application available on Windows and MacOS platforms and is available online for free. This tool supports the connection of enterprises with research organizations, strengthens innovation processes and brings new impulses for small and medium-sized enterprises in South Bohemia and Upper Austria.

The application can be used for effective innovation planning and improving the competitiveness of enterprises.

The evaluated unit must demonstrate in the description that the research results of the SIP-SME project lead or will lead to positive impacts on society in the near future. This includes, for

²⁹ See Terms definition.

example, a description of the use of the tool by SMEs, the range of users for whom the tool is relevant, measurable economic benefits or benefits for cooperation between enterprises and research organizations. The commentary also includes consideration of the gender dimension and an analysis of the impacts on sustainability through the support of innovation and the reduction of risks associated with innovative projects.

E-start exchange rate risk prevention system

E-Start is a unique application designed to help small and medium-sized enterprises (SMEs) and startups manage exchange rate risks in foreign currency trading. Developed under the 'Exchange Rate Prevention System' (TL01000348) project, it operates under the ÉTA Programme with support from the Ministry of Industry and Trade, CzechTrade, and the Technology Agency of the Czech Republic. The primary goal of E-Start is to provide businesses with an effective tool for identifying potential exchange rate risks and analysing possible financial losses. Users receive key insights, such as worst-case historical losses, currency stability, and expected losses at contract maturity.

Unlike speculative tools, E-Start focuses on risk prevention and minimization of financial losses, helping businesses make informed decisions about securing contracts and receivables. As a result, the application contributes to greater financial stability for SMEs. Given the unpredictability of currency markets, this tool responds to real challenges businesses face today. Surveys conducted by CzechTrade confirm strong interest among entrepreneurs, particularly in light of current economic uncertainties.

Beyond direct financial benefits, E-Start also supports economic sustainability, helping businesses manage currency risks and ensuring long-term stability. The project considers gender inclusivity by ensuring equal access to the tool for all users. By strengthening financial resilience, E-Start plays a key role in enhancing business security and promoting sustainable economic growth in the Czech business environment.

Certified methodology – methodology for increasing the capacities of local actors for sustainable regional development

This methodology results from a project supported by the Technology Agency of the Czech Republic (TACR) and certified by the Ministry for Regional Development. It aims to assist local actors—municipalities, non-profits, businesses, and individuals—in contributing effectively to sustainable development.

The methodology promotes dialogue and cooperation in tackling sustainability challenges, such as fostering innovation, shifting development approaches, and identifying concrete paths to a sustainable future. It provides tools and recommendations for engaging local communities in decision-making, essential for successful sustainable development strategies.

A key objective is to enhance local actors' knowledge and skills in planning, implementing, and evaluating sustainability-focused activities. The document covers topics like environmental education, sustainability economics, and the social dimensions of development. It emphasizes a participatory approach, ensuring the inclusion of diverse population groups in development processes.

The methodology underscores the importance of collaboration among the public, private, and non-profit sectors while stressing the need to adapt strategies to local conditions. By bridging theoretical knowledge with practical experience, the project contributes to both regional development and national sustainability.

The document is freely available online and serves as a valuable resource for those looking to engage in building sustainable communities and regions.

Evaluations must demonstrate that research results offer innovative solutions to regional challenges, whether through practical application or improvements in community quality of life. They should also assess whether the outcomes contribute to sustainable development goals, including environmental, social, and economic aspects.

‘Bankruptcy as a Win’ application

The *Bankruptcy as a Win* application was developed by FEC as part of the TACR project and under the auspices of ARET Praha s.r.o., with support from the Technology Agency of the Czech Republic (TACR). It offers a fun and interactive way to deepen knowledge of bankruptcy and insolvency.

This innovative educational tool presents bankruptcy as an economic and legal simulation game, demonstrating that insolvency is not necessarily a failure but can serve as a strategic tool for protecting investments, stabilizing the economy, and minimizing social impacts.

The game has two phases: economic and legal. In the economic phase, the player takes on the role of a manager navigating a company toward bankruptcy while facing challenges like competition, economic crises, and technological changes. The goal is to manage the company effectively while identifying the optimal moment to initiate insolvency proceedings to minimize losses.

In the legal phase, the player acts as the debtor’s representative, ensuring the best possible insolvency process through reorganization or agreements with creditors. The game also provides insight into the perspective of an insolvency court, offering a comprehensive understanding of the process.

The project emphasizes strategic decision-making, negotiation skills, and knowledge of legal frameworks. *Bankruptcy as a Win* is not just an educational tool but a practical resource for managers, entrepreneurs, and professionals in law and economics.

By promoting financial literacy, the application helps improve crisis management in businesses and supports economic stability. However, the project does not explicitly address gender aspects in its outcomes. Thanks to its innovative approach, it enhances understanding of insolvency and contributes to more effective business strategies and economic resilience.

‘We Go Together’ application

The *We Go Together* application is an innovative project by the Faculty of Economics, University of South Bohemia, designed to strengthen neighbourly relations and improve transport services, especially in smaller municipalities. It enables carpooling, promoting eco-friendly transport and efficient vehicle use. Drivers can offer free seats, and passengers can easily connect with them. Operating on voluntary neighbourly assistance, the app is free for users, with municipalities purchasing licenses to grant access to their residents. The project fosters community cooperation, sustainable transport, and stronger local ties.

Currently available mainly on computers, a mobile version is planned for broader accessibility. The app is being tested in approximately 20 municipalities to refine its functionality.

Funded by the Technology Agency of the Czech Republic under the GAMA2 programme, the project provides practical transport solutions while supporting environmental protection and community relationships. It demonstrates how technology can enhance social cohesion and sustainable mobility.

The *We Go Together* app has significant potential to benefit society by fostering neighbourly connections, reducing emissions, and promoting shared transport. Designed inclusively for all user groups, it contributes to community development, sustainability, and social inclusion.

Cran.R software

The software, developed within the GA19-04412S project *New Approaches to Modelling and Statistics of Random Sets* (2019–2022), focuses on advanced statistical methods for analysing random sets. It enables spatial data modelling and geometric analysis using new probabilistic models and statistical approaches. The software offers key features such as advanced methods for describing and analysing random sets, statistical testing tools applicable in image analysis, biology, and geosciences, and a user-friendly environment for visualizing spatial and geometric characteristics. Its applicability extends to various scientific fields, including medicine, ecology, and material sciences, where working with spatial data and random structures is essential.

Bridging theoretical research with practical application, the software enables more precise analyses and improved decision-making in applied mathematics and statistics. By enhancing the processing and interpretation of complex spatial data, it contributes to more effective research and industrial applications. The software's broad usability in medicine, ecology, biology, and material sciences demonstrates its potential for positive societal impact, helping institutions such as research institutes and industrial companies working with spatial analysis.

Although the project did not explicitly address the gender dimension, it supports sustainability by improving analyses in ecology and other environmental applications.

Online portal 'Sustainable Development at the Local Level'

This portal was created with the aim of bringing the Sustainable Development Goals (SDGs) closer and more accessible in a context that supports development, especially in rural areas. It is intended for a wide range of actors operating at the local level—from individuals and community initiatives to smaller organizations, municipalities and other entities that strive for the sustainable development of their regions. It is also a valuable source of information for those who support this process from outside, such as experts, NGOs or state institutions.

The primary focus of the portal is the practical application of knowledge that can help initiate and implement desired changes from the bottom up, i.e. directly at the level of communities and individual local initiatives. Sustainable development often begins at the local level and is the result of cooperation between active citizens, entrepreneurs and public institutions who strive together for the environmental, social and economic stability of their regions.

This site was created or significantly expanded as part of the project 'Sustainable Development at the Local Level – Connecting Theory and Practice', supported in 2019-2022 by the Technology Agency of the Czech Republic.

This portal serves not only as an information platform, but also as a support for sharing knowledge and best practices in sustainable development. The objective is to provide users with practical tools, inspiration and examples of good practice that will help them implement innovative solutions in their communities and contribute to the long-term sustainable development of regions.

Online application 'Evaluation of the Level of Industry 4.0 Implementation'

The Industry 4.0 implementation assessment tool is specialized software designed to help companies evaluate their level of digitization and automation. It enables enterprises to assess their readiness for Industry 4.0 through a structured self-assessment that identifies strengths and areas for improvement. Key aspects of this concept include digitization, the integration of physical and virtual systems, and the use of advanced technologies such as the Internet of Things (IoT), the Internet of Services (IoS), and the Internet of People (IoP).

The tool's main advantages are its simplicity, efficiency, and ability to provide specific feedback. After completing a self-assessment questionnaire, users receive an overview of their strengths

and potential barriers to further development. This analysis helps businesses optimize processes and prepare for the challenges of digitization and automation.

Since entrepreneurs and managers understand their companies best, the tool relies on their objective evaluation of business aspects to generate a tailored analysis. Enterprises receive a summary of their strengths and weaknesses in Industry 4.0, along with recommendations for overcoming obstacles and suggestions for future growth.

Based on the assessment, users receive a detailed report on their company's position in the Industry 4.0 landscape, including strategies to eliminate weaknesses and optimize the use of available technologies. The tool is suitable for small, medium, and large enterprises aiming to stay competitive in the era of digital transformation.

By using this assessment, businesses can better plan technological innovations, improve resource efficiency, and prepare for future challenges related to industrial process digitization.

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

Type of result ³⁰	Year of application	Name
SIP-SME online tool	2019	Services for innovation processes in small and medium-sized companies (SIP-SME)
Software	2019	Cran.R
Online application	2020	E-start exchange rate risk prevention system
Online application	2020	Evaluation of the level of Industry 4.0 implementation
Online application	2022	'We Go Together' application
Online application	2022	'Bankruptcy as a Win' application
Certified methodology	2022	Methodology for increasing the capacities of local actors for sustainable regional development
Online portal	2022	'Sustainable Development at the Local Level'
Prototype	2020	An innovative technical device for the distribution of single-piece shipments with height-adjustable shelves
Industrial pattern	2022	Upcycled paper pallet composed of bent slats

Note 1: Please list and describe the results already applied in practice or heading towards application in practice with existing or prospective impact on 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.

³⁰ 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 commercializes R&D&I results (e.g. selling licenses, setting up start-up or spin-off companies, etc.)³¹ providing brief description of the commercialization methods used. The effectiveness of the transfer of results and the commercialization of R&D&I results will be described using a selection of results (max. five) listed in annex table (Table 3.4.1).³²

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:

FEC applies a systematic and multidisciplinary approach to the transfer of research and development results into practice, which reflects the specifics of economic research and its applications in various sectors. This system includes regular presentations of the results at professional conferences, cooperation with application partners in the public administration, corporate sphere and non-profit sector and implementation of the results through specific applied projects. A key component of the system is also user feedback and adjustment of the results according to the users' current needs, which guarantees relevance and efficiency of transfer.

Typical users of the results:

1. Entrepreneurs and small and medium-sized enterprises (SMEs):

The faculty cooperates with enterprises mainly in financial management, optimization of business processes, digitization and development of business strategies. Joint projects include analysis of economic trends, development of business plans and evaluation of the impacts of innovations. For instance (Essox, Robert Bosch s.r.o. and others).

2. Public administration (regional and local):

The faculty provides expert analyses, proposals for regional development strategies and recommendations for the creation of public policies. Cooperation takes place, for example, in assessing the impacts of subsidy programs or in creating strategic plans for regional development (e.g. for local action groups across the entire Czech Republic; South Bohemian Tourism Centre).

3. Non-profit organizations:

The results of research focused on social and economic development are applied in cooperation with non-profit organizations. These include, for instance, designs of sustainable financial models or analyses of the impacts of projects on local communities.

4. Research organizations:

The faculty cooperates with other academic and research institutions not only in the Czech Republic but also abroad. The results serve to further develop research, especially in the areas of economic models, regional development and sustainability.

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

5. Start-ups:

The faculty supports new business entities through education, consultations and licensing of innovative tools and approaches.

Searching for new users:

1. Participation in regional and national professional fairs:

The faculty regularly presents its results at fairs focused on entrepreneurship, innovation and sustainable development, such as **the Regional Innovation Fair**.

2. Organizing workshops and conferences:

FEC organizes various events, workshops, for instance, as part of the 'Inproforum' conference, where it presents research results and offers cooperation to application partners.

3. Publications in professional journals and media:

Researchers publish articles focused on applied results in renowned journals and economically focused media.

4. Addressing companies directly:

The faculty seeks out companies and institutions actively, especially through regional chambers of commerce and business associations, and offers them services and cooperation.

5. Involvement in international EU-funded projects:

The faculty uses opportunities within the Horizon Europe or Interreg projects, where it establishes new contacts and develops cooperation with foreign partners.

Commercialization and increasing the value of results:

1. Sale of licenses:

The faculty offers licenses for analytical tools and methodologies that can be used in the corporate sphere and public administration.

2. Contract research:

The faculty implements custom projects, such as economic impact analyses or feasibility studies for the private and public sectors.

3. Consultancy and educational programs:

The offer of expert consultations and courses contributes to the transfer of knowledge and the creation of value for partners.

Examples of transfer and commercialization effectiveness:

1. Analytical tool for regional development:

Software developed by the faculty was licensed

2. Study of the impacts of digitization:

Based on contract research, an analysis was prepared for a major technology company.

3. Educational programme for public administration:

A course focused on effective public finance management was implemented for city and regional governments.

4. Sustainable development strategy:

The faculty created a sustainable economic development strategy for a non-profit organization focused on ecology.

Funds from non-public non-grant sources (2019–2023):

During the monitored period, the Faculty of Economics of the University of South Bohemia received funds from the sale of licenses and contract research in total value of EUR 24.31 thousand. These resources contribute to the financing of the faculty's research activities. This approach

demonstrates the effective involvement of the faculty in the R&D&I system, while ensuring the practical use of its results and their commercialization, which supports the economic and social development of the region and the Czech Republic.

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

Type of revenue	Revenue (in thousands of CZK/EUR)				
	2019	2020	2021	2022	2023
Provision of a license for the 'We Go Together' web application to the town of Hronov				4/0.16	
Provision of a license for the 'We Go Together' web application to the town of Deštná				1/0.04	
Provision of a license for the 'We Go Together' web application to Pod horou, Tučapy					10/0.4
Provision of a license for the 'We Go Together' web application to the village of Radení					2/0.08
Provision of a license for the 'We Go Together' web application to the village of Dolní Věstonice					3/0.12
Provision of a license for the 'We Go Together' web application to the town of Hronov					4/0.16
Provision of a license for the 'We Go Together' web application to the town of Deštná					1/0.04
Total				5/0.2	20/0.8

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

R&D&I popularization and communication with the public

The Faculty of Economics actively communicates with the public through media such as newspapers, radio, and television. It also utilizes social media, where it regularly publishes infographics and news from the faculty. This is an effective way to reach a broad audience, especially younger generations active on these platforms. However, to ensure that all generations are informed, the faculty also focuses on popularizing science through print media. Once a year, the faculty publishes its magazine Effective, which provides a platform for presenting activities carried out at the faculty, as well as the Newspaper FE, which is distributed as a Daily newspaper supplement into households across the region. The faculty also offers this newspaper to the general public at events such as Open Day, University Day, Adventure with Technology, the Education and Craft Fair, and the Researchers' Night.

The Faculty of Economics of University of South Bohemia (FEC) organizes professional scientific conferences such as, for example, traditional domestic events INPROforum, Ethics in the 21.st

century, the TourConf, as well as workshops, seminars and panel discussions, where distinguished experts from practice, academia and the general public are invited. There is also an opportunity for the public to become familiar with our research topics and findings. In addition to conferences, the faculty provides a platform for young scientists who participate in the Student Scientific and Professional Activity competition with their promising contributions. Representatives of various organizations are invited to these events to provide valuable feedback to students, while the organizations, in turn, appreciate the fresh, youthful perspective on current topics in management and economics. FEC develops intensive cooperation with companies and institutions, especially in the South Bohemia region. Long-term partnership agreements are concluded with selected entities, covering a wide range of activities. For example, JobDay is a job fair for students. FEC has long term cooperation with selected secondary schools, which, after signing an agreement, have become faculty schools. FEC has been organizing the inter-university competition Invest Day for many years. For the general public, the faculty offers a variety of courses and projects as part of its Lifelong learning programme. Their goal is to simplify complex economic concepts and make them more accessible to the wider public. The popularization of science connects communication between the academic world and the general public. Not only does it raise awareness of the importance of scientific topics, but it also helps improve understanding of complex economic processes that impact everyday life. The Faculty of Economics became the first to receive the status of Fairtrade Faculty. It focuses on the issues of sustainability, circular economy, as well as green economy and bioeconomy.

The most significant examples in popularization of science:

Popularization activities for the general public such as the Researchers' Night, University Day, Open Day, the Education and Crafts fair, the Fictitious Company Fair, Adventures with Technology and others.

The *Researchers' Night* brings science to the public through interactive programs at institutions across the Czech Republic. Faculty departments prepare workshops and experiments on current economic topics affecting daily life. From 2019 to 2023, themes included *Care for the Planet*, *Human and Robot*, *Time*, *All Senses*, and *Secrets*, each presented uniquely.

At events like the *Education and Crafts Fair*, *Fictitious Companies Fair*, and *Adventures with Technology*, faculty representatives showcase modern technologies such as VR and the Industry 4.0 Kit while presenting research findings.

In late January, the Faculty of Economics hosts an *Open Day* to introduce prospective students to its dynamic environment. Visitors can interact with students, meet tutors, and explore innovative teaching methods, including a virtual reality classroom, the Industry 4.0 Kit, and ecological footprint calculations. The programme also features a *Fairtrade trail*, highlighting ethical and fair-trade practices supported by the faculty.

Cooperation with affiliated secondary schools

FEC continued to maintain and expand cooperation with both existing and new secondary schools. This concept is not just a formal matter, but also a key element in connecting the higher education and secondary education sectors. Students have the opportunity to visit the faculty through 'University Experience Day' event. They will try participating in university lectures and seminars, meet the tutors, and experience the atmosphere of a university environment.

In return, faculty representatives also visit affiliated secondary schools with professional topics requested by these schools.

Sustainability

FEC is trying to demonstrate sustainable practices to the general public, for example, through a revolutionary approach to drinking water, which is represented by the LOKNI filtration station, installed by FEC in one of the classroom pavilions. It filters water so that it is not only tastier, but also free of bacteria, impurities, microplastics, chlorine and unpleasant odours. Students can thus draw up to 3 litres of quality water for free and at the same time save on plastic consumption by using their own bottles! In 2023, the savings in the first two months of operation amounted to 2,943 PET bottles. Each student has a calculated amount of carbon dioxide saved on their profile.

As part of the effort to achieve maximum energy self-sufficiency, the use of solar panels was adopted.

Equally important step demonstrating the faculty commitment to sustainability and ecology is undoubtedly waste sorting. Waste bins for sorted waste are installed throughout the building and used not only by students but also by employees.

Fairtrade

FEC has held the status of a Fairtrade Faculty for over ten years and continually demonstrates its commitment to supporting Fairtrade and sustainable development. The faculty is actively involved in this by educating students and staff about the importance of Fairtrade, including its impact on global trade relations, as well as organizing various workshops and lectures focused on ethical shopping, Fairtrade and sustainability. The two most important events include the Fair Breakfast, organized by volunteers in more than hundred locations throughout the Czech Republic, and the Faculty of Economics is the place where the general public has the opportunity to have a Fair Breakfast every year in May. Another equally important event is Fairtrade Faculty Day. It allows visitors to taste and purchase Fairtrade products from various countries, such as Brazil, Peru, Ivory Coast and Sri Lanka.

Lectures by industry expert

FEC offers lectures by many experts, aiming to broaden the horizons of students and the professional public and show practical examples. It is during these lectures that they can step beyond theoretical knowledge and learn how the knowledge acquired during their studies will be applied in real-life practice. In 2019–2023, our students and staff had the opportunity to meet several prominent figures from the economic world, such as Mr. Zdeněk Tůma, former Governor of the Czech National Bank, or Jiří Rusnok, former Prime Minister and also former Governor of the Czech National Bank, Michal Šalomoun, former Chairman of the Legislative Council of the Government, and Danuše Nerudová, former Rector of Mendel University and candidate for the post of President.

FEC regularly organizes Academic Half-Hours, which are intended to bring the work of scientists closer to the public, and the Faculty of Economics actively participates in this concept by sending its scientists to present their work outputs to the public.

Invest Day

During the summer semester, FEC hosts the traditional inter-university competition Invest Day, in which students at affiliated schools, students and graduates of selected universities (the University of South Bohemia, the University of West Bohemia, the Faculty of Management at the University of Economics) have the opportunity to apply with their business idea. Students and graduates can work on and develop their ideas that originate within the university. During the spring months, the contestants participate in various workshops in areas such as marketing, law, economic matters of business planning, etc., where they acquire key knowledge and skills necessary for successful entrepreneurship. These workshops provide them with not only theoretical background, but also practical advice from experienced experts in the field. The contestants then use all the accumulated knowledge and experience in preparing their final business projects, visions and strategies, which they present to the expert jury and investors in the final.

Job Day

FEC organizes a prestigious Job Day every year. This traditional event demonstrates the ongoing interest of students and recent graduates in actively searching for job opportunities, part-time jobs, internships, but also the opportunity to gain a connection with an organization where the student will subsequently work on his/her thesis. Participants have the opportunity to find out what news the current labour market brings and to personally talk to HR professionals from major companies. Several dozen major regional and international companies are presented at the Job Day, which attracts visitors with diverse professional interests. The accompanying programme includes job consultations focused on preparing CVs and motivation letters. The high participation and positive feedback at the Job Day show the long-term benefit of these meetings for the career development of young people in the region.

Lifelong learning courses, University of the Third Age and Adult Education Week

The Faculty of Economics (FEC) actively promotes lifelong learning through practical courses in various fields. Notable past courses include *Personal Income Tax Return Preparation*, *Trading Securities*, *Communication in Stressful Situations*, *Economic and Social Aspects of Leisure*, and *Artificial Intelligence on Campus: Benefits, Challenges, and Ethics*. Additionally, a refresher course in mathematics and computer science is available for future students, and foreign students can take a preparatory Czech language course for entrance exams.

A key part of lifelong learning is the *University of the Third Age*, offering seniors opportunities to expand their knowledge and social connections. Courses cover economics and culture, complemented by hands-on activities such as holiday crafts and excursions, encouraging an active lifestyle.

FEC also supports younger generations. In 2023, it introduced a suburban camp for children.

The faculty participates in *Adult Education Week*, offering public lectures on topics such as *Marketing Basics*, *LinkedIn Strategies*, and *Czech Global Economic Development and Risks*.

Scientific conferences, Student Scientific and Professional Activities (SVOČ)

FEC organizes scientific conferences every year. The traditional international scientific conference is INPROforum, where scientists present their scientific findings and the general public has the opportunity to learn about the latest developments in management, economics, law, etc. Another traditional conference at the Faculty of Economics is the Ethics in the 21st century conference, which focuses on business ethics, environmental ethics and other current issues that resonate in contemporary society in the Czech Republic. TourConf is also a traditional conference, where topics such as digitalization and current innovations in tourism are discussed.

Popularization of science through personalities with international reach

In 2023, doc. Ing. Eva Cudlínová, CSc. received the Milada Paulová Award for Lifetime Contribution to Science. The Milada Paulová Award has been awarded since 2009 to a female scientist for a lifetime contribution to science and an extraordinary contribution to the development of a given field. It is through this award that the ministry wishes to draw attention to the contributions of female scientists in the Czech Republic and inspire women to embark on a scientific career.

IMPLEMENTATION OF RECOMMENDATIONS

3.7 Implementation of the recommendations in Module 3

The evaluated unit will briefly describe in what way it implemented the recommendations for Module 3 set in the Evaluation Report of the International Evaluation Panel in the previous evaluation period in 2019–2023, if applicable.

Maximum 1000 words.

Self-assessment:

The Faculty of Economics of the University of South Bohemia implemented the recommendations of the International Evaluation Panel in the period of 2019-2023 in the following way:

1. Focus on the national and regional research priorities and interregional cooperation

The Faculty of Economics (FEC) has strengthened its research priorities in economic disciplines, focusing on environment and sustainability despite challenges posed by the Covid pandemic.

One key project is the *TACR Exchange Rate Prevention System*, which developed a web application to help SMEs assess exchange rate risk in international transactions. Another, the *Interreg Service Innovation Process for SMEs*, improved innovation management support in the Czech Republic and Austria. The faculty also engages in bioeconomy and circular economy research, exemplified by the *EU Horizon 2020 POWER4BIO* project, which fostered biomass resource utilization and regional bioeconomic strategies.

The faculty also studies energy markets, such as in the *TACR project on Energy Price Changes and Consumer Behaviour in the Czech Republic*. Research in marketing, local development, and sustainability is reflected in the *TACR Sustainable Development on Local Level* project, in cooperation with regional stakeholders.

FEC actively links academia with industry. It has collaborated with *AGROTEAM CZ* on production efficiency studies, *PEKÁRNA SRNÍN* on digitalizing bakery production, and *MADETA* on food market

trend analysis. Regional partnerships include socioeconomic impact assessments and population forecasts for *South Bohemia* and *České Budějovice*.

The faculty contributes to technical innovation, working with *INSPIRO* on interactive data applications and *ŠUMAVA National Park* on visitor behaviour research. International collaborations include projects with *Universität für Bodenkultur Wien*. The faculty also develops applied solutions, such as the *TACR GAMA project* on rural carpooling and transport innovations.

These activities confirm FEC's role in bridging academic research with industry needs, fostering regional, national, and international development.

2. Relevance to the socioeconomic development and the system of evaluation of the impact of projects

The faculty has implemented a system of monitoring and evaluation of the outcomes from research and their impact on the society. This system enables us to identify the key spheres with the highest potential for the creation of social relevance. The outcomes from research are regularly presented to public authorities and communicated towards the professional as well as wider public by means of conferences, workshops, round tables and participation in the individual professional chambers and institutions. In the above-mentioned examples in Art 1 the faculty focused on linking its strengths to the current social needs.

3. Interaction with the non-academic sphere and multidisciplinary

A systematic communication of research and project outcomes, including extended cooperation with the non-academic sphere has been introduced at the faculty. The faculty has extended the 'Invest Day' event as an interuniversity event open not only to USB students with partners like the University of Western Bohemia and more. In cooperation with the South Bohemian Science and Technology Park the faculty has extended its offer of educational activities and courses and subjects focused on the development of entrepreneurial skills and innovation potential. Courses like 'The Tax Return' or the subject 'Support of Entrepreneurial Spirit at USB' or modern topics like 'Robotic Process Automation' or 'Bioeconomy' are examples of such activities. The faculty has also established a connection with the University of the Third Age programmes, which reflects the educational needs across the age range.

Within the presentation of the outcomes from the scientific and research activities the faculty regularly participates in events like the Researchers' Night, and organizes events related to Fair Trade topics. FEC has also become active in the Week of Adult Education. The activities of the faculty are also enriched by workshops, round tables and visits, like for example visits to projects focused on the Smart Cities concept. These events provide a platform for the consultation of implemented projects with the professional as well as laic public, which improves their social impact.

The establishment of an online portal 'Sustainable Development at the Local Level' is another important outcome of the faculty. It serves as an informational and educational platform focused on the sustainable development topics. By these activities the faculty significantly contributes to the development of the academic environment, it strengthens cooperation with local partners and makes the outcomes of research and innovation accessible to wider public.

4. Support to research teams and international cooperation

The research topics for the individual departments have been updated in relation to the publishing and project outcomes of the faculty. A motivation tool has been set for the support of filing projects and publishing activities reflecting the quality and focus of FEC (Measures of the Dean 247/2003 and

248/2003). The faculty has formed several internal research teams focused on the main spheres of research. These teams support individuals and help publish in internationally recognized scientific journals.

5. Popularization of science and R&D&I

The faculty kept on organizing popularizing activities that make the R&D&I outcomes closer to the wider public. It has introduced a system of feedback from participants in these events (online questioning) to be able to evaluate their effectiveness and contribution to the faculty. The popularizing activity was linked to the strengthening of the image of the faculty as an important partner in education and research (popularization has extended to social networks, e.g. YouTube, virtual tour and more).

By these steps the Faculty of Economics of the University of South Bohemia fulfilled the recommendations and has contributed to the development of its research and social potential.

Finally, we should emphasize that research and education at the Faculty of Economics represent an important pillar of the social-economic development, not only in the regional, but also in the national and international context.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Information about the Milada Paulová Award	3.2	https://genderaveda.cz/en/milada-paulova-award/ https://www.jcu.cz/en/university/news/the-milada-paul-award-for-lifetime-contribution-to-science-goes-to-the-usb-faculty-of-economics
Simulation application 'Bankruptcy as a Win'	3.3	https://bankrotjakovyhra.cz/
SIP-SME online tool	3.4	https://sipkm.ef.jcu.cz/analyse
Cran.R, Software	3.4.	https://cran.r-project.org/package=GET
E-start exchange rate risk prevention system online application	3.4	https://www.businessinfo.cz/nastroje/kalkulacka-kurzovych-rizik/
Evaluation of the level of Industry 4.0 implementation online application	3.4	http://pp40.ef.jcu.cz/EN/index.php
'We Go Together' application	3.4	https://jedemespolu.cz/mestaobce.html
'Bankruptcy as a Win' application	3.4	https://bankrotjakovyhra.cz/

Methodology for increasing the capacities of local actors for sustainable regional development	3.4	https://mmr.gov.cz/getmedia/1fb4f4e4-8840-4b3d-9389-9ad2c5ec3c5b/Metodika_-UR_17_9_2022_verze-pro-web.pdf.aspx?ext=.pdf
'Sustainable Development at the Local Level' online portal	3.4	https://www.enviwiki.cz/wiki/Port%C3%A1l:Udr%C5%BEteln%C3%BD_rozvoj_na_m%C3%ADstn%C3%AD_%C3%BArovni

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Fisheries and Protection of Waters

FORD: 4 - Agriculture and veterinary 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.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 mission of the Faculty of Fisheries and Protection of Waters, University of South Bohemia in České Budějovice ([FFPW](#)) is to advance and apply scientific knowledge in freshwater fisheries, aquaculture, and water environment protection to address contemporary and emerging global challenges. The faculty focuses on promoting the sustainable use of aquatic ecosystems, conserving biodiversity, and fostering the development of modern, environmentally friendly technologies in aquaculture. By combining innovative research with high-quality education, unique in Central Europe, FFPW prepares a new generation of professionals equipped with the knowledge and skills to tackle diverse challenges, such as habitat and biodiversity loss, climate change, and water pollution. The faculty also emphasises engaging with society through outreach, knowledge sharing, and lifelong learning opportunities, thereby contributing to sustainable development and the protection of vital aquatic resources for future generations. As such, it aims to be a valuable member of the USB family, contributing to its recognition and acknowledged multidisciplinary, with strong thematic connections and active collaborations with the Faculty of Science and the Faculty of Agriculture and Technology.

Its vision is to establish itself as an internationally recognised and respected centre of excellence in research, innovation, and education. The faculty aspires to lead efforts in developing solutions to conserve freshwater aquatic ecosystems and ensure the sustainable use of water resources, while actively addressing appearing challenges. Through collaborations with academic institutions, government agencies, and private enterprises, FFPW envisions driving the integration of cutting-edge research and practical applications. The faculty seeks to be a modern, open, and dynamically evolving institution that combines tradition with forward-thinking strategies, providing a creative environment where researchers and students can excel. By pushing the boundaries of scientific

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

understanding and innovation, FFPW aims to be a leader in addressing the urgent and long-term needs of aquatic ecosystems and the communities that depend on them.

The research and development activities of the faculty provide significant benefits to society. Key areas of impact include the development of sustainable fish farming and aquaculture methods that minimise environmental impact, the improvement of aquatic ecosystem quality through research into monitoring and water protection, and the promotion of technological advancements and collaboration with stakeholders, particularly in fisheries and environmental protection. The faculty highlights the importance of its work by actively addressing societal needs, sharing research findings, and engaging in public discussions on sustainable development. These long-term objectives are pursued through four closely interconnected [Research Programmes](#) within the South Bohemian Research Centre of Aquaculture and Biodiversity of Hydrocenoses ([CENAKVA](#)), further detailed below. They specifically address: i) reproductive and genetic techniques for conserving fish biodiversity and advancing aquaculture; ii) pollutants in freshwater environments and their effects on aquatic ecosystems; iii) sustainable aquaculture practises with responsible water and nutrient management; and iv) the functioning of freshwater ecosystems in the broader context of global environmental change.

The activities undertaken integrate the fields of natural sciences, and agricultural and veterinary sciences in roughly equal measures. They encompass both basic and applied research, although the natural sciences tend to focus more on fundamental research, while the broader fisheries domain leans towards practical applications (Table 3.1.6).

FFPW is a strongly research-oriented faculty, comprising two institutes: the Research Institute of Fish Culture and Hydrobiology in Vodňany ([RIFCH](#)) and the Institute of Aquaculture and Protection of Waters located in České Budějovice and Nové Hradky ([IAPW](#)). FFPW is the smallest and youngest faculty but builds on the legacy of RIFCH, which was established in Prague in 1921 and relocated to Vodňany in 1953 to support the development of essential aquaculture infrastructure. In 1996, it became a research institute of the university, which, together with the newly formed IAPW, led to the establishment of a new faculty in 2009. That same year, the CENAKVA was founded and fully integrated into the faculty's organisational structure. This enabled significant infrastructural development and provided a framework for thematic growth in line with the Research Programmes mentioned above. In 2019, CENAKVA was included in the [Roadmap of Large Research Infrastructures of the Czech Republic](#), ensuring at least 25% of its infrastructural capacity is available for free open access. This inclusion has boosted its international scientific collaboration and recognition.

The faculty is stable in terms of personnel, with a secure age structure and a slight increase in the total number of employees (212 in 2019, and 219 in 2023). It has the highest proportional ratio of employees to students at the University, reflecting its traditionally strong research orientation. In terms of staff numbers, FFPW is considered a medium-sized faculty at the USB (Tables 3.1.1–3). The study programmes cover the fields of Fisheries, and Protection of Waters at all levels (combined for the master's programme) and are offered in both full-time and part-time formats. All programmes beyond the bachelor's level are also taught in English (Table 3.1.5). There are nearly 200 students, with bachelor's students forming the majority. The faculty's strong research focus is reflected in the higher number of Ph.D. students compared to master's students. Male students predominate overall, although the gender ratio is most balanced among Ph.D. students (Table 3.1.4). Overall, FFPW is the smallest faculty in terms of student numbers at the USB.

The faculty is actively engaged with the public, organising numerous educational events (see also Section 3.6). These activities are primarily coordinated by the [International Environmental Educational, Advisory, and Information Centre for Water Protection](#), located in Vodňany, which serves over 2,000 individuals annually (Table 3.1.4).

A general overview of FFPW can be found in its [Biennial Reports](#), with the latest, covering the years 2022–2023, available [here](#).

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	5.72/0.1	5.70/0.1	6.02/0.1	6.24/0.1	6.45/0.1	8/1
Associate Professor	8.86/0.14	9.63/0.55	11.12/0.89	13.65/1.32	12.67/1.63	18/2
Assistant Professor	21.81/5.42	22.56/6.27	20.75/6.07	19.24/7.23	18.17/7.11	33/11
Assistant	4.19/2.89	4.25/2.9	3.89/2.50	3.55/2.50	3.55/2.50	4/3
R&D Personnel ³	11.43/5.08	12.08/6.13	12.19/6.25			89/42
Researchers in other categories ⁴	28.08/12.74	33.07/14.03	35.72/16.22	39.31/16.87	43.82/18.09	85/39
Technical and economic staff ⁵	65.82/36.22	71.98/38.47	76.97/37.84	87.03/43.04	86.71/44.13	204/100
Scientific, research and development staff involved in teaching activities	40.48/8.45	43.24/10.71	42.68/10.46	42.69/11.15	41.85/11.35	62/17
Early career researchers ⁶	25.06/11.02	28.35/12.28	27.5/12.06	30.74/12.58	28.98/10.59	57/24
Total ⁷	145.92/62.59	159.46/68.44	166.67/69.67	169.02/71.07	171.37/73.57	

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.

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 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.

3.1.2 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/ 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	2	0	1	0	2	1
Associate Professor	0	0	3	0	4	0	1	0	0	0	1	0
Assistant Professor	0	0	14	5	10	1	2	1	0	0	0	0
Assistant	0	0	0	0	2	2	1	1	1	1	0	0
R&D Personnel ⁹	3	1	2	0	3	3	1	1	1	1	0	0
Researchers in other categories ¹⁰	38	15	42	16	11	6	2	2	1	1	0	0
Technical and economic staff ¹¹	9	4	33	18	13	8	5	2	2	1	0	0
Scientific, research and development staff involved in teaching activities	0	0	17	5	18	3	61	2	2	1	2	0
Early career researcher ¹²	6	1	26	12	3	2	1	1	1	1	0	0
Total ¹³	50	20	94	39	45	20	14	7	6	4	3	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 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/ 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	2	0	2	0	2	1
Associate Professor	0	0	0	0	11	2	2	0	0	0	1	0
Assistant Professor	0	0	3	1	13	4	3	1	2	1	0	0
Assistant	0	0	0	0	1	1	2	2	0	0	0	0
R&D Personnel ¹⁵	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	24	14	51	21	17	8	6	6	5	4	0	0
Technical and economic staff ¹⁷	12	3	26	10	28	18	3	1	0	0	1	0
Scientific, research and development staff involved in teaching activities	3	1	20	3	27	7	9	3	4	1	3	1
Early career researcher ¹⁸	2	0	21	6	7	3	1	1				
Total ¹⁹	36	17	80	32	72	33	18	10	9	5	4	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.

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.

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	109	25	108	28	111	33	124	41	118	30	258	98
Master's ²⁰	39	10	31	5	37	11	45	16	42	21	111	38
Doctoral	48	22	46	23	50	22	46	21	41	22	92	44
Lifelong Learning Courses	2,762	N/A	1,804	N/A	1,769	N/A	2,407	N/A	2,250	N/A	10992	N/A
Total	2,958	57+	1,989	56+	1,967	66+	2,622	78+	2,451	73+		

Table 3.1.5 – Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	3/0	0	5/0	0	5/0	0	5/0	0	6/0	0	7/0	0
Master's	4/2	0	4/2	0	3/1	0	4/2	0	6/3	0	7/3	0
Doctoral	3/1	0	6/2	0	8/3	0	9/3	0	9/3	0	9/3	0
Lifelong Learning courses	37/6	0	32/5	0	50/5	0	61/5	0	46/5	1/0	61/6	1/0
Total	47/9	0	47/9	0	66/9	0	79/10	0	68/11	1/0		

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.	50
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences	2	Balanced basic and applied research	
	1.4 Chemical sciences	3	Basic Research	
	1.5 Earth and related environmental sciences	15	Balanced basic and applied research	
	1.6 Biological sciences	30	Basic Research	
	1.7 Other natural sciences		Zvolte položku.	

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

²¹ The total number of study programmes for which admissions have been announced in a given academic year.

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		35	Balanced basic and applied research	50
	4.1 Agriculture, Forestry, and Fisheries	5	Applied Research	
	4.2 Animal and Dairy science	5	Applied Research	
	4.3 Veterinary science	5	Basic Research	
5. Social Sciences	4.4 Other agricultural sciences	5		
	5.1 Psychology and cognitive sciences		Zvolte položku.	
	5.2 Economics and Business		Zvolte položku.	
	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 FFPW acknowledges its multiple commitments to the academic and research community, which also underpin its recognition. While these commitments can be described in many ways, this report primarily follows its designated structure. The faculty's achievements (Table 3.2.1) include excellence in education, as it is nationally ranked as the top institution in the Agricultural, Forestry, and Veterinary Sciences. This demonstrates the faculty's dedication to advancing knowledge and fostering innovation. Achieving this would be impossible without high-quality teaching, for which producing acclaimed textbooks is essential—such as the award-winning “Fish Diseases and Pathological Conditions,” which received the prestigious Josef Hlávka Award. Cutting-edge education is intrinsically linked to creating new knowledge through research and innovation in taught disciplines.

We are proud that our students consistently excel in national competitions like “Science for the Earth,” presenting innovative research on fish nutrition, aquaponics, and sustainable practices. This success highlights our commitment to exploring current and societally relevant topics, where effective public engagement also plays a critical role. Anil Axel Tellbüscher's success in the “Falling Walls” competition exemplifies this. Similarly, early-career colleagues have been recognised for outstanding research contributions. For instance, Roman Franěk, Ph.D., received the Minister of Agriculture Award for Young Scientists for his groundbreaking study on carp reproduction using goldfish surrogate broodstock. While such recognition varies in importance, it is significant that some of our colleagues have consistently ranked among the top 2% of the most-cited scientists in their fields, underscoring the faculty's global impact on research. We aspire to increase the number of colleagues achieving this distinction or even top 1% recognition. Additionally, the faculty is honoured to acknowledge the lifelong contributions of Prof. Zdeňka Svobodová to Czech fisheries.

Focusing solely on journals listed in the Web of Science (WoS) Science Citation Index Expanded database, the number of faculty members engaged in editorial work has risen significantly since the last evaluation (Table 3.2.2). Faculty members now contribute to a wider range of higher-quality journals, with 19 individuals serving on the editorial boards of 19 journals (noting some overlap in journals and contributors). Furthermore, several faculty members are involved with journals from other WoS databases or those not covered by WoS. Equally important is the active participation in the peer-review process, a cornerstone of scientific publishing. During the evaluation period, our faculty reviewed over 1,650 manuscripts, averaging more than 330 reviews annually.

The faculty actively fosters diverse collaborations, as demonstrated by invited lectures delivered at foreign institutions and renowned conferences (as exemplified in Table 3.2.3). These lectures span a wide range of topics and destinations, primarily within Europe, but also extend to advanced research

regions like Japan and the USA, as well as areas with emerging aquaculture potential, including Africa, Brazil, the Middle East, and Southeast Asia.

Our recognition also supports an extensive international exchange of students and researchers, stimulating further progress. Visiting lectures delivered at the faculty are among the valuable outcomes of these exchanges, as illustrated in Table 3.2.4. However, the coronavirus pandemic posed significant challenges. Typically, nearly 70 individuals visit the faculty annually, but this number dropped to 16 in 2020 and only 2 in 2021. Recovery began in 2022, with 43 visitors, and the faculty has since returned to pre-pandemic levels.

The faculty recognises the importance of shaping the R&D&I ecosystem through active participation in the evaluation of national and international research projects (Table 3.2.5). This involvement is primarily associated with national funding agencies, such as the Czech Science Foundation and, to a lesser extent, the Technology Agency of the Czech Republic. It also includes ministries like the National Agency for Agricultural Research of the Ministry of Agriculture of the Czech Republic, and the Ministry of Education, Youth, and Sports of the Czech Republic. Faculty staff contribute as members of evaluation panels or, in some cases, higher organisational bodies overseeing project programmes (e.g., Discipline Committees). They also shape the research environment through memberships in monitoring and advisory committees or expert groups. Beyond this, the faculty's influence extends through active memberships in professional societies. For instance, Prof. Tomáš Polícar has been a board member of the European Percid Fish Culture Group since 2012, while Prof. Pavel Kozák has served as an executive board member of the International Association of Astacology since 2015 and as President-Elect since 2024. Lieke Thora, Ph.D., has been a student representative of the European Association of Fish Pathologists (EAFP) since 2022, and Anna Koubová has been a member of the Czech National Committee for International Long-Term Ecological Research since the same year. The enthusiastic participation of our youngest members is also noteworthy: Lenka Kajgrová and Tomáš Pěnka have served as national coordinators for the European Aquaculture Society – Student Group (EAS-SG) since 2022.

We also value our staff's involvement in scientific and organisational committees for the biennial conference series. Notable examples include the International Workshops on the Biology of Fish Gametes (Assoc. Prof. Martin Pšenička) and the Conferences on Bioinformatics and Biomedical Engineering (Jan Urban, Ph.D.), both ongoing since 2019. Martin Pšenička is also a member of the International Advisory Committee for the International Symposium on Reproductive Physiology of Fish, which is held every three years (the most recent took place in Crete, Greece, in 2023). Additionally, Tomáš Polícar was programme co-chair of the international European Aquaculture 2019 conference held in Berlin, Germany.

Significant events organised during the evaluation period include the annual EAS-SG workshops (ongoing since 2022), the First Young Researcher Conference of the EAFP led by Lieke Thora in 2023, and thematic workshops for the Food and Agriculture Organization of the United Nations. These workshops addressed topics such as "Training in Pond Aquaculture" (2019), "Aquatic Ecosystem Conservation and the Sustainable Development Approach to Inland Fisheries Management" (2021, held online), "Sustainable Approaches to Inland Aquaculture and Fisheries – Advances in Novel Technologies" (2022), and "Inland Fisheries Management and Aquatic Biodiversity Conservation" (2023). Of particular significance was the 23rd Symposium of the International Association of Astacology, which hosted nearly 140 experts from 28 countries in 2022.

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
NA	The Faculty has traditionally ranked first in the national survey conducted by <i>Týden</i> magazine (<i>"Where to Study at University"</i>) in the category of Agricultural, Forestry, and Veterinary Sciences. However, the survey has not been conducted in recent years.	2016-2020
Jacky Cosson, Ph.D., Assoc. Prof. Antonín Kouba & Assoc. Prof. Josef Velíšek	Repeatedly ranked among the top 2% of most-cited scientists in their respective fields, based on SCOPUS data. This recognition comes from annual updates compiled by John P.A. Ioannidis and made available through the Elsevier Data Repository .	2020-2023
Veronika Piačková, Ph.D., Eliška Zusková, Ph.D. & MVDr. Jitka Kolářová	Three faculty employees co-authored an extensive Czech book titled <i>"Fish Diseases and Pathological Conditions"</i> , which received the prestigious Josef Hlávka Award in the Life Sciences category. The book, having over 460 pages, was published as part of the Faculty's edition series.	2020
Roman Franěk, Ph.D.	The Minister of Agriculture Award for Young Scientists was granted for outstanding research and experimental development, recognizing the peer-reviewed article by Franěk, R., Kašpar, V., Shah, M. A., Gela, D., & Pšenička, M. (2021). Production of common carp donor-derived offspring from goldfish surrogate broodstock. <i>Aquaculture</i> , 534, 736252.	2021
Koushik Roy, Ph.D & Deepali Rahi Roy, Ph.D. (in the order)	"Science for the Earth" is a nationwide competition organized by the National Museum of Agriculture in collaboration with the Czech Academy of Agricultural Sciences. 2nd place in the category of Doctoral Dissertation was awarded for the work on Circular and Sustainable Fish Nutrition. 3rd place in the category of Doctoral Dissertation was awarded for the study Fish Sperm Respiration: Species Specificity and Effect of Environmental Temperature.	2022
MSc. Ondřej Nikl, MSc. Jan Pustějka & Tran Quang Hung, Ph.D. (in the order)	"Science for the Earth" 1st place in the category of Master's Thesis for the study on the Effect of Alternative Protein Sources in Fish Feed on Fish and Plant Growth in a Two-Loop Aquaponic System. 2nd place in the category of Master's Thesis for the study Is the Introduction of Fast-Running European Grayling Broodstock an Appropriate Practice to Support This Species in Open Water? 2nd place in the category of Doctoral Dissertation for the study Insect Meal as a Feeding Source in the Diet of Percidae: European Perch (<i>Perca fluviatilis</i>) and European Pikeperch (<i>Sander lucioperca</i>).	2023
Martin Prchal, Ph.D.	An honorable mention was awarded by the Minister of Agriculture, MSc. Marek Výborný, and the chairman of the Czech Academy of Agricultural Sciences, Jan Nedělník, Ph.D., for the peer-reviewed article by Prchal, M., Zhao, J., Gela, D., Kašpar, J., Lepič, P., Kašpar, V., & Kocour, M. (2021). Simplified method for genetic slaughter yields improvement in common carp under European pond conditions. <i>Aquaculture Reports</i> , 21, 100832.	2023
MSc. Anil Axel Tellbüscher	A national winner of the Falling Walls Lab Czech Republic for his presentation titled "Breaking the Wall of Aquaculture Waste". He was subsequently nominated as the national representative for the Falling Walls World Finals, held in Berlin, Germany, in November 2023.	2023
Prof. Zdeňka Svobodová	Prof. Zdeňka Svobodová was honored for her lifelong contribution to Czech fisheries at the traditional international exhibition Natura Viva.	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 title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
Assoc. Prof. Zdeněk Adámek	Aquaculture International, 0967-6120
Olga Bondarenko, Ph.D.	Fishes, N/A – eISIN 2410-3888
Tomáš Korytář, Ph.D.	Veterinary Sciences, N/A – eISIN 2306-7381; Fishes N/A – eISIN 2410-3888
Prof. Otomar Linhart	Animal Reproduction Science, 0378-4320; Journal of Applied Ichthyology, 0175-8659
Prof. Tomáš Polícar	Czech Journal of Animal Science, 1212-1819; Turkish Journal of Fisheries and Aquatic Sciences, 1303-2712
Samad Rahimnejad, Ph.D.	Frontiers in Marine Science N/A – eISIN 2296-7745; Frontiers in Physiology, N/A – eISIN 1664-042X (Q2); Fishes N/A – eISIN 2410-3888
Koushik Roy, Ph.D.	Reviews in Aquaculture, 1753-5123
Alžběta Stará, Ph.D.	Frontiers in Marine Science, N/A – eISIN 2296-7745; Frontiers in Physiology, N/A – eISIN 1664-042X
Assoc. Prof. Vlastimil Stejskal	Frontiers in Veterinary Science, N/A – eISIN 2297-176; Animals, 2076-2615
Assoc. Prof. Josef Velíšek	Frontiers in Marine Science, N/A – eISIN 2296-7745; Frontiers in Physiology, N/A – eISIN 1664-042X; Fishes, N/A – eISIN 2410-3888

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
Bořek Drozd, Ph.D.	One of the 100 most wanted European aliens - the round goby (<i>Neogobius melanostomus</i>) in the Czech / Saxonian parts of the Elbe River: results of our field surveys and lab experiments.	Aquatic Invasive Species 2019, Koblenz, Germany	2019
Prof. Martin Flajšhans	Amur mirror carp and its perspectives for a commercial breeding programme	9th Meeting of Fisheries, Aquaculture and Angling Professionals, Gödöllő, Hungary	2019
Prof. Pavel Kozák	Active tools for crayfish protection: rescue transfers, breeding, restocking some examples from practice	The first Irish Crayfish Seminar, Marine Institute, Galway, Ireland	2019
Veronika Piačková, Ph.D.	Spring mortality of carp	5th International Carp Conference, Ansbach, Germany	2019
Roman Franěk, Ph.D.	Whole genome manipulation in fish – polyploidy and uniparental inheritance	Warsaw University of Life Sciences, Warsaw, Poland	2021
Azin Mohagheghi Samarin, Ph.D.	Fish oocyte aging and its effect on egg quality	The Ohio State University, Columbus, USA	2021
Prof. Tomáš Polícar	Controlled reproduction and aquaculture of percid fish	Saken Seifullin Kazakh Agrotechnical Research University, Astana, Kazakhstan	2021
Koushik Roy, Ph.D.	Circularity in Aquaculture. Topic: Czech pond aquaculture as circularity model	Aquaculture Europe 2022, Rimini, Italy	2022

Ganna Fedorova, Ph.D.	Risk assessment of psychoactive compounds and potential of wastewater reuse for aquaculture purposes	University of Aveiro, Aveiro, Portugal	2023
Assoc. Prof. Martin Pšenička	Advanced Aquaculture Genetics and Genomics: Fish Biotechnology	Hokkaido University, Japan	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
Prof. Antonia Concetta Elia	University of Perugia, Italy	Eco-friendly versus amended antifouling biocides assessing oxidative stress biomarkers in rainbow trout	2019
MSc. Ilkka Sammalkorpi	Finnish Environment Institute SYKE, Finland	Lessons learned from case studies of biomanipulation in the restoration of eutrophic northern lakes & Implementation of fish removal in biomanipulation of lakes – basic principles and methods	2019
Dr. Sayyed Mohammad Hadi Alavi	University of Tehran, Tehran, Iran	Integrative physiology of metabolic regulation of reproduction	2022
Kaelyn J. Fogelman, Ph.D.	Auburn University, Auburn, Alabama, USA	Ecophysiology for aquatic invertebrate conservation	2022
Prof. Bryan William Brooks	Environmental Science & Public Health, Baylor University, Waco, Texas, USA	Are harmful algal blooms becoming the greatest inland water quality threat to public health and aquatic ecosystems? A case study in one health	2022
Assoc. Prof. Henrique Rafael Nobrega	São Paulo State University, Botucatu, Brazil	Fish regulate the proliferation of embryonic-like germ stem cells in adult zebrafish testes	2022
Prof. Katsutoshi Arai	Faculty of Fisheries Sciences, Hokkaido University, Hakodate, Japan	Hybridization, polyploidization and cloning in fishes	2023
Prof. Ian Mayer	Norwegian University of Life Sciences, Oslo, Norway	Challenges facing the Norwegian salmon industry	2023
Prof. Mats Tysklind	Environmental Chemistry, Umeå University, Umeå, Sweden	Cycling and fate of legacy and emerging contaminants in Nordic aquatic ecosystems	2023
Prof. Geert F. Wiegertjes	Aquaculture and Fisheries Group, Department of Animal Sciences, Wageningen University & Research, Wageningen, The Netherlands	Training the fish's immune system	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. Martin Flajšhans	Chairman of the Breeding Council for Fish Culture	Czech Fish Farmers Association	Since 1995
	Member of the Animal Genetic Resources Board, Institute of Animal Science	Ministry of Agriculture of the Czech Republic	Since 1997
Prof. Otomar Linhart	Member of the Discipline Committee No. 5 Agricultural and Biological-Environmental Sciences	Czech Science Foundation	2017-2021
	Member of the Evaluation Panel No. 502 Animal Physiology and Genetics, Veterinary Medicine	Czech Science Foundation	2017-2021 + since 2023
	Member of the Evaluation Committee of the National Agency for Agricultural Research	Ministry of Agriculture of the Czech Republic	Since 2016
	Evaluation of the Hungarian Academy of Sciences	Research Institute Evaluation Council	2021
	CRB-Anim Network of Biological Ressources Centers for domestic animals, INRAe, member of evaluation council	Infrastructure for research in biology and health, Minister of Higher Education, Research and Innovation, France	Since 2016
Prof. Pavel Kozák	Member of the Monitoring Committee of the Operational Programme Fisheries (OP Fisheries)	Ministry of Agriculture of the Czech Republic	Since 2007
	Member of the Panel for Pilot Projects of the OP Fisheries	Ministry of Agriculture of the Czech Republic	Since 2010
	Member of the Evaluation Panels No. 505 Animal and Plant Ecology OR 506 Botany and Zoology (chairman for 505 in 2021-2024).	Czech Science Foundation	2011-2024
	Member of different Evaluation Panels (twice as a chairman); involved in the evaluation of institutions	Research Council of Lithuania	Since 2017
	Member of the Monitoring Committee of the Strategic Plan of the Common Agricultural Policy	Ministry of Agriculture of the Czech Republic	Since 2022
	Member of the Council for Large Research Infrastructures for Research, Experimental Development, and Innovation	Ministry of Education, Youth, and Sports of the Czech Republic	Since 2021
Prof. Polícar Tomáš	Member of the Expert Group and Monitoring Committee of the OP Fisheries	Ministry of Agriculture of the Czech Republic	Since 2017
	Member of the expert advisory body and collegium of experts of the Ministry of Agriculture for the evaluation of proposals for research and development projects in the field	Ministry of Agriculture of the Czech Republic and Technology Agency of the Czech Republic	Since 2023

	of Bioeconomics (National Agency for Agricultural Research and Technology Agency of the Czech Republic)		
Prof. Dalibor Štys	Member of the Mission Assembly for Healthy Oceans, Seas, Coastal and Inland Waters	European Commission	2019
Veronika Piačková, Ph.D.	Member of the expert advisory body and collegium of experts of the Ministry of Agriculture for the evaluation of proposals for research and development projects in the field of Smart Agriculture (+ external opponent of experimental projects of other organizations since 2019)	Ministry of Agriculture of the Czech Republic	2023
Assoc. Prof. Hana Kocour Kroupová	Member of the Evaluation Panel No. 503 Food Science, Ecotoxicology and Environmental Chemistry	Czech Science Foundation	Since 2023
Assoc. Prof. Martin Pšenička	Member of the Evaluation Panel No. 303 Cell, Developmental and Evolutionary Biology	Czech Science Foundation	2020-2024
Dipl.-Ing. Josef Přiborský	Member of the Advisory Commission, and Member of the Re-Evaluation Commission of the OP Fisheries	Ministry of Agriculture of the Czech Republic	Since 2018
Prof. Vladimír Žlábek	Member of the Evaluation Committee of the National Agency for Agricultural Research	Ministry of Agriculture of the Czech Republic	Since 2016
	Member of the Evaluation Panel for Inter-Action projects (initiative supporting international collaboration)	Ministry of Education, Youth, and Sports of the Czech Republic	Since 2017
	Member of the Evaluation Panel No. 503 Food Science, Ecotoxicology and Environmental Chemistry	Czech Science Foundation	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:

The FFPW remains proactive in securing projects and contract research aligned with its thematic expertise. Interdisciplinary collaborations thrive, particularly through partnerships with the private sector for applied research and with academic institutions for basic research. This extends beyond the faculty to include collaborations mainly with the Faculty of Science and the Faculty of Agriculture and Technology at USB. Besides project-based engagements, individual researchers contribute significantly through close individual or group collaborations, leveraging their diverse expertise to drive more impactful outcomes.

Below is a list of our most significant projects and activities, ranging from broad initiatives to specifically focused examples:

1) **CENAKVA Large Research Infrastructure** (LM2018099, 2019–2023) stands as a cornerstone achievement of FFPW—a unique, single-site research infrastructure supported by the Czech Ministry of Education, Youth, and Sports and included in the national Roadmap of Large Research Infrastructures of the Czech Republic in 2019. Located in South Bohemia, a region with a rich tradition of Czech fishpond culture dating back to the 14th and 15th centuries, CENAKVA bridges historical practices with modern environmental and social challenges. As the role of fisheries evolves, the primary task will shift from fish production to maintaining high-quality water and landscapes that mitigate droughts and floods while supporting biodiversity and ecosystem health. CENAKVA's extensive pond systems, cutting-edge experimental facilities, and strong ties with the fishing and environmental sectors make it uniquely positioned to address these challenges. CENAKVA operates as an open-access research infrastructure, dedicating at least 25% of its capacity to free, open-access experimental activities. This commitment provides researchers worldwide with opportunities to conduct studies under both controlled laboratory conditions and real-world scenarios. Between 2019 and 2023, FFPW facilitated 190 access events for 288 researchers from 25 European and non-European countries—further strengthening international collaboration and advancing aquatic research. Examples of studies supported via this project include those listed in Section 3.4 (Šauer *et al.*, Roy *et al.*, and Mráz *et al.*).

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.

2) Building on the success of its predecessor, **CENAKVA** (LM2023038, 2023–2026) continues to expand and enhance research infrastructure, benefiting both faculty researchers and external users—who are guaranteed at least 25% of its capacity for free open-access. This phase takes a broader approach, focusing on understanding changes in freshwater ecosystems and their societal significance. Key areas of study include biodiversity conservation, aquatic environment protection, and the sustainable management of water resources essential for human life and activity. Although still in its early stages, the project has already facilitated 48 open-access research opportunities for 60 researchers from 27 countries, demonstrating its growing impact on international aquaculture and aquatic ecosystem research.

3) Also, thanks to the enormous infrastructural and scientific developments alongside CENAKVA, we have become an attractive and valued partner for various collaborations, exemplified by the H2020 project **AQUAEXCEL3.0** (AQUAculture infrastructures for EXCELlence in European fish research 3.0, 871108, 2020–2025). It builds on the legacy of the previous Aquaexcel projects (AQUAEXCEL under FP7 and AQUAEXCEL2020), coordinated by Dr Marc Vandeputte from INRAE, France, with FFPW being part of the consortium since its inception. The AQUAEXCEL3.0 project integrates 40 top-class European aquaculture research facilities from 12 European countries, forming a world-class platform for aquaculture research, from biology to technology, across all relevant types of rearing systems. It covers major EU-farmed fish species as well as the most promising new ones. The project has two main components. The primary one is Transnational Access (TNA), which enables the use of project partners' infrastructure through small research projects, offering additional access alongside that of CENAKVA itself. The second component is collaborative research focused on improving infrastructure practices and services. During the evaluated period of 2019–2023, FFPW provided 30 Aquaexcel accesses to 35 researchers from 22 European and non-European countries. The successor to the Aquaexcel projects is a consortium formed under the **AQUASERV** project, in which FFPW again significantly participates, spanning from 2024 to 2029.

4) The **BIODIVERSITA** project (*Reproductive and Genetic Procedures for Preserving Fish Biodiversity and Aquaculture*, EF16_025/0007370, 2018–2021) is a broadly focused initiative that boosted activities in two of the four CENAKVA Research Programmes. The project enabled research and knowledge transfer in the areas of fish genetics, reproductive physiology, and germ cell biotechnology, applying these to maintain fish biodiversity, establish an internationally recognised gene bank, and enhance the competitiveness of European aquaculture. Biodiversity and the development of competitive freshwater aquaculture have been achieved through a multidisciplinary approach, utilising the latest scientific research directions collaboratively developed at FFPW workplaces. The project also facilitated cutting-edge modernisation of equipment, improved the quality of education, and strengthened environmentally oriented research. Overall, the project helped to deliver over 230 outputs, some of which are exemplified in Section 3.4 below (article by Roy *et al.* and certified methodology by Prchal *et al.*).

5) Ongoing project **Optimalisation of Supplemental Feeding and Management of Pond Aquaculture** (QK22010177; 2022-2025) conducted in collaboration with a private fish-producing company ESOX, spol. s r.o. aims to optimise the feeding and management of pond aquaculture for efficient resource management and a reduced impact on the environment. The partial goals are: 1) increased feeding efficiency, better use of natural production potential, better growth at lower feed costs, and lower negative impact on the environment; 2) reduction of waste nutrient production; 3) optimization of pond management tools in terms of environmental impact and economics; 4) diversification of cultured fish in polycultures and better valorization of produced fish; 5) quantification of environmental benefits of pond aquaculture in different farming systems, and 6) evaluation of economic benefits of various pond farming systems, and assessment of trends in the

economics of pond aquaculture. So far, the project has yielded 16 already published outcomes, including 13 scientific articles and one certified methodology.

The project points to the unfavorable and deteriorating economic situation of Czech fish farmers. While the selling price of the main aquaculture product, the common carp, has remained almost unchanged since 1996, key cost items such as personnel expenses, feed, and fuel have increased considerably. The traditional business model largely applies the export of about half of the production in live form and approximately 40% of fish sold in live form during pre-Christmas sales, which is increasingly unsustainable. Among others, we identified places in the value chain, from live fish production to the customer, where losses could be reduced, added value could be increased, and fish biomass could be better utilized, as further described in Section 3.4 (article by Mráz *et al.*).

6) The project titled ***The Use of Alternative Components and Innovative Techniques in Fish Nutrition*** (QK1810296, 2018–2021) is one of several that address novel directions and sustainability in aquaculture. Led by FFPW, with a dominant budget share of over 60%, it aimed to apply various types of feeds containing optimal levels of biologically active compounds, plant products, phytogenic extracts, algal biomass, microbial protein, and insect meal to improve the growth, survival, physiological, and immunological status of cultured fish. Another objective was to explore the possibilities of utilising novel live organisms to develop protocols for larvae weaning (transition from live to formulated food) to enhance survival rates and reduce feed costs. Feeding technologies and techniques were tested to lower feed consumption, optimise conversion rates, and positively influence fish behaviour while reducing nutrient emissions. This successful collaboration with two other universities and three private companies resulted in 45 diverse outputs.

7) The recently completed project ***Holistic Exposure and Effect Potential Assessment of Complex Chemical Mixtures in the Aquatic Environment*** (GX20-04676X, 2020–2024), led by FFPW, helped to better understand the complexities of pollution in freshwater ecosystems through collaboration between two leading research universities possessing recognised Large Research Infrastructures (CENAKVA and RECETOX). As part of the EXPRO projects of the Czech Science Foundation, which support excellence in research, it developed a conceptual framework for risk assessment of chemical mixtures and improved understanding of the cumulative risk posed by regulated and emerging bioactive chemicals in surface waters. The methodology combined innovative approaches for exposure characterisation using passive sampling with bioanalytical tools to identify potential effects. A newly developed battery of high-throughput bioassays addressed crucial mixture effects on endocrine disruption and development while also focusing on relevant but underexplored mechanisms of action, including disruption of thyroid hormone signalling. The combination of high-throughput target and non-target analyses using advanced high-resolution mass spectrometry, together with fractionation and pull-down approaches, enabled the characterisation of complex pollution scenarios and the identification of responsible effect drivers. The predictability of bioanalytical responses to real environmental conditions was assessed by investigating *in situ* chemical impacts on exposed fish and invertebrates. This vital initiative delivered three chapters and 29 scientific articles, almost exclusively published in leading journals, including the study by Šauer *et al.* mentioned in Section 3.4.

8) The integrated LIFE project ***Implementation of the River Basin Management Plan in Selected River Sub-basins in Slovakia*** (Living Rivers, 101069837, 2023–2032) is a prestigious long-term initiative supported by the European Commission, with ambitious objectives led by the Water Research Institute in Bratislava, Slovakia. The project aims to support the implementation of the 3rd River Basin Management Plan for the Danube, Europe's second-longest river, by mitigating hydromorphological pressures and addressing the ecological targets of the Water Framework Directive and the Habitats Directive. This is achieved through the management of protected areas

and the promotion of sustainable forestry, land, and fisheries management. As the only Czech institution in a consortium of ten organisations, FFPW plays a leading role in activities related to fish communities, leveraging its unique expertise in research and professional specialisation. Key contributions include strengthening natural populations of Danubian sturgeons, developing biodiversity-friendly sustainable fisheries management, and monitoring ichthyocoenoses before and after the implementation of specific measures. Additionally, FFPW assesses the migration passability of water infrastructure for fish. In salmonid submountain streams, FFPW supports the establishment of self-sustaining populations of native endangered salmonids and cyprinids. The institute also employs innovative monitoring methods, such as ichthyoplankton collection nets, to assess whether natural sturgeon reproduction is occurring. Furthermore, FFPW conducts passive sampling to monitor emerging micropollutants, identifying new chemicals introduced into surface waters by human activity. It is also actively involved in designing restoration measures to improve river connectivity, floodplain areas, and migration routes for sturgeons in the Danube.

9) The project ***Temperature-Driven Changes in Interactions and Ecological Roles of Prominent Crayfish Invaders*** (19-04431S, 2019–2021) focused on the impact of climate change on freshwater crayfish, particularly the role of temperature in shaping their interactions and ecological functions. FFPW is globally known for its extensive research on crayfish, addressing both the conservation of endangered species and the complex challenges posed by invasive crayfish once they establish outside their native range. This project has fostered multiple collaborations and resulted in 19 recognised publications, including the highly cited study by Haubrock *et al.* (2021), which is described in greater detail in Section 3.4.

10) A key area where our scientific research and contract research converge is the **monitoring of chemical contamination in the environment**. Despite collaborating with numerous partners in this field (see Table 3.3.2), some play a particularly critical role in partnerships. These include primarily the Ministry of Agriculture of the Czech Republic, Czech Hydrometeorological Institute, and River Basin enterprises—primarily the Povodí Labe, s.p.—as well as international partners such as the Norwegian company COWI AS and, previously, the Swedish company Nya Exposmeter AB. Through these collaborations, we develop and provide innovative analytical methods for monitoring a broad spectrum of micropollutants in aquatic environments. Pilot studies focus on detecting newly monitored (emergent) contaminants, including pharmaceuticals and personal care products (PPCPs), pesticides, per- and polyfluoroalkyl substances (PFAS), and other industrial pollutants across various environmental matrices. This commercially driven cooperation enables the rapid transfer of our expertise into practical applications, expanding the scope of monitored substances, including their degradation products. Within this framework, we employ both targeted and non-targeted analyses alongside passive sampling techniques. As a result, we enhance the informative capacity and relevance of existing aquatic contamination monitoring programmes. Additionally, the expertise gained through these collaborations is integrated into our core research and education activities, further strengthening their validity and impact.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Czech Science Foundation	DNA methylation in heterogeneous populations of fish spermatozoa after their aging <i>in vitro</i> (23-06426S, 2023-2025)	0/0	0/0	0/0	0/0	2,577/102
Czech Science Foundation	Characterization of effects of substances with anti-progestogenic activity occurring in the aquatic environments on lower vertebrates (22-19136S, 2022-2024)	0/0	0/0	0/0	2,209/87	2,348/93
Czech Science Foundation	Nutrients from fish or nutrition for fish: Unravelling hidden pollution risk and nutrient retention in fishponds by fish nutritional bioenergetic (22-18597S, 2022-2024)	0/0	0/0	0/0	2,643/104	2,765/109
Czech Science Foundation	Nuclear transfer in fish: a chance for restoration of vanishing sturgeon species (17-19714Y, 2017-2019)	2,131/84	0/0	0/0	0/0	0/0
Czech Science Foundation	Sturgeon as a unique model for evolutionary transition from holoblastic to meroblastic cleavage pattern, and for endoderm development in vertebrates (20-23836S, 2020-2022)	0/0	1,737/69	2,148/85	2,207/87	0/0
Czech Science Foundation	Shortening of generation time using surrogate reproduction and <i>in vitro</i> sperm maturation in fish (22-31141J, 2022-2024)	0/0	0/0	0/0	2,200/87	2,247/89
Czech Science Foundation	Transformation of pharmaceuticals in the environment of a common recipient of cleaned communal wastewater (18-15802S, 2018-2020)	1,650/65	1,650/65	0/0	0/0	0/0
Czech Science Foundation	Bioaccumulation dynamics of emerging contaminants in aquatic invertebrates using marbled crayfish (23-07274S, 2023-2025)	0/0	0/0	0/0	0/0	2,247/89
Czech Science Foundation	In the search for the most effectively fertilizing spermatozoa: the study of sperm sub-populations in fishes (22-14069S, 2022-2024)	0/0	0/0	0/0	1,498/59	1,882/74
Czech Science Foundation	Holistic exposure and effect potential assessment of complex chemical	0/0	4,636/183	4,648/183	5,214/206	5,679/224

²⁵ 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.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

	mixtures in the aquatic environment (20-04676X, 2020-2024)					
Czech Science Foundation	Is a new generation of herbicides safer alternative also for aquatic invertebrates? (18-03712S, 2018-2020)	1,456/57	1,456/57	0/0	0/0	0/0
Czech Science Foundation	Temperature driven changes in interactions and ecological roles of prominent crayfish invaders (19-04431S, 2019-2021)	1,791/71	2,226/88	2,173/86	0/0	0/0
Czech Science Foundation	Mature fast, die young, but what about germ cells? Germline development and aging in the turquoise killifish - naturally short-lived vertebrate (22-01781O, 2022-2025)	0/0	0/0	0/0	633/25	1,492/59
Czech Science Foundation	An investigation of guidance mechanisms of spermatozoa in freshwater fish (18-12465Y, 2018-2020)	1,650/65	1,650/65	0/0	0/0	0/0
Czech Science Foundation	From brain to sperm: how psychoactive pollutants can affect fish sperm function (22-03754S, 2022-2024)	0/0	0/0	0/0	1,466/58	1,987/78
Czech Science Foundation	DNA damage reparation in developing sturgeon embryos (19-11140Y, 2019-2021)	1,522/60	1,508/59	1,321/52	0/0	0/0
Czech Science Foundation	Genome duplication in sturgeon evolution and impact on their biology (18-09323S, 2018-2021)	1,649/65	1,524/60	0/0	0/0	0/0
Czech Science Foundation	Epigenetic modifications and functional properties during fish gamete aging (20-01251S, 2020-2022)	0/0	1,589/63	1,595/63	1,399/55	0/0
Czech Science Foundation	Exciting freshwaters – complex responses of aquatic animals to psychoactive substances present in urbanized waters (20-09951S, 2020-2022)	0/0	2,115/83	2,115/83	2,115/83	0/0
South Bohemian Region	Protection of Water Ecosystems (463-01-002/19 (SDO/OEZII/730/19), 2019-2019)	0/0	417/16	0/0	0/0	0/0
South Bohemian Region	Support of original populations of <i>Thymallus thymallus</i> and <i>Salmo trutta</i> in the Blanice Vodňanská 4B fishing ground (435-02-001/xx, 2019-2019)	32/1	5/0	36/1	29/1	0/0
Ministry of Education, Youth and Sports	Research Infrastructure for Educational Purposes at the FFPW USB (CZ.02.1.01/0.0/0.0/16_017/0002614, 2017-2022)	950/37	1,5724/620	1,174/46	132/5	0/0
Ministry of Education, Youth and Sports	Development of research-oriented study programmes at the FFPW USB (CZ.02.2.69/0.0/0.0/16_018/0002616, 2017-2022)	3,252/128	1,295/51	314/12	0/0	0/0
Ministry of Education, Youth and Sports	Increasing of the absorb capacity for the international science and research projects – H2020 Umbrella (2022-2022)	0/0	0/0	0/0	180/7	0/0

Ministry of Education, Youth and Sports	South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses (LM2023038, 2023-2026)	0/0	0/0	0/0	0/0	16,469/650
Ministry of Education, Youth and Sports	Large Research Infrastructures: CENAKVA - South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses (C14-2019, 2019-2019)	1,000/39	0/0	0/0	0/0	0/0
Ministry of Education, Youth and Sports	Project n. 20 HR Development of the Ph.D. Students of the CENAKVA Center (LM2018099, 2019-2022)	17,201/679	17,554/692	16,920/667	16,857/665	0/0
Ministry of Education, Youth and Sports	Reproductive and genetic procedures for preserving fish biodiversity and aquaculture (CZ.02.1.01./0.0/0.0/16_025/0007370, 2018-2021)	6,636/262	1,4575/575	1,4157/558	3,983/157	0/0
Ministry of Agriculture	Optimalisation of supplemental feeding and management of pond aquaculture (QK22010177, 2022-2025)	0/0	0/0	0/0	2,288/90	2,357/93
Ministry of Agriculture	Development of fish products and recipes from seasonally available fish (CZ.10.2.101/2.1/0.0/19_016/0000986, 2020-2022)	0/0	231/9	905/36	469/18	0/0
Ministry of Agriculture	Optimization of pond aquaculture management - suppression of negative influence of stone moroco (CZ.10.2.101/2.1/0.0/18_013/0000787, 2019-2021)	61/2	1,133/45	324/13	0/0	0/0
Ministry of Agriculture	Development of new fish products for pre-school children based on research of their preferences (CZ.10.2.101/2.1/0.0/21_019/0001364, 2021-2023)	0/0	0/0	83/3	783/31	643/25
Ministry of Agriculture	Development of new fish products from African catfish (CZ.10.2.101/2.1/0.0/20_018/0001219, 2021-2023)	0/0	0/0	314/12	875/35	326/13
Ministry of Agriculture	Optimization of procedures to reduce the loss of intracellular water after thawing in fish products (CZ.10.2.101/2.1/0.0/18_013/0000789, 2019-2021)	59/2	735/29	746/29	0/0	0/0
Ministry of Agriculture	Optimization of aquaponic farm technology to increase fish production and improve water quality (CZ.10.2.101/2.1/0.0/19_016/0000985, 2020-2022)	0/0	230/9	952/38	384/15	0/0
Ministry of Agriculture	Innovation of technological elements in carp farming in order to maximize utilization of high potential of selection programs in conditions of pond management (QK1910430, 2019-2023)	2,165/85	2,325/92	2,350/93	2,270/90	1,910/75

Ministry of Agriculture	Methodology VI (CZ.10.5.109/5.2/4.0/20_017/0001098, 2020-2022)	0/0	0/0	9/0	35/1	0/0
Ministry of Agriculture	Utilization of new biotechnological approaches under Czech aquaculture with the aim to reach effective, high-quality and environmentally friendly fish production (QK1710310, 2017-2021)	1,288/51	1,288/51	936/37	0/0	0/0
Ministry of Agriculture	Technical and technological innovation of intensive aquaculture based on new knowledge for future effective and stable fish production (QK1820354, 2018-2020)	2,761/109	2,761/109	0/0	0/0	0/0
Ministry of Agriculture	Methodology III (CZ.10.5.109/5.2/4.0/19_014/0000886, 2019-2021)	0/0	29/1	3/0	0/0	0/0
Ministry of Agriculture	Species and technological diversification of productive aquaculture in the Czech Republic with the aim to increase its efficiency and competitiveness (QK22020144, 2022-2024)	0/0	0/0	0/0	3,045/120	3,082/122
Ministry of Agriculture	Optimization of Danish-type RAS ensuring increased and high-quality salmonid fish production (CZ.10.2.101/2.1/0.0/18_013/0000773, 2019-2020)	76/3	1,008/40	132/5	0/0	0/0
Ministry of Agriculture	Adaptation and breeding of largemouth bass in intensive aquaculture conditions using RAS (CZ.10.2.101/2.1/0.0/18_013/0000793, 2019-2020)	49/2	1,175/46	199/8	0/0	0/0
Ministry of Agriculture	Technological innovation in grayling larval, juvenile, and broodstock culture (CZ.10.2.101/2.1/0.0/20_018/0001225, 2021-2023)	0/0	0/0	330/13	742/29	442/17
Ministry of Agriculture	Methodology II. Monitoring of drugs (CZ.10.5.109/5.2/4.0/17_009/0000371, 2017-2019)	12/0	0/0	0/0	0/0	0/0
Ministry of Agriculture	What we don't know about organic pollution of drinking and irrigation water sources: Identification of emergent compounds through non-targeted screening (QK23020018, 2023-2025)	0/0	0/0	0/0	0/0	2,214/87
Ministry of Agriculture	Methodology I. - Freshwater fish food (CZ.10.5.109/5.2/4.0/17_009/0000373, 2017-2019)	38/2	0/0	0/0	0/0	0/0
Ministry of Agriculture	Book III. - Aquatic Toxicology for Fishermen (CZ.10.5.109/5.2/4.0/17_009/0000375, 2017-2019)	171/7	0/0	0/0	0/0	0/0

Ministry of Agriculture	Determination of nitrogen factors for selected species of freshwater fish as indicators of the fish component content of "fresh" fish and products from freshwater fish (QK1810095, 2018-2022)	1,816/72	1,816/72	1,728/68	1,485/59	0/0
Ministry of Agriculture	Technology III (CZ.10.5.109/5.2/4.0/19_014/0000894, 2019-2021)	0/0	32/1	7/0	0/0	0/0
Ministry of Agriculture	Innovation of the fish products (CZ.10.2.101/2.1/0.0/17_011/0000457, 2018-2019)	880/35	14/1	0/0	0/0	0/0
Ministry of Agriculture	What to do with a fish?! (CZ.10.5.109/5.2/4.0/18_012/0000589, 2019-2020)	328/13	61/2	0/0	0/0	0/0
Ministry of Agriculture	Development of new fish products for preschool children (CZ.10.2.101/2.1/0.0/17_011/0000459, 2018-2019)	1,031/41	79/3	0/0	0/0	0/0
Ministry of Agriculture	Optimizing pre-slaughter conditions to increase fish welfare and quality (CZ.10.2.101/2.1/0.0/17_011/0000455, 2018-2019)	960/38	206/8	0/0	0/0	0/0
Ministry of Agriculture	Verification of the efficiency of common carp and grass carp stocks production in RAS for market fish farming in ponds (CZ.10.2.101/2.1/0.0/20_018/0001216, 2021-2022)	0/0	0/0	238/9	967/38	115/5
Ministry of Agriculture	Verification of the possibility of improving the welfare of fish when catching a pond (CZ.10.2.101/2.1/0.0/18_013/0000792, 2019-2020)	54/2	768/30	101/4	0/0	0/0
Ministry of Agriculture	Effect of stocking density of African catfish on the efficiency of its intensive farming in RAS (CZ.10.2.101/2.1/0.0/17_011/0000460, 2018-2019)	1,098/43	149/6	0/0	0/0	0/0
Ministry of Agriculture	Conference III (CZ.10.5.109/5.2/4.0/18_012/0000590, 2018-2019)	574/23	0/0	0/0	0/0	0/0
Ministry of Agriculture	Publication I (CZ.10.5.109/5.2/4.0/18_012/0000592, 2018-2020)	78/3	9/0	0/0	0/0	0/0
Ministry of Agriculture	Publication II (CZ.10.5.109/5.2/4.0/18_012/0000591, 2018-2020)	3/0	27/1	0/0	0/0	0/0
Ministry of Agriculture	Publication III (CZ.10.5.109/5.2/4.0/18_012/0000593, 2018-2020)	0/0	49/2	0/0	0/0	0/0

Ministry of Agriculture	Publication V (CZ.10.5.109/5.2/4.0/18_012/0000595, 2018-2020)	24/1	9/0	0/0	0/0	0/0
Ministry of Agriculture	6th Annual Professional Conference (CZ.08.02.02/01/23_014/0000305, 2023-2024)	0/0	0/0	0/0	0/0	21/1
Ministry of Agriculture	Optimization of the management in carp ponds with 1-year production cycle in terms of co-feeding methods and mass balance (QK21010131, 2021- 2025)	0/0	0/0	2,078/82	2,347/93	2,884/114
Ministry of Agriculture	Production efficiency of African catfish (Clarias gariepinus, Burchell 1822) reared in monosex populations (CZ.10.2.101/2.1/0.0/21_019/0001365, 2021-2023)	0/0	0/0	189/7	772/30	269/11
Ministry of Agriculture	Automation and objectivization of fish predators monitoring (QK1920102, 2019-2021)	3,492/138	3,006/119	2,229/88	0/0	0/0
Ministry of Agriculture	Book IV (CZ.10.5.109/5.2/4.0/18_012/0000596, 2018-2020)	0/0	155/6	0/0	0/0	0/0
Ministry of Agriculture	Methodology V (CZ.10.5.109/5.2/4.0/19_014/0000889, 2019-2021)	0/0	27/1	3/0	0/0	0/0
Ministry of Agriculture	Technology II (CZ.10.5.109/5.2/4.0/19_014/0000893, 2019-2021)	0/0	29/1	4/0	0/0	0/0
Ministry of Agriculture	Methodology XIII (CZ.10.5.109/5.2/4.0/20_017/0001091, 2020-2022)	0/0	0/0	9/0	35/1	0/0
Ministry of Agriculture	The use of alternative components and innovative techniques in fish nutrition (QK1810296, 2018-2021)	2,416/95	2,416/95	2,304/91	1,975/78	0/0
Ministry of Agriculture	Energy audit, remote control and production of container farm with African catfish (CZ.10.2.101/2.1/0.0/17_011/0000458, 2018-2020)	320/13	687/27	0/0	0/0	0/0
Ministry of Agriculture	Technology V (CZ.10.5.109/5.2/4.0/19_014/0000897, 2019-2021)	0/0	32/1	6/0	0/0	0/0
Ministry of Agriculture	<i>In vitro</i> conservation of genetic resources of common carp and creation of isogenic lines using transplantation of germ cells (QK1910428, 2019-2023)	1,977/78	2,155/85	2,155/85	2,055/81	1,780/70
Ministry of Agriculture	Methodology XI (CZ.10.5.109/5.2/4.0/20_017/0001094, 2020-2022)	0/0	0/0	0/0	44/2	0/0
Ministry of Agriculture	Using of microparticles as carriers of hormonally active substances in	1,475/58	1,475/58	1,425/56	0/0	0/0

	artificial reproduction of fish (QK1810221, 2018-2021)					
Ministry of Agriculture	Aquaculture of rheophilous fish (QK1920326, 2019-2021)	3,375/133	3,637/143	3,424/135	0/0	0/0
Ministry of Agriculture	Technology VI (CZ.10.5.109/5.2/4.0/19_014/0000898, 2019-2021)	0/0	9/0	24/1	0/0	0/0
Ministry of Agriculture	Technology VII (CZ.10.5.109/5.2/4.0/20_017/0001093, 2020-2022)	0/0	0/0	6/0	29/1	0/0
Ministry of Agriculture	Methodology X (CZ.10.5.109/5.2/4.0/20_017/0001095, 2020-2022)	0/0	0/0	0/0	26/1	0/0
Ministry of Agriculture	Methodology IX (CZ.10.5.109/5.2/4.0/20_017/0001096, 2020-2022)	0/0	0/0	9/0	27/1	0/0
Ministry of Agriculture	Technology IV (CZ.10.5.109/5.2/4.0/19_014/0000895, 2019-2021)	0/0	32/1	7/0	0/0	0/0
Ministry of Agriculture	New therapeutic procedures eliminating eye fluke in carp fish farming - especially by grass carp (CZ.10.2.101/2.1/0.0/17_011/0000454, 2018-2019)	1,163/46	79/3	0/0	0/0	0/0
Ministry of Agriculture	Disinfection procedures in carp farming with a focus on the quality of the aquatic environment (CZ.10.2.101/2.1/0.0/20_018/0001217, 2021-2022)	0/0	0/0	531/21	486/19	0/0
Ministry of Agriculture	Protective baths of fish in risky stages of carp farming (<i>Cyprinus carpio</i> L.) (CZ.10.2.101/2.1/0.0/19_016/0000983, 2020-2021)	0/0	200/8	1,096/43	0/0	0/0
Ministry of Agriculture	New viral diseases of common carp - diagnosis and prevention (QK1710114, 2017-2021)	1,097/43	1,100/43	799/32	0/0	0/0
Ministry of Agriculture	Book II. Fish diseases (CZ.10.5.109/5.2/4.0/17_009/0000372, 2017-2019)	245/10	0/0	0/0	0/0	0/0
Ministry of Agriculture	Methodology VII (CZ.10.5.109/5.2/4.0/20_017/0001097, 2020-2022)	0/0	0/0	9/0	16/1	0/0
Ministry of Agriculture	Application of new knowledge on genetics and genomics for production of high-performing triploid populations of fish in order to improve performance traits and market product quality (QK22020041, 2022-2024)	0/0	0/0	0/0	2,886/114	3,758/148
Ministry of Agriculture	National programme for conservation and utilization of genetic resources of farm animals – Maintenance of genetic resources in fish	1,421/56	1,422/56	1,364/54	1,361/54	1,362/54

Ministry of Agriculture	Subsidiary programme 2.A.e.1a): Maintenance and improving of genetic quality of farm animals and plants, Controls of performance – fish	482/19	516/20	419/17	413/16	389/15
Ministry of Agriculture	Management of gametes and reproduction in the protection of genetic resources and the breeding program of common carp in the conditions of aquaculture in the Czech Republic (QK21010141, 2021-2025)	0/0	0/0	1,636/65	1,849/73	1,774/70
Ministry of Agriculture	Methodology IV (CZ.10.5.109/5.2/4.0/19_014/0000887, 2019-2021)	0/0	10/0	4/0	0/0	0/0
Ministry of Environment	Acquisition of 2 electric cars and 2 charging stations at the Faculty of Fisheries and Protection of Waters of the University of South Bohemia (06311921, 2020-2020)	0/0	359/14	0/0	0/0	0/0
Norway Grants and EHP (Norway)	Strengthening of the collaboration between the University of South Bohemia in České Budějovice and COWI AS in Water Monitoring (1404572019, 2020-2022)	0/0	0/0	0/0	250/10	0/0
Norway Grants and EHP (Norway)	TO DISCOVER AND PROTECT: Endangered worlds of water ecosystem and its biodiversity (3201400019, 2021-2023)	0/0	0/0	22/1	708/28	409/16
Interregional Cooperation Operational Programme; INTERREG IVC (European Commission)	International innovations in the fields of aquatic toxicology and histology (KPF-01-258, 2021-2022)	0/0	0/0	69/3	399/16	0/0
Interregional Cooperation Operational Programme; INTERREG IVC (European Commission)	Recycling of nutrients from agro-industrial residues through the cultivation of microalgae as fish feed (ATCZ221, 2020-2022)	0/0	1,690/67	2,112/83	2,037/80	0/0
Interregional Cooperation Operational Programme; INTERREG IVC (European Commission)	Cooperation between USB and HLUW Yspertal – education and praxis 2019 (KPF-01-162, 2019-2019)	420/17	10/0	0/0	0/0	0/0
Interregional Cooperation Operational Programme;	Expansion of the network of educational organizations in the field of fisheries (KPF-01-335, 2022-2022)	0/0	0/0	0/0	419/17	0/0

INTERREG IVC (European Commission)						
Interregional Cooperation Operational Programme; INTERREG IVC (European Commission)	Breakthrough Computer Vision Applications in the Micro World: Consortium of Industry Research Organizations 4.0 (ATCZ215, 2020-2022)	0/0	1,793/71	3,111/123	3,107/123	0/0
OP Interregional Cooperation (European Commission)	Role of the cardiac neural crest cells in heart development and regeneration — Heart2019 (897949, 2020-2023)	0/0	0/0	2,017/80	1,903/75	1,884/74
OP Interregional Cooperation (European Commission)	Cross-border cooperation - mathematical modeling of multiphysical processes (KPF-01-111, 2018-2019)	55/2	0/0	0/0	0/0	0/0
OP Interregional Cooperation (European Commission)	Strengthening the Cooperation between the USB and the Verein für Fisch- und Gewässerökologie (KPF-01-016, 2018-2019)	102/4	0/0	0/0	0/0	0/0
OP Interregional Cooperation (European Commission)	Strengthening the Cooperation between the USB and the HLUW Yspertal in Fishery and Water Protection (KPF-01-017, 2018-2019)	2/0	0/0	0/0	0/0	0/0
OP Interregional Cooperation (European Commission)	Cooperation of the USB and the Bundesamt für Wasserwirtschaft – Sustainable Utilization of Fish Ponds (KPF-01-108, 2018-2019)	497/20	0/0	0/0	0/0	0/0
OP Interregional Cooperation (European Commission)	Cooperation of the USB and Verein für Fisch-und Gewässerökologie, Invasive, Non-Native Species (KPF-01-134, 2019-2019)	306/12	0/0	0/0	0/0	0/0
Total		73,291/ 2,891	104,634/ 4,122	83,019/ 3,271	79,252/ 3,126	65,312/ 2,577
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023

²⁷ Ibid.

Czech Science Foundation	Interspecies comparison of RNA localization within oocytes to elucidate regulation of early development and asymmetric cell division (19-11313S, 2019-2021)	762/30	762/30	762/30	0/0	0/0
Czech Science Foundation	Drug behavior in the system soil-water-plant (17-08937S, 2017-2019)	1,082/43	0/0	0/0	0/0	0/0
Czech Science Foundation	Fishponds as models for exploring plankton diversity and dynamics of hypertrophic shallow lakes (17-09310S, 2017-2019)	756/30	0/0	0/0	0/0	0/0
Czech Science Foundation	Understanding the effects of multiple stressors on freshwater biota: Will climate change alter the impact of chemical pollution? (20-16111S, 2020-2022)	0/0	1,032/41	1,032/41	1,032/41	0/0
Czech Science Foundation	Why and how animals abandon sex? On the causal role of hybridization in triggering asexual reproduction (17-09807S, 2017-2019)	576/23	0/0	0/0	0/0	0/0
Czech Science Foundation	Interspecies comparison of RNA localization within oocytes to elucidate regulation of early development and asymmetric cell division (19-11313S, 2019-2021)	762/30	762/30	762/30	0/0	0/0
Czech Science Foundation	Drug behavior in the system soil-water-plant (17-08937S, 2017-2019)	1,082/43	0/0	0/0	0/0	0/0
Czech Science Foundation	Fishponds as models for exploring plankton diversity and dynamics of hypertrophic shallow lakes (17-09310S, 2017-2019)	756/30	0/0	0/0	0/0	0/0
Czech Science Foundation	Understanding the effects of multiple stressors on freshwater biota: Will climate change alter the impact of chemical pollution? (20-16111S, 2020-2022)	0/0	1,032/41	1,032/41	1,032/41	0/0
Ministry of Culture	The cultural tradition of Czech fishery in the light of its use in tourism and landscape development (DG18P02OVV057, 2018-2021)	486/19	482/19	467/18	0/0	0/0
Ministry of Industry and Trade	Development of a process for evaluation of cadaveric corneal lamellae using an innovation of microscopic systems for cellular analysis (CZ.01.1.02/0.0/0.0/21_374/0027352, 2021-2023)	0/0	0/0	0/0	1,153/45	1,535/61
Ministry of Industry and Trade	Installation of closed circuits on fish sheds, water retention in the countryside and minimization of pollutant production and reuse of nutrients in the pond farm	2,348/93	869/34	0/0	0/0	0/0

	(CZ.01.1.02/0.0/0.0/16_084/0010345, 2017-2020)					
Ministry of Education, Youth and Sports	Education of the Region in the Field of Fisheries and Water Protection and Promotion of Studies at the USB (no. 25, 2019-2021)	210/8	38/1	152/6	0/0	0/0
Ministry of Education, Youth and Sports	Support for the Creation of Foreign Language Studies in the LMS Moodle (no. 26, 2019-2021)	225/9	225/9	0/0	0/0	0/0
Ministry of Education, Youth and Sports	Summer School with Creative Engagement of Students from FFPW USB (no. 35, 2019-2021)	350/14	0/0	350/14	0/0	0/0
Ministry of Education, Youth and Sports	Development of the JU - International Mobilities (IP21 16/FROV, 2021-2021)	0/0	0/0	200/8	0/0	0/0
Ministry of Education, Youth and Sports	Development of the JU - International Mobilities (IP21 17/FROV, 2021-2021)	0/0	0/0	360/14	0/0	0/0
Ministry of Education, Youth and Sports	Incubator of project management of international grants (C13-2020, 2020-2020)	0/0	500/20	0/0	0/0	0/0
Ministry of Education, Youth and Sports	Sustainable production of healthy fish in various aquaculture systems – PROFISH (CZ.02.1.01/0.0/0.0/16_019/0000869, 2019-2023)	1,948/77	4,388/173	5,481/216	4,965/196	2,072/82
Ministry of Education, Youth and Sports	Developing Lifelong Learning Programs at the FFPW USB (no. 3, 2019-2020)	456/18	456/18	0/0	0/0	0/0
Ministry of Education, Youth and Sports	(IP21 34/FROV , 2021-2021)	0/0	0/0	70/3	0/0	0/0
Ministry of Agriculture	The fate of selected micropollutants, which occur in treated water and sludge from wastewater treatment plants, in soil (QK21020080, 2021-2023)	0/0	0/0	1,105/44	1,369/54	1,406/55
Ministry of Agriculture	Options for mitigation of the impacts of extreme hydrological events in small catchments with respect to the demands of sustainable agriculture and pond aquaculture (QK1910282, 2019-2023)	1,150/45	1,168/46	1,168/46	1,064/42	1,050/41
Ministry of Agriculture	Spectrum extension of medicinal products in aquaculture in the Czech Republic and evaluation of their	0/0	0/0	537/21	641/25	645/25

	residues in fish meat (QK21010113, 2021-2025)					
Ministry of Agriculture	Pikeperch fry production, their adaptability and optimalization of their stocking into open waters (QK23020002, 2023-2025)	0/0	0/0	0/0	0/0	1,645/65
Ministry of Agriculture	Evaluation of hydrological status in trout rivers of Czech rep. and status of salmonid populations (QK23020064, 2023-2025)	0/0	0/0	0/0	0/0	1,200/47
Technology Agency of the Czech Republic	Development of a unit for decellularization by supercritical CO ₂ , optimization of permeations and recipes for tissue decelularization and production of a bioactive scaffold equipped with mesenchymal cells (FW06010688, 2023-2027)	0/0	0/0	0/0	0/0	1,238/49
Technology Agency of the Czech Republic	Nanobubbles technology as effective tool for ozone and oxygen application in aquaculture (TM02000037, 2021-2024)	0/0	0/0	613/24	1,034/41	1,017/40
Norway Grants and EHP (Norway)	Nature friendly fish managment as a tool for valuable fishpond ecosystems protection (3211100004, 2022-2024)	0/0	0/0	0/0	582/23	1,337/53
Interregional Cooperation Operational Programme; INTERREG IVC (European Commission)	Cross-border Monitoring of Biological Invasions for conservation of aquatic biodiversity (100314623, 2017-2020)	1,389/55	1,875/74	0/0	0/0	0/0
Interregional Cooperation Operational Programme; INTERREG IVC (European Commission)	Sumava Fish Jewels (BYCZ01-020, 2023-2026)	0/0	0/0	0/0	0/0	1,073/42
OP Interregional Cooperation (European Commission)	European Partnership for the Assessment of Risks from Chemicals (PARC) (101057014, 2022-2029)	0/0	0/0	0/0	64/3	6/0
OP Interregional Cooperation (European Commission)	FishBOOST – Improving European aquaculture by advancing selective breeding to the next level for the six main finfish species (613611, 2014-2019)	53/2	0/0	0/0	0/0	0/0
OP Interregional Cooperation	DANUBIUS Implementation Phase Project - DANUBIUS-IP (101079778, 2022-2025)	0/0	0/0	0/0	17/1	103/4

(European Commission)						
OP Interregional Cooperation (European Commission)	Implementation of the river basin management plan in selected river sub-basins in Slovakia (101069837, 2023-2032)	0/0	0/0	0/0	0/0	2,188/86
OP Interregional Cooperation (European Commission)	AQUAEXCEL3.0 AQUAculture infrastructures for EXCELlence in EUropean fish research 3.0 (871108, 2020-2025)	0/0	0/0	1,563/62	2,761/109	3,206/126
OP Interregional Cooperation (European Commission)	NeoGiANT – The power of grape extracts: antimicrobial and antioxidant properties to prevent the use of antibiotics in farmed animals (101036768, 2021-2025)	0/0	0/0	0/0	587/23	1,228/48
OP Interregional Cooperation (European Commission)	AQUAEXCEL 2020 - Aquaculture infrastructures for excellence in European fish research (652831, 2015-2020)	3,517/139	3,152/124	0/0	0/0	0/0
OP Interregional Cooperation (European Commission)	Competence Center MechanoBiology in Regenerative Medicine - Competence Center MechanoBiology (ATCZ133, 2017-2020)	1,685/66	468/18	0/0	0/0	0/0
Total		16,993/671	15,415/607	13,860/547	15,269/603	20,949/824

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Aquatest a.s.	Hydrobiological and hydrochemical monitoring of Zákolanský brook	120/5	35/1	35/1	0/0	0/0
Aston Machinery a.s.	Design and validation of a method for analyzing particles of various sizes in operating fluids using a flow cell microscope	0/0	0/0	0/0	0/0	485/19
Czech University of Life Sciences Prague	Fish capture for tagging and assessment of fish population status	75/3	0/0	0/0	0/0	0/0
Czech Technical University in Prague	Preparation and analysis of samples on cell colonisation; verification by SEM	40/2	0/0	0/0	0/0	0/0
Czech Hydrometeorological Institute	Fish capture, analysis of persistent and mobile organic substances in water samples	153/6	306/12	345/14	237/9	322/13

²⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

Čevak a.s.	Fish sampling for the determination of xenobiotics	0/0	0/0	0/0	0/0	23/1
Datapartner s.r.o.	Microscopic monitoring of tungsten filament micro-spiral winding quality for light bulbs	0/0	0/0	0/0	0/0	537/21
Hofmeister s.r.o.	Preparation and analysis of samples on cell colonisation; verification by SEM	0/0	10/0	0/0	0/0	0/0
IPR Aqua	Hydrobiological and hydrochemical monitoring of Zákolanský brook	0/0	0/0	34/1	34/1	68/3
Jihočeský vědeckotechnický park, a.s.	Ladder-type fish loader - provision of knowledge-based services, functional sample	146/6	196/8	0/0	0/0	0/0
Jihočeský vodárenský svaz	Analytical testing of filters with granular activated carbon	0/0	0/0	0/0	163/6	139/5
Krajské školní hospodářství	Water quality analyses in selected ponds	101/4	0/0	0/0	0/0	0/0
Masaryk University	Growth and progression test of cultures using time-lapse microcinematography	34/1	0/0	0/0	0/0	0/0
Mendel University in Brno	Determination of pharmaceutical content and their residues in growth media samples, their premixes, and biomass	0/0	0/0	0/0	0/0	61/2
Český Krumlov Town	Development of a management plan for Hornobránský pond	0/0	0/0	11/0	0/0	0/0
Písek Town	Reintroduction of the noble crayfish at suitable localities	33/1	33/1	33/1	33/1	33/1
Ministry of Agriculture of the Czech Republic	Monitoring of the hygienic quality of fish in main fishing grounds; sustainable production of valuable fish species for stocking	537/21	3,555/140	3,147/124	0/0	0/0
Naabbau s.r.o.	Monitoring and rescue transfer of fish, crayfish, and mollusks	0/0	23/1	0/0	0/0	0/0
Povodí Labe, s.p.	Chemical analyses of environmental matrices	432/17	450/18	466/18	452/18	494/19
Povodí Vltavy, s.p.	Chemical analysis of passive samplers	0/0	0/0	50/2	26/1	0/0
Pražské vodovody a kanalizace, a.s.	Chemical analysis of rainbow trout tissues	57/2	0/0	57/2	64/3	70/3
Rušar mosty s.r.o.	Biological monitoring	0/0	9/0	0/0	0/0	0/0
Rybníkářství Pohořelice a.s.	Determination of ploidy levels in sterlet using flow cytometry	0/0	24/1	0/0	0/0	0/0
Sagasta s.r.o.	Ichthyological survey of the Lužnice River	0/0	0/0	0/0	36/1	0/0
National Institute of Public Health	Analysis of swimming pool water samples	0/0	0/0	0/0	67/3	0/0
STRABAG a.s.	Biomonitoring and rescue transfer of fish	0/0	0/0	0/0	16/1	0/0

Sudoměřské proudy, z.s.	Biological assessment of Otava River in Sudoměř	4/0	0/0	0/0	0/0	0/0
Palacký Univerzity Olomouc	Determination of micropollutants in water samples	83/3	0/0	0/0	0/0	0/0
Institute of Vertebrate Biology, Czech Academy of Sciences	Monitoring and capture of fish on the Berounka and Jizera Rivers	0/0	0/0	20/1	0/0	0/0
VÚTS, a.s.	Preparation and analysis of samples on cell colonisation; verification by SEM	130/5	0/0	0/0	0/0	0/0
Želivská provozní, a.s.	Chemical analysis of rainbow trout tissues	57/2	57/2	57/2	64/3	70/3
Asociácia čistiarenských expertov (Slovakia)	Determination of selected drugs and pharmaceuticals in wastewater and sewage sludge	0/0	158/6	153/6	0/0	0/0
Center for Environmental and Disease Monitoring (Vietnam)	Analysis of basic components of extract solutions	0/0	52/2	0/0	0/0	0/0
Blue Planet Ecosystems (Austria)	Professional consultations, advisory services, and expert assessments	0/0	0/0	0/0	0/0	857/34
COWI AS (Denmark)	Chemical analyses of environmental matrices	0/0	0/0	0/0	67/3	1279/50
Nya Exposmeter AB (Sweden)	Chemical analyses of environmental matrices	623/25	0/0	0/0	0/0	0/0
Slovak University of Technology in Bratislava (Slovakia)	Determination of selected drugs and pharmaceuticals in surface and wastewater samples	268/11	137/5	153/6	220/9	98/4
Slovenský rybársky zväz (Slovakia)	Monitoring of fish populations in selected profiles of the Poprad River, assessment of grayling populations	1,281/51	754/30	0/0	0/0	0/0
Total		4,174/165	5,799/227	4,561/178	1,479/59	4,536/178

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 impacts²⁹, 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.

²⁹ See Terms definition.

Self-assessment:

FFPW delivers a range of outcomes related to various sustainability agendas. These usually target general phenomena, such as environmental pollution or fish production technologies, where the sex of the focal organisms is a prominent biological factor. However, human perspectives are not usually specifically addressed in this context due to their differing nature. Nevertheless, some studies aim to address this issue more directly. For example, by using a recognised biological model species, the zebrafish, we seek to understand evolutionarily conserved pathways between the sexes, providing insights into the potential development of sex-based drug delivery and therapeutic approaches in non-sexual organs such as the heart and eyes. Similarly, sex is a factor in various questionnaire surveys that are occasionally conducted. For instance, it is known that women are more protective of both native and invasive species, regardless of the environmental and socio-economic harm caused by the latter group. As a result, more targeted communication is required concerning lethal eradication campaigns against invasive species, particularly mammals.

A brief commentary on the selected results, as listed in Table 3.4.1, follows:

Šauer *et al.*

Monitoring methodologies that reflect the long-term quality and contamination of surface waters need to be developed, enabling the characterisation of pollution and the identification of its sources and risks. This study provides an exceptionally detailed picture of organic chemical pollution in the Danube, the EU's longest river, describing its contamination using an innovative approach that integrates passive sampling over three months with comprehensive chemical and bioanalytical assessments. This research, conducted as part of the 2019 Joint Danube Survey (JDS4)—one of the world's largest surface water monitoring initiatives held every six years—offers valuable insights.

The Danube flows through four capitals and receives substantial pollution, such as wastewater and surface runoff from farmland, yet its water remains a crucial source of drinking water and irrigation. Our 100-day sampling and analysis of 747 chemicals represent one of the longest and most comprehensive river pollution assessments in the field. We prioritised high-risk substances, identified biological effects exceeding environmental quality limits, and pinpointed some of the compounds responsible.

These findings are relevant for both ecotoxicological research and environmental policy. Steps are being taken to integrate them into regulatory frameworks, notably through collaboration with the German Environment Agency. This long-term passive sampling method sets a new benchmark for water quality assessment, aiding future monitoring efforts, including the forthcoming JDS5.

The results will help shape measures for improved water protection, such as the development of advanced wastewater treatment technologies and restrictions on substances posing the greatest risks to the aquatic ecosystem. Given the growing need to safeguard water resources, these findings have direct societal relevance and contribute to sustainable water management, as well as the protection of public and environmental health.

Císař *et al.* (Remote Water Quality)

The [Remote Water Quality](#) web service provides estimates of water quality parameters for open waters (large rivers, ponds, and drinking water reservoirs) using images from the Copernicus Sentinel-2 satellite. New data are available every two to three days, dating back to 2015, and the system is freely accessible upon registration. Its current version is available in Czech and covers almost 9,000 sites in the country. The underlying data, however, are available for the whole of Europe, so expansion is easily possible.

The water quality estimates are generated through machine learning-based models trained on laboratory-measured data from water samples collected in the field. The service offers estimates for the following parameters: Chlorophyll a, Chlorophyll b, Phycocyanin, Allophycocyanin, Phycoerythrin, Suspended solids, Carotenoids, and Xanthophylls. It serves as a substitute for physical water sampling, saving both the time and money required for laboratory analysis.

In this way, water quality can be easily monitored, which is relevant both for fish farmers (monitoring algal blooms and associated dissolved oxygen deficits) as well as for the recreational use of water bodies. The system's users include researchers, water body owners, and primarily administrators of water bodies, such as state river basin enterprises managing the Vltava and Elbe catchments, who use it for the assessment of dozens of localities.

Roy *et al.*

The study underscores the societal and environmental benefits of carp pond production as one of the most sustainable food production systems in Europe. Carp ponds impose lower nutrient burdens on the environment compared to other food sectors, highlighting the importance of effective pond management rather than reducing production intensity. The research reveals that nutrient footprints primarily stem from supplementary cereal feeding, which provides a significant economic advantage by enhancing production beyond natural yields. The economic benefits gained through this practice outweigh the environmental costs, indicating that the current level of cereal use should not be perceived as pollution but rather as a strategic input for maintaining production efficiency.

Through the optimisation of feeding strategies, carp farming can continue to provide vital ecosystem services, economic benefits, and a low-impact, sustainable protein source for European food systems. This study, in particular, was one of the first assessments to help reshape negative or uninformed opinions and challenge false, misleading, or often one-sided narratives surrounding pond fish farming in Central Europe. It has also helped establish the notion among policymakers that European pond carp farming is essential for preserving ponds and their valuable ecosystem services in the long run, while also providing low-impact aquatic foods to the local food chain.

Two policy documents, „[The Provision of Ecosystem Services by European Aquaculture](#)“ published by the Aquaculture Advisory Council of the European Commission, and the report of the „[Regional Consultation for Europe and North America on the Development of Guidelines for Sustainable Aquaculture \(GSA\)](#)“ released by the FAO Fisheries and Aquaculture division, specifically mention this study, influencing policies that promote aquaculture and nature-based optimised feeding in ponds for the future.

Mraz *et al.*

The state-of-the-art review by Mraz and colleagues is a testament to FFPW's close collaboration with the Czech fish processing industry through several OP Fisheries-funded pilot projects with companies, developing solutions to enhance fish consumerism in Czech society. These initiatives engage local scientists to work alongside expert personnel in fish processing and gastronomy companies. Such efforts often yield applied outputs that either enter the public value chain directly or are implemented internally within companies. The valuable knowledge generated frequently appears in grey literature in the form of project reports and appraisals. In this review, these findings are scientifically and formally presented, making such knowledge and developments accessible to the broader public domain.

The direct societal benefits include examples given in the review, which highlight innovative fish processing and product development. These efforts have not only supported the growth of startups into fully fledged companies, but the solutions developed are also successfully sold or implemented.

In collaboration with Czech companies such as Happy Fish Delicacies, Tilapia s.r.o., we have developed fish products for both adults and pre-school children in kindergartens (currently, some 180 tonnes of live fish from the company's production is processed annually and sold as approximately 30 different fish products, that are also delivered to around 200 kindergartens and schools). Meanwhile, the Czech fish processing company in Chlumec and Cidlinou has incorporated proper stunning, slaughtering, and post-slaughtering welfare advisories—developed and pre-tested with FFPW scientists—into its protocols. This company continues to grow and currently processes around 500 tonnes of live fish per year.

Kašpar *et al.*

Thermo-sterilisation is one of the key processes for producing durable fish products, though it has the potential to impact product quality negatively. In our research, temperature and time limits for the safe production of canned and semi-canned food products were defined. The testing process involved twelve fish species commonly farmed in ponds or at fish farms in the Czech Republic. It included carnivorous, omnivorous, and planktonophagous species, as well as representatives with different fat contents.

This verified technology is currently used by Delius s.r.o., which offers the production of final products as a service to fish producers (see Section 3.5 for further details). The annual production volume is in thousands of units, with an increasing trend. The products are delivered as 'ready to eat' and include pâtés, meat in its juices, luncheon meat, smoked meat in oil, and soups. These products directly enhance opportunities for regular fish consumption, thereby contributing to a healthier diet.

Additionally, this process supports the diversification of production for fish producers, increasing the added value of raw materials and helping to offset potential economic deficits during the off-season. The services of the producer are utilised by companies of various sizes, such as Jan Kolowrat Krakowský, and Rybářství Chlumec nad Cidlinou s.r.o.

The technology is also being applied in an international collaboration with the University of Lisbon and Santarém Polytechnic University to explore the use of non-native and invasive fish species as a source for developing new products for human consumption.

Prchal *et al.*

This methodology aimed to increase the productivity and overall profitability of mirror carp farming in traditional Czech pond aquaculture. Unlike scaled carp, which have regular scale patterns, mirror carp carry fewer scales scattered unevenly on their body and are preferred for export. The mirror phenotype represents over 60% of national aquaculture carp production.

The main tool for achieving the objectives of this methodology was the use of a newly selectively bred strain, the Amur mirror carp (AMC), bred at the FFPW. The properties of AMC and appropriately selected breeding management described in the methodology allow for the production of high-performance stocks, positively impacting the economy of carp farming due to higher fish production per unit of pond area, a higher yield of edible body parts, and improved resistance to stress factors, such as oxygen deficits.

The application of this methodology benefits not only carp producers but also meets customer preferences (favoured body shape, scale patterns, meat quality, etc.). Currently, approximately 45 million yolk-sac fry are produced annually at two hatcheries of which one belongs to the faculty. It supplies around fifteen fishing enterprises (mostly small and medium-sized ones), representing about 1,000 tonnes of carp market (~6% of total national aquaculture carp production). It can be assumed that the share of AMC will continue to increase, given their positive attributes, such as the

higher disease resistance, and the growing challenges in carp farming associated with climate change (dissolved oxygen deficiencies).

The results contained in the methodology are also used to educate society about the basic principles of fish breeding through hybridisation and selection programmes. The scientific and practical findings of the methodology are incorporated into the faculty curriculum. Graduates are subsequently integrated into middle and senior management positions within fishing enterprises and institutions, ensuring further dissemination.

Polícar *et al.*

Comprehensive verified technology for controlled reproduction and intensive farming of pikeperch in recirculating aquaculture systems, covering its complete production cycle from spawning to market-sized fish. It represents a significant technological innovation for Czech and European enterprises culturing this highly valued fish species. The technology ensures i) year-round spawning of broodstock with an 85% success rate; ii) high post-spawning survival of broodstock at 97%; iii) production of high-quality larvae with a high survival rate (45%) after weaning (30 days post-hatching, body weight BW 0.2 g); iv) efficient rearing of juveniles from BW 0.2 g to 10 g with 89% survival; and v) further intensive rearing to market size (BW 1,500 g) with a 98% survival rate.

This technology ensures the production of high-quality market-sized pikeperch within an average of 560 days, achieving a cumulative final survival rate of 28%. Production costs for stocking material (juvenile fish around 10–25 g) and market-sized fish (1,500 g) amount to 63% and 78% of the selling price, respectively. The remaining share represents profit for companies using this technology. The sale of juveniles is more unstable and fluctuates depending on customers. The goal of economically stable companies is to produce pikeperch within a closed-cycle production system, meaning they are not dependent on suppliers and can ensure independent and continuous production. This technology fully meets these requirements.

In the Czech Republic, two production companies, Blatenská ryba s.r.o., and NDCon s.r.o., use this technology for year-round pikeperch production at a level of 50 tonnes. Over the past two years, these companies have increased and optimised their pikeperch production by 245% and plan further expansion. In Europe, the following companies utilise this technology: Swifish AG and FTN AquaArt AG (both Switzerland), and Stier Satzfish GmbH (Germany). Thanks to this technological optimisation, they have increased their pikeperch production and sales by more than 200%.

Palíková *et al.*

As with other animals, fish health is a dynamic field that continues to evolve: new diseases are being discovered, diagnostic methods, therapeutic and preventive measures are being developed, and data on disease-causing agents are becoming more precise. This extensive new Czech book titled „*Fish Diseases and Pathological Conditions*“, spanning over 640 pages, is primarily intended as teaching material for bachelor and master students in veterinary and fishery sciences. It may also serve as a valuable source of information for students at secondary technical schools specialising in fishery and for professionals in fish breeding. The book provides a comprehensive review and detailed characterisation of diseases and pathological conditions in fish found in open waters, fish farms, and those kept as pets. It covers diseases currently present in the Central European climate and those expected to emerge in the foreseeable future.

Written by sixteen authors from six institutions (three from the FFPW), the book was published as part of the Faculty's edition series and received the prestigious Josef Hlávka Award in the Life Sciences category (see also section 3.2).

Čísař *et al.* (Wild Animal Tracking System)

The [Wild Animal Tracking System](#) is a web service developed at the request of the Ministry of Agriculture of the Czech Republic to monitor piscivorous predators, such as otters and cormorants. The web service offers the possibility to upload drone images of the cormorants from drone or video records of otters at the pond from the photo traps. The AI-based algorithm of the service determines the number of cormorants or otters and their appearance in the pond from the data. The service enables the calculation of the losses caused by these predators and makes evidence of their occurrence. The system is in the process of deployment by the Ministry, which would lead to the simplification and objectification of the reporting and reimbursement of the losses caused by piscivorous predators to the fish producers.

Haubrock *et al.*

The Australasian redclaw crayfish is among the largest freshwater decapods. It matures early and is highly fertile. Although it prefers slow-moving streams in its native range, it has a broad environmental tolerance, allowing it to establish populations in a wide range of conditions and habitats when introduced. These biological and ecological traits make it a highly suitable and popular species for aquaculture worldwide, ranking as the second most important crayfish species globally. Additionally, its distinctive colouration drives demand and value among aquarium enthusiasts, making it attractive in the aquarium pet trade.

Today, redclaw is widely translocated, with numerous established wild populations reported across the world. However, information on its potential or observed impacts remains sparse and largely anecdotal. To address this gap, we have compiled a comprehensive review of this species, covering its taxonomy and description, biology and ecology, and distribution, along with documented introduction pathways. Based on these aspects, biological and socio-economic classifications, as well as species distribution modelling, have been conducted.

Following EU Regulation 1143/2014, the European Commission published the first list of invasive species of Union concern in 2016 (Commission Implementing Regulation 2016/1141). Since then, the list has been updated three times, totalling 88 species as of 2022. Given that approximately 13,000 non-native species are already established in Europe, with more expected to arrive, it is clear that the current number of listed species is insufficient. Efforts are underway to identify other high-risk species for potential inclusion. The redclaw crayfish is one of the preselected species currently under consideration. Its [risk assessment](#) relies heavily on the aforementioned publication, referencing it almost sixty times. Furthermore, the study has gained widespread recognition in the field, being designated as Highly Cited in the Web of Science.

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

Type of result ³⁰	Year of application	Name
Article	2023	Šauer <i>et al.</i> , Bioanalytical and chemical characterization of organic micropollutant mixtures in long-term exposed passive samplers from the Joint Danube Survey 4: Setting a baseline for water quality monitoring
Software	2023	Císař <i>et al.</i> , Remote Water Quality
Article	2020	Roy <i>et al.</i> , Nutrient footprint and ecosystem services of carp production in European fishponds in contrast to EU crop and livestock sectors

³⁰ Specify the specific type of result. Add rows as needed.

Article	2023	Mráz <i>et al.</i> , Biomass losses and circularity along local farm-to-fork: A review of industrial efforts with locally farmed freshwater fish in land-locked Central Europe
Certified methodology	2021	Prchal <i>et al.</i> , Utilization of Amur mirror carp to make carp production more efficient under the pond aquaculture in the Czech Republic
Verified technology	2022	Kašpar <i>et al.</i> , Thermal sterilisation of fresh muscle tissue from freshwater fish species.
Verified technology	2020	Polícar <i>et al.</i> , Optimised reproduction and effective aquaculture of pikeperch (<i>Sander lucioperca</i>) ensuring the production of high-quality stocking material
Book	2019	Palíková <i>et al.</i> , Fish Diseases and Pathological Conditions (in Czech)
Software	2019	Císař <i>et al.</i> , Data collection from camera systems (Wild Animal Tracking System web service for monitoring of fish predators, cormorants, and otters)
Article	2021	Haubrock <i>et al.</i> , The redclaw crayfish: A prominent aquaculture species with invasive potential in tropical and subtropical biodiversity hotspots

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.)³¹, 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).³²

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:

FFPW has long focused on collaboration with practice and the transfer of its results. One possible and regularly utilised way of supporting such transfer is the direct involvement of private companies or local authorities in projects where specific problems are tackled and solutions implemented. This is more common for applied research projects, such as the majority of those supported by the

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

Ministry of Agriculture of the Czech Republic and the Technology Agency of the Czech Republic (Table 3.3.1).

The other option is conducting contract research in line with our expertise and scientific interests. The main example worth mentioning is the monitoring of chemical contamination in the environment, requested by the largest partners in the country working in this field (e.g. mentioned in Section 3.3, Example No. 10). The pool of partners is, however, much broader and includes both selected international and regional partners (Table 3.3.2). Among the latter, companies supplying settlements with drinking water and treating wastewater are particularly important.

Another broader domain is related to the Ministry of Agriculture of the Czech Republic, for which methods for the sustainable production of selected valuable fish species for stocking were developed based on a direct request. An alternative and more common approach is applying to a specific project call, which is opened annually and seeks solutions to specific problems defined by the Ministry. During the evaluated period, we worked on 12 such projects, thematically focused on advancing fisheries and aquaculture through technological innovation, species diversification, and genetic and genomic improvements. These projects also addressed water quality, pollutant impacts, and automated monitoring, aiming to enhance efficiency, environmental sustainability, and market competitiveness.

The last group of activities arises from our capacity to conduct diverse biological monitoring and assessments of freshwater ecosystems and pond management, eventually conducting rescue transfers of organisms. The range of related users extends from other universities and research institutions to municipalities and developers. In many cases, consultancy is provided free of charge, primarily for small farmers, businesses, and municipalities.

Technology transfer and intellectual property protection are coordinated by the USB's Technology Transfer Office (TTO) and follow the Rector's Measure No. 493. These aspects are addressed in more detail in Module 4. The TTO oversees and supports the Faculty, particularly during processes where new intellectual property is generated (e.g., patents, utility models, trademarks), as well as in matters of licensing. The Faculty has a dedicated technology scout who is actively engaged in these processes and continuously seeks opportunities to increase our funding from non-public sources, with some examples provided below.

Although our income from projects and contract research prevails, we also generate revenue from non-public sources (Table 3.5.1). These stem from services such as cryobanking for the conservation of fish genetic resources, the sale of literature for practitioners, the organisation of conferences, and, more recently, FAO workshops, which have proven to be highly important (though the coronavirus pandemic temporarily affected our ability to conduct such events). Despite licensing being comparatively high (ranking third at the University in the evaluated period), we consider its absolute volume suboptimal. For this reason, we combine it with direct commercialisation where reasonable. Although more licences have been sold, not all generate continuous income. Of those successful, two directions appear viable.

The first such licence is for a verified technology developed by Kašpar *et al.*, as mentioned in Section 3.4, and focuses on the production of sterilised freshwater fish products, unique in the Czech Republic. It was sold to the company DELIUS s.r.o. in 2023 and generated revenues of 3k EUR over the last two years. DELIUS collaborates with several fish production companies (e.g., Rybářství

Chlumec nad Cidlinou and Jan Kolowrat-Krakowský), upon request, preparing directly marketable products from the fish flesh they deliver, which are sold under their private labels.

The Faculty operates the Processing Unit and Shop with Fish and Aquaculture Products, whose offerings are also available via its [e-shop](#). Furthermore, we produce Omega3 Carp. Using patented culturing technology, these fish have a guaranteed and enhanced content of omega-3 polyunsaturated fatty acids. Our long-term business partner is the MAKRO hypermarket chain. The average annual revenue was 26k EUR from 2020 to 2024.

Another significant licence focuses on the production and supply of special caviar cosmetics containing extract from sturgeon roe, which originates from our facilities. FFPW is currently the only organisation in the country producing sturgeon caviar, making this endeavour unique in itself. The caviar is marketed under the brand Sturgeon Friendly Caviar, which is also used for special cosmetics and is part of a licensing and commercial agreement with the company [Kosmetika CZECH CAVIAR, s.r.o.](#) This company handles the distribution and sale of our cosmetics in both domestic and international markets. The licence itself generated 4k EUR from 2019 to 2024. Besides that, we can offer these products directly to university students and employees. These sales, combined with the purchases made by the above-mentioned company, generated an additional average annual revenue of 26k EUR from 2020 to 2024.

Building on the original cosmetic line, we developed another product containing an extract from salmonid caviar, marketed as Trout Friendly Cosmetics. This cosmetic is also produced under the Faculty brand and marketed directly. The revenues appear to be on a promising trajectory, generating 2k EUR in 2023 and 7k EUR in 2024.

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
Revenues from services related to genetic resources	190/7	215/8	223/9	215/8	215/8
Organisation of FAO workshops	1,124/44	0/0	186/7	1,216/48	1,021/40
Conference fees (not included in lifelong learning)	99/4	0/0	0/0	879/35	0/0
E-shop – methodologies, technologies and books for practice	162/6	215/8	166/7	231/9	356/14
Licence sold	85/3	97/4	28/1	15/1	88/3
Total	1,703/66	742/28	646/26	2,648/105	1,754/68

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:

FFPW maintains a diverse portfolio of communication channels, primarily coordinated by the International Environmental Educational, Advisory, and Information Centre for Water Protection. These activities encompass a wide range of topics investigated by the faculty. Each year, we engage directly with more than ten thousand individuals, although this number temporarily dropped to an average of six thousand during the COVID-19 years (2020 and 2021). Our outreach activities target both the general public and professionals, including the academic community. Below, we present a selection of key initiatives.

General communication is managed through institutional profiles on Facebook and Instagram, and, to a lesser extent, Spotify and YouTube. A strong foundation is provided by the faculty website, which hosts the Research in Spotlight section (under the Science and Research tab), showcasing selected major scientific achievements. Additionally, certified methodologies and developed technologies are made freely available online, attracting hundreds of visits annually. Beyond digital communication, we actively participate in selected fairs and exhibitions, as well as the harvests of the largest ponds, where we present the faculty's key research outcomes and offer fish products and literature.

A significant outreach effort takes place during Open Door Days, held in January in České Budějovice and in May in Vodňany, in conjunction with the traditional Vodňany Fisheries Days, which attract around two thousand visitors annually. Additional smaller-scale events, typically with a thematic focus, include Researchers' Night and World Water Day.

Our facilities are popular destinations for school excursions, particularly three key sites: the Aquaponic Hall in České Budějovice (~25 visits per year, with over 300 visitors), the Genetic Fisheries Centre, and the Experimental Fish Culture Facility in Vodňany, each hosting a similar number of excursions with around 700 visitors annually.

Targeted engagement is achieved through a variety of lifelong learning programmes. A broad portfolio of courses is available (Table 3.1.5), accommodating over two thousand participants annually (Table 3.1.4). The youngest generation (kindergarten and primary school pupils) is the most actively involved, with initiatives such as Children's Universities (lasting two to four days) and numerous shorter educational programmes. Secondary school students can participate in more advanced platforms, such as Junior's University for talented students or week-long intensive environmental courses for the Higher Vocational School from Yspertal, Austria. Additionally, we have repeatedly organised week-long excursions for students from the University of Duisburg-Essen, Germany (since 2022). Our flagship initiatives for university students include the traditional International Summer Schools, held regularly in Vodňany and Nové Hradky, the latter continuously since 2002.

Scientific and professional events play a crucial role in our outreach. Each year, we organise around twenty seminars, workshops, and conferences, varying in size and focus. Some events cater to the general public, such as workshops on home processing of fish to promote domestic fish consumption. Others target specialised audiences, including thematic workshops for the Food and Agriculture Organization of the United Nations (since 2019) and the EAS-SG workshops (since 2022), as detailed in section 3.1. The most significant scientific event we directly organised during the evaluated period was the 23rd Symposium of the International Association of Astacology.

Additionally, almost all applied research projects at the faculty newly conclude with dedicated workshops that facilitate the transfer of knowledge into practice.

Dissemination through popular science publications further enhances our outreach. On average, we publish over 15 articles per year in dedicated magazines. The most frequently used platform is Rybářství (Fishery), a nationally leading monthly publication covering a broad range of topics relevant to the country's approximately 300,000 anglers.

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:

We appreciate the Evaluation Panel's feedback on strengths and areas for improvement. Given space constraints, we address exclusively the identified challenges as they were mentioned, contrasting primarily the previous (2014–2018) and recent (2019–2023) evaluations.

Growing awareness of global challenges becomes increasingly reflected in our research, education, and impact. Previously overlooked topics in society have become central, suggesting a possible paradigm shift. To guide this shift, we frame our activities through the lens of the Sustainable Development Goals (SDGs). In research, we perceive ourselves on a positive trajectory, expanding collaboration networks (including mutual on-site visits), publishing more extensively, and gaining scientific recognition. However, we acknowledge that our international potential has yet to be fully realised.

Our research findings are closely integrated into the curricula of doctoral programmes (and thereby disseminated, as approximately two-thirds of students are international). Nevertheless, attracting a sufficient number of master's students to our English-language courses remains a challenge. We plan to improve promotion and study programmes, including integrating themes on global challenges.

We also acknowledge the administrative workload generated by numerous small-scale projects, including research projects, contract research, and services funded by non-public sources. Among these, research projects remain the most financially significant. Notably, while focus on applied research dominated the previous evaluation, basic research projects were underrepresented due to differing reporting guidelines at the time. Non-public funding remains the smallest revenue source.

The number of projects peaked in 2018 with 105 handled (~10% international), overlapping with the end of the previous evaluation period, but gradually declined to 65 in 2023, of which over 20% were international. This reduction has not harmed funding, partly due to a motivation programme encouraging participation in international schemes. However, an increase in the total number of projects can already be observed (79 in 2024, slightly below our long-term average), driven primarily by the timeframe of the OP Fisheries, in which we are highly active both in project implementation and within its broader framework (Table 3.2.5). Despite their smaller scale, these projects are valued for their direct engagement with private companies, addressing specific needs while generally allowing for scientific publication. We actively avoid projects that are overly small and carry disproportionately high administrative burdens. Overall, OP Fisheries projects and contract research,

which provide additional financial resources, align with our primary research goals without causing excessive distraction. Another dimension of our diverse commitments is the involvement in contract research (Table 3.3.2). Despite a decrease in its total volume between evaluated periods by ca. 30%, the number of involved partners declined disproportionately more (40% in national, and 60% in international partners), allowing us to focus more on other activities while maintaining a reasonable income.

To further enhance efficiency, we are improving support mechanisms to reduce administrative workloads on individual researchers, enabling them to focus more on research outputs and innovation. We are also fostering a motivating environment to broaden the pool of principal investigators, broadening leadership responsibilities. The options for significantly improving the budget-per-project ratio remain, however, limited. Despite ongoing projects, student numbers remain stable (Table 3.1.4), and our publication output has significantly improved (the number of peer-reviewed articles and the share of Q1 publications have roughly doubled in the past decade), demonstrating our ability to meet obligations while achieving continuous improvement.

We are actively working to establish a framework for the systematic monitoring of the economic impacts derived from our applied research. This issue is part of a broader effort to evaluate and demonstrate our societal relevance. To address this need, we established a dedicated Dean's Assistant position in 2024. This role aims to consistently monitor achievements across key domains, including Science, Innovation and Technology, Human Resources, Economy, and Society. While this initiative provides a structured summary of our activities, we recognise that further efforts are required to comprehensively assess and capture our societal impacts.

Technology transfer and intellectual property protection are coordinated by the TTO and follow the Rector's Measure No. 493. While the faculty's share of outputs is significant, commercialisation efforts (e.g., licensing) have so far yielded limited results. Consequently, we have mainly maintained active collaborations with diverse partners through joint projects and contract research mentioned above while also pursuing our commercialisation initiatives, such as caviar cosmetics and omega-3 carp products, as further detailed in Section 3.5. To support these efforts, the faculty employs a technological scout who liaises closely with faculty staff and communicates with the TTO. To further strengthen the faculty-society connection, we established the Board of Commerce and Social Relevance in 2021. Considering the current stage of development of our outreach portfolio, we have postponed the creation of a spin-off company, although the processes for doing so are already in place under the Rector's Measure No. 494. A University-level business incubator remains a future consideration.

We continuously strive to enhance our recognition within the research community, as previously recommended, by organising various events and contributing to editorial work. The number of staff involved in editorial work, as well as the quality and quantity of journals, has significantly increased. We aim to further diversify the range of journals (and publishers) with which we collaborate.

The faculty acknowledges the importance of tracking its reputation through various channels. Our traceable history of social media engagement is available on our [Facebook](#), [Instagram](#), [LinkedIn](#), and [YouTube](#) profiles. Recently, we have begun actively monitoring the production of popularisation and expert articles beyond traditional research publications. Altmetrics has potential but is relatively costly and limited without University-wide adoption. We continue enhancing governance and HR practices, guided by the University's [HR Excellence in Research Award](#) (obtained in 2019, implementation plan

till 2027). At the faculty level, we updated our [Career Plan](#) in 2023 and organised various events, directly or indirectly related to career development. The newly established School of Doctoral Students aims to enhance centralised activities. Consistent implementation of these activities should gradually increase awareness of these aspects within our community. The primary evaluation of employees is conducted annually, supported by central systems that gather the necessary information on individual performance.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Faculty of Fisheries and Protection of Waters	3.1	https://www.frov.jcu.cz/en/
South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses /CENAKVA/	3.1	https://www.frov.jcu.cz/en/faculty/faculty-parts/south-bohemian-research-centre-for-aquaculture-and-biodiversity-of-hydrocenoses-cenakva
Research Programmes CENAKVA	3.1	https://www.frov.jcu.cz/en/faculty/faculty-parts/south-bohemian-research-centre-for-aquaculture-and-biodiversity-of-hydrocenoses-cenakva/research-programmes-cenakva
Research Institute of Fish Culture and Hydrobiology in Vodňany /RIFCH/	3.1	https://www.frov.jcu.cz/en/faculty/faculty-parts/research-institute-of-fish-culture-and-hydrobiology
Institute of Aquaculture and Protection of Waters	3.1	https://www.frov.jcu.cz/en/faculty/faculty-parts/institute-of-aquaculture-and-protection-of-waters
Roadmap of Large Research Infrastructures in the Czech Republic	3.1	https://www.vyzkumne-infrastruktury.cz/wp-content/uploads/2019/11/Aktualizace-Cestovni%C3%AD-mapy-2019_en.pdf
International Environmental Educational, Advisory, and Information Centre for Water Protection	3.1	https://www.frov.jcu.cz/en/faculty/faculty-parts/international-environmental-education-advisory-and-information-centre-for-water-protection-mevpis
FFPW Biennial Reports	3.1	https://www.frov.jcu.cz/en/faculty/documents?view=article&id=915&catid=10
Biennial Report 2022-2023	3.1	https://www.frov.jcu.cz/images/FROV/fakulta/uredni-deska/Verejne-dokumenty/EN/Biennial_report_2022-2023-2.pdf
Updated science-wide author databases of standardized citation indicators	3.2	https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/5

AQUAEXCEL3.0 project	3.3	https://aquaexcel.eu/
AQUASERV project	3.3	https://www.aquaserv-ri.eu/
Císař <i>et al.</i> (Remote Water Quality)	3.4	http://www.remotewaterquality.com/pond
The Provision of Ecosystem Services by European Aquaculture	3.4	https://aac-europe.org/wp-content/uploads/2021/06/AAC_Recommendation_-_Ecosystem_Services_2021_08_revised2.pdf
Regional Consultation for Europe and North America on the Development of Guidelines for Sustainable Aquaculture (GSA)	3.4	https://openknowledge.fao.org/server/api/core/bitstreams/4f130d78-3e18-4aa9-b2e2-0970d37c0d9e/content
Císař <i>et al.</i> (Wild Animal Tracking System)	3.4	http://wat.frov.jcu.cz/
Rish assessment for redclaw crayfish	3.4	https://op.europa.eu/en/publication-detail/-/publication/258e41dd-7f4e-11ed-9887-01aa75ed71a1/language-en
USB Technology Transfer Office	3.5	https://www.jctt.cz/en/
Fish for Health (e-shop)	3.5	http://shop.rybyprozdravi.cz
Kosmetika CZECH CAVIAR, s.r.o	3.5	https://www.ceskykaviar.cz
FFPW Facebook	3.7	https://www.facebook.com/frovju/
FFPW Instagram	3.7	https://www.instagram.com/frovju/?hl=cs
FFPW LinkedIn	3.7	https://cz.linkedin.com/company/university-of-south-bohemia-in-ceske-budejovice-faculty-of-fisheries-and-protection-of-waters?original_referer=https%3A%2F%2Fwww.google.com%2F
FFPW YouTube	3.7	https://www.youtube.com/user/mevpiis/videos
HR Excellence in Research Award	3.7	https://www.jcu.cz/en/science-and-research/hr-award-hrs4r
FFPW Career Plan	3.7	https://www.frov.jcu.cz/images/FROV/fakulta/uredni-deska/opatreni-dekana/2023/Measure_of_Dean_15-2023.pdf

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Agriculture and Technology

FORD: 4 - Agriculture and veterinary 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.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:

As part of USB, the Faculty of Agriculture and Technology (FAT) is an educational centre in agriculture and related fields, oriented towards the development of society, especially towards active cooperation with the application sphere. The main **mission** of the FAT is to promote independent knowledge through educational activities and the implementation of scientific and contract research. It carries out basic research, experimental development, and especially applied research oriented towards cooperation with the application sphere represented by governmental bodies, public institutions, companies, and individuals. The FAT publicly disseminates the results of these activities through teaching, publications, or knowledge transfer. The **vision** of FAT USB is to be a sought-after and friendly institution, whose environment supports students and staff in their journey of knowledge and creativity. The FAT wants to be beneficial and competitive both nationally and internationally.

The FAT was established in 1960 as the Faculty of Operations and Economics, which was incorporated as the Faculty of Agriculture into the newly established University of South Bohemia in České Budějovice in 1991. In 2022, the Faculty of Agriculture was transformed into the Faculty of Agriculture and Technology USB. The name was changed to more clearly express the development of the technological part of the faculty and its connection with classical agricultural disciplines and related areas, such as the quality and processing of products and the impacts of agricultural activities on the landscape and the environment. As of 31 December 2023, FAT had 141 employees, of which 82.4 were academic staff (expressed in FTE), approximately the same number of employees

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

as in 2019. A detailed breakdown of the number of employees in individual positions, including the proportion of women and age distribution, is given in tables 3.1.1, 3.1.2, and 3.1.3.

As of 31 December 2023, a total of 19 bachelor's, 16 follow-up master's, and 19 doctoral study programmes were accredited at the FAT USB (Table 3.1.5), which is an increase compared to 2019, but which is largely due to a change in the structure of study programmes and the termination of study programmes (in 2024) accredited according to previous rules. A total of 1,154 students were studying at the FAT USB - 715 in bachelor's, 259 in master's, and 125 in doctoral programmes. Compared to 2019, the total number of students has slightly decreased (details are given in Table 3.1.4).

FAT is organized into 11 departments. Classical agriculturally oriented departments (Department of Agroecosystems, Department of Plant Production, Department of Animal Husbandry Sciences), departments of agriculture-related fields (Department of Applied Ecology, Department of Applied Chemistry, Department of Biological Disciplines, Department of Genetics and Biotechnologies, Department of Landscape Management, Department of Food Biotechnologies and Agricultural Products Quality) and departments focused on technology and data use (Department of Technology and Cybernetics, Department of Data Sciences and Computing Systems).

In 2021, a new strategic focus of the FAT's research priorities was adopted (among other things, in response to the conclusions of the 2020 IEP evaluation). Five priority research topics were newly recognized - **Sustainable Agriculture, Agricultural Biotechnology, Quality of Agricultural Products and Foodstuffs, Agriculture and Environment, Agriculture and Technology 4.0**. The priority topics connect the faculty departments, and the study programmes implemented at all three levels. Departments cooperate in implementing each research topic, and the research focus of a specific department can be linked to two or more topics. Current global and European challenges affecting agriculture and related areas are addressed within the individual priority topics.

Sustainable Agriculture is focused on growing field crops with respect to the landscape and the environment (sustainable cultivation systems, reducing the use of pesticides and mineral fertilizers) and more efficient use of plant resources. Similarly, livestock farming is focused on modern technologies with effective animal nutrition, timely care for their health (reducing the use of antibiotics), and their welfare. The topic of **Agricultural Biotechnology** includes particularly the use of molecular techniques in modern plant and livestock breeding (such as marker systems of target genes), the evaluation of new genotypes, molecular diagnostics of pathogens, gene manipulation, and food biotechnology. The topic of **Quality of Agricultural Products and Foodstuffs** is devoted to evaluating factors influencing the quality of raw materials during the manufacturing process and food production to ensure nutritionally valuable and safe food. Attention is paid to the search for new sources of natural substances with nutritional and health benefits, including the valorisation of by-products/waste from processing processes within the bioeconomy framework and the "zero waste" concept. The area of **Agricultural and Environmental** research is oriented towards the evaluation of the impacts of agricultural activities on the environment (e.g., the evaluation of greenhouse gas emissions), monitoring water in the landscape, and protecting soil from erosion and other harmful impacts. Attention is also paid to landscape design and spatial planning. The priority topic of **Agriculture and Technology 4.0** includes the use of modern technology and equipment in agricultural primary production and subsequent processes. These include remote sensing of the earth, the use of drones for monitoring plant growth and development, the use of digital image analysis in the evaluation of production processes, the use of artificial intelligence, and the development of autonomous means (robots) with a perspective especially for the key problem of European agriculture – the lack of manpower.

The research at the FAT belongs mainly to the applied research category (Table 3.1.6), to a lesser extent to basic research. Most providers of research funds within the framework of programme-oriented public competitions are the Ministry of Agriculture through the National Agency for Agricultural Research (NAAR) and the Technology Agency of the Czech Republic (TACR). The condition for obtaining most of the grants is a research consortium with the participation of a partner from the application sphere. This fact directly forces the FAT to focus on cooperation with farmers, processors, and other companies, with traders, and therefore, with state or public administration bodies as users of research results. A smaller part consists of contractual research. Despite the significant collaboration between FAT and the application community, the integrity of the above research priorities is not compromised.

 Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	10.17/1.00	10.58/1.00	9.24/1.00	7.35/1.08	8.23/2.00	20/2
Associate Professor	22.66/4.67	22.43/5.50	21.46/6.00	23.05/6.97	19.23/5.40	41/9
Assistant Professor	46.87/17.84	46.77/17.60	47.89/17.80	44.23/18.52	43.74/16.78	97/38
Assistant				11.30/1.58	11.20/2.36	26/7
R&D Personnel ³	1.41/1.41	1.07/1.00	1.58/1.00	1.81/1.26	3.25/2.70	5/4
Researchers in other categories ⁴	19.46/16.30	17.25/14.75	18.51/15.71	21.92/11.99	18.97/8.85	35/20
Technical and economic staff ⁵	46.86/24.43	42.68/24.04	44.56/24.19	40.96/25.38	36.73/23.56	132/70
Scientific, research and development staff involved in teaching activities	81.11/24.65	80.85/25.1	80.17/25.8	87.74/29.41	85.65/29.24	237/88
Early career researchers ⁶	23.74/10.34	20.09/10.63	21.17/10.45	24.40/10.66	18.10/9.25	38/16
Total ⁷	147.43/65.37	140.78 /63.89	143.24/65.70	150.62/66.78	141.35/61.65	

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.

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 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.

3.1.2 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/ 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	1	0	3	1	6	0	5	0
Associate Professor	0	0	1	0	10	1	5	3	6	0	3	0
Assistant Professor	2	0	17	4	17	12	10	3	4	0	0	0
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ⁹	0	0	0	0	2	2	0	0	0	0	0	0
Researchers in other categories ¹⁰	2	2	4	3	4	2	9	7	3	3	0	0
Technical and economic staff ¹¹	5	2	8	3	17	9	12	10	10	5	0	0
Scientific, research and development staff involved in teaching activities	2	2	18	4	29	14	18	7	16	0	8	0
Early career researcher ¹²	1	1	12	5	7	4	4	1	0	0	0	0
Total ¹³	9	4	30	10	51	26	39	24	29	8	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/ 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	3	0	3	0	5	2	2	0
Associate Professor	0	0	1	0	15	3	2	2	6	1	0	0
Assistant Professor	0	0	30	13	9	4	8	3	3	1	0	0
Assistant	4	0	8	1	3	2	0	0	0	0	1	0
R&D Personnel ¹⁵	0	0	0	0	1	1	1	1	2	2	0	0
Researchers in other categories ¹⁶	2	2	7	3	4	1	3	1	6	2	0	0
Technical and economic staff ¹⁷	3	2	9	6	15	8	11	9	3	2	0	0
Scientific, research and development staff involved in teaching activities	4	0	39	14	30	9	14	6	15	5	3	0
Early career researcher ¹⁸	0	0	17	9	3	1	1	1	0	0	0	0
Total ¹⁹	9	4	55	23	50	19	28	16	25	10	3	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 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.

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.

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	620	345	646	347	661	371	756	421	715	410	1848	1045
Master's ²⁰	388	216	338	182	293	161	279	139	259	142	873	470
Doctoral	124	64	123	60	135	64	125	57	125	63	227	113
Lifelong Learning Courses	118	N/A	37	N/A	65	N/A	70	N/A	55	N/A	345	N/A
Total	1250	625	1144	589	1154	596	1230	617	1154	615		

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	6/0	0	10/0	3/0	19/0	3/0	19/0	3/0	19/0	3/0	19/0	3/0
Master's	6/0	0	7/0	0	15/0	0	16/1	0	16/1	0	17/1	0
Doctoral	12/0	0	12/0	0	18/0	0	18/0	0	19/0	0	21/0	0
Lifelong Learning courses	14	0	12	0	8	0	13	0	14	0	14	0
Total	38/0		41/0	3/0	60/0	3/0	66/1	3/0	68/1	3/0		

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	2	Applied Research	26
	1.2 Computer and information sciences	8	Applied Research	
	1.3 Physical sciences		Applied Research	
	1.4 Chemical sciences	2	Balanced basic and applied research	
	1.5 Earth and related environmental sciences	10	Applied Research	
	1.6 Biological sciences	4	Balanced basic and applied research	

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

²¹ The total number of study programmes for which admissions have been announced in a given academic year.

	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	18
	2.2 Electrical engineering, Electronic engineering, Information engineering	5	Applied Research	
	2.3 Mechanical engineering	2	Applied Research	
	2.4 Chemical engineering			
	2.5 Materials engineering	2	Applied Research	
	2.6 Medical engineering		Zvolte položku.	
	2.7 Environmental engineering	2	Applied Research	
	2.8 Environmental biotechnology	1	Balanced basic and applied research	
	2.9 Industrial biotechnology	1	Applied Research	
	2.10 Nanotechnology		Zvolte položku.	
	2.11 Other engineering and technologies	5	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	25	Applied Research	54
	4.2 Animal and Dairy science	17	Applied Research	
	4.3 Veterinary science	5	Basic Research	
	4.4 Agricultural biotechnology	6	Applied Research	
	4.5 Other agricultural sciences	1	Applied Research	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	2
	5.2 Economics and Business	1	Applied Research	
	5.3 Education	1	Applied Research	
	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:

FAT and its academic staff have a relatively good position in the research community and among the professional public. This is evidenced not only by the prestigious awards (Table 3.2.1) and the participation of academics in the editorial boards of international scientific journals (Table 3.2.2.) but also by their membership in the scientific boards of many scientific research institutions and various expert committees or advisory boards. Many academic staff are members of the Czech Academy of Agricultural Sciences. The Dean is a member of the National Advisory and Education Council for Agriculture and Rural Development, which was established by the Minister of Agriculture to involve representatives of professional and agrarian non-governmental organizations (NGOs) in departmental advisory and education.

Proof of the recognition of FAT and its academic staff at the international level is membership in the aforementioned editorial boards of scientific journals and the publication of their results in prestigious international journals (from publishers Elsevier, Springer, Wiley, etc.). These are mainly journals in the upper quartiles (Q1, Q2) within the field classification. Many of the creative results involve international author teams, thanks to the cooperation of FAT with foreign institutions.

Evidence of recognition by the research community in the international field is invited lectures by FAT's academics at foreign universities and other research institutions. Table 3.2.3. shows only a selection of these activities. FAT's academics gave their lectures not only at European partner institutions from Poland, Slovakia, Slovenia, Austria, Romania, Germany, Italy, Spain, or the United Kingdom but also at institutions from non-European countries such as China, Brazil, Kazakhstan, Jordan, the Republic of Korea, Ethiopia or Nepal. Reciprocally, prominent experts are invited to present findings from their scientific and research activities in FAT. The list of the most significant lectures by foreign experts held at FAT is shown in Table 3.2.4. These were experts from prominent world institutions, e.g. Dr. Cabrera from the University of Wisconsin (USA), prof. Świeca from the University of Life Sciences in Lublin (Poland), Dr. Pinto from the University of Kent (United Kingdom), and Prof. Bancroft from the University of York (United Kingdom). It should be added that the mobility of academics and students, including lectures delivered, was negatively affected by the global COVID-19 pandemic in 2020 and 2021. The FAT is involved in advisory board of European Technology Platform for Research and Innovation into Organics and Agroecology (IFOAM Organics Europe) or is a member of European Network of Organic Agriculture Teachers (ENOAT).

Another proof of the recognition of academics by the research community is their membership in the bodies of evaluators of grant agencies in the positions of opponents, rapporteurs, or members of councils and commissions. These include not only the bodies of traditional national providers

(Ministry of Education Youth and Sports – MEYS; NAAR; TACR) but, in some cases, also foreign agencies (see Table 3.2.5).

The Microbrewery of FAT USB also contributes to the good reputation of FAT in the field of brewing, where not only tests of its beers and their properties are carried out, but it is also used by large known breweries, which have evaluations carried out here. Among them is, for example, the National Brewery Budějovický Budvar. Faculty beer Čtyrák has already had many successes, e.g. in 2023, in the competition "Tastes good. South Bohemian.", the academic beer ČTYRÁK 14° - Strong dark lager won the category beers with an exhibition of up to 10 thousand hl/year; in the 2022 Spring Brewers Award competition in the category of light bottom-fermented strong beers, the beer Čtyrák - light bock won. More information is at <https://www.fzt.jcu.cz/en/faculty/other-facilities/faculty-microbrewery>.

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
Tomáš Kvítek, prof., Ing. CSc.	Diploma of Academician Theodor Ježdík	Česká vědeckotechnická vodohospodářská společnost, z.s. (Czech Scientific and Technical Water Management Society, registered association)
Jan Bedrníček, Ing., Ph.D.	Honorable mention in the Innovation of the Year 2023 competition for the Method of preparing black garlic with antioxidant activity	Association of Innovative Entrepreneurship CR
Eva Samková, prof. Ing. Ph.D.	Honorable mention was awarded within the framework of "JU Innovation" on March 15, 2023 for the innovation Enriched yogurt with increased protein content and plant antioxidants. Authors: Ing. Hedvika Bártová, Ph.D. Assoc. Prof. Ing. Eva Samková, Ph.D., Assoc. Prof. Ing. Eva Dadáková, Ph.D., Ing. Jan Bedrníček, Ph.D., Ing. Karolína Hálová, Ing. Kristina Hradilová, Assoc. Prof. MVDr. Lucie Hasoňová, Ph.D., Bc. Simona Honesová, Ing. Hana Leherová, ODV: utility model 39486 (17. 12. 2021)	University of South Bohemia in České Budějovice
Luboš Zábranský, Ing. Ph.D.	Medal for Cooperation in R&D, in 2023	The King Michael I University of Life Sciences in Timisoara

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
Petr Konvalina, Assoc. Prof., Ing., Ph.D.	Scientific Papers. Agronomy Series Journal; ISSN: 1454-7414 (print), 2069-7627 (online)
Jan Moudrý, Assoc. Prof., Ing., Ph.D.	European Countryside; ISSN 1803-8417
Eva Samková, prof., Ing., Ph.D.	Sub-Editor, South African Journal of Animal Science; ISSN: 0375-1589
Petr Bartoš, Assoc. Prof., RNDr., Ph.D.	Atmosphere ISSN 2073-4433
Radim Kuneš, Ing., Ph.D.	Atmosphere ISSN 2073-4433
Luboš Záborský, Ing., Ph.D.	Journal of Central European Agriculture, ISSN 1332-9049
Miloslav Šoch, prof., Ing., CSc., dr.h.c.	Animal Science and Biotechnologies – Scientific papers of Faculty of animal Science and Biotechnologies, Banat's University Of Agricultural Sciences and Veterinary Medicine „King Michael I of Romania“ from Timisoara – Timisoara, Romania. ISSN online 2344–4576.
Ladislav Beránek, prof. Ing. CSc.	Open Computer Science, ISSN: 2299-1093
prof. Ing. Tomáš Lošák, Ph.D.	Acta Agriculturae Scandinavica Section B: Soil and Plant Science; ISSN 0906-4710 (print), ISSN 1651-1913 (on-line)

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
Pavel Beran, Ing. Ph.D., Ondřej Hejna, Ing. Mgr. Ph.D.	Application WGCNA in the Search for Clubroot Resistance Genes - Analysing the genetic architecture of clubroot resistance variation in Brassica napus by associative transcriptomics	Oil Crops Research Institute, Chinese Academy of Agricultural Science, Wuhan, PRC	2019
Vladislav Čurn, prof. Ing. Ph.D.	Plasma and biological treatment of rape seeds	DSV AG, Asendorf, Germany	2019
Jan Moudrý, Assoc. Prof., Ing., Ph.D.	Greenhouse gases emissions from agriculture .	University of Maribor, Slovenia	2021
Jan Moudrý, Assoc. Prof., Ing., Ph.D.	Social farming in practice.	Neubrandenburg University of Applied Sciences, Germany	2022
Radim Kuneš, Ing., Ph.D.	Precision Agriculture.	Kazakh Agrotechnical University, Astana, Kazakhstan	2022
Petr Konvalina, Assoc. Prof., Ing., Ph.D.	The agriculture in EU.	Federal University of Pará, Belém, Brazil	2023
Martin Kváč, prof., Ing., Ph.D.	Host and tissue specificity: Cryptosporidium as a passenger on a train	College of Veterinary Medicine, South China Agricultural University, China.	2023
Martin Kváč, prof., Ing., Ph.D.	Tissue specificity of Cryptosporidium spp.	The Francis Crick Institute, London UK	2023
Tomáš Lošák, prof., Ing., Ph.D.	Fertilization of crops – practical aspects.	University of Natural Resources and Life Sciences in Vienna, Austria	2023
Petr Konvalina, Assoc. Prof., Ing., Ph.D.	A look at European agriculture.	Agriculture and Forestry University, Bharatpur, Nepal	2023

	Crop production in organic farming – what is different from conventional?		
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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. Ian Bancroft	Department of Biology, The Centre for Novel Agricultural Products, University of York, UK	Genomics-led radiation mutagenesis in rapeseed	2019
prof. Du Yun	Deputy Director-General, Hubei Provincial Department of Science and Technology, Wuhan, Hubei, PRC	Science and technology projects in Hubei Province - improving rapeseed breeding using genomic tools	2019
Assoc. Prof. Dr. Reinhard Neugschwandtner	BOKU University, Vienna, Austria	Organic crop rotations.	2020, 2021
Dr. Marjolein Elings	Wageningen University and Research, Netherland	Target groups in social farming.	2021
Ing. Jozef Halva, Ph.D.	FZKI SPU Nitra	Using UAV methods to solve erosion problems	2022
Assoc. Prof. Marta Kicia, Ph.D.	Department of Biology and Medical Parasitology Faculty of Medicine Wrocław Medical University ul. Mikulicza-Radeckiego 9, 50-367 Wrocław, POLAND	Zoonotic Protists and Transplantation: A New Frontier in Infectious Disease Risks	2022
Pedro Pinto, Ph.D.	School of Biosciences, University of Kent, Canterbury, Kent, CT2 7NJ, United Kingdom.	Cryptosporidiosis in calves	2022
Dr. Raj Chongtham Iman	Swedish University of Agricultural Sciences, Sweden	Organic agriculture in Sweden – Innovations and challenges.	2023
Michał Świeca, prof. Dr. hab.	University of Life Sciences in Lublin, Poland	Enzymes in Food Industry	2023
Dr. Victor E. Cabrera	University of Wisconsin Madison, USA	Dairy farms management tools	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 project/programme call research	Name of the contracting authority/guarantor of the project/programme call	Year
Jakub Brom, Assoc. Prof. Ing. Ph. D.	INTER-COST	Ministry of Education Youth and Sports	2020
Roman Kubec, prof., Ing., Ph.D.	INTER-COST	Ministry of Education Youth and Sports	2023
Martin Šeda, Mgr., Ph.D.	PRELUDIUM-20	National Science Center, Poland	2023
Pavel Smetana, Assoc. Prof., Ing., Ph.D.	INTER EXCELLENCE	Ministry of Education Youth and Sports	2020, 2022

Luboš Záborský, Ing., Ph.D.	Vedecká grantová agentúra	The Ministry of Education, Research, Development and Youth of the Slovak Republic	2022
Petr Konvalina, Assoc. Prof., Ing., Ph.D.	6th public competition of the Program Environment for Life.	Technology Agency of the Czech Republic	2022
Jana Moravcová, Ing., Ph.D.	Sigma	Technology Agency of the Czech Republic	2019–2024
Jan Beran, Assoc. Prof. Ing. Ph.D.	TREND	Technology Agency of the Czech Republic	2023
Jan Bárta, Assoc. Prof. Ing. Ph.D.	Země II	NAAR, Ministry of Agriculture	2023
Petr Bartoš, Assoc. Prof., RNDr., Ph.D.	Země II	NAAR, Ministry of Agriculture	2023

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:

FAT conducts research in accordance with its strategy and priorities. Due to its focus, most research topics are focused on applied research, some on experimental development, and the smallest share belongs to basic research. Most activities are carried out in cooperation with other universities or partner companies. As part of complementary activities, various assessments, field trials, long-term monitoring, etc., are carried out. The clients of these services are other research institutions, companies or private individuals. All activities are carried out either exclusively by FAT members or in cooperation with other faculties, most notably FFPW. Below is an overview of the most significant activities and projects implemented in the evaluated period.

1) H2020 RUR-2017-2 771738 – NEXTFOOD Project „Educating the Next Generation of Professionals in the Agrifood System“ (2018–2022), provider: European Commission, RIA – Research and Innovation action

FAT USB Position: Participant (Assoc. Prof. Jan Moudrý); Project Coordinator: Swedish University of Agricultural Sciences (Sweden)

The project focused on innovations in the connection of applied research and education (action learning) in agricultural and food systems. An international consortium of 19 partners from 13 countries (Sweden, Romania, Czech Republic, Norway, Greece, Italy, France, Germany, Egypt, Ethiopia, Austria, Denmark, Chile) developed tools enabling the effective development of education connected with direct practice and applied research. The main outputs included methodological materials and the [toolbox](#) for educational organizations (usable both within the framework of higher education and training of practitioners, for details see Section 3.4), or an [audit tool](#) for evaluating the impacts of implemented education/training on the ability of graduates to contribute to the practical sustainability of agricultural and food systems. The outputs are used internationally in education by universities and in training of practitioners. Innovative methods also connect practice, education, and applied research by accelerating mutual cooperation and communication, thus creating an optimal environment for the emergence of living labs.

The research project fulfills **Sustainable Agriculture** research priority.

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.

2) NAWA BPI/PST/2021/1/00034 „Crucial, Long-Term Collaborations for the Development of an Innovative, Ecological Approach in Biostimulants Production“ (2022–2024), provider: Polish National Agency for Academic Exchange (NAWA), Strategic Partnerships Programme

FAT USB Position: Participant (Dr. Andrea Bohatá); Project Coordinator: University of Life Sciences in Lublin (Poland); Other Participants: Slovak University of Agriculture in Nitra (Slovakia), Universidad del Salvador (Argentina)

The project aimed to strengthen strategic partnerships through the implementation of joint research and its dissemination for the development of long-term interactions for the development of sustainable agriculture. It also aimed to integrate the scientific community for the effective use of solutions created by science that could be adapted in the global economy. The results of the project were achieved through the joint implementation of a sequence of research tasks, the organization of an international conference, and the publication of articles, as well as the creation of a website ([AgroBiosNewGen](#)) for presenting the progress of research results (two patents see in Section 3.4). To achieve the goal, internationalization tools were used in the form of summer and winter school, as well as visits to companies producing biostimulants. This allowed the establishment of cooperation with the economic environment to implement research results. A beneficial effect of the project was the development of a strategy for long-term cooperation, which resulted in the submission of international projects, raising the visibility of the scientists' work by publishing research results in an international team, and acquiring knowledge and skills for implementing scientific ideas.

The research project fulfills **Sustainable Agriculture** research priority.

3) TH76030001 „AI-powered Forecast for Harmful Algae Bloom“ (2021–2024), provider: Technology Agency of the Czech Republic, Programme of Applied Research and Experimental Development EPSILON, M2 – International Cooperation

FAT USB Position: Beneficiary (Assoc. Prof. Jakub Brom, cooperation of FAT and FFWP members), Project Coordinator: Technological University Dublin (Ireland)

The purpose of the international project (cooperation between the Czech Republic, Norway, Iceland, Ireland, Spain, and Portugal) was to develop a system for predicting the occurrence of dangerous aquatic bloom in water reservoirs based on the use of artificial intelligence approaches for processing data inputs. The reason for the occurrence of aquatic bloom is the process of eutrophication, which is the result of excessive nutrient loading of water reservoirs, which leads to a deterioration of technological and hygienic properties of water, but also has an impact on biodiversity. The development of algae and cyanobacteria is also dependent, among other things, on the content of nutrients in the water, especially nitrate (NO_3^-), dihydrogen phosphate (H_2PO_4^-), hydrogen phosphate (HPO_4^{2-}) and phosphate (PO_4^{3-}) anions, which enter the water, for example, from agricultural activities. The project included the processing of spectral data from remote sensing of the Earth, hydrodynamic modeling, development of equipment for continuous measurement of cyanobacterial toxicity in reservoirs, and the like. USB participated in these activities by 25%, especially in the acquisition and analysis of field samples, the preparation of prediction models, and the development of the RWQForecast service (see Section 3.4). The project was fully integrated into the activities of the FAT and the Department of Applied Ecology and thus corresponded to the mission and purpose of the department's existence in the field of R&D&I. The project had a significantly interdisciplinary character and thus connected the departments of the FAT and FFWP.

The research project fulfills **Agriculture and Environment** research priority.

4) TM02000027 „Research and Development of Smart Technologies for Cattle and Pig Breeding based on Advanced Computational Approaches“ (2021-2023), provider: Technology Agency of the Czech Republic, Programme of support for applied research, experimental development and innovation DELTA 2

FAT USB Position: Participant (Assoc. Prof. Petr Bartoš); Beneficiary: AGROSOFT Tábor, Ltd.

The aim of the project was the implementation of joint research and development in the field of intelligent stable technologies for dairy cattle and pigs to develop new or significantly innovative existing technical solutions. The project was divided into several sub-areas: innovation of the module for monitoring the physical activity of animals, development of a system for monitoring body temperature of animals with automatic communication, intelligent system for detecting udder and hoof inflammation, innovation of feeding and ventilation system and development of control software for stable microclimate control and herd management. These systems are based on modern computational techniques (Artificial Intelligence, Big Data, IoT, Machine Vision, and others). The project connected and fully utilized the know-how of all consortium members from the Czech Republic and abroad (Nanjing Agricultural University and Jiangsu Huali Intelligent Technology Co. Ltd., PRC), thus strengthening their competitiveness in the automation of agricultural production. The project objectives were achieved mainly by creating two pieces of software – SW for automatic evaluation of image inputs for the detection of hoof disease in dairy cows and SW for automatic evaluation of image inputs for the detection of udder disease in dairy cows. They can detect hoof and mammary gland diseases based on predetermined evaluation parameters. Results are used by AGROSOFT Tábor, Ltd.

The research project fulfills **Agriculture and Technology 4.0** research priority.

5) QK1810391 „Utilization of Genomic and Transcriptomic Approaches to Create Genetic Resources and Breeding Materials of Poppy with Specific Traits“ (2018–2022), provider: Ministry of Agriculture, Applied „ZEMĚ“ research programme

FAT USB Position: Project Coordinator (prof. Vladislav Čurn); Other Participants: Agritec Plant Research Ltd., OSEVA Development and Research Ltd., University of Ostrava, Faculty of Science

The aim of the project was introduction of modern analytical, genomic, transcriptomic and proteomic methods and techniques into poppy breeding and to create initial genetic resources, breeding materials with specific quality parameters and stress tolerance suitable for poppy production with low content of alkaloids. The members of the research team at FAT USB were in charge of coordinating the entire project and, in particular, carrying out genetic analyses and evaluating the results. They also participated in other activities that led to the successful completion of the project and the publication of the outputs. Most of them were scientific publications, applied results such as applied methodologies (see Section 3.4), verified technologies and functional samples were created, which will continue to be used in breeding laboratories and will lead to the effective breeding of new poppy genotypes. The economic benefits of the project can be seen in the streamlining of the breeding process by using molecular methods for the selection of suitable genotypes.

The research project fulfills **Agricultural Biotechnology** research priority.

6) QK1910302 „Processing of Waste Products Obtained During Oil Extraction from Oil Crop Seeds on New Products with Nutritional and Health Benefits“ (2019–2023), provider: Ministry of Agriculture, Applied „ZEMĚ“ research programme

FAT USB Position: project coordinator (Assoc. Prof. Jan Bárta); Other Participants: Agritec Plant Research Ltd., HEMP PRODUCTION CZ, Ltd., CEITEC Masaryk University, University of Chemistry and Technology, Prague

The project aimed to find the optimal way of processing oilseeds of selected oil crops (qualitatively different varieties of flax, hemp, milk thistle, and pumpkin). In addition to optimizing the cold pressing process, the project focused on processing oilseed cakes into protein concentrates, flours, and fractions enriched with protein, fibre, and essential natural substances, positively affecting human health. The chemical composition of the obtained concentrates, flours and fractions, including the essential components beneficial to health, was determined. Protein profiles were characterized in detail by mass spectrometry. Functional properties were evaluated obtained products, their oxidative stability was addressed, and factors affecting it were mapped. The obtained findings were published in 14 articles in impact factor journals, two utility models, four functional samples and one verified technology. The main result applied is a certified methodology (see Section 3.4) summarizing the results obtained for practical use by oilseed processors.

The thematic focus of the project represents the research priority **Quality of Agricultural Products and Foodstuffs**.

7) QK1910438 „Reduction the Use of Antibiotics by Environmentally-Friendly Prebiotic and Probiotic Feed Additives in the Nutrition of Calves“ (2019–2023), provider: Ministry of Agriculture, Applied „ZEMĚ“ research programme.

FAT USB Position: Project Coordinator (Dr. Luboš Zábranský); Other Participants: Institute of Animal Science, Zemědělská Klučnice, a.s.

The project aimed to prove the impact of different methods of housing and feeding of selected feed additives on the performance (live weight, average daily gain) and calf health status (immune status, diarrheal diseases, pharmaceutical consumption - especially antibiotics) during the milk nutrition period. As a whole, improvements in the health status of calves (reduction in the frequency of diarrheal diseases), increase in welfare levels, and calf biosecurity in the milk nutrition period can be expected; it will also improve farm economics and reduce the presence of residues of inhibiting substances (pharmaceuticals, antibiotics) in the food chain. FAT employees coordinated all work on the project, organized experiments, together with other participants collected, processed and evaluated samples. Last but not least, they participated in the creation and publication of the results, which were created in many ways. Agricultural cooperatives and cattle breeders use the results obtained. In particular, the book Modern Trends in Calf Nutrition (see Section 3.4), Breeding and Biosecurity: methodology Optimization of Group Housing of Calves, gives practical breeders a clear overview of the advantages and disadvantages of individual calf-rearing methods. Furthermore, the project results were published in journals and presented at workshops.

The research project fulfills **Sustainable Agriculture** research priority.

8) QK21010326 „The Possibilities to Influence an Inhibitory Substances Content in Milk as an Effective Tool to Improve Animal Health for Food Quality and Safety“ (2021-2025), provider Ministry of Agriculture, Applied „ZEMĚ“ research programme.

FAT USB Position: Project Coordinator (prof. Eva Samková); Other Participants: University of Veterinary Sciences Brno – Faculty of Veterinary Hygiene and Ecology, Českomoravská společnost chovatelů, a.s., Dairy Research Institute (Výzkumný ústav mlékárenský s.r.o.), Zemědělské družstvo Jeseník

The project aims to systematically and comprehensively cover the issue of the elimination of natural and contaminating inhibitory substances (IS) by dairy cows, event. goats, in these ways: 1) to define the functional status of animals with different IS excretion dynamics (natural and contaminating, in particular residues of veterinary drugs (VD) 2) to identify the factors affecting excretion of IS, especially VD, in milk 3) to assess the suitability of selected methods for detection of VD in milk with regard to milk quality and food chain safety 4) to develop and validate new rapid detection methods of natural IS and determine its inhibitory potential and its effects on milk 5) to propose measures to reduce the presence of VD residues in milk. The project generates both classical results in the form of articles in scientific journals and publications for farmers and applied results. A strong emphasis is placed on the organization of outreach workshops. The participation of application partners guarantees the transfer of the knowledge gained into practice.

The research project fulfills **Quality of Agricultural Products and Foodstuffs** research priority.

9) FV40316 “Development of a Complex System of Robotic Milking System with Simultaneous Evaluation of Breeding Parameters Using Artificial Intelligence Methods” (2019-2022), provider: Ministry of Industry and Trade, Programme TRIO

FAT USB Position: Participant (Assoc. Prof. Petr Bartoš); Beneficiary: AGROSOFT Tábor, Ltd.

This project aimed to develop a Robotic Milk System on classic milking parlors with innovative improvements, which, based on image analysis using modern computational methods (especially neural networks), will provide information for further animal husbandry, practically in real time. The main advantages of the robotic milking system with the image analysis system are to replace the shortage of human labor and omit their errors and inaccuracies, low water consumption, and disinfectants by increasing the efficiency of the process by improving animal welfare. There is no need for construction or other construction work in the milking parlor to place a robotic image analysis system. FAT participated in all activities in the project, i.e., preparation of documents for development, specification for the robotic arm and its control, and completion of the prototype of the robotic milking device (patent No. 309824, see Section 3.4), including software creation. The last stage was the operational tests of the entire system in practice.

The research project fulfills the main research topic of FAT **Agriculture and Technology 4.0**.

10) Agreement No. 90002530 and No. 90002673 “Monitoring the Condition of Agricultural, Forest Land and Permanent Grasslands in the Vicinity of the Temelín Nuclear Power Plant” (1994 – 2023), provider: CEZ Group

FAT USB Position: Project Leader (Dr. David Kabelka, Dr. Milan Kobes)

The contracts focus on long-term and systematic monitoring of the soil environment and grown field crops near the Temelín Nuclear Power Plant. The task consists of regular collection and detailed analysis of soil and crop samples to monitor possible changes and ensure timely identification of potential environmental impacts associated with the operation of the power plant. Doctoral students are also involved in the research, gaining valuable professional experience and developing analytical and methodological skills that are key to their future professional application. The contract for monitoring the condition of agricultural land, forest land, and permanent grasslands and the soil is intended to provide sufficient data for assessing possible changes in meadows, field crops and soil conditions. The subject is monitoring soil nitrogen, heavy metals, and selected pollutants in agricultural land, forest land, and permanent grasslands and assessing possible changes during the operation of Temelín NPP. FAT USB collects and processes samples and prepares a report on the measurements, which contains the results of the analyses performed and the evaluation of the

measured values. The database of long-term collected data represents a valuable source of information for experts, state institutions and the general public. For the Faculty, this research activity represents a strategic benefit – it enables the continuous expansion of professional knowledge and innovation of laboratory equipment. It provides space for implementing modern analytical methods and their use in teaching and within the framework of professional cooperation. The research project fulfills **Agriculture and Environment** research priority.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Ministry of Education Youth and Sports	Detection of Tomato Related Xanthomonads Using Loop-Mediated Isothermal Amplification	418/16	568/22	160/6		
Ministry of Agriculture	Utilization of Genomic and Transcriptomic Approaches to Create Genetic Resources and Breeding Materials of Poppy with Specific Traits	4 040/159	4 040/159	3 867/153	3 283/130	
Ministry of Agriculture	Processing of Waste Products Obtained During Oil Extraction from Oil Crop Seeds on New Products with Nutritional and Health Benefits	3 704/146	4 072/161	4 073/161	3 887/153	3 332/131
Ministry of Agriculture	Reduction the Use of Antibiotics by Environmentally-Friendly Prebiotic and Probiotic Feed Additives in the Nutrition of Calves	2 920/115	3 176/125	3 176/125	3 065/121	2 628/104
Ministry of Agriculture	The Possibilities to Influence an			3 071/121	3 071/121	3 071/121

²⁵ 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.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

	Inhibitory Substances Content in Milk as an Effective Tool to Improve Animal Health for Food Quality and Safety					
Ministry of Agriculture	-	10 742/424	11 774/465	11 774/464	12 248/483	11 154/440
Technology Agency of the Czech Republic	AI-powered Forecast for Harmful Algae Bloom			1 045/41	2 769/109	2 682/106
Technology Agency of the Czech Republic	System for Cyanobacteria Monitoring in Water Reservoirs Using Remote Sensing and Artificial Intelligence Methods			1 887/74	1 855/73	1 960/77
Total		21 824/860	23 630/932	29 053/1 145	30 178/1 190	24 827/979
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
The Czech Science Foundation (2017 – 2019)	Reduction of Biogenic Amines Content in Model Systems	567/22				
Ministry of Industry and Trade	Development of a Complex System of Robotic Milking System with Simultaneous Evaluation of Breeding Parameters Using Artificial Intelligence Methods	680/27	750/30	896/35	896/35	
Ministry of Industry and Trade	Printing of Middle Format Glass Material	1 520/60	1 532/60			
Ministry of Industry and Trade	The Development of Technological Procedures for					4 855/192

²⁷ Ibid.

	Livestock Breeding with the Aim of Reducing the Production of Stable Gases, Reducing the Energy Consumption of the Operation and Limiting the Use of Hormonal Preparations and Antibiotics					
Ministry of Agriculture	-	1 985/78	2 147/85	3 080/121	2 951/116	3 043/120
Technology Agency of the Czech Republic	-	1 158/46	2 050/81	4 030/159	8 098/319	10 339/408
Ministry of the Interior of the Czech Republic	-	1 760/69	2 512/99	1 164/46	1 191/47	
NAWA (2022 – 2023)	Crucial, Long-term Collaborations for the Development of an Innovative, Ecological Approach in Biostimulants Production				1 577/62	
European Commission H2020 (2018 – 2022)	Educating the Next Generation of Professionals in the Agrifood System	5 704/225				
European Commission Erasmus + KA2	-		1 303/51	694/27	3 269/129	
Total		13 374/527	10 294/406	9 864/388	17 982/708	18 237/720

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Jiří Koukolík	Expert assessment of the current proposal and its further development for the "Smart Greenhouse" solution	390/15				
Ministry of Agriculture	Ensuring the activities of the BAT center	826/33	967/38	413/16	413/16	413/16
CEZ Group	-	540/21	540/21	540/21	540/21	540/21
František Čoudek	Evaluation, welfare and health of horses	201/8	129/5	100/4		
SWEETCAKES s.r.o.	Quality analysis of biological preparations		409/16			
ZD Bělčice (Agricultural Cooperative)	Evaluating the benefits of innovative technologies		120/5	83/3		
ZZN Pelhřimov	Determination of nutrient content in 12 wheat grain samples			70/3	64/3	83/3
Czech University of Life Sciences Prague	Fragmentation analysis			97/4		
JVTP Jihočeský vědeckotechnický park	South Bohemian business vouchers	146/6	60/2	117/5	219/9	
HERBAVITA CZ	Voucher - Measurement of somatic cells in milk			150/6	100/4	
ÚKZÚZ (Central Institute for Supervising and Testing in Agriculture)	Winter wheat trials					45/2
PRO-BIO Association of Organic Farmers	Evaluation of field trials	101/4	86/3		77/3	82/3
Food Research Institute Prague	Preparation of recipes for meat products	36/1				
Maso Brejcha	Development of innovative slaughter line technology, reg. no. 17/005/16220/232/000089	38/2	930/37	80/3		
ForestProduce s.r.o.	Verification of the mushroom fermentation process	22/1	98/4			
ÚKZÚZ (Central Institute for Supervising and Testing in Agriculture)	-	20/1	32/1	108/4		

²⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

Mendel University in Brno	Soil organic matter quality analysis - stages 1 and 2		115/5	796/31		16/1
DOMINANT GENETIKA s.r.o.	PCR gene analysis			14/1		
Czech University of Life Sciences Prague	Delivery of genetic method - morphotypes of active mycorrhizal tips				12/0	15/1
VÚŽV Institute of Animal Science	-				140/6	74/3
Research and Breeding Institute of Pomology Holovousy	Services related to the solution of the project QK22020019				124/5	99/4
Agrovýzkum Rapotín Ltd.	Laboratory analyses - Genotyping of polymorphic loci in 17 pieces of cattle				49/2	
Delacon Biotechnik GmbH	Measuring gas concentrations					60/2
Avire s.r.o.	Environmental analysis models and expert consultations					8/0
Eurofins Agroscience Services SRL	Chemical analysis of 60 samples					89/4
Agricultural Association of the Czech Republic	Seminar: Raising and rearing calves in precision farming conditions					50/2
The Crop Research Institute	Rapeseed genome analysis according to OB-2021-00002180			18/1		
Total		2 320/92	3 486/137	2 586/102	1 738/69	1 533/60

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 impacts²⁹, 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 results generated by research and professional activities are relevant both for other research organizations and for companies. Many of the results generated are publications, with the effort to publish as many as possible in open access journals. Applied results are most often those created with the direct participation of a company that will subsequently apply them. Some outputs are applied based on a contract to use the result. Because research activities are carried out in agricultural or technical fields, the results can be used by anyone regardless of gender.

1) Services to the public/scientific community (result of H2020 RUR-2017-2 771738 – NEXTFood project, belongs to Sustainable Agriculture priority)

The Nextfood approach responds to the need for education, enabling us to deal with complex sustainability challenges. In this approach, the main focus is to train and develop the competencies of observation, dialogue, reflection, participation, visionary thinking, and facilitation through action learning in agrifood and forestry systems. This aligns well with UNESCO's Education for Sustainable Development (ESD) and Key competencies for sustainability. Educating tools for the next generation of professionals in the agrifood system were developed within the **H2020 RUR-2017-2 771738 - NEXTFood** project ([toolbox](#) for educational organizations (usable both within university-type education and training of practitioners)), and [audit tool](#) for assessing the impacts of implemented education/training on the ability of graduates to contribute to the practical sustainability of agricultural and food systems and a planning tool for [action learning](#), contribute to improving cooperation in education and applied research in the agricultural and food sector. In addition to being used by the universities and educational institutions involved in the project, the freely available tools are also used by other organizations active in education and training in relevant fields. Using these tools, new living labs are created or cooperation with existing ones is strengthened. Sustainability is the main pillar of all created tools, while the gender criterion is integrated into the results and was considered throughout the project. An example of the practical impact of using the results is e.g. the creation of a Living Lab connecting agricultural enterprises (Sady sv. Prokopa, Dvůr Čihovice, Kompostárna Jarošovice) with other actors (Association of Social Agriculture, registered association), including representatives of research and education (FAT USB), within which other projects and innovations aimed at the sustainability of agricultural and food production.

2) Two patents on Biostimulants of plant origin (result of NAWA supported project, Sustainable Agriculture priority)

Two patents focused on plant-based biostimulants were realized from data obtained during the international NAWA project solution. The plant extracts were obtained from horsetail (*Equisetum*

²⁹ See Terms definition.

arvense), rose hips (*Rosa canina*) and soapwort (*Saponaria officinalis*). The first biostimulant was obtained using an aqueous extract and consists of the plant extracts activated by cold plasma. The plant extract is placed under the plasma head and the working gas flow is maintained at 20 to 40 SCFH. The second biostimulant was obtained from the biomass of horsetail, rose hips, and soapwort roots, using an aqueous extract, exposed for 30 to 90 s to microwaves with a power of 250 - 750 W generated at a low pressure of 75 - 125 Pa as an infusion. Both patents represent a significant step towards reducing using of chemical pesticides and thus towards sustainable, ecological and healthier production in agriculture. The social benefit lies in supporting environmental protection, human health and biodiversity, while positively influencing the agricultural economy and innovations in Integrated Pest Management. The initial cost of producing a biostimulant-based product may be higher or comparable to chemical pesticides, but the long-term benefits of improved crop quality, environmental, and higher yields may outweigh the costs. The economic benefits of biostimulants are evident in the short term in savings on pesticide costs, especially when biostimulants are used at a lower price than chemical pesticides. In the long term, biostimulants can contribute to improving soil health and increasing plant resilience, which can lead to higher yields and lower crop protection costs. Estimated savings can reach up to EUR 50 per hectare annually when using biostimulants instead of chemical pesticides.

3) Software – RWQForecast: System for Assessment and Prediction of Water Quality in Reservoirs from Satellite Data (result of the TH76030001 project, belongs to Agriculture and Environment priority)

The result is a web service informing users about changes in water quality in water reservoirs over time and space and allows for development prediction. The service is in a test version and follows from the Remote Water Quality service, which extends with time analysis and prediction of the state of the reservoir. It is an important tool for water managers, and nature protection authorities for assessing the hygienic safety of water in reservoirs. It has significant potential for implementing measures to improve water quality in inland reservoirs. A methodology was also created for the SW, which guides users on the data acquisition and processing to estimate the photosynthetic pigment content of cyanobacteria and algae and other water quality indicators using spectroradio metric and remote sensing data to harmonize methodological procedures for this purpose. All individual steps are described in detail. The sections describing development of forecast models and the use of remote sensing methods are designed more as recommendations for a possible methodological approach, given the specificity of the individual steps. The implementation of forecast models is described. The result is not commercial in nature, but could be interesting for commercial companies offering data processing services, which bring the highest costs. Using satellite images significantly reduces the costs when the estimated cost of analyzing samples in one quadrat (South Bohemia) is EUR 47 400, excluding sampling costs; in contrast, the cost of processing satellite images in the same quadrat is estimated at EUR 40. The test version is on: <http://160.217.162.143:8080>, and the documentation is on <https://github.com/JakubBrom/RWQForecast>. When finalized, the service will be available on <https://www.rwqforecast.com>.

4) Operation of the BAT center at the FAT (Agriculture and Technology 4.0 priority)

The BAT (Best Available Technology) centre of the FAT for category 6.6 (intensive poultry and pig farming), according to Annex No. 1 of Act No. 76/2002 Coll. on integrated prevention, is a renowned workplace in monitoring and evaluating microclimatic conditions in intensive livestock farming. It was established in 2011 and is a workplace with a high degree of social relevance. The center prepares expert materials for the Government of the Czech Republic when negotiating the conditions of Integrated Pollution Prevention and Control (IPPC) in Seville. Its conclusions are implemented by the

EU member states into their legislation, which is subsequently binding for issuing opinions under which specific livestock farming can be operated. The employees support agricultural enterprises falling under the jurisdiction of the Integrated Prevention Act, provide expert advice and specialized measurements, and verify compliance with prescribed limits directly on farms. They disseminate knowledge in integrated prevention to both professional and lay audiences and organize conferences and workshops for representatives of ministries, specialists of the Czech Environmental Inspectorate (CEI), regional authorities, representatives of the application sector, students, professional and lay audiences. In cooperation with companies and international research institutes, applied research and experimental development in new techniques and their verification are carried out here to include them in the BAT list. The goal of the research is to find solutions that reduce the environmental burden and offer economically sustainable solutions to farm operators. Findings are published in high-quality scientific journals. For 2019–2023, contractual research was carried out here in the amount of EUR 119,606 (table 3.3.2). BAT Center employees are involved in teaching highly specialized study courses or conducting qualification theses. Detailed information about the BAT Center is available at [FAT webpage](#).

5) A Methodological Procedure of Chemomutagenesis, Post-mutation Generation Management and Identification of Plants Carrying Mutations in Alkaloid Biosynthetic Pathway Genes (result of QK1810391 project, Agricultural Biotechnology priority)

[The methodology](#) shows promising direction in poppy breeding, which is the development of varieties with minimal alkaloid content, particularly morphine, in the poppy capsules. This aims to prevent the misuse of poppy capsules for narcotics production. Induced mutagenesis, coupled with molecular identification of mutations in target genes using TILLING approach, is an effective breeding method for altering quality parameters. To create poppy genotypes with a modified alkaloid content, TILLING technology was implemented in poppy breeding, generating a population of mutant plants. Molecular analysis of genes within the alkaloid biosynthetic pathway helped to identify lines carrying the desired mutations. Following molecular selection, HPLC analysis confirmed a lower content of morphine and codeine in the mutant lines compared to the control cultivars. This output is followed by other published and applied outputs. The TILLING technology was successfully introduced to Czech poppy breeding, and a detailed methodology, including optimized methods and protocols for chemical mutagenesis, TILLING population analysis, and molecular selection of desirable plants, was transferred from the university to the breeding company. This approach enables targeted selection of plants carrying mutations in specific genes for integration into the breeding program. Based on a contract, OSEVA PRO s.r.o. breeding company is utilizing this methodology. The economic benefits include streamlining the breeding process through molecular selection of suitable poppy genotypes. Assuming annual costs of EUR 47 per line, the timely elimination of approximately 100 unsuitable materials per year over a five-year period yields savings of EUR 23 500. The project has also resulted in new poppy genotypes submitted for registration trials, which are expected to generate an increase in sales of EUR 532 500 for poppy growers.

6) Optimized Processes and Methods for Processing Seeds of Selected Minor Oilseeds into Oil and Refined Oilseed Cake Products (result of QK1910302 project, Quality of Agricultural Products and Foodstuffs priority)

The certified methodology provides optimized procedures and methods for obtaining oil from the seeds of selected oilseeds (oilseed flax, hemp, milk thistle, pumpkin) by cold pressing and for

subsequent processing of the obtained oilseed cakes into oilseed flours and their fractions with different contents of protein, fat and other nutritionally valuable components. This methodology includes model examples of using oilseed cake products to prepare bakery, pastry, and meat products, thus giving a realistic overview of complex valorisation of oilseeds. The expected benefits are in the availability of optimized procedures for streamlining and improving the quality of oil production of selected minor oilseeds by Czech producers. When consider that in 2020 the Czech Republic produced 1583 t of flax seeds and approximately 280 t of hemp seeds, 800 t of milk thistle seeds and 250 t of pumpkin seeds, then if only half of the seeds were used for oil pressing, it could be obtained cca 715 t of oilseed cake flour. If the average price of oilseed cake flour was EUR 4/kg, the stated amount would be EUR 2.86 mil. If it were possible to use this methodology to involve "only" 5% in food use, the annual benefit represents a value of over EUR 140 000. Svaz Inu a konopí ČR, z.s. (Union of flax and hemp of the Czech Republic) contracted using the [certified methodology](#).

7) The book – Modern Trends in Calf Nutrition, Breeding and Biosecurity (result of the QK1910438 project, belongs to Sustainable Agriculture priority)

[The book](#) informs about feed additives, which are an integral part of modern animal nutrition. In the past, the problem was mainly in using antibiotics, which caused bacterial resistance. Within the European Community, feed additives are limited by feed law. Following the basic principles of good breeding practice is an important prerequisite for maintaining the good health of calves. The main is ensuring adequate calves' immunity, optimizing the breeding environment, nutrition and watering, and minimizing stress. Crucial is colostrum management and postpartum care. The category of calves until weaning (on dairy nutrition) is the most susceptible to disease and death. An important part of preventing calf diseases is optimizing nutrition and watering to influence the calves' intestinal microbiome composition positively. Using additives benefits the modulation of the intestinal microflora, the strengthening of the host's immunity, and thus the conversion of nutrients. In case of diarrhea, antibacterial, antiprotozoal, and immunomodulatory agents must be used for treatment. Another option is to use alternative treatment methods such as prebiotics, probiotics, symbiotics, or herbal mixtures and extracts. Feed additives with vitamins and minerals also have supportive effects. In a calf barn with 500 calves, reducing the incidence of diarrheal diseases would reduce medical expenses, increase the weight of calves, and increase overall income by more than EUR 4 734. Thanks to additives, the time from weaning to plant-based nutrition will also be shortened, which means an additional saving of EUR 5 917. Last but not least, calf deaths will be reduced, which means an additional saving of EUR 4 734. Overall, the savings can amount to almost EUR 15 779/year when rebuilding the calf barn and using the described technologies.

8) Patent [No. 309786](#) Method of Preparing Black Garlic with Antioxidant Activity and Black Garlic Prepared in this Way (result of QJ1610324 project, Quality of Agricultural Products and Foodstuffs priority)

Garlic (*Allium sativum* L.) contains biologically active substances represented by sulfur derivatives of cysteine, flavonoids, or fructans. The intake of these compounds has beneficial effects on human health. Fresh garlic, used in from culinary processing to food industrial applications, is for some people useless because of its pungent aroma caused by sulfur substances. The disadvantages are eliminated by black garlic. It is classic garlic *Allium sativum* L., which is specially processed, thereby acquiring its unique properties. The production process depends particularly on the temperature, humidity, exposure time of these variables and their correct combination. The task of the invention is, to create a method for preparing black garlic with antioxidant activity, which would eliminate the shortcomings and would provide a simple but effective procedure for preparing black garlic from Czech varieties with more favorable organoleptic properties and a pleasant texture. Black garlic with

antioxidant activity is prepared in a device without regulating the relative air humidity. This process is cheaper than the conventional way, where expensive climate chambers with regulated temperature and relative air humidity are needed. The licence was sold for EUR 2 542. There is still a valid agreement between the university and the licence buyer. Thus, we can expect further growing financial income because the licence buyer is still expanding. Moreover, the inventors received a prestigious “Innovation of the Year 2023” award in a content Innovation of the Year of the Czech Republic organised by the Association of Innovative Entrepreneurship CR. The total number of applications to the competition was over 130, and the invented black garlic processing was in the Top 10.

9) Patent [No. 309824](#) A Device for Automation of Milking Parlours with Manual Operation of Milking Machines (result of FV40316 project, Agriculture and Technology 4.0 priority)

The device for automating milking parlors with manual milking machine operation is intended for milking parlors with a milker's pit for moving the milking machine operator near the milking stalls. The device includes a positioning base in the milker's pit, equipped with an electric motor. Thanks to this, the milking robot moves from one milking stall to another in the milking pit as the operator does during milking. Furthermore, the device has at least one robotic arm connected to the base, which can manipulate the milking teat cups similarly to a human operator. Furthermore, the invention comprises cameras and at least one control unit connected to the electric motor, the cameras, and the robotic arm. The cameras serve for visual guidance of the automated parts of the device and, at the same time, monitor the space of the milker's pit to prevent the moving parts from hitting obstacles. The instructions come from the control unit, which processes camera data. To be able to use the existing milking parlor equipment, the wrist of the robotic arm is adapted for manipulating the milking machine.

The main benefit of the invention is replacing manual human labor with minimal intervention in the milking parlor equipment. While the current trend in milking parlor automation leads to adapting milking stalls, including entire milking parlors and farms, for the use of robots, the invention deals with using an automated machine to functionally simulate manual milking parlor operation and be usable in both existing and newly built milking parlors. USB and AGROSOFT Tábor, s.r.o. jointly own the patent, which is used by the company.

10) Patent [No. 309786](#) The Strain of the Entomopathogenic Fungus, *Lecanicillium attenuatum* CCM, 9195 and the Method of Eliminating Insect Pests, Mites and Plant Pathogens Using the Strain of the Entomopathogenic Fungus (Sustainable Agriculture priority)

The solution concerns the strain CCM 9195 of the entomopathogenic fungus *Lecanicillium attenuatum* for the protection of crops as a natural alternative to chemical pesticides, especially against sucking insects and mites, while the invention can be a natural substitute for chemical fungicides protection of crops against powdery mildew. The invention works on application of spores on the target plants. Consumers increasingly prefer products without or low level of pesticides residue. This is one of the reasons why new alternative methods of plant protection are being developed. Currently, every professional user must manage their farm based on the principles of Integrated Pest Management (IPM) according Decree 205/2012 Coll., Directive 2009/128/EC. The introduction of IPM is to reduce using of pesticide active ingredients, thus protecting the environment. The effect of biological control usually occurs a little later, but the effects are long-lasting. Therefore, they are increasingly considered alternative means of controlling plant harmful organisms globally. Biological protection is now considered by most experts to be the most suitable pest control method in terms of ecology, hygiene, and economy. Success is based on knowledge of

ecological requirements and the balance ratio of pests and their natural enemies. It is especially used in greenhouses, where it is possible to regulate environmental conditions. Using this biopreparate, pesticide cost savings would range around EUR 200/hectare/year. Increased yields of 15-20% can lead to up to EUR 2 000/year for a 5hectare greenhouse. Environmental costs decrease with reduced chemical use, saving up to EUR 100/hectare.

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

Type of result ³⁰	Year of application	Name
Service to the public/scientific community	2022	Toolbox for teaching practitioners
Patents (created in NAWA supported project solved in 2022-2024)	2025	Biostimulants of plant origin
Software (created in TACR supported project solved in 2021-2024)	2024	RWQForecast: System for Assessment and Prediction of Water Quality in Reservoirs from Satellite Data
BAT center	2011 - continues	Operation of the BAT center
Certified Methodology	2022	A Methodological Procedure of Chemomutagenesis, Post-Mutation Generation Management and Identification of Plants Carrying Mutations in Alkaloid Biosynthetic Pathway Genes
Certified Methodology	2023	Optimized Processes and Methods for Processing Seeds of Selected Minor Oilseeds into Oil and Refined Oilseed Cake Products
Book	2021	Modern Trends in Calf Nutrition, Breeding and Biosecurity
Patent	2020	Method of Preparing Black Garlic with Antioxidant Activity and Black Garlic Prepared in this Way
Patent	2023	A Device for Automation of Milking Parlours with Manual Operation of Milking Machines
Patent	2023	The Strain of the Entomopathogenic Fungus, <i>Lecanicillium attenuatum</i> CCM, 9195 and the Method of Eliminating Insect Pests, Mites and Plant Pathogens Using the Strain of the Entomopathogenic Fungus
Utility Model	2022	Pasteurized Milk Yogurt
Verified Technology	2024	Concept of Fly-Through Hall

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

³⁰ Specify the specific type of result. Add rows as needed.

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.)³¹, 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).³²

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:

Due to its orientation, FAT USB focuses on projects whose primary output is an applied result. In the vast majority of these projects, the condition is the participation of at least one cooperating company, which is usually (e.g. in TACR competitions) the beneficiary with a significant financial contribution. This ensures that all results created as part of the work on these projects will be put into practice and commercially used. The share of intellectual property is defined even before the start of the project. Moreover, the result implementation plan has to be prepared at the end of the project. FAT has also created a wide network for cooperation not only with other universities but especially with companies. Thanks to this, many high-quality results are created, which are most often applied by partners who participate in their creation. That is why there is no commercialization of the results in the true sense, but the results are nevertheless practically used. Innovations and results created outside the solved projects are commercialized through the FAT's Technology Scout and the Technology Transfer Office of USB. The Technology Scout helps authors with the protection of intellectual property and appropriate methods of industrial legal protection; the Technology Transfer Office provides professional and systemic support for the administration of intellectual property protection, the entire commercialization process, and the development of cooperation with practice. Cooperation with practice is also deepened by the faculty's secondary economic activity when the order is processed on behalf of the interested party.

In 2019-2023, FAT was granted a total of 5 patents and 13 utility models, which are registered at the Industrial Property Office of the Czech Republic. Thanks to the sale of licenses, FAT received EUR 12 991 in 2019-2023. The licenses were purchased by AGRA GROUP, AGROSOFT Tábor, ANGUS FARMA PĚČÍN, Sweetcakes, Zemědělské družstvo Věstary, and Black Garlic Czech s.r.o.

FAT cooperates not only with companies but also with other universities. They work together on research projects, but at the same time FAT performs evaluations for them through services. These

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

include, for example, Mendel University in Brno or the Czech University of Life Sciences Prague. All the contract research activities are shown in Table 3.3.2.

FAT cooperates with the energy company **CEZ Group** and, therefore, with the Temelín NPP, for which it conducts many long-term observations that are of fundamental importance for evaluating the impact of power plants on the surrounding environment and the quality of the environment. The cooperation is closer described in part 3.4.

Permanent cooperation with high-quality results has been established, for example, with the **Zemědělská Klučnice a.s.** (agricultural company), which participates in solving research projects together with FAT, but is also a very innovative farm that uses many modern technologies in its farms, which it is constantly improving. FAT also cooperates with it professionally by providing consultations. The farm provides internships for students and also participates in solving their qualification projects, while students have a unique chance to work in modern farms using the latest technologies.

AGROSOFT Tábor s.r.o. is the company with which FAT solves the most significant number of research projects focused mainly on modern technologies in stable animal husbandry. Thanks to the cooperation, patents and utility models with wide application potential have been created.

Black Garlic Czech s.r.o. has purchased a license for a patent Method of preparing black garlic with antioxidant activity and black garlic prepared in this way, which was developed at FAT, for EUR 2 542. The patent is described in more detail in Chapter 3.4.

Prof. Samková created a utility model for **yogurt from pasteurized milk** with the company AGRO-LA. She is further working on improving and compiling a recipe for yogurt with increased protein content and enriched with fruit jam with a high content of bioactive substances. Technological verification of production is being prepared in cooperation with the company Madeta a.s., which is a major milk processor and producer of dairy products in South Bohemia. The investor company Faba Incube a.s. has also expressed interest in cooperation.

Long-term cooperation has also been concluded with the company **ZZN Pelhřimov**, for which FAT determines nutrient content in grain samples. The company paid almost EUR 8 678.5 for services in 2021-2023.

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
Donation	15/1	15/1		41/2	31/1
License purchase	16/1	222/9	41/2	12/0.5	38/1
Total	31/2	237/10	41/2	53/2,5	69/2

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:

FAT USB has a significant list of activities in the field of popularizing R&D and communication with the public. The activities can be divided into several groups according to their nature. Some events are repeated periodically every year.

- **University-wide events promoting and popularizing R&D throughout the FAT**

These include the annually recurring Open Day, the Night of Scientists, and the Day with the University. The Open Day occurs regularly in January and focuses on people interested in all study programmes; in 2023, there were approx. 300 visitors. FAT presents studies and research activities at the faculty. At key departments, visitors learn about research projects being solved. The Night of Scientists takes place at the FAT USB every year between September and October as part of the nationwide event (about 450 visitors in 2023). Most departments are involved in the activity, where thematic stands that bring actual research topics to the public are created. These include the modern concept of plant cultivation and livestock breeding, the use of robots in agriculture, the processing of agricultural products and food production, the popularization of genetics and environmental protection sciences, and the popularization of chemistry. The event visits annually to many interested parties, from students of primary and secondary schools, children, their parents, and other people interested in presented activities. Day with the University is a USB event at which individual faculties, including FAT, present their activities and R&D results to the public.

- **Promotion of R&D activities at exhibitions and fairs**

FAT annually promotes and popularizes itself and its R&D activities at the international agricultural exhibition Země živelka, which is held at the end of August at the České Budějovice Exhibition Centre. FAT, together with FFPW and USB, has its presentation place, which is available to visitors and serves as a background for meetings of professional associations and political delegations with the leaders of the USB and FAT. Moreover, food products as application results arising from research projects and development activities are promoted at this exhibition. FAT is successful with its beers developed in the faculty research brewery. The popularization of FAT research within the Země živelka exhibition also includes an annual appearance of the dean of FAT in the media (Czech Television, Czech Radio, South Bohemian Television) and professionally focused lectures by academics as part of the accompanying programme. No less important is the participation of the FAT in other exhibitions, where research carried out at the faculty is also presented in addition to the study offer. These include participation in the TechAgro trade fair, which is held annually in Brno, and participation in the Czech Food Expo food exhibition in České Budějovice.

- **Lectures, panel discussions, workshops, seminars, and conferences for experts and the public**

FAT organizes many professional and popularization lectures on topics currently implemented research and social problems related to agriculture, food, and environmental protection. The following overview documents examples from the events organized:

- ✓ Seminar for the public: "Root Crops Day" (supervisor Assoc. Prof. Jan Bárta), 6. 12. 2019, FAT USB (<https://www.fzt.jcu.cz/cz/fakulta/aktualne/ze-seminare-den-okopanin-2019>)
- ✓ Lecture for the public: "Onion peels: a source of biologically active substances for the food industry" (Dr. Jan Bedrníček), 30.9.2020, FAT USB
- ✓ Workshop for experts and the public: "Upcoming technologies in cattle breeding" (co-organizer Dr. Luboš Smutný), Secondary agricultural school Písek, FZT JU, AGROSOFT Tábor, s. r. o., 9.11.2022 (<https://www.fzt.jcu.cz/cz/fakulta/aktualne/workshop-nastupujici-technologie-v-chovech-skotu?highlight=WYJ3b3Jrc2hvcCJd>)
- ✓ Panel discussion for the public: "Health safety and economic reality of food – Facts and myths" (prof. Eva Samková), 3.11.2022 (<https://www.youtube.com/watch?v=PH4Er6ukZok>)
- ✓ Panel discussion for the public: "Czech food and its quality" (assoc. prof. Pavel Smetana), 14.5.2023 (<https://www.youtube.com/watch?v=rV9qsJENjTA>)
- ✓ Panel discussion for the public: Sustainable and circular food production" (cooperation between the FFPW, EF and FAT - FAT was represented by assoc. prof. Jan Bárta 22. 5. 2023 (<https://www.youtube.com/watch?v=MdAXoT-KwF0>)
- ✓ Conference "Nutrition and rearing of calves in conditions of precision agriculture" (guarantor Dr. Luboš Zábranský), 13. 12. 2023, FAT USB
- ✓ (<https://www.fzt.jcu.cz/cz/fakulta/aktualne/konference-vyziva-a-odchov-telat-v-podminkach-precizniho-zemedelstvi>)

- **Events for children, primary school pupils, and secondary and university students**

Great attention is paid to popularizing FAT's scientific and research activities among the young generation of various age categories. Every year, the laboratories, the experimental plot, and the stables of the faculty farm are visited by children from preschool institutions and pupils of the first and second stages of primary schools with the aim of introducing them to Czech and European agriculture, the faculty and its educational and research activities. Every year, on Children's Day, the faculty organizes the event (e.g., in 2023, it was visited by approx. 200 participants) and excursions for secondary school students. FAT is also involved in student competitions, e.g. in 2023, the Department of Applied Chemistry participated in organizing the regional round of the Chemistry Olympiad. The Summer School of Molecular Biology is organized annually for high school students by the Department of Genetics and Biotechnologies (in 2019 the event was attended by 8 students, in 2020 and 2021 by 6 students in both years). The Summer School of Food Production (Department of Food Biotechnologies and Agricultural Product Quality), which is organized at the international level for foreign students on two dates – June and September (in 2023, in June, the event was attended by 19 students from 2 countries, in September by 15 students from 2 countries as well), is also very appreciated.

- **Promotion and popularization of R&D&I on television, radio and other media**

Academic staff participate in various interviews, reports and programmes of media-significant subjects. This mainly concerns appearances on television and radio programmes. The following appearances of FAT's academics in the media can be cited as specific examples:

- ✓ Report on the use of drones in searching for fawns to save them during haymaking for Czech media – Czech Television, CNN Prima News, daily Právo, website iDnes.cz. The report was also prepared and broadcast on Spanish media Dailymotion.com and MSN.es. Dr. Polenský spoke on 12.6.2019 and 24.6.2019

https://www.ceskatelevize.cz/porady/10118379000-udalosti-v-regionech-praha/219411000140612/?fbclid=IwAR2QRQkXaxGQX5-GDwlTkrDHqQN84_LYpFwMf1CXQJo4yaZnTWcYmjhH68g
<https://www.dailymotion.com/video/x7un6sd>

- ✓ Czech Television (Studio 6) report on research and development in the field of animal feed – Dr. Luboš Zábranský, 9.7.2020
(<https://www.ceskatelevize.cz/porady/1096902795-studio-6/220411010100709/>)
- ✓ Report by Czech Television and Czech Radio on the obtained patent for the preparation of black garlic – Assoc. Prof. Pavel Smetana and Dr. Jan Bedrníček, April 18, 2021
(<https://budejovice.rozhlas.cz/jihocesti-vedci-maji-patent-na-novy-zpusob-zpracovani-cesneku-susenim-vznika-8467932>)
- ✓ Interview with the brewer of the Minibrewery FAT USB “Čtyrák” on Czech Radio on the topic of brewing - Libor Smutek, October 19, 2022
(<https://www.mujrozhlas.cz/dopoledni-host/je-treba-ochutnavat-piva-ostatnich-abychom-stale-poznali-jestli-je-nase-dobre>)
- ✓ Interview for Czech Television about modern technologies in agriculture provided by the Dean of FAT - Assoc. Prof. Petr Bartoš, August 25, 2023
(<https://www.ceskatelevize.cz/porady/10101491767-studio-ct24/223411058320825/>)

- **Promotion and popularization of science and research through websites and publication**

In 2021, a new environment for the USB website was created, including the FAT website (<https://www.fzt.jcu.cz/en/>), where a section dedicated to the field of science and research (<https://www.fzt.jcu.cz/en/science-and-research/science-and-research-popularization>). The task of the website is to provide public information about research topics, currently solved and implemented research projects, achieved results (both in the form of articles in renowned journals with an impact factor and in the form of application outputs) and the popularization of science and research. Social networks are a very important place for communication with the professional and lay public today. Therefore, the FAT has set up its own accounts on [Facebook](#), [Instagram](#) and [YouTube](#). The latest events related to FAT, including activities related to science and research, are published on these sites. For more detailed information on addressing specific topics, their promotion and popularization within the public space, the FAT has prepared a publication entitled "Science and Research - We Develop Technologies, We Shape the Nature" in 2023–2024. The publication is available in Czech and [English](#).

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 Faculty of Agriculture and Technology (FAT) focuses primarily on applied research in agriculture, the environment, and modern technologies. Based on the recommendations of the IEP (International Evaluation Panel) from the last evaluation carried out in 2020, five priority topics were identified in 2021, which define the research carried out at the FAT and connect basic research with the applied research carried out in the majority. These are the priority research topics: **Sustainable Agriculture, Agricultural Biotechnology, Quality of Agricultural Products and Foodstuffs, Agriculture and Environment, Agriculture and Technology 4.0**. The defined priorities (their more detailed characteristics are presented in section 3.1.) are based on the structure of the faculty, consisting of 11 departments, and on the study programmes carried out at the FAT. The five defined research topics of the FAT are compatible with both the three research areas of agrarian research in the Czech Republic – bioeconomy, smart agriculture, and global changes in the biosphere – considering current research needs within the framework of the EU Common Agricultural Policy, as well as with the main global challenges affecting the field of agriculture.

As specific examples of current research (focused on European and global challenges) and organizational activities that respond to the recommendations for the FAT in the IEP evaluation report from 2020, we can mention the following (in addition to the above-mentioned strategic focus of the research priorities):

• Solving projects related to sustainability, the use of natural resources and global climate change

- ✓ International research project NAWA BPI/PST/2021/1/00034 "Key, long-term interaction for the development of an innovative, ecological approach to the production of biostimulants," solved in 2022–2024 by institutions from Poland, the Czech Republic, Slovakia, and Argentina.
- ✓ National research project QK22010255 "Intensification of legumes production in organic farming by biological treatment with the aim of improvement of plant health status", implemented in 2022–2025 (FAT as project leader).
- ✓ National research project QK1910302 "Processing of waste products obtained during oil extraction from oil crop seeds on new commodities with nutritional and health benefits", implemented in 2019–2023 (FAT as project leader).
- ✓ Research project with international cooperation TACR EPSILON TH76030001 " AI-powered Forecast for Harmful Algae Bloom", implemented in 2021–2024 (cooperation of FAT and FFPW USB with an international consortium).

• Solving projects focused on assessing and reducing greenhouse gas production by agricultural activities

- ✓ Research project CZ.01.01.01/01/22_002/0000847" The development of technological procedures for livestock breeding to reduce the production of stable gases, reducing the energy consumption of the operation and limiting the use of hormonal preparations and antibiotics" solved at the FAT within the Operational Programme "Technology and Applications for Competitiveness" of the Ministry of Industry and Trade in 2023–2026.
- ✓ International research project TACR DELTA 2 TM04000023 " Joint research and development of key technology for broiler breeding environment monitoring and intelligent control", solved in the years 2023–2026.

• Establishment of the Laboratory of Life Cycle Assessment

In 2022, a specialized workplace was established within the Department of Agroecosystems - the Laboratory of Life Cycle Assessment. The laboratory offers research cooperation, or a service for state administration, farmers, and businesses within the framework of social relevance: preparation of LCA studies, determination of water and carbon footprints, ecodesign assessment, or critical review of LCA. As part of the workplace's activities, the international project 8J22AT001 "Assessment of environmental loads of tillage operations under Pannonian climate conditions with life cycle assessment" was solved at the FAT USB in cooperation with the University of Natural Resources and Life Sciences Vienna (BOKU) in 2022–2023, as part of the support for academic mobility by the Ministry of Education Youth and Sports.

• **Establishment of the International Board in November 2022**

IB is an advisory body made up of important and recognized foreign personalities from the university environment, which is supposed to help the faculty with the continuous improvement of the quality of creative activity, the areas of offered education programmes, and the direction of the faculty in the national and international environment.

• **Building a supporting background for submitting and managing projects**

In 2023, the Department of Science and Research of the FAT USB was expanded from 1 employee to 3 employees. This expansion aims to build a functional project team providing the academic staff of the faculty with a better background for submitting project applications and, for the projects obtained, a background for their administration during the solution. The emphasis is placed on submitting projects within the international calls (Horizon Europe, COST, Interreg and other bilateral projects, Erasmus+, etc.).

• **Improving internationalization at the FAT USB**

During the 2020 evaluation, FAT USB was recommended to work on improving internationalization both at the level of submitting proposals and solving international research projects obtained, as well as improving mobilities, lectures by visiting academics, creating results with international author teams, etc. In the evaluated period 2019–2023, 7 international research projects were solved at FAT USB (1x Horizon 2020, 1x NAWA, 3x TACR DELTA, 1x TACR EPSILON, 2x MEYS, 1x COST) and 9 projects demonstrating cooperation with foreign partners (especially mobility projects such as ERASMUS+ and CEEPUS). In 2024 one ERC project application was submitted. Since 2025 two Interreg CZ-AT projects have been supported. In the mobility of academic staff was a significant improvement in 2022 (83 mobilities) and 2023 (79 mobilities) compared to 2019 (26 mobilities). In 2019, 13 foreign academics arrived, and in 2023 the number increased to 33 academics (a selection of lectures delivered is shown in Table 3.2.4). Internationalization is also improved by implementing the follow-up master's programme Multifunctional Agriculture and accepting foreign students to doctoral study programmes. In 2023, 26 doctoral students from abroad studied at FAT (e.g., Iran, India, Nigeria, Pakistan, Sri Lanka, Vietnam, Thailand, Zambia), which is a significant increase compared to 2019, when 3 doctoral students studied at the faculty. Doctoral students from abroad contribute to increasing competition among students, increasing the number of articles with IF, and internationalizing author teams in creative results. To better ensure the organization of international activities, the International Department at FAT was expanded and reorganized.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
FAT official websites	3.1 - 3.7	https://www.fzt.jcu.cz/en/
Microbrewery	3.2	https://www.fzt.jcu.cz/en/faculty/other-facilities/faculty-microbrewery .
FAT official websites – Research and Development	3.3	https://www.fzt.jcu.cz/en/science-and-research/science-and-research-results
Starfos (TA CR database)	3.3	https://starfos.tacr.cz/en/vse?query=r4fyaacj4wmq&search_collection=all
Industrial Property Office of the Czech Republic	3.4	https://upv.gov.cz/en
Toolbox for educational organizations	3.4	NextFood
Audit tool for evaluating the impacts of implemented education/training on the ability of graduates to contribute to the practical sustainability of agricultural and food systems	3.4	https://www.nextfood-project.eu/audit-tool/
Software – RWQForecast and connected documentation	3.4	https://github.com/JakubBrom/RWQForecast
BAT centre	3.4	https://www.fzt.jcu.cz/en/faculty/other-facilities/bat-centre
A Methodological Procedure of Chemomutagenesis, Post-mutation	3.4	https://www.fzt.jcu.cz/images/ZF/fakulta/katedry/kgb/veda-vyzkum/metodiky/2022_curn_chemomutageneze.pdf

Generation Management and Identification of Plants Carrying Mutations in Alkaloid Biosynthetic Pathway Genes		
Optimized Processes and Methods for Processing Seeds of Selected Minor Oilseeds into Oil and Refined Oilseed Cake Products	3.4	https://agronavigator.cz/sites/default/files/users/user308/Metodiky/Metodika%20-%20Barta%20a%20kol.%20(2022).pdf
Modern Trends in Calf Nutrition, Breeding and Biosecurity	3.4	https://www.ctpz.cz/media/upload/1646150714_14-trendy-telat-9-web.pdf
Method of preparing black garlic with antioxidant activity and black garlic prepared in this way	3.4	https://isdv.upv.gov.cz/doc/FullFiles/Patents/FullDocuments/308/308653.pdf
A device for automation of milking parlours with manual operation of milking machines	3.4	https://isdv.upv.gov.cz/doc/FullFiles/Patents/FullDocuments/309/309824.pdf
The strain of the entomopathogenic fungus, <i>Lecanicillium attenuatum</i> CCM, 9195 and the method of eliminating	3.4	https://isdv.upv.gov.cz/doc/FullFiles/Patents/FullDocuments/309/309786.pdf

insect pests, mites and plant pathogens using the strain of the entomopathogenic fungus		
Root Crops Day	3.6	https://www.fzt.jcu.cz/cz/fakulta/aktualne/ze-seminare-den-okopanin-2019
Upcoming technologies in cattle breeding	3.6	https://www.fzt.jcu.cz/cz/fakulta/aktualne/workshop-nastupujici-technologie-v-chovech-skotu?highlight=WyJ3b3Jrc2hvcCJd
Health safety and economic reality of food – Facts and myths	3.6	https://www.youtube.com/watch?v=PH4Er6ukZok
Czech food and its quality	3.6	https://www.youtube.com/watch?v=rV9qsJENjTA
Sustainable and circular food production	3.6	https://www.youtube.com/watch?v=MdAXoT-KwFO
Nutrition and rearing of calves in conditions of precision agriculture	3.6	https://www.fzt.jcu.cz/cz/fakulta/aktualne/konference-vyziva-a-odchov-telat-v-podminkach-precizniho-zemedelstvi
Report on the use of drones in searching for fawns to save them during haymaking	3.6	https://www.ceskatelevize.cz/porady/10118379000-udalosti-v-regionech-praha/219411000140612/?fbclid=IwAR2QRQkXaxGQX5-GDwlTkrDHqQN84_LYpFwMf1CXQJo4yaZnTWcYmjH68g
	3.6	https://www.dailymotion.com/video/x7un6sd
Report on research and development in the field of animal feed	3.6	https://www.ceskatelevize.cz/porady/1096902795-studio-6/220411010100709/
Report on the obtained patent for the preparation of black garlic	3.6	https://budejovice.rozhlas.cz/jihocesti-vedci-maji-patent-na-novy-zpusob-zpracovani-cesneku-susenim-vznika-8467932
Interview with the brewer of	3.6	https://www.mujirozhlas.cz/dopoledni-host/je-treba-ochutnavat-piva-ostatnich-abychom-stale-poznali-jestli-je-nase-dobre

the Minibrewery FAT USB "Čtyrák"		
Interview for Czech Television about modern technologies in agriculture	3.6	https://www.ceskatelevize.cz/porady/10101491767-studio-ct24/223411058320825/
FAT account on Facebook	3.6	https://www.facebook.com/FZTJU
FAT account on Instagram	3.6	https://www.instagram.com/fztju/?hl=cs
FAT account on You Tube	3.6	https://www.youtube.com/@fztju
Science and Research - We Develop Technologies, We Shape the Nature"	3.6	https://www.fzt.jcu.cz/images/ZF/dokumenty/publikace/2025_brochure_vav_en.pdf

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE EVALUATED UNIT: Faculty of Arts (FAR)

FORD: 6 - Humanities and the arts

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:

MISSION AND SOCIAL CONTRIBUTION

The mission of the Faculty of Arts of the University of South Bohemia (FAR USB) is to conduct research and provide education in carefully selected and interrelated humanities disciplines, taking into account its position within the university and national or regional needs. The faculty profiles itself as a higher education institution primarily oriented towards basic research, based on which it develops long-term education in history, philology and arts to reflect, analyze and maintain cultural heritage and attention to language. In addition to its primary focus on basic research, it also focuses on activities that go beyond academia and reflect societal benefits. These activities are considered an important part of its mission, and their impact is seen primarily in the cultivation of the social environment, which reflects on tradition, history, language, literature, art, and culture. In this respect, the faculty acts as a natural intellectual centre in the city of České Budějovice, in the South Bohemian region, especially on the Czech-Austrian-Bavarian border, and the wider European region.

VISION

The vision of FAR is to be a modern and open institution that is dynamically developing with the surrounding world. The faculty intends to continue to foster and develop a creative academic environment in which academic staff will push the boundaries of human knowledge, pass on their knowledge and insights to students, and educate them to become qualified professionals, to continue to function as an internally consolidated, stable and financially sound institution. The faculty's ambition is also to involve students in its research activities and emphasize the quality education of doctoral students with the irreplaceable function of the practical component of training, increasing

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

their future employability and using international mobilities. The faculty also takes care to popularize scientific work and to spread awareness of its own research results, which also contributes to building the university's reputation. This is also reflected in the form of international or national prizes awarded to faculty members in their fields, as well as through membership of editorial boards of professional journals, representation of evaluation positions in the evaluation of science and research results, participation in national and international professional conferences, speaking in the media, radio, press, etc.

RESEARCH ACTIVITIES

The aim of the faculty is to achieve excellence in scholarship and research in the fields of history, philology, aesthetics, art history and cultural studies, to further motivate the publication of results in prestigious journals, to contribute to the creation of a unified and mutually cooperative research university environment, to produce applied results, e.g. in the form of contract research and to stimulate future coordinators of European projects. The fact that the researched topic resonates in the international professional community is evidenced by the participation of FAR researchers in requested lectures abroad and their numerous conferences with international overlap, in which FAR employees regularly participate.

To achieve excellent scholarship and to create top teams of scholars, three research centres operate at the FAR, connecting internal and external researchers with the aim of international overlap. These are: in literature, the *Centre for Research in Recent Czech Literature and Literary Theory* (team leader prof. PaedDr. Vladimír Papoušek, CSc.). In history, the *Centre for Habsburgs in the History of the Czech Lands in the Early Modern Period* (team leader prof. PhDr. Václav Bůžek, CSc) and in linguistics *Theories, Methods and Models in Contemporary Linguistic Research* (team leader prof. PhDr. Ondřej Pešek, Ph.D.).

ORGANIZATIONAL STRUCTURE AND SIZE OF THE FACULTY

The FAR was established in 2006. Its core became the Institute of History of the University of South Bohemia, which has existed since 2003 as an independent scientific and pedagogical workplace within the University. In the first phase, a part of the Department of Czech Studies of the Faculty of Education of USB was added to it. Today, the faculty consists of a total of eight institutes:

- Institute of Archaeology
- Institute of History
- Institute of English Studies
- Institute of Archival Studies and Auxiliary Sciences of History
- Institute of Czech Studies
- Institute of German Studies (until 2024 Institute of Czech-German Area Studies and German Studies)
- Institute of Romance Studies
- Institute of Art and Cultural Sciences

Currently, the faculty has over 100 employees, of which 75 are academic staff (professors, associate professors, assistant professors, assistant professors and lecturers), 8 are research staff, and 18 are non-academic staff.

The faculty offers over 40 study programmes in history and philology, aesthetics, art history and cultural studies at the bachelor's, master's and doctoral levels. Furthermore, the FAR focuses on training secondary school teachers. The faculty has seen an increasing trend in the number of students and applicants (in 2019, the total number of students was 573; in 2020, it was already 717; in 2021, 872; in 2022, 863; and in 2023, the number of students reached 1005). Since the increase in the number of students and applicants is many times higher than the demographic increase, it can be

argued that the increase in the number of applicants to the faculty is also due to successful marketing campaigns. The development of a positive public image of the faculty is also contributed by the so-called third role of the university, the development of which has already firmly established itself among the important aspects of the faculty's activities.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	5.97/0.97	6.88/1.26	7.55/0.80	8.76/0.73	11.18/1.58	14/3
Associate Professor	14.69/4.00	15.79/5.26	16.64/6.38	16.74/6.51	16.38/5.77	25/8
Assistant Professor	36.98/15.98	36.94/16.69	36.54/17.30	37.02/18.21	35.89/18.92	59/28
Assistant	3.00/1.08	2.25/0.5	1.41/0.08	3.00/1.00	2.92/1.25	7/4
R&D Personnel ³	1.20/0.20	1.20/0.20	1.20/0.20	1.20/0.20	1.00/0.00	2/1
Researchers in other categories ⁴	11.83/4.16	9.25/2.86	12.09/3.93	10.07/3.39	6.09/1.20	16/7
Technical and economic staff ⁵	19.44/16.58	18.62/16.07	19.45/17.09	18.89/17.36	17.66/16.09	26/24
Scientific, research and development staff involved in teaching activities	60.64/22.03	61.86/23.71	62.14/24.56	65.52/26.45	66.37/27.55	105/43
Early career researchers ⁶	19.30/10.65	12.75/8.65	11.15/6.15	11.00/6.00	10.40/5.90	36/17
Total ⁷	93.11/42.77	90.93/42.64	94.88/45.78	95.68/47.40	91.12/44.84	149/75

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 and early career researchers are reported collectively for all the above-mentioned categories.

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 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.

3.1.2 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/ 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	1	0	2	0	5	1	1	1
Associate Professor	0	0	0	0	9	1	2	1	3	0	2	2
Assistant Professor	1	0	18	8	27	11	1	1	0	0	0	0
Assistant	2	1	1	0	0	0	0	0	0	0	0	0
R&D Personnel ⁹	0	0	2	1	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	3	2	3	2	1	1	0	0	0	0	0	0
Technical and economic staff ¹¹	1	1	4	3	5	5	2	2	3	3	0	0
Scientific, research and development staff involved in teaching activities	3	1	19	8	37	12	5	2	8	1	3	3
Early career researcher ¹²	4	1	15	11	7	2	0	0	0	0	0	0
Total ¹³	7	4	28	14	43	18	7	4	11	4	3	3

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/ 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	4	1	5	0	2	1
Associate Professor	0	0	0	0	10	2	3	2	3	0	3	2
Assistant Professor	2	1	5	3	22	14	8	2	0	0	0	0
Assistant	2	0	5	3	1	0	0	0	0	0	0	0
R&D Personnel ¹⁵	0	0	2	1	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	1	0	7	4	0	0	1	0	0	0	0	0
Technical and economic staff ¹⁷	0	0	6	6	6	6	3	3	1	1	0	0
Scientific, research and development staff involved in teaching activities	4	1	9	5	35	16	15	5	8	0	5	3
Early career researcher ¹⁸	2	1	7	4	4	2	0	0	0	0	0	0
Total ¹⁹	5	1	24	16	41	22	19	8	9	1	5	3

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 and early career researchers are reported collectively for all the above-mentioned categories.

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.

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	394	296	525	384	689	524	723	553	822	638	3153	2395
Master's ²⁰	165	121	165	129	167	127	157	119	169	127	823	623
Doctoral	44	23	39	20	36	20	33	18	30	14	182	95
Lifelong Learning Courses	216	N/A	134	N/A	181	N/A	172	N/A	210	N/A	913	N/A
Total	819	440+	863	533+	1,073	671+	1,085	690+	1,231	779+	5071	3113+

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	5/0	0	26/0	2/0	26/0	2/0	25/0	2/0	24/0	2/0	26/0	2/0
Master's	6/0	0	17/0	0	17/0	0	16/0	0	14/0	0	18/0	0
Doctoral	13/2	0	14/2	0	15/2	0	15/2	0	15/2	0	17/2	0
Lifelong Learning courses	16	0	41	0	85	0	19	0	19	0	39	0
Total	40/2		98/2		143/2		75/2		72/2		100/2	

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

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

²¹ 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		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.	1
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education	1	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	25	Zvolte položku.	99
	6.2 Languages and Literature	50	Zvolte položku.	
	6.3 Philosophy, Ethics and Religion	8	Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)	15	Zvolte položku.	
	6.5 Other Humanities and the Arts	1	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 throughout 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 FAR is a respected scholarly institution, both nationally and internationally. This is evidenced by the results of systematic and versatile research focused primarily on: the history of society in the Czech lands from the early 16th century to the mid-20th century (with an emphasis on the social and cultural history of the aristocratic elite) by auxiliary historical sciences, history of administration, ego-documents or editions of historical resources; theory and history of Czech literature from the 19th century to the present, in its relation to literature in English, German and Romance languages or the methodology of literary history, including the issue of representation of artistic texts or relations to the neo-pragmatic thinking; archaeology of prehistory, Middle Ages and early modern times, as well as environmental archaeology; selected problems of Romance synchronous linguistics and the research into the language of science and the history of Romance literature and their reception in the Czech lands.

Awards and recognition

The quality of the research carried out is evidenced by significant awards that the staff of the FAR have achieved. Such awards include for example, the highly recognized national Magnesia Litera awards, which the faculty staff achieved twice in the period under review (in 2020 and 2023). A number of other awards have also been given to FAR staff by other national institutions (e.g. the Ministry of the Interior of the Czech Republic, the Ministry of Education of the French Republic, etc.) and international institutions (e.g. the President of Hungary or the International Federation of Teachers of Modern Languages).

Journal Editorial Boards, invited speakers

The faculty staff are also members of editorial boards of research journals and participate in review committees of major international conferences. The faculty itself publishes two peer-reviewed and internationally recognized journals:

- Opera Historica - A journal for early modern history (16th-19th centuries) focusing on cultural history, history of religion, political, legal and economic thought, and practical philosophy.
- Écho des études romanes - A journal focusing on contributions in the fields of linguistics, literature and translation related to Romance studies.

FAR staff are often invited as invited speakers to foreign universities to present their research results. FAR regularly hosts foreign scholars and prominent personalities who give lectures not only for students and academic staff of FAR but also for the general public. All of these activities were

significantly curtailed in the period under review due to the COVID-19 pandemic, but many activities were still carried out, either in the later period or online.

Involvement in research evaluation

The FAR staff contribute to the evaluation of scholarship and research, especially as evaluators of the best quality results submitted to the national evaluation organized by the Czech Research, Development and Innovation Council. They also participate as evaluators of various projects, such as the panels of the Grant Agency of the Czech Republic at the national level, etc.

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
Václav Bůžek, prof. PhDr., CSc.	Medal for Merit for Czech Archival Science (2019)	Ministry of the Interior of the Czech Republic
Jitka Radimská, prof. PhDr., Dr.	International Federation of Professors of Living Languages - FIPLV International Award (2019)	Fédération Internationale des Professeurs de Langues Vivantes
Ladislav Nagy, doc. PhDr., Ph.D.	Magnesia Litera Award for a book in translation for Patrick Melrose I (2020)	The Litera Association through the Magnesia Litera Awards
Miroslav Novotný, doc. PhDr., CSc.	main prize of Miroslav Ivanov for the book Miroslav Novotný (ed.), <i>Great History of the Czech Crown Lands. Education and Learning</i> (2021)	Club of non-fiction authors with Miroslav Ivanov's family
Andrej Tóth, doc. Mgr. et Mgr., Ph.D.	Knight's Cross of the Hungarian Order of Merit (2022)	the President of Hungary
Ivo Petrů, JUDr. Mgr., Ph.D.	Order of the Academic Palms - French state decoration for merit in education, science and culture (2022)	Ministry of Education of the French Republic
Stanislav Doležal, PhDr., Ph.D.	Rector's Prize for a prestigious scientific publication - The Reign of Constantine, 306-337. Continuity and Change in the Late Roman Empire (2022)	University of South Bohemia in České Budějovice
Vladimír Papoušek, prof. PaedDr., CSc. Ondřej Pešek, prof. PhDr., Ph.D. Petr Bílek, prof. PhDr., CSc David Skalický, Mgr., Ph.D. Michal Bauer, prof. PaedDr., CSc.	Magnesia Litera Prize for Educational Literature for the book Chorus and Dissonance (head of the authorial team, prof. Papoušek) (2023)	The Litera Association through the Magnesia Litera Awards
Stanislav Doležal, PhDr., Ph.D.	The Golden Mammoth (Karel Absolon Award for Popularization of Archaeology), 1st place for the publication Royal Jewels from Mšec and Řevničov (2023)	Institute of Archaeology of the CAS, Brno
Stanislav Doležal, PhDr., Ph.D.	2nd place in the competition for the Gloria musaealis award in the category Museum Publication of the Year 2023 for the publication Royal Jewels from Mšec and Řevničov (2023)	T.G.M. Museum, Rakovník

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
Vladimír Papoušek, prof. PaedDr., CSc.	Acta Polono-Ruthenica, ISSN 1427-549X
Jana Pešková, PhD., Ph.D. (Consejo Editor) Markéta Šmídová, Mgr., Ph.D. (Comité Evaluador)	Asterisco: Revista de lingüística española, ISSN: 2952-3567 (Online)
Petr Bílek, prof. PhDr., CSc.	Comparisons/Comparisons, ISSN 1733-165X (print); 2956-6169 (online)
Štěpán Kubalík, Mgr., PhD.	Aesthetics: The European Journal of Aesthetics; ISSN: 2571-0915 (online)
Ondřej Chvojka, doc. Mgr., Ph.D.	Fines Transire (Rahden/Westf.), ISSN 1868-2308
Ondřej Chvojka, doc. Mgr., Ph.D.	Dissertationes Archaeologicae, Budapest, ISSN 2064-4574
Jürgen Eder, Doc. Dr. habil.	Brünner Beiträge zur Germanistik und Nordistik, ISSN: 1803-7380 , E-ISSN: 2336-4408
Václav Bůžek, prof. PhDr., CSc.	Hungarian Historical Review, ISSN 2063-8647
Ladislav Nagy, doc. PhDr., Ph.D.	Kritika prekladu, Slovakia, ISSN 1339-3405
Ondřej Pešek, prof. PhDr., Ph.D.	Linguistica Pragensia, ISSN 0862-8432 (Print), ISSN 1805-9635 (Online)
Jan Radimský, prof. PhDr., Ph.D.	Advisory board members

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
Václav Bůžek, prof. PhDr., CSc.	Die Habsburger in der frühneuzeitlichen tschechischen Geschichtsforschung	Ludwig-Maximilian-Universität München	2019
Kateřina Horníčková, PhD., Ph.D.	Adventures in Comparison: Large Projects in the Global Middle Ages - Chances and Problems	Austrian Academy of Sciences and University of Vienna, Austria	2019
Ivo Cerman, doc. PhDr. Et Dr. phil., Ph.D.	Le droit naturel et l'émancipation des serfs en Bohême	Université Pantheon-Sorbonne, Paris	2022
Ondřej Pešek, prof. PhDr., Ph.D.	Chaînes de référence et la structure actancielle	Université de Lorraine, France	2022
Andrej Tóth, doc. Mgr. et Mgr., Ph.D.	Az 1920 - Kényszerpályán. A trianoni békediktátum ratálása (1920 - Imposed Fate. Ratification of the Trianon Peace Dictate)	The Hungarian Parliament and the Hungarian Historical Society under the auspices of the President of the Hungarian Parliament	2022
Ondřej Chvojka, doc. Mgr., Ph.D.	Die Bronzezeit in Südböhmen. Die Verbindungsregion zwischen den Alpen und Donaugebieten und dem zentralen Böhmen während des 2. Jahrtausends v. Chr.	University of Innsbruck	2022
Jan John, PhD., Ph.D.	XRF analysis of metallic archaeological finds - possibilities and	Universidad Nacional de Trujillo, Peru	2023
Josef Grulich, prof. PhDr., Ph.D.	Similarity in Difference. Marriage in Europe and Asia, 1700-1900	Tsinghua University (Tsinghua University), Department of History, School of Humanities, Beijing	2023
Jan Radimský, prof. PhDr., Ph.D.	Diachronic formation of the Italian N+N compounding pattern through Google n-gram data	University of Lund, Sweden	2023
Einat Adar, M.A., Ph.D.	Radio Myles: Podcasting Flann O'Brien	Birkbeck University of London	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
John Searle, prof.	University of California, Berkeley	Social Ontology of Money The Chinese Room Argument Philosophy of Language	2019
Michael d'Arcy, PhD	St Francis Xavier University	Modernist Naiveté	2019
Joseph F. Patrouch, Prof. Dr.	University of Alberta	Experiencing the Holy Roman Empire 1570: Contexts of the Court's Journey	2019
Juan Andrés García Martín, prof.	Universidad Rey Juan Carlos in Madrid	Franco's Dictatorship. A Regime Subject to International Conditions: Between Isolation and Acceptance	2021
Randall Auxier, prof.	Southern Illinois University, USA, Department of Communication Studies	Freddie's Left Hand: Queen and the Order of Music	2021
Alioune Deme, Dr.	Cheikh Anta Diop University Dakar, Senegal	Trends in the Archaeology of West Africa	2022
Francis Gingras, prof.	Université de Montréal	Traduire et en faire toute une histoire : les traductions de la Bible en ancien français et l'invention d'une histoire commune	2022
Patrick Drouin, prof.	Université de Montréal	Terminologie et lexicologie computationnelles : exploration outillée du lexique en corpus	2022
Thomas Aigner, Dr.	ICARUS and Diözesanarchiv St. Pölten	Archive im digitalen Zeitalter - Erfahrungen, aktuelle Trends, Perspektiven	2023
Ilya Berkovich, Dr.	Österreichische Akademie der Wissenschaften, Wien	Jewish Soldiers in the Habsburg Army (1788-1817)	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
Ondřej Pešek, prof. PhDr., Ph.D.	Evaluation Panel P406 (Linguistics and Literary Studies), panel member	Grant Agency of the Czech Republic	2017-2021
Jan Radimský, prof. PhDr., Ph.D.	Evaluation Panel P406 (Linguistics and Literary Studies), panel member	Grant Agency of the Czech Republic	2021-2023
Miroslav Novotný, doc. PhDr., CSc.	Evaluation Panel P410 (Modern History after 1780 and Ethnology), panel member	Grant Agency of the Czech Republic	2019-2023
Petr Bílek, prof. PhDr., CSc.	Evaluation of research organizations according to Methodology 17+	RVVI (Research, Development and Innovation Council) Department of	2019-2023

		the Government Office of the Czech Republic	
Václav Bůžek, prof. PhDr., CSc.	Evaluator	RVVI (Research, Development and Innovation Council)	2018-2025
Marie Ryantová, prof. PhDr., CSc.	Output evaluator	RVVI (Research, Development and Innovation Council)	2019-2024
Lukáš Holata, Mgr., Ph.D.	Expert evaluator for Marie Curie-Sklodowska actions - Individual fellowships	European Commission	since 2019
Ondřej Chvojka, doc. Mgr., Ph.D.	Evaluator for Historical Sciences	National Accreditation Office	from 2023
Václav Bůžek, prof. PhDr., CSc.	Evaluator	National Accreditation Office	2018-2025
Václav Bůžek, prof. PhDr., CSc.	Evaluator of NAKI projects	Ministry of Culture of the Czech Republic	2018-2025

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, particularly regarding 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 the 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.

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.

Self-assessment:

Within the University of South Bohemia, the FAR maintains its status as a significant research-oriented unit in the humanities. This is achieved by its outputs in the field of basic research focused primarily on traditional historical, philological and artistic disciplines recognized at home and abroad. This is made possible, among other things, by obtaining project funding, especially from national and international donors. The high quality of the existing research is evidenced by the number of scientific projects carried out by the FAR with external funding, both as the main recipient and as an additional participant.

In the period under review, the faculty implemented most of its projects as the main beneficiary in the form of support from the Grant Agency of the Czech Republic, which is the most important national provider of grants to support basic research projects (in the period under review there were 13 projects in total, a complete overview is located in the list of supporting documents/links). However, the Faculty also received support from providers supporting primarily applied research, e.g. from the Technology Agency of the Czech Republic (in the ÉTA programme to support the innovative potential of social sciences, humanities and arts) and the Ministry of Culture (in the NAKI programme to support applied research in the field of national and cultural identity). Faculty staff also participated in projects resulting from various national and international collaborations.

Below are examples of the 10 most important projects that were implemented in the period under review, illustrating the above-mentioned mix of providers and the different variations of funding sources.

Creating a 'Gulag' model in Virtual and Augmented Reality as a Tool for Increasing the Effectiveness of Teaching 20th-century History

Provider: the Technology Agency of the Czech Republic, ÉTA programme (Programme for the Support of Applied Social Science and Humanities Research, Experimental Development and Innovation)

Solver: Mgr. Lukáš Holata, Ph.D. (Institute of Archaeology, FAR)

Solution period: 04/2020-03/2023

The main goal of the project was to develop an *educational model* based on virtual 3D visualization of life in the Gulag camp and its didactic application to increase the effectiveness and attractiveness of teaching 20th-century history. In accordance with the technological development of the 21st century, which has a fundamental impact on the way of teaching, an effective educational tool was developed that didactically uses the principle of game simulation. It is the output of a multidisciplinary application of the results of archaeological and historical research and state-of-the-art pedagogy, didactics and ethics, which validates the content of the game simulation and ensures its relevance to education. The FAR solved this project in cooperation with the Gulag.cz association.

Czech Literature in the World and the Foreign Literature in Czechia in 1989-2020

Provider: the Ministry of Culture, Programme to support applied research and experimental development of national and cultural identity for the years 2016 to 2022 (NAKI II)

Project leader: prof. PaedDr. Vladimír Papoušek, CSc. (Institute of Czech Studies, FAR)

Solution period: 03/2018-12/2022

The subject of the project was Czech literature abroad and the reception of world literature in the Czech Republic, especially in the period 1989-2020. Its aim was to create two *certified methodologies* focused on the addition of foreign literature to the collections of Czech libraries and the processing of bibliographies in a virtual environment, a database, specialized maps of translations of Czech literature into selected European languages (English, French, German and Polish) in this period and their

publication. *An exhibition* mapping Czech literature in translation published up to 2020 was also organized. The project also focused on the literary work of Milan Kundera and his complete bibliography. Another aim of the project was the creation of a *database and a specialized map* of the reception of world literature in the Czech Republic in the period 1989-2020. The research on the reception of world literature in the Czech Republic also included the organization of an expert workshop and conference and the publication of a monograph on the theoretical, methodological and literary-historical issues of the reception of literary texts in a foreign environment. The FAR was involved in this project in cooperation with the Moravian Library in Brno.

From tradition to the future. The Linguistic-Literary Heritage of Eastern Bavaria and Southern Bohemia as a Focus for University Cooperation

Provider: European territorial cooperation (INTERREG) Bavaria-Czech Republic

Project leader: prof. PhDr. Alena Jaklová, CSc. (Institute of Czech-German Area Studies and German Studies, FAR)

Solution period: 2016-2019

The main objective of the project was to intensify cross-border cooperation between higher education institutions in the South Bohemia-East Bavaria region, specifically between the University of South Bohemia in České Budějovice and the University of Passau, and to harmonize education at the faculties of both universities. The following activities, among others, have been a manifestation of the harmonization of the educational offer provided by the two universities:

1. *A joint Czech-Bavarian research strategy* aimed at addressing the linguistic and literary aspects of the common culture and history of the Czech-Bavarian region implemented in the teaching of selected subjects.
 2. Development of a *bilingual database* containing all the data found by the research. Based on this database, a *bilingual mobile application* and a *two-volume* (Czech and German) *publication* were developed; all project outputs were integrated into the curricula and courses of study of both universities. The mobile app and the database are also freely available to the general public.
- Another benefit of the project was the revival of the common cultural heritage of the South Bohemian-Bavarian region and its preservation in a sustainable form for future generations.

Museum Uploaded - Digital technologies for cross-border interactive museum collaboration

Provider: European territorial cooperation (INTERREG) Bavaria-Czech Republic

Project leader: prof. PhDr. Marie Ryantová, CSc. (Institute of Archival Studies and Auxiliary Sciences of History, FAR)

Solution period: 09/2017-08/2020

The aim of the project was to create interdisciplinary, visitor-oriented, barrier-free and multimedia presentations of the preserved cultural heritage in cooperation with partners and, at the same time, to develop new applied technologies in the field of museology and archives in a long-term and flexible manner. The project aimed to innovate existing technologies and develop completely new ones that were subsequently used in the museum field. The Technical University of Deggendorf and the University of South Bohemia in České Budějovice collaborated on the development of a new digital exhibition system. The museums in Deggendorf and Písek served as model case studies. In the joint scientific work of both museums, themes and materials relating to cultural heritage in a cross-border context were collected and developed using museum-didactic methods and digital strategies. Here, the museums functioned as laboratories in which different developmental approaches of the universities to the presentation and visualization of museum materials were jointly discussed, their suitability for use was verified, and feedback was captured. A particular feature of this concept from the perspective of information technology and media production was the integration of digital media

with the use of modern server and internet technologies, both for the needs of permanent exhibitions and for new forms of presentation to represent spatial and temporal data. An important part of this technical solution was developing a central data storage system that meets the requirements for long-term archiving of electronic data. This sustainable system will ensure the permanent visualization of data and metadata in museum presentations and enable data exchange with other institutions. These systems have been implemented in museums for the need to present information.

Spanish as a Foreign Language in Central Europe: A Demolinguistic Approach

Provider: Visegrad Funds

Project leader: PhDr. Jana Pešková, Ph.D. (Institute of Romance Studies, FAR)

Solution period: 02/2023-07/2024

The aim of the project was to research the demolinguistic situation of the Spanish language in Central Europe. The research investigates the number of Spanish language users, with particular reference to the position of Spanish among foreign languages at all educational levels in the countries of the V4 region, which share a common historical, social and cultural context. The project's research group disseminated its activities in workshops, and the results will be published in a book. This international project is a collaboration of several universities - Jagiellonian University in Krakow, Comenius University in Bratislava, University of South Bohemia in České Budějovice, Heidelberg University, University of Silesia in Katowice and University of Szeged.

Political Communication during the Bohemian Revolt and its Defeat between Prague, Dresden, Heidelberg, und Munich

Provider: Grant Agency of the Czech Republic

Project leader: prof. PhDr. Václav Bůžek, CSc. (Institute of History, FAR)

Solution period: 2019-2021

The primary goal of the project was to learn the international coordinates of the causes, course and consequences of the Czech Estates Uprising and their political, military and religious content in a comparative European context. The territorial scope of the research focused mainly on the Roman-German Empire, which had partial overlaps. Using the methodological assumptions of historical anthropology and discourse analysis, the political communication between the centres of power (Prague, Dresden, Munich and Heidelberg), its carriers, the transmission of messages in social networks and their influence on the decision-making abilities and powers of political actors in everyday practice were investigated. The heuristic underpinnings of the research were the holdings of foreign archives and libraries.

The Language and Speech Strategies in Czech Literary Studies

Provider: Grant Agency of the Czech Republic

Project leader: prof. PaedDr. Vladimír Papoušek, CSc. (Institute of Czech Studies, FAR)

Solution period: 2018-2020

The project turns to the philosophy of language, which was developed especially in Anglo-American post-analytic and (neo)pragmatic philosophy. In particular, it focuses on a range of terms and concepts that resonate significantly in philosophy but have been almost entirely neglected by literary scholarship - notions such as radical interpretation, normal vs. abnormal discourse, finite vocabulary, and source metaphor. The intention of the project was to explore and test these notions as possible tools for the analysis of literary discourse - specifically to "apply" them to the literary-historical material of the "frontier" disputes that appear in the history of Czech thinking about literature during the 20th century, i.e. to texts in which a certain language is confronted with a different language. Principal investigator is convinced that they can demonstrate their potential to shed new light on the nature of

these "clashes", which until now have been interpreted more in terms of disputes of opinion or personality, or to become innovative and productive tools for discursive analysis in general.

Unity across the border. Indicators of economic and social relations of the Urnfield Period in the Bohemian-Bavarian area

Provider: Grant Agency of the Czech Republic

Project leader: doc. Mgr. Ondřej Chvojka, Ph.D. (Institute of Archaeology, FAR)

Solution period: 04/2022–12/2024

This project was carried out in cooperation with the Institute of Archaeology of the Czech Academy of Sciences and the University of West Bohemia in Pilsen (Department of Archaeology). The aim of the project was to understand the economic, social and cultural links between the settlement areas of South Bohemia, West Bohemia and Bavaria in the Early and Late Bronze Age. Three strands of the study were used to address the issue based on archaeological data: 1. settlement structure and settlement forms of the period (taking into account the special type of trough-like objects, whose occurrence is limited to the three regions); 2. metal artefacts and their bulk finds (an indicator of technological, economic, stylistic and ritual activities); 3. subsistence strategies and the influence of settlements on the surrounding landscape. This approach has helped to illuminate the interrelationships between these areas. The study regions are separated from each other by the Šumava Mountains, yet the archaeological data show greater similarities between southern and western Bohemia and Bavaria than with other Czech regions.

N-N Compounding in Contemporary French

Provider: Grant Agency of the Czech Republic

Project leader: prof. PhDr. Jan Radimský, Ph.D. (Institute of Romance Studies, FAR)

Solution period: 2017-2019

The aim of the project was to provide a detailed and comprehensive description of French N-N type structures obtained from large linguistic corpora, allowing for verification of recent typologies of N-N composites (Bisetto-Scalise, 2005; Scalise-Bisetto 2009), to explain borderline cases between types and, if necessary, to propose finer levels of classification. The subject of the corpus analysis also explored the possibilities of internal modification of different types of N-N structures, bringing valuable arguments to the current debate on the boundary between morphological and syntactic processes. The research has also shed light on a number of specific controversial issues relevant to N-N structures in French, such as the disposability of selected compositional patterns (e.g. verbal-nexus composites), the morphological flexion of different types of French N-N composites, the order of the components of N-N composites and the position of the head in each type (in coordinative, attributive and subordinative structures), or the question of orthographic variants and their frequency (forms written separately, with a hyphen and together).

Weaving looms, deliberate demolitions, burnt offerings...? A new look at rituals in the life of Bronze Age settlements

Provider: Grant Agency of the Czech Republic

Project leader: doc. Mgr. Ondřej Chvojka, Ph.D. (Institute of Archaeology, FAR)

Solution period: 01/2018–12/2022

The subject of the project was the evaluation of a special type of settlement objects, long troughs, which have been discovered in large numbers in settlements of the earlier and later periods in southern and western Bohemia, Bavaria and Austria. In addition to their specific shape, their content and behavioural context are also extraordinary. The finds assemblage consists not only of common settlement refuse but also artefacts deliberately deposited. The repetitive situation on the settlement

excludes chance - the finds are probably the result of ritualized behavior. Understanding the ritual aspects of prehistoric behaviour on settlements may reveal new general insights into many other archaeological situations of prehistory. FAR solved this project in cooperation with the Institute of Archaeology of the CAS and the Department of Archaeology of the University of West Bohemia in Pilsen.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2021	2020	2021	2022	2023
Ministry of Culture of the Czech Republic	Czech Literature in the World and the Foreign Literature in Czechia in 1989-2020	1,321/52	1,321/52	1,336/53	1,535/61	-
Grant Agency of the Czech Republic	a total of 13 projects were implemented in the period under review	5,030/198	3,459/136	2,367/93	2,270/90	4,955/195
Technology Agency of the Czech Republic	Creating a 'Gulag' model in Virtual and Augmented Reality as a Tool for Increasing the Effectiveness of Teaching 20th-century History	-	948/37	1,527/60	1,452/57	853/34
European Regional Development Fund (INTERREG CZ-BY)	a total of 4 projects were implemented in the period under review	6,615/261	3,130/123	2,971/117	5,971/236	740/29
Total		12,966/511	8,858/349	8,201/324	11,228/443	6,548/258
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
The International Consortium for Earth and Development Sciences (ICEDS), Kagawa University, Takamatsu, Japan	New perspectives and new dimensions in historical sciences	-	-	-	-	-
Faculty of Humanities, University of Primorska, Koper, Slovenia	Integrated Peasant Economy in Central and Eastern Europe	-	-	-	-	-
University of Helsinki, Finland Faculty of Social Sciences, Tampere University, Finland, University of the National Education	Managing Mobility in Early Modern Europe and its Empires	-	-	-	-	-

²⁵ If the provider is from abroad, please indicate the provider's country of origin in brackets.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

²⁷ Ibid.

Commission Krakow, Poland						
Ministry of Science and Innovation, Spanish Government	Researching conceptual metonymy in selected areas of grammar, discourse and sign language with the aid of the University of Córdoba Metonymy Database	-	-	-	-	-
Visegrad Funds	Spanish as a Foreign Language in Central Europe: A Demolinguistic Approach	-	-	-	-	-
Ministry of Education, Youth and Sports of the Czech Republic (OP VVV programme)	Doctoral School of Archaeology: new methods, technologies and research on historical heritage	474/12	365/9	212/5	621/16	-
Total		474/12	365/9	212/5	621/16	-

Table 3.3.2 - Contract research activities

Contracting Authority ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Museum of South Bohemia, České Budějovice	Archaeo-environmental analyses	76/3	25/1	-	13/0.5	-
Museum of South Bohemia, České Budějovice	Conservation, dating, chemical analysis	117/4.6	-	5/0.2	-	3/0.1
Museum of South Bohemia, České Budějovice	Field survey and documentation, geodetic surveys, geophysical prospection etc.	-	20/0.8	-	25/1	-
Museum of South Bohemia, České Budějovice	Framework contract for professional activities related to archaeological research (Field survey and documentation, geodetic surveys, geophysical prospection etc.)	-	139/5.5	51/2	152/6	-
Prácheň Museum in Písek	Conservation of metal archaeological finds from the Nová Ves depot near Protivín	-	35/1.4	-	-	-
The Podblanická Museum in Vlašim	Numismatic processing of coins from the Maršovice depot from the first half of the 17th century	-	-	30/1.2	-	-
Velké Hydčice municipality	Archaeological survey	13/0.5	28/1.1	-	-	-

²⁸ If the contracting authority is from abroad, please indicate in brackets the country of origin of the contracting authority.

Town Týn nad Vltavou	Archaeological rescue work at the Velký Depot site near Týn nad Vltavou	-	-	10/0.4	13/0.5	-
Charles University, Prague	Archaeobotanical analyses	-	5/0.2	-	-	-
Total		206/8	252/10	96/3.8	203/8	3/0.1

Note: List and describe contract research activities with 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 impacts²⁹ 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 FAR is primarily oriented towards basic research, and the generation of results from research projects takes place on this basis. The main types of outputs of the faculty include scholarly monographs, chapters in scholarly monographs, articles in proceedings or studies in peer-reviewed journals. These outputs are characterized primarily by their contribution to knowledge, and their further use is mainly for primary and secondary schools, museums, libraries, and other researchers who can base their further research on them. The outputs produced in this way, therefore, have a certain social impact, which is difficult to measure in terms of its nature. These outputs are regularly submitted for evaluation in Module 1 (national peer review of the quality of selected results), where they achieve high ratings (see below for a selection of this type of results). These results are highly sustainable given the nature of the publication and in the context of the contribution to knowledge, and they usually do not distinguish the gender dimension.

However, in the evaluated period, the faculty also achieved results whose applicability can be specifically described, and their users can be better identified. Since these outputs were the result of project grants and must meet the conditions of the given grant titles, they cannot be monetized in terms of their use, and thus, their economic impact cannot be measured. Their main criterion is to make them accessible to as wide a range of users as possible so they are freely available. The specific form of implementation for the target groups is then carried out in cooperation between the researchers and the faculty marketing department. These specific applicable results are listed below.

Project Result **Creating a 'Gulag' Model in Virtual and Augmented Reality as a Tool for Increasing the Effectiveness of Teaching 20th-Century History** - the main output of the project is an educational model based on a virtual 3D visualization of life in a Gulag camp. It is an effective educational tool that didactically uses the principle of game simulation, which is attractive for the end users. It includes 1) a credible virtual image of real objects of the Gulag camp obtained through archaeological and historical research and 2) a simulation of selected aspects of prison life mediated in a virtual and augmented

²⁹ See Terms definition.

reality. This allows users to see the real impression and experience the restrictions of totalitarian regimes. Given the importance of the topic and the uniqueness of the educational tool, the aim is to ensure wide availability for teachers and students in primary and secondary schools, to whom the result will be freely accessible. In view of these facts, we consider the result to be highly sustainable and gender-neutral at the same time.

Chapter Exploring the Archipelago: Archaeology of Gulag published in the book *Arqueología de la dictadura en Latinoamérica y Europa / Archaeology of Dictatorship in Latin America and Europe. Violencia, resistencia, resiliencia / Violence, resistance, resilience* (Oxford, BAR Publishing, 2020). The paper is the first of its kind ever in which archaeological research on the Gulag camps is introduced and summarized. It provides a unique testimony to the repression of the communist totalitarian regime from the perspective of archaeological record / material evidence. Thus, it contributes significantly to the field of "Contemporary Archaeology." It is a topic that is of societal relevance and has implications not only in academia but also for the general public. The paper and the synthesis of knowledge provided are based on the first field surveys of Gulag camps located in the Siberian taiga. Due to their remoteness, the quality of the preservation of these sites is extraordinary; thus, research carried out significantly enriches the state-of-the-art. The paper is of international importance for several reasons: 1) It outlines the field survey methodology in harsh conditions in remote areas; this requires the application of specific techniques – e.g., cutting-edge documentation methods such as 360° panoramic photography and Structure from Motion photogrammetry have been applied. 2) The exceptional quality of the preservation of the sites provides the basis for a thorough comparative analysis of this type of site in other parts of the world, even though they are documented in a much more torso-like state. 3) The text provides valuable evidence of the labour camps' appearance and everyday camp life; artefact analysis reveals facts that are not mentioned in written sources or in the memoirs of witnesses. The result was submitted for national evaluation in Module 1 in 2021 and was awarded the highest possible mark of 1 (world-leading). The reviewers praised it especially for its excellent demonstration of the application of modern archaeology as a rapidly developing research field.

Results of the project **Czech Literature in the World and the Foreign Literature in Czechia in 1989-2020** - a specialized public database (the database contains data on monographs, anthologies, scholarly studies, articles, reviews or textbooks dealing with world literature of any period from the beginning to the present; records texts in any world language that were published in the Czech Republic in the period 1989-2020) and a specialized map (The map contains data on monographs, anthologies, scholarly studies, articles, reviews or textbooks that deal with world literature of any period from the beginning to the present; it records texts in any world language that were published in the Czech Republic in the period 1989-2020. In one place, data previously scattered in many different databases, specialized websites, printed bibliographic inventories, etc., are presented in an unusual way - in the form of an interactive geographical map that can open up a new perspective on the post-Soviet reflection on the world literature in the Czech Republic). The project also included, among other things, a travelling exhibition entitled *Milan Kundera (not lost) in translation*, intended for the general public. The database and the map are freely available to the general public, and we consider them to be both sustainable and gender-neutral.

Results of the project **From Tradition to the Future. The linguistic-literary heritage of East Bavaria and South Bohemia as a focus of university cooperation** - a bilingual database recording all data related to the common linguistic-literary heritage of the South Bohemian-East Bavarian region and a mobile application created on the basis of the database for teaching in the study programmes/fields of both

participating universities. Both outputs are also accessible to the general public and are therefore considered sustainable in the long term and gender-neutral.

The result of the project **Weaving looms, deliberate demolitions, burnt offerings...? A new look at rituals in the life of Bronze Age settlements** - an article titled *Crops along the trade routes? Archaeobotany of the Bronze Age in the region of South Bohemia (Czech Republic) in context with longer distance trade and exchange networks*. The interdisciplinary study is one of the results of the project cooperation between the FAR, the Institute of Archaeology of the CAS and the Department of Archaeology of the University of West Bohemia in Pilsen. It provides a social science interpretation based on a scientific analysis of plant remains from the fillings of archaeological features. Human behavior in the past - the migration of humans, animals and plants; varying degrees of cooperation with individual neighboring regions made it possible to reconstruct the model based on exact scientific data. In particular, the importance of specific individual crop species can be reflected in the region of South Bohemia in comparison with other neighboring regions of Central Europe. Based on the currently available archaeobotanical data obtained in South Bohemia, it was possible to observe general trends of crop composition during the Bronze Age in terms of quantitative as well as qualitative development. The observed data showed the South Bohemian Bronze Age as a very dynamic period in terms of perception of the evolution of agricultural production. The article was published in the international impacted journal *Archaeological and Anthropological Sciences*, and its contribution is appreciated by the professional community also at the level of social sciences. In 2020, it was submitted to a national Module 1 evaluation, where it was awarded the highest possible mark of 1 (world-leading).

Result of the project **Political Communication during the Bohemian Revolt and its Defeat between Prague, Dresden, Heidelberg, und Munich** – book titled *Bohemian Revolt. Among Prague, Dresden, Heidelberg, London and Munich*. The book describes the political communication between the Bohemian kingdom and foreign power centres during the Bohemian Revolt (1618-1620). The authors focused on the political communication of the Czech non-Catholic Estates with the prince-electors - Frederick V of the Palatinate and John George I of Saxony. Due to the family ties of Frederick V, it was impossible to leave aside the interpretation of the political actions of King James I of England and his reflection on the Bohemian Revolt. To provide an insight into the political communication between the representatives of the non-Catholic estates in the Kingdom of Bohemia, the Palatinate residence in Heidelberg, the Saxon one in Dresden, the Bavarian one in Munich and the royal court in London, the authors carried out research into unpublished sources, particularly in German and English archives, which have not received significant attention in Czech historical science. The contribution of the publication is, therefore, mainly in placing well-known domestic events in a European context, which allows us to go beyond the usual local perspective. Moreover, it focuses on the events taking place in the background and the private communication between the key actors of the time. Such an approach allows for a better understanding of the motivations of individuals and facilitates a true understanding of the events of the time. The book was submitted for national Module 1 evaluation in 2023 and was awarded a mark of 2 = excellent. The book was praised by the professional community not only for the authors' different methodological approach but also for enriching the existing discourse, especially with insights from previously unexplored and unavailable sources stored in domestic and foreign archives.

The authors of the FAR achieve high-quality results not only in connection with research projects supported by various subsidies but also in the context of teamwork of faculty research centres. As an example of the functioning of excellent teams, we present the following:

The book *Chorus and Dissonance: Czech Literature 1947-1963* is a continuation of the previous three-volume series *History of the New ("New") Modernity* and is part of the research centre of the FAR called the *Centre for Research on Newer Czech Literature and Literary Theory*. In the first part of the book, the author team, which consists of literary and art historians and theoreticians from the philosophical faculties of the University of South Bohemia and Charles University, deals with the cultural and ideological context of this complicated period when after 1948, the communist regime in Czechoslovakia attempted to manipulate the entire society in the name of realizing a utopian project of the next social "paradise". In the individual chapters, the authors attempt to describe and grasp these contemporary transformations of official literature and culture. However, attention is also paid to the - often solitary - cultural activities of defiant individuals or small groups that sought free expression and autonomous creative gesture, despite totalitarian efforts to control them and close them off with an impenetrable border that separated the so-called socialist camp from the rest of the world. The second part then traces the morphological transformations of the various literary modes of the period - lyric, epic and drama - always with reference to their wider cultural and social context. The book is also supplemented by overviews of selected contemporary literary and cultural production, accompanied by significant social and political events. The book was submitted for evaluation in Module 1 in 2023, where it was rated 'excellent', and in the same year, it won the prestigious national Magnesia Litera award (1st place in the category "Litera for educational literature").

At the end of the evaluation period (2023), the ongoing and developing project **Womenpedia/Women's Work** was created, linked to the successful candidacy of České Budějovice as the City of Culture 2028. The project tries to map the missing part of the region's history, conditions and contexts of women's artistic and creative work. The project is intended to help women and girls identify with their region; it has a professional and public overlap, and, due to its focus on previously rather neglected female artists, it takes into account a strong gender dimension. The project seeks to create a professional and public platform - a network based on sharing, support and empathy. It will feature talks, lectures and workshops with inspiring women and nearby organizations. The project is curated by the Institute of Arts and Cultural Sciences of the FAR, Mgr. Petra Lexová, Ph.D.

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

Type of result ³⁰	Year of application	Name
Article	2019	Crops along the trade routes? Archaeobotany of the Bronze Age in the region of South Bohemia (Czech Republic) in context with longer distance trade and exchange networks
Bilingual database	2019	From tradition to the future
Bilingual mobile app	2019	ATiZu-Ap
Chapter	2020	Exploring the Archipelago: Archaeology of Gulag
Exhibition	2021	Milan Kundera (not lost) in translations
Book	2022	Bohemian Revolt. Among Prague, Dresden, Heidelberg, London and Munich.
Book	2023	Chorus and Dissonance: Czech Literature 1947-1963
Teaching model	2023	Educational model of a gulag camp mediated by the principle of game simulation in virtual and augmented reality

³⁰ Specify the specific type of result. Add rows as needed.

Specialized public database	2023	Reception of World Literature in the Czech Republic 1989-2020
Specialized map	2023	Reception of World Literature in the Czech Republic

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 and 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 commercializes R&D&I results (e.g. selling licences, setting up start-up or spin-off companies, etc.)³¹, providing a brief description of the commercialization methods used. The effectiveness of the transfer of results and the commercialization of R&D&I results will be described using a selection of results (max. five) listed in the annex table (Table 3.4.1).³²

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 the 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 results of the faculty's creative activities are usually transferred into practice through non-economic activities (the faculty does not have a start-up or spin-off company and does not generate licenses). However, at the end of the period under review, project activities were initiated that have the potential for future creation of a result that could lead to commercialization and possible establishment of a spin-off company. This involves the preparation and development of a software application related to the already established multilingual database of legal concepts and terms, LegTerm. This database is based on the Czech legal system, whose terminology is confronted with legal terms or concepts from other legal systems expressed in specific languages. The aim of the activities will be to develop a technical tool that will be able to perform practical tasks in the legal and language services industry and, at the same time, provide its users with reliable data for further research in the field of linguistics and legal science. The users of this deliverable will be mainly translators (freelancers), translation agencies, court interpreters, lawyers, commercial lawyers, notaries or bailiffs, law firms and others who have an international practice. This project is currently being implemented in the form of proof-of-concept activities and is supported by a partial project provided by the Technology Agency of the Czech Republic in the SIGMA programme launched by the Technology Transfer Office of the University of South Bohemia (USB TTO). In this area, there is a functioning cooperation between the FAR and the USB TTO, which systematically addresses technology transfer at the university level and,

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

if necessary, consults specific possible forms of transfer of results towards practice with individual faculties.

The FAR also cooperates with a number of non-academic institutions that are typical users of its results: secondary schools, museums, galleries, libraries, archives, heritage institutes, publishing houses, etc. Faculty staff implement their results through long-established and well-functioning cooperation with these institutions and also through promotional activities, which are more closely consulted with the faculty's marketing department. The marketing department also promotes these results in its popularisation activities and addresses them to the general public.

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

Type of yield	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:

The FAR has an irreplaceable place in the city of České Budějovice and in the South Bohemian region in the field of popularization of the humanities. It is a natural educational institution for secondary school graduates from South Bohemia and other regions who are interested in obtaining education in the fields offered by the faculty. At the same time, the FAR cooperates with local, state, regional, educational, cultural or media organizations in the region, especially with state and non-state archives, all museums in the region, galleries, theatres and study centres. Specifically, we can mention, for example, the Aleš South Bohemian Gallery, the South Bohemia Museum, the National Heritage Institute, the Institute of Archaeology of the Czech Academy of Sciences in Prague, the National Archives in Prague, the Philological Club of the FAR, the French Alliance of South Bohemia and the Instituto Cervantes. FAR tries to support and organize cooperation with the above-mentioned institutions in the implementation of various events aimed at popularising science.

FAR also cooperates closely with secondary school teachers, their students and the wider public. Members of the management, academic staff and students of individual institutes regularly visit not only faculty schools but also other grammar and secondary schools in the region and beyond. The existing network of faculty schools is as follows: Bishop's Grammar School J. N. Neumann České Budějovice, Gymnasium Český Krumlov, Gymnasium Česká (České Budějovice), Higher Vocational School, Secondary Industrial School of Automotive and Technical Engineering (České Budějovice),

Business Academy České Budějovice and Gymnasium Pierre de Coubertin (Tábor). The status of a faculty school brings both parties further development of the existing close cooperation not only during the organization of teaching practice but also in other areas, such as the organization of scientific and popularization events.

Examples of popularisation events in the period 2019-2023:

How Science is Done at the Faculty of Arts of the USB (lecture series, book)

On 23 January 2019 (at the FAR), 28 March 2019 (Český Krumlov Castle), 28 May 2019 (Tábor) and 22 November 2019 (Třeboň), the FAR organized a series of lectures entitled *How Science is Done*. Through a total of 12 lectures by leading personalities of the faculty, the scientific interests and research topics addressed by the lecturers at the FAR were presented to the professional and non-professional public. The series subsequently resulted in the first popularization book on the humanities at the FAR, which is freely available for download on the faculty's website.

Video series How to do Science at the Faculty of Arts of the USB

Shortly after the publication of *How Science is Done at the Faculty of Arts of the USB* in 2020, the idea of realizing the first faculty video series was born, which would bring science to the current supporters and students of the faculty, as well as to the general public in an engaging and understandable form. In the autumn of 2021, 12 video reports were filmed with the aim of introducing and popularizing scientific activity in a way that is most popular in today's hectic times, full of short audiovisual material. The filming took place, for example, at Český Krumlov Castle, Rožmberk Castle, Aleš South Bohemian Gallery or the Michalův statek Farm Museum in Pohled by Světlá nad Sázavou. The video series informs about the expertise and practices of the fields that are classified as humanities. It also introduces their basic pillars and answers questions about what these sciences are for and what it takes to study them. Since February 2022, the individual episodes of the video series have been published on faculty social media and have enjoyed a high viewership. In addition, the video material has been used at educational fairs and other science outreach events

Researchers' Night

- 2020 with the subtitle *Man and Robot* – FAR participated through popularization lectures for the public with thematic demonstrations on the *use of drones in archaeology* (Institute of Archaeology) and *Man vs. robot translator* (Institute of Romance Studies)
- 2021 with the subtitle *Time* - a popularization lecture of the Institute of Archaeology entitled *How Trees Reveal Time*, a lecture of the Institute of Arts and Culture entitled *Time, Postmodernism and Geopolitics* and a lecture of the Institute of Romance Studies entitled *Not fvtvrvvm as futurum*
- 2022 with the subtitle *All Senses* - lecture *Criminal Acts and the law of torture on leaflets from 16. and 17. Century* (Institute of History), a lecture *Synesthesia in the Aesthetic Appreciation of (not only) the City* (Institute of Art and Culture Sciences), a lecture and workshop *All the Senses* (Institute of Romance Studies) and a lecture and workshop *Karlův Hrádek near Purkarec - Research and Teaching Centre of Archaeology of the University of South Bohemia in České Budějovice* (Institute of Archaeology)
- 2023 with the subtitle *Secrets* - visitors could attend lectures accompanied by practical demonstrations, and children could also play various cryptographic games. The programme included a lecture on *The Mysterious Death of the Crown Prince* (Institute of History), a lecture and workshop on *The Mystery of Encrypted Documents in the Early Modern Period* (Institute of Archival Studies and Auxiliary Science of History), a lecture on *Spies and Secret Messages in*

the Early Modern Period (Institute of History) and a lecture and workshop on *Marks on Medieval Vessels: a potter's secret or an archaeological source?* (Institute of Archaeology).

Festival of Science (3 September - 30 November 2020)

Fun science and technology labs themed around *Innovation for the Future*.

Living Voices of Romance Literatures (25. 3. 2021)

Popularization lecture series of the Institute of Romance Studies is dedicated to selected representatives of Italian, French, and Spanish literature, with a large participation from the public, including students and teachers of secondary schools.

Milan Kundera (not lost) in translations (6 October - 7 October 2021)

A travelling exhibition of the Institute of Czech Studies as part of the international conference *World Literature in Bohemia - Czech Literature in the World* (joint project with the Moravian Library, see above). The exhibition also addressed a significant part of the general public.

The Sword and the Man (14 September - 16 September 2022)

An interdisciplinary conference organized by the Institute of Archaeology was attended by capacities in the field of sword research from all over the Czech Republic. The conference also included workshops and demonstrations for the general public.

Appropriating Bob Dylan (November 24-25, 2022)

The conference was organized by the Institute of Arts and Cultural Sciences and is also intended for the general public and those interested in the topic. The special guest was Randall Auxier, an American philosopher who is interested in popular culture in connection with the philosophy of culture, especially in the field of aesthetics, ontology and time.

Meeting of history teachers (14 March 2023)

The meeting was organized by the Institute of History and was attended by secondary school history teachers to discuss new trends in history education with interesting guests. The meeting was followed by a scientific and popularization lecture by Prof. Josef Žemlička, PhD., DrSc., entitled *Impulses of 13th century Changes - colonization, urbanization, Royal Domain*.

Humanities Week (14 November 2023)

A nationwide scientific-popularization event that aims to bring the full range of research and educational activities of scientists and scholars working in the humanities to the attention of the professional and general public and to highlight their importance for society. The theme of the event was "*Close to the Baroque*". FAR organized lectures, workshops, an opening and other accompanying programmes. Programme: lecture *Baroque and spiritual life in Bohemia and its reflection in the sources* (Institute of Archival Studies and Auxiliary Science of History), lecture *The inconspicuous Baroque. Italian prints of the Baroque period in the library of Princess Maria Ernestina of Eggenberg* (Institute of Romance Studies), the opening of the photographic exhibition *El Gran Camino Inca. Perú: Integración y Diversidad* with a lecture on the *Beauty and Diversity of Peru* (Institute of Romance Studies), lecture block *Senses, Faith and Propaganda between the Renaissance and the Baroque* (Institute of History), lecture *Jaroslav Hašek as an Editor and Mystifier in the magazine Svět zvířat* (Institute of Divinity), workshop *Changes in the Economy in the Age of Enlightenment on the Example of Archaeological Material from the Švamberk Farm* (Institute of Archaeology), and the lecture *Karlův Hrádek near*

Purkarec. Research and Teaching Centre of Archaeology of the University of South Bohemia in České Budějovice (Institute of Archaeology).

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:

In the previous evaluation, the MEP particularly appreciated the good cooperation with national institutions and good contacts with foreign universities. FAR tries to maintain such cooperation and a network of contacts, especially when developing new forms.

Suggestions for improvement included:

- maintain and develop contacts in the field of popularisation of scientific results in the media
- develop opportunities for social relevance of research with local government, region and state institutions
- greater involvement of visiting professors

Popularisation of scientific results in the media

The FAR is widely involved in popularization events of various kinds; see section 3.6. In September 2021, a position was created at the faculty to be responsible for the popularization and promotion of these activities. Through its popularisation activities, the FAR contributes to building the reputation of the University through targeted society-wide activities (Night of Scientists, Day with the University, Humanities Week), increasing popularisation press releases, organizing exhibitions and faculty participation in exhibitions and other promotional events focused on education (Education and Craft Exhibition, etc.). Individual public lectures and television, radio or podcast appearances or publications in mass media, print or digital (interviews, reviews, glosses, etc.) continue to be at the core of popularisation activities. In this respect, the faculty also cooperates with the main media outlets in the region (editorial offices of regional daily newspapers, Czech Radio České Budějovice, regional television, and Czech Television). The faculty respects the development of digital technologies and is active in communication and promotion on social networks (Facebook, Instagram). In addition to popularising its research activities, FAR also works to involve its graduates in the faculty's social events, e.g., in the form of medallions of successful graduates on social networks, which serve as positive role models for current students.

Developing the social relevance of research with local organizations

Within the framework of social relevance, cooperation with institutions in the South Bohemia Region continued, e.g. In the field of current trends in the conservation of historical artefacts and monument care through cooperation between the FAR and the National Heritage Institute (territorial workplace in České Budějovice); the involvement of employees of the State Regional Archive in Třeboň and the State District Archive in České Budějovice in teaching; close cooperation is also taking place with museums, especially the Hussite Museum in Tábor, the West Bohemian Museum in Pilsen and the South Bohemian Museum in České Budějovice. In the form of cooperation with the Aleš South

Bohemian Gallery in Hluboká nad Vltavou, lecture cycles are also prepared for students and the general public. In the field of English studies, there is cooperation with publishing institutions, where the results of students' translation seminars are applied, and in the field of Romance studies, cooperation with law and translation agencies and freelance translators is ensured.

The FAR has also worked continuously throughout the period to strengthen communication and cooperation with secondary schools in the region (numerous lectures by academic staff at secondary schools) through teaching staff (Further Education of Teaching Staff courses) and focused its attention on the availability of lifelong learning courses and the University of the Third Age (U3A).

The FAR regularly coordinates its promotional activities and potential social impact with the university's marketing department in order to seek opportunities for expanding awareness of faculty activities and also works closely with the USB TTO, which provides the faculty with the necessary information about current opportunities for cooperation in specific areas of research and the possibilities of involving local players in the field.

Involvement of visiting professors

FAR has built up a stable network of contacts with foreign experts, whom it tries to regularly involve in teaching and invites to various lectures intended for students and often for the general public; see Table 3.2.4 for specific examples. With regard to the constantly developing internationalization of research and opportunities in the form of participation in various international events, it is the effort of faculty staff to constantly expand their professional network of contacts and establish new forms of cooperation. These activities also take place in a national context, and FAR uses various forms of support from the university. In the period under review, namely in the years 2022-2023, the FAR dealt with a project related to the involvement of experts from the Czech Science Academy in lecturing and teaching at the faculty in an effort to deepen research-oriented teaching and practice, especially in doctoral studies at the FAR. The project was supported on a university basis by the Programme for the Support of Strategic Management of Universities for 2022-2025, and thanks to it, several lectures with prominent experts were held at the FAR.

In order to strengthen the internationalization and international relevance of the USB, the International Board of the FAR was also established in 2021, which functions as an advisory body to the Dean for assessing the quality of the creative and educational activities of the FAR and provides valuable feedback to the faculty, as it is composed of experts focused on specific fields of study cultivated at the faculty.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Complete list of projects provided by the Grant Agency of the Czech Republic	3.3	https://www.ff.jcu.cz/en/science-and-research/grants-and-projects/grant-agency-of-the-czech-republic
How science is done at the Faculty of Arts of the USB	3.6	https://nju.jcu.cz/knihy/item?id_book=37 (book) https://www.youtube.com/playlist?list=PLNn1hwhQNUkkxITTRPrRofw2F0U460NMf (lecture series) https://www.youtube.com/playlist?list=PLNn1hwhQNUkLcUXMfXiRf8QJ6pbM_dQ2 (video series)

International Board of the Faculty of Arts of the USB	3.7	https://www.ff.jcu.cz/en/faculty/faculty-bodies?view=article&id=1346&catid=10 (Members of the International Board of the FAR) https://www.ff.jcu.cz/images/FF/fakulta/Dokumenty/opatreni-dekana/platna-opatreni/2021/12_2021-mezinarodni-rada-en.pdf (Dean's Decree No. 12/2021 establishing the International Board of the FAR)

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Education

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.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 Faculty of Education (FED), a founding faculty of the university, has been preparing education professionals, particularly teachers, for over 75 years. As one of the university's largest faculties, it serves approximately 2,000 students across 27 study programs and an additional 1,200 lifelong learning students. Its regional significance is substantial, acting as a key centre for training professionals for the regional education system, encompassing teachers and related support roles. To facilitate practical experience, the faculty maintains partnerships with 58 training schools and 18 clinical placements. Its mission centres on the education of teachers, special education professionals, psychologists, early childhood educators, and social pedagogy specialists. The faculty serves as the university's primary provider for teacher education programs and delivers the educational psychology foundation for other faculties involved in secondary school teacher preparation. The faculty's structure is notably diverse, reflecting the breadth of its academic programs and the range of subject areas for which it prepares future educators. The FED comprises 17 departments, some of which are organized into broader subject sections.

The faculty's vision, "[Pro Futuro](#)," emphasizes the development of study programs that equip future educators to navigate the evolving landscape of the 21st century. Deep learning and interdisciplinary collaboration are essential to this preparation, forming the foundation for training future teachers.

The research profile of the Faculty of Education is strongly rooted in advancing research across interconnected educational domains, notably subject didactics, pedagogy, and psychology.

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

Furthermore, the faculty supports both basic and applied research in core disciplines relevant to teacher training, such as mathematics, languages, kinesiology, geography, and art.

FED is also striving to support new research directions; through its own funding, FED establishes promising research groups. Recently developed research areas include virtual reality training [VR Team Lab](#), and kinesiological [Laboratory for functional stress diagnostics](#).

Most of the research conducted is applied, with a significant emphasis on field and participatory methodologies. These approaches are crucial for generating insights that can be directly implemented in the training and professional development of teachers, psychologists, special needs educators, and other public education professionals. By effectively bridging theoretical research with practical applications, the faculty contributes to the refinement of teaching methodologies.

A notable strength of the faculty lies in its ability to translate applied research findings into tangible outputs that benefit the educational and social sector. This includes the development of comprehensive textbook series for primary, secondary, and upper secondary levels, guidelines for social workers, etc. Additionally, the faculty is committed to creating specialized support systems for special needs and gifted students, designing challenging tasks for educational competitions, and providing expert consultations for the revision and enhancement of framework educational programs and the Czech educational and social policy.

This comprehensive approach to research activities ensures that the faculty's research has a direct and enriching impact on the broader educational landscape.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	4.64/0.87	4.31/0.90	3.72/1	3.88/1	3.75/1	9/1
Associate Professor	21.75/8.75	23.49/9.99	23.04/10.29	23.49/10.39	23.28/11.8	32/15
Assistant Professor	86.57/40.70	87.59/39.27	87.44/39.61	86.72/39.26	86.46/38.12	148/75
Assistant	8.05/3.79	8.31/3.96	7.57/3.42	6.56/2.91	8.45/3.74	27/15
R&D Personnel ³	0.20/0.20	0.60/0.60	1/1	1/1	1/1	1/1
Researchers in other categories ⁴	0.43/0	0.34/0	0.26/0	0.42/0.3	0.51/0.3	1/1
Technical and economic staff ⁵	2/2	2/2	2/2	3/3	3/3	3/3
Scientific, research and development staff involved in teaching activities	0/0	0.17/0.1	0.1/0.1	0.1/0.1	0/0	1/1
Early career researchers ⁶	0/0	0/0	0/0	0.66/0	1/0	1/0
Total ⁷	123.64/56.31	126.81/56.82	125.13/57.42	125.83/57.96	127.45/58.96	

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.

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 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.

3.1.2 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/ 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	0	0	3	1	3	0	0	0
Associate Professor	0	0	3	2	2	1	9	6	11	3	1	0
Assistant Professor	2	0	22	7	42	22	26	42	9	5	0	0
Assistant	2	1	8	2	1	1	0	0	1	1	0	0
R&D Personnel ⁹	0	0	0	0	1	1	0	0	0	0	0	0
Researchers in other categories ¹⁰	0	0	0	0	0	0	0	0	0	0	0	0
Technical and economic staff ¹¹	0	0	2	2	0	0	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	0	0	0	0	0	0	0	0	0	0	0	0
Early career researcher ¹²	0	0	0	0	0	0	0	0	0	0	0	0
Total ¹³	4	1	35	13	46	25	38	49	24	9	1	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/ 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	1	0	0	0	3	1	1	0
Associate Professor	0	0	3	2	4	3	3	2	12	7	4	0
Assistant Professor	2	0	20	5	37	17	24	15	14	7	1	1
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ¹⁵	0	0	0	0	0	0	1	1	0	0	0	0
Researchers in other categories ¹⁶	0	0	1	0	0	0	0	0	0	0	0	0
Technical and economic staff ¹⁷	0	0	2	2	1	1	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	0	0	0	0	0	0	0	0	0	0	0	0
Early career researcher ¹⁸	1	0	0	0	0	0	0	0	0	0	0	0
Total ¹⁹	3	0	26	9	43	21	28	18	29	15	6	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.

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.

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	1629	1170	1689	1170	1563	1085	1500	1061	1376	973	3464	2420
Master's ²⁰	567	445	602	492	631	519	643	525	690	558	1455	1142
Doctoral	35	19	25	13	22	12	22	15	22	13	54	34
Lifelong Learning Courses	1278	N/A	1078	N/A	1229	N/A	1274	N/A	1395	N/A	6254	N/A
Total	3509	1634	3394	1675	3445	1616	3439	1601	3483	1544		

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	8/0	0	11/0	1/0	18/0	4/0	19/0	4/0	20/0	4/0	76/0	13/0
Master's	8/0	0	9/0	2/0	11/0	2/0	12/0	2/0	14/0	3/0	54/0	9/0
Doctoral	4/0	0	4/0	0	6/0	0	7/0	0	9/0	0	30/0	0
Lifelong Learning courses	86	0	82	0	87	0	39	0	70	0	364	0
Total	106		106	3	122	6	77	6	113	7	524	22

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	5	Balanced basic and applied research	15
	1.2 Computer and information sciences	3	Applied Research	
	1.3 Physical sciences	1	Applied Research	
	1.4 Chemical sciences	1	Applied Research	
	1.5 Earth and related environmental sciences		Zvolte položku.	
	1.6 Biological sciences	5	Balanced basic and applied research	

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

²¹ The total number of study programmes for which admissions have been announced in a given academic year.

	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	1
	2.2 Electrical engineering, Electronic engineering, Information engineering	1	Applied Research	
	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		10	Balanced basic and applied research	76
	5.1 Psychology and cognitive sciences		Zvolte položku.	
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education	61	Balanced basic and applied research	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography	5	Balanced basic and 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.	8
	6.2 Languages and Literature	3	Balanced basic and applied research	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)	5	Balanced basic and applied research	
	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 FED is one of the most active Czech teacher training institutions. Its active engagement and the recognized expertise of its staff is valued by scientific communities and by authorities involved in educational policy-making.

This standing is evidenced by the significant roles faculty members hold in international organizations. Dr. Rokos served as a secretary of the Executive Board of the European Science Education Research Association (2021-2023); Prof. Stuchlíková served as a member of Board of Educational Affairs of European Federation of Psychologists Associations (2019-2023) and as a president -elect of the European Society of Psychology Learning and Teaching (2022-2023). Ass. prof. Nohavová serve as a national representative in European Federation of Psychology Teachers Associations, Prof. Zelenka is a vice president of the Czech and Slovak Association of Comparative Literature.

Academics of FED actively shape the scientific discourse through their membership in the program committees of major international conferences. These include the 33rd International Congress of Psychology, the Asian Technology Conference in Mathematics, and the International Symposium on Elementary Mathematics Teaching SEMT '19. The faculty also organizes the biennial Disportare conference, focusing on pedagogical and health aspects of sports and sports participation for people with disabilities.

Members of FED staff are also involved in assessment of scientific processes and outcomes at foreign universities (associate prof. Málková serves as the coordinator of evaluation panel SH3: Social World and Its Interactions at University of Ljubljana, Slovenia), and in assessment of research calls (see Table 3.2.5).

The faculty's international reputation is further solidified by the frequent invitations extended to its staff members to deliver lectures at major international conferences and universities. This active participation in the global academic community facilitates the exchange of ideas and fosters collaborative research opportunities.

Moreover, FED actively seeks to engage with distinguished experts from around the world to present their research and to develop joint research projects. This collaborative approach has resulted in the successful implementation of six research-oriented Erasmus+ projects, covering

diverse topics such as gamification, climate change, plant literacy, technostress, collaborative reflection, and e-assessment in mathematics and science.

Similarly, FED is continually engaged in cross-border cooperation projects which are usually transferring research results into the educational practice. These projects not only enhance the faculty's research capabilities but also contribute to the development of innovative educational practices.

The FED sustained research into teacher professionalization has demonstrably shaped national educational policy. Notably, the Ministry of Education, Youth, and Sport commissioned FED to investigate the administrative practices of basic schools. This research provided crucial insights that informed the decision to pilot a middle-level school system management structure.

Furthermore, Prof. Stuchlíková, as a key expert, led one strategic line within the "Main Directions of Education Policy of the Czech Republic 2030+," solidifying the faculty's role in influencing the nation's educational trajectory. Similarly, FED was actively involved in development of Competence framework for teacher training graduates, including the development of measures for monitoring subjectively perceived readiness for professional employment. Additionally, ten FED staff members, specialists in subject didactics, were instrumental in revising the Framework Curricula for preschool and basic education, ensuring the integration of contemporary pedagogical research and best practices.

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
doc. PaedDr. Hana Andrášová Ph. D.	European Language Award Label 2019	Czech National Agency for International Education and Research
prof. PaedDr. Iva Stuchlíková, CSc.	Medal of the Ministry of Education, Youth and Sports 1st degree (for participation in National Educational Strategy development)	The Ministry of Education, Youth and Sports
prof. PaedDr. Iva Stuchlíková, CSc.	Milada Paulová Award for Lifetime Contribution to Science - Psychology	The Ministry of Education, Youth and Sports
doc. PaedDr. Jiří Vaníček, Ph.D.	Medal of the Ministry of Education, Youth and Sports 2nd degree (for coordination of the national wide applied research and implementation project on informatic thinking)	The Ministry of Education, Youth and Sports
doc. Lenka Vojtová Vilhelmová, ak. mal.	Graphics of the Year 2021 - special award for in-depth printing	Hollar Foundation

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. PaedDr. Hana Andrášová, Ph.D.	ACC Journal: ISSN:2571-0613
doc. RNDr. Tomáš Ditrich, Ph.D.	Aquatic Insects, Taylor & Francis, Velká Británie: ISSN: 1744-4152
doc. PhDr. Alena Hošpesová, Ph.D.	Scientia in Educatione: ISSN: 1804-7106 Didactica Mathematicae: ISSN: 2353-0960
doc. RNDr. Stanislav Kraft, Ph.D.	Journal of Geography, Politics and Society: ISSN 2084-0497, e-ISSN 2451-2249 Transport Geography Papers of Polish Geographical Society: ISSN: 1426-5915, eISSN: 2543-859X
doc. RNDr. Vladimíra Petrášková, Ph.D.	Akustika: ISSN: 2570-8775
PhDr. Miroslav Procházka, Ph.D.	International Journal of Teaching & Education, (International Institute of Social and Economic Sciences, Prag/London): ISSN 2336-2022 Sociální pedagogika/Social Education: ISSN 1805-8825
prof. PaedDr. Iva Stuchlíková, CSc.	Springer. The ESERA Book Series. Contributions from Science Education Research
prof. RNDr. Pavel Tlustý, CSc.	Fundacja "Matematyka dla wszystkich", pl. Marcina Lutra 7, 43-300 Bielsko-Biała, POLSKO
doc. PhDr. Miluše Vítečková, Ph.D.	Konteksty Pedagogiczne (AHT Bielsko-Biała): ISSN 2300-6471
prof. PhDr. Miloš Zelenka, DrSc.	World Literature Studies, The Institute of World Literature: ISSN 1337-9275 E-ISSN 1337-9690 Slavia Occidentalis: ISSN 0081-0002 Slavica litteraria: ISSN: 1212-1509 , E-ISSN: 2336-4491

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
Mgr. Roman Hašek, Ph.D.	Mathematics teacher training from the perspective of STEM - a particular case	Asian Technology Conference in Mathematics, ATCM 2023, Pattaya, Thailand	2023
doc. PhDr. Stanislav Holubec, Ph.D. et Ph.D.	55. výroční konference ASEEEES. Oslava 75. výročí založení ASEEEES. 55th ASEEEES Annual Convention Celebrating the 75th anniversary of ASEEEES.	Philadelphia (USA), 30. 11 – 3. 12. 2023, Association for Slavic, East European, and Eurasian Studies.	2023
Mgr. Lukáš Rokos, Ph.D.	Visualizations in STEM Education: How Can We Use Drawing and Visual Models to Understand Student Ideas?	INESRC2023 - Teacher Training in the 21st Century; Plenární přednáška na konferenci INESCR2023, Balıkesir, Turecko (26. - 28. 10. 2023)	2023
doc. RNDr. Stanislav Kraft, Ph.D.	GIS-Based Research On Traffic Accidents Using Advanced Statistical Methods	Harvard University, Center for Geographic Analysis	2023
doc. Mgr. Jiří Rypl, Ph.D.	Didactics of geography and practice system for future geography teachers at the Department	Department of Teacher Education, Faculty of	2023

	of Geography, Faculty of Education, University of South Bohemia in České Budějovice	Education and Psychology, University of Jyväskylä.	
doc. RNDr. Libuše Samková, Ph.D.	Constructing vignettes to stimulate the professional knowledge of pre-service teachers: Concept Cartoons	King's College, London	2022
doc. RNDr. Stanislav Kraft, Ph.D.	Spatial aspects of motorcycle safety: Identifying accident hotspots and assessing the risk of road sections for motorcycle transportation	USA, California State University in San Bernardino, Leonard Transportation Center	2022
prof. RNDr. Pech Pavel, CSc.	3D extension of Simson-Wallace theorem on four lines	Scientific Colloquium on Geometry and Graphics, Zagreb, Croatia (September, 5-9, 2021)	2021
doc. RNDr. Stanislav Kraft, Ph.D.	Air Transportation in Times of Covid-19: Spatial Organization and its changes	USA, University of Miami, Department of Geography and Regional Studies	2021
PhDr Christopher Koy, M.A., Ph.D.	Herman Melville, American Classic Writer	Fairfield Bay Community Education Center, Arkansas, USA	2020

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. David C. Webb, Ph.D.	University of Colorado Boulder, Colorado USA; School of Education	Computational Thinking as a Goal for Mathematics Education: Past Challenges and Future Directions	2023
Dr. Carsten Miller	Universität Bayreuth, Germany; Faculty of Mathematics, Physics and Computer Science Department of Mathematics, Chair of Mathematics and Didactics	In Touch with Geometry and Beyond – Discover, Foster and Assess with sketchometry	2023
Siranush Ghazaryan	Brusov State University, Jerevan, Arménia	Strategies for Developing the Students' Plurilingual Competence	2023
Gregory J. Grosicki, Ph.D.	Georgia Southern University, Savannah, Georgia, USA; Department of Health Sciences and Kinesiology	Exercise and the Gut Microbiome	2022
Andrew Flatt Ph.D., CSCS*D	Georgia Southern University, Savannah, Georgia, USA; Department of Health Sciences and Kinesiology	Heart Rate Variability Tracking in American College Football Players	2022
prof. Erin Marie Furtak, Ph.D.	University of Colorado Boulder, Colorado USA; School of Education	Assessing Science Content and Inquiry	2022
Han Li, Ph.D.	University of Miami, USA; Department of Geography and Regional Studies,	Firm Suburbanization in the Context of Urban Sprawl: Neighborhood Effect and Sectoral Difference	2022
Prof. David C. Webb, Ph.D.	University of Colorado Boulder, Colorado USA; School of Education	Understanding Formative Assessment: Assessing Student Understanding	2021

prof. Ilya Sinitsky	Gordon Academic College of Education, Haifa, Israel	New horizons for the math teachers, new challenge for the lecturers, new perspective for students	2021
Markus Talvio	University of Helsinki, Finland; Department of Education	Gordon's Teacher Effectiveness Training (TET) - spiced by the Finnish perspective of phenomenon-based learning	2019

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
Miroslav Procházka, Ph.D.	VV 2022, VV 2023	The Slovak Research and Development Agency, Slovakia	2022-2023
Miroslav Procházka, Ph.D.	VEGA	Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (VEGA)	2023
Ass. Prof. Miluše Vítečková, Ph.D.	VEGA	Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (VEGA)	2023
Prof. Iva Stuchlíková, CSc.	VEGA	Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (VEGA)	2024

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:

Basic Research

- **Music History:** The still ongoing [Schwarzenberg Wind Harmonie project, funded by GACR](#), delves into the rich musical landscape of the Schwarzenberg court in the latter half of the 18th century. This project meticulously examines archival materials, including musical scores, correspondence, and financial records, to reconstruct the activities and repertoire of the Schwarzenberg Wind Harmonie, one of the most significant wind ensembles of its time in Central Europe. The project's culmination will be a comprehensive monograph featuring a socio-historical analysis that situates the ensemble within the broader context of the Schwarzenberg court's musical life, alongside a meticulously prepared thematic catalogue of compositions and arrangements, adhering to RISM standards. This project belongs to the FED effort to develop, at least to a limited extent, basic research in the disciplines in which future teachers are educated.

Applied Research

Subject Didactics, Education, Educational Psychology

- **Science Education:** The [Learning Hyperspace for Formative Assessment and Inquiry-Based Science Teaching](#) project (funded by TACR) has innovated teacher professional development in science education. This project has yielded a dynamic online platform that provides pre-service and in-service teachers with a wealth of resources, including video recordings of classroom instruction, interactive learning modules, and diagnostic tools. The platform fosters a deeper understanding of inquiry-based teaching methodologies and formative assessment strategies, empowering educators to create engaging and effective learning experiences for primary and lower secondary students. The project was conducted in collaboration with the USB Faculty of Science and is being expanded to other faculties of education in the Czech Republic and interested elementary schools. Filling in of this

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.

platform with new materials continues, and the platform is being used in the education of future teachers at USB.

- National-wide project PRIM - Support of development of computational thinking was contracted by the Ministry of Education, Youth and Sport and funded by EU funds. The project innovated curricula of Informatics and ICT at ISCED 0 to ISCED 3 by emphasizing teaching focused on the development of students' computational thinking. The project created and tested comprehensive sets of teaching materials for all school levels and created a system of training for pre-service and in-service teachers teaching computer science. The project also reached out to the public with popularisation campaigns that attracted attention and tuned society more favourably toward IT professions and technical professions. The FED coordinated the entire project and established and managed a network of collaborating institutions, primarily universities involved in the preparation of future informatics teachers. This network continues to support the implementation of the innovative curricula.
- **Computer Science Education: The Development of computational thinking by situational algorithmic problems** (funded by TACR) project has significantly advanced the teaching of computer science in schools. This project has resulted in a sophisticated software module that enables the creation of interactive, scenario-based programming tasks. Students engage with these tasks by constructing and refining programs using a block-based visual programming language, fostering computational thinking skills such as algorithm design, abstraction, and generalization. The module's integration into the "Beaver in Informatics" competition further enhances its impact on computer science education. The project is a national wide, it has been solved in cooperation with other teacher training institutions. The FED team of researchers continues to develop and coordinate the Czech part of the competition.
- **Literacy Education: The Verification of the efficacy of the Sfumato Reading methodology for helping dyslexic pupils to learn to read** project (funded by TACR) has made significant strides in addressing dyslexia in primary school students. This project rigorously evaluated the Sfumato®-Flush Reading® method, an innovative literacy instruction approach. Through quantitative and qualitative analyses of student reading performance and specific dyslexic challenges, the research demonstrated the method's effectiveness in enhancing reading fluency and mitigating dyslexia symptoms. This project has enabled the Faculty of Education (FED) to acquire specialized expertise in this methodology, which it now incorporates into its in-service teacher training programs.
- **Mathematics Education: The Digital Support for Collaborative Teacher Reflection on Mathematics Classroom Scenarios** project (funded by TACR) has fostered a collaborative approach to teacher professional development in mathematics education. This project has produced a user-friendly digital tool that facilitates the creation and sharing of vignettes, concise narratives depicting classroom situations. The tool, available in multiple languages, promotes reflective practice among teachers, enabling them to analyse and learn from their own and others' experiences. The project's comprehensive documentation and standardized course concepts provide valuable resources for teacher educators and researchers. This international project was conducted in a consortium of six partners from

three countries. For the FED, the project contributed to the development of a new research direction and the establishment of a network of collaborating institutions.

- **Textbooks development** – research contracted by Fraus Publishing has led to development of a textbook series Mathematics with a Perspective – from Freshman to Graduation for ISCED-3 mathematics. FED academics authored half of the 14-issues textbook series. The textbook series is designed as a teaching text for the implementation of constructivist-oriented mathematics teaching. The student has the opportunity to discover and construct knowledge on his/her own in several levels of the conceptual process, using separated models either in the form of visualizations or activities with a gradually revealed solution procedure. The solved problems are worked in the form of sequential logical steps with explanatory comments, and the textbook contains a number of exercises of different levels of difficulty, including results. They include work with the digital geometric sketchbook GeoGebra (Spredsheet) and the Wolfram alpha program. The applied research collaboration with Fraus Publishing has fostered a mutually beneficial partnership. The publishing house consults with FED on future textbook projects, such as mathematics for first-grade elementary school, while FED students gain access to additional sets of interactive textbooks for their studies and practical training.

Sustainability Education

- **Landscape Ecology:** [The Solar energy, Water in Landscape, Vegetation: a New Methodology for Education of Municipal Employees and Innovation of School Teaching on Management Effects on Regional Climate](#) project (funded by TACR) has successfully bridged the gap between scientific research and educational practice in the field of landscape ecology. This project has developed an innovative educational methodology that explores the intricate relationships between solar energy, vegetation cover, and water resources in shaping landscapes. The project's outputs include tailored resources for municipal officials, empowering them to make informed decisions regarding land use and resource management, as well as engaging educational materials for primary and secondary school students and comprehensive training modules for science teachers. FED, as well as other partners, actively utilizes the outcomes of this project in their teaching. The project established a robust alliance of partners, which continued to collaborate on subsequent projects.

This line of research continued by two other TACR funded projects: (*Plant biomass in sustainable landscape: Learning platform on photosynthesis of terrestrial and aquatic plants to know the plant role in the landscape*, *STEM in Climate Education: Design and Validation of Educational Activities on the Role of Vegetation in Mitigating the Impacts of Global Climate Change*) and one Erasmus+ project *Education for Plant Literacy*.

Psychological Research

- **Student Well-being:** The [Student Technostress in Undergraduate Distance Education: a Navigation Toolkit for WELLness](#) project, funded by EC, Erasmus+, has shed light on the psychological impact of technology on university students, particularly in the context of distance learning. This project employed a mixed-methods approach, combining surveys, interviews, and physiological data collection, to investigate the relationship between technology use and student mental health, academic motivation, and social inclusion. The

findings have revealed the detrimental effects of techno-overload and the positive impact of techno-sociality, informing the development of interventions to promote student well-being in the digital age. Interdisciplinary project (informatics, psychology, pedagogy) was solved by partners from five countries. The project complemented our existing research on work motivation and stress management among our students, which has been published in multiple studies, and this international collaboration continues.

Applied Research for Public and State Administration

- **Special Needs Education:** The [Changes of selected social services provided to people with disabilities during the viral disease crisis](#) project, funded by TACR, provides a crucial examination of the impact of the COVID-19 pandemic on social services for individuals with disabilities. This project involved in-depth qualitative research, including interviews with service providers and users, to understand the challenges and adaptations implemented during the crisis. The project's key output is a comprehensive procedural guide for social service providers to navigate future crises, ensuring continuity of support for vulnerable populations. This interdisciplinary project (integrating special needs education and social work) also enriched the curriculum taught at FED, better preparing graduates to address similar crisis situations in their future practice.
- **Educational Administration:** [The Administrative duties in primary education](#) project (funded by TACR) has provided valuable insights into the administrative burdens faced by primary school headmasters. This project employed a comprehensive research design, including surveys, document analysis, and case studies, to map the extent and nature of administrative tasks across different school types and regions. The project's findings have informed the development of recommendations for streamlining administrative processes and reducing workload, ultimately benefiting school leaders and the educational system. The project helped the FED establish broader and deeper contacts with the regional school system.
- **Tourism Management:** [The Marketing decision-support system DestinACE](#) project (funded by TACR) is developing a cutting-edge software tool to support strategic marketing decision-making in the Czech tourism sector. This project leverages system dynamics modelling to integrate diverse data sources into a comprehensive simulation model, including statistical data, market research, and expert knowledge. The DestinACE tool will enable tourism destinations at the national, regional, and local levels to analyse market trends, evaluate marketing strategies, and optimize resource allocation, ultimately enhancing the competitiveness and sustainability of the Czech tourism industry. This project was conducted in collaboration with the Faculty of Economics. The project's outcomes have increased interest among municipalities in collaborating, leading to several smaller studies commissioned through contract research.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Grant Agency of the Czech Republic	Schwarzenberg Wind Harmonie in the musical life of the princely court at the second half of the 18th century					340/14
Technology Agency of the Czech Republic	Obstacles to the use of information and communication technologies and the possibility of developing ICT literacy among persons with limited ability to access information					232/9
Technology Agency of the Czech Republic	The changes of selected social services provided to people with disabilities during the viral disease crisis			454/18	800/32	916/37
Technology Agency of the Czech Republic	Plant biomass in sustainable landscape: Learning platform on photosynthesis of terrestrial and aquatic plants to know the plant role in the landscape			559/22	649/26	771/31
Technology Agency of the Czech Republic	Development of computational thinking by situational algorithmic problems		199/8	577/23	676/27	43/2
Technology Agency of the Czech Republic	Learning Hyperspace for Formative Assessment and Inquiry Based Science Teaching	855/34	795/32	938/38	945/37	
Technology Agency of the Czech Republic	Administrative duties in primary education ³⁸²⁹		3829/153	2241/90	526/21	
Technology Agency of	Verification of the efficacy of the Sfumato		1494/60	2078/83	739/230	

²⁵ 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.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

the Czech Republic	Reading methodology for helping dyslexic pupils to learn to read					
Technology Agency of the Czech Republic	Marketing decision-support system Technology Agency of the Czech Republic DestinACE	675/27	218/9	825/33	760/30	
Technology Agency of the Czech Republic Technology Agency of the Czech Republic	Solar energy, Water in Landscape, Vegetation: a New Methodology for Education of Municipal Employees and Inovation of School Teaching on Management Effects on Regional Clim	608/24	428/17	315/13		
European Comission, Erasmus+	Education for Plant Literacy - Ryplová				3158/126	2043/82
European Comission, Erasmus+	Scientists and Public Engagement – STAGE - Rokos				164/7	405/16
European Comission, Erasmus+	Student Technostress in Undergraduate Distance Education: A Navigation Toolkit for Wellness					611/24
European Comission, Erasmus+	Digital Support for Teachers' Collaborative Reflection on Mathematics Classroom Situations - Samková	17/1	378/15	580/23	566/23	
European Comission, Erasmus+	Improving Tools for E-assessment in Maths and Science	240/10	85/3	153/6	154/6	
Total		2395/96	7426/297	8720/349	9137/365	5361/214

Table 3.3.2 - Contract research activities

Client ²⁷	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
MEYS, Operational Programme Research, Development and Education	PRIM - Support of development of computational thinking (FED was coordinating partner of 10-members consortium)	7543/302	16113/645	336/13		

²⁷ If the client is from abroad, indicate in brackets the country of origin of the client.

Wienerberger	Measurement of acoustic parameters of brick blocks		40/2			
Hueber Verlag	Comparative analysis of the textbook sets			15/1		
FRAUS Publishing	Textbook series development			719/29		
MAS Sedlčansko	Creation of a digital atlas in ArcGIS			30/1		
City of Borovany	Demographic study					61/2
City of Trhové Sviny	Demographic study					61/2
City of Roudné	Demographic study					61/2
Total		7543/302	16153/647	1100/44		183/7

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 impacts, 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 evaluated period was profoundly marked by the COVID-19 pandemic, which not only imposed limitations on research activities through school closures but also redirected the impetus of research inquiries. In direct response to this unprecedented situation, staff members from the Department of Special Needs Education undertook a critical investigation into the necessary adaptations of social services. This initiative culminated in the development of a series of methodological guidelines, which were subsequently submitted to the Ministry of Labour and Social Affairs. These guidelines have since been implemented as official Ministry recommendations within social service institutions, providing a crucial framework for navigating exceptional circumstances. (**Set of methodological procedures related to social services in situation of epidemic crisis for Ministry of Labour and Social Affairs**)

Furthermore, the pandemic catalyzed a significant acceleration in educational research focused on technology-assisted teaching and learning, as well as the cultivation of informatics thinking. Notably, a project dedicated to the enhancement of formative assessment and inquiry-based learning yielded a rich multimedia environment, **Hyperspace.cz**. Leveraging authentic learning videos, this platform serves as a valuable resource for both student teachers and practicing educators. Its adoption by teacher training institutions and their partner basic schools underscores its efficacy in modernizing pedagogical approaches.

Concurrently, a nationwide project centred on computational and algorithmic thinking has produced a suite of learning materials designed to bolster informatics education in basic schools. These electronic textbooks and task samples have achieved widespread usage and are integrated with the international informatics

competition for children, the Bebras Challenge. In a related development, a novel open-source software **imgcomparer (software library)** was engineered to facilitate the precise comparison of drawn images, primarily intended for the evaluation of contest task solutions. This software has also found utility in programming firms, where it significantly reduces the time required for such tasks.

An extremely important outcome of research activities which immediately influence the education practice is the creation of textbooks for basic and secondary schools (ISCED-1 to ISCED-3). FED authored textbook series for English language (ISCED-1), for informatics (ISCED-1 and ISCED-2 and for half of the **textbook series Mathematics with a perspective - from Freshman to Graduation (14 volumes)** is designed as a teaching text for the implementation of constructivist-oriented mathematics teaching. The student has the opportunity to discover and construct knowledge on his/her own in several levels of the conceptual process, using separated models either in the form of visualizations or activities with a gradually revealed solution procedure. The solved problems are worked in the form of sequential logical steps with explanatory comments, and the textbook contains a number of exercises of different levels of difficulty, including results. They include work with the digital geometric sketchbook GeoGebra (Spredsheet) and the Wolfram aplha program. In 2019, the series was a finalist in the Best European Learning Materials Awards (BELMA 2019). The BELMA are regularly held at the Frankfurt Book Fair and the winners are decided by a jury of educators from leading European institutions and universities.

Crucial results were also delivered by a project which nationally surveyed the administrative workload of school leadership teams (**Good practice in fulfilling the administrative activities at primary school**). The findings from this project were instrumental in the Ministry's decision to launch a pilot program for a middle tier of management in regional education.

The faculty's engagement in applied projects pertaining to education for sustainability has spanned both school children and municipal employees. These initiatives have generated both educational materials and interactive learning platforms, which are now being employed by schools, non-profit organizations in the realm of informal education, and municipalities. (**Plant biomass in sustainable landscape: Digital learning platform on photosynthesis of terrestrial and aquatic plants to know the plant role in the landscape; Teaching methodology on the topic of solar energy – water in the landscape – vegetation**)

The book **Řepa, K., Pospíšil, A., Duchková, Z. & Filip, M. (2020). Krajina jako námět a médium ve výtvarné výchově. [Landscape as a subject and medium in art education.]** has pronounced impact on current fine arts education. The book was published by the Czech Section of the International Society for Education in the Arts in cooperation with USB. This monograph represents the current paradigms of art education didactics. It can serve as a didactic and methodological resource for the development of didactics of art education, for teacher educators and for art teachers in primary schools. Its focus also makes it useful as an alternative study material for students of art education, or for the wider public, for whom it popularizes methodological approaches to contemporary art education. More than 1200 copies have been sold.

Another highly valued book with significant impact on teachers' practice is **Plachá, V. (2021). Zkušenosti učitelů s výchovou vztahující se ke smrti. [Teachers' experiences of death-related education.]** This book is based on authentic teacher testimonies, which are commented on and placed in the context of findings from international studies on death education. Attention is paid to situations in which a teacher has tried to support a pupil whose loved one has died or a class whose classmate has died. Sharing experiences does not offer guidance, but inspires and encourages finding one's own ways to help oneself and others cope with these situations.

The gender dimension is regularly taken into account in the formation of project teams. The author teams of the presented results were, with exceptions, gender balanced.

Gender dimension is regularly monitored as an important variable in research with human participants; this is followed by our [Research Ethics Committee](#). The interpretation of results from a gender perspective, if relevant, is an obvious part of the presentation of results.

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

Type of result ²⁸	Year of application	Name
B	2023	Marková, A.(2023). Mimořádná situace v sociálních službách. Zkušenosti z COVID-19. [Exceptional situation in social services : experience of COVID-19]. Pavel Mervart Publishing
O	2023	Set of methodological procedures related to social services in situation of eidemic crisis for Ministry of Labour and Social Affairs: - Recommended methodological procedure for providers of selected social services - EARLY INTERVENTION - Recommended methodological procedure for providers of selected social services - PERSONAL ASSISTANCE - Recommended methodological procedure for providers of selected social services - HOME FOR PERSONS WITH DISABILITIES
O	2023	Plant biomass in sustainable landscape: Digital learning platform on photosynthesis of terrestrial and aquatic plants to know the plant role in the landscape
R	2023	imgcomparer (software library) https://github.com/radimremes/imgcomparer
J	2022	A Comparison of Abstraction and Algorithmic Tasks Used in Bebras Challenge
J	2023	Hyperspace for formative assessment and inquiry-based teaching: Design – development – application
N	2023	Good practice in fulfilling the administrative activities at primary schools
O	2019 - 2020	Upper secondary school textbook series Mathematics with a perspective - from Freshman to Graduation (14 volumes)
O	2022	Creating a new reading habit using the Sfumato methodology (detailed procedur efor working with poor readers)
R	2022	SW DestinACE System for decision making support in tourism destination marketing
O	2022	Teaching methodology on the topic of solar energy – water in the landscape – vegetation for the 9th grade of basic school
B	2022	Řepa, K., Pospíšil, A., Duchková, Z. & Filip, M. (2020). Krajina jako námět a médium ve výtvarné výchově. [Landscape as a subject and medium in art education.] INSEA & Jihočeská univerzita v Českých Budějovicích, Pedagogická fakulta.

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

B	2021	Plachá, V. (2021). Zkušenosti učitelů s výchovou vztahující se ke smrti. [Teachers' experiences of death-related education.] Jihočeská univerzita v Českých Budějovicích, Pedagogická fakulta.
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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-assessment:

The research results of FED are transferred to educational practice at different levels. Transfer processes are created ad hoc, according to the needs of the user of the results. Typical users of FED research outputs are

- The Ministry of Education, Youth, and Sport, who invites experts from FED for counselling in development of strategic documents and processes, National educational Strategy, like revision of teacher education, revision of national framework curricula),
- The Ministry of Labour and Social Affairs, who utilizes the research outcomes related to education of vulnerable subpopulations, esp. disadvantaged people, students with special educational needs,
- The Czech School Inspectorate cooperates with FED academics in development of testing frameworks for national testing of pupils in English, German, mathematics),
- The Union of Schools' Associations of the Czech Republic, Associations of Headmasters and some nonprofit organizations (e.g. [Eduzměna](#)) cooperates with FED in development of reflective techniques for quality assessments in schools,

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.

- regional schools system (schools of ISCED 0-ISCED3) benefits from various research findings-based courses for in-service education of teachers, headmasters and specialists in schools (e.g. educational advisors, specialist for prevention of social pathological phenomena).

As a part of transfer system, FED established a [FED Publishing house](#) in 2019, which publishes research reports, books and didactical materials for teachers. The publishing has four series: Seria Pedagogica et Psychologica, Seria Scientia, Seria Eruditio and Seria Dissertationes. The the publishing house published 32 titles, which are distributed through the university e-shop.

Important ways of transferring research results into the educational practice are dissemination projects. FED participated in 11 projects provided by Norwegian Funds, Interreg, DAAD, BTHA, and Akcion within the evaluated period. The project, [Reinforcement of competencies of teachers and other educational staff in the area of including pupils coming from socio-culturally disadvantaged environments](#) provided by Norwegian Funds, enabled the transfer of research outcomes from different European countries who dealt with the integration of foreigners, forms of inclusion, and the Roma minority. The purpose of the project was to connect institutions and their experts who dealt with the issue of mutual cultural enrichment in individual countries and, on this basis, to create a common space for the transfer of research knowledge and experience from one country to another.

A smaller part of our research is contract research, but the results have considerable social relevance and are directly transferred to the contracting authorities, mostly from the public administration.

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
none revenues except of the contract research					
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:

FED invests a lot of effort into popularisation of R&D&I, as teaching science is part of its main mission.

Some activities are national wide and are organized by the University (**Researchers' night** an event that brings to life hundreds of scientific buildings in one evening that the average mortal cannot get into. Visitors float through laboratories, lecture rooms, exploding experiments and go in-depth on topical issues. Kids, adults, seniors, anyone passionate about science is welcome).

Others are organized at a national level as a science contest for students of basic and secondary schools and called **Olympiads**. Academics of FED participate in organizing regional and national levels, creates the tasks for the contest and serves as members of jury (Physics Olympiad, Math Olympiad, Biology Olympiad, and Technical Olympiad). Contest in informatics (called Beaver in Informatics) is an international contest running in 59 countries and Department of Informatics is the Czech organizer.

FED organizes also its own popularization activities, which has already a long tradition **Physics on the Lanovka Street** (runs since 2014), **Adventure with technology** (since 2015), **Science goes to a village** (since 2016).

On behalf of the whole University, FED organizes also **Children's University** (since 2016). Newly (from 2023), the FED participates in the **Jobity** project coordinated by the South Bohemian Chamber of Commerce. This project introduces pupils to future professions that are technologically and scientifically oriented. It seeks to introduce pupils to career opportunities and at the same time to solve the problem of the lack of such profiled employees in the region.

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:

Recommendation of the IEB from the previous evaluation:

Recommendation 3.2, 3.3 a 3.4:

The collaboration between USB and funding organizations is obvious and supported by a funding scout. Fundraising should be continued, especially for international funds and EU projects. It requires to continue personal contacts, regular visits at (international) conferences, networking and a basic budget for traveling.

• *The faculty should continue to underline the active role of their research for the construction of academic teaching. The idea to enlarge this to other faculties is very good, however it would require more staff. The actual staff is already full of teaching duties.*

• *Contract research with companies could be planned, see Recommendations at 3.7-3.9.*

• *A concrete strategy to increase the number of publications should be continued and made visible.*

The FED actively participated in a broader development project (funded by European Structural Funds) aimed at improving the institutional processes of the University of South Bohemia (USB). FED implemented its part of the project, which focused on developing and implementing a system for enhancing pedagogical competencies. Education and psychology specialists from FED created and are leading a series of courses for the academic staff of USB.

While contract research is not a primary focus for FED, a limited number of applied research projects have been commissioned by businesses and public administration entities, as illustrated in Table 3.3.2. Despite their smaller scale, these projects have demonstrated a notable impact. Specifically, the project commissioned by Fraus Publishing has a nationwide impact, as the series of textbooks is highly valued and frequently used by Czech high schools.

The strategy of regularly evaluating research outputs and publications was implemented in 2018. The evaluation criteria are available on the website, and scholars are encouraged and supported to submit their results for evaluation. The management of FED organizes a yearly evaluation at the department level. Academics are becoming accustomed to articulating their needs regarding the necessary support for their research activities. Consequently, new lines of research (mentioned in 3.1) were introduced.

Recommendation 3.5 a 3.6

The engagement in innovative teaching is an important task for education faculties and could be enlarged.

- *The influence of the educational (didactical) research on the teaching methods at schools or other education bodies is important and should be underlined also in future.*
- *The visibility of the research outcomes can and should be fostered by a stronger engagement in networks (teacher associations, ministry advisory boards, national working groups).*
- *The research could be fostered by more academic staff and a reduction of the workload of the PhD students. The Faculty needs also a strategy to enhance the attractiveness of the location, e.g. through a family-supporting strategy, dual career offers, better research opportunities.*

FED strengthened the influence of its didactic research on school practice through the publication of additional books for teachers and other educational professionals, successful textbooks, and methodological materials, as well as by organizing of subject Olympiads. FED considers this role a critical component of its mission and a key focus of its research activities.

During the review period, the Faculty of Economics and Management (FED) significantly broadened its engagement with both the Czech and international professional communities. This expansion was particularly evident in applied research and the increased utilization of FED staff expertise within scientific and professional societies, as well as in educational policy development.

Attracting new academic talent remains a persistent challenge, largely due to financial limitations. Given FED's focus on teacher training, our personnel possess strong pedagogical skills, yet secondary schools frequently offer more attractive financial packages to emerging academics. To counteract this, FED is actively pursuing various strategies to increase the desirability of our positions. These include university-supported postdoctoral fellowships, such as the psychology methodology postdoc in 2022-2023, funding for early-career researchers to establish labs, like the kinesiology and virtual reality labs, and the promotion of visiting professorships."

Recommendation 3.7, 3.8 a 3.9

The influence of research on the teaching at university is well established and should be developed further along future research outcomes. The connection with neighboring universities is well established and should be continued to have an exchange of researchers especially in those departments without a full professor.

- *The importance of education could be fostered by including more visible programs like citizen science programs, possibly together with the science or arts faculty. Ecological or historical projects can attract media thereby increasing the presence of the faculty in the society.*
- *The exchange with municipality and other administrative bodies should be carefully continued.*
- *In future also, commercialization could be an important field of development. Many support programs ask for cooperation with SMEs. In education these could be publishers, but also local companies which are interested in linking their technical items to schools.*

Teacher training programmes at the USB take place in close cooperation with other faculties of the USB, especially the Faculty of Science and the Faculty of Arts, but other faculties are also involved in the training of future teachers of so-called specialist subjects (e.g. nursing or agricultural technology). Collaboration on didactic research has led to applied research projects in which FED delivered the didactic and pedagogical part of the solution (e.g. the project coordinated by FAR [Creating a model of the "Gulag" in virtual and augmented reality as a tool for increasing the effectiveness of teaching 20th century history](#) (funded by TACR), or the project [Virtual Reality Education and Training Solutions for Medicine Sector](#) in collaboration with the South Bohemian Science and Technology Park, funded by Interreg Central Europe).

FED also collaborates extensively with other faculties that are preparing teachers or developing didactic research, both within the Czech Republic and internationally. In line with the recommendation to support departments lacking a full professor, Professor Janík from the Faculty of Education at Masaryk University was appointed as a visiting professor of education at FED. Greater visibility of research activities is also helped by the development of creative activities, such as the creation of haptic models of important buildings and hostile or artistic artefacts or educational programmes based on virtual reality (e.g. Interreg project above or VR Team see 3.1). The FED also tries to promote the results of the research on Czech radio, television, in the press and on social networks.

Even if contract research does not constitute the primary focus of research activities, FED has significantly increased the overall volume of contract research during the period under review, in accordance with the recommendations. The majority of this research is related to the development of teaching materials and textbooks, as well as contracts with local companies and municipalities.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
FED mission and vision Pro Futuro	3.1.	https://www.pf.jcu.cz/en/study-at-the-faculty/teacher-pro-futuro
VR Team lab	3.1	https://www.vrteam.cz/eng/
Functional stress diagnostics laboraory	3.1	https://www.pf.jcu.cz/cz/fakulta/katedry/katedra-telesne-vychovy-a-sportu/laborator-funkcni-zatezove-diagnostiky
Schwarzenberg Wind Harmonie project, funded by GACR	3.3.1	https://starfos.tacr.cz/projekty/GA23-07660S?query=32caaac7xckq
Obstacles to the use of information and communication technologies and the possibility of developing ICT literacy among persons with limited ability to access information	3.3.1	https://starfos.tacr.cz/cs/projekty/TQ01000362
The changes of selected social services provided to people with disabilities during the viral disease crisis	3.3.1	https://starfos.tacr.cz/cs/projekty/TL05000413
Plant biomass in sustainable landscape: Learning platform on photosynthesis of terrestrial and aquatic plants to know the plant role in the landscape	3.3.1	https://starfos.tacr.cz/cs/projekty/TL05000150
Development of computational thinking by situational algorithmic problems	3.3.1	https://starfos.tacr.cz/cs/projekty/TL03000222
Learning Hyperspace for Formative Assessment and Inquiry Based Science Teaching	3.3.1	https://starfos.tacr.cz/cs/projekty/TL02000368
Administrative duties in primary education3829	3.3.1	https://starfos.tacr.cz/cs/projekty/TIRSMSMT935
Verification of the efficacy of the Sfumato Reading methodology for helping dyslexic pupils to learn to read	3.3.1	https://www.pf.jcu.cz/cz/fakulta/katedry/katedra-slovanskych-jazyku-a-literatur/projekty-a-publikace/oddeleni-ceskeho-jazyka-a-literatury/vyzkumne-projekty/overeni-metodiky-cteni-sfumato-pro-nacvik-cteni-u-zaku-s-dyslexii
Marketing decision-support system DestinACE	3.3.1	https://starfos.tacr.cz/cs/projekty/TL02000423
Solar energy, Water in Landscape, Vegetation: a New Methodology for Education of Municipal Employees	3.3.1	https://starfos.tacr.cz/cs/projekty/TL01000294

and Inovation of School Teaching on Management Effects on Regional Climate		
Student Technostress in Undergraduate Distance Education: A Navigation Toolkit for Wellness	3.3.1	https://www.bcu.ac.uk/research/social-sciences/identities-and-inequalities/research-projects/student-technostress-in-undergraduate-distance-education
Research Ethics Committee	3.4	https://www.pf.jcu.cz/cz/veda-a-vyzkum/eticka-komise?highlight=WylJdGlja1x1MDBIMSlmtvbWlzZSJd
The changes of selected social services provided to people with disabilities during the viral disease crisis	3.4.1	https://konferia.eu/vystupy-z-projektu/
Plant biomass in sustainable landscape	3.4.1	https://fotosyntezavkrajine.cz/detail-knihy/biomasa-v-trvale-udrzitelne-krajine
imgcomparer (software library)	3.4.1	https://github.com/radimremes/imgcomparer
Hyperspace for formative assessment and inquiry-based teaching	3.4.1	http://www.hyperspace.cz/
Teaching methodology on the topic of solar energy – water in the landscape – vegetation	3.4.1	https://projekty.pf.jcu.cz/svv/metodika_zs.php
Nonprofit Foundation Fund Eduzměna	3.5	https://www.eduzmena.cz/en
Dissemination project Reinforcement of competencies of teachers and other educational staff in the area of including pupils coming from socio-culturally disadvantaged environments	3.5	https://projekty.pf.jcu.cz/pku/
FED Publishing outcomes	3.5	https://www.pf.jcu.cz/cz/veda-a-vyzkum/edicni-cinnost
Childrens' university	3.6	https://www.pf.jcu.cz/cz/fakulta/aktualne/ohlednuti-za-zimnim-semestrem-detske-univerzity?highlight=WylJdGlja1x1MDBIMSlmtvbWlzZSJd

Interreg project Virtual Reality Education and Training Solutions for Medicine Sector	3.7	https://www.interreg-central.eu/projects/vredumed/
Project TACR - Creating a 'Gulag' model in Virtual and Augmented Reality as a Tool for Increasing the Effectiveness of Teaching 20th- century history	3.7	https://starfos.tacr.cz/cs/projekty/TL03000574

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Science

FORD: 1 - Natural 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.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 Faculty of Science, University of South Bohemia (FSC USB) has established itself as a distinguished educational and research institution, offering a diverse array of programs in biological, chemical, physical, mathematical, and computational sciences. Its mission encompasses the development of interdisciplinary studies, fostering international collaborations, and contributing significantly to societal advancement through research, development, and innovation.

Mission and Vision

The Faculty's mission is to provide high-quality education and conduct cutting-edge research that addresses both regional and global challenges. In the frame of the research and education programmes offered at USB, the FSC aims to cultivate a holistic understanding of natural phenomena and technological advancements, by integrating various scientific disciplines. Historically, the core of FSC activities was rooted in Biology, which stemmed from a close collaboration with the research institutes of the Czech Academy of Sciences (most closely with the Biology Centre located on the same campus). Over the past decade, FSC has strived to widen its scope and start interdisciplinary programmes, such as the Master's in Artificial Intelligence and Data Science, which prepares students for the evolving demands of the digital age.

The vision of the FSC is to be a leader in scientific education and research, promoting scientific excellence and sustainable development and innovation. This is achieved by engaging in cross-border educational activities with institutions (like Johannes Kepler University in Linz, Austria, and

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

Deggendorf Institute of Technology in Germany) as well as by establishing collaborative programmes with other faculties within the USB (e.g. newly accredited BSc. programme Sustainable Management).

Societal Contribution of Research, Development, and Innovation (RDI)

By addressing critical issues such as environmental conservation, health, and technological advancement, FSC contributes to the well-being and progress of the society. RDI results recently led to successful establishment of spin-off companies (e.g. BioCanim and NeraAgro, see section 3.4). The FSC engagement with local and international authorities is realized, for example, by courses for experts and policymakers (e.g. Determination Course of Freshwater and Terrestrial Cyanobacteria for experts from public health protection agencies, both from the CZ and abroad - Switzerland, Italy, Spain and New Zealand).

The Faculty's research has led to significant scientific achievements and strong international recognition (reflected by the top position of the USB among CZ universities in the [Leiden ranking](#)). Integrating research into education ensures that students are not only consumers of knowledge but also significant contributors to scientific progress. It is common for students to publish the results of their diploma theses as papers, while scientific education is directly rooted in several study courses, often resulting in the preparation of high-quality papers through collaboration between the students (e.g. [Creative Publishing course](#)).

Long-Term Goals in Developed Fields

Looking ahead, the FSC has outlined several long-term goals to maintain and enhance its contributions to science and society:

- **Advancement of Interdisciplinary Studies:** The Faculty plans to develop further programs that bridge various scientific disciplines, fostering a comprehensive understanding of complex issues and new environmental or societal challenges. This includes promoting sustainable development, which will be achieved through newly accredited programmes (such as Sustainable Management).
- **Strengthening International Collaborations:** By deepening partnerships with universities across Europe and beyond, the FSC aims to enrich its educational offerings and research capabilities. These collaborations provide students and faculty with opportunities to engage in diverse academic and cultural experiences, enhancing the global perspective of the institution.
- **Integration of Cutting-Edge Technologies in Education:** FSC aims to incorporate the latest technological advancements into its curriculum. Programs focusing on applied physics, artificial intelligence, data science, or biomedicine are designed to equip students with the skills necessary to thrive in a technologically advanced society.
- **Enhancement of Research Infrastructure:** Investing in state-of-the-art laboratories and research facilities is a priority to support excellent research. This includes creating hands-on laboratories that utilize research and teaching methods, amongst others, in molecular biology, applied physics, artificial intelligence and machine learning, providing students and researchers with the tools needed for innovation.
- **Community Engagement and Lifelong Learning:** FSC is committed to extending its educational resources beyond traditional students by organizing educational events and long-term courses for all age groups. This approach fosters a culture of lifelong learning and ensures that the broader community benefits from scientific advancements.

Organisational Structure and Size

The Faculty of Science is organized into several [departments](#), each focusing on a specific area of science. These include:

- **seven Departments, three research Centres and one Laboratory covering Life sciences and Environmental sciences:** they conduct research and education in disciplines ranging from molecular biology and genetics, through medicinal biology to zoology, botany or ecology.
- **Department of Chemistry:** conducting education and research in organic, inorganic, and analytical chemistry.
- **Department of Physics:** exploring theoretical and applied physics, including nanotechnology and materials science.
- **Departments of Mathematics and Computer Science:** Focused on modelling in biology, data science, artificial intelligence, and computational methods.

The Faculty is staffed by a diverse team of academics, researchers, and support personnel. It employs over 300 staff members (FTE), including Professors, Assistants, Lecturers, Researchers, and Technical and Administrative personnel (some of which are education-related and thus not listed in Tables 3.1.1 to 3.1.3).

The FSC promotes young researchers and women in their career development. Four years ago, the FSC introduced the [Career Code](#) as a tool for evaluating and supporting the career development of academic and scientific staff. Staff position re-evaluation followed the introduction of the Career Code, which is reflected in Table 3.1.1 by FTE increase of several academic positions (particularly Associate and Assistant professors) and decrease in the category Scientific, research and development staff between 2020 and 2021.

Although the number of female professors is still low, the number of female Associate professors is slowly rising. Furthermore, the [FSC management](#) already shows a high female representation (four out of seven vice-deans are women).

FSC offers a range of undergraduate, graduate, and doctoral programmes and serves a student body of approximately 1,300 individuals (1,600 incl. LifeLong Learning Courses). In total, there are over 35 study programmes (SP), including Bachelor's (18 SP), Master's (18 SP), and Ph.D. degrees (10 SP), in disciplines such as biology, chemistry, physics, applied informatics and mathematics, education and environmental science. Please note that the number of study programmes in the Table 3.1.5 may seem inflated, due to a temporary overlap between old and renewed programmes in some years and due to two language mutations in some programmes.

Over the past 5 years, we have seen an increase in the number of students interested in programmes offering professional-oriented education, such as Laboratory and Medicinal Biology or Applied Informatics. Finally, the FSC PhD programme is robust, currently with 229 students and a high PhD success rate of over 70%.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	7.87/0.75	9.82/1.00	21.57/2.20	23.27/2.04	23.23/1.51	45/3
Associate Professor	14.06/2.61	16.09/2.75	33.74/8.50	32.76/9.03	33.54/9.50	43/10
Assistant Professor	27.66/12.82	32.04/15.44	66.34/20.43	56.34/15.08	58.60/17.10	69/23
Assistant	0/0	0/0	0/0	14.06/6.94	17.09/10.39	18/11
R&D Personnel ³	1.08/1.08	0.45/0.45	0/0	0/0	0/0	2/2
Researchers in other categories ⁴	83.42/36.66	79.74/35.38	83.15/38.88	76.68/41.93	71.55/41.95	88/43
Technical and economic staff ⁵	1/0	1/0	0.78/0.12	1.43/0.43	1.73/0.20	2/1
Scientific, research and development staff involved in teaching activities	67.32/12.02	62.13/11.85	0.13/0.08	10.34/1.64	16.43/1.76	68/16
Early career researchers ⁶	85.49/37.74	81.19/35.83	83.94/39	78.10/42.36	73.28/42.15	87/44
Total ⁷	287.9/103.68	282.46/102.7	289.65/109.21	292.98/119.45	301.45/124.56	

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.

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 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.

3.1.2 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/ 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	1	1	12	0	8	1	3	0
Associate Professor	0	0	1	0	8	1	3	0	4	2	2	1
Assistant Professor	1	0	7	4	18	11	11	1	4	1	0	0
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ⁹	1	1	2	2	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	18	8	83	41	35	9	6	4	7	2	0	0
Technical and economic staff ¹¹	42	26	44	32	29	22	14	11	6	3	2	2
Scientific, research and development staff involved in teaching activities	0	0	24	5	37	9	12	2	13	2	0	0
Early career researcher ¹²	19	9	85	43	36	9	6	4	7	2	0	0
Total ¹³	91	44	246	127	167	62	64	26	49	13	7	3

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/ 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	3	0	13	1	19	1	7	0
Associate Professor	0	0	1	1	15	4	16	3	6	2	2	0
Assistant Professor	0	0	19	6	42	14	13	1	2	0	1	1
Assistant	4	3	5	4	5	4	7	4	2	0	1	1
R&D Personnel ¹⁵	2	2	0	0	1	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	23	16	67	34	42	20	3	1	3	2	0	0
Technical and economic staff ¹⁷	33	25	40	27	39	29	18	15	7	3	1	1
Scientific, research and development staff involved in teaching activities	0	0	5	1	10	1	5	1	1	0	0	0
Early career researcher ¹⁸	25	18	67	34	43	20	3	1	3	2	0	0
Total ¹⁹	87	64	204	107	200	92	78	27	43	10	12	3

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.

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.

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	657	349	633	368	641	395	631	373	705	423	1608	943
Master's ²⁰	185	113	162	108	247	145	287	159	337	173	678	398
Doctoral	227	117	231	122	222	114	230	116	250	130	445	230
Lifelong Learning Courses	262	N/A	201	N/A	388	N/A	532	N/A	358	N/A	1741	N/A
Total	1,331	579	1,227	598	1,498	654	1,680	648	1,650	726		

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	20/2	0	19/3	0	22/3	1/	24/3	1/	23/3	1/	24/3	1/
Master's	15/5	0	16/4	0	20/3	1/1	23/3	1/1	23/3	1/1	23/3	1/1
Doctoral	20/7	0	22/8	0	33/15	0	38/17	0	39/17	0	39/17	0
Lifelong Learning courses	19/0	0	28/	0	35/	0	50/	0	37/	0	50	0
Total	68/15	0	85/15	0	110/21	2/1	135/23	2/1	122/23	2/1		

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	3	Balanced basic and applied research	86
	1.2 Computer and information sciences	6	Balanced basic and applied research	
	1.3 Physical sciences	8	Basic Research	
	1.4 Chemical sciences	12	Basic Research	
	1.5 Earth and related environmental sciences	13	Basic Research	
	1.6 Biological sciences	44	Basic Research	

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

²¹ The total number of study programmes for which admissions have been announced in a given academic year.

	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	6
	2.2 Electrical engineering, Electronic engineering, Information engineering	2	Balanced basic and applied research	
	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	2	Balanced basic and applied research	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology	2	Basic Research	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	3
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences	3	Balanced basic and applied research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	5	Basic Research	5
	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.	
	5.2 Economics and Business		Zvolte položku.	
	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 Science plays an important role in the global research community, demonstrated by the achievements and contributions of its academic staff. This includes recognition through various awards, participation in editorial boards of scientific journals, memberships in professional societies, invited lectures, and involvement in evaluating research grants through the period 2019 to 2023. Below is an overview of these activities and contributions.

Awards and Recognition

Faculty members have received various respected awards highlighting their contributions to research and innovation. These include international honours like the *European Molecular Biology Organization* (EMBO, to Dr. Fencková) as well as national accolades such as the *Gregor Mendel Award* (for scientific excellence to prof. Prach) or the *Česká hlava* (Technical Science award by the Czech Government to PhD students J. Kratochvíl in 2020 and P. Sezemský in 2022). These achievements reflect the strong expertise and dedication of the FSC researchers not only in the traditional biological fields like molecular biology or environmental science but increasingly also in technologies.

The Faculty's researchers are actively involved in professional societies, with several academics elected as fellows to prestigious organizations like the *EMBO* (EU) or *NAS* (USA). Some staff members take on leadership roles within international and national societies, e.g. serving as committee chairs or presidents (*International Organization for Biological Crystallization*, *Society for Tropical Ecology*). These positions help shape the research direction and foster connections within the scientific community.

Editorial Roles in Scientific Journals

Many staff members contribute to the scientific community by serving on the editorial boards of major international journals. These include high-impact publications such as D1 journals of *Insect Biochemistry and Molecular Biology*, *PLoS Pathogens*, *Current Opinion Insect Science*, *Ecology Letters*, *IEEE Internet of Things Journal*, *IEEE Transactions on Cybernetics* and *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. Faculty members also act as guest editors for special issues in respected journals, further demonstrating their expertise and influence.

Invited Lectures

Faculty members are regularly invited to give keynote and plenary lectures at major international conferences. Between 2019 and 2023, they presented invited talks at distinguished events like the *European Society for Evolutionary Biology* congress or the *World Conference on Ecological Restoration*. These invitations highlight the FSC contributions to advancing knowledge and sharing

ideas on a global stage. The FSC also hosts lectures by prominent international scientists, further strengthening its networks and fostering collaboration.

Research Program Evaluations

From 2019 to 2023, Faculty members have contributed to evaluating multiple national and European research projects. They have served as reviewers and panel members for organizations such as the *European Research Council*, *Medical Research Council (UK)*, *Israel Science Foundation*, or various national organisations (notably the *Czech Science Foundation*, GAČR). These activities demonstrate the Faculty's role in supporting high-quality research and shaping funding priorities in ways that address societal challenges.

Other Contributions to the Scientific Community

The FSC supports the scientific community in various ways. Staff members organize and lead conferences, workshops, and interdisciplinary networks that address pressing global issues like biodiversity loss, climate change or public health. FSC academics also mentor students and early-career researchers, helping to develop the next generation of scientists. In addition, the FSC participates in science communication and outreach activities, including creating educational resources and engaging in public events. Finally, our faculty contributes to forming national science and academic policies, e.g. prof. Polívka serves as 1st vice-chair of the *R&D&I Council of the Czech Government* (RVVI, <https://vyzkum.gov.cz/>).

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
Lenka Gahurová, Mgr., Ph.D.	Martina Roesselova Memorial Fellowship	NF IOCB Tech
Karel Prach, Prof., CSc.	Mendel medal	Academy of Sciences of the Czech Rep.
Petr Sezemský, Mgr.	Česká hlava - Doctorandus (Technical Science Award)	Government of the Czech Republic
Michaela Fencková, Mgr., Ph.D.	L'Oreal-UNESCO Award for Women in Science	Fondation L'Oreal
Michaela Fencková, Mgr., Ph.D.	EMBO Installation Grant	EMBO
Martin Janda, doc., Ph.D.	Czech Society of Experimental Plant Biology Award	Czech Society of Experimental Plant Biology
Michaela Fencková, Mgr., Ph.D.	Member and elected vice-chair of FENS-Kavli Network of Excellence	FENS-Kavli Network of Excellence
Kateřina Sam, Mgr., Ph.D.	Elected as President of the Society for Tropical Ecology	Society for Tropical Ecology
Julius Lukeš, Prof., CSc.	Elected as an EMBO member	EMBO
Martin Janda, doc., Ph.D.	President of the Czech Society of Experimental Plant Biology	Czech Society of Experimental Plant Biology

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
Fernando Noriega, Prof., Ph.D.	Current Opinion Insect Science , 2214-5753 (el), 2214-5745 (print), Insect Biochemistry and Molecular Biology , 1879-0240 (el), 0965-1748 (print)
Ivo Bukovský, doc., Ing., Ph.D.	Complex & Intelligent Systems , 2198-6053 (el), 2198-6053 (print) IEEE Transactions on Cybernetics , 2168-2275 (el), 2168-2267 (print)
Julius Lukeš, Prof., RNDr., CSc.	PLoS Pathogens , 1553-7374 (el), 1553-7366 (print)
Amrit Mukherjee, Ph.D	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing , 2151-1535 (el), 1939-1404 (print) IEEE Internet of Things Journal , 2327-4662 (el), 2160-2271 (print) IEEE Transactions on Consumer Electronics , 1558-4127 (el), 0098-3063 (print)
Petr Šmilauer, doc., Ph.D. Petr Koutecký, Mgr., Ph.D. Karel Prach, Prof., CSc. Milan Štech, doc., Ing., Ph.D.	Preslia , 2570-950X (el), 0032-7786 (print)
Jiří Šantrůček, Prof., Ing., CSc.	Annal of Botany , 1095-8290 (el), 0305-7364 (print)
Alexander W. Bruce, Prof., Ph.D.	Frontiers in Cell & Developmental Biology , 2296-634X Reproductive Biomedicine Online , 1472-6491
Jindřich Chmelař, doc., RNDr., Ph.D. Zdeněk Franta, RNDr., Ph.D. Ján Štěrba, RNDr., Ph.D. Jan Kotál, Mgr., Ph.D.	Journal of Applied Biomedicine , 1214-0287 (el), 1214-021X (print)
Tomáš Polívka, Prof., RNDr., Ph.D.	Chemical Physics Letters , 1873-4448 (el), 0009-2614 (print)
Luděk Berec, doc., Ing., Ph.D.	American Naturalist , 1537-5323 (el), 0003-0147 (print) Theoretical Ecology , 1874-1746 (el), 1874-1738 (print)

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
Jindřich Chmelař, doc., Ph.D.	The role of tick salivary serpins in the modulation of host immune system	Serpins2019 conference (Sevilla, Spain)	2019
Jan Štefka, doc., Ph.D.	Lousy & wormy tales: Drivers of population genetic divergence in host-parasite co-evolution.	Invited seminars at the University of Utah and University of Illinois, USA	2019
Amrit Mukherjee, Ph.D.	Advancements in wireless sensor networks with AI	6th Annual World Infotech BIT Congress, Nanjing, China	2019
Alexander W. Bruce, Prof, Ph.D.	p38-MAPK-mediated translation regulation primes blastocyst development and is required for primitive endoderm differentiation in mice.	Visegrád Group Society for Developmental Biology (V4SDB) Second Meeting; Szeged, Hungary.	2021

Jan Štefka, doc., Ph.D.	Co-evolutionary imprints of genomic diversification in parasite populations	Congress of the European Society for Evolutionary Biology (ESEB, Prague, CZ)	2022
Ivo Bukovský, doc., Ph.D.	Learning Entropy: Machine Learning Based Information Concept for Anomaly Detection	Tohoku Graduate School of Medicine, Tohoku University, Japan	2022
Michaela Fencková, Mgr., Ph.D.	Drosophila habituation: for better understanding and treatment of neurodevelopmental disorders	School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA, USA (departmental seminar, host Catherine von Reyn)	2023
Karel Prach, Prof. CSc.	Lessons from spontaneous succession in Europe – at what point is reintroduction needed?	World Conference on Ecological Restoration, Darwin, Australia	2023
Ivo Bukovský, doc., Ph.D.	Research of Machine-Learning Based Information: Theory and Potentials for Applications	The University of Passau, Germany	2023
Vojtěch Novotný, Prof., CSc.	Plenary lecture: Rainforest regeneration: experiments in Papua New Guinea	Conference of the Ecological Society of Germany, Austria and Switzerland, Leipzig	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
Lawrence R. Walker, Prof.	University of Nevada, USA	Vegetation succession.	2019
Martin Zobel, Prof.	Tartu University, Estonia	Global diversity of AM fungi - a plant ecologist's view.	2019
Ingolf Kühn, Prof.	German Centre for Integrative Biodiversity Research (iDiv) & Martin Luther University Halle, Germany	Macroecological patterns of plant traits.	2019
Martin Caffrey, Prof.	Trinity College Dublin, Ireland	Crystallization of membrane proteins in lipidic systems	2021
David Richardson, Prof.	Centre for Invasion Biology, Stellenbosch University, South Africa	Impacts of biological invasions in South Africa: What do we know?	2022
Shuo-Yan Chou, Prof.	National Taiwan University of Science and Technology, Taiwan	Taipei Smart City: Government Platform for Building Taipei as a Living Lab.	2022
David Wardle, Prof.	University of Umea, Sweden	Long-term driver of aboveground-belowground linkages and ecosystem functioning.	2023
Kenichi Tsuda, Prof.	Huazhong Agricultural University, China	Molecular basis of bacterial regulation by plant immunity.	2023

Manuela Winkler, Priv. Doz.	University of Natural Resources and Life Sciences, Vienna, Austria	Biodiversity monitoring: past, present and future challenges.	2023
Borja Jiménez-Alfaro, Assoc. Prof.	Biodiversity Research Institute (IMIB), Mieres, Spain	Seed functional ecology in biodiversity and conservation.	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
Lenka Gahurová, Mgr., Ph.D.	Evaluation Panel Member (P303 - Developmental Life Sciences Panel)	Hungarian National Research, Development & Innovation Office (NKFI)	2019
Michaela Fencková, Mgr., Ph.D.	Evaluation Panel Member (P303 - Developmental Life Sciences Panel)	Hungarian National Research, Development & Innovation Office (NKFI)	2020
	Individual grant application evaluation	Medical Research Council (MRC) of the United Kingdom	2020
	Individual grant application evaluation	The Israel Science Foundation	2021
Martin Janda, doc., Ing., Ph.D.	VEGA commission for mechanical engineering and related branches of information and communication technologies, material engineering	The Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (MESRaSSR) and the Slovak Academy of Sciences (SAS) (VEGA)	2021
	Starting grant evaluator	Danmarks Frie Forskningsfond (DFF, Independent Research Fund Denmark)	2022
	PRELUDIUM-21 grant evaluator	National Science Centre, Poland	2022
Ivana Kutá Smatanová, prof., Ph.D.	Evaluation Panel member (P301 - Biochemistry, Molecular and Structural Biology, Genetics, Genomics and Bioinformatics)	Czech Science Agency (GAČR)	2022-present
	CIISB projects	CIISB Executive Committee (EC Czech Infrastructure for Integrative Structural Biology)	2018-present
Alexander W. Bruce, Prof., Ph.D.	Evaluation Panel Member (P303 - Cellular, Developmental & Evolutionary Biology)	Czech Science Agency (GAČR)	2022-2023
	VEGA commission for mechanical engineering and related branches of	The Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic (MESRaSSR) and of the	2022-2023

	information and communication technologies, material engineering Evaluator - Marie Skłodowska-Curie Actions Postdoctoral Fellowships	Slovak Academy of Sciences (SAS) (VEGA) European Commission	2023
Marie Konečná, Mgr.	Evaluator - a project within the Graduate Women in Science (GWIS) National Fellowship Program	L'Oreal-UNESCO For Women in Science	2019

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:

Grant and contract-based projects represent the primary funding source for basic and applied research performed at the FSC. During the evaluated period, researchers of the FSC performed as principal investigators or co-PIs for 130+ national and international grants. The majority of the projects were basic science projects funded by the national Czech Science Agency (GAČR), but applied research projects are steadily rising in frequency at the FSC, either those funded by the national Technology Agency of the Czech Republic (TAČR) or even contract-based. Contract-based research is strong in the area of archaeobotanical/zoological research of historical sites, but projects in Data and IT science are also being carried out. Several projects supporting scientific infrastructures, in terms of both the personal and technical support, were also acquired (e.g. *Evo-games plus* to prof. Křivan, or *EU-PolarNet* to the Centre for Polar Ecology FSC). The total volume of research funding shows a drop in the last year of the evaluated period; this trend is, however, mostly due to a termination of two particularly large projects (*Mechanisms and dynamics of macromolecular complexes* to prof. Tůma and *Relation between structure and function of carotenoids: New pathways to answer unresolved questions* to prof. Polívka). Possible gap has been bridged by success in other prestigious types of projects starting since 2024, thus, outside the evaluated period (e.g. ERC-CZ projects to Dr. Fencková and Dr. Kubelka).

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.

Biology, biodiversity and **ecology** sciences have always been one of the cornerstones of FSC research and education. Below, we provide several examples of highly successful projects within these fields:

1. **GA18-23889S Ecological and geographical determinants of modern human diversification: a phylogenetic approach on global and local scales** (PI prof. Zrzavý). 3-year project, producing 9 impacted papers, incl. papers in *Nature Human Behaviour* (D1, IF=22.3) and *PNAS* (D1, IF= 9.4). The project investigated the history and future of human ethnolinguistic diversity and its environmental and socio-ecological determinants. It combined phylogenetics, behavioural ecology, and cultural anthropology methods, integrating genetic, linguistic, and ethnographic data with a large-scale field study in Papua New Guinea, the world's most ethnolinguistically diverse country. The research was a collaboration between the FSC, the Centre for Theoretical Studies at Charles University, and the Biology Centre of the Czech Academy of Sciences (CAS). This interdisciplinary approach enabled a comprehensive analysis of cultural evolution, combining phylogenetic methods with field-based ethnographic surveys.
By integrating genetic and linguistic data, we constructed a global phylogeny of human ethnolinguistic groups. Two subset phylogenies of ethnographically documented societies allowed us to examine the historical and socio-ecological drivers of social organization, including marriage norms, alloparental care, and food-sharing practices. Our findings revealed that population history significantly influences cultural diversity, with many traits having deep evolutionary roots and multiple independent origins. In Papua New Guinea, we assessed the language skills and ethnobiological knowledge of 6,190 students speaking 392 languages. The results indicate an accelerating decline in indigenous language fluency, threatening the transmission of traditional knowledge.
This project advanced interdisciplinary research and contributed to the FSC mission by strengthening collaboration across evolutionary biology, anthropology, and linguistics, providing valuable insights into cultural evolution. One of the involved PhD students (G. Šaffa) was the principal author of a *Nature Human Behaviour* paper explaining the origin and maintenance of controversial genital mutilation in different human ethnicities. Amongst other things this research helped understanding the roots of gender inequalities in human societies.
2. **GA20-02901S Community diversity as a response and as a driver: Exploiting long-term experiments to address functional roles of diversity** (PI prof. Lepš). 3-year grant, resulted in 24 papers (18 (co)authored by members of the FSC team), which received 197 citations (as of March 3, 2025), including two papers in *New Phytologist* (D1, IF=8.3).
The project addressed biodiversity decline, which is considered to be one of the pronounced global changes. At the same time, biodiversity is expected to be vital for ecosystem functioning, while the empirical evidence is equivocal. FSC cooperated with the Botanical Institute of CAS (as a co-PI institution) because both institutions include teams with corresponding expertise and have long-term (over three decades) manipulative experiments investigating the causes of diversity decline and experiments with manipulated diversity. We demonstrated how the (mis)management leads to diversity decline, which mechanisms are involved in the species' local extinctions. In this way, we connected the tests of mechanistic hypotheses on species coexistence, niche differentiation and community assembly with practical biodiversity conservation tasks. Further, we evaluated the relative effects of species diversity and quantitative functional composition (i.e. reflecting mainly characteristics of dominants) on ecosystem functioning, a recently highly debated topic in the world literature.

Three FSC PhD students participated in the project (and have defended their theses). The paper Lisner et al. 2023 in the Journal of Ecology was awarded the Jarosik Price for the best student publication (and has already accumulated 22 WoS citations). The work is internationally appreciated, which is reflected also by the fact that one of the world's leading scientists in the field, David A Wardle (h-index 109), was present in person as an opponent of the theses.

3. **GA20-16111S Understanding the effects of multiple stressors on freshwater biota: Will climate change alter the impact of chemical pollution?** (PI Prof. Boukal). 3-year project, producing 4 impacted papers, three of which are high quality - Water Research (D1, IF=11.5), Environmental Pollution (D1, IF=7.6), Science of the Total Environment (D1, IF=8.2).

The project addressed highly topical questions of global relevance, given the accelerating rates of global warming and the rise of emerging pollutants such as pharmaceuticals. The project combined laboratory assays and long-term experiments in heated outdoor experimental mesocosms at the FSC campus to understand how the commonly found pharmaceutically active compounds (PhACs) and pesticides originating from municipal wastewater and agricultural sources affect freshwater ecosystems. Its holistic approach combined evidence from bioaccumulation of the pollutants and alterations of individual physiology and behaviour to changes in community composition and ecosystem functioning. It discovered how warming increases the vulnerability of aquatic arthropods to PhAC pollution, highlighting the need for comprehensive assessment and management strategies to mitigate the effects of emerging contaminants and climate change on freshwater biota.

The FSC team collaborated on the project within the USB (Laboratory of Environmental Chemistry and Biochemistry, Faculty of Fisheries and Protection of Waters) and with an international partner (KU Leuven, Belgium). The project and the new collaboration between Boukal lab and the Laboratory of Environmental Chemistry and Biochemistry also led to new scientific questions that are being addressed in a new joint project (GACR 24-11779S).

4. **GA20-10222S Phylogeny, adaptation and evolution of sociality in African mole-rats, a model group in evolutionary and biomedical research** (PI prof. Šumbera). 3-year project, producing 11 impacted papers, one published in Nature Communications (D1, IF=14.7).

The project focused on taxonomical revisions of all six mole-rat genera and found that in most of them, there are fewer species than expected based on hitherto research. It also studied the evolution of the mole-rats' sociality and how their sociality influences longevity. Finally, it concentrated on the presence of two burrowing phenotypes within African mole-rats (scratch vs. chisel diggers), trying to identify the adaptive value and evolution of both features. The comparison of the naked mole-rat and its maxilloturbinals with other mammals provided important implications for the evolution of endothermy in mammals, which is also interesting from a biomedical point of view (e.g. implications of mole rat longevity to reproductive biology are currently studied by other projects at FSC).

The project integrated various modern molecular-genetic, taxonomical, behavioural, ecological and morphological approaches. For phylogenetic reconstruction, we used a robust nuclear DNA genomic dataset (ddRAD) and sequencing using Illumina NextSeq technology. We employed advanced methods such as the multispecies coalescent model using BPP for species delimitation and a fossilized birth-death model of diversification for dating of divergences. An isometric Kistler force transducer was used to measure the In vivo bite force (BF). Classical dissections and contrast-enhanced micro-computed tomography (CT) were applied during morphological studies. The maximal metabolic rate was measured with an open-flow respirometer.

The project, led by the FSC team, required collaboration with researchers from another institution within the CZ (Institute of Vertebrate Biology, CAS) and nine institutions abroad, mainly because of the extensive fieldwork abroad, but the central part of the data analysing and paper preparations were done at the FSC.

5. GA20-19471S **GeoMicLink: Microbial imprint in catchment scale nutrient retention** (primary beneficiary [CGS](#), co-PI at FSC Dr. Tahovská). 3-year project, producing 6 impacted papers, one published in Communications Earth & Environment (D1, IF=8.1).

The project studied nutrient retention in 14 Czech temperate forest catchments as a function of their stoichiometric imbalance, possibly caused by persistent pressures from environmental variables, including chronic N deposition, legacy acidification and emerging climate change. The soil microbial community then plays a unique role in buffering these changes and ensuring the final ecosystem nutrient balance. We combined analysis of long-term data (including historical trends and input-output budgets), field experiments (soils/runoffs) and the development of process-based models. Established close team cooperation (CGS & FSC) together with a transdisciplinary approach resulted up to now in 13 published IF articles (both papers affiliated to the project and follow-up papers) in the categories of Microbiology, Geosciences, Plant Sciences, Environmental Sciences, Water Resources, Forestry, and Multidisciplinary Sciences) that have already been cited 147 times (Scopus).

Two of the obtained results showed the potential to rewrite textbooks. In the first, we applied an unconventional method to calculate denitrification based on the balance of the isotope ratios of $^{14}\text{N}/^{15}\text{N}$. Combining more than 800 unique $\delta^{15}\text{N}$ measurements with data from global literature, we estimated global N flux by denitrification from forests to be 8.9 Tg N per year, corresponding to 39% of the current N deposition in forests worldwide. Incidentally, this estimate is much lower than previous estimates and lower than the calculations of global Earth system models. This discrepancy was then well illustrated in an article in Nature Communications (Feng et al., 2023), which cited our study as an example of an unconventional approach that underpins the underestimated role of dissolved N export. The second study, assessing changes in C isotopes in tree rings and intrinsic water-use efficiency (iWUE), yielded very surprising results where the long-term change in iWUE (the ratio between net CO_2 assimilation and stomatal conductance) was directly proportional to calcium (Ca) availability. It showed that the activity of Ca acquisition by the roots could be indirectly linked to carbon assimilation in the canopy via the simultaneous regulation of water and carbon flux through the stomata. This observation has inspired us to prepare another project.

Other fields of science such as **Physics**, **Chemistry** and **Technologies** have also successfully applied for project support, with several projects achieving excellent scientific and/or interesting applied results, e.g.:

6. GX19-28323X **Relation between structure and function of carotenoids: New pathways to answer unresolved questions** (PI prof. Polívka). 5-year project, producing 26 papers, including top journals such as Nature (1 paper), Nature Communications (1) and Science Advances (2). The papers resulting from the project were cited 290 times until March 2025. The project focused on the spectroscopic properties of carotenoids, which are molecules fundamental to the function of essentially any living organism. The project specifically addressed their role in photosynthesis, targeting the yet-unknown relationship between the structure of a particular carotenoid and its spectroscopic properties and function. Both isolated carotenoids and carotenoids bound to photosynthetic proteins were studied, aiming to add

some key pieces to the yet-unresolved puzzle of how the proteins tune the spectroscopic properties of carotenoids to achieve the desired light-induced actions of carotenoids in photosynthesis. The project developed new methods and approaches to tackle this problem, ranging from developing new ultrafast spectroscopy experimental schemes to chemical modifications of natural carotenoids and genetic modifications of photosynthetic proteins. This underscores the project's interdisciplinary character, which encompasses research fields ranging from physics and mathematics via chemistry to biochemistry and molecular biology. The project theme is ideally aligned with the mission of the FSC as it builds on a long-standing collaboration between the Physics and Chemistry departments in photosynthesis studies. A few master's and 3 PhD students of the Biophysics program were involved in the project; thus, twinning between research and education has been a substantial part of the project. The project involved strong international collaboration: The two key international collaborations were with Queen Mary University of London and Michigan State University. Further results were achieved in collaborations with the University of Pisa, CNRS Saclay, Technical University Munich, and the University of Sheffield. In total, 15 papers from the project resulted from international collaboration.

7. GA 21-16508J. **Sub-THz band: a new perspective for studying the origin of solar and stellar flares through observations and numerical simulations** (PI doc. Jelínek). 3-year project, producing 18 impacted papers, most of them in Q1 journals

The project sought to advance understanding of solar and stellar physics through a combination of numerical simulations of magnetohydrodynamics, kinetic, and radiation processes alongside observations in the sub-THz range, a relatively new and promising avenue for investigating the nature of solar and stellar flares. This innovative approach enabled us to connect theoretical models with empirical observations, offering new perspectives on complex astrophysical phenomena. From the perspective of numerical simulations, the FSC team successfully developed two- and three-dimensional numerical models. These studies provided valuable insights into energy dissipation mechanisms, enhancing our understanding of how turbulent flows contribute to plasma heating in the solar corona. Such findings have implications not only for solar physics but also for broader applications in plasma astrophysics.

In addition to our simulation work, a significant portion of the FSC team actively participated in the development and ongoing operation of the ALMA observatory (Atacama Desert, Chile), a state-of-the-art facility dedicated to solar research. ALMA's unparalleled ability to observe sub-THz emissions has opened new frontiers in solar physics, allowing us to study solar phenomena with unprecedented precision. Our collaboration with ALMA strengthens its role as a groundbreaking tool for observational astrophysics. It sets the stage for future discoveries, such as understanding the dynamics of solar flares, particle acceleration mechanisms, and their impacts on space weather.

Through these combined efforts, our project has laid a solid foundation for further studies, fostering a deeper understanding of the complex and interconnected processes that govern solar and stellar activity. This work contributed to the broader goal of unravelling our sun's and other stars' mysteries.

8. GA21-05030K **Semitransparent titania nanostructures on complex geometry surfaces for enhanced light harvesting and sensing. Research of promising applied potential** (PI prof. Straňák). A 3-year project that resulted in 9 impacted papers, including a review in Renewable & Sustainable Energy Reviews (D1, IF=16.3).

The project successfully demonstrated the potential of plasma-assisted deposition with anodized TiO₂:X (X = Ag, Cu) nanotube arrays for smart light management and label-free detection.

A major achievement was the development of semitransparent titania photoelectrodes with enhanced light-harvesting properties, improving photocurrent density through nanotube architectures and laser-induced modifications. The project also advanced electro-optical sensing, enabling innovative label-free detection.

This interdisciplinary research integrated expertise from four institutions— FSC and CUNI from the Czech Republic and [WUT](#) and [IMP-PAN](#) from Poland—creating a collaborative framework that led to significant scientific advancements. The project's success was evidenced by a series of high-impact publications (IF > 16) and numerous conference presentations, including invited talks. The project facilitated research exchanges, including scientific missions for junior researchers such as Radka Simerová and Pavel Čurda, who conducted research visits at partner institutions. Additionally, FSC hosted a PhD student from IMP-PAN, strengthening ties between the research teams. The impact of these interactions extended beyond the project, as evidenced by new research collaborations, including a partnership with Prof. I. del Villar's group ([UPNA, Spain](#)) and the initiation of the NATO [SPS G6112](#) project.

The project's potential for application is substantial, particularly in biosensing and photoconversion. The developed technologies are currently at TRL 1–2, with ongoing efforts to advance them towards TRL 3–5. Furthermore, the research has been partially safeguarded by Utility Model No. 37366, aimed at pathogen detection, demonstrating a clear path toward commercialization.

9. FSC participated in the USB-coordinated applied research project TAČR TP01010019, **“Development of Proof of concept activities at the South Bohemia University”** (2020-2022). The project aimed to strengthen the academic and entrepreneurial collaboration and to support and significantly streamline the transfer of R&D result procedures through a comprehensive system of commercialization support. The project contained several sub-projects, one of them oriented on preparing materials with antimicrobial properties. It resulted in a utility model “A substrate with an antimicrobial surface layer, especially for respiratory masks and air filters” (2022), in relation to the ongoing COVID pandemic. The produced material is suitable for producing respiratory masks for healthcare and general use.
10. Furthermore, materials with antiviral properties were developed within project TAČR TN01000038, **“National centre of competence for materials, advanced technologies, coatings and their applications”** (2019-2022) in collaboration with the Institute of Physics CAS, Prague (the primary beneficiary), Research resulted in a Functional sample of antiviral thin film CuFeO₂. Researchers from various FSC departments and research fields started their collaboration within the two TAČR projects (9 and 10 on this list) – Departments of Physics (prof. Straňák), Chemistry (Dr. Štěrbá), and Medical Biology (doc. Chmelař). Both projects and the related collaborations developed the skills and knowledge of FSC employees in producing and developing novel materials, increased our potential and experience in applied research, and set the base for further research and projects. Furthermore, antiviral and antimicrobial properties testing according to ISO standards was introduced into research and is also offered as a service for external users.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Waves in expanding magnetic flux tubes in the solar atmosphere	55/2.2				
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Molecular basis of host-pathogen interactions: case study of <i>Borrelia afzelii</i>				40/1.6	22/0.9
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Deciphering the effects of salicylic acid on <i>Arabidopsis</i> metabolic pathways					78/3.1
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Optical fibre-based biosensor for detection of Lyme borreliosis spirochetes	100/4	48/1.9	52/2.1		
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Mechanisms and dynamics of macromolecular complexes	34,016/1360.6	31,762/1270.5	324/13	1,061/42.4	
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	MATTER MSCA MOBILITY			200/8	200/8	
CZECH SCIENCE AGENCY	Stable but dynamic: mechanisms underlying long-term dynamics of diversity in temperate grasslands	1,791/71.6				
CZECH SCIENCE AGENCY	Fishponds as models for exploring plankton diversity and dynamics of hypertrophic shallow lakes	1,351/54				

²⁵ 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.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

CZECH SCIENCE AGENCY	Factors determining vegetation succession at the country scale	792/31.7				
CZECH SCIENCE AGENCY	Molecular description of phenomena in electrical double layer - prediction and interpretation of experimental data by computer simulations	681/27.2				
CZECH SCIENCE AGENCY	Structure and function of AM fungal community in managed grasslands: role of host functional types, their diversity and competition	1,321/52.8				
CZECH SCIENCE AGENCY	Freshwater ectotherms under climate change: the role of phenotypic plasticity in life histories and trophic interactions	1,095/43.8				
CZECH SCIENCE AGENCY	Origin of adenosine as a selfish immunity signal	1,803/72.1				
CZECH SCIENCE AGENCY	Chromosome rearrangements in the evolution of moths and butterflies (Lepidoptera)	1,982/79.3				
CZECH SCIENCE AGENCY	Genomics and population genetics in host-parasite system: switches, diversification and adaptation	2,810/112.4				
CZECH SCIENCE AGENCY	Problems and solutions of thermoregulation in subterranean mammals	1,778/71.1				
CZECH SCIENCE AGENCY	Linking functional traits of three organism levels as driving mechanisms of ecosystem functions in the Arctic	1,668/66.7				
CZECH SCIENCE AGENCY	Enzyme hydration and flexibility studied by advanced structural and biophysical methods	1,408/56.3				

CZECH SCIENCE AGENCY	Regulating the balance between differentiation and pluripotency; molecular characterisation of p38-MAPK function in mouse blastocyst ICM maturation.	1,952/78.1	1,537/61.5	353/14.1		
CZECH SCIENCE AGENCY	Ecological, genomic and metabolic processes accompanying adaptations of symbiotic bacteria and blood-feeding insects.	2,257/90.3	2,262/90.5			
CZECH SCIENCE AGENCY	The animals of a medieval town. Archaeozoology and stable isotope analysis	1,369/54.8	688/27.5	351/14		
CZECH SCIENCE AGENCY	New insights into niche partitioning of coexisting terrestrial orchids: functional traits shaping orchid-fungus interactions	3,338/133.5	1,657/66.3			
CZECH SCIENCE AGENCY	Overlooked man-made habitats: understanding the drivers and patterns of freshwater biota in polluted standing waters	1,118/44.7	996/39.8			
CZECH SCIENCE AGENCY	Decay resistance of Sphagnum – biochemical causes and consequences	2,198/87.9	1,698/67.9			
CZECH SCIENCE AGENCY	Ultrafast spectroscopy as a tool for elucidation of the structure-function relationship in cyanobacterial carotenoid-binding proteins	1,623/64.9	1,623/64.9			
CZECH SCIENCE AGENCY	Ecological and geographical determinants of modern human diversification: a phylogenetic approach on global and local scales	3,260/130.4	3,245/129.8			

CZECH SCIENCE AGENCY	The influence of plant functional type and phenology on plant inputs to the soil as affected by simultaneous changes in environmental factors	1,931/77.2	1,743/69.7	1,590/63.6	614/24.5	
CZECH SCIENCE AGENCY	Restoring biodiversity of disturbed peatlands as a basis for restoration of their future ecosystem functions and services	1,877/75.1	1,526/61	1,500/60		
CZECH SCIENCE AGENCY	The effect of tick saliva and salivary sialostatins on cellular stress responses and its implication to tick-borne encephalitis virus transmission	2,105/84.2	1,806/72.2	1,931/77.2	553/22.1	
CZECH SCIENCE AGENCY	The role of nutrient availability in microbial soil organic matter formation and stabilization in agricultural soils of different C saturation status	1,350/54	1,507/60.3	1,483/59.3	98/3.9	
CZECH SCIENCE AGENCY	War of dominance between sexuals and apomicts: the mechanisms and consequences of the conflict between the two types of reproduction in wood ferns	1,013/40.5	1,023/40.9	1,205/48.2		
CZECH SCIENCE AGENCY	Genomics of replicated cichlid diversification in rivers: The role of hybridization in the adaptive radiation of Neotropical pike cichlids (<i>Crenicichla</i>)	2,895/115.8	3,012/120.5	1,703/68.1	222/8.9	
CZECH SCIENCE AGENCY	Nanostructures for LSPR biosensors based on optical fibre	1,946/77.8	2,178/87.1	2,299/92	337/13.5	
CZECH SCIENCE AGENCY	Community diversity as a response and as a driver: Exploiting long-term		1,562/62.5	2,022/80.9	1,618/64.7	

	experiments to address functional roles of diversity					
CZECH SCIENCE AGENCY	Patterns of vegetation succession at broad geographical scales: The time is ripe for comparative studies and meta-analyses		2,253/90.1	2,488/99.5	2,408/96.3	446/17.8
CZECH SCIENCE AGENCY	Microbiomes in blood-feeding insects: diversity and dynamics of genomic processes		2,268/90.7	4,145/165.8	3,955/158.2	549/21.9
CZECH SCIENCE AGENCY	Molecular mechanisms of privileged access of activated immune cells to energy in <i>Drosophila</i>		2,981/119.2	2,992/119.7	3,078/123.1	407/16.3
CZECH SCIENCE AGENCY	How ladybirds got their spots: Genetics and ecology of colouration of Coccinellidae		2,606/104.2	3,033/121.3	2,931/117.2	
CZECH SCIENCE AGENCY	The impact of disturbance intensity on succession trajectories in tropical rain forests: an experiment with plant-insect food webs in New Guinea		5,098/203.9	4,270/170.8	3,795/151.8	499/20
CZECH SCIENCE AGENCY	Phylogeny, adaptation and evolution of sociality in African mole-rats, a model group in evolutionary and biomedical research		2,824/113	3,623/144.9	2,796/111.8	
CZECH SCIENCE AGENCY	Phenotypic response of macrophages in adipose tissue remodeling in <i>Drosophila</i> – possible model for obesity-associated diseases		2,088/83.5	1,977/79.1	1,977/79.1	73/2.9
CZECH SCIENCE AGENCY	Understanding the effects of multiple stressors on freshwater biota: Will climate change alter the impact of chemical pollution?		2,931/117.2	3,047/121.9	3,047/121.9	100/4

CZECH SCIENCE AGENCY	Relating genetic diversification and ecological traits at secondary contact: Hybrid zone and ecological speciation in a host-parasite-symbiont system			2,502/100.1	3,499/140	2,605/104.2
CZECH SCIENCE AGENCY	Characterisation of Hippo-signalling related genes during mouse oocyte maturation, acentrosomal cell division & blastocyst cell lineage allocation.			2,645/105.8	2,772/110.9	2,600/104
CZECH SCIENCE AGENCY	Functional Analysis of Babesia Calcium-Dependent Protein Kinases				2,724/109	2,868/114.7
CZECH SCIENCE AGENCY	Computer modeling of nonlinear optics signals at interfaces				1,449/58	1,655/66.2
CZECH SCIENCE AGENCY	Where have all the fungi gone? The effects of fertilization on mycorrhizal fungi in permanent grasslands				2,563/102.5	2,940/117.6
CZECH SCIENCE AGENCY	Home-field advantage? Consequences of local adaptation among plants, soil, and mycorrhizal fungi for species conservation				3,619/144.8	3,664/146.5
CZECH SCIENCE AGENCY	Reovirus replication factories as a new antimicrobial target				1,820/72.8	1,883/75.3
CZECH SCIENCE AGENCY	Glacial ecosystems: from tropics to the poles				1,697/67.9	
CZECH SCIENCE AGENCY	Life in different soil types: adaptations of blind mole rats Spalax galili and their consequences for ecological speciation				4,126/165	2,392/95.7
CZECH SCIENCE AGENCY	Drivers of competition asymmetry in communities of perennial species:					1,860/74.4

	ubiquitous but untested					
CZECH SCIENCE AGENCY	The role of macrophages in emergency lipid mobilization					3,325/133
CZECH SCIENCE AGENCY	Performance of mountain ecosystems along elevation gradients under changing environmental conditions					1,959/78.4
CZECH SCIENCE AGENCY	SoWaFUN - Fungal ecology at the soil-water interface					2,513/100.5
CZECH SCIENCE AGENCY	Mechanistic basis and evolution of meiotic idiosyncrasies in Lepidoptera					4,063/162.5
CZECH SCIENCE AGENCY	Effects of plant diversity loss on ecosystem carbon cycling in a changing world					1,988/79.5
CZECH SCIENCE AGENCY	Drosophila habituation to close the gap in genetic diagnostics of neurodevelopmental disorders					2,700/108
CZECH SCIENCE AGENCY	CRYOVULCAN - Vulnerability of carbon in Cryosols – substrate-microorganisms-aggregate interactions		2,334/93.4	3,413/136.5	3,021/120.8	363/14.5
CZECH SCIENCE AGENCY	Sub-THz band: a new perspective for studying the origin of solar and stellar flares through observations and numerical simulations			907/36.3	1,384/55.4	1,383/55.3
CZECH SCIENCE AGENCY	Probing specific interactions of well-defined glycosaminoglycans with European Lyme disease borrelia adhesins at atomic resolution					1,832/73.3

CZECH SCIENCE AGENCY	Does intra-sexual selection drive evolution of individual identity in animal signals?			1,493/59.7	1,935/77.4	1,634/65.4
CZECH SCIENCE AGENCY	Semitransparent titania nanostructures on complex geometry surfaces for enhanced light harvesting and sensing			1,761/70.4	2,302/92.1	1,880/75.2
CZECH SCIENCE AGENCY	Origin of resistance against desiccation and cryoinjuries in soil crust microalgae of High Arctic				1,039/41.6	1,693/67.7
CZECH SCIENCE AGENCY	Ecological stability and significance of the microbiomes in Triatominae, the vectors of Chagas disease	3,326/133	2,532/101.3	488/19.5		
CZECH SCIENCE AGENCY	Anti-hemostatic serpins from the tick Ixodes ricinus and their role in pathogen transmission	2,607/104.3	2,527/101.1	2,605/104.2		
CZECH SCIENCE AGENCY	Electron transfer on electrified heterogeneous interfaces with redox metalloproteins		1,282/51.3	2,686/107.5	2,957/118.3	132/5.3
CZECH SCIENCE AGENCY	Allosteric communication in membrane protein complexes linked to conformational transitions on multiple timescales		1,375/55	1,785/71.4	1,553/62.1	
CZECH SCIENCE AGENCY	Integrating experimental and modelling approach to understand the effect of redox potential on microbial carbon use efficiency		2,136/85.4	2,791/111.6	3,184/127.3	
CZECH SCIENCE AGENCY	Early evolution of lepidopteran neo-sex chromosomes		2,973/118.9	2,821/112.8	3,189/127.6	
CZECH SCIENCE AGENCY	Vectors, symbionts and pathogens: a complex story of			2,646/105.8	5,202/208.1	4,181/167.3

	Triatominae microbiomes					
CZECH SCIENCE AGENCY	Ecological meltdown in the absence of birds and spiders?					4,207/168.3
CZECH SCIENCE AGENCY	Animal migrations in a changing world – Movements for reproduction to higher latitudes: still advantageous strategy or maladaptive behaviour?					7,777/311.1
CZECH SCIENCE AGENCY	Functional characterization of cytokine binding molecules from tick saliva					699/28
CZECH SCIENCE AGENCY	Relation between structure and function of carotenoids: New pathways to answer unresolved questions	4,867/194.7	5,285/211.4	5,286/211.4	5,547/221.9	5,774/231
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Molecular simulations of processes at solid-liquid interfaces	625/25	681/27.3	575/23		
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Phylogenetic placement of unculturable cyanobacterial genera using single-cell sequencing techniques	1,460/58.4	1,303/52.1	845/33.8	1,009/40.4	
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Flavivirus-host interactions on the transcriptional and translational level	2,301/92	2,450/98	2,901/116	1,082/43.3	
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Evolution of neo-sex chromosomes in butterflies of the subtribe Danaini		1,550/62	1,537/61.5	1,331/53.2	
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Support for attending meetings of the Board of the European Society for Mathematical and Theoretical Biology (ESMTB)	43/1.7	43/1.7	43/1.7		
MINISTRY OF EDUCATION,	Research partnership: optimization of production processes				204/8.2	545/21.8

YOUTH AND SPORTS; CZ	in the chemical industry by artificial intelligence					
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Protection of poppy plants against pathogens and pests using vesicle-like nanoparticles delivering exRNA					783/31.3
MINISTRY OF HEALTH, CZ	Role of inhibitory immune checkpoints in Lyme disease					1,304/52.2
MINISTRY OF HEALTH, CZ	Unique biosynthetic enzymes as the key to novel bioactive compounds	532/21.3	500/20			
TECHNOLOGY AGENCY CZ	Megaungulates grazing in nature and landscape conservation: Biodiversity and ecosystem services			1,359/54.3	1,771/70.8	2,165/86.6
MINISTRY OF INTERIOR; CZ	Applications of species composition analysis of diatom (Bacillariophyceae) communities in forensic practice.					2,210/88.4
TECHNOLOGY AGENCY CZ	Strengthening proof-of-concept activities at the University of South Bohemia	1,232/49.3				
TECHNOLOGY AGENCY CZ	Development of Proof of concept activities at the South Bohemia University		3,724/149	4,082/163.3	3,746/149.9	
NATO	Ultra-sensitive opto-electrochemical detection of liquid explosives fabrication	506/20.2				
Total		100,382/ 4,015.3	113,617/ 4,544.7	85,760/ 3,430.4	93,455/ 3,738.2	79,752/ 3,190.1
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
MINISTRY OF CULTURE; CZ	Identification and preservation of historic field patterns	866/34.6	908/36.3	933/37.3	755/30.2	

²⁷ Ibid.

MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Research of key soil- water ecosystem interactions at the SoWa Research Infrastructure	1,766/70.6	644/25.8			
Ministry of Industry and Trade; CZ	Development of new products - Chemically resistant diaphragm vacuum pump, multistage pump system and Dynamic bellows.		2,717/108.7			
CZECH SCIENCE AGENCY	Misunderstood patterns of cryptic variation in aquatic plants caused by hybridization and polyploidization events	941/37.6				
CZECH SCIENCE AGENCY	Phosphorus dynamics in unmanaged terrestrial ecosystems: Links with nitrogen and carbon cycling.	1,261/50.4				
CZECH SCIENCE AGENCY	Ecophysiological diversity of snow algae – a combined field and laboratory study	672/26.9	672/26.9			
CZECH SCIENCE AGENCY	Stomata: coordination of development, evolution of CO ₂ sensing and carbon acquisition	1,505/60.2	1,248/49.9	255/10.2		
CZECH SCIENCE AGENCY	Evolution at steep elevational gradients: assessing the role of genetic and ecological factors in speciation process	1,524/61	1,533/61.3			
CZECH SCIENCE AGENCY	Long-term history of woodland under human impact, archaeoethnological synthesis for lowlands in Czech Republic	991/39.6	1,020/40.8	837/33.5		
CZECH SCIENCE AGENCY	Who eats whom and when? Zooming-in on alternative energy transfer pathways in planktonic food webs of shallow lakes	993/39.7	939/37.6	1,010/40.4		

CZECH SCIENCE AGENCY	An interdisciplinary study on element cycling in mountain catchment-lake systems regenerating from tree dieback	1,286/51.4	1,679/67.2	1,496/59.8		
CZECH SCIENCE AGENCY	Restoration of species rich grasslands: Do we miss intraspecific variability in our understanding to community assembly?		939/37.6	807/32.3	1,217/48.7	
CZECH SCIENCE AGENCY	Diversification across scales: exploring the role of plant inter- and intra-specific differentiation for coexistence and ecosystem functioning		907/36.3	1,332/53.3	1,484/59.4	297/11.9
CZECH SCIENCE AGENCY	SCALING OF BIOTIC INTERACTIONS IN TEMPERATE AND TROPICAL FOREST		1,527/61.1	1,752/70.1	1,626/65	
CZECH SCIENCE AGENCY	Phosphorus leaching from undeveloped alpine soils: Biotic or abiotic control?		1,324/53	1,261/50.4	1,048/41.9	245/9.8
CZECH SCIENCE AGENCY	GeoMicLink: Microbial imprint in catchment scale nutrient retention		1,465/58.6	1,543/61.7	1,315/52.6	150/6
CZECH SCIENCE AGENCY	At the fringe of the neolithization: strategies of the first farmers of South Bohemia			661/26.4	708/28.3	602/24.1
CZECH SCIENCE AGENCY	Capacitive Deionisation: Insights from Molecular Modelling			519/20.8	834/33.4	1,004/40.2
CZECH SCIENCE AGENCY	Effects of nitrogen availability and forest status on soil microbiome, nutrient cycling, and biological recovery of acidified waters in mountain ecosystems				2,196/87.8	2,801/112
CZECH SCIENCE AGENCY	Consolidating cyanobacterial systematics through harmonization of				1,638/65.5	1,667/66.7

	polyphasic and genomic taxonomy					
CZECH SCIENCE AGENCY	Deciphering complex reticulation in aquatic plants: what is the relationship among climate oscillations, hybridization and polyploidization?				2,010/80.4	1,389/55.6
CZECH SCIENCE AGENCY	Light-driven energy conversion with biohybrid assemblies in nanocontainers				1,404/56.2	1,404/56.2
CZECH SCIENCE AGENCY	Unique community of ice-bound tardigrades and rotifers in evolutionary, physiological and ecological context				729/29.2	615/24.6
CZECH SCIENCE AGENCY	Linking climate warming to increasing invertebrate species richness in running waters: from historical data to experiments					838/33.5
CZECH SCIENCE AGENCY	How traits mediate tree interactions with neighbours, enemies and mutualists: explaining coexistence mechanisms in tropical and temperate forests					1,933/77.3
CZECH SCIENCE AGENCY	Small mammals of Eastern African Mountains: evolutionary diversification and endemism in one of the world's most important biodiversity hot-spots		1,386/55.4	1,808/72.3	1,679/67.2	
CZECH SCIENCE AGENCY	Structural and bio-nanomechanical view at bacterial dissemination in the host				579/23.2	1,272/50.9
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Czech National Infrastructure for Biological Data	1,375/55				

MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Center for Systems Biology	4,025/161				
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	National Infrastructure for Comprehensive Monitoring of Soil and Water Ecosystems in the Context of Sustainable Use of the Landscape	3,034/121.4				
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Czech Polar Research Infrastructure	5,914/236.6				
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Czech National Infrastructure for Biological Data		2,227/89.1	2,048/81.9	2,008/80.3	
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Czech National Infrastructure for Biological Data					3,297/131.9
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Polyphasic assessment of diversity of phototrophic microorganisms from cold environments and their bioprospection potential		1,208/48.3	1,459/58.4	1,333/53.3	
MINISTRY OF EDUCATION, YOUTH AND SPORTS; CZ	Development of technologies for early detection of tick borne encephalitis, based on changes in gene expression and protein production in infected antigen-presenting cells	992/39.7	1,063/42.5	189/7.6		
TECHNOLOGY AGENCY CZ	National centre of competence for Materials, Advanced Technologies, Coatings and their Applications	671/26.8	5,412/216.5	2,643/105.7	1,361/54.5	
TECHNOLOGY AGENCY CZ	National centre of competence for Materials, Advanced Technologies, Coatings and their Applications					4,521/180.8

CZECH SCIENCE AGENCY	Effects of Macromolecular Crowding on Enzyme Structure and Kinetics					624/25
TECHNOLOGY AGENCY CZ	Plasma Assisted Deposition of Tribological Coatings	560/22.4				
TECHNOLOGY AGENCY CZ	Plasma coating 2		3,165/126.6	2,080/83.2	900/36	
TECHNOLOGY AGENCY CZ	COVID-19		2,379/95.2	552/22.1	340/13.6	
Total		28,376/ 1,135	34,362/ 1,374.5	23,185/ 927.4	25,166/ 1 006.6	22,660/ 906.4

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Prácheňské muzeum v Písku	Expert Analyses of Archaeozoological Material from the Research Site Heřmaň	8/0.3				
Charles University	Expert Analyses of Archaeobotanical and Archaeozoological Material from the Research Site Prácheň	17/0.6				
Muzeum Podblanicka	Sample Analyses from the Rescue Archaeological Excavation at Komorní Hrádek	19/0.7				
Muzeum Jindřichohradecka	Dendrochronological Analysis at the Dačice Site	3/0.12				
Muzeum Českého lesa v Tachově příspěvková organizace	Dendrochronological Analyses at the Zadní, Žďár Site, Tachov District	4/0.17				
ARCHEO TEAM Z.S.	Analyses of the Internal Content of 28 Vessels from the Cemetery in Holohlavy near Hradec Králové	198/8				

²⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

UNIwersytet GDAŃSKI (POL)	Phytolith Analyses at the Nowe Objezierze Site	34/1.2				
TJ TOUCHOVICE, Z.S.	Soil Analysis	5/0.2				
JVTP, A.S.	Tool for Archiving and Converting Historical Data		323/13			
Blahout David, MGA.	Development of an Automated Device for Handling Electronic Components		24/0.9			
Charles Univeristy	Dendrological Dating of Shrines from the Main and Two Side Altars of the Church of St. John of Nepomuk at Zelená Hora		8/.0.3			
UNIwersytet GDAŃSKI (POL)	Expert Analyses		35/1.4			
Univerzita Hradec Králové	Analyses of Neolithic Rondels in Nowe Objezierze			26/1		
JVTP, A.S.	Paleobotanical Sample Analysis			200/8		
Charles University	Interface for an External Control Display of the Control Unit			293/11.7		
Agentura ochrany přírody a krajiny České republiky	Archaeobotanical and Palynological Analyses			10/0.4		
Správa Národního parku Šumava	Sampling, Processing, and Analysis of Sediment Suitable for Paleoecological Studies			74/2.9		
Charles University	Monitoring the Moisture of Dead Tree Trunks and Submission of an Interim Report				653/26	
Agentura ochrany přírody a krajiny České republiky	Archaeobotanical and Palynological Analyses				203/8.1	
Univerzita Palackého v Olomouci	Sampling, Processing, and Analysis of Sediment Suitable for				33/1.3	

	Paleoecological Studies					
Správa Národního parku Šumava	Analysis of Macroremains, Identification of Agricultural Product and Food Remains, Sorting of Botanical and Anthracological Samples				42/1.7	
MULTIMA A.S.	Monitoring the Moisture of Dead Tree Trunks and Submission of an Interim Report					468/18.7
Univerzita Palackého v Olomouci	Data Processing Areas for Artificial Intelligence Development					33/1.3
Jihočeský kraj	Analysis of Macroremains, Identification of Agricultural Product and Food Remains, Sorting of Botanical and Anthracological Samples					291/11.6
Total		288/11.29	390/15.6	603/24	931/37.1	792/31.6

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 impacts²⁹, 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:

In general, a large portion of the FSC RDI activities is naturally related to sustainability and society due to their focus on environment and biodiversity. Additionally, projects focused on health or

²⁹ See Terms definition.

technology issues provide positive impact on society either in the form of improving public service or by providing novel tools, amongst others in biomedical applications.

- One of the significant examples of FSC RDI activities with strong impact on society is related to the SARS-CoV-2 pandemic. FSC employees with expertise in virology and medical diagnostics participated from 2020 in the diagnostics of SARS-CoV-2 in patient samples from Czech hospitals; our laboratory is in the official list of laboratories participating in testing in accordance with IVD certification. Clinical diagnostics within COVID testing was further developed to increase the number of tested samples per day and shorten the result delivery to under 24 hours. Later, testing was also performed for employees and students of USB and Biology Centre of the Czech Academy of Sciences and their relatives, thus reducing the burden on hospital laboratories and enabling the continuous functioning of university and academic facilities and teaching; testing for other institutions was also provided including elementary schools. In total, more than 30 thousand tests were performed.
- Based on the gained experience, a new Laboratory of Clinical Diagnostics was set up, which is now finishing a full medical diagnostics certification, and will, from now on, participate in education of healthcare workers in the newly started study programme, training healthcare professionals and thus increasing the quality of healthcare workers. The program promotes gender diversity by encouraging women's participation in STEM and healthcare, aiming to address gender imbalances in highly qualified medical staff and medical research and diagnostics.
- This newly developed biomedical orientation also helped to start an intense collaboration with various major hospitals and healthcare providers currently resulting in one finished, one running project, an additional one submitted and one prepared project. Together with the BioCanim spin-off company, it shows a strong orientation on biomedical research and cooperation with healthcare providers.
- Licensed patent on monitoring bark beetle, followed by a newly established spin-off company (NeraAgro Technology in 2024), shows another direction of (applied) research, towards ecological and biological sustainability and environmental management. The developed instrument should be widely used in forest regions of the Czech Republic and beyond to help identify trees infested by bark beetle which can help fight the spread of this pest, which is increasingly important under the increasing pressure of climate change to commercial forestry and natural forest management.
- Another strong research field uses novel materials, nanomaterials and bioactive materials, as shown by several patents and utility models. Currently, discussion with a potential investor, using one of the developed approaches, is under way with possible application in healthcare. Possibly, further development will be covered by a contractual research agreement. A confidentiality agreement binds the details of these discussions.

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

Type of result ³⁰	Year of application	Name
Spin-off	2023	BioCanim spin-off company
Patent	2021	A method of monitoring bark beetle activities in forest stands and a sensing device for taking a camera recording of the surface of the examined tree trunk – licensed; 2024: spin-off
Patent	2021	Method for monitoring bark beetle activities and system for monitoring - licensed
Patent	2021	Equipment for remotely controlling electronic devices potentiometers, especially analogue music amplifiers – licensed
Service for the public	2020-2022	SARS-CoV-2 testing of patient samples for hospitals, testing for schools, and other institutions, testing of students and employees and their relatives of USB and Biology Centre of the Czech Academy of Sciences
Patent	2022	A method of nanoprinting nanoparticles and a device for nanoprinting nanoparticles
Patent	2022	A substrate with an antimicrobial surface layer, especially for respiratory masks and air filters
Patent	2019	Process for preparing a nanostructured superhydrophobic surface layer with a radially symmetric wettability gradient
Utility model	2023	A detector for the detection of bacterial or viral pathogens
Utility model	2019	Box for measuring the breathing of small animals

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.

³⁰ 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.)³¹, 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).³²

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:

Every researcher at the FSC is motivated to self-evaluate the applicability of their results, while the FSC vice-dean for development, together with the Project Department and the USB Technology Transfer Office (TTO), help identify such possibly applicable results. In the case of potential applicability, the researcher, in coordination with the FSC vice-dean for development and the TTO office, prepares a notification of such result, which is approved at the faculty (dean) and university (rector) levels. The university decides whether it wants to retain the rights for this result/intellectual property with technology transfer potential. Further steps on intellectual property protection are coordinated and managed by the TTO office. The required information and steps are described in the Rector's ordinance R 493, which deals with handling intellectual property and confidential information protection at the University.

- Typical users of FSC results are companies producing agricultural products, companies which use our SW products, and companies in the field of medicine, such as the National Institutes of Health, and novel drug developing companies. Currently, transferable results in the field of SW/AI and biomedicine/diagnostics are developed. Correspondingly, companies in these fields are contacted, and collaboration is being developed, including hospitals and IVDR-certified products developers. The TTO office is participating in these efforts by organising meetings with potential investors. Currently, three results are being discussed with potential investors; a confidentiality agreement binds these discussions.
- Based on the meetings with investors, further discussion with potential investors is underway on new topics, where FSC can provide expertise; one example is a current discussion on possible plant manipulations.
- In two cases, spin-off companies were set based on FSC results. In this regard, the BioCanim company is promising; it is oriented on developing novel treatment strategies for cancer. FSC employees and students are involved in this spin-off company.

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

- The licences sold generated around up to 2.5 thousand euros per year. Donations have totalled around EUR 25 thousand in recent years, although they have declined in the last two years; the donations were mainly used to support applied research. The spin-off company BioCanim generated income of over EUR 240 thousand in 2023. This company focuses on the development of novel cancer therapies.

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
Donations	518/20	574/23	573/23	423/17	40/1.6
Licences	24.2/0.9		18.1/0.7	61.8/2.5	20/0.8
Spin-offs income					6,316.2/ 252.6
Total	542.2/20.9	574/23	91.1/23.7	84.8/19.5	6,376.2/255

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:

With a dedicated Marketing department, FSC effectively communicates scientific research results in various ways.

- As the first means of dissipating information, we use **social media platforms and our website**. We actively use social networks such as Facebook (with over 2,100 followers) and Instagram (with over 1,800 followers) to share the latest research findings, news, and events. Our website regularly publishes articles and reports about our research projects, allowing the general public to follow our progress and engage in scientific dialogue. Most recently, we also adopted the open Bluesky platform (bsky.app) for sharing scientific information since many X users (formerly Twitter) are leaving the network. Through all these channels, we ensure that our research results are accessible and understandable to experts and the general public.

Our faculty provides numerous popularization activities to convey research, development, and innovation (RDI) to high school students and the general public, expanding their awareness of natural sciences and informatics:

- The **Open Day** is a popular annual event for prospective students and the general public. Every year, hundreds of visitors meet researchers, visit numerous workplaces at FSC, and learn about the research and development conducted here.
- Another very popular annual event is the **Researchers' Night**, which consists of an interactive scientific program for the general public on current topics such as AI, cybersecurity, robotics, GMOs, genome editing, etc. There are hundreds of visitors every year. In addition, our faculty regularly participates in local public events with activities that popularize natural sciences and informatics, such as Maker Day, Maker Fair, Education and Craft, etc.
- FSC offers a range of **outreach activities aimed at high school students**, enhancing their understanding of natural sciences and informatics. Junior University is a collection of various popularization activities for high school students, such as (a) summer schools in general Biology and Molecular Biology, Chemistry, and Physics, (b) one-day practicals for high school students, and (c) High School Professional Activities (SOČ) - one-year projects for high school students, etc.
- We provide **invited lectures for high schools**, an activity where high schools can arrange for a popular science lecture by FSC scientists and incorporate topics such as AI, GMOs, or nature conservation into their curriculum. Currently, there are 87 lectures available on natural sciences and informatics topics are being actively offered to high school teachers to select from for the students they teach. We also organise **Weekends for high school teachers**, where the latest laboratory methods or fieldwork approaches are introduced to the teachers.
- Additionally, our academics frequently engage in **press and media commentary or interviews** on pressing issues or their scientific discoveries. For example, during the covid-19 pandemic period doc. L. Berec provided interviews to various media (incl. the national Czech TV) on mathematical modelling of the pandemic. Climate change represents another pressing issue; during the last 5 years, Dr. Šabacká from the FSC Centre for Polar Ecology provided numerous interviews to the press on climate change in polar and tropical alpine regions.

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:

In their report from the previous evaluation period, the IEP appreciated the quality of basic research produced at the FSC, its strong involvement in research connected with current global challenges, rich cooperation with various institutions, good presentation of the Faculty towards the general public, and strong recognition of its academics by international and national institutions (as reflected by multiple awards).

The weaknesses of the FSC that the IEP identified comprised primarily two areas

- Insufficient involvement in large international collaborative projects, such as the EU HORIZON.

- A need for developing strategies in applied research (contracted research, spin-offs and patents).

Regarding **large international projects**, FSC is aware that successful application for these types of calls is not possible without sufficient administrative support of the applicants. Over the last five years, we invested in restructuring our Project department, hiring more people and dedicating individual administration workers to a specific call or groups of calls. Furthermore, FSC constantly motivates its academics to apply for any type of project by appreciating this activity in periodical assessments. Lastly, although large projects often bear a significant administrative toll also when awarded and although their indirect costs allocated to the faculty administration are sometimes underfunded, one of the incentives to applicants that were recently enrolled at the FSC (from 2024) is a possibility to use part of the indirect costs by the successful applicant to strengthen their research and team further. This measure allows the project PIs, for example, to purchase research material otherwise not covered by the awarded grant, or to hire prospective personnel. At the beginning of 2024, one HORIZON project was successfully applied for, where FSC is a member of a large [PANVIPREP](#) consortium. We also rapidly increased the number of ERC applications, particularly by the younger generation of researchers, with two projects awarded the ERC-CZ grant by the Czech government in late 2023 to Dr. Fencková and Dr. Kubelka (ERC-CZ call is aimed at supporting highly rated but unfunded ERC projects). Most recently, six ERC applications were submitted in 2024, and as of March 2025, three applicants advanced to the 2nd round of the call.

Regarding **applied research strategies**, the FSC managed to unfold several new projects, particularly in the areas where translation from basic to applied research had a promising perspective. As described in more detail above (section 3.5), we strengthened collaboration with the USB TTO office to achieve more substantial application potential. Regular but informal meetings are being held at FSC (named “Café on Faculty”), where scientists discuss various possibilities of technology transfers with the TTO personnel. The TTO also organises the dissemination of information on various calls for funding or meetings of FSC researchers with private investors. This effort has already led to the establishment of spin-offs (namely BioCanim in 2021 and, more recently, in 2024, a bark beetle monitoring device spin-off NeraAgro Technology- based on a successful patent), while other spin-off and patent applications are underway.

Applied research results are also reflected upon during annual and five-year evaluations of the academics, with different types of outputs (national or international patents, sold licences, spin-off initiations) taken into consideration.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Leiden university ranking	3.1	https://www.prf.jcu.cz/en/faculty/news/the-university-of-south-bohemia-again-ranks-first-in-the-leiden-ranking
FSC Creative Publishing Course	3.1	https://botanika.prf.jcu.cz/suspa/vyuka/creative.php
FSC departments	3.1	https://www.prf.jcu.cz/en/faculty/departments
FSC career code	3.1	https://www.prf.jcu.cz/en/faculty/documents/study-regulations-related-topics/d110
FSC management	3.1	https://www.prf.jcu.cz/en/faculty/faculty-management
RDI Council of the Czech Government	3.2	https://vyzkum.gov.cz/Default.aspx?lang=en
CGS, Czech Geological Survey	3.3	https://cgs.gov.cz/en
WUT, Warsaw University of Technology	3.3	https://eng.pw.edu.pl/
IMP-PAN, Institute of Fluid-flow Machinery	3.3	https://www.imp.gda.pl/en/
UPNA, Universidad Publica de Navarra	3.3	https://www.unavarra.es/pdi?uid=6918
NATO SPS G6112 project	3.3	https://natosps.grantplatform.com/page/DWeVkyIE https://mostwiedzy.pl/en/project/laserowo-drukowane-czujniki-wczesnego-ostrezgania-do-kwantowego-wykrywania-srodkow-chemicznych-i-bio,1079-1
PANVIPREP consortium	3.7	https://www.jcu.cz/en/university/news/sirokospektralni-antivirotika-pro-zvyseni-pripravenosti-na-pandemie-2

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Theology

FORD: 6 - Humanities and the arts

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 Faculty of Theology (FTH) is a publicly funded higher education institution with a Catholic affiliation. Within this framework, FTH focuses not only on Theology, Religious Studies, and Philosophy, but also on Social Work and Leisure Education.

FTH strives to be:

- A professionally and socially recognised faculty with attractive study programmes, high-quality research outcomes, and contributions to society.
- A faculty that addresses new challenges, particularly in the digital space, utilising modern technologies while upholding the best traditions of the humanities and social sciences.
- A faculty engaged in an international network of leading research and educational institutions and organisations from the professional field.

To achieve these goals, faculty members regularly apply for projects funded by Czech national agencies for both basic (Czech Science Foundation: GAČR) and applied research (The Technology Agency of the Czech Republic: TAČR), as well as international projects (Erasmus+, Botstiber Foundation, Templeton Foundation). Basic research findings are disseminated through peer-reviewed articles in prestigious international journals indexed in Scopus and/or Web of Science, or through books published by international presses.

In applied research projects, FTH team members aim to combine the humanities with social sciences to address the needs of the professional field (social service providers, schools, policymakers, churches, and religious organisations) and generate new, applicable findings for helping professions such as social workers, chaplains, activity coordinators, educators, and youth workers. Examples include research on the latest developments in spirituality after COVID-19 or assistive technologies for

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

the elderly. FTH collaborates on these projects with churches, public and private social service providers, schools, and state and regional administrations. The findings inform student education and lifelong learning courses for professionals in practice.

FTH's organisational structure comprises four academic departments (Theology; Philosophy and Religious Studies; Education; and Social Work), as well as professional training and lifelong learning departments. Methodological guidance for education, international collaboration, research, strategic development, and accreditation processes is provided by five vice-deans, each supported by a team of experts. FTH also includes a library, an administrative department (encompassing economic and project management), and a maintenance department.

FTH offers five bachelor's programmes: Theology, Philosophy, Religious Studies, Leisure Education, and Social Work and Caritas Studies. It also offers five master's programmes: Theology, Diaconal Theology, Philosophy, Leisure Education, and Ethics in Social Work. Three PhD programmes are offered: Theology, Philosophy, and Spirituality and Ethics in Social Work. FTH is accredited to award associate professorships and full professorships in Theology and Philosophy.

The joint-degree PhD programme in Religion, Culture, and Public Life (in partnership with the University of Padua, Italy) and the bachelor's programme in Sociology and Social Ethics are currently undergoing accreditation. The English-taught master's programme in Helping Professions in Civil Society was accredited in 2025 and will be opened for the academic year 2025/2026.

Most recently, FTH is striving to accredit a bachelor's degree program in the field of sociology and social ethics. This is an area of education that has not yet been implemented within USB. Academics at FTH are already conducting and publishing their research in this field. The development of this area of education is also recommended to the faculty by the evaluation report prepared within USB in 2024.

FTH supports research fields within its scope through research centres, which are funded by DKRVO and aim to improve and develop significant research areas within the faculty. These are:

- Centre for Church History and Theology
- Centre for Diaconal Theology
- Centre for the Study of Post-Medieval Scholastic Philosophy
- Centre for Philosophy for Children
- Centre for Ecumenical Theology
- Centre for the Study of European Islam
- Thomas Aquinas Centre
- Centre for Applied Philosophy
- Centre for Early Reception of Biblical Texts
- Centre for Sociology of Religion

Research Centres are crossroads teams that bring together experts across departments, given the focus of the Centre.

The academic and research community of FTH currently (March 2025) comprises 48 academic and research employees (45 academics and 3 postdoctoral researchers) and 711 students (288 in the full-time form of study, 423 in the combined form of study). Of the total number of students, 547 are enrolled in undergraduate programmes, 142 in graduate programmes, and 22 in doctoral programmes.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	3.96/0	3.96/0	4.51/0	4.43/0	4.43/0	5/0
Associate Professor	9.75/1.75	10.10/1	9.07/0.80	9.77/1.0	9.05/1.0	11/1
Assistant Professor	18.80/7.52	22.34/8.69	23.59/9.34	20.20/7.90	21.18/8.90	35/16
Assistant	0.80/0.30	0.79/0.29	0.49/0.08	4.40/2.0	3.94/1.44	2/1
R&D Personnel ³	0	0	0	0	0	
Researchers in other categories ⁴	4.69/1.15	5.09/1.33	4.41/1.31	3.02/0.48	2.98/0.2	8/1
Technical and economic staff ⁵	22.69/20.04	23.57/20.87	23.32/20.40	21.35/20.25	21.20/20.28	35/31
Scientific, research and development staff involved in teaching activities	38.00/10.72	42.28/11.31	42.07/11.53	41.82/11.38	39.58/11.54	60/18
Early career researchers ⁶	0	0	0	0	2/0	2/0
Total ⁷	60.69/30.76	65.85/32.18	65.39/31.93	63.17/ 31.63	62.78/31.82	

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.

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 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.

3.1.2 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/ 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	0	0	1	0	2	0	1	0
Associate Professor	0	0	1	0	6	1	4	0	0	0	0	0
Assistant Professor	0	0	7	5	22	7	2	2	1	0	1	0
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ⁹	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	1	1	1	0	1	0	1	0	0	0	0	0
Technical and economic staff ¹¹	0	0	6	6	7	6	7	7	0	0	2	2
Scientific, research and development staff involved in teaching activities	1	1	9	5	29	8	8	2	3	0	2	0
Early career researcher ¹²	0	0	0	0	0	0	0	0	0	0	0	0
Total ¹³	1	1	15	11	36	14	15	9	3	0	4	2

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/ 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	0	0	1	0	3	0	0	0
Associate Professor	0	0	0	0	4	0	6	1	0	0	0	0
Assistant Professor	0	0	6	3	15	6	6	4	0	0	0	0
Assistant	0	0	1	0	1	0	2	1	0	0	1	0
R&D Personnel ¹⁵	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	1	0	0	0	1	0	2	0	0	0	0	0
Technical and economic staff ¹⁷	2	2	7	7	5	5	7	6	0	0	0	0
Scientific, research and development staff involved in teaching activities	1	0	7	3	20	6	16	6	3	0	1	0
Early career researcher ¹⁸	0	0	0	0	1	0	1	0	0	0	0	0
Total ¹⁹	3	2	14	10	26	11	24	12	3	0	1	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 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.

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.

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	533	443	615	495	556	440	602	476	570	427	1464	1139
Master's ²⁰	198	164	167	141	175	145	163	135	170	138	483	407
Doctoral	53	27	54	32	43	22	36	15	25	9	84	46
Lifelong Learning Courses	964	N/A	342	N/A	530	N/A	1270	N/A	1663	N/A	4526	N/A
Total	1748	634	1178	668	1304	607	2071	626	2428	574		

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	7/0	0	15/0	2/0	16/0	2/0	18/0	4/0	18/0	4/0	18/0	4/0
Master's	9/0	0	13/0		16/0	0	16/0	0	14/0	0	16/0	0
Doctoral	5/0	0	8/0		10/0	0	12/0	0	11/0	0	12/0	0
Lifelong Learning courses	79	0	25		55	0	77	0	101	0	117	0
Total	100/0	0	61/0	2/0	97/0	2/0	123/0	4/0	144/0	4/0		

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.	

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

²¹ The total number of study programmes for which admissions have been announced in a given academic year.

	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.	23
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education	10	Balanced basic and applied research	
	5.4 Sociology	10	Basic Research	
	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	3	Basic Research	
6. Humanities and the Arts	6.1 History and Archaeology	2	Basic Research	77
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion	70	Basic Research	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts	5	Basic Research	
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:

In recent years, there has been a noticeable increase in the monitored criteria compared to previous periods. Academics at FTH are actively engaged in all monitored areas:

The service of FTH's academics as members of international editorial boards is best exemplified by Assoc. Prof. Daniel Heider, Ph.D., who is a member of the advisory board of *Studia Poinotiana*, an online journal focused on the philosophical and theological thought of the Baroque Dominican and Thomist Jan Poinot (known also as John of St. Thomas). Assoc. Prof. Jakub Sirovátka, Dr. phil., is a member of the advisory board of *LIMINA*, an experimentally oriented journal on theology published by the University of Graz.

The academics from FTH are invited to deliver lectures at international conferences abroad. In 2022, Assoc. Prof. Michal Opatrný, Dr. theol., was invited to deliver his lecture "Postcommunism, populism and caritas/diakonia in Czechia" at the University of Heidelberg and at the Institut für Öffentliche Theologie at Humboldt University in Berlin. In 2022, Daniel Heider delivered a lecture "The production of intelligible likenesses in second scholasticism: Suárez, McCaghwell, and Mastri/Belluto" at the University of Houston. The lecture focused on the topic of the emergence of mental intelligible representation (species) in various Second Scholastic authors, such as the Jesuit Francisco Suárez, the Franciscans Hugh McCaghwell, and the author duo Bartolomeo Mastri and Bonaventura Belluto. The lecture highlighted similarities with the Cartesian problem of the interaction of two entirely different substances. The topic of the lecture aligns with one of the faculty's research priorities, which is research in the field of early modern scholasticism. Sirovátka's lecture "Gerechtigkeit hier und jetzt. Zum 'eschatologischen' Geschichtsverständnis bei Emmanuel Levinas" took place at the invitation of the Forschungsinstitut für Philosophie and was presented as part of the international workshop Geschichtskritik nach 1945. Sirovátka participated alongside other prominent researchers, particularly from Germany and Austria. The results were published in the collective monograph Burkhard Liebsch (ed.), *Geschichtskritik nach '1945': Aktualität und Stimmenvielfalt*, Hamburg: Meiner, 2023.

Guest lecturers from abroad often speak as guests of international doctoral seminars. Of many important lectures, two deserve special mention: In 2023, Prof. Jorge Secada from the University of Virginia presented various philosophical theories of self-knowledge from Plato to Renaissance philosophers ("Self-knowledge: from Plato to the Renaissance"). In 2022, the leading world expert on medieval and early modern philosophy, Prof. Dominik Perler from Humboldt University in Berlin,

presented the fundamental difficulties of Cartesian dualism, highlighted by the philosophically gifted Czech princess Elizabeth of the Palatinate, during the introductory part of the international doctoral seminar (“What is the embodied self? The debate between René Descartes and Princess Elisabeth of Bohemia”).

FTH experts are members of various evaluation panels. Significantly for the evaluation of research at the national level, Assoc. Prof. Dr. phil. Jakub Sirovátka has become the chair of the advisory panel 6: humanities and the arts of the Research, Development and Innovation Council (R&D&I Council) of the Government of the Czech Republic. Not only Mgr. Lucie Kolářová, Dr. theol., who is explicitly mentioned in 3.2.5, but also several other academics serve as evaluators of scientific outputs for the Czech governmental R&D&I Council. (These include, for example, Dr. Viktor Ber, Dr. Martin Klapetek, Assoc. Prof. Adam Mackerle, Dr. Veronika Řeháková, Assoc. Prof. Rudolf Svoboda and others.) Assoc. Prof. Daniel Heider, Ph.D. also served as an evaluator of postdoctoral projects for FSR Incoming postdoctoral Fellowships within The Research Council of the Université catholique de Louvain. Several academics (Heider, Mackerle, Urban) also have served as project evaluators for the Charles University Grant Agency (GA UK).

The contributions of FTH’s researchers have been recognised by the academic community, as evidenced by the list of awards. Internationally, the Humboldt Research Fellowship for experienced researchers awarded to Assoc. Prof. Michal Opatrný, Dr. theol., has been particularly significant. Nationally, the Silver Medal of MU awarded to Prof. Dr. Karel Skalický, Th.D., in 2023 has represented a substantial recognition of the esteemed doyen of FTH.

The leadership of FTH strives to ensure that these activities involve a greater number of academics and that the scope of these endeavours is broadened.

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
Věra Suchomelová, Th.D.	Cena Jany Anny Kateřiny Zátkové (Jana Anna Kateřina Zátková Award for the popularization of science) 2023	Jihočeská univerzita v Českých Budějovicích (USB)
Prof. Dr. Karel Skalický, Th.D.	Silver Medal of MU, 2023	Masaryk University
Assoc. Prof. Daniel Heider, Ph.D.	Rector’s Award for a prestigious scientific publication	University of South Bohemia
Assoc. Prof. Michal Opatrný, Dr. theol.	Humboldt research fellowship for experienced researchers, (Ref 3.3 - CZE - 1203686 - HFST-E). Stay (2-7/2019) at the Albert-Ludwigs-Universität Freiburg, Germany, Arbeitsbereich für Caritaswissenschaft	Alexander von Humboldt-Stiftung / Alexander von Humboldt Foundation
Prof. Dr. Karel Skalický, Th.D.	Rector’s Award for Popularization of Science, 2019	University of South Bohemia

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
Assoc. Prof. Helena Zbudilová, Ph.D.	Caritas et Veritas, 1805-0948 (editorial board member)
Assoc. Prof. Daniel Heider, Ph.D.	Studia Poinotiana, 2595-9107 (advisory board member)
Lukáš Novák, Ph.D.	Studia Neoaristotelica, 1214-8407 (editorial board member)
Assoc. Prof. Michal Opatrný, Dr. theol.	Caritas et Veritas, 1805-0948 (editor-in-chief)
Assoc. Prof. Jakub Sirovátka, Dr. phil.	Limina. Grazer theologischer Perspektiven, 2617-1953 (advisory board member)
Assoc. Prof. JUDr. Stanislav Přibyl, Ph.D., Th.D.	Philosophy and Canon Law, 2450-4955 (editorial board member)
Daniel Novotný, Ph.D.	Studia Neoaristotelica, 1214-8407 (editor-in-chief)
Josef Nota, Ph.D.	Caritas et Veritas, 1805-0948 (editorial board member)
prof. Tomáš Machula, Ph.D., Th.D.	Studia Neoaristotelica, 1214-8407 (editorial board member)
Assoc. Prof. Adam Mackerle, Th.D.	Studia Biblica Slovaca, 1338-0141 (editorial board member)

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
Assoc. Prof. Jakub Sirovátka, Dr. phil.	Die Natürlichkeit des Bösen	Hochschule für Philosophie (Fürstenried/München)	2023
Assoc. Prof. Daniel Heider, Ph.D.	Suárez on the angelic mind-reading	University of Lisbon	2023
Emanuele Lacca, Ph.D.	"San Bonaventura e la percezione di Dio", A-ritmia del tempo	Università degli Studi di Palermo	2022
Assoc. Prof. Daniel Heider, Ph.D.	The production of intelligible likenesses in second scholasticism: Suárez, McCaghwel, and Mastri/Belluto	University of Houston	2022
Assoc. Prof. Jakub Sirovátka, Dr. phil.	Gerechtigkeit hier und jetzt. Zum "eschatologischen" Geschichtsverständnis bei Emmanuel Levinas	Forschungsinstitut für Philosophie Hannover	2022
Assoc. Prof. Michal Opatrný, Dr. theol.	Postcommunism, populism and caritas/diakonia in Czechia	Universität Heidelberg, Theologisches Seminar, Systematische Theologie / Humboldt-Universität zu Berlin, Institut für Öffentliche Theologie	2022
Assoc. Prof. Daniel Heider, Ph.D.	Perceptual self-awareness in Suárez and some Baroque Scotists. The case of Hugh McCaghwel	Universidad Francisco de Vitoria, Madrid	2021
Assoc. Prof. Jakub Sirovátka, Dr. phil.	Gott anders denken? Emmanuel Levinas als Herausforderung für die christliche Theologie	Digitale Frühjahrsakademie Roggenburg	2021

Assoc. Prof. Michal Opatrný, Dr. theol.	Postsecular, Christian, or humanistic spirituality in social work withing secular Europe	Albert-Ludwigs-Universität Freiburg	2021
Assoc. Prof. Michal Opatrný, Dr. theol. and Mgr. Karel Šimr Ph.D.	To build bridges and to leaven the dough: charitas and diakonia in the perspective of the radically secular Czech experience (online)	Institute for the Study of Diaconia at Heidelberg University / Institute for Diaconic Studies/Diaconic Management of the Protestant University Wuppertal/Bethel	2020

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. Jorge Secada	University of Virginia	Self-knowledge: from Plato to the Renaissance	2023
Prof. Holger Zaborowski	Universität Erfurt	Awakening to reason - metaphysical realism according to Robert Spaemann	2023
Dr Andrew Orton	Durham University	Using dialogue and interdisciplinary reflection on dilemmas when researching spirituality and ethics in social work	2023
Dr. Victor Salas	Sacred Heart Major Seminary	Jesuit metaphysics: the notion of being	2023
Prof. Dr. Dipl.-Ing. Inocent - Mária Vladimír Szaniszló OP, PhD.	Pontifical University of Saint Thomas Aquinas – Angelicum	Meaning of nation: national identity in the modern globalized world	2023
Prof. Dominik Perler	Humboldt-Universität	What is the embodied self? The debate between René Descartes and Princess Elisabeth of Bohemia	2022
Dr. Holger Gutschmidt	Universität Göttingen	Rational beliefs in God – a classical problem	2022
Assoc. Prof. Dr. Robert Doyle	Felician University	Caritas, ethics, and spirituality: using the Christian life as empowerment in social work	2022
Prof. Dr. Bernhard Bleyer	Universität Passau	The Christian profile of caritas	2022
Prof. Dr. András Máté-Tóth	University of Szeged	Approaches to Central and Eastern Europe - the wounded collective identity	2020

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
Assoc. Prof. Dr. phil. Jakub Sirovátka	Chair of the Advisory panel 6: humanities and the arts	The Research, Development and Innovation Council (R&D&I Council) of the Government of the Czech Republic	Since 2023
Assoc. Prof. ThDr. Rudolf Svoboda, Th.D.	Committee for science support programmes at Charles University: social science and humanities	Charles University	Since 2023
Assoc. Prof. ThDr. Rudolf Svoboda, Th.D.	- Philosophy, Religious Studies, and Theology - Historical Sciences	National Accreditation Bureau for Higher Education	Since 2023
Daniel Novotný, Ph.D.	Bioethical commission	The Research, Development and Innovation Council (R&D&I Council) of the Government of the Czech Republic	Since 2022
Assoc. Prof. Daniel Heider, Ph.D.	FSR Incoming post-doc Fellowships evaluation	The Research Council of the Université catholique de Louvain	2019-2023
Daniel Novotný, Ph.D.	Ethics Committee to assess issues related to the operation of automated and autonomous vehicles in the Czech Republic	Ministry of Transport of the Czech Republic	Since 2020
Mgr. Lucie Kolářová, Dr. theol.	Evaluator for Philosophy, Religious Studies, and Theology	R&D&I Council	Since 2019
Assoc. Prof. Jindřich Šrajber, Dr. theol.	Committee for science support programmes at Charles University	Charles University	2017-2021
Assoc. Prof. ThLic. Adam Mackerle, Th.D.	The Charles University Grant Agency (GA UK)	Charles University	Since 2019

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: Grant projects at FTH reflect the wide scope of its focus and include both basic and applied research. In the field of basic research, the most significant area is philosophy (in the history of philosophy, it is scholasticism and modern philosophy) and from theological disciplines it is Old Testament biblical studies. Applied projects are aimed at helping professions. These two areas are not completely separate but closely collaborate, as can be seen in the project topics. The aspects of research ethics at FTH are supervised by the FTH's Research Ethics Committee (REC). The REC at FTH was established in 2022. The members of the committee are selected in order to cover main areas of research at FTH, that is social science research; theological ethics; educational research; oral history; social ethics and areas of bioethics and healthcare ethics; ethics in social work; general ethics. The REC consists of male and one female member. The REC evaluates and expresses its opinion on research proposals that involve any form of interaction with respondents, including observation or analysis of documents containing private or protected information. The committee also comments on the justification of grant proposals (if required by the nature of the grant call). If the nature of the research requires it, doctoral students or supervisors of bachelor's or master's theses must request the committee's evaluation. The REC also serves as an advisory body to the dean regarding complaints about research ethics conducted at FTH. The aspects of sustainability have not so far been urgent in the theoretically or practically oriented research at FTH. The gender aspects are usually part of the general awareness in the given field of research, whenever applicable. So, for example, within the study of capital offences in the biblical legal texts, the part of the research naturally must be the reflection of historically conditioned roles of male and female members of the ancient Israelite society, which are in many important aspects perceived quite differently in the current European society. The following paragraphs briefly introduce the most important projects at FTH during the evaluated period.

Cognitive Theory in Baroque Scotism (D. Heider): This is a project focused on the theory of knowledge in Baroque Scotism (with particular connections to Jesuit philosophy), aligning with the faculty's scientific priorities, namely with the research into the field of Second Scholasticism. The primary output of this project is a collective monograph titled *Cognitive Issues in the Long Scotist Tradition* (Basel: Schwabe Verlag, 2023), edited by both the Principal Investigator Daniel Heider and a team member Dr. Claus Andersen. In addition to this publication, both authors have had their studies published in leading international journals and presses such as *Vivarium*, *American Catholic Philosophical Quarterly*, Springer, Brepols, among others. The Final Report Evaluation noted the following: "Given the number and international nature of publications as well as the significant international dimension, the panel rated this project with the highest score of 'Excellent'."

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.

Being and natural theology in Scotism (L. Novák): For the mature Duns Scotus, the key presupposition of natural knowledge of God is the univocity of the concept of being. Scotus scholars, however, have lately pointed out that Scotus does not seem to entirely banish analogy: some scholars claim he keeps it as a metaphysical (as opposed to logical-semantic) phenomenon, and some even say that he retains analogy (*qua* compatible with univocity) at the level of concepts. At the same time, there is a problem in Scotus's understanding of the univocity of being: he claims that God and creatures are "*primo diversa*" in reality, whence the abstraction of being cannot rely on a *distinctio a parte rei*, otherwise a *sine qua non* of abstraction according to Scotus. All this suggests quite a special logical-semantic status of the concept of being. Contemporary scholars, as well as members of the Scotist school of thought, have proposed various interpretations of this status. This project aimed at a synthetic survey of the problem and of the role of the concept of being in the knowledge of God, from both historical and systematic perspectives. The results so far include a chapter in a collective monograph and an article published in the *Studia Neoaristotelica* journal.

Capital offences in the Deuteronomic Code, and their early linguistic recontextualization (V. Ber): This project started in 2023 and is still ongoing. Its goal is to research the cases of capital offences in the Deuteronomic Code (DC) in the Old Testament / Tanakh from the perspective of recent theories and approaches to biblical legal texts. The research focuses on the Hebrew Masoretic text and three ancient versions/traditions: the Greek Septuagint, the Aramaic Targumim to the Pentateuch, and the Latin Vulgate. The specific goal is to find out to what extent the process of recontextualisation takes place in the three linguistic variations. This should significantly expand our knowledge of how biblical legal texts were reflected in religious traditions, to which these ancient versions relate, that is, Christianity and Judaism. The results so far have been promising: an international conference was organised in 2024 on the topic, with the speakers including some of the best European (British and continental) as well as Israeli scholars in the field. The results of the project have been published as chapters in collective monographs by European presses, and two articles so far have been accepted for publication in important journals in the field of biblical studies (an article for *Vetus Testamentum* by A. Mackerle, an article for the *Journal of Septuagint and Cognate Studies* by J. Pavelčík).

Human spirituality in the context of helping professions (T. Machula): The goal of the project was to improve the quality of life for both terminally ill patients and caregivers. Terminally ill patients seek meaning in their lives and ask questions related to their self-transcendence. Caregivers often fail to respond to these needs, leaving the questions unanswered or transferring the problem to another profession (e.g., clergy). Present knowledge in this area (so far limited) shows that addressing the patient's spiritual needs leads to an increase in quality of life – the patients accept their illness, become reconciled to their life, and are able to forgive. The project aimed to make these exceptional situations a common practice, so that the quality of life of terminally ill patients improves. More on the practical outputs of this project can be found in section 3.4.

Virtual reality in keeping the elderly active (V. Suchomelová) The aim of the project was to create software – a set of virtual reality experiences respecting the needs and specifics of seniors in geriatric facilities, and certified methodology for geriatric staff and home care. In virtual reality, the viewer becomes a part of the story and can influence the story. Such a process can lead to well-being and joy in the game. This also promotes awareness of dignity and self-value, development or preservation of cognitive functions, and helps satiate many of the psycho-spiritual needs. More on the practical outputs of this project can be found in section 3.4.

Experiencing leisure of older school age children as an educational challenge (M. Kaplánek): The aim of the project was, by using a multidisciplinary approach based on pedagogical and sociological research, to define pedagogical challenges, related strategies, and specific educational programmes that will lead to an increase in "leisure competence" of older school-age children, i.e., their ability to evaluate their use of (leisure) time more critically, to opt for quality experiences of leisure, and thus increase resilience towards socially pathological forms of leisure. More on the practical outputs of this project can be found in section 3.4.

Postgraduate education of social workers for the field of spirituality in social work in social services for elderly (M. Opatrný): On the basis of a survey of spirituality and religiosity in selected groups of social work clients (elderly), the research project aimed to create a concept of postgraduate education for social workers in the field of spirituality in social work in the Czech Republic, and to evaluate this concept in interaction with practitioners for whom the courses will be designed. More on the practical outputs of this project can be found in section 3.4.

Autonomy and alterity. Kant in dialogue (J. Sirovátka): The project GAČR 19-17708S was a joint project with the University of Pardubice. This philosophical project dealt with the topics of autonomy and alterity: on the one hand, it explored Kant's philosophy, which shaped the contemporary notion of the autonomous individual, and on the other hand, it put this philosophy in dialogue or context with the thinking of alterity in various philosophers (Spinoza, Nietzsche, or phenomenological authors such as Levinas, Heidegger, or Ricoeur). The project included an international conference, *Autonomy in Dialogue: Kant and the Phenomenological Tradition*. The results of the project were two Czech monographs, *Autonomy in Dialogue: Kant and Others* and *Autonomy and Alterity: Kant and Phenomenology*, as well as a Czech collective monograph, *Levinas in Confrontation*, and five articles, one in English and two in German (for example, "How Autonomous is the Evil Act? On the Relationship between Free Will and Morality in Kant and Ricoeur"). This was basic research, but it provided highly relevant material for rethinking theories of intersubjectivity, for reflecting on issues of otherness in debates on migration, or for considering client autonomy in social work.

Professional training of prison chaplains in the context of prison (M. Opatrný): The main aim of the project was to contribute to the innovation of professional preparation for future chaplains who work in Czech prisons. More on the practical outputs of this project can be found in section 3.4.

Missionary Neumann between the Old and the New Worlds (R. Svoboda): The project aimed to research and then present the specific links between the American and Austrian environments in the 1830s and 1840s in connection with the missionary John Nepomucene Neumann. In the 1830s and 1840s, departures on missions from historic Austria to the United States were one of the most important ways of maintaining contact between the Old and New Worlds. In Austria, they were supported by higher social circles and had a broadly positive response in the society of that time. This project showed the concrete ties and cultural exchanges between the American and Austrian environments in the 1830s and 1840s connected with the person of the missionary John Nepomucene Neumann. Neumann maintained a vast network of relations, which were retrospectively reflected in the Austrian environment, preparing for his missionary vocation and its actual implementation in the USA. The outputs of this project helped us to understand the historical relationship between Austria and the United States. The theme of this project was an area that had not yet been developed, which led to a considerable response from experts in the field. The main outputs of the project were scholarly studies published in international journals.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Czech Science Foundation	Cognitive theory in Baroque Scotism	0	627/25	1,213/48	1,642/66	0

²⁵ 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.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

Czech Science Foundation	Being and natural theology in Scotism	0	0	446/18	489/20	520/21
Czech Science Foundation	Capital offences in the Deuteronomic Code, and their early linguistic recontextualization	0	0	0	0	889/36
Technology Agency of the Czech Republic	Human spirituality in the context of helping professions	1,329/53	1,562/62	955/38	707/28	0
Technology Agency of the Czech Republic	Virtual reality in keeping the elderly active	2,270/91	2,362/94	2,901/116	1,300/52	0
Technology Agency of the Czech Republic	Experiencing leisure of older school age children as an educational challenge	2,284/91	2,897/116	2,520/101	904/36	0
Technology Agency of the Czech Republic	Postgraduate education of social workers for the field of spirituality in social work in social services for elderly	576/23	1,564/63	1,625/65	1,624/65	0
Total		6,459/258	9,012/360	9,660/386	6,666/267	1,409/57
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Czech Science Foundation	Autonomy and alterity. Kant in dialogue	768/31	783/31	714/29	0	0
Technology Agency of the Czech Republic	Professional training of prison chaplains in the context of prison	81/3	16/0.6	116/4.6		
Total		849/34	799/31.6	830/33.6	0	0

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Nadace ČEZ (CEZ foundation)	Dětský čtenářský kroužek (Children's Reading Club)					98/3.9

²⁷ Ibid.

²⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

Botstieber foundation (USA)	Missionary Neumann between the Old and the New Worlds				82.5/3.3	82.5/3.3
Total					82.5/3.3	180.5/7.2

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 impacts²⁹, 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:

VIREAS software (2022): This is a set of virtual reality (VR) experiences created using the principles of the Concept of Sensory Activation, allowing even immobile seniors to become the true centre of events and actively influence their development. The benefits of such a process of keeping active include support for self-confidence and awareness of the senior's own dignity and value, support for the maintenance or development of cognitive functions, development of social contacts (the possibility of visiting VR together with other people), intergenerational dialogue, and a positive impact on their well-being. The primary target group of software users are staff and clients of senior homes. The software is used non-commercially for the education of students (subject: Assistive Technology Memory Exercises for Seniors) and the University of the Third Age course at FTH. The target group (staff and clients of geriatric facilities) has access to a tool for keeping active that is user-friendly for both workers and elderly users. Additionally, the software is used in subsequent group and individual activities within memory exercises or reminiscence. The use of the software in education shows students the benefits and limitations of the technology. Within the University of the Third Age (U3A) and awareness-raising events aimed at the senior public, the result helps to overcome the shyness and fear of the older generation towards technologies of this type.

VIREAS conceptual manual – methodology (2022): The methodology provides a supportive tool for maximising the potential of a new form of keeping active through VR (specifically the Set of Experiences). The working methods are based on the conclusions of qualitative research. Included are worksheets with examples of using the Set of Experiences for direct process of keeping active as well as subsequent group and individual process of keeping active (memory exercises, discussions, etc.). Both the content and formal aspects take into account the comments and suggestions of the Ministry of Labour and Social Affairs (MoLSA) and ISA guarantors. The methodology is freely available to the general public. The Czech version can be freely downloaded from the MoLSA website (<https://www.mpsv.cz/metodiky-certifikovane-mpsv>) and is also available in three language versions on the VIREAS project website (<https://vireas.cz/metodika/>). In printed form, it is continuously distributed to selected facilities whose representatives attended selected conferences and agreed to

²⁹ See Terms definition.

provide feedback in the future. Internationally, it was promoted at the 2023 Annual Meeting of the Socio-gerontology Network titled "Theorising Ageing in a Digital World". In a foreign context, the methodology was further presented at a professional seminar at the University of British Columbia in Vancouver (<https://healthyaging.med.ubc.ca/events/event/healthy-aging-research-seminar-dr-vera-suchomelova>). For promotion at the national level, conferences targeting professionals in the field of social work with seniors were used, such as the traditional professional conference on ageing: "Stáří spojuje 2023" or "Stárnutí 2023". Additionally, the methodology is promoted at conferences and other events organised by project participants and serves as study material for students of Social Work and Leisure Time Pedagogy at FTH.

The results of project TL03000376 (Postgraduate Education of Social Workers for the Field of Spirituality in Social Work in Social Services for the Elderly) are four lifelong learning courses that were developed based on research conducted during the project:

- **Basic course on the topic of spirituality in social work for social workers and management of organizations providing social services:** The semester-long basic course is intended for both social workers and management staff of social services. It includes an introduction to the issues of spirituality and religiosity, specifically spirituality in social work, and familiarizes participants with the specifics of spirituality among the target social work groups that were the research's subject.
- **Advanced lifelong learning course on the topic of spirituality for social workers focusing on spiritual assessment and spiritual intervention:** The semester-long course is intended for social workers and prepares them to use spiritual assessment and spiritual intervention, as well as to delegate clients to pastoral professions. The prerequisite is the basic course for social workers and management of social service providers.
- **Advanced course for the management of organizations providing social services:** The semester-long course is intended for the management of social service providers and prepares them to support the work with clients' spirituality within the organizational environment of a helping organization. The prerequisite is the basic course for social workers and management of social service providers.
- **Course for clergy collaborating with organizations providing social services:** The semester-long course is intended for pastoral professions that collaborate with social service providers or are involved in their multidisciplinary teams. The content of the course includes their cooperation with social workers – based on delegation, developing the organizational environment, the social services system, and issues in social work, among others. The course will have no prerequisites.
- **Professional Book *Spiritualita v sociální práci se seniory* (Brno: CDK, 2023, =Spirituality in social work with the elderly):** Based on the findings of the research and the operationalization of key concepts in the field of spirituality in social work for the Czech social and cultural environment, the book was created as part of project TL03000376 (Postgraduate Education of Social Workers for the Field of Spirituality in Social Work in Social Services for the Elderly). The book formulates principles and procedures for spiritual assessment and spiritually oriented intervention, the delegation of clients to pastoral professions, and principles and procedures for their cooperation within organizations providing social services. It also addresses the principles and procedures for managing an organization providing social services with regard to the topic of spirituality. The book serves as a study aid for lifelong learning courses, which are also outputs of the project.

Prison chaplain course: The result of project TL02000390 (Professional training of prison chaplains in the context of prison) is a lifelong learning course that prepares graduates of the master's degree program in Theology for the service of prison chaplains, as defined by the Agreement on Spiritual Service between the Czech Bishops' Conference, the Ecumenical Council of Churches, and the Prison Service of the Czech Republic from November 21, 2013. Based on research conducted during the project, the course is designed both as an introductory course for future chaplains and volunteers from among clergy working in the prison environment, and its goal is to offer space to deepen the professional knowledge of existing prison chaplains. The course provides knowledge and skills that enable orientation in the given issues, so that they can critically reflect on individual aspects of the performance of spiritual care in prison conditions.

The website nebojse.eu is a practical output of the TAČR project TL02000147. It offers a series of videos that help to understand spirituality in hospice care in an accessible way. The project investigated the importance of spirituality in the care of terminally ill individuals and those with dementia. The main audiovisual output is presented on the website <https://nebojse.eu/>. It offers a series of videos that help to understand spirituality in hospice care in an understandable way. Among the outputs of the project is also an information booklet on hospice practice for the general public. Other outputs included, for example, a conference on the importance of spirituality in the care of the terminally ill and people with dementia.

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

Type of result ³⁰	Year of application	Name
R – software	2022	VIREAS: Virtual reality in keeping seniors active: software kit
NmetS – approved conceptual manual	2022	VIREAS: Virtual reality in keeping seniors active: a conceptual manual
O – other results	2023	Basic course on the topic of spirituality in social work for social workers and management of organizations providing social services
O – other results	2023	Advanced lifelong learning course on the topic of spirituality for social workers focusing on spiritual assessment and spiritual intervention
O – other results	2023	Advanced course for the management of organizations providing social services
O – other results	2023	Course for clergy collaborating with organizations providing social services
B – academic monograph	2023	Spiritualita v sociální práci se seniory [=Spirituality in social work with the elderly]
O – other results	2021	Prison chaplain course
O – other results	2021	Website nebojse.eu

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)

³⁰ Specify the specific type of result. Add rows as needed.

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.)³¹, 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).³²

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 primary tool for transferring results into practice is lifelong learning courses designed for professionals such as clergy, social workers, teachers, and educators. These courses are offered through existing collaborations (e.g., seminars with professionals from schools/helping organisations about student internships) or via the USB's e-shop. The courses are paid for by the participants themselves or their employers and are mostly accredited by the Ministry of Labour and Social Affairs or the Ministry of Education.

Typical Users and Collaboration:

- Clergy: Collaborate through seminars and training sessions, enhancing their skills in pastoral ministry.
- Social Workers: Engage in courses to improve their ability to provide social work.
- Teachers: Participate in educational programmes to better support students' needs and personal development.
- Educators: Benefit from specialised training in the personal development of children.
- Healthcare / Social Care Professionals: Utilise courses to provide spiritual care in palliative care.

Commercialisation of R&D&I Results: The unit commercialises its R&D&I results primarily through selling courses and training programmes. These are offered as paid services, either directly to individuals or through institutional partnerships. The high demand and positive feedback from participants demonstrate the effectiveness of this approach.

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

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
Lifelong learning courses	1,811/72.4	1,787/71.5	1,314/52.5	1,896/75.8	2,189/87.5
Total	1,811/72.4	1,787/71.5	1,314/52.5	1,896/75.8	2,189/87.5

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 faculty regularly participates in the popularisation activities of the Researchers' Night. In line with its focus, it similarly utilises the Night of Churches. The topics treated during these events in last years were very diverse: In 2019, Mgr. Barbora Wernerová and Mgr. Veronika Blažek Iňová delivered a lecture on "Perception of Beauty in Nature," while Mgr. Martina Pavelková conducted a workshop on "Cloth Hygiene Products for Women." In 2020, Dr. Daniel D. Novotný presented a lecture on autonomous vehicles, discussing the ethical considerations and cultural perspectives on autonomous vehicles and emphasizing the importance of designing guiding systems that make morally acceptable decisions. In 2021, Martin Klapetek organized a lecture on "How Time Passes in the Religions of the World," exploring the concept of time in various religious teachings and rituals. In 2022, Martin Klapetek organized a lecture on religious realities under the theme "With All Senses," highlighting how religion engages all senses, using examples from Buddhist, Christian, and Hindu practices. In 2023, Martin Klapetek organized the program titled "The Cipher of the Capuchin Master," inviting participants to solve ciphers related to the history of the former Capuchin monastery.

A significant tool for popularisation activities at the faculty includes lifelong learning courses, which are also prepared in connection with ongoing basic and applied research projects, or institutional research, to convey the results of research and scientific work at the faculty to professionals in practice and the wider public.

Faculty members from the Department of Philosophy and Religious Studies (Dr. Martin Klapetek) and the Department of Social and Charitable Work (Dr. Helena Machulová) regularly visit secondary schools, where they conduct seminars and workshops on current topics related to the focus of study programmes and scientific activities at the faculty. For example, in autumn 2023, they conducted seminars for students of the Týn nad Vltavou Grammar School in connection with the terrorist attack in Israel.

A specific feature of the Faculty of Theology is the range of U3A courses, which offer both a diverse array of courses and varied teaching approaches. During the monitored period, popular courses included trips to spiritual symbols in the landscape or art courses. In organising U3A courses, the faculty is not limited to České Budějovice but also offers courses in Prachatice in cooperation with the Municipal Library and in Vlašim, where it collaborates with the local Charity.

Faculty members who also serve as clergy (Dr. Viktor Ber; Mgr. Tomáš Havel, Dr. theol.; Prof. Tomáš Machula; Assoc. Prof. Michal Opatrný; Assoc. Prof. Stanislav Příbyl; Assoc. Prof. Rudolf Svoboda; Assoc. Prof. Jindřich Šrajber; Dr. Karel Šimr; Prof. Jaroslav Vokoun; Prof. Martin Weis) contribute to the popularisation of faculty activities through lectures and preaching, drawing on the results of research work at the faculty and referring to it. For example, in 2023, Assoc. Prof. Svoboda gave a lecture on the South Bohemian native and missionary of North America, Jan N. Neumann, as part of the Night of Churches programme in Hluboká nad Vltavou. He presented the results of his research work in Philadelphia, which he achieved thanks to a grant from the Botstiber Foundation.

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:

Recently, management addressed the issue of limited research hours by systematically developing postdoctoral positions. These positions offer initial contracts to PhD graduates to help establish their professional careers. Typically, postdocs develop a two-year research and publication project while employed as researchers. After these two years, they transition to assistant professor positions and begin teaching bachelor's and master's students. Recently, with the support of USB, FTH created four postdoctoral positions, one for each department. This solution is particularly relevant to the study programme accreditation process, where faculty must demonstrate their professional profiles in relation to their teaching subjects through publication records and research in the relevant field. Therefore, postdocs first establish their research careers and then contribute to departmental teaching responsibilities.

During the evaluation period, FTH sought to develop contract research. However, the funding structures of social service providers, NGOs, and schools limit their ability to commission research projects from academia. In 2023, Catholic Caritas commissioned FTH to research the spirituality of migrants and refugees in the South Bohemian Region. This research was intended to be part of a broader EU project for the Caritas Centre for Migrants and Refugees in České Budějovice. Unfortunately, the EU project was unsuccessful, and therefore, the contract research could not proceed due to Caritas's lack of funding. Following the 2024 regional elections, FTH is exploring the possibility of contract research with the South Bohemian Region, particularly in education.

FTH has actively sought more opportunities for contracted research and applied projects. Two of those projects were included above in the section on contracted research, namely R. Svoboda's project *The Missionary Neumann between the Old and the New Worlds* funded by the Botstiber Foundation/Botstiber Institute for Austrian-American Studies. Another project supported from non-public sources has been the "Children's reading club" (= Dětský čtenářský kroužek) organised by Assoc. Prof. Helena Zbudilová, Ph.D., both in 2023 and 2024. This project was supported by the ČEZ

Foundation, as part of this programme Support for Regions. The aim of the children's reading club is to positively influence children's reading (children aged 8-12) during leisure by forming their positive relationship with books, experiencing the joy of reading, and developing sustainable reading, which is related to the process of lifelong learning (reading is now a socio-cultural necessity directly affecting professional, social, and personal life). In addition, FTH's students are also involved in this project. Yet another significant project funded by private sources has started after the evaluation period. This is the project "Ani smrt dětí není tabu: Dětská paliativní péče pro nezdravotnické profese" (=Even the death of children is not taboo: Children's palliative care for non-health professions). It was supported by the Vlček Family Foundation (<https://nrv.org/en/>) and is currently led by Dr. Helena Machulová. The main aim of the project is to increase the competence of academic staff in the field of paediatric palliative care and perinatal bereavement through educational courses and training, excursions and placements, and the study of literature.

We want to emphasise many significant applied research results in the evaluated period as given above in section 3.4

In the field of applied research, FTH closely collaborates, especially with the Ministry of Social Affairs. The projects of the TAČR agency must be approved by state, regional, or municipal authorities as necessary for their development goals. Previous TAČR projects and the current applications within the evaluation period are based on collaborations with the Ministry of Social Affairs.

For the churches, FTH specifically provides training courses (Life Long Learning courses) for healthcare chaplains and Religion Education teachers. Based on the TAČR projects, training courses for prison chaplains, social workers, and management of social service providers were developed and established to support their clients' spirituality.

Regarding technology transfer, the Technology Transfer Office was involved in the final phase of the TAČR VIREAS project concerning a contract for potential use of the resulting software. Notwithstanding the aforementioned, technology transfer remains a challenge for FTH.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
VIREAS: Conceptual manual	3.4	https://www.mpsv.cz/metodiky-certifikovane-mpsv
VIREAS: Conceptual manual	3.4	https://vireas.cz/metodika/
Healthy aging research seminar: Dr. Věra Suchomelová	3.4	https://healthyaging.med.ubc.ca/events/event/healthy-aging-research-seminar-dr-vera-suchomelova
Nebojse	3.4	https://nebojse.eu/
The Vlček Family Foundation	3.7	https://nrv.org/en/

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Health and Social Sciences

FORD: 3 - Medical and health 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.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:

During its more than thirty-year history, the Faculty of Health and Social Sciences of the University of South Bohemia (FHSS USB) has established itself as an important dynamically developing institution. It plays a key role in educational, scientific, and other creative activities in health and social sciences and has become an integral part of the USB. It is the only faculty in the Czech Republic that consistently strives to connect the health and social fields. It is also the only university in the South Bohemian region that provides non-medical education. As an integral part of the USB, the FHSS shares the university's visions, missions, and values.

Mission

The objective of FHSS is to train professionals who will improve public health and social services, thus contributing to citizens' health, safety, and quality of life. The faculty emphasises interdisciplinary cooperation and adherence to ethical principles as it prepares experts for practice.

Vision

FHSS aims to be a nationally and internationally competitive faculty with a supportive environment, a clear identity, and benefits for the city and region. It seeks to be an open academic institution that supports students and employees.

FHSS is aware of the importance of its social contribution, which it regularly and critically evaluates with respect to its scientific research activities. The faculty focuses primarily on the practical impacts

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

of its activities, which contribute to improving society's quality of life, health, and safety. FHSS research affects various areas, ranging from improving the quality of health and social care to ensuring emergency preparedness.

The research activities at FHSS are firmly anchored in three main areas: healthcare, social services, and public safety. The faculty has created multidisciplinary research teams based on these key areas to develop and implement research projects. The faculty aims to integrate basic and applied research, ensuring that the gained knowledge is effectively transferred into practice. Most FHSS research projects tend to be applied research rather than basic research. A significant component of our basic research is focused on the historical analysis of the healthcare system in the First Czechoslovak Republic. Evaluating healthcare from a historical perspective is critical for future system development.

FHSS conducts research in healthcare and security, which mainly falls under its scope. It actively seeks opportunities for interfaculty collaboration, with the most intensive cooperation currently being developed with the Faculty of Education. Through its activities, it fosters a favourable scientific environment at the university.

Looking ahead, the faculty has established several long-term goals aligned with its strategic direction, ensuring the continuity of research activities. The faculty emphasises innovation and modern approaches in healthcare, providing holistic and safe nursing care focusing on primary and secondary disease prevention. The social research aspect addresses demographic challenges, such as population ageing, immigrant integration, and health and social services interconnection. In public safety, the faculty concentrates on integrating public health and radiobiology into crisis management and civil protection.

The faculty also emphasises the development of international cooperation and involvement in global research projects, allowing best practices to be shared and applied nationally and internationally. In 2023, two international projects, Horizon and PIANOFORTE, were prepared. The faculty is a consortium member in both of them.

The organisational units of the faculty include six departments, one institute, and the dean's office, which includes other sections, departments, offices, and independent workplaces subordinate either directly to the faculty's dean or to other faculty management members.

The departments unite academic staff from related professions to organise and support their academic and creative activities. They are led by directors who collaborate closely with the guarantors of the study programmes overseen by the individual departments. The director, in cooperation with the guarantors, is responsible for developing these programmes and advancing research and creative activities, ensuring accreditation conditions are met. All this is done in alignment with the Faculty's Strategic Plan.

The Institute of Applied Health and Social Sciences – Practical Workplace is a special department that provides facilities for academic and non-academic employees to engage in creative activities and connect theory with practice.

FHSS is the second largest university faculty in terms of student population. Teaching is conducted across eleven bachelor's and two master's programmes, with options for both full-time and flexible-time study in four bachelor's and both master's programmes. The faculty also offers two accredited doctoral programmes. Although the bachelor's programme in Nursing is accredited in English, there is

currently no instruction taking place in this programme. Both doctoral programmes are also accredited in English, with only one student currently enrolled in the Nursing doctoral programme. The study programmes at FHSS are accredited as professionally orientated, fostering excellent cooperation with the application sphere. This collaboration includes direct participation of experts from practice in teaching, supervising qualification dissertations, and supervising students during clinical and practical training.

The number of academic staff is proportional to the number of students. Table 3.1.1 presents the number of academic staff by category, with the majority of staff classified as assistant professors. However, in 2022, there was a significant decrease in this category due to reclassification into other categories. These changes resulted from the introduction of new "Wage Regulations" at USB, which modified employment conditions and established uniform rules for employee classification.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	7.20/2.45	6.32/1.57	5.7/1.4	6.16/1.4	6.43/1.70	14/4
Associate Professor	17.47/10.02	17.00/9.58	16.30/8.69	15.25/8.60	13.83/8.10	34/17
Assistant Professor	76.40/50.56	68.94/46.02	63.01/41.85	43.42/28.25	41.64/26.63	278/157
Assistant	5.50/5.20	2.72/2.66	5.86/5.14	23.69/17.91	27.24/21.17	96/72
R&D Personnel ³	0	0	0	0	0	0
Researchers in other categories ⁴	1.48/0.7	2.88/1.86	6.09/4.44	5.17/4.03	4.35/3.46	44/29
Technical and economic staff ⁵	18.11/15.10	17.37/13.54	18.16/14.16	20.14/15.85	16.86/13.92	27/22
Scientific, research and development staff involved in teaching activities	106.56/68.23	94.98/59.82	90.87/57.08	88.52/56.15	89.14/57.59	422/250
Early career researchers ⁶	18.40/14.19	13.87/9.91	12.58/9.08	12.26/8.97	13.37/9.56	27/18
Total ⁷	126.14/84.03	115.23/75.22	115.11/75.68	113.83/76.03	110.35/74.97	

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 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.

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/ 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	1	0	0	0	7	3	4	0
Associate Professor	0	0	1	1	5	4	5	2	6	3	7	2
Assistant Professor	5	3	21	15	45	32	21	9	22	11	8	3
Assistant	1	1	0	0	2	2	6	5	0	0	0	0
R&D Personnel ⁹	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	0	0	0	0	1	0	1	0	3	3	2	0
Technical and economic staff ¹¹	0	0	4	1	8	8	5	5	2	1	0	0
Scientific, research and development staff involved in teaching activities	6	4	22	16	53	38	32	16	35	17	19	5
Early career researcher ¹²	2	2	8	5	6	5	5	3	2	2	0	0
Total ¹³	6	4	26	17	62	46	38	21	40	21	21	5

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/ 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	1	0	2	1	3	1	5	1
Associate Professor	0	0	0	0	5	4	6	2	6	3	5	2
Assistant Professor	1	1	10	7	29	17	18	12	12	3	7	4
Assistant	6	4	11	8	17	13	11	8	9	5	1	1
R&D Personnel ¹⁵	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	0	0	7	5	9	5	5	3	3	2	2	2
Technical and economic staff ¹⁷	1	0	1	1	10	10	4	4	1	1	1	1
Scientific, research and development staff involved in teaching activities	7	5	21	15	52	34	37	23	30	12	18	8
Early career researcher ¹⁸	0	0	9	6	7	5	3	2	1	1	0	0
Total ¹⁹	8	5	29	21	71	49	46	30	34	15	21	11

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.

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.

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	1326	1095	1243	1038	1291	1085	1271	1059	1338	1103	3324	2757
Master's ²⁰	324	267	326	261	258	211	176	162	175	168	736	622
Doctoral	35	28	44	36	34	29	31	24	36	28	72	58
Lifelong Learning Courses	183	131	386	305	470	366	535	410	578	427	1712	1134
Total	1870	1523	2001	1642	2054	1692	2014	1656	2128	1727		

Table 3.1.5 - Study programmes in Czech/English

Type of study programme	Total ²¹ / Of which professional study programmes											
	2019		2020		2021		2022		2023		Total	
Undergraduate	32/2	32/2	32/2	32/2	33/2	33/2	33/2	33/2	31/2	31/2	40/2	40/2
Master's	11/0	0/0	11/0	0/0	11/0	0/0	11/0	0/0	8/0	0/0	11/0	0/0
Doctoral	4/0	0/0	4/0	0/0	10/2	0/0	10/2	0/0	10/2	0/0	10/2	0/0
Lifelong Learning courses	46/0	9/0	29/0	5/0	36/0	8/0	39/0	4/0	29/0	9/0	103/0	28/0
Total	93/2	41/2	76/2	37/2	90/4	41/2	93/4	37/2	78/4	40/2		

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.	3.22
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences	1.01	Basic Research	
	1.5 Earth and related environmental sciences	0.4	Applied Research	
	1.6 Biological sciences	1.41	Applied Research	
	1.7 Other natural sciences	0.4	Applied Research	
2. Engineering and	2.1 Civil engineering	0.4	Applied Research	

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

²¹ 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	0.2	Applied Research	1.21
	2.3 Mechanical engineering		Zvolte položku.	
	2.4 Chemical engineering		Zvolte položku.	
	2.5 Materials engineering		Zvolte položku.	
	2.6 Medical engineering	0.4	Applied Research	
	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	0.2	Applied Research	
3. Medical and Health Sciences	3.1 Basic medicine	6.24	Applied Research	66
	3.2 Clinical medicine	11.67	Applied Research	
	3.3 Health sciences	48.09	Applied Research	
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	2.41	Applied Research	27.57
	5.2 Economics and Business	1.81	Applied Research	
	5.3 Education	2.41	Applied Research	
	5.4 Sociology	2.01	Applied Research	
	5.5 Law	6.04	Applied Research	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography	0.2	Applied Research	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences	12.68	Applied Research	
6. Humanities and the Arts	6.1 History and Archaeology	0.2	Basic Research	2.01
	6.2 Languages and Literature	0.2	Applied Research	
	6.3 Philosophy, Ethics and Religion	1.01	Applied Research	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts	0.6	Applied Research	
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:

FHSS is one of the leading institutions in the field of nursing research. The Department of Nursing, Midwifery and Emergency Care has, over the years, been involved in many research projects. Research activities focus on topical issues and problems related to providing nursing care. These include theoretical and practical solutions, emphasising quality, safety, and innovation in patient care. As a result, the faculty ranks among the best research institutions in this field, which is confirmed by its respected position within the academic and professional community. Projects often involve interdisciplinary collaborations that connect nursing with other disciplines, such as public health, social work, or crisis management.

Scholars in other critical research areas, such as social work and community health, are also acknowledged experts within their disciplines. They are frequently sought after by international universities for collaborative research endeavours; recent examples include the new international projects Horizon and PIANOFORTE.

The presence of academic staff on the editorial boards of major scientific journals plays a significant role in advancing scientific research. Working on editorial boards allows experts to directly influence the quality of published scientific papers, establish standards in the field, and support ethical principles of scientific publishing. At the same time, it also provides access to the latest knowledge and trends in their field, strengthening their research activities. Membership in such organisations enhances the prestige of the academic institutions they represent and fosters deeper collaboration with other research entities and professional communities on an international scale.

Academic staff participate in various national and international organisations and committees. They significantly contribute to their fields and share expertise, impacting both the scientific community and society. Their activities are key to strengthening international cooperation and applying scientific knowledge in practice.

Prof. Dr. Friedo Zölzer, DSc. from the Department of Radiology, Toxicology, and Population Protection, is a recognised authority in radiation protection. He holds key roles, including committee memberships and chairing working groups on radiological protection ethics, radiation harm classification, and the effects of ionising radiation on health today and on future generations. His long-standing participation in the working groups of the International Commission on Radiological Protection (ICRP) and the German Commission on Radiation Protection highlights his contribution to formulating recommendations and standards in the field.

Doc. MUDr. Milada Zemanová, Ph.D. is a prominent figure in radiation oncology and lung tumour treatment. Her active participation in professional societies, including the European Society for Medical Oncology, the International Association for the Study of Lung Cancer, and the Central European Lung Cancer Association, highlights her significant international influence.

Academics from the Institute of Nursing, Midwifery and Emergency Care have notable memberships in several prestigious international organisations. They are part of the European Transcultural Nurses' Association, which promotes transcultural care; the UDINE-C Network, which addresses career development for university nursing educators; and the Sigma Theta Tau International Honor Society of Nursing, dedicated to advancing knowledge, teaching, learning, and service through community creation for practice, education, and research.

Mgr. Ivana Chloubová, Ph.D., Mgr. František Dolák, Ph.D. and prof. PhDr. Valérie Tóthová, Ph.D. are all actively involved in these organisations. Věra Logan-Kuchařová, Msc. is also actively involved in the Sigma Society. Professor Tóthová's memberships in organisations such as the International Association for Human Caring, the American Association for the History of Nursing, the European Federation of Educators in Nursing Science, and the Council for the Advancement of Nursing Science highlight her active involvement in research and her dedication to advancing nursing history and excellence.

International cooperation of academic staff at the Institute of Social and Special-pedagogical Sciences is anchored mainly in the European Network of Social Work Universities. International Weeks of Social Work are held annually in cooperation with this organisation. The academic staff of the Institute are members of international organisations, such as the European Association of Schools of Social Work and the Institute for Family and Neighborhood Life. They also work intensively with networks of The International Society for Child Indicators and the International Survey of Children's Well-Being.

Doc. Ing. Hana Konečná, Ph.D., from the Institute of Humanities in Helping Professions, has dedicated over 30 years to addressing the psychosocial and ethical issues of unfulfilled parenthood, with a recent emphasis on assisted reproduction. She is a member of various national and international committees dealing with this issue, such as the Bioethics Commission of the Council of Europe, the Ethics Committee of the Ministry of Health, the Commission for Reproductive Medicine of the Ministry of Health of the Czech Republic, the European Society of Human Reproduction and Embryology, the International Infertility Counseling Organization, and the Union of Family Lawyers.

Academic staff participate in evaluating research projects in open calls at national and international agencies. The staff are also available to assess and evaluate the research activities of other universities.

The faculty's academic staff are regularly invited to present the results of their research at prestigious international conferences, where they share their findings and discuss current topics with colleagues from around the world. Additionally, they frequently serve as guest speakers at foreign universities, presenting their scientific findings and delivering lectures that inspire students and colleagues in their field. At the same time, colleagues from foreign universities come to lecture and share their experiences at our university. These activities contribute to disseminating scientific knowledge, developing research topics, and strengthening the faculty's reputation in the international academic environment. Through these forms of participation, the faculty engages in global scientific discourse, contributes to knowledge development in key areas, and supports the internationalisation of education and research.

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
Jitka Vacková, doc. Mgr. et Mgr., Ph.D.	Rector's Award for a prestigious scientific publication	University of South Bohemia in České Budějovice
Pavel Kohout, Doc. MUDr., Ph.D.	Josef Hlávka Prize for Scientific Literature (year 2021)	Foundation „Nadání Josefa, Marie a Zdeňky Hlávkových“ and the Foundation „Český literární fond“
Valérie Tóthová, prof. PhDr. Ph.D., dr.h.c.	Knight's Cross of the Hungarian Order of Merit	Hungarian state award for contributions to the development of Hungarian-Czech relations in the fields of healthcare and education in healthcare

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
Sylva Bártlová, doc. PhDr., Ph.D.	Frontiers in Public Health, Electronic ISSN 2296-2565
Věra Hellerová, Mgr., Ph.D.	Public Health Nursing (PHN), Online ISSN:1525-1446 Print ISSN:0737-1209
Alan Bulava, prof. MUDr. Mgr., Ph.D.	Journal of Applied Biomedicine, ISSN 1214-021X
Sylva Bártlová, doc. PhDr., Ph.D.	Kontakt, ISSN 1212-4117
Miloš Velemínský, doc. MUDr., Ph.D.	Kontakt, ISSN 1212-4117
Valérie Tóthová, prof. PhDr. Ph.D., dr.h.c.	Central European Journal of Nursing and Midwifery, ISSN: 2336-3517
Jitka Vacková, doc. Mgr. et Mgr., Ph.D.	Sociální práce (Czech and Slovak Social Work), ISSN 1805-885X
Valérie Tóthová, prof. PhDr. Ph.D., dr.h.c.	Developments in Health Sciences, Online ISSN: 2630-936X Print ISSN: 2630-9378
Jitka Vacková, doc. Mgr. et Mgr., Ph.D.	Social work and Social Policies (Puna sociale dhe politika sociale), ISSN 2221-4178

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
Alan Bulava, prof. MUDr. Mgr., Ph.D.	Efficacy and Safety of Hybrid Epicardial-Endocardial Catheter Ablation Alone in Persistent and Longstanding Persistent Atrial Fibrillation: CEASE-AF Trial Results	APHRS (Asia-Pacific Heart Rhythm Society), Hong Kong	2023
Alan Bulava, prof. MUDr. Mgr., Ph.D.	Sequential Hybrid Ablation versus Surgical CryoMaze Alone for Treatment	ESC (European Society of Cardiology, Hotlines Section), Amsterdam	2023

	of Atrial Fibrillation: SURHYB Trial Results.		
Alan Bulava, prof. MUDr. Mgr., Ph.D.	QDOT – FAST Trial and Advances in Mapping Technologies	XII. Aritmia és Pacemaker Kongresszus, Budapest	2019
Ivana Chloubová, Mgr. Ph.D.	Cultural competence of nurses in intensive care	The 8 th International Conference European Transcultural Nursing Association, Odense	2023
Valérie Tóthová, prof. PhDr., Ph.D., dr.h.c.	Transcultural nursing: Recommendations for nursing education and practice, European experiences	International Nursing Care and Research Congress, Gaziantep	2019
Valérie Tóthová, prof. PhDr., Ph.D., dr.h.c.	The Continuing problem in healthcare: Drug administration safety	2 nd International Nursing Care and Research Congress, Ankara	2022
Valérie Tóthová, prof. PhDr., Ph.D., dr.h.c.	Use of the tool of self-assessment of cultural competences of nurses working in intensive care	The 8 th International Conference European Transcultural Nursing Association, Odense	2023
Jitka Vacková, doc. Mgr. et Mgr., Ph.D.	Project Evaluation	Institute on Family and Neighborhood Life, Clemson University, USA	2019
Salim Murad, PhDr., PhD.	Visual Sociology for Social Work Education - Globalization, Diversity and Contemporary City	Tirana University, Albania	2023
Jiří Šimek, MUDr., CSc., doc.	Šimek, J., Zölzer, F.: Czech radiographers' perception of ethical aspects of their profession.	EACME (European Association of Centres of Medical Ethics). University of Insubria. Varese, Italy	2022

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
Ljiljana Tadić Latinović, Dr.	Pan-European University of Apeiron	Position of pathology in patients treatment today	2023
Ilija Baroš, Dr.	Pan-European University of Apeiron	Breast cancer with special reference to heterogeneity in metastases	2023
Dianne Morrison-Beedy, prof., PhD, RN,CGNC, FNAP, FAANP, FAAN	The Ohio State University College of Nursing, USA	Research in nursing	2023
Susan O'Hara, Dr., PhD, MPH, BA, RN, EDAC, FNIHD	The Ohio State University College of Nursing, USA	Building a Culture of Innovation in Health System	2022
Mark Small, J.D., prof., Ph.D	Institute on Family and Neighborhood Life, Clemson University, USA	The Role of Happiness, Kindness and Mercy in Promoting Mental Health	2019
Michał Musiałowski – Academic Coordinator	Carl von Ossietzky University of Oldenburg, Germany	Art and Migration	2023
Govinda Mani Nepal, MSc.	Kathmandu University, Dhulikel Hospital	Stroke rehabilitation. Vestibular rehabilitation.	2023
Bakir Katana, prof. Ph.D.	University of Sarajevo, Faculty of Health Studies	Manual techniques for UE, LE and spine	2023
Smita KC, MSc.	Kathmandu University, Dhulikel Hospital	Functional Intensive Training for Children with Cerebral Palsy, ICF Based Assessment and Treatment for Children with Cerebral Palsy	2022

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
Sylvia Bártlová, doc. PhDr., Ph.D.	Programme to support applied medical research 2020 – 2026, Panel 09 of Preventive Medicine and Nursing of the Agency for Health Research in the Czech Republic	Agency for Health Research in the Czech Republic	2020, 2023
Jitka Vacková, doc. Mgr. et Mgr., Ph.D.	External evaluator of projects COST (Open Call OC-2022-1, COST Action), Open Call OC-2024-1: Proposal Reference -OC-2024-1-27786	COST – European Cooperation on Science and Technology	2022, 2024
Alena Hricová (Kajanová), doc. PhDr. Bc., Ph.D.	Programmes Éta, Alfa and Gama	Technological agency of Czech Republic	2023
Vlastimila Ptáčníková, Mgr., Ph.D.	Evaluation of the quality of creative activity – Faculty of Arts, Institute of Applied Language Studies	University of West Bohemia in Pilsen	2019, 2019 - 2021
Valérie Tóthová, prof. PhDr. Ph.D., dr.h.c.	Programme to support applied medical research 2020 – 2026, Panel 09 of Preventive Medicine and Nursing of the Agency for Health Research in the Czech Republic	Agency for Health Research in the Czech Republic	2019 - 2025

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.

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.

Self-assessment:

The research activities of the FHSS align with its mission and vision, which emphasise the preparation of experts capable of strengthening health and social prevention programmes and contributing to improving the population's health, safety, and quality of life. The faculty focuses on interdisciplinary research with practical impacts on society, connects basic and applied research, and implements its results in practice.

The strongest part of the faculty's research activities consists of nursing projects, which directly impact patient care quality and patient safety in both hospital and community settings. These projects are prepared in a multidisciplinary manner, and academic staff from various disciplines working at other faculty departments are involved. Interdisciplinary collaboration is a key factor leading to better and more effective results, which is why experts from other disciplines are important in nursing research projects.

Researchers in the field of nursing not only contribute to improving clinical practice but also support the development of healthcare professionals, including scientific and publishing activities. The experience and skills gained are essential for experts to prepare and implement their research projects in the future while focusing on the specifics of their fields.

Support for informal caregivers in the South Bohemian Region through audio-visual means including virtual reality

The project aimed to provide psychosocial support to informal caregivers using a multidisciplinary approach with professional counselling and innovative use of virtual reality (VR). The project responded to the specific needs of family caregivers who are involved in the long-term care of their loved ones and offered new methods of coping with physical and mental stress. The main objective was to increase physical and psychological resilience, strengthen their confidence in their abilities, and promote a sense of meaning and closeness within the family.

The project involved the cooperation of experts in social, humanities, health, and technical fields, which enabled the creation of a comprehensive support system. The multidisciplinary team implemented counselling activities focused on physiotherapy, psychological and socio-legal assistance, relaxation and meditation techniques, adopting a healthy lifestyle, and improved nursing care. An essential part of the project was using a prepared virtual reality application, which allowed caregivers to effectively relax, meditate, and improve their ability to cope with stress.

The project's key outputs included educational materials, including videos and brochures, which were used in counselling and teaching at the FHSS. Another important element was the development of a virtual reality environment called "Relaxation and Meditation," which was provided to organisations such as the Autis Centre, St. Margaret's Home Hospice, LEDAX, and others. Virtual reality is used for family caregivers, residential camps, and respite stays.

The project included comprehensive counselling activities, linking psychological, social, physiotherapeutic, and health counselling. The project results were presented at professional conferences and workshops focused on the use of VR in social services, where the potential of this technology as an innovative tool for supporting caregivers was also demonstrated.

Comprehensive prevention and interdisciplinary care for individuals with cerebral stroke

The project focused on evaluating and improving patients' quality of life after stroke. The objectives were to assess the quality of life of these patients and identify factors that affect it. The survey focused on the community care provided by nurses. At the same time, the health literacy of the general public

was evaluated in relation to stroke prevention. The respondents included stroke patients, nurses in community care, and a representative sample of the general public.

Standardised tools were used to assess quality of life. Based on these data, an algorithm of competencies for non-medical professions in community care was created, which was subsequently verified using an experimental approach through research. The purpose of the non-pharmacological intervention was to determine how these approaches can improve patients' lives.

The research confirmed the coordinator nurses' key role in modifying patients' lifestyles. In the observational part of the study, we found that when nurses independently coordinated the activities of a multidisciplinary team, there was a significant improvement in patients' physical and mental well-being.

The sociological survey also revealed deficiencies in health literacy, especially in the knowledge and skills related to stroke prevention. It was confirmed that a low level of health literacy was a risk factor for developing this disease.

The intervention part of the study showed that an individual care plan based on the needs of patients contributes to improving their physical and mental well-being. The study's results emphasise the importance of a multidisciplinary approach in stroke prevention and treatment and confirm the importance of nurses in the coordination of follow-up care.

Safety of nurse medication administration at selected hospital wards

The project focused on identifying risks and optimising the drug administration process by nurses in hospitals' surgical, internal, and follow-up care departments. The main objective was to analyse the frequency and types of medication errors, identify their causes, and propose preventive measures to increase patient safety and medical personnel efficiency.

The project was proposed by the FHSS and carried out in cooperation with the Faculty of Pharmacy in Hradec Králové (Charles University). The research team conducted a comprehensive analysis of the drug delivery process, including FMEA and SWOT analysis, to identify the areas with the highest risk. Thirty-two potential errors were discovered, the leading causes being high workloads for nurses, poor communication with pharmacists, and the lack of computerised tools to check for errors in drug administration. Based on the results, implementing electronic prescriptions, barcode readers, and optimisation of drug management was recommended to reduce error rates and increase drug administration.

The project produced practical solutions, including the creation of a lifelong learning course "Safe Drug Administration by Nurses," which has been introduced into the education of healthcare professionals. In cooperating hospitals, standard procedures for drug administration were updated and interactive seminars were organised for nurses and physicians. Developed in cooperation with the Faculty of Pharmacy, educational materials help minimise the risk of drug errors.

Due to the applied measures, a significant reduction in drug errors was achieved. Education, interdisciplinary cooperation with pharmacists, and organisational innovation were the key factors for success. The results are easily transferable to other healthcare facilities and can improve patient safety and healthcare efficiency. In the future, further computerisation of medication processes, the introduction of automated drug systems, and the interconnection of hospitals with advanced electronic drug databases are recommended.

Role of nurses and their protection during pandemic situations

The project focused on the position of nurses within multidisciplinary teams during the pandemic and the impact of changed working conditions on their professional and personal lives. The members of the research team, primarily nurses, supplemented by a psychologist and a sociologist, ensured objectivity and professional depth. By mapping the experience of nurses, their needs, and the expectations of the public, the project has provided valuable data for the management of healthcare facilities and the organisation of nursing care during crises.

The pandemic exposed shortcomings in the continuous provision of care and highlighted the need to improve the accessibility of healthcare services. As a response, the project team designed an online consultation platform to support the management of chronic, epidemic, and lifestyle-related diseases. This platform will enable patients to maintain continuous contact with healthcare professionals, reducing the risk of neglected care. Additionally, during crisis periods, the demand for healthcare services using infection barriers increases, which is essential protection for both patients and healthcare personnel.

One of the project's key outputs was an online course for nurses, focused on the principles of epidemic and pandemic nursing procedures. The course supports lifelong learning, increases the professional competencies of nurses, and, thanks to its flexibility and accessibility, has become a popular tool for professional development. At the same time, online education is economically effective for healthcare institutions, as it reduces the cost of employee training.

The research revealed significant insights into how the public and physicians perceived the role of nurses and the provision of care during the pandemic. The research results provide specific recommendations for the management of nursing care in crises and will influence future strategies to ensure quality and safe healthcare during crises.

A Care Model for Seniors in Housing Facilities in the Concept of Three-stage Housing

The project focused on the ageing population and the search for effective solutions in social and health-social care for the seniors. The primary beneficiary of the results is the city of Tábor, which is implementing a new model of care for the seniors in its residential social services through the implementation plan. Other users of the results are students of FHSS, who get acquainted with the research findings and have the opportunity to complete professional practice in the city's social services. Secondary users are seniors and their families, who are directly affected by the new care system.

The key points of the implementation include the opening of new residential services, including a special home for 45 clients and a nursing home for 25 people. The emphasis was placed on multidisciplinary cooperation, strengthening staff and volunteers' involvement in seniors' leisure activities. In addition to supervision and lifelong learning courses for social service workers, the situational analysis focused on creating an intergenerational community centre and support for self-help groups and counselling for informal caregivers were implemented. Educational and leisure activities for caregivers and support for shared care in the region were also crucial to the project. Municipalities will inevitably face more clients with multiple problems needing social and health services in the context of the growing number of seniors. The three-tier housing model represents a comprehensive and sustainable care system, connecting seniors with the community and supporting intergenerational solidarity. The project results serve as a model for cities and municipalities looking for an effective solution for the coordination of care for the seniors in relation to upcoming changes in social services legislation.

Standardisation of Woodcock-Johnson IV test for population of Romani children

The interdisciplinary project mainly focused on psychometrics, psychodiagnostics, and cognitive psychology. Its outputs also significantly overlap the field of sociology and social work, especially in the context of social exclusion and work with minorities. The project aimed to adapt the Woodcock-Johnson IV test to be fairer and to reflect the Roma population better, allowing a more accurate diagnosis of cognitive problems in children from this community.

The project contributes to mitigating the effects of social exclusion by focusing on more targeted and sensitive diagnostics. Traditional psychometric tools are not always well adapted to the cultural and linguistic specificities of Roma children, which can lead to biased results and, consequently, incorrect decisions that affect their education. The standardisation of the test will allow for a more accurate assessment of their abilities, thereby contributing to better access to education, reducing inequalities, and promoting inclusion.

In a broader sense, the project helps to create a more equitable society where educational tools are adapted to the needs of diverse populations. Its outputs can be used in the fields of education, counselling, and social work, where they will help ensure that children from minorities are not disadvantaged by incorrect diagnosis and have an equal chance of developing their skills and integrating into society.

Quality and sustainability of body parts donation programmes in the Czech Republic

The project focused on the psychosocial and ethical issues related to assisted reproduction and unfulfilling parenthood. The topic covers a wide range of areas, from the latest medical technologies through the psychological aspects of parental ties and foster care to sociological, demographic, and ethical issues related to the availability and regulation of these methods. The legal dimension is also important because it determines who can be a parent and how the rules are defined for donating gametes and embryos.

The issue of body parts donation also affects transplantation and transfusion medicine because it is subject to the same legislative principles of anonymity and altruism. The study therefore looked at a different approach to compensation. For example, egg donors receive significantly higher financial compensation than bone marrow donors, whose compensation is limited only to the payment of travel and lost wages during hospitalisation. The project analysed the impacts of commercialisation of the entire sector, where demand is significantly higher than the availability of donated body parts.

The Ministry of Health used the project outputs to implement European legislation, which came into force in July 2024 and will be transferred to the Czech legal framework in June 2027. The results of the project are freely available on the internet, and they are also used by other state institutions in the comment procedure on the ART legislation.

The regulation of these disciplines requires interdisciplinary cooperation and effective interdisciplinary communication since it is a highly politicised topic influenced by different perspectives on children's rights and parenthood, including the discussion of "marriage for all," which has a significant impact on assisted reproduction.

Sequential Hybrid Ablation versus Surgical CryoMaze Alone for Treatment of Atrial Fibrillation (SurHyb Trial)

The SURHYB trial evaluated the efficacy of hybrid treatment of atrial fibrillation, which combines surgical ablation (CryoMaze) and subsequent catheter ablation. The aim was to determine whether

this procedure reduces the incidence of atrial arrhythmias and major clinical events compared to the CryoMaze procedure alone.

The study results showed that hybrid therapy led to a 62% reduction in recurrence of atrial arrhythmias and a 49% reduction in hospitalisations due to arrhythmias, heart failure, thromboembolic events, and bleeding. Until now, there has been a lack of data on optimal treatment for patients with structural heart disease undergoing CryoMaze. The study showed that more than two-thirds of patients experience recurrences of arrhythmias within 2-3 years after CryoMaze.

Based on these findings, it was recommended that hybrid therapy should be primarily offered to patients undergoing concomitant surgical treatment for atrial fibrillation. Approximately three months after surgery, catheter ablation should be performed to address and optimise any lesions that were not fully completed during the CryoMaze procedure. This safe and effective procedure significantly reduces the risk of clinical complications and improves the prognosis of patients.

In addition to reducing arrhythmia recurrences, the hybrid approach also brings better heart rhythm control and overall better cardiovascular outcomes. Early identification of patients suitable for this type of treatment and their systematic monitoring can significantly improve their quality of life and reduce the need for further invasive procedures.

With its robust methodology and randomised design, this study can influence future guidelines for atrial fibrillation treatment. The results can contribute to more personalised treatment, optimisation of long-term care, and reduction of the overall burden on the health system.

Impact of air pollution on the morbidity in children

The project focused on the impact of air pollution on children's health, specifically the relationship between exposure to polycyclic aromatic hydrocarbons (PAHs) in the air and morbidity in preschool children. The research team investigated whether changes in the expression of genes affecting the immune system and brain development observed in newborns have long-term effects on their health and psychological development. The project responded to findings from industrial areas of northern Moravia, where the incidence of respiratory diseases in children has increased along with a delay in immune development.

Research was carried out in two cohorts of children. Paediatricians recorded the morbidity of children in the districts of České Budějovice and Karviná between the ages of 3 and 5 years, and psychological examinations were also performed. Urine samples were analysed to determine the content of PAHs. In the second cohort, which included newborns from the České Budějovice and Most districts, similar examinations were performed at birth. The paediatricians then monitored their morbidity until two years of age. The objective was to determine whether long-term exposure of mothers to air pollution affects their children's health. The most important result of the project was the determination that exposure to fine dust particles in the prenatal period affected lipid peroxidation in the maternal plasma, which affected the performance of 5-year-old children in selected psychological cognitive tests. The result demonstrated the effect of oxidative damage in the prenatal period on the later neuropsychic development of children.

The project results significantly contributed to prevention, as they provided new information about the impact of air pollution on children's health.

Health System of the First Czechoslovak Republic in the Context of National and Social Composition of the State – Centre vs. Periphery

This project was important for the field of nursing since its donor was the Grant Agency of the Czech Republic (GA CR), which finances basic research. Due to the applied focus of nursing, this field can only be part of a multidisciplinary team in the GA CR. The same was the case when health professionals from our faculty were part of the team together with historians and economists. The FHSS acted as a co-beneficiary, with the University of Economics being the beneficiary of the project and the University of West Bohemia being another co-beneficiary. Our faculty focused primarily on issues related to nursing and healthcare development.

The project aimed to map the history of the health system of the First Czechoslovak Republic, especially the provision of healthcare in the central and peripheral regions of the country. The health and social policy of the state was also studied in the context of its national diversity. The project also focused on the population's specific cultural and linguistic needs.

The research was carried out on several levels, from an analysis of the health policies of the First Republic government and its legislative amendments to a detailed study of healthcare financing within the state's budgets and the availability and quality of healthcare.

The output of the project was an extensive monograph. The contemporary laws, regulations, professional journals, publications by contemporary experts, and reports on the activities of various organisations were analysed. Finally, the monograph comprehensively analysed the available professional literature, revealing that such an extensive analysis of the history of healthcare in the First Republic of Czechoslovakia had previously been lacking.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Grant Agency of CR (GA)	Surrogacy in the CR: legal, psychosocial and ethical analysis, GA17-07753S	514 / 20				
Ministry of Education, Youth and Sports	Social Exclusion of Seniors 65+ Living in a Home Surrounding in the Czech Republic, LTC18066	2,613 / 103	493 / 19			
Ministry of Health (MH)	Analysis of factors influencing the risk of falls -	807 / 32				

²⁵ 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.

²⁶ Indicate the total amount expressed in thousands of CZK and the conversion of the total amount into Euro.

	opportunities of involvement of nurses and pharmacists in minimisation of the risk, NV16-33463A					
MH	Impact of air pollution on the morbidity in children, NV18-09-00151	3,588 / 142	2,175 / 86	1,624 / 64		
MH	Sequential Hybrid Ablation versus Surgical CryoMaze Alone for Treatment of Atrial Fibrillation (SurHyb Trial): a multicentre randomised controlled trial, NV19-02-00046	195 / 8	214 / 8	230 / 9	377 / 15	4 / 0.2
MH	Comprehensive prevention and interdisciplinary care for individuals with cerebral stroke, NV19-09-00199	621 / 25	1,652 / 65	1,159 / 46	966 / 38	
MH	Safety of nurse medication administration at selected hospital wards, NU20-09-00257		904 / 36	2,120 / 84	1,317 / 52	1,183 / 47
MH	Role of nurses and their protection during pandemic situations, NU21-09-00300			1,205 / 48	1,941 / 77	1,461 / 58
MH	Complex Education of Stable Ischemic Heart Disease Patients Coordinated by Nurses, NU23-09-00369					1,144 / 45
Technological Agency of CR (TA)	A Care Model for Seniors in Housing Facilities in the Concept of Three-stage	873 / 34	658 / 26			

	Housing, TL01000032					
TA	Standardisation of Woodcock- Johnson IV test for population of Romani children, TL02000187	908 / 36	877 / 35	810 / 32		
TA	Support for informal caregivers in the South Bohemian Region through audio-visual means including virtual reality, TL03000518		803 / 32	1,613 / 64	1,196 / 47	1,142 / 45
TA	Quality and sustainability of body parts donation programmes in the Czech Republic, TL05000144			356 / 14	467 / 18	729 / 29
TA	Support and development of financial, digital, social and health literacy among the 65+ population, TQ01000591					296 / 12
COST (EU)	COST Action CA21123 Cancer – Understanding Prevention In Intellectual Disabilities (CUPID), 2022 - 2026				without financial support	without financial support
Total		10,119 / 399	7,776 / 307	9,117 / 360	6,264 / 247	5,959 / 235
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023

²⁷ Ibid.

Grant Agency of CR (GA)	Health System of the First Czechoslovak Republic in the Context of National and Social Composition of the State – Centre vs. Periphery, GA20-09470S		450 / 18	534 / 21	510 / 20	2 / 0.08
Total			450 / 18	534 / 21	510 / 20	2 / 0.08

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
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Total						

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 impacts²⁹, 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 Faculty's research projects from 2019–2023 yielded concrete results with a direct impact on society, especially in health and social care. All projects and their results contributed to the sustainability and efficiency of health and social care and have long-lasting positive impacts on society.

The project **"Support for informal caregivers in the South Bohemian Region through audio-visual means including virtual reality"** provided access to virtual reality training to help caregivers learn to relax and reduce their stress, contributing to their psychological well-being and stress reduction. The application has been implemented by several organisations and used in respite stays and stress

²⁸ If the client is from abroad, indicate in brackets the country of origin of the client.

²⁹ See Terms definition.

reduction therapies. Outputs include audio-visual materials and expert advice. The gender dimension was also considered in the study since most caregivers are women.

The project **"Standardisation of Woodcock-Johnson IV test for population of Romani children"** contributed to a better understanding of the cultural circumstances of Romani children, how it impacts their health and social situation, and how to achieve better inclusion within the education system. The outputs will have a long-term impact on integrating Roma children into the education system, thereby contributing to a more just society. The gender aspect was also considered here, as research differentiates the specific needs of Roma girls and boys.

The model of care for seniors in residential facilities, implemented in Tábor, includes new residential services, support for caregivers, and educational programmes. It contributes to the sustainability of the senior care system and better conditions for caregivers. A significant benefit also involved creating self-help groups and training courses for informal caregivers.

The project **"Quality and sustainability of body parts donation programmes in the Czech Republic"** addresses psychosocial and ethical issues of assisted reproduction and organ donation. The results contributed to the expert debate on legislative and ethical aspects, including donor financial compensation. The research connects medicine, psychology, ethics, and law and reflects issues such as the availability of modern reproductive technologies.

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

Type of result ³⁰	Year of application	Name
Audio-visual production	2021	Audio-visual production - Support for informal carers (result of the project Support for informal caregivers in the South Bohemian Region through audio-visual means including virtual reality, TL03000518)
Summary research report	2020	Mojžíšová, A., Dvořáčková, D., Vacková, J., Trešlová, M., Zeman, M., Kuželková, A., Motlová, L., Stasková, V., Barták, M., Holczerová, V. Summary research report of project "A Care Model for Seniors in Housing Facilities in the Concept of Three-stage Housing, TL01000032"
Summary research report	2022	Mrhálek, T., Hricová, A., Tomáš, U., Ondrášek, S., Hynek, J., Shivaírová, O., Seifert, M. Summary research report of project "Standardisation of Woodcock-Johnson IV test for population of Romani children, TL02000187"
Summary research report	2022	Konečná, H. Summary research report of project no. TL05000144 "Quality and sustainability of body parts donation programmes in the Czech Republic, TL05000144"

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.

³⁰ 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.)³¹, 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).³² 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 results of the faculty's research projects are transferred into practice through cooperation with application guarantors, consultations with the state administrators, and educational programmes for experts and the public. The key mechanism for implementation is partnerships with hospitals, social services, healthcare facilities, and educational institutions that put the results into practice. The faculty supports their use through professional courses, lectures, and methodological recommendations.

Typical users of results and collaboration:

Municipalities and cities – "The Model of Care for Seniors in Housing Facilities" was implemented in Tábor and serves as a model for three-level housing. Municipalities can use this model to address social and health services related to population ageing effectively. The faculty provides consultations and analyses of trends in the care of seniors.

Social and health service providers – The outputs of the project "Support for informal caregivers in the South Bohemian Region through audio-visual means including virtual reality" were and are still used by organisations such as LEDAX and St. Margaret's Home Hospice. The outputs, including virtual reality, are applied to in-home care and caregiver support groups.

Healthcare facilities (hospitals, general practitioners' outpatient clinics, home care) – The results of the projects focused on the safety of drug administration and patient care after stroke are used in clinical practice. For example, the SURHYB project has contributed to a change in the approach to the treatment of atrial fibrillation in specialised cardiovascular centres.

Educational institutions – The results of the project "Role of nurses and their protection during pandemic situations" were used in the education of health professionals, especially in the areas of patient care involving infection barriers, anti-epidemic measures, and crisis management.

³¹ In the case of military HEIs, their specific position is taken into account when evaluating the commercialisation/evaluation of R&D&I results.

³² If the commercialisation of R&D&I results is carried out in this way.

State administration and legislation – The faculty participates in creating conceptual materials in the social and healthcare field, especially concerning the implementation of new models of care for seniors and disease prevention in community care.

These results contributed to the efficiency of the services provided and improved the quality of life of the targeted groups.

The funds received from non-public sources came from the proceeds from the sale of the journals *Kontakt* and *Journal of Biomedicine*.

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
Proceeds from the sale of the journals Kontakt and Journal of Biomedicine	112/ 4.4	142/ 5.6	234/ 9.2	241/ 9.5	461/ 18.2
Total	112/ 4.4	142/ 5.6	234/ 9.2	241/ 9.5	461/ 18.2

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 2019-2023, the faculty worked intensively to popularise science and research and systematically strengthened communication with the public. The activities focused on disseminating professional knowledge to the general public, promoting health literacy, and raising awareness of preventing lifestyle diseases. As part of these activities, the faculty focused on professional lectures, practical workshops, educational programmes for children and youth, health counselling, and cooperation with the media.

An important area of popularisation was education on preventing lifestyle diseases and promoting a healthy lifestyle. The faculty regularly participated in events focused on disease prevention, where experts and students advised the public on a healthy lifestyle, prevention of lifestyle diseases, and measurement of basic health measurements. Similar activities were organised for schools, where students received instruction on first aid and other health-related topics.

Another important part was practical education focused on children and youth. The faculty organised educational programmes to familiarise children with health and social issues using easy-to-understand, age-appropriate language and media. These programmes included the basics of first aid, healthcare, physiotherapy, communicating with people with disabilities, and promoting intergenerational solidarity.

The faculty also participated in professional workshops and training focused on crisis preparedness, first aid, and managing acute health conditions. These activities were intended for both professionals and the general public and supported the development of various medical skills.

The faculty regularly cooperated with media organisations in public science education and participated in popularisation campaigns. Faculty researchers provided interviews and expert opinions on current health and social care topics, thus contributing to public awareness.

In general, the faculty systematically developed popularisation activities to increase health literacy, support disease prevention, and strengthen the role of science in society. These activities contributed to disseminating professional knowledge among the public and helped improve the quality of life and healthcare.

Hospital Childcare Day

Teachers from the Department of Nursing, Midwifery and Emergency Care provided professional counselling and escorted twenty first-year Paediatric Nursing students to the event. The students were easily identifiable in the hospital because of their uniforms. Their more senior classmates also supported their active participation.

This event was a valuable opportunity for all participants to gain practical experience, learn to communicate effectively with the public, and actively participate in awareness-raising activities focused on childcare. The students had the opportunity to develop their professional skills and be inspired by professional lectures that enriched the theoretical knowledge gained in the classroom.

Several thematic lectures on various aspects of care for newborns and infants were presented. Key topics included proper breastfeeding, breastfeeding techniques, lactation counselling, and the importance of the breast milk bank. These presentations gave participants helpful information and practical advice to apply in their future professional practice.

In general, the event was beneficial for both professionals and students. Participants were able to actively communicate with members of the public, gain cutting-edge knowledge, and deepen their competencies in paediatric nursing care.

Heart Day in the České Budějovice hospital

The strong public interest in prevention and living a healthy lifestyle was evidenced by the long line of visitors who wanted measurements of health parameters (BP, glucose, etc.) and professional advice, which the FHSS provided at the local hospital. The all-day programme included various activities to raise awareness of cardiovascular prevention, including lectures, individual consultations, and practical demonstrations. The Centre for the Prevention of Lifestyle Diseases offered free cholesterol measurement and expert advice on a healthy lifestyle. The faculty also prepared an outdoor station

where the focus was on the education of children and young people. Using illustrative models, paediatric nursing students explained the anatomy and function of the heart, the causes of heart disease, and the importance of heart disease prevention. The general nursing students provided blood pressure and cholesterol measurements while providing information on risk factors for heart disease. The event allowed students to apply their theoretical knowledge and contribute to public education in preventing cardiovascular diseases.

First aid workshop for students at the Episcopal Grammar School

FHSS students organise first-aid training for first-year students at the Episcopal Grammar School every year. The workshop is part of a cycling and hiking event held in Nová Pec near Lake Lipno. This activity allows students to apply their knowledge while contributing to injury prevention and raising first-aid awareness among secondary school students.

The workshop in 2023 involved 22 students from various disciplines, including those in training to paramedics, general, and paediatric nurses. In the field, they prepared ten stations where participants were acquainted with the procedures for cardiopulmonary resuscitation, the treatment of bleeding injuries, the treatment of burns and other thermal injuries, the treatment of acute internal traumas, and the correct procedure to treat injuries in traffic accidents.

The practical form of teaching allowed grammar school students to gain theoretical knowledge and try out individual tasks in realistic simulated situations. Therefore, the workshop strengthened participants' skills and readiness to respond to crises.

Children's University (2019-2023)

Children's University offers hands-on and interactive learning that introduces children to the fundamentals of health and social care. Due to many years of experience with this form of education, the programme is fun and beneficial for everyday life. Children are actively involved in lessons that motivate them to acquire new knowledge and skills.

During individual lessons, participants can try to do the work of rescuers and nurses in realistic model situations. Using modern teaching aids, they learn the principles of first aid, correct reactions to injuries, or the basics of patient care. These hands-on experiences allow them to understand better how healthcare works and prepare for situations they may encounter in everyday life.

Teaching provides not only professional knowledge but also focuses on the development of communication skills and teamwork. The programme contributes to building essential competencies that children can use later in life and, at the same time, supports their interest in health and social fields.

Health Day on Palackého Square in České Budějovice

Health Day is organised in cooperation with the National Institute of Public Health, our faculty, and other organisations to provide education on preventing lifestyle diseases. The event is aimed at the general public and offers practical information and advice on healthy lifestyles.

Students in the General Nursing programme were actively involved in event organisation and the education of visitors. A special station staffed by students offered illustrative models on the

prevention of oncological diseases, especially breast and testicular cancer. The Centre for the Prevention of Lifestyle Diseases offered measurement of free cholesterol and blood sugar levels. It provided consultations on the prevention of metabolic diseases and the adoption of a healthy lifestyle.

Other stations provided visitors with practical information on dental hygiene, massages, first aid principles, and other health skills. The event promoted awareness of disease prevention and allowed participants to participate actively in educational activities and gain valuable information to improve their health.

Children's University suburban camps (2019-2023)

Suburban camps are a long-standing part of the Children's University of the FHSS and allow children to gain new knowledge in health and social care in a fun and interactive way. Summer camps focus mainly on health topics, while spring runs are focused on social issues and interpersonal communication.

The programme is designed to be accessible to children of different ages and to encourage active participation. Children learn to provide first aid in model situations, work with a microscope, communicate with the blind person, or how to take care of a small child. Physiotherapy is also an integral part of the course, where participants try exercises and learn about the musculoskeletal system.

Popular activities include a themed afternoon with presentations in English, where children learn health-related vocabulary and use simulated situations to learn to call the emergency line. Camps develop technical knowledge and emphasise teamwork, empathy, and other skills needed for everyday life.

Half Marathon Supported by FHSS Students

As in previous years, FHSS students were crucial in providing medical support for the prestigious half-marathon in 2023. Forty-three students from the General Nursing, Paramedics, and Physiotherapy programmes were involved in organising and conducting the event. During the event, students provided healthcare to competitors and visitors.

Most were first-year students of the General Nursing programme and provided medical supervision and first aid along the event's route. A group of paramedics moved on bikes equipped with automated external defibrillators to be readily available when needed. Physiotherapy students worked with runners after the race, providing massages and advice on recovery and preventing muscle injuries.

The participation of students in this event contributes not only to their professional development but also to the promotion of public health and awareness in the field of sports medicine and first aid.

Nurses' Day focused on the prevention of lifestyle diseases

During Nurses' Day, the blue tent with the faculty logo has become an unmistakable part of the public space in front of the České Budějovice Town Hall. This event focuses on the prevention of lifestyle diseases. FHSS students provided free measurements of blood pressure, pulse, BMI, total body fat, and cholesterol. The programme also included expert consultation focused on the keys to living a healthy life and how to prevent many common chronic diseases.

The event attracts the general public from České Budějovice and many others from around the country and worldwide. Students in the General Nursing programme communicated actively with visitors to spread awareness of disease prevention.

Nurses' Day, which coincides with International Nurses' Day, not only commemorates Florence Nightingale's historical legacy but also highlights the role of nurses in modern society. The event demonstrates that their efforts extend beyond hospitals. They are actively involved in improving health literacy and overall quality of life within their communities.

First-aid Awareness

Students in the third year of the Paediatric Nursing programme visited primary and nursery schools, where they led practical first-aid training. The aim was to introduce children to basic medical skills using engaging and interactive methods. Additionally, the programme strengthens the student's ability to respond to crises.

During the programme, the pupils are taught the principles of treating minor injuries and burns. They can also practice bandaging techniques and make emergency calls to the 155 emergency phone number. Older students learn the basics of cardiopulmonary resuscitation under the guidance of nursing students. At the same time, younger children are quizzed on the emergency treatment of fractures in a hands-on setting, creating an authentic atmosphere in the classrooms.

This activity contributes to developing young people's health literacy and allows nursing students to improve their pedagogical and communication skills. Practical training thus benefits all involved and demonstrates the importance of teaching first aid at an early age.

Researchers' Night

Researchers' Night is an international event that has been taking place in the Czech Republic since 2005. It allows the public to visit universities, scientific institutes, and other institutions that are usually not accessible to the general public. The FHSS offers various activities to popularise science, disease prevention, and health education. At the same time, the event provided a space for informal meetings of students, academics, and the public.

The aim was to demonstrate the important role of scientific knowledge in everyday life. The event attracted many visitors interested in information about living a healthy life. The event also allowed the visitors to measure basic health indicators and get expert nutritional advice. The physiotherapy section offered an examination of the musculoskeletal system using modern devices and consultations on suitable forms of exercise.

Another popular activity was the hands-on demonstration of special eyeglasses that simulated various eye problems, alcohol intoxication, and the effects of drugs. An equally popular product was the pregnancy simulator, which demonstrated the physical changes associated with pregnancy. The event was highly effective at popularising science and, at the same time, offered visitors valuable and practical information about health and nutrition.

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 previous evaluation very positively assessed applied research projects that addressed important topics. The same was true for our cooperation with the nonacademic corporate community and our efforts to popularise science and science education.

It was recommended:

Acquisition of projects in critical areas

During the evaluation period, the faculty did not acquire research projects in key areas such as nutritional therapy, physiotherapy, and laboratory methods. This is partly due to the lack of experienced full-time researchers who can act as principal investigators. Other academic staff in these fields are currently engaged in doctoral studies or have only recently completed their studies. It should also be emphasised that the abovementioned areas do not have a long academic tradition in the Czech Republic, which limits the availability of experts with the necessary experience to lead research projects.

Academic staff from the Department of Physiotherapy and other selected medical disciplines participated in multidisciplinary research projects implemented by the Department of Nursing, Midwifery and Emergency Care. Their participation in a multidisciplinary team was crucial to meeting the goals set for applied research. For example, they participated in implementing physiotherapeutic interventions aimed at improving patients' physical condition after cardiac surgery. As part of these interventions, they focused on patient monitoring, provided individual and group counselling in the field of physiotherapy, contributed to the preparation of educational materials, and provided counselling for seniors in the field of physiotherapy.

The faculty fosters the development of research activities through internal competitions governed by established rules, allowing the submission of three-year research projects. Under these guidelines, experienced researchers help new researchers. In 2023, academics from the fields of nutritional therapy and laboratory diagnostics collaboratively prepared a research plan that, after a successful evaluation, received financial support for implementation.

Researchers in these internal projects gain valuable experience in the management and implementation of research projects and improve their presentation and publication skills for presenting the results of their scientific work.

This faculty support significantly contributes to developing academic staff skills to conduct research projects, prepare grant proposals, and present results. Thanks to targeted mentoring and experience

gained in the implementation of internal research projects, researchers in their early careers become increasingly competent to submit project proposals to competitions held by national grant agencies.

Contract research

Given the focus of FHSS, contract research is not included in our activities. The faculty primarily focuses on applied research, education, and developing innovative nursing, social sciences, and public health methodologies. Our efforts are directed toward addressing societal challenges through applied research and collaboration with national and international institutions rather than providing contract research services. This approach corresponds to the faculty's mission to develop the knowledge and skills needed to improve the quality of health education and health services.

Preparation of a commercialisation strategy

FHSS does not have a formal commercialisation strategy, as this is not aligned with the faculty's primary focus. Our activities primarily focus on solving societal challenges through applied research and cooperation with national and international institutions. Despite this, the faculty supports the transfer of knowledge into practice through professional collaboration and educational activities that improve the quality of health and social care. The faculty participates in creating conceptual materials for state administration and legislation in the field of social and healthcare, especially with regard to the implementation of new models of care for seniors and disease prevention in community care. This approach is in line with our mission. It ensures that the results of our research and educational activities directly impact society without the need to introduce commercialisation processes.

Expanding the international recognition of research

In the period under review, the faculty focused more on strengthening the international activities of academic staff. Academic staff's active participation in international conferences, where they presented their research findings, was encouraged to enhance research visibility. In the annual evaluation of academic staff performance, faculty emphasised publication in international journals, particularly those indexed in the Web of Science (WoS) and Scopus databases. During the evaluation period, 129 articles were published in WoS-indexed journals, marking an increase of 28 articles compared to the five years from 2014 to 2018. In Scopus-indexed journals, 161 articles were published, which is 22 more than in the previous period.

The faculty expanded and strengthened its partnerships with foreign universities. During the evaluation period, it was a consortium member in two Erasmus+ projects, "Better & Effective Nursing Education for Improving Transcultural Nursing Skills" and "Automated External Defibrillators Save Lives." Academics from the Department of Nursing, Midwifery and Emergency Care collaborated with eight universities on these projects.

Academic staff from the Department of Nursing are also involved in the international COST Action. Since 2022, Prof. Tóthová and Dr. Dolák have participated in the project "Cancer - Understanding Prevention in Intellectual Disabilities," collaborating with experts from 46 countries. In 2023, Dean Dr. Chloubová and Prof. Tóthová participated in preparing the COST Action project "Climate Change Impacts on Mental Health in Europe." This project was successfully launched in 2024.

Academic staff from the Department of Social and Special-paedagogical Sciences also participated in the preparation of the Horizon project "Visionary Roadmaps: Crafting an Inclusive and Participatory European Democracy with Youth and Communities," which was successful, and the project started in

2024. In addition, staff from the Institute of Radiology and Toxicology and the Institute of Social and Special-paedagogical Sciences were involved in preparing the PIANOFORTE project called RRADEW ("Resistance to radiological events in wartime").

As part of its international activities, establishing cooperation with the Ohio State University College of Nursing has been a significant step. Since 2022, this collaboration has been intensive in pedagogical and research areas.

These activities show that the faculty has significantly strengthened its activities at the international level in the evaluation period, not only by increasing the number of publications in prestigious journals but also by actively participating in international projects. The development of international partnerships and the participation in research consortiums provide a platform for sharing knowledge and experiences, significantly improving the quality of scientific work.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)

SELF-EVALUATION REPORT FOR MODULES 4 AND 5

HIGHER EDUCATION INSTITUTION NAME:

University of South Bohemia in České Budějovice

COMPANY REGISTRATION NUMBER (CRN): 60076658

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 structure¹ 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 University of South Bohemia in České Budějovice (abbreviated as "USB") is a modern public university offering a unique experience in various study programs. We educate about 9,000 students at eight faculties in about 200 bachelor's, master's, and doctoral programs. We are proud to be a centre of excellence in education and research, specializing in the natural sciences, social sciences, and humanities and passing the criteria of prestigious international rankings such as Times Higher Education or QS. In addition to the faculties, USB has other research-related units such as the Technology Transfer Office, Academic Library, Publishing House, and School of Doctoral Studies. Its main strategic document is the USB Strategic Plan 2021-2030. In Module 4, we use the following **faculty abbreviations**:

FEC for Faculty of Economics

FFPW for Faculty of Fisheries and Protection of Waters

FAT for Faculty of Agriculture and Technology

FAR for Faculty of Arts

FED for Faculty of Education

FSC for Faculty of Science

FTH for Faculty of Theology

FHSS for Faculty of Health and Social Sciences

A graphical representation of the organisational structure of the USB would not be readable when put here or as an annex. Therefore, we direct the reader [here](#) for the online version.

The responsibility of the rectorate in R&D&I management is twofold. First, it creates an environment where research is conducted ethically, efficiently, safely, and at the best level possible. This is primarily achieved via the Rector's Ordinances, described further in this report. An outstanding feature of USB is that those ordinances are not enforced from above but are designed and discussed with faculty vice-deans with research agendas and with deans before being issued. The second role of the rectorate in R&D&I management is allocating the university's R&D&I budget. This budget is provided annually to USB by the Ministry of Education, Youth and Sports (abbreviated as "Ministry

¹ A graphical representation of the organisational structure will be provided as an annex.

of Education”), and the rectorate distributes these funds based on the centrally adopted and widely accepted methodology that considers various research outcomes, thus indirectly influencing research quality at individual faculties. The rectorate does not directly affect research topics and directions pursued at individual faculties; respecting traditional academic freedom, faculties, research teams, and individual researchers have full autonomy in determining the breadth of their research activities and making decisions regarding the direction of their research efforts. However, using financial tools such as internal USB projects, the rectorate promotes perspective research directions or cross-faculty collaboration (e.g., projects funded from operational programmes).

The Science and Research Office of the rectorate has several responsibilities in R&D&I management. It oversees the agenda of the USB Scientific Board, the USB Grant Agency, the USB Research Awards, or accreditation processes and the corresponding agenda for habilitation proceedings and proceedings for the appointment of a professor. Additionally, it handles communication with research funding providers and matters related to the EU Framework Programmes, the honorary degree agenda, the organization and funding of university postdoc positions, and more. The Vice-rector for Science and Research also addresses research-related issues such as Open Science, institutional resilience, the USB School of Doctoral Studies, and ethics and integrity principles in research. Lastly, the USB Technology Transfer Office (abbreviated as “TTO”), a body of the rectorate, is responsible for managing all aspects of knowledge and technology transfer at USB.

Several important initiatives have recently been implemented to enhance the research environment, including institutional resilience, the responsible use of artificial intelligence in qualification theses, and establishing the USB School of Doctoral Studies. The USB Research Strategy has been issued, and updated Principles of research integrity at USB have been introduced. Regulations and processes on intellectual property management and protection have been strengthened, and guidelines for creating and running spin-off companies with the participation of USB have been developed. The “Position of USB on the publication of scientific results” has been issued, and standards for PhD supervisors and PhD students have been developed. Furthermore, a new research award scheme has been introduced, and rules on how every researcher at USB can obtain ethical approval for her/his research if needed have been formulated.

USB has two research infrastructures: CENAKVA (South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses) under FFPW and the Czech Arctic Research Station (under FSC) at Svalbard, Norway; USB allocates a part of its LCDRO (Long-term Conceptual Development of a Research Organisation) budget for their basic support. The strategy is to balance university support with the centres’ own resources to maintain high-quality research. CENAKVA has been on the Roadmap of Large Research Infrastructures of the Czech Republic since 2019. Both centres are crucial in training undergraduate and Ph.D. students, significantly contributing to integrating education and research.

The evaluation of R&D&I at the USB level is conducted by the USB International Board (IB). International boards are also present at most faculties, ensuring a comprehensive evaluation process across the university. The latest IB meetings have focused on assessing R&D&I activities and providing valuable feedback for improvement, including at the managerial level. The next IB meeting is scheduled for the end of April 2025.

The staff structure involved in R&D&I at USB, as detailed in Table 4.1.1, indicates a growing number of employees dedicated to these activities. The ratio of professors, associate professors, and assistant professors remains approximately 1:2:(5-6). This growth or stability reflects a balanced and sustainable academic workforce. The number of early-career researchers has slightly declined but still ensures a continuous influx of fresh ideas to the university's research endeavours.

Every faculty has its own science and research apparatus, overseen by vice-deans responsible for the science and research agenda. Meetings between the Vice-rector for Science and Research and

the vice-deans are organized several times a year. During these meetings, important conceptual topics are discussed, such as new trends in research and setting principles for strengthening research development at USB. Each faculty also has a project administration staff who handles research project calls, assists in project preparation, and manages administration for successful projects. Lastly, both the rectorate and each faculty have their own economic departments responsible for the prudent management of resources allocated for science and research activities. These departments are very helpful in forming a working and efficient research environment at USB.

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 researchers².
- 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:

A system of support for attracting national and international projects. Securing research projects is not only a necessary way to fund research but is also naturally required for faculty promotions and study program accreditations. At the central level, the Research and Science Office realizes consultations requiring communication with major funding providers and project submissions. Regarding project opportunities in applied research, faculties generally use the help of TTO; some also have technological scouts or advisors. "Café on faculties" is a recent TTO activity bringing project opportunities in applied research to individual researchers and offering them full support in project preparation and submission. The EU Desk was recently established at the rectorate to provide complex counselling in international projects.

At the faculty level, dedicated project offices play an important role. Some are actively hunting for grant opportunities and providing maximal support (incl. mapping of topics and collaboration and providing tailored offers to individual researchers), while some rather following and informing on project calls and helping with grant administration. An important asset we value at USB is

² Student grants, support for PhD students, postdocs and early career scientists.

communication: faculties lacking expertise in practice with a funding provider may ask for help from proficient faculties. Examples of faculty incentives to motivate researchers in their grant activities include successful applicants receiving a portion of the overhead costs back (FSC), higher evaluation weight for principal investigators of national and international grants within the faculty evaluation scheme (FHSS), and financial rewards for securing a project (and sometimes also for its initial submission) (FFPW).

In 2020-2024, 89 grants were funded by the Czech Science Foundation, 46 by the Technology Agency of the Czech Republic (abbreviated as "TACR", and 16 were successful at the European level (3x H2020, 11x Horizon Europe, 1x EURATOM2027, 1x LIFE). Also, two ERC-CZ projects are running on FSC.

A system for project consultancy/management/administrative support. Much from the previous point also applies here: the Science and Research Office provides support at the rectorate, much is expected in the realm of international grants from the newly created central office EU Desk, TTO is the central point to consult projects of an applied character, and project offices at individual faculties provide complex counselling and administrative support to academics at all stages of the project cycle. Some faculties also organize occasional meetings with previously successful applicants, including those from the neighbouring Biology Centre of the Czech Academy of Sciences. Project support teams can commonly help major with national (such as the Czech Science Foundation, TACR, Agency for Health Research, or National Agency for Agricultural Research) and international (such as Horizon Europe (incl. ERC), Interreg, or COST Action) projects. As mentioned above, there is a strong feeling of collaboration in this area across USB, so it is not uncommon for faculties to help each other if specialists on some projects are not present at a given faculty. A clear example of this is the help from the FHSS team with the Agency for Health Research projects.

Generally, all faculty project departments support project management (financial management, planning and monitoring of project progress, documentation management, invoicing, reporting, and communication with funding providers). The USB Project Office at the rectorate helps prepare and administer large developmental projects, some related to science and research (e.g., infrastructural projects).

Science management. At the rectorate, the Science and Research Office has two dedicated staff members who oversee and support the university's scientific and research activities. TTO employs four people who focus on commercialising research outputs and facilitating technology transfer from the university to the outside world (industry and municipalities). Additionally, a data analyst manages and analyses research data to support decision-making processes, including research budget formation and division across faculties. The Board of Commerce is involved in strategic planning and decision-making related to the university's commercial activities. TTO also organises meetings with potential investors to explore further funding and collaboration opportunities.

Faculty project offices collaborate closely with TTO to ensure smooth applied project execution and technology transfer. Most faculties rely on TTO for assistance with applied research issues, and TTO is committed to providing support regardless of the specific nature of the applied research problem. FFPW has its own dedicated assistant for commerce and societal relevance and its own Board of Commerce and Societal Relevance to address specific commercial and societal impact concerns. However, tight collaboration with TTO occurs. Generally, faculties lack dedicated data analysts; vice-deans with the agenda of science and research often conduct ad hoc analyses to meet their needs. Recently, a staff member from the USB Academic Library has been assigned to assist faculties in preparing various analyses of their research output, including benchmarking their performance against other relevant faculties in the Czech Republic and beyond.

Marketing departments at USB and faculties also help disseminate research results. Research results are also transmitted to professionals and the broader public through the faculty life-long courses administered by other administrative personnel.

The existence of internal funding schemes. The USB Grant Agency provides grant funding to Ph.D. students. About 40 projects are awarded annually from about 100 applications. The submissions are evaluated by internal committees consisting of senior researchers. Some faculties have their internal grant competitions; FSC has a Student Grant Agency, and at FFPW, a newly established program funded by Československá obchodní banka (the largest commercial banking company by its total assets in the country) to support environmental and societal responsibility and sustainability in fisheries and water protection in Czechia, will support small student and postdoc projects. FHSS has an annual grant competition for multidisciplinary projects and new research teams, conditioned on submitting a competitive project to a respected national grant agency by the duration of the supported project.

USB has an internal competition for postdocs. The rectorate has supported up to four positions annually, usually two in natural sciences and two in social sciences and humanities. This funding scheme targets graduates from other, preferably foreign institutions, within eight years of completing their Ph.D. In 2020-2024, 15 postdocs were supported with 754,675 EUR. Similar internal competitions are organised at some faculties. Discussions are ongoing concerning transforming this support into something more ambitious: larger support from which postdocs could also support a small team but would be required to submit an ERC grant proposal by the end of its duration.

Each year, the Science and Research Office organises a competition for small R&D&I faculty projects, commonly covering the organization of conferences, summer schools, and workshops or costs related to publishing a book. The university management and deans evaluate the submissions. About 80,000 EUR was annually allocated for this scheme. Since 2025, part of this support will go to the newly established USB School of Doctoral Studies activities.

Strategy/opportunities for establishing and supporting new research teams. While there is currently no specific financial format for establishing new research teams and their support at the USB level, we continuously discuss possible supporting instruments with the deans; the above-described strategy for transforming postdoc support is one activity in this direction. This is also the case of faculties providing their own postdoc support: respecting faculty research mission and vision, they aim to select their new postdocs such that there is a chance of bringing innovative topics. Some faculties also financially support the teams with a clear vision for exploring possibilities or opportunities that could push the respective subjects toward excellence. Also, new teams (across departments and even faculties) are commonly formed in response to new project funding opportunities and/or to address specific research questions, as exemplified by frequent collaboration between FAT and FFPW.

More generally, USB guarantees freedom of research and thus does not limit any possibility of establishing a new team on faculties. While sharing equipment, laboratories, or using administrative support is not a problem, space limits us most; faculties have reached their capacities and hardly find any new office space.

Support system for students and early career researchers. The USB Grant Agency allows Ph.D. students to compete for research grants. Early career researchers are commonly supported by in-house research projects, usually led by experienced researchers. Also, the USB Research Awards are available for the best theses in four research fields (natural sciences, agriculture and fisheries, social sciences, and humanities); at annual Ph.D. conferences, students are regularly awarded for the best presentations and posters. In 2020-2024, 9 young researchers were awarded the USB Research Award (8,008 EUR), and 15 Ph.D. students were awarded at USB PhD conferences (2,660 EUR).

Each faculty has an extraordinary scholarship for talented students. Many faculties also have a dean's award for the best thesis; some have their own programs for supporting postdocs. Students and early career researchers are encouraged to participate in international mobilities and the USB Grant Agency competitions or external competitions aimed at young researchers. Experienced researchers are encouraged to include excellent students in their research teams and projects.

Students and early career researchers are provided with courses on general competencies in research, organised by the USB Career Centre, USB Academic Library, and diverse faculties. These include writing seminars, courses on ethics and integrity in research, entrepreneurship courses, or classes on working with the research literature (including recognising and avoiding predatory practices). The USB School of Doctoral Studies will approach these educational activities more systematically and develop a training system following the [ResearchComp](#) framework. Some faculties have the rule that graduates must spend time abroad in postdoc positions to continue working at USB after finishing a Ph.D. An extended mentorship of Ph.D. students by a team of three to five external advisors (Thesis Advisory Committee) is being introduced at FSC.

A system to support excellent science. We support outstanding researchers and teams, including Ph.D. students. There is a system of awarding extraordinary stipends to outstanding Ph.D. students. We also have the USB Research Awards scheme, valuing outstanding research performance (Rector's Ordinance R 524).

Support of excellence also means investment in adequate infrastructure. USB has a Fund of Strategic Priorities, which has been used repeatedly to support such infrastructure, especially one shared by several faculties or from developmental projects obtained by USB. Faculties also have funds to replace and update research infrastructure. Investments in the USB Academic Library and all help and counselling with projects can also be counted as support for excellent research.

FFPW, with its large research infrastructure, [CENAKVA](#), is unique in attracting excellent scientists, collaborations, and infrastructure. Also, academic staff are evaluated at faculties based on the quality of their research outcomes, and a special reward is commonly granted for significant and prestigious publications or applied results (e.g., international patents). FSC collaborates closely with the [Biology Centre](#) of the Academy of Sciences in České Budějovice (BC CAS), sharing several outstanding infrastructure centres, particularly in bioimaging (the Laboratories of Confocal Microscopy and Electron Microscopy). The collaboration is maintained by hiring technician staff jointly between the FSC and BC CAS.

On the other hand, we agree with the former British Wellcome Trust director Jeremy Farrar, who said that emphasis on excellence inhibits diversity of thinking and degrades the research culture. This is not to say that we should support all equally. Rather, discussions are ongoing on supporting sub-excellent researchers and research teams, that is, teams that, with some funding support, could reach excellence in their field. Rather than never-ending efforts to continuously and sometimes even haphazardly develop, this would promise a stabilizing element where good potential can be seen.

A support system for interdisciplinary research and cross-faculty collaboration. Interdisciplinarity is key in our research strategy. Through our Fund of Strategic Priorities, we support sharing infrastructure among faculties (projects "Increasing the quality of doctoral studies through mutual sharing of capacities in natural and agricultural sciences" (FFPW, FSC, FAT) and "Development of informatics and informatics disciplines at USB" (FSC, FAT, FEC)). We discuss a funding scheme for establishing interdisciplinary groups at USB or a request to have in Ph.D. theses a section on how the examined topic could be approached from an interdisciplinary perspective.

Cross-faculty teams were formed while preparing submissions for the OP JAK (Operational Programme Jan Amos Komenský) Excellent Science calls. This is an example of an interconnection

between natural and technical sciences, social sciences, and humanities. Realising that climate change, technology, or AI have a social and humanitarian dimension and that humanities disciplines such as linguistics or literature can be approached by methods developed in natural sciences, the up-to-now largely independent sciences have much to offer one another. The submitted projects had this character, and although not selected for funding, we continue thinking about where else synergy may be useful.

The USB Grant Agency allows two Ph.D. students from different faculties to submit a common project and enjoy enhanced funding, synergy, and joy from the unexpected. The rectorate recently oversaw preparing a cross-faculty bachelor's programme "Management of Sustainability."

At faculties, collaboration often arises naturally. A FAR team of linguists will collaborate with mathematicians from FAT on computational linguistics. At FFPW, cross-research collaborations result in 30% of articles and international collaboration in over 75%. Invertebrate ecologists from FSC and environmental chemists from FFPW collaborate on the ecological stability of water ecosystems. FTH and FAR have cross-department research centres addressing their research interests in an interdisciplinary way.

Providing conditions for the emergence of new, high-quality research directions/topics. USB has several strategic tools to influence research directions: the Strategic Priority Fund, setting preferences in the Operational Programmes' projects or supporting new study programmes linked to research activities. The system of postdoc positions also supports new research topics and directions. Postdocs are encouraged to prepare competitive research project applications.

The applied results traditionally occurred at FFPW and FAT. However, recent years have witnessed a rise at FSC and even at faculties oriented to humanities and social sciences. TTO, the first point of contact, is where intellectual property protection and commercialisation of applied results occur. We have built a representative TTO office in the heart of the campus, facilitating direct contact with USB employees and stakeholders from outside. Through the funding programmes TACR Gama 2 and TACR Sigma, TTO has supported many proof-of-concept activities to push an applied concept to (almost) a moment of licensing. Altogether, 19 applied projects were funded within the TACR Gama 2 program, with 801,740 EUR distributed. This has resulted in two spin-off companies in which USB participates. The TACR Sigma program started in 2024 and amounts to 710,000 EUR to distribute.

Faculties support research directions and topics relevant in practice:

- FHSS regularly collaborates with clinicians in the České Budějovice hospital, with the obtained results effectively transferred into clinical practice.
- FED standardly collaborates on methodical materials for schools. FED also establishes promising research groups, such as a VR Team Lab for virtual reality training and a kinesiological laboratory for functional stress diagnostics.
- FFPW has a clear strategy for developing innovative research directions with high application potential in aquaculture, aquatic ecosystem protection, and sustainable water resources management.
- FAT focused and invested in research in modern technologies materially and personally.

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:

Internal and external evaluation of R&D&I quality. Internal evaluation at the USB level consists of evaluating study programmes and USB units, including faculties (Rector's Ordinance R 533). Its main purpose is to provide incentives for further development in relation to the fulfilment of relevant standards, university strategy, and the mission of its individual units. The internal quality assessment process should promote open discussion on the quality of implemented activities among academic community members and ensure the sharing of good practices across the various study programmes and USB units. Valuable feedback on R&D&I is also provided by the USB Scientific Board and faculty scientific board No hmms, by the USB Board of Commerce, and on FFPW by the Board of Commerce and Societal Relevance.

Internal evaluations at the faculty level are performed within the information system EAP (Evaluation of Academic Personnel). This evaluation is used at all faculties to compare (not only) the R&D&I activities of individual researchers. EAP is predominantly a supporting tool for deans to know how individual departments stand out and for heads of departments to know how individual department members perform. It helps reveal weak points in performance and motivates improvement. Also, it may serve as a tool for timing personal promotion following the USB and faculty career plans.

USB also has a Board of Trustees that oversees the management of the university's assets and discusses and approves the most important outputs of the university, such as the budget, the strategic plan, and the annual report on the activities and management of the USB.

External evaluation is performed by the USB International Board (IB) and the faculty international boards. In R&D&I, IB, as an important advisory body of the rector, provides suggestions for improving the processes and organisation of USB's research environment and activities. The last IB evaluation of USB was in 2022. Some of its recommendations are listed at the end of this section. The next evaluation is planned for the end of April 2025.

R&D&I quality in specific areas is also evaluated within the accreditation and internal evaluation of study programmes since research and other creative activities are necessary to continue such programmes successfully.

The Ministry of Education annually assesses research outcomes for Methodology M17+ (now Methodology 2025+) in Modules 1 and 2. In 2020-2024, the research outcomes of USB showed a stable course in both Modules. Long-term unsatisfactory results are observed in the social sciences; discussions are ongoing on strengthening their research quality since there is a strong potential for societal relevance of social sciences for the region of South Bohemia and beyond.

In 2023, USB signed the Agreement on Reforming Research Assessment (ARRA) issued by the Coalition for Advancing Research Assessment (CoARA), a group of organizations committed to reforming the methods and processes of evaluating research, researchers, and research organizations. A year later, USB published its Action Plan to adopt changes in its research assessment such that by the end of 2028, all ten ARRA commitments will be fulfilled.

The ethical aspects of research. The USB Ethics Committee is the leading university body that addresses any type of misconduct, including any that concerns research. Plagiarism, intentional results modification, unacknowledged co-authorship, or unethical use of AI are just a few examples that, if happening, would be taken care of by the USB Ethics Committee. Any personal misconduct, including violence, bossing, harassment, or inappropriate pressure, whether related to research or not, is also under the responsibility of the USB Ethics Committee. The USB Code of Conduct is a principal USB document in all these aspects. One of the USB Ethics Committee members is currently the ombudsperson. However, the ombudsperson will soon stand outside the USB Ethics Committee, voted by the USB Academic Senate to strengthen her/his independence.

Some faculties have their Research Ethics Committees. These committees primarily assess research involving human participants, human biological material, or research data on humans that allow the identification of individual participants to ensure that ethical principles are upheld and that human participants' dignity, freedoms, health, quality of life, and safety are protected. Each of these committees specializes in a different field, given by the faculty orientation. The Rector's Decision R 253 allows any researcher at USB to choose an appropriate Research Ethics Committee at any faculty and submit a request for her/his research approval.

USB is committed to the highest standards of integrity in all aspects of its research activities and expects everyone involved in these activities at USB to make the same commitment. Recognising this commitment, USB subscribes to the principles of research integrity as articulated in "The European Code of Conduct for Research Integrity, revised edition 2023", including the basic principles of research ethics and integrity. Therefore, USB issued a policy document, "Principles of research integrity at USB," to which every researcher should adhere. USB also issued the "Position of USB on the publication of scientific results" and the Rector's Ordinance R 567 on the responsible use of AI in students' works.

USB has a system for reporting whistleblowing. It is regulated by the Rector's Ordinance R 529, which provides various ways of reporting misconduct. One such way is using a third-party application used by many respectful state offices, research organisations, and commercial subjects, ensuring the full anonymity of a whistleblower.

Examples demonstrating the functioning of the quality control systems in the R&D&I environment:

Example 1. Evaluation by the USB International Board in 2022: Two major challenges were identified for USB: a clear commitment to the need and development of the societal relevance of research and the strengthening of internationalisation (including active involvement in the European university networks). Moreover, one of the main shortcomings at the USB level was an absence of close links between the rectorate and the faculties, and secondarily, among the faculties – there has been a call for the rectorate to be a leader and creator of university-wide strategies.

Example 2. Whistleblowing: No form of misconduct has since 2022 been reported through the USB system for reporting whistleblowing.

Example 3. Ombudsperson: No form of misconduct has been formally solved by the ombudsperson. All potential submissions were terminated in the consultation phase, and no one has formally submitted them, so the ombudsperson had to address it formally.

Example 4. In 2023, the USB Ethics Committee addressed a complaint by the director of a Czech Academy of Science institute against attacks by a USB employee. After a discussion and interview with this employee, the USB Ethics Committee concluded that there had been no violation of the USB Code of Conduct. Nonetheless, it stated: “However, the escalating trajectory along which the individual in question has moved in his evaluative statements over time can be considered worrying and risky for the future. Any further escalation in the public space could already be considered a violation of the USB Code of Conduct.” The USB Ethics Committee recommended calming the situation and refraining from making problematic statements.

Example 5. In 2024, the USB Ethics Committee addressed a complaint about the behaviour of a head of a department at a faculty concerning mutual communication, requirements to work on weekends and holidays, or requirements for student participation in various cross-border projects. After listening to both actors, the USB Ethics Committee stated that “although there have been or are moments between the two colleagues in question that do not always sound positive, the reasons for this are rather due to the different personality settings of the two colleagues or are related to the differences between the Czech and German university environments”. The USB Ethics Committee stated that there was no violation of the USB Code of Conduct but made a recommendation to the management of the faculty and USB “to strengthen the competences of the managers in particular, also in terms of behaviour towards colleagues.”

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.³
- 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 sustainable development concept. USB approaches sustainability and social responsibility as interrelated themes to optimise the impacts of its teaching, research, and third role. Recently, USB has undergone dynamic development thanks to extensive construction and revitalization of public spaces on the campus. The basic concept and basis of sustainable development at USB were already defined in the USB Strategic Plan 2021-2030; sustainability permeated all areas, with Societal Responsibility as a separate objective.

The USB Strategy on Sustainability and Green Transformation 2025-2030 has recently been adopted. It aligns with the USB Strategic Plan 2021-2030. It is particularly related to the UN Sustainable Development Goals, the Green Deal for Europe, the European Climate Pact, and the Ministry of Education's Strategic Plan for Universities from 2021 onwards. The sustainability strategy of USB also aligns with the USB Research Strategy, particularly regarding research. In this respect, the activities covered include open knowledge sharing, knowledge and technology transfer, sharing of scientific infrastructure, global impact of research with respect to the UN Sustainable Development Goals (SDGs), or mobility schemes with sustainable development in mind (choice of means of transport, if possible, etc.). Our policy to relate our research as much as possible to the UN Sustainable Development Goals is also anchored in the USB Research Strategy.

Central activities focused on sustainable development include, for example, the installation of photovoltaic panels on several university buildings (FSC, FEC, FHSS, rectorate, and library; total installed power 385 kWp), installation of SMART items on campus (e.g., solar benches which allow mobile phones and laptops to be charged), SMART building elements as smart lighting, regulation

³ If the knowledge transfer system is decentralised to the unit level, the HEI shall describe how the system works.

of heating and air conditioning, dispensers for tapped filtered, chilled, sparkling water into personal containers (minimizing PET waste), or a drilled FFPW well for experimental fish farming needs instead of drawing from the water supply network.

Social responsibility strategy. The concept of social responsibility of universities and their role began to be discussed within the nationwide Centralized Development Projects in 2022 and 2023. The purpose of the project was to strengthen the role of universities as effective, accountable, and inclusive public organisations and to shape a set of recommendations for strategic planning and subsequent implementation of measures and processes. USB has been a member of the [Association of Social Responsibility](#), Czechia's largest UN Sustainable Development Goals (SDG) initiative. Since 2024, USB has been a [Czech Research Network for Global Development and Sustainability \(CRENDES\)](#) member. USB has a [webpage](#) dedicated to these topics.

USB also strives to educate new professionals in environmental and social sustainability and development. In collaboration with other faculties, FSC has accredited a new bachelor study programme, Management of Sustainability, which will open in 2025.

SDGs goals “End Poverty,” “Quality Education,” and “Peace, Justice, and Strong Institutions” are followed by the interdisciplinary project led by Dr. Lukáš Holata from FAR, which, together with the [Gulag.cz](#) association developed a virtual reality educational tool enabling primary and secondary school students to better understand totalitarian systems’ functioning. The VR goggles “transport” users to an authentic and functional Gulag camp in Siberia, built based on archaeological and historical research.

USB is involved in the pan-European festival European Sustainable Development Week through lectures on the topic of circular economy (FEC), aquaponics (FFPW), organization of awareness-raising events Earth Day (FSC), Health Day (FHSS), Life Cycle Assessment laboratory (FAT), and genetically modified food and water quality (FSC). USB also provides various patronages and volunteer help for many events, such as the Winter Games Emil Open of disabled sportsmen and the 2025 Women’s World Ice-Hockey Championship, including the associated activities supporting gender equality.

A knowledge transfer system. Our TTO fully ensures the knowledge transfer system at USB, comprising comprehensive protection of USB intellectual property (IP) and the associated rights. The staff provides complex services in this area, including searching the available patent databases, monitoring and ensuring case extensions, and overseeing the termination of intellectual property protection. It actively communicates with faculties through its new “Café on Faculty” format. Regarding commercialisation of R&D&I results, the TTO staff searches for major innovative players within regional, national, and international structures to implement the results. In addition, TTO is successfully raising funds to validate the proof-of-concept phase of innovation. Recently, TTO has started actively cooperating with various investor groups and organised investor meetings at which the USB researchers present promising applied results.

TTO’s reputation steps over the USB premises. Its head, Dr. Štemberková, was recently awarded the 2025 Star Women in IP Award at the international conference on intellectual protection in Dubai. Dr. Štemberková is also a mentor in IP protection for scientific and economic diplomats at the Ministry of Foreign Affairs of the Czech Republic, the (vice-)president of the Czech community of transfer professionals [Transfera.cz](#), board member of the Patent Information Centers of the European Patent Office, and a representative of Czechia in the [European Network of Innovative Higher Education Institutions \(ENIHEI\)](#).

In 2020-2024, 75 protected results have been produced (of which 9 patents) and 19 license agreements signed, and there are currently 121 actively protected results (of which 15 patents) overseen in the IP monitoring software. There have already been 11 Café on Faculty meetings (of

which 7 in 2024), with faculties willing to repeat them on a six-month basis. These meetings inform new funding opportunities and discuss technology and knowledge transfer, including IP protection.

The third role, the transfer of R&D&I results to society, and interaction with local actors. The university's third role is to transfer research and innovation results to society. This process is carried out through TTO, facilitating collaboration between academia and industry. TTO focuses on protecting intellectual property rights, licensing technology, establishing spin-off companies, and commercialising research results, thus promoting innovation and economic growth in broader society. All these activities follow the internal USB regulations (Rector's Ordinances R 493 and R 494), revised in 2021 and 2022 after 10 years of TTO's operations, following current legislation and accumulated experience and good practice.

TTO also co-creates the innovation network in a coordinated and coherent way with regional players within the South Bohemia Region, the national network, and the international scene. Regional partners include the city of České Budějovice, the South Bohemian Regional Office, CzechInvest, CzechTrade, South Bohemian Science and Technology Park, and the South Bohemian Chamber of Commerce. National TTO collaborators include several ministries and investor groups, the transfer community organization Transfera.cz, and the Industrial Property Office of the Czech Republic. Finally, international partners include the European Patent Office, ASTP – Europe's premier association of knowledge transfer professionals, European region Danube Vltava, and AUTM – a US-based international community of technology transfer professionals.

Moreover, 19 proof-of-concept projects have been funded, spending 801,740 EUR. Importantly, knowledge transfer at USB regards no more only technologies and commercialisation but also "humanities" and "social science" knowledge products that are sometimes commercialised (e.g., FED materials for kindergartens) but sometimes transferred on a non-commercial basis (e.g., FHSS methodology of caring for elderly in Tábor or Třeboň).

The concept of research data management. We conducted a questionnaire on how faculties work with data and what services they would like to get from the central level. FSC and FFPW have data stewards and Data Management Plans (DMPs) in place. In contrast, the other faculties do not have a clear overview of their data production. The annual data generation varies significantly across faculties. None of the faculties have a centralized storage system. Most faculties do not utilize or address FAIR or metadata standards. Also, most faculties do not have specific recommendations regarding data management, although FSC and FFPW have mandatory guidelines for Ph.D. students. Data storage and publication practices vary, are individual-specific, and commonly utilize general repositories. The annual production of open data is relatively low. Sensitive data generation is common across faculties. Storage methods for sensitive data also vary, with some faculties lacking standardized procedures and others using secure faculty servers. Most faculties express interest in centralized storage and repository services. This questionnaire now forms a basis for setting up a USB strategy for research data management and tools for research data storage.

USB has a [webpage dedicated to Open Science](#), maintained by the USB Academic Library. Two faculties with the highest scientific production, FFPW and FSC, have data stewards who help their researchers navigate through Open Science concepts such as FAIR principles, open vs. closed data, metadata standards, proper and reliable data repositories, and Data Management Plans. The remaining six faculties, recognising a need for coordinated data management, agreed to use the central open science manager. Unfortunately, we are still not able to fill this position. We are not the only ones in Czechia; adequate candidates are lacking. We continue in our effort to hire one, spreading the word over the most relevant players in this area.

Ethics and personal data protection. USB considers the protection of personal data to be important and pays great attention to it. We only process personal data to the extent necessary for the university's activities or related to the service provided by the USB. We protect personal data to the

maximum extent possible and follow applicable law (2016/679 GDPR, Act no. 110/2019 Coll.). The principles and procedures for processing personal data at USB are regulated by the Rector's Ordinance R 378, laying down the rules for protecting and processing personal data. The processing of personal data is further regulated by Rector's Ordinance R 411. These internal norms stipulate the obligation of all employees to respect the principles and commitments resulting from the GDPR when processing personal data. USB has a designated data protection officer who provides advice on personal data protection and monitors GDPR compliance across all university activities.

Last year, internal discussions were held regarding the proper handling of personal data obtained during the collection of research data in relation to inquiries made by the national supervisory authority that were raised as a part of a data protection audit of a USB business partner. It has been verified that researchers of the respective faculty only use the personal data they need for the research and anonymise it after they no longer need it for further research. Research in which personal data arises also needs approval from a Research Ethics Committee present at several faculties.

The level of privacy protection varies across faculties but is generally high. Thanks to the presence of the data protection officer, employees have a contact point in cases of doubt regarding handling personal data. USB has a [webpage with a personal data protection policy](#).

Intellectual property protection. Securing intellectual property (IP) protection through TTO involves several key steps. TTO identifies and evaluates research results with commercial potential and protects them through legal instruments such as patents, trademarks, or copyrights. It also ensures proper legal treatment, such as filing patent applications or concluding licensing agreements. TTO also advises researchers and academic teams on how to protect and commercialise their innovations to meet all legal and regulatory requirements. The aim is to maximize the value of intellectual property for academia and industry, promoting innovation and competitiveness. TTO acts in full compliance with the Rector's Ordinance R 493. TTO records all intellectual property of its employees through fully functional software created for established processes at USB, including the economic part.

In 2020-2024, 75 protected results have been produced (of which 9 patents) and 19 license agreements signed, and there are currently 121 actively protected results (of which 15 patents) overseen in the intellectual property monitoring software. There have already been 11 Café on Faculty meetings (of which 7 in 2024), with faculties willing to repeat them on a six-month basis.

Ensuring institutional resilience. The topic of institutional resilience has resonated across Czech universities over about two years. By the end of 2024, the Rector's Ordinance R 566 was issued, a declaratory document committing USB to implement and improve safeguards to enhance research safety at USB, setting up major responsibilities, processes, and fundamental principles. This ordinance sets up a USB Security Manager to whom all incidents should go and who should coordinate efforts in the area, including educational activities for employees and students.

USB has a dedicated Cybersecurity Manager and several related regulations that are compliant with the Czech Cybersecurity Act and its implementing decree. The most important contribution to USB's resilience now was the widespread implementation of multi-factor authentication (MFA), which minimised security incidents from university accounts of students and employees. Also, USB employees must pass regular training on cybersecurity as a part of their working duties. In addition, USB has recently undergone a cybersecurity audit. The result of the audit was positive, with a note of recommendations from the auditors to improve documentation for organisational and technical policies or to modify the process for asset and risk analysis.

The practical implementation of the Rector's Ordinance R 566 is now under preparation, which will methodically elaborate the procedures in institutional resilience and security at USB. It will also

point to typical situations in this area and specify recommendations on how to prevent them or address them if they have already occurred. Thus, it should help USB managers, staff, and students understand who, what, when, and how they are potentially at risk of being influenced by foreign powers. It will offer templates for reporting such situations or samples of recommended wording in contractual relationships where there is a risk of influence by foreign powers.

Digitisation and the use of smart technologies. Digitisation in as many aspects of university life as possible is one of our key priorities. The following are examples of systems or processes that were implemented in 2020-2024:

- introduction of several electronic agendas (time recording, approval of holidays, travel orders, signing and sealing of documents),
- introduction of Service Desk and Asset Management to manage requests and IT services and equipment,
- linking ORCID with our internal database of research publication outputs,
- IS/STAG study agenda (Erasmus Without Paper, electronic enrolment in studies),
- launch of the USB e-shop,
- unification of mail servers and migration of all USB units to Microsoft 365 (most working groups and university bodies have their working space in MS Teams, through which also most communication occurs; Copilot steadily becomes one of the growing tools for everyday work),
- migration of phone lines to VoIP.

The institutional strategy for Open Science 2.0/Open Access. USB runs its own article repository on the DSpace platform. It is now used mainly for storing qualification works (bachelor, master, doctoral, rigorous, and habilitation theses); 43634 are now stored in it. It also stores openly accessible research papers (currently 463). Still, most USB researchers use public article repositories such as arXiv or bioRxiv.

The USB Academic Library is a member of the CzechELib consortium. The CzechELib National Centre ensures the purchase of key electronic resources for the entire research and education community in Czechia and takes care of their management, including usage statistics. As a CzechELib member, USB has arranged a discount or complete waiver of fees for open-access publishing with several publishers in their fully open-access or hybrid journals. This applies only to the corresponding authors affiliated with USB. In 2024, the Oxford University Press provided us unlimited tokens, Wiley with 23, Springer with 13, and Taylor & Francis with 4. In 2023, 43 tokens were used; in 2024, 56 were used.

The Article Processing Charges (APCs) are the main obstacle to publishing in open-access journals. Some faculties allocate a part of their LCDRO budget to contribute to paying APCs. For example, at FSC, the open-access budget matches the annual needs. Still, it supports only high-profile papers (D1 or Q1 Web-of-Science-listed journals), and co-financing of APCs by the co-authors is required. The situation is likely to worsen in the future. From 2020 to 2023, about 537,900 EUR was paid to cover APCs in open-access journals at USB.

USB has a [webpage dedicated to Open Science](#), with hints on open-access publishing. The USB Academic Library maintains this page and provides training on various open-access aspects, including the issue of predatory publishing. In 2020-2024, 542 such trainings with 6313 attendants were run.

A system for training undergraduate and postgraduate students as well as staff in the field of intellectual property protection and technology transfer. At USB, we have an accredited course on intellectual property, which is offered to all students across all faculties. At the same time, TTO offers tailor-made seminars to individual faculties for researchers and academics as required. TTO has also

published several study materials to promote intellectual property awareness, such as “Knowledge and transfer specifics in research organizations” or “Spin-off trend of today”. These study materials are [available for free downloading in Czech and English](#) on the TTO website. TTO is involved in the European Patent Office, and this office has expressed interest in using these study materials to support student learning within the European Patent Office Academy. Regarding technology transfer and entrepreneurship support, TTO cooperates with FEC and co-teaches the entrepreneurship course, which may also result in particularly talented students entering the annual InvestDay competition.

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:

Tables 4.5.1 - 4.5.3 indicate the following trends in our staff involved in R&D&I between 2020 and 2024:

- in nearly all categories of R&D&I staff, the number of people increased,
- the percentage of women is roughly stable, with the most pronounced increase among early-career researchers and foreign employees and a slight decrease among assistant professors and professors,
- the percentage of foreign employees has risen among professors (more than doubled), associate professors, early-career researchers, assistant professors, and assistants,
- the relative representation of foreign employees among assistants, assistant professors, associate professors, and professors is, however, very small, about 5-7 %,
- the percentage of women steadily declines during the career path from assistants to professors, from 58 % to 14 %.

Regarding age structure,

- while in 2020, most of the R&D Personnel were young, in 2024, 50 % are of age 70+, but we speak here about small absolute numbers,
- the age structure of academic staff is roughly unchanged, with about 65 % of professors aged 60+ and 20 % of professors aged 70+.

There is still a dominance of older male professors rather than younger professors, with a more balanced representation of men and women. Nonetheless, our research environment is not negatively biased toward any gender, as described below in this report, and we plan to do more (e.g., return grants after a career break).

The international character of USB research staff is thus most pronounced at the early-career researcher (less than eight years after graduation) level while recruiting junior and senior researchers from abroad is not successful in the long term. The main obstacle to recruiting those researchers is related to financial possibilities, as the wages at USB are far below those offered by universities in Western and Northern European countries. The recruitment of the junior and senior academic staff is also limited by teaching duties for the staff holding these positions. At the

undergraduate level, teaching in the Czech language is obligatory in most courses and programmes, limiting the possible candidates to those mastering the Czech language.

USB supports the international R&D&I environment by recruiting researchers and students from abroad. To make the working environment comfortable for both sides, a few measures have been applied:

- USB provides courses of English for the administrative staff to prevent communication barriers between administration and international staff and students,
- in recruiting new administrative staff, knowledge of English at a communication level is necessary for most positions,
- USB also has a Welcome Office for researchers and students coming from abroad to help them assist with visa and residency issues, accommodation, and integration into life in the Czech Republic,
- English is the common communication language at USB, and navigation is commonly bilingual,
- USB also provides staff from abroad with training in Czech.

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 [%] ⁴	Total 2024	Of which women [%]	Of which foreign [%]
Professor	49.73	15.28	3.18	70.50	13.97	7.06
Associate Professor	129.39	31.45	4.26	149.26	34.96	5.25
Assistant Professor	362.14	46.81	4.63	350.53	42.78	5.63
Assistant	13.32	59.38	1.06	72.57	57.77	6.20
R&D Personnel ⁵	10.08	63.04	0.03	0.95	62.78	47.46
Researchers in other categories ⁶	136.15	43.98	49.89	131.75	50.56	44.47
Technical and economic staff ⁷	16	93,75	0	25.00	95.83	0
Early career researcher ⁸	146.23	45.29	34.11	133.28	50.43	44.29
Scientific, research and development staff involved in teaching activities	700.81	41.65	10.72	804.72	39.90	11.94
Total number of foreign nationals	99.38	34.14		128.30	44.30	

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 Researchers with Slovak citizenship are not considered foreign.

⁵ 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).

⁶ 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).

⁷ Who participates in the management and support of R&D&I in the institution.

⁸ See Definition of Terms in Methodology HEI2025+.

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	10.59	0	24.79	2.35	44.71	5.88	20.00	3.53
Associate Professor	0	0	5.63	1.25	38.13	8.75	23.13	10.00	18.75	5.63	14.38	5.00
Assistant Professor	2.54	0.85	24.10	11.42	43.55	21.56	17.76	7.61	9.73	4.23	2.33	0.85
Assistant	13.33	6.67	50.00	23.33	13.33	13.33	16.67	16.67	6.67	6.67	0	0
Early career researcher ⁹	15.00	8.23	52.92	24.58	24.17	7.50	4.58	2.50	2.08	1.25	1.25	0.83
R&D Personnel ¹⁰	18.18	9.09	54.55	45.45	18.18	0	0	0	9.09	9.09	0	0
Researchers in other categories ¹¹	14.85	8.30	52.84	23.58	24.54	7.86	4.80	2.62	1.75	0.87	1.31	0.87
Technical and economic staff ¹²	0	0	43.75	43.75	37.5	31.25	18.75	18.75	0	0	0	0
Scientific, research and development staff involved in teaching activities	5.26	0.91	26.82	5.97	34.21	14.27	15.99	6.58	12.25	3.95	5.47	1.72

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.

⁹ See Definition of Terms in Methodology HEI2025+.

¹⁰ 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).

¹¹ 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).

¹² Who participates in the management and support of R&D&I in the institution.

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	12.84	0	22.02	1.83	43.12	5.50	22.02	5.50
Associate Professor	0	0	2.27	0.57	38.64	11.93	28.41	9.09	19.89	7.95	10.80	3.41
Assistant Professor	0.45	0.23	23.65	10.59	44.14	19.14	21.62	9.68	7.88	2.93	2.25	0.90
Assistant	16.26	8.13	26.02	12.20	23.58	17.07	20.33	13.01	9.76	4.88	4.07	1.63
Early career researcher ¹³	17.29	8.88	46.73	21.96	27.57	14.95	5.14	1.40	2.80	1.87	0.47	0
R&D personnel ¹⁴	0	0	0	0	50.00	50.00	0	0	0	0	50.00	0
Researchers in other categories ¹⁵	17.45	8.96	47.17	22.17	27.36	14.62	5.19	1.42	2.83	1.89	0	0
Technical and economic staff ¹⁶	0	0	34.78	34.78	39.13	39.13	26.01	21.74	0	0	0	0
Scientific, research and development staff involved in teaching activities	5.53	2.81	22.61	10.32	34.33	14.92	19.32	7.50	12.66	4.03	5.53	1.69

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.

¹³ See definitions in Methodology HEI2025+.

¹⁴ 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).

¹⁵ 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).

¹⁶ Who participates in the management and support of R&D&I in the institution.

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:

Career development rules and legislation related to recruitment and career development of domestic and foreign employees. Since 2019, USB has been the owner of the HR Award. This award is now considered the international standard for quality in managing and developing human resources in science and research. The Action Plan and Revised Action Plan were followed during the implementation phase. Between 2021 and 2024, several [key activities](#) have been undertaken under the HR Award, including rules for dealing with incidents of inappropriate behaviour in the workplace, rules for handling the personal data of job applicants, establishing a gender equality plan, and rules for managing intellectual property. The Internal Review was submitted in October 2024 along with the Improved Action Plan, and we expect a site visit during 2025 for the Renewal Assessment.

Since 2021, USB has had the Rector's Ordinance R 479 defining the Career Regulations at USB. This document sets out the basic principles of career development of university employees, containing career planning rules that support employees' development and motivation while ensuring effective management of human resources. It is also one of the key tools for fulfilling USB's mission, vision, and strategic goals. Recognising that the career development of academic staff is related to the need to ensure the quality of educational and creative activities and the continual improvement of results in these areas, these regulations define general rules for developing career development plans for individual employees and forms of support that USB as well as faculties provide to the employees to incentivise their career growth. Faculties commonly have specific career regulations that concretize the USB ones. Recommendations and measures for expanding recruitment and career advancement are thematically developed in the USB Gender Equality Plan.

International tenders. We value our foreign colleagues and know that excellent research requires internationalisation, so we pay great attention to recruiting foreign employees. So, we want our offers to be generally known and use international research advertisement platforms Euraxess, ResearchJobs.cz, and ResearchGate to place our academic and research offers. When asking for academics and researchers, but also non-academic positions, we also use traditional social networks (Facebook, Instagram, LinkedIn) and local tools such as USB or faculty web page, web page of state Labour Office, web portal jobs.cz or the USB Career Centre. For academic employees, including foreign ones, USB also follows its own “Rules of the selection procedure for filling academic staff positions at USB”. It is also worth mentioning that USB has a contract with the Proxy company to assist in the correct registration and taxation of foreigners employed by USB in the Czech Republic or USB employees abroad.

The process of new employee adaptation and mentoring. USB values its new employees and aims to ensure they soon feel safe, comfortable, and knowledgeable about all that USB provides. New employees must pass mandatory introductory training courses (such as workplace safety, cybersecurity, and conflicts of interest). Still, the adaptation process and mentoring are primarily in the hands of heads of departments, who know best the immediate working environment and thus help any new employee quickly get on board and feel comfortable with all the processes she/he needs to follow.

Common consultations between the new employee and the experienced academic staff members help her/him orient her/him in the issues of teaching, research, and administration, as well as feeling a social dimension of the department and faculty. Work also starts on formulating the new employee’s first career growth plan. Some faculties (e.g., FFPW) have a document that helps new employees quickly orient to the new environment in her/his first days. Moreover, each new postdoc has a designated mentor who should drive and evaluate his or her initial activities at work.

One of the initial tasks of the USB School of Doctoral Studies is to prepare a handbook that would make the onboarding of new doctoral students as easy and smooth as possible. The idea is to exploit the handbook recently prepared by the [PRIDE Network Association for Professionals in Doctoral Education](#) and adapt it to our situation.

USB has Employment Regulations (Rector’s Ordinance R 584) describing, among other things, the rights and obligations of employees and the care of the employer toward its employees. The terms and conditions of employment are also part of the USB Collective Agreement.

Transparent distribution of institutional time, attitudes towards chaining of contracts and senior academic positions. Transparent distribution of institutional time at USB is part of a broader framework of the university’s personnel policy and ethical principles. USB has a Code of Conduct and follows methodologies that treat the issues of equal opportunities, gender equality, and effective human resource management. These documents generally include policies and measures that promote transparency and fair distribution of time. Our attitude towards chaining of contracts complies with the provisions of the Labour Code as amended. USB also has internal documents relevant here: the USB Collective Agreement as amended and an agreement on a different employer’s procedure for negotiating and renewing fixed-term employment (concluded with the Coordinating Trade Union Council of USB).

Rules for filling senior positions in the context of R&D&I. USB appeals to faculties to adopt fixed-term policies for filling senior positions (heads of departments, heads of institutes, and various non-voted faculty bodies). Some faculties have recently adopted a policy that the positions of the heads of departments or institutes are filled just for a limited period (usually three years) and that a person can fill this position at most twice and are filled based on transparent selection procedures. Faculty bodies that are non-voted but established with the dean’s approval are commonly updated, often

replacing some senior researchers with junior ones since the latter also need relatively early experience in managerial positions as a part of their career path.

The rules and support system of sabbaticals. Sabbaticals are governed by the Higher Education Act No.111/1998 Coll., according to which an academic staff member may request six months of creative leave once every seven years. USB fully supports providing researchers with sabbaticals, both outgoing and incoming. Regarding the latter, Rector's Ordinance R 427 "On proceedings concerning the establishment and appointment of a position of adjunct professor at USB" determines the correct proceedings concerning the establishment of a position of adjunct professor of USB and the proceedings concerning the appointment to a position of adjunct professor of USB. Some faculties have their own rules, e.g., [FFPW](#). Rules for sabbaticals of the outgoing researchers are in the hands of faculties (deans); an outgoing sabbatical is usually requested to find someone who temporarily takes over her/his teaching duties if relevant. FTH has adopted its own procedure for the sabbaticals. Incoming sabbaticals are also common at USB and are commonly paid from faculty or departmental budgets.

Measures for workers' return after a stay in an external workplace, including a foreign workplace. The general practice at USB is that an employee returning from an off-site assignment returns to his position held by his employer. To give an example, [at FFPW](#), this primarily applies to outgoing postdocs. After at least one year spent abroad, the postdoc is automatically offered a one-year-long position after return. A permanent position is offered to well-performing individuals with promising future developments.

Arrangements for workers to return after maternity/parental leave or other career breaks. One of the primary goals of USB is to create an environment that supports work-life balance. Typically, employees can return to their previous positions, and if possible, they are initially offered part-time employment or the option to work from home. Mentoring is also generally available. The emphasis is on flexibility and maintaining a respectful working environment. During maternity/paternity leave or other career breaks, faculties often contact employees through their work email and invitations to social activities such as summer camps for children and Christmas parties. This practice continues even after employees return from their leave.

Returning workers can gradually engage in scientific activities, while the faculty provides flexible conditions for participation in research projects, professional conferences, and publications. Where the nature of the work allows, faculties commonly offer the option of working from home or flexible hours to enable parents to organize their time effectively. Return is also facilitated by department heads and colleagues who provide methodological and administrative assistance in re-engaging with teaching, research, and other academic activities. The system generally allows staff to smoothly resume their professional and teaching careers without compromising childcare provision. In this way, each faculty supports and creates an environment that allows for an effective return to academia.

USB also has a kindergarten. Furthermore, USB is preparing a project to fund so-called return grants, whereby workers returning after maternity/paternity leave or other career breaks can get financial support to restart their research careers.

A reference to an existing career code or similar document:

www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2021/r_479-karierni-rad-en.pdf

A model example of the adaptation process:

A new postdoc or academic employee is provided with an office, introduced to her/his future colleagues at the department, and has personal, informal introductory discussions with those colleagues. She/he is also introduced to the dean and the faculty administration. The faculty or USB

facilities, such as the canteen, practical doctor, library, rectorate, and other facilities and important offices, are shown to her/him, and if she/he is a foreigner, persons from the USB Welcome Office help with foreign police, accommodation, etc. She/he is also commonly introduced to České Budějovice, including public transport and main facilities such as a hospital or city hall, and to the main tourist attractions in the region. The head of the department initially regularly contacts her/him, follows her/his adaptation, and asks if any help is needed. If a foreigner, she/he is also introduced to the foreign community at USB.

Specific anonymised examples of an academic's career path:

Person A (female) started her education at the University of Chemical Technology in Prague. During these studies (in 2003), she completed a three-week internship at the Research Institute of Fisheries and Hydrobiology (RIFH), then a USB research institute. At RIFH, she obtained the results for the diploma thesis, which she defended at the University of Science and Technology in 2004. In 2004, she entered Ph.D. studies at USB. Since 2005, she has worked first part-time and, after defending her Ph.D. dissertation in 2007, full-time at RIFH. In 2008, she received a postdoctoral fellowship from the German Alexander von Humboldt Foundation. She moved to Berlin for a two-year internship at the Leibniz Institute for Freshwater Ecology and Inland Fisheries. After returning from the internship, she continued working at FFPW. Gradually, she became a lecturer and supervisor. In 2011, she became a member of the team of the newly established CENAKVA, the large research infrastructure at FFPW. From 2012 to 2015, she worked part-time due to maternity leave. In 2019, she became an associate professor at FFPW. This was followed by another career break, specifically in 2019-2021, when she worked only part-time again due to a second maternity leave. From 2024 onwards, she leads Research Programme 2 at CENAKVA.

Person B (male) also has two children, born in 2008 and 2013. In 2003, he finished his master's at FSC of USB (then the Faculty of Biological Sciences). In 2008, he finished his Ph.D. at FSC of USB. In 2009-2011, he was a Marie Curie Fellow at the Natural History Museum in London (MSCA two-year outgoing fellowship, moved to the UK with family - wife and the first child). After returning from London, he became a postdoc at the Biology Centre of the Czech Academy of Sciences (BC CAS; 2012-2015, 3-year postdoc grant from the Czech Science Foundation). Then, from 2015 to 2022, he became the head of a laboratory at BC CAS. In between, he completed her habilitation procedure at FSC of USB and became an associate professor. From 2018 to 2019, he was awarded the Fulbright scholarship at the University of Illinois (a 10-month Fulbright-Masaryk visiting scholar fellowship). Since 2022, he has been the head of a department at FSC of USB, and since 2023, he has been a vice-dean there.

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:

Gender equality in recruitment and career development. There is no preference or disadvantage based on gender in recruitment or career development. The USB is a gender equality employer and follows European policies regarding gender equality. Both USB and individual faculties fully respect the principles of gender equality in all stages of recruitment and career development of academic staff. Selection procedures for academic staff positions are transparent and based on the candidate's competencies, experience, and professional profile. Gender plays no role in recruiting new staff members or their career progression. Career development is determined based on professional and research achievements, teaching competencies, and contribution to the department, not based on gender. Both USB and individual faculties promote equal opportunities for all academic staff.

Legislation and documents regulating gender equality. USB is committed to developing and cultivating human resources. Detailed objectives, measures, and concrete steps related to gender equality are defined in the current USB Gender Equality Plan 2025-2028. Yet even before, gender equality principles were mentioned across various strategic documents and widely adopted at USB, such as the USB Collective Agreement, USB Employment Regulations, and USB Code of Conduct. Also, USB has long been involved in nationwide projects addressing gender equality in the university environment and is in regular contact with specialized institutions such as the National Contact Centre for Gender & Science.

Our first USB Gender Equality Plan 2021-2024 was the first strategic document of this type. Its main objective was to analyse the environment, declare our serious attitude to the topic, bring it to staff and students, and discuss how USB can strengthen the institutional environment for equal opportunities procedurally. A set of indicators was created to monitor progress in this area, using data segregated by gender, job title, age, or workplace across the USB.

Based on the experience and evaluation of previous practices, the USB Gender Equality Plan 2025-2028 covers six areas. The first is organisational and administrative, cross-cutting activities such as training topics, statistical data management, securing resources, and web management and development. The other five areas cover work-life balance and organisational culture, gender

balance in leadership and decision-making positions, gender equality in recruitment and promotion, integrating the gender dimension into the content of research and instruction, and measures against gender-based violence, including sexual harassment. The Plan is a living document whose list of measures is not exhaustive. It opens possibilities for the implementation of central activities as well as for meeting the individual needs of groups of employees. USB's commitment here is respect for and appreciation of anyone.

The filling of leadership positions. Leadership positions are filled through a transparent selection process, and the main criteria are professional competence, management skills, and experience leading scientific or academic teams. Faculties do not have predetermined quotas for gender balance in leadership positions. The quality of the candidate, his/her professional skills, and contribution to the institution are decisive factors in the selection process. On the other hand, even though some research fields are traditionally represented predominantly by men while others predominantly by women, faculties attempt to pursue equal representation of women and men in the academic and scientific environment and support the creation of equal opportunities for the leadership of research groups, institutes, and other organizational units. We are convinced that this approach ensures a fair and transparent environment where all academic staff have an equal opportunity for professional development and leadership roles based on their professional and managerial skills.

Recommendations for reconciling work and family life should also be part of training programmes for managers. For example, according to national analyses, one of the barriers to lower representation of women in leadership positions is the time inflexibility of caregivers. Managers are advised, for example, to ensure that meetings do not occur in the late afternoon or evening and are announced well in advance.

The rector or dean appoints the vice-rectors and vice-deans based on the required skills and experience in the given agenda. The heads of departments are selected through an open selection procedure by a committee appointed by the dean. USB strives to balance gender representation in leadership positions. So far, this effort has been achieved very slowly, given that women do not apply for the selection procedures as often.

Nominations for professional bodies. Here, our attitude is the same as that of leadership positions. We strive for no bias, yet qualifications and competencies are what matter. Still, during nominations, there is commonly a call to attempt to suggest both men and women in roughly equal numbers.

Evaluation and remuneration. We offer equal conditions to men and women in recruitment, employment, and remuneration. Wage rates are uniform according to job groups and wage classes of employees according to the USB Wage Regulations. As part of the gender audit and monitored indicators, a report has been set up to track wages by job classification across USB. Reports were also shared as part of the Ministry of Education survey to compare university salaries in the country and to promote wage cohesion at universities. Inequalities are more likely to arise from the perspective of funding sources and provider conditions, i.e., considerations paid for by international vs. national projects or operational institutional sources, rather than primarily regarding gender. From 2024, the USB is involved in a nationwide project to share practices and strategies on employee remuneration and legislative options to address potential inequalities and identify prevention measures.

Measures to reconcile the work and family life of researchers. The immediate superior worker and the employee actively seek solutions when balancing the academic staff member's work and family life is necessary. The aim is to create flexible and individually tailored conditions that enable the effective performance of professional duties without negatively impacting personal and family life.

Faculties recognise that an academic staff member is not only a researcher but performs a wide range of tasks, including

- pedagogical activities and teaching,
- scholarly and research activities,
- organisational and administrative duties,
- involvement in projects and international cooperation.

Therefore, faculties generally support various flexible forms of work, such as

- possibility of individual adjustment of working hours, including part-time or temporary reduced hours,
- flexible working hours if the nature of the work allows it,
- opportunity to work from home for administrative and research activities,
- support for parents returning from maternity/paternity leave, including gradual increases in working hours.

This approach ensures that academic staff can effectively combine their professional commitments with their personal lives, leading to higher staff satisfaction, productivity, and long-term motivation.

Measures to eliminate negative workplace behaviour. USB has implemented several measures to address and prevent negative behaviour in the workplace. The Rector's Ordinance R 434 defines different types of harassment and procedures for dealing with them. The USB Code of Conduct and the USB Ethics Committee are crucial in resolving potential issues related to negative workplace behaviour. The USB Ethics Committee or the Ombudsperson may be assigned to investigate a given complaint. Employees and students can also contact the USB Counselling Centre for psychological and pedagogical help.

The USB Ethics Committee exclusively investigates complaints concerning violations of the USB Code of Conduct, i.e., violations of established moral principles and values, professional relationships, research, and teaching work. In 2022, a bossing complaint by a high USB manager was addressed. In this case, after ascertaining all available information and discussing it with those involved, the USB Ethics Committee found that there had been repeated and prolonged bossing by this person, who had acted contrary to good manners and violated the USB Code of Conduct. This person's employment was subsequently terminated.

The Ombudsperson provides confidential assistance to all USB employees in resolving workplace conflicts, disputes, and grievances, including if workplace relations exhibit any signs of sexual harassment, bullying, mobbing, bossing, or other forms of abuse. Her/his goal is to ensure fair and equitable treatment of employees within USB. Ombudsperson is currently established in some faculties (FED, FFPW). The central management strategy is to have an ombudsperson at every faculty.

USB has a working whistleblowing process for reporting possible harassment behaviour anonymously (Rector's Ordinance R 529). This ordinance outlines the steps employees can take to report harassment without fear of retaliation, thereby promoting a safer and more respectful work environment. Nobody has used this form of complaining since 2022.

4.7.1 Gender balance in management positions

Senior staff	2020		2024	
	Men	Women	Men	Women
Rector	1	0	1	0
Vice-Chancellor	5	1	4	1
Dean ¹⁷	4	4	5	3
Academic Senate	95	47	86	54
Scientific/Artistic/Academic Council	204	63	189	60
Quaestor	0	1	1	0
Board of Directors	12	0	9	3

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.¹⁸

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:

USB actively supports international mobility for R&D&I staff, including Ph.D. students. Mobility is facilitated through internal funding schemes and external funding sources targeted at academic exchange or research projects. Institutional mobility funding at USB includes the USB Grant Agency, short-term research grants, and an academic exchange program supported by the Program for Strategic Management Support. External funding sources include the Ministry of Education's operational programs, Erasmus+, CEEPUS, Fulbright, Horizon Europe, and other targeted schemes.

The USB International Relations Office and the USB Project Office provide administrative support for mobilities, with additional support structures present at individual faculties. These offices assist in securing funding, coordinating logistics, and ensuring compliance with institutional and funding requirements.

For most Ph.D. programs, international internships or research stays are mandatory, making mobility an integral part of academic training at USB. USB also supports incoming postdocs and

¹⁷ 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.

¹⁸ Long-term mobility means an uninterrupted period of more than three months.

sabbaticals, with implementation tools developed at individual faculties. Support conditions, including financial assistance and accommodation, are specified in faculty measures.

Numerous mobility opportunities are also integral to national and international research projects supported by competitive funding sources such as the Czech Science Foundation, TACR, and Horizon Europe. These projects include research visits, Ph.D. training programs, postdoc positions, and participation in international conferences and workshops, further strengthening the USB's global research network.

Key Achievements in Mobility (2020–2024): Despite disruptions caused by the COVID-19 pandemic during the evaluated period (2020–2022), USB has maintained a strong mobility program. In 2023 alone, the university recorded 50 outgoing mobilities exceeding two weeks and 21 incoming mobilities of similar duration. The long-term mobility of USB academic staff, supported by significant utilization of EU tools such as Erasmus+, Marie Skłodowska-Curie Actions, and Transnational Access (TNA) schemes, has contributed significantly to research excellence, interdisciplinary collaboration, and institutional internationalization.

Institutional Support for Mobility: USB has implemented several projects under the Operational Programme Research, Development, and Education to enhance research and international mobility capacities:

- **Development of the USB – Capacities for R&D (2018–2021):** strengthened research infrastructure and personnel training for international collaborations.
- **Development of the USB – International Mobilities (2018–2020):** supported outgoing international research stays for academic staff and Ph.D. students.
- **Development of the USB – International Mobilities II (2020–2022):** an expanded USB's mobility programme and international partnerships.

To further promote research excellence and attract international talents, USB organises a competition for university postdoc positions, supporting promising early-career researchers from institutions outside USB and offering them research positions for 12-24 months. This competition strengthens USB's international research collaborations and enhances the university's research output.

Barriers to Mobility: A key barrier to longer-term mobility among academic staff is the high teaching load at some faculties, which limits the ability of senior researchers to engage in extended research stays. This challenge is particularly pronounced in faculties with large student enrollments, where faculty members have substantial teaching responsibilities. Gender-based barriers to mobility have not been explicitly identified. Still, USB remains committed to ensuring equal opportunities for all staff and researchers, as outlined in the USB Gender Equality Plan.

Examples of Significant Mobility (2020–2024):

- **Roman Franěk** (Postdoc, Faculty of Fisheries and Protection of Waters), Hebrew University in Jerusalem, Israel, August 2022 – July 2024. Roman Franěk conducted a two-year research internship within a Czech Science Foundation project, contributing to international collaboration in aquaculture research.
- **Jan Štundl** (Postdoc, Faculty of Fisheries and Protection of Waters), California Institute of Technology (Caltech), USA, January 2021 – December 2023. Jan Štundl engaged in a three-year research internship as part of a Horizon 2020 project, enhancing USB's research profile in environmental sciences.
- **Jindřich Chmelař (Faculty of Science), Růžena Štemberková (Technology Transfer Office),** Biotechnology mission to Sweden and Denmark, April 22–25, 2024. They participated in a

mission organized by the Czech Republic's Embassy and CzechInvest, focusing on innovation and commercialisation in life sciences. Visits included AstraZeneca BioVentureHub, GoCo Health Innovation City, and BioInnovation Institute.

- **František Vácha (Faculty of Science), Pavel Kozák (USB Rectorate), Vladimír Žlábek (USB Rectorate)**, Arctic Research Collaboration, Svalbard, Norway, September 8–12, 2024. They represented USB's Polar Research Station in discussions with the Czech Minister of Science, Research, and Innovation, alongside Norwegian officials, to strengthen Arctic research collaboration.
- **Daniel Heider (Faculty of Theology)**, University of Houston, Texas, USA, July – October 2022. Daniel Heider conducted a research stay in philosophy, strengthening international academic exchange and interdisciplinary collaboration.

Examples of long-term visiting professors (incoming sabbaticals):

- Prof. Bryan Brooks – Baylor University, Texas, USA
- Prof. Katsutoshi Arai – Hokkaido University, Japan
- Prof. Marc Verdegem – Wageningen University & Research (WUR), Netherlands
- Prof. Mats Tysklind – Umeå University, Sweden

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)¹⁹. 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:

USB maintains a diverse and highly developed research infrastructure supporting cutting-edge scientific research across multiple disciplines. The university is actively involved in the European Strategy Forum on Research Infrastructures (ESFRI), ensuring access to and sharing the latest technologies and state-of-the-art research infrastructure through international collaboration. As an active [member of three ESFRI infrastructures](#) (DANUBIUS, ELIXIR, LTER), USB strengthens its position in EU and worldwide scientific research.

¹⁹ 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.

The acquisition, renewal, and optimization of expensive research instruments and equipment at USB follow a structured approach. USB employs a long-term monitoring and evaluation system of the service life of all research infrastructure components. Based on this assessment, each faculty or unit develops a reinvestment plan outlining projected financial needs and a timeline for renewal. These costs are covered through faculty and university funds specifically allocated for reinvestments or external funding sources such as grants. When a grant is secured for a planned investment, the initially allocated university funds can be redirected toward other research infrastructure needs, ensuring continuous development and modernization.

To maximize research infrastructure utilization, USB promotes cross-faculty collaboration through initiatives such as:

- Fund of Strategic Priorities, supporting interdisciplinary use of specialized equipment.
- Projects enhancing education by sharing resources among faculties, such as "Increasing the Quality of Doctoral Studies through Mutual Sharing of Capacities in Natural and Agricultural Sciences" (FFPW, FSC, FAT) and "Development of Informatics and Informatics Disciplines at USB" (FSC, FAT, FEC).

A prominent example of optimizing research infrastructure is the creation of the research and education computing cloud at USB. Any faculty member who intends to buy a computing facility for research or education purposes needs to consult it with the USB Centre of Information Technologies and connect it to the cloud. This is enforced by the Rector's Ordinance R 570.

USB has a central specialised unit for the purchase of expensive equipment. This unit prepares a procurement plan for a specific period/project, considering the conditions of the source of funding for the subject of purchase and the legislative framework. Within the framework of this plan, it communicates with the USB components the possibilities of grouping the items to be purchased in such a way as to ensure both procedural and economic efficiency of the respective purchases. The time requirement of the equipment/device vs. its funding source also plays an important role. There is an effort to optimise and not limit, e.g., the research needs of individual users of instruments/technological units.

USB remains committed to continuously improving its research infrastructure to support high-impact scientific research and foster interdisciplinary collaboration. The active engagement in the European Strategy Forum on Research Infrastructures (ESFRI) projects enhances its research excellence, international collaboration, and technological capabilities. Participation in ESFRI aligns with USB's strategic goals. It offers numerous benefits, including European policy alignment and sustainable funding opportunities, providing access to European funding mechanisms for long-term infrastructure development. By participating in ESFRI, USB ensures its continued growth as a leading research institution, fostering innovation, excellence, and global impact.

USB hosts and supports two core research infrastructures:

[**CENAKVA**](#) is an open institution that serves as a unique centre of knowledge, science, services, and education in fisheries and water protection. Since it is on the Roadmap of Large Research Infrastructures of the Czech Republic, it is determined to share and provide its unique infrastructure to partners in the Czech Republic, Europe, and worldwide.

[**The Czech Arctic Research Station**](#), named after the Czech-Canadian polar ecologist Josef Svoboda and operated by USB via FSC, is located in the central part of the Svalbard archipelago. Czech and foreign scientists use the station, and it offers all the comfort and logistics facilities for research in Svalbard. The station may be used only for scientific purposes under a contractual agreement with the operator. In addition to research, the station is crucial in training undergraduate and Ph.D. students, significantly contributing to integrating education and research.

Examples of infrastructures:

Danubius RI - International Centre for Advanced Studies on River-Sea Systems is an innovative international research centre studying rivers and seas. Its main goal is to investigate the interrelationships between river and marine ecosystems. The CENAKVA infrastructure at the Faculty of Fisheries and Protection of Waters of the University of South Bohemia is part of this research infrastructure as the leading partner of SUPERSITE: Hydrological Nexus of Central Europe.

ELIXIR - A distributed infrastructure for life-science data is a European research infrastructure focused on bioinformatics and biological data management. It provides access to data and supports international collaboration in the life sciences. The Faculty of Science, as an associated partner, is part of this infrastructure through Elixir-CZ.

eLTER RI - Integrated European Long-Term Ecosystem Research Infrastructure is a pan-European research infrastructure focused on long-term research of ecosystems, critical zones, and socio-ecological systems. Its mission is to support high-impact research and catalyse new insights into the complex interactions between humans and nature over the long term. The Faculty of Fisheries and Protection of Waters and The Faculty of Science of the University of South Bohemia are parts of this research infrastructure through the national network LTER-CZ.

AquaExcel 3.0 Aquaculture Infrastructures for Excellence in European Fish Research (Project implementation: 2020 – 2025, Faculty of Fisheries and Protection of Waters, Role: Partner, service provider)

EU-PolarNet 2 Co-ordinating and Co-designing the European Polar Research Area (Project implementation: 2021 – 2024, Faculty of Science, Role: Consortium member)

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 ²⁰
Costs/expenses related to the acquisition of small fixed assets for R&D&I	13,231/522	16,321/644	12,728/502	10,268/405	13,414/529	65,960/2.602
Cost of repairs and maintenance of equipment	11,441/451	7,641/301	11,908/470	7,977/315	9,624/380	48,590/1,917
Acquisition of tangible (DH) and intangible (DN) assets for R&D&I (investments)						
Of which software	281/11	1,947/301	312	127/5	2,850/112	2919
Of which other intangible fixed assets	0	0	0	0	0	0
Of which land, buildings and structures	2,452/97	631/25	552/22	1,151/45	443/17	5,229/206
Other intangible fixed assets (machinery, apparatus, equipment, etc.	32,947/1,300	16,011/632	17,407/687	7,070/279	32,591/1,286	106,027/4,
Total infrastructure spending in years ²¹	60,352/2,381	42,551/1,679	42,907/1,693	26,593/1,079	58,922/2,324	228,725/9,023

²⁰ Enter the sum of the row.

²¹ 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 (ERC²², MSCA²³, HHMI²⁴, HFSP²⁵, NSF²⁶, Horizon Europe²⁷, NIH²⁸, Wellcome Trust²⁹, EDF³⁰, OP JAK³¹, OP TAK³², NPO³³, GA ČR³⁴, TA ČR³⁵ 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 4.10.5.³⁶

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 total R&D&I budget, broken down into faculties in Table 4.10.1, consists of the LCDRO provided by the Ministry of Education, the income from research grant projects, the part called “specific HEI research” and aimed to support research at the Ph.D. level, and the incomes from non-public sources. While Table 4.10.1 shows only summary values for 2020-2024, the budget over individual years is stable. During this period, we could observe some increase in the LCDRO and some decrease in the income from grants that compensate one another. No fluctuations endangering our research

²² 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.

²³ 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.

²⁴ Howard Hughes Medical Institute - a non-profit organization in the USA significantly supporting international biomedical research.

²⁵ Human Frontier Science Program - an international programme to support research, particularly in the natural sciences and computer science.

²⁶ National Science Foundation (USA).

²⁷ Horizon Europe - the EU's 9th Framework Programme for research and innovation, running from 2021-2027.

²⁸ 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.

²⁹ major UK private foundation supporting mainly biomedical research.

³⁰ European Defence Fund.

³¹ 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.

³² 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.

³³ 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.

³⁴ Grant Agency of the Czech Republic.

³⁵ Technology Agency of the Czech Republic.

³⁶ 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.

mission thus occurred. In the long term, FSC and FFPW are scientifically the most productive faculties and, therefore, have the largest share of the budget allocated to R&D&I.

Public funding remains the dominant part of the R&D&I budget, ranging from about 96% to nearly 100 %, depending on the faculty (96 % on FAT, where the applied and contract research is the largest and nearly 100 % on FAR). Other faculties with relatively large incomes from non-public sources are FFPW and FHSS. This is to an extent given by their character and the way their results are disseminated to society (all generate results of high societal relevance, but not all can be commercialised). Nevertheless, non-public sources remain a challenge that will likely play a more important role in the future.

The most important prestigious individual international projects:

Lenka Gahurová (FSC)

Socs3 gene in oocyte maturation and fertilisation – a novel link between inflammation and infertility (OOCSCS; doi: [10.3030/708255](https://doi.org/10.3030/708255); 2017-2021)

Marie Skłodowska-Curie Actions

Budget 142,720 EUR

The project exploited a genetic approach to ablate the Socs3 gene from the female germ-line and addressed the role of Socs3 gene during mouse oocyte maturation and fertilisation.

Kazek Michalina (FSC)

Trehalose as a source for privileged immunity in *Drosophila* (IMMUNETHER; doi: [10.3030/867430](https://doi.org/10.3030/867430); 2020-2023)

Marie Skłodowska-Curie Actions

Budget 156,980 EUR

The project was interested in the mechanisms by which immune cells have privileged access to nutrients. Using the fruit fly *Drosophila melanogaster* as a model organism, the author tested if immune cells prefer trehalose, the major sugar found in insects, employing genetic, molecular biology, and immunology techniques to address this question.

Jan Štundl (FFPW)

Role of the cardiac neural crest cells in heart development and regeneration (Heart2019; doi: [10.3030/897949](https://doi.org/10.3030/897949); 2021-2023)

Marie Skłodowska-Curie Actions

Budget 255,756 EUR

The project explored whether the regenerative capacity of cardiomyocytes is unique to zebrafish or represents an ancestral state of characters for vertebrates in general. The proposed research aimed to use phylogenetically important vertebrates (lamprey, sturgeon, and axolotl) to answer fundamental questions about the development of the cardiac neural crest and its role in heart regeneration across vertebrates.

Although we currently have no ERC grant, there are two ERC-CZ grants at FSC. These projects were positively evaluated but were not supported due to insufficient funding. The Ministry of Education has a special program to support such projects under the ERC-CZ label. While we list them here, we would also like to mention that this year, six ERC proposals were submitted by FSC, of which three made it to the second round.

Michaela Fencková (FSC)

Opening novel avenues and gates in research of neurodevelopmental disorders

2023-2025

Budget 163,000 EUR

The project aimed to determine the effect of a change in metabolic homeostasis – as a result of an activated immune response – on cognitive function in habituation. The research focuses mainly on the activation of the immune system, metabolic reprogramming of immune cells, limited energy availability in the brain, and the role of genes associated with neurodevelopmental disorders in immunometabolic tissues.

Vojtěch Kubelka (FSC)

Animal migration in a changing world – still advantageous strategy or maladaptive behaviour?

2024-2029

Budget 228,000 EUR

Asking why animals migrate, the project examines whether latitudinal gradients in predation, parasitism, and seasonal food availability still benefit bird migratory behaviour. The project explores how migratory animals can cope with environmental changes and the most important drivers and life stages limiting populations of migratory animals.

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
FEC	69,172/2,727	96.05	2.64	1.31
FAR	174,098/6,868	99.49	0.48	0.003
FFPW	988,325/39,987	89.06	8.16	2.78
FAT	318,817/12,576	96.41	0	3.59
FED	110,599/4,361	99.15	0	0.85
FSC	1,410,196/55,629	95.74	2.64	1.62
FTH	118,128/4,660	99.70	0.15	0.15
FHSS	107,920/4,257	97.25	0.91	1.84

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	56.95	52.74	57.86	59.77	59.49	57.34
Applied Research	43.05	47.26	42.13	40.22	40.50	42.65
Experimental development and innovation	0	0	0.01	0.01	0.01	0.01
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

In the role of beneficiary							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
Interreg	Interreg Bavaria – Czech Republic - 2021–2027	Living Jewels Beneath the Water Surface of Šumava				1,073/42	4,060/160
	Interreg Austria – Czech Republic 2021–2027	Reducing Emissions in Aquaculture through Sustainable Use of Effluent Water and Nutrients					2,012/79
LIFE	LIFE Strategic Nature and Integrated Projects (SNaP/SIP)	Implementation of the river basin management plan in selected river sub-basins in Slovakia				2,127/84	4,585/181
Interreg	Cross-Border Cooperation Program Czech Republic - Free State of Bavaria	Museum Uploaded - Digital Technologies for Cross-Border Interactive Cooperation of Museums	729/29	104/4			
	Cross-Border Cooperation Program Czech Republic - Free State of Bavaria	Flora of Šumava	2,730/108	2,904/115	1,257/50		
	INTERREG Austria – Czech Republic 2021–2027	Breakthrough Applications of Computer Vision in the Microscale: Consortium of Research Organizations for Industry 4.0	1,743/69	4,957/196	10,117/399	6,073/240	

	INTERREG Austria – Czech Republic 2021–2027	Recycling Nutrients from Agro-Industrial Residues through the Cultivation of Microalgae as Fish Feed	1,591/63	3,810/150	3,223/127		
International Visegrad Fund	International Visegrad Fund	Are countries of the Visegrad Group (V4) ready for the consequences of population aging?	24/1	216/9			
Interreg	INTERREG Austria – Czech Republic 2021–2027	Austrian-Czech Innovation and Research Network for Nanotechnology, Biosensors, and Additive Manufacturing	554/22	796/31			
	INTERREG Austria – Czech Republic 2021–2027	AI-based Predictive Maintenance		161/6	1,557/61		
	Cross-Border Cooperation Program Czech Republic - Free State of Bavaria	Information System for Medieval Monuments in the Czech-Bavarian Border Region		1,172/46	3,358/132	690/27	
	Cross-Border Cooperation Program Czech Republic - Free State of Bavaria	ARCHAEOPANT – Czech-Bavarian Image Database of Archaeobotanical Finds		953/38	2,054/81	876/35	
	INTERREG Austria – Czech Republic 2021–2027	AQUACYCLE			202/8	618/24	348/14
	INTERREG Austria – Czech Republic 2021–2027	Sumava Fish Jewels				1,073/42	4,056/160
Total			7,371/291	15,073/595	21,768/859	12,530/94	15,061/594
In the role of another participant							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
European Commission	H2020	emPOWERing regional stakeholders for realising the full potential of european BIOeconomy	870/34	365/14			
	H2020	AQUAculture infrastructures for EXCELlence in EUropean fish research 3.0		839/33	3,757/148	4,240/167	2,482/97
	H2020	International Network for Terrestrial Research and Monitoring in the Arctic	21/1	16/0.5	128/5	170/7	
	H2020	Trehalose as a source for privileged immunity in Drosophila	1,437/57	486/19	706/28		
	H2020	Role of the cardiac neural crest cells in heart development and regeneration		2,560/101	1,903/75	1,884/74	
	H2020	Evolutionary games and population dynamics: from theory to applications	323/13	1,230/49	1,751/69	988/39	
	H2020	Co-ordinating and Co-designing the European Polar Research Area			21/1	20/1	59/2
	H2020	The power of grape extracts: antimicrobial and antioxidant properties to prevent the use of antibiotics in farmed animals			587/23	1,228/48	1,587/63
	H2020	Socs3 gene in oocyte maturation and fertilisation - a novel link between inflammation and infertility		1,237/35			
	Horizon	Partnership for the Assessment of Risks from Chemicals			64/3	6/0	8/0
	Horizon	DANUBIUS Implementation Phase Project - DANUBIUS-IP			17/1	103/4	1,422/56
	Horizon	Phytobacterial vesiculation: regulation, cargoes and function				110/4	291/11
	Horizon	Bioacoustic AI for wildlife protection				9/0	679/27

	Horizon	Innovation in germplasm cryopreservation for improved animal breeding and the conservation of Europe's livestock biodiversity					888/35
	Horizon	Dynamics of the solar corona in the era of data-intensive observations					127/5
	EURATOM2027	Partnership for European research in radiation protection and detection of ionising radiation: towards a safer use and improved protection of the environment and human health.					332/13
	EMBO	EMBO Installation Grant				934/37	153/6
	International Visegrad Fund	Readiness of small and medium-sized enterprises in V4 for stress management interventions				45/2	179/2
Narodowa Agencja Wymiany Akademickiej (NAWA)		Crucial, long-term collaborations for the development of an innovative, ecological approach in biostimulants production			202/8	618/24	348/14
The European Partnership for Radiation Protection Research	PIANOFORTE Consortium	Resilience to RADiological Events in Wartime - RRADEW					332/13
Total			2,651/105	6,733/252	9,136/360	10,355/408	8,887/351

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
Czech Science Foundation			114,062/4,499	111,275/4,390	126,967/5,009	146,425/5,776	158,904/6,268
Technology Agency of the Czech Republic			28,891/1,140	36,011/1,421	29,570/1,166	16,115/635	22,870/902
Ministry of Agriculture of the Czech Republic	National Agency for Agricultural Research		54,535/2,151	56,977/2,248	53,476/2,110	46,298/1,826	40,799/1,609
Ministry of Education, Youth and Sports – without EU structural funds			7,691/303	5,986/236	3,758/148	1,524/60	4,019/158
Ministry of Health of the Czech Republic	Agency for Health Research		14,364/566	10,519/415	6,797/268	5,828/230	7,993/315
Ministry of Culture of the Czech Republic			2,723/107	2,736/108	2,278/90		
Ministry of the			1,314/52			2,661/105	2,763/109

Interior of the Czech Republic							
Ministry of Education, Youth and Sports of the Czech Republic	ERC CZ	Opening novel avenues and gates in research of neurodevelopmental disorders					4,124/163
Ministry of Education, Youth and Sports of the Czech Republic	ERC CZ	Animal Migration in a changing world – still advantageous strategy or maladaptive behaviour?					5,776/228
Total			223,580/ 8,820	223,504/ 8,817	222,846/ 8,791	218,851/ 8,633	247,248/ 9,753
In the role of another participant							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
Czech Science Foundation			18,570/ 733	17,874/ 705	17,253/ 681	14,017/ 681	19,572/ 772
Technology Agency of the Czech Republic			6,212/245	7,498/ 2986	10,438/ 412	17,685/ 698	24,207/ 955
Ministry of Agriculture of the Czech Republic	National Agency for Agricultural Research		3,830/151	6,444/254	5,801/229	8,948/353	6,835/270
Ministry of Industry and Trade			1,532/60	896/35	896/35		
Operational Programme Enterprise and Innovation for Competitiveness			3,288/130	1,514/60	3,403/134	2,525/100	0
Operational Programme Technologies and Applications for Competitiveness							1,176/46
Operational Programme Research, Development and Education			967/38	93/4			
Total			14,239/ 1,357	34,319/ 4,044	37,791/ 1,491	43,175/ 1,832	51,790/ 2,0413

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
Gifts		453/ 18	442/ 17	518/ 20	71/3	39/2
Total revenue from own performance and goods		14,805/ 584	14,611/ 576	10,779/ 425	12,429/ 490	9,814/ 387
Spin-off establishment					5,220/ 206	
Total		15,258/ 602	15,053/ 593	63,121/ 702	12,432/ 529	9,816/ 387
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:

The strategy for distribution of the LCDRO at USB hasn't changed over the evaluated period. It differs from the methodology used by the Ministry of Education to distribute the national LCDRO budget among universities and reflects the needs of USB. The structuring of the LCDRO is as follows:

- 54% is distributed among faculties in proportion to the previous year's distribution (a predictable stabilization part that faculties can count on in advance),
- 20% is distributed based on the quality of research outputs over the previous three years (papers in the Web of Science or Scopus, books, book chapters, some proceeding papers, patents),
- 13% is distributed based on possessed grants (volume and number) over the previous five years,
- 6.5% is allocated for support of the USB's large research infrastructures (CENAKVA and Czech Arctic Research Station),
- 3.5% is used to support small R&D&I projects and university postdocs,

- 2.5% is used to cover the costs of the academic library, databases, and the university publishing house.

The USB management and all deans approved this methodology in 2020. The USB Grant Agency is still funded outside the LCDRO budget as HEIs get extra money for these purposes (which will likely be incorporated into the LCDRO soon). The further breakdown of LCDRO at individual faculties depends on their internal regulations; there are no central regulations for distributing LCDRO within faculties.

In 2022-2024, the fled Ukrainian academics were supported for 14 person-years by 92,500 EUR (6 at FFPW, 2 at FEC, 4 at FAT, 2 at FSC). The support consisted of covering 0.4 FTE for each supported person and year.

USB also has an internal competition for university postdocs. In recent years, the rectorate has supported up to four positions annually. Usually, two positions are supported in natural sciences and two in social sciences and humanities. This funding scheme targets Ph.D. graduates from other, preferably foreign institutions, within eight years of graduation. In 2020-2024, 15 postdocs were supported with 754,675 EUR.

The following table shows the motivational part of LCDRO (20 % based on the quality of research outputs and 13 % according to the number and volume of grants) distributed across faculties in 2020-2024 (amounts in EUR). FSC and FFPW, the two scientifically most productive faculties, get nearly 50 % and nearly 20 % of the total, respectively.

	2020	2021	2022	2023	2024
FEC	127 327	144 067	178 991	164 300	154 168
FAR	320 165	384 324	452 972	456 613	450 848
FFPW	612 274	706 644	799 970	795 785	851 116
FED	190 802	210 169	215 466	210 836	227 276
FSC	1 742 396	1 717 235	1 917 820	1 878 719	1 967 995
FTH	220 909	285 746	258 991	275 927	339 279
FHSS	129 219	96 678	116 315	131 837	115 299
FAT	242 461	208 429	236 022	262 530	252 087
Total	3 585 553	3 753 292	4 176 547	4 176 547	4 358 068

NATIONAL AND INTERNATIONAL COOPERATION

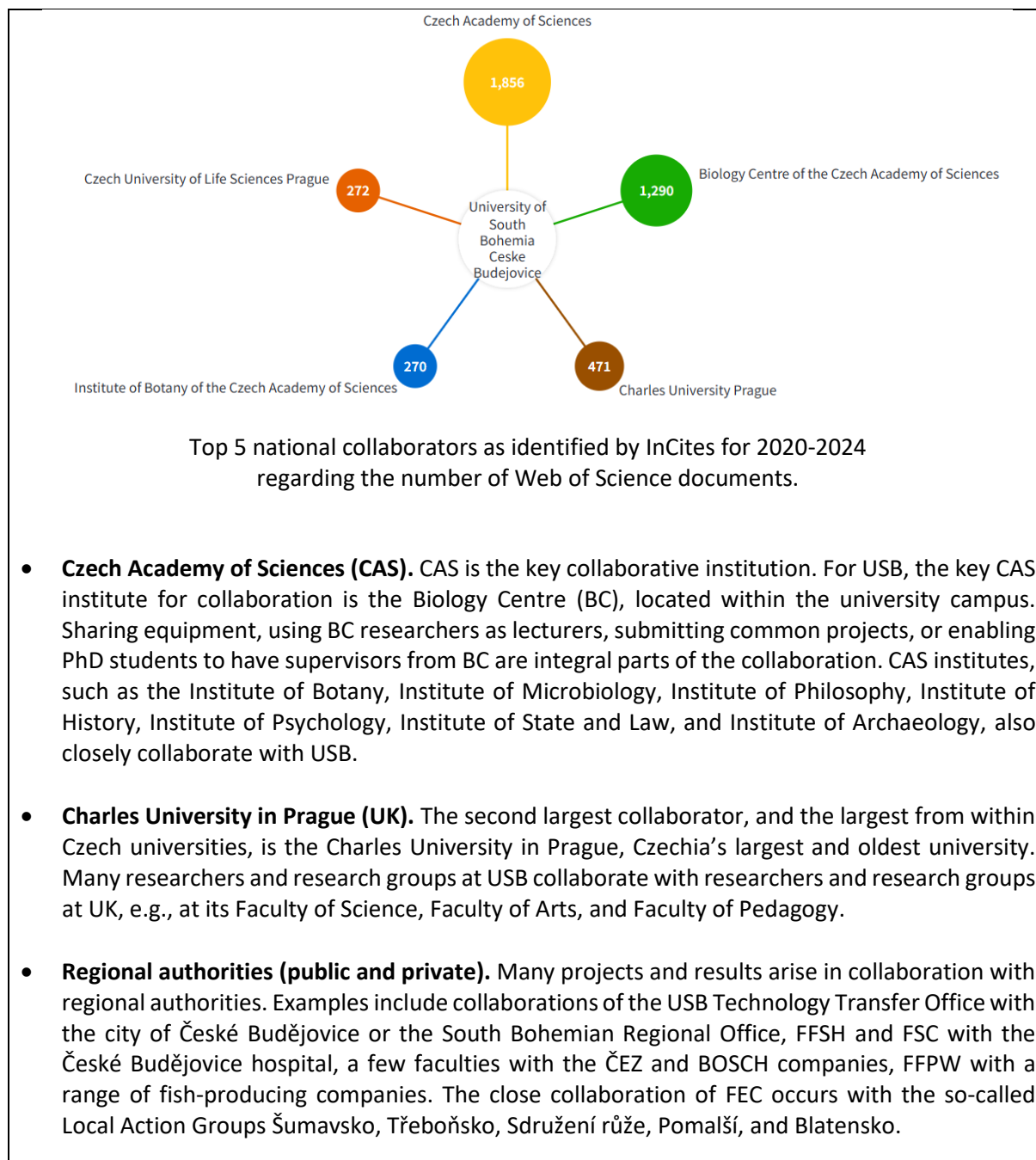
4.12 Important collaborations in R&D&I

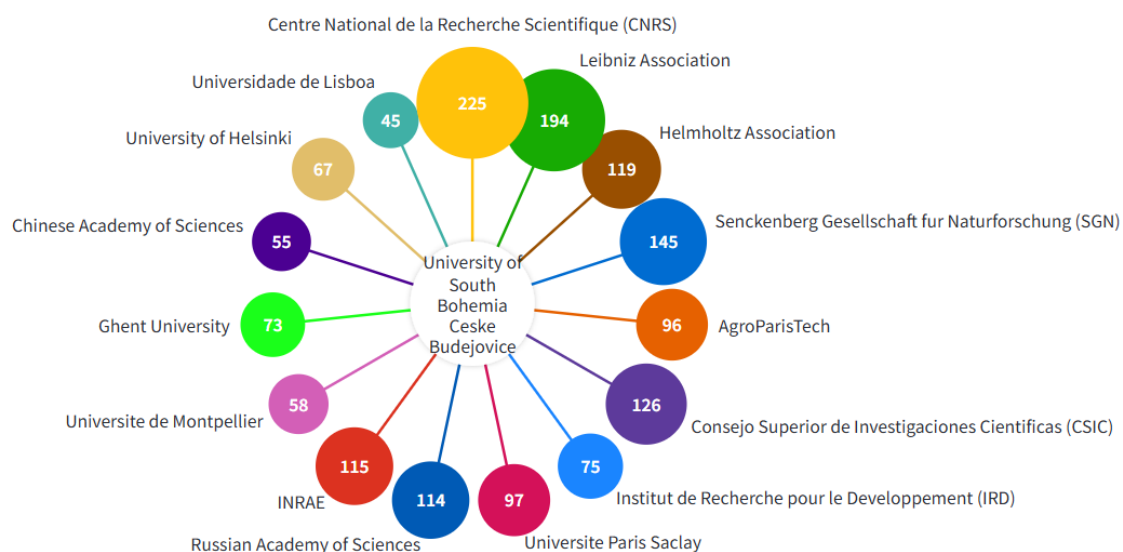
The HEI will describe specific cases of R&D&I collaboration at the national level (maximum five examples) and the international level (maximum five examples), including examples of concrete results and impacts in the field of R&D&I beneficial for the HEI during the period of 2020–2024.

Maximum 300 words per example.

Self-assessment:

Collaboration at the national level:





Top 15 international collaborators as identified by InCites for 2020-2024 regarding the number of Web of Science documents.

International collaboration:

USB has established dozens of informal (established by individual research labs) and official (contractual) international collaborations, as documented by many research papers published in collaboration with coauthors from abroad. Out of the 3,595 records in Web of Science for the evaluated period 2020-2024, 2,625 have a coauthor from a research institution outside Czechia. This is more than two-thirds, as compared to about one-third in the previous evaluation period.

USB is also a partner or consortium member in several European projects or consortia. Membership in these projects or consortia brings an unprecedented opportunity for collaboration and producing excellent research output. Some specific examples are as follows:

- STAGE – Scientists and Public Engagement.** The main goal of this project, represented by FED, is to equip scientists and science communicators with the skills and knowledge necessary to increase public engagement in science. Specifically, it was conceptualised as addressing European countries' current and urgent needs, the decline of interest in science, a developing science distrust, and the need to tackle the climate change crisis.
- AQUAEXCEL 3.0.** This project, managed by FFPW, brings together 40 of Europe's top aquaculture research facilities to provide a world-class platform for aquaculture research, from biology to technology, in all types of farming systems, covering all major fish species farmed in the EU as well as the most promising new species.
- Danubius RI.** An innovative international research centre specialising in the study of rivers and seas. Its main objective is to study the interrelationships between river and marine ecosystems, including estuaries, deltas, and lagoons. CENAKVA is a part of this research infrastructure as the lead partner of SUPERSITE: Hydrological Nexus of Central Europe.
- ELIXIR.** A European research infrastructure focused on bioinformatics and biological data management. It provides access to data and supports international collaboration in life sciences. As an associate partner, FSC is part of this infrastructure through Elixir-CZ.

- **EvoGamesPlus.** While evolutionary game theory was devised to model biological populations, existing models are too simple to describe their interactions with sufficient realism. There is also a need for researchers with the skills and experience to combine mathematical modelling, biological knowledge, and computing and data analysis. The EvoGamesPlus project, represented by FSC, aims to address these challenges.

STUDIES

4.13 Doctoral studies

The HEI will briefly describe the organisation of the doctoral studies (if there are any doctoral study programmes³⁷). 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 graduates³⁸.
- 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:

Structure and organization of studies. The organisation of doctoral studies is given by the USB Study and Examination Code. This code provides general instructions for Ph.D. studies valid for all doctoral students at USB. Each doctoral program must have a Program Board that ensures the quality of the studies in the program. The Board interacts with supervisors and students in the program, organises the exams and thesis defenses, approves the committees for exams and defenses, and administers the studies in the study program. The USB Study and Examination Code also defines the basic requirements for any doctoral study program. Actual requirements are program-specific and usually include publication activity, stays abroad, participation at conferences, presentation of results during the study, etc., and are in the hands of Program Boards.

There are several models of the admission process: either potential supervisors provide potential research topics and hire students in transparent selection procedures, or talented students express an interest in admitting a Ph.D. study program and formulate a research topic together with the Program Board and usually also with a potential supervisor (even then, a kind of selection procedure demonstrating students' competencies is realised). The accepted student and her/his assigned supervisor then have three months to compose an Individual Study Plan. This Plan defines all the requirements the student needs to fulfil, such as courses, mobility, research output, teaching duties,

³⁷ If the HEI does not organise any doctoral programme, it will explicitly state this information in the self-evaluation report.

³⁸ The HEI will list the top five highest ranked graduates in academia, the private sector, and public administration over the past five years.

etc., and the timeline for fulfilling them. The duration of Ph.D. studies is four years, during which students in the present form are provided a guaranteed stipend. These four years can be extended to two extra years with no obligation to be paid. In the third year, students usually pass an exam and, ideally, defend their thesis towards the end of the fourth year.

A system of cooperation between Ph.D. students and their supervisors. Until recently, no such system was formally codified. About two years ago, discussions started at the Ministry of Education level on devising and implementing supervisory standards delineating basic forms of formal and less formal cooperation (some code of behaviour) between Ph.D. students and their supervisors. General rules have been suggested, and the universities have been asked to cope with it. USB is among the first universities in Czechia that issued a “Doctoral degree supervisor standard at USB”. This standard specifies the requirements placed on an academic staff member who, following the USB Study and Examination Code, performs the role of a supervisor of a student of a doctoral degree program and formulates general expectations and principles of the relationship between supervisor and student. On top of that, to balance powers so to say, we have also issued a “Doctoral degree student standard at USB” that, in its introduction, states that cooperation between a Ph.D. student and her/his supervisor presupposes an active and responsible approach of the student to his/her studies and a high-quality, professional, and responsible guidance of the student by the supervisor and that the supervisor rightly places high demands on the doctoral student and expects high commitment from the student. For example, one of the supervisor’s duties is that she/he may only accept a new doctoral student if he/she is currently supervising fewer than five doctoral students across the universities and fewer than 15 bachelor, master, and doctoral students in total. This should allow supervisors to meet with their students and provide professional help regularly.

Basic statistics. In 2020-2024, there were around 550-600 active doctoral studies each year in 32 doctoral study programs at USB. While the country-wide drop-out rate is about 60 %, the drop-out rate at USB is about 40 %. All doctoral students are obliged to teach during their doctoral studies. Within their pedagogical duties, the doctoral students typically serve as lab assistants in tutorials, and some of them also supervise research projects of the low undergraduate (bachelor) students. The student workload in this respect is acceptable. For example, FFPW and FHSS require at least 90 teaching hours and FSC at least 42 during the first four years of study. If some extra teaching is required from Ph.D. students, it must be separately contracted and paid. There are 20 international PhD programs in English, educating 233 international students from abroad.

Regarding drop-out rates, we have also looked at differences between men and women and between students in the present vs. combined form. Since the actual numbers differ based on how data are analysed, we mention just qualitative differences. There is no significant difference between drop-out rates between students in the present vs. combined form. There is a slightly higher drop-out rate among female than male students, with a further increase in difference if we count only students who interrupted their studies (for whatever reason). A study break thus has a significantly higher impact on women than men. It is hard to generalise why this may happen, given that the measures we describe above for employees returning from career breaks apply equally to Ph.D. students.

The average length of a Ph.D. study successfully finished in 2020-2023 in the present form (and with career breaks excluded) was 5.6 years (432 cases). About 10 % finished their studies during the standard period of four years, and about 10 % within 7-9 years.

Information on promotion and recruitment schemes. USB actively participates in educational conventions abroad to promote the recruitment of doctoral students. USB also organizes motivation stays and summer schools for undergraduate students at USB premises, which has often proven to be a promising source of motivated students from abroad or other universities in the Czech Republic. Many doctoral programs at USB are organized in English, promoting internationalisation.

International students are commonly recruited via motivational stays and/or summer schools organized at USB or open international recruitment (e.g., Research Gate or EURAXESS announcements). The number of international doctoral students increased from 189 to 233 over 2020-2023, proving the recruitment scheme of USB is successful. The basic requirement for any student (including Czech) applying for a doctoral programme in English is to prove a sufficient knowledge of English, which is usually tested during the entrance interview. The international character of doctoral studies at USB is further underscored by obligatory research internships/visits abroad for most doctoral study programmes.

Cooperation within doctoral studies. The major cooperation is with the Czech Academy of Sciences (CAS), with which we formally agree on cooperation in Ph.D. studies (currently under revision). Students commonly use premises or laboratories at CAS institutes, may have supervisors or supervisors-specialists from CAS, participate in projects led by principal investigators from CAS, and are commonly partially employed at CAS. Some doctoral study programs are even accredited together with CAS institutes, and so are joint programs. Students from several faculties (FAT, FFPW, FSC) also cooperate with the application sphere. However, such cooperation is not formalised other than that students may participate in contract research or applied projects in which a company is involved. FSC and FHSS also cooperate with the České Budějovice hospital, with students commonly solving projects to improve healthcare. No formal agreement exists with the hospital; it is just a memorandum of cooperation in research. We also have a rare cotutelle cooperation (e.g., with Université de Lorraine at FAR or with the University of Stavanger at FSC), as well as some joint Ph.D. programs with other Czech universities (e.g., Archaeology on FAR with the University of Western Bohemia in Pilsen or Didactics in Biology on FED with the Charles University).

Student care system. Students may visit the USB Career Centre and USB Counselling Centre to consult various potential issues or exploit the buddy system, whereby foreign students are assigned a Czech student who introduces her/him to the Czech reality. The USB Counselling Centre offers comprehensive psychological and educational-psychological support to students and staff across USB. The USB Career Centre supports students and graduates entering the job market through counselling, internships, and collaboration with companies; it also helps employers find talented graduates. A workshop specifically designed for doctoral students, Career in the World of Science, is offered. The goal is to enhance students' understanding of a career in science. Activities related to digital well-being and burnout prevention have recently been initiated.

Some foreign Ph.D. students feel lonely and welcome any means of socialising. To minimise the stress of international students due to the new environment in a new country, USB offers services of the Welcome Office that helps international students with the Czech administration system and daily life situations (medical services, bank, police, accommodation, etc.). The Welcome Office issued a [Welcome Guide for International Students](#) to provide important information about life in the Czech Republic. Administration staff members speak English and help international students with their student life duties. International Student Club is another body that helps international students cope with daily life and study problems and issues. Within the USB School of Doctoral Studies realm, we also discuss a formal system of support of social events organized for or even by students.

A system for tracking the future careers of graduates. USB has the Alumni Club, but no system exists to track graduates' future careers. Nevertheless, faculties do follow the future careers of some of their graduates. Here, we give some examples of former Ph.D. students and their actual positions:

- **Pavel Scholz** (graduate from FHSS). Deputy for Project Management AKESO zdravotnický holding a.s.
- **Tomáš Zdechovský** (graduate from FHSS). Member of the European Parliament, Member of the Committee on Employment and Social Affairs.

- **Shah Mujahid Ali** (graduate from FFPW). Research Associate, Integrative Biology, Michigan State University, College of Natural Science, USA.
- **Nayak Rigolin** (graduate from FFPW). Postdoctoral research scientist at Columbia University, New York City, USA.
- **Petr Sezemský** (graduate from FSC). Won the Czech Head – Doctoral Student Award for Technical Sciences. Postdoc at Warsaw University of Technology, Poland. From January 2025, back at the Faculty of Science USB as an assistant professor.
- **Ambar Kachale** (graduate from FSC). Postdoc at Department of Molecular & Cellular Biology, Harvard University, USA.
- **Dana Buršíková** (graduate from FED). Vice-dean for Science, Faculty of Education, West Bohemia University in Plzeň.

Other relevant data. The USB School of Doctoral Studies started on February 1, 2025. It aims to support and promote the quality of Ph.D. studies across USB. Specifically, it is expected to:

- formulate a university strategy for the development of doctoral study programs at USB (coordinate and harmonise regulations and processes concerning doctoral studies),
- increase the quality of education and contribute to transparency and streamlining of doctoral study processes at USB (set quality criteria such as part of the study conducted at a research facility abroad or international committees for exams and thesis defense),
- promote innovation and interdisciplinarity in the preparation and development of doctoral study programs,
- set the basic framework for doctoral students at USB, including the formulation of quality standards on which faculty regulations concerning doctoral studies will be based,
- improve the status of doctoral students at USB, help create a friendly environment (work-life balance, social inclusion, or training facilities),
- provide educational and support activities for students (beyond their existing curricula) and supervisors (support development of research competencies and transferable skills),
- monitor doctoral studies' impact on graduates' career development and track their outcomes.

Work is ongoing on agreeing on the basic principles of the school working, such as doctoral study program evaluation, setting up motivational tools, central support of PhD student income, or onboarding of new Ph.D. students.

Examples of soft skill courses for Ph.D. students include teaching skills, how science is done, personal leadership, communication skills (incl. effective communication with supervisors and other stakeholders), (time) planning, intellectual property protection, responsible publishing (incl. predatory practices), presentation and writing skills. Such courses are often open also to postdocs. A repeated course for supervisors (selecting students, communication with students, cultural challenges, expectations, planning, progress evaluation, etc.).

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:

Reprinted MEP 2020 recommendations common to Modules 4 and 5:

“The viability of a university expresses the level to which the strategic ambitions of the university are supported by the quality of its managerial, financial and human resources organization and operations. In both aspects, its viability and strategies, USB is taking significant positive steps, but still needs to do a lot to reach a high international standard. Indeed, as mentioned in the overall assessment of M3, USB has gained a position among the six best Czech universities but takes a modest place on any worldwide ranking of universities. Although it has the enthusiasm and motivation to move upwards and to become a more reputed university in Central Europe, USB needs to become far more professional in its governance and management if it wishes to achieve that goal. USB does reasonably well in its policies (and operations) regarding doctoral training, and support for quality science, and has taken good steps for further improvement. However, it still needs to invest strongly in its HRM operations (in spite of the HR Award it received), internationalization, gender and diversity policy and the policy regarding research integrity. In all these matters, USB is full of good intentions, but seems to lack a sufficiently strong and effective organization to implement and coordinate all these intentions. A major barrier identified by the IEP is the disconnection between the central and the faculty level. Bold leadership is needed to change this, all focusing on a ONE-USB policy and a ONE-USB corporate feeling. It starts with reformulating its mission and vision statements, followed by clear 5-years strategic plans which need to be endorsed and implemented by all the faculties via faculty plans which should be approved by the USB leadership for its contribution to the ONE-USB strategies. The IEP considers the building of this connectivity between central and decentral levels at USB as the key performance indicator for its future success.”

Implementation (specific recommendations reprinted in bold):

USB takes a modest place on any worldwide ranking of universities.

Although we follow several worldwide rankings of universities, we have never been active in pursuing better positions in any of them. With one exception: we have recently actively participated in a ranking that assessed universities from a sustainability perspective. But even then, our ambition was to learn how we stand and to what extent we fulfil different assessed indicators rather than to know our position in the world. In this, we stick to the Agreement on Reforming Research Assessment (ARRA) fourth commitment: Avoid using rankings of research organizations in research assessment.

USB needs to become far more professional in its governance and management. USB needs to invest strongly in its HRM operations, internationalization, gender and diversity policy and the policy regarding research integrity.

We have been active in this respect. In terms of internationalisation, we have become members of a consortium of European universities (KreativeEU), have a higher proportion of foreign academic staff, our large research infrastructure CENAKVA is strongly networked at the European level, we have become a partner in several EU-funded projects (though still not as a leading partner). We already have a second version of our Gender Equality Plan, in which we clearly define our goals across many different agendas, approach men and women equally in all respects, have an

established Ethics Committee and the Ombudsperson, and have recently elaborated the Principles of research integrity at USB, Standard of supervisor at USB, and allowed any USB researcher to transparently obtain ethical approval for her/his research if needed. We have also issued regulations on conflicts of interest in habilitation and professorship proceedings, institutional resilience, and responsible use of AI in students' work, and we now work on methodical materials and prepare training courses in some of these areas.

A major barrier identified by the IEP is the disconnection between the central and the faculty level. Bold leadership is needed to change this, all focusing on a ONE-USB policy and a ONE-USB corporate feeling. ... The IEP considers the building of this connectivity between central and decentral levels at USB as the key performance indicator for its future success.

Every day, we attempt to implement a ONE-USB policy and a ONE-USB corporate feeling. The USB Strategic Plan 2021-2030, formulated in 2021 and including the USB's mission and vision, is our key strategic document. Based on this, faculties prepare their own strategic plans, using the USB one as the framework for adopting faculty-specific missions, visions, and needs. Since 2024, regular meetings have occurred among the rector and all deans at which cross-faculty collaboration, actual and future USB and faculty plans, and inter-faculty and faculty-rectorate conflicts are discussed.

In the science and research agenda, there has been no material during the last couple of years that the Vice-rector for Science and Research would create without collaboration with vice-deans with the agenda of science and research and with the final approval by the USB management and faculty deans. This ensures sharing and incorporating diverse experiences from all our faculties, immediate acceptance of the adopted material, and a feeling of having something from and for us. Also, our aim at the central level is to change the faculty management mindset. If faculties start implementing a process or preparing a document, they are encouraged to think more broadly and ask themselves if that would not be useful centrally. Of course, it does not always work that way, but it is a win-win strategy. Another example is the recently introduced internal evaluation of USB units by internal commissions formed by the rectorate. One or two faculties are evaluated each year, and each will be evaluated every five years. Three faculties have been evaluated so far, and they have taken it very seriously, broadly collaborated, adopted it as an opportunity to reflect on themselves, and suggested improvements at the whole university level. This data-based, two-way feedback is indispensable to pursuing our common goal.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 4

Document name	No. criteria	Location (link in HTML)
University web page	4.1	www.jcu.cz/en/
USB Strategic Plan 2021-2030	4.1, 4.4, 4.14	www.jcu.cz/en/university/documents/long-term-strategic-plan-of-the-usb
USB Technology Transfer Office web page	4.1, 4.2, 4.4	www.jctt.cz/en/
USB Academic Library web page	4.1, 4.2, 4.4	www.lib.jcu.cz/en/
USB Publishing House web page (only in Czech)	4.1	nju.jcu.cz

USB School of Doctoral Studies web page	4.1, 4.2	https://www.jcu.cz/en/science-and-research/usb-school-of-doctoral-studies
Statute of the USB School of Doctoral Studies	4.1	https://www.jcu.cz/images/UNIVERZITA/Dokumenty/skola-doktorskych-studii-ju/20022025-statute-of-the-school-of-doctoral-studies-of-the-university-of-south-bohemia-in-cb.pdf
Science and Research Office of the Rectorate web page	4.1, 4.2	www.jcu.cz/en/science-and-research/about-us
USB organisational structure	4.1	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2025/R_582_Annexe-no-1-org-structure-of-usb.pdf
USB Scientific Board	4.1	www.jcu.cz/en/science-and-research/scientific-board
USB Grant Agency	4.1, 4.2, 4.11	www.jcu.cz/en/science-and-research/usb-grant-agency
USB Research Awards: Rector's Ordinance R 524 Establishing Rules for the Award of Honorary Degrees, Honorary Titles, Commemorative Medals and Scientific and Pedagogical Awards of the University of South Bohemia in České Budějovice	4.1, 4.2	https://www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/r_524_honorary_degree_medals_awards.pdf
USB Research Strategy	4.1, 4.2, 4.4	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/vedecka-strategie-ju/ENGLISH-VaV_strategie_JU_final.pdf
Principles of Research Integrity at USB	4.1, 4.3, 4.14	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/etika-a-integrita-vyzkumu/Principles-of-research-integrity-at-USB.pdf
Position of USB on the publication of scientific results	4.1, 4.3	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/usb-position-on-the-publication-of-scientific-results.pdf
CENAKVA	4.1, 4.9	www.frov.jcu.cz/en/faculty/faculty-parts/south-bohemian-research-centre-for-aquaculture-and-biodiversity-of-hydrocenoses-cenakva
Czech Arctic Research Station	4.1, 4.9	www.prf.jcu.cz/en/faculty/departments/czech-arctic-research-station
USB International Board	4.1, 4.3	www.jcu.cz/en/university/university-bodies/international-board
EU Desk	4.2	www.jcu.cz/en/science-and-research/eu-desk/
USB Board of Commerce:	4.2	https://www.jcu.cz/cz/univerzita/dokumenty/opatreni-rektora/platna-opatreni

Rector's Ordinance R 483/2021 on the establishment and activities of the USB Board of Commerce		
USB Career Centre	4.2, 4.13	https://www.kc.jcu.cz/en/about-us
Research Universities Association (AVUni)	4.2	www.avuni.eu/en
Rector's Ordinance R 533 / 2023 regulating the internal quality assessment of study programmes and units of USB Rector's Ordinance R 579/2025: Supplement to the Rector's Ordinance R 533, which regulates the processes of internal evaluation of doctoral study programmes, evaluation of substantive plans, and evaluation of proposals for doctoral study programmes at USB in 2025	4.3	https://www.jcu.cz/cz/univerzita/dokumenty/opatreni-rektora/platna-opatreni https://www.jcu.cz/cz/univerzita/dokumenty/opatreni-rektora/platna-opatreni
Reforming Research Assessment at USB: CoARA Action Plan 2024 – 2028	4.3	Reforming Research Assessment at the University of South Bohemia in České Budějovice. CoARA Action Plan 2024 – 2028 https://zenodo.org/records/13861816
USB Ethics Committee Decision of the Rector R 253 on the Establishment of the USB Ethics Committee R 253 Appendix 1 R 253 Appendix 2 (on using Research Ethics Committees) Methodological instruction for Appendix 2	4.3, 4.7, 4.14	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2013/R_253_Eticka_komise_EN.pdf www.jcu.cz/images/JCU-EN/university/documents/rectors-ordinances/Rectors_Ordinance_No253_Appendix_1.pdf www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/english_r_253_-dodatek-c_-2-ke-zrizeni-eticke-komise-ju.pdf www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/english_r_253_-metodicky-pokyn-k-dodatku-c_-2-ke-zrizeni-eticke_p48350.pdf
USB Code of Conduct: Rector's Ordinance R 432 Stipulating the USB Code of Conduct Annex 1 to the Rector's Ordinance R 432 Annex 2 to the Rector's Ordinance R 432	4.3, 4.6, 4.9	www.jcu.cz/images/JCU-EN/university/documents/rectors-ordinances/Rectors_Ordinance_No432_Stipulating_the_USB_Code_of_Conduct.pdf www.jcu.cz/images/JCU-EN/university/documents/rectors-ordinances/Rectors_Ordinance_No432_Annexe_1.pdf

		www.jcu.cz/images/JCU-EN/university/documents/rectors-ordinances/Rectors_Ordinance_No432_Annexe_2.pdf
Rector's ordinance R 567 on the use of artificial intelligence in the production of written papers and other types of theses of students of USB	4.3	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2024/R_567_english-on-the-use-of-artificial-intelligence-in-the-production-of-written-papers-and-other-types-of-theses-of-students-of-the-USB.pdf
Rector's ordinance R 529 on the internal notification system	4.3, 4.7	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2024/english-opatreni-rektora-o-vnitrnim-oznamovacim-systemu.pdf
USB Strategy of Sustainability and Green Transformation	4.4	www.jcu.cz/images/UNIVERZITA/rozvoj/strategie-a-rozvoj/udrzitelnost-2024/dokumenty/english-strategie-udrzitelnosti-ju_25-30_fin.pdf
USB social responsibility web page	4.4	www.jcu.cz/en/university/development/sustainability-at-the-university-of-south-bohemia
Rector's Ordinance R 493 on the handling of intellectual property and confidential information protection at USB	4.4	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/english-r_493_o-nakladani-s-dusevnim-vlastnictvim.pdf
Rector's Ordinance R 494 issuing the Rules for the Establishment of Spin-off Companies at	4.4	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/english-r_494_pravidla-pro-zakladani-spin-off-spolecnosti-na-ju.pdf
Web page on Open Science at USB	4.4	www.lib.jcu.cz/en/open-science
Web page on personal protection policy at USB	4.4	https://www.jcu.cz/en/personal-data-protection
Rector's Ordinance R 378 laying down the rules for the protection and processing of personal data	4.4	https://www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2018/R_378_Rules_for_Protection_and_Processing_of_Personal_Data.pdf
Rector's Ordinance R 411 on personal data protection regarding labour-law relationships	4.4	https://www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2019/R_411_Personal_Data_Protection_Labour-Law_Relationships.pdf
Rector's Ordinance R 566 on strengthening resilience to illegitimate influence at the University of South Bohemia in České Budějovice	4.4	https://www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2024/R_566_english-on-strengthening-resilience-to-illegitimate-influence-at-he-USB.pdf

Platform for publication and data repository at USB (only in Czech)	4.4	https://dspace.jcu.cz/
HR Award web page at USB	4.6	www.jcu.cz/en/science-and-research/hr-award-hrs4r
Rector's Ordinance R 479 issuing Career Regulations of the University of South Bohemia in České Budějovice	4.6	https://www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2021/r_479-karierni-rad-en.pdf
USB Gender Equality Plan 2021-2024	4.6, 4.7	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/usb-gender-equality-plan-2021-2024.pdf
USB Gender Equality Plan 2025-2028	4.6, 4.7, 4.8, 4.14	www.jcu.cz/images/UNIVERZITA/rozvoj/strategie-a-rozvoj/gender-plan/gender-equality-plan-usb-2025-2028.pdf
Rules of the selection procedure for filling academic staff positions at USB Recommended selection procedure for filling non-academic staff positions at USB	4.6	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/rules_selection_procedure.pdf www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/recommendation_selection_procedure.pdf
Rector's Ordinance R 427 on proceedings concerning the establishment and appointment of a position of adjunct professor at USB	4.6	www.jcu.cz/images/JCU-EN/university/documents/rectors-ordinances/R_427_Rectors_ordinance_on_proceedings_concerning_the_establishment_and_appointment_of_.pdf
USB Employment Regulations (Annex to the Rector's Ordinance R 584)	4.6, 4.7	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2025/R_584_annexe_english.pdf
HR Award web page	4.6	www.jcu.cz/en/science-and-research/hr-award-hrs4r
USB Collective Agreement	4.6, 4.7	www.jcu.cz/images/JCU-EN/university/documents/internal-documents/Collective_Agreement_2021_-_2024.pdf
Dean's measure No. 03/2023 Support for Stays of Post-Doctoral and Sabbatical Researchers at the FFPW USB	4.6	https://www.frov.jcu.cz/images/FROV/fakulta/uredni-deska/opatreni-dekana/2023/Measure_of_Dean_03-2023.pdf
Dean's measure No. 15/2023 Career Rules of the Faculty of Fisheries and Protection of Waters of the USB (hereinafter referred to as the FFPW USB)	4.6	https://www.frov.jcu.cz/images/FROV/fakulta/uredni-deska/opatreni-dekana/2023/Measure_of_Dean_15-2023.pdf

USB Wage Regulations	4.7	www.jcu.cz/images/UNIVERZITA/Dokumenty/vni-trni-predpisy-JU/2025/27032025-wage-regulations-of-the-usb-1-1-2025.pdf
Rector's Ordinance R 434, setting out the procedure in cases of harassment in the workplace	4.7	https://www.jcu.cz/images/JCU-EN/university/documents/rectors-ordinances/Rectors_Ordinance_No434_Harassment_in_the_Workplace.pdf
USB web page on social security	4.7	https://www.jcu.cz/en/university/development/social-security
Web page on USB Counselling Centre	4.7, 4.13	www.pf.jcu.cz/en/faculty/other-facilities/the-university-counselling-centre
USB research infrastructures and consortia	4.9	www.jcu.cz/en/science-and-research/research-infrastructures-and-consortia-at-the-university-of-south-bohemia
Rector's Ordinance R 570 on the scientific, research and educational cloud of USB	4.9	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2024/R_570_on-the-scientific-research-and-educational-cloud-of-the-usb-in-ceske-budejovice.pdf
USB Study and Examination Code	4.13	www.jcu.cz/images/JCU-EN/university/documents/internal-regulations/Study_and_examination_code_USBdocx.pdf
Standard of supervisor at USB	4.13, 4.14	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/standard-of-supervisor-at-usb.pdf
Standard of doctoral student at USB	4.13	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/standard-of-doctoral-student-at-usb.pdf
Welcome Guide for International Students	4.13	www.jcu.cz/images/JCU-EN/study-at-usb/about-studies/Welcome_guide_for_international_students_final.pdf
Agreement on Reforming Research Assessment	4.14	coara.eu/agreement/the-agreement-full-text/
KreativEU web page	4.14	www.kreativeu.org

Annex: A graphical representation of the organisational structure (can also be downloaded at https://www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2025/R_582_Annexe-no-1-org-structure-of-usb.pdf):

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 fields³⁹ (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 University of South Bohemia in České Budějovice](#) (abbreviated as “USB”) considers itself a research-oriented university and a respected research centre not only in the Czech Republic but in some fields also globally. In 2024, USB became a member of the [Research University Association](#), comprising seven Czech universities with the most prominent research output. Research at USB focuses on the natural sciences, social sciences, and humanities. Although we continue building mainly on our traditions and strong disciplines, we at the same time remain open to new trends and needs of practice and society. Our mission and vision are formulated in our most important strategic document, the USB Strategic Plan 2021-2030. The mission of USB as a research organization is to independently perform basic and applied research and publicly disseminate its results through teaching, publishing, or knowledge transfer. Our broad vision is then put as an aspiration to be

- a sought-after, friendly university offering motivational study and a work environment,
- a university able to compete at both European and global levels,
- a university with a unique identity that significantly benefits the city as well as the region,
- an academic institution broadly supporting its students as well as employees.

Following this mission and vision, the USB Strategic Plan 2021-2030 defines five major areas for the university development in R&D&I:

- research excellence,
- societal relevance of research,
- supporting and developing research infrastructures,
- systemic support for young research staff,
- technology (knowledge) transfer.

Other objectives in the Strategic Plan are also relevant for research; we name the development of care for students threatened by learning failures, systemic support of educators, financial stability of doctoral study programmes, or linking academically oriented degree programs with research experience.

Therefore, we aim to perform excellent research with respect for everyone, in an international context, of interdisciplinary character, and with high societal impact. That's the only way we can be competitive in international research and competent as a regional partner, the two major goals we strive for.

³⁹ For so-called R&D&I capacities, see Definition of Terms in Methodology HEI2025+.

In Module 5, we use the following **faculty abbreviations**:

FEC for Faculty of Economics

FFPW for Faculty of Fisheries and Protection of Waters

FAT for Faculty of Agriculture and Technology

FAR for Faculty of Arts

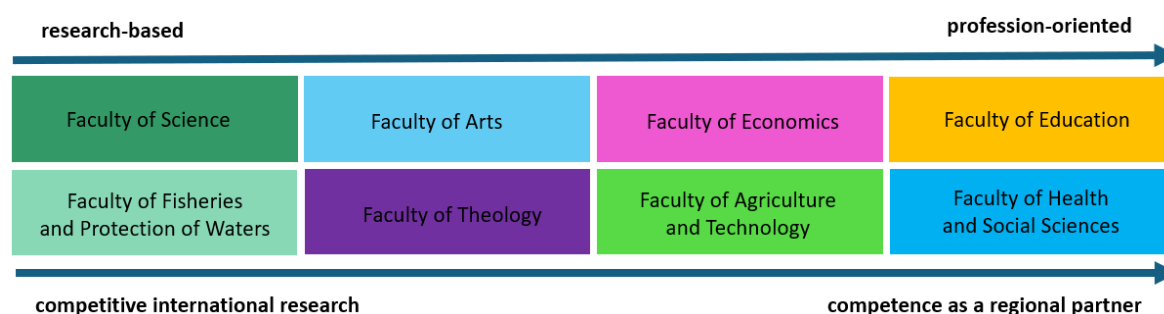
FED for Faculty of Education

FSC for Faculty of Science

FTH for Faculty of Theology

FHSS for Faculty of Health and Social Sciences

Table 5.1.1 indicates a dominance of *natural sciences* at USB (36.43 %), which, together with *agricultural and veterinary sciences*, make up nearly 50 % (we give this number since FFPW, FAT, and FSC are straddling these two research areas). *Social sciences* share 22 % of our research activities, *humanities and the arts* follow with nearly 15 %, and *medical and health sciences* have about 9 % share. No USB faculty assigns itself to *engineering and technology*, yet research in this area is performed, too, even though it is now only marginal (4.5 %). This distribution matches the distribution of USB faculties from research-based to profession-oriented or alternatively on the spectrum from performing predominantly basic, competitive international research to being a competent regional partner with predominantly applied research (we are fully aware that this distribution is somewhat simplified):



We do not indicate any shifts in this distribution in the coming five-year period (Table 5.1.2). We plan to develop STEM fields particularly, but this will not cause changes in relative representations of research fields. In general, we aim to strengthen the excellence of our research (such as publication output or internationalisation) in now comparatively weak areas (such as social sciences) while reinforcing interdisciplinarity and applied character of research where it is now largely basic (such as interconnecting natural sciences and humanities where possible). This is exactly what the USB Strategic Plan 2021-2030 prescribes us in R&D&I: *research excellence, supporting and developing research infrastructures*, and *systemic support for young research staff* objectives to strengthen the excellence of our research, whereas *societal relevance of research and technology (knowledge) transfer* to reinforce interdisciplinarity and applied character of research (but as above, no sharp border exists between the two issues). Recently implemented instruments such as the EU Desk to support the preparation and success of international projects or the USB School of Doctoral Sciences to strengthen the quality of doctoral studies at USB are two examples of activities profoundly discussed and prepared in the last two years and promoting research excellence. Similarly, activities of the USB Technology Transfer Office (regular meetings with academic staff, organization of meetings with investors, applied research internal competition based on the project Sigma funded by the Technology Agency of the Czech Republic) and the joint efforts of faculties in preparing prestigious interdisciplinary projects for the Operational Programme Jak Amos Komenský (OP JAK) calls are examples of how we aim to reinforce interdisciplinarity and applied character of research at USB.

The HEI's vision covers the following five-year period – 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)

In 2023-2024, we formulated the USB Research Strategy policy document. This document, stemming from the USB Strategic Plan 2021-2030, defines an environment where leadership skills are developed, knowledge is respected and appropriately valued, a desire to cross boundaries, including between disciplines, is encouraged, and the impact of work on society is supported and appropriately valued. It stands on four pillars:

1. Excellence

Objective: Building and promoting scientific excellence

Sub-objectives:

- 1.1 Respect for the breadth and diversity of research
- 1.2 Supporting, developing and rewarding those engaged in research (respecting gender equality principles)
- 1.3 Cultivating different levels and aspects of scientific excellence

2. Interdisciplinarity

Objective: Crossing (not only) disciplinary boundaries

Sub-objectives:

- 2.1 Promoting and building interdisciplinarity
- 2.2 Developing and promoting partnerships
- 2.3 Encouraging our research to go beyond the traditional boundaries

3. Societal relevance

Objective: Societal relevance of science and research

Sub-objectives:

- 3.1 Promoting a broad definition of research impact
- 3.2 Striving for open and engaged research
- 3.3 Stimulating societal impact through interdisciplinarity and collaboration

4. Internationalization

Objective: Building an international dimension

Sub-objectives:

- 4.1 Building international connections
- 4.2 Support for the preparation of international grant projects
- 4.3 Support for international mobilities

The USB's major goal for the next five-year period is to seriously and fully implement this research strategy, i.e., develop and implement instruments and motivational tools that allow repletion of each of the objectives and sub-objectives. Many such instruments and tools already exist and are described in Module 4 of this report. Though it is slowly thriving, what needs more emphasis is perception and identification with the whole USB research community, respect for one another, and curiosity about what others are doing, not just close-mindedness and blindness to one's own discipline. Many of these sub-objectives are parallel to the non-research chapters of the Strategic Plan. Let us name just a few: support for language and inter-cultural preparation of students and staff of USB, development of international mobilities of students and staff of USB, development of professional competencies of staff in internationalization, internal communication as an instrument of bolstering the positive attitude towards USB, bolstering activities arising from social responsibility, and technological development and upgrade of ICT.

Implementing our mission and vision means fulfilling our Strategic Plan in the first place. Our progress in this is presented in the USB Annual Activity Reports and, on the faculty levels, in the annual activity reports of individual faculties. Here, we present our major strategic achievements in 2020-2024, structuring them according to the four major pillars of the USB Research Strategy.

Excellence:

- Development and establishment of the USB School of Doctoral Studies, aiming to increase the quality and attractiveness of doctoral studies at USB.
- Membership in KreativEU, a consortium of 11 European universities that agreed to the common goal of establishing a fully European University that places the creative potential derived from Europe's cultural heritage at the heart of its teaching, research, and knowledge transfer activities. Building upon this strong foundation, KreativEU will provide the EU with innovative concepts, methods, and solutions to address current and future challenges, contributing to a sustainable and harmonious future for communities and the environment.
- USB became a member of the [Research University Association](#) (AVUni), comprising seven Czech universities with the most prominent research output. One of the key roles of AVUni is to affect governmental policies regarding research and its budget.
- USB has participated in several Horizon 2020 and Horizon Europe [projects and consortia](#), got three MCSA grants, and two ERC-CZ grants (not funded by EU but high-valued and thus supported by the Ministry of Education).
- New infrastructure was purchased, and new laboratories were equipped, e.g., at the Department of Medical Biology of FSC, at several departments at FAT (new chemistry building, research using AI).
- Further promotion of [CENAKVA](#), present on the National Roadmap of Large Research Infrastructures at the European scale. Also, USB is an active member of three ESFRI infrastructures (DANUBIUS, ELIXIR, LTER).
- The Ministry of Education's LCDRO subsidy has increased, partly due to increased USB research output.

Interdisciplinarity:

- Cross-faculty collaboration on preparing projects for the calls OP JAK Excellent Science, including collaboration between natural sciences, social sciences, and humanities researchers. Although projects were not supported, cross-faculty links and topics remain with us and are being addressed.
- Organization of annual university doctoral conferences. Contributions were not grouped according to topics but rather across topics. For example, a molecular biology talk was followed by a history talk and then a food technology talk; students thus can see talks from other research areas and are motivated to step out of the box.
- The USB Fund of Strategic Priorities as a tool to support strategic university projects. Education and research projects with a strong cross-faculty collaboration were supported as a priority.
- Cross-faculty collaboration with the city of České Budějovice, the South Bohemian Regional Office, and private companies such as the ČEZ and Bosch companies.

Societal relevance:

- In 2022-2023, the Research and Science Office of the rectorate ran and organized [a series of discussions with the public on topics of global relevance](#) (only in Czech). The topics covered included war and peace, climatic change, food safety, and AI. Faculties organized other discussions on similar or other topics.

- Two spin-off companies with the participation of USB were established. The first one regards verifying and clinical testing of a promising cancer therapy developed at FSC. The second concerns the production and further development of a bark-beetle-presence probe developed at FSC, too.
- USB Strategy of Sustainability and Green Transformation (goals, responsibilities, indicators, relationship to UN SDGs), carbon and water footprint
- Highly societally relevant collaboration with the city of České Budějovice, the South Bohemian Regional Office, and private companies such as the ČEZ and Bosch companies.
- Partnership with and membership in associations focused on social relevance, such as the [Association of Social Responsibility](#) and the [Czech Research Network for Global Development and Sustainability \(CRENDES\)](#).

Internationalisation:

- Membership in KreativEU, a consortium of 11 European universities – see the above “Excellence” item.
- The percentage of foreign employees has risen among professors (more than doubled), associate professors, early-career researchers, assistant professors, and assistants. The number of foreign Ph.D. students also increased.
- New [international consortia, research infrastructures, and important international collaborations](#) were established, with USB becoming a partner.
- The number of mobilities in the Erasmus+ program increased (both students and employees).
- USB has established Welcome Office and Go Abroad Office, counselling students and employees coming from abroad or going abroad, respectively.
- EU Desk has been established to provide complex counselling regarding international research projects.
- In 2023, USB participated in the [FEIS \(Favorable Environment for International Students\)](#) evaluation and achieved significant success and an overall FEIS class A++ rating. It received full marks in the categories of Campus life (A++), Campus housing (A++), and Academic resources (A++). This ranking is based on evaluating conditions for study, life, and comprehensive development of international students.

To sum up, we strive to be more present and visible on the European stage, shaping research to become visible, receive international recognition, and align with European and global challenges. In doing this, we would like to motivate our people through internal mental rewards and, to a lesser extent, through external monetary rewards.

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	3.34	Balanced basic and applied research	36.43
	1.2 Computer and information sciences	3.66	Applied research	
	1.3 Physical sciences	2.53	Basic research	
	1.4 Chemical sciences	4.07	Basic research	
	1.5 Earth and related environmental sciences	6.30	Balanced basic and applied research	

	1.6 Biological sciences	16.48	Balanced basic and applied research	
	1.7 Other natural sciences	0.05	Applied research	
2. Engineering and Technology	2.1 Civil engineering	0.05	Applied research	4.49
	2.2 Electrical engineering, Electronic engineering, Information engineering	1.31	Applied research	
	2.3 Mechanical engineering	0.23	Applied research	
	2.4 Chemical engineering	0	Zvolte položku.	
	2.5 Materials engineering	0.23	Applied research	
	2.6 Medical engineering	0.05	Applied research	
	2.7 Environmental engineering	0.23	Applied research	
	2.8 Environmental biotechnology	0.66	Balanced basic and applied research	
	2.9 Industrial biotechnology	0.12	Applied research	
	2.10 Nanotechnology	0.54	Basic research	
	2.11 Other engineering and technologies	1.07	Applied research	
3. Medical and Health Sciences	3.1 Basic medicine	0.77	Applied research	8.92
	3.2 Clinical medicine	1.43	Applied research	
	3.3 Health sciences	6.72	Balanced basic and applied research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	8.41	Balanced basic and applied research	13.36
	4.2 Animal and Dairy science	2.50	Applied research	
	4.3 Veterinary science	1.11	Applied research	
	4.4 Agricultural biotechnology	0.70	Applied research	
	4.5 Other agricultural sciences	0.64	Balanced basic and applied research	
5. Social Sciences	5.1 Psychology and cognitive sciences	1.92	Applied research	22.05
	5.2 Economics and Business	3.54	Applied research	
	5.3 Education	10.49	Balanced basic and applied research	
	5.4 Sociology	0.79	Balanced basic and applied research	
	5.5 Law	0.74	Applied research	
	5.6 Political science	0	Zvolte položku.	
	5.7 Social and economic geography	2.40	Balanced basic and applied research	
	5.8 Media and communications	0	Zvolte položku.	
	5.9 Other social sciences	1.72	Balanced basic and applied research	
6. Humanities and the Arts	6.1 History and Archaeology	2.41	Basic research	14.76
	6.2 Languages and Literature	5.07	Balanced basic and applied research	

	6.3 Philosophy, Ethics and Religion	4.66	Balanced basic and applied research	
	6.4 Arts (arts, history of arts, performing arts, music)	2.18	Basic research	
	6.5 Other Humanities and the Arts	0.44	Balanced basic and applied research	
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	3.34	Balanced basic and applied research	36.43
	1.2 Computer and information sciences	3.66	Applied research	
	1.3 Physical sciences	2.53	Basic research	
	1.4 Chemical sciences	4.07	Basic research	
	1.5 Earth and related environmental sciences	6.30	Balanced basic and applied research	
	1.6 Biological sciences	16.48	Balanced basic and applied research	
	1.7 Other natural sciences	0.05	Applied research	
2. Engineering and Technology	2.1 Civil engineering	0.05	Applied research	4.49
	2.2 Electrical engineering, Electronic engineering, Information engineering	1.31	Applied research	
	2.3 Mechanical engineering	0.23	Applied research	
	2.4 Chemical engineering	0	Zvolte položku.	
	2.5 Materials engineering	0.23	Applied research	
	2.6 Medical engineering	0.05	Applied research	
	2.7 Environmental engineering	0.23	Applied research	
	2.8 Environmental biotechnology	0.66	Balanced basic and applied research	
	2.9 Industrial biotechnology	0.12	Applied research	
	2.10 Nanotechnology	0.54	Basic research	
	2.11 Other engineering and technologies	1.07	Applied research	
3. Medical and Health Sciences	3.1 Basic medicine	0.77	Applied research	8.92
	3.2 Clinical medicine	1.43	Applied research	
	3.3 Health sciences	6.72	Balanced basic and applied research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	8.41	Balanced basic and applied research	13.36
	4.2 Animal and Dairy science	2.50	Applied research	
	4.3 Veterinary science	1.11	Applied research	
	4.4 Agricultural biotechnology	0.70	Applied research	

	4.4 Other agricultural sciences	0.64	Balanced basic and applied research	
5. Social Sciences	5.1 Psychology and cognitive sciences	1.92	Applied research	22.05
	5.2 Economics and Business	3.54	Applied research	
	5.3 Education	10.49	Balanced basic and applied research	
	5.4 Sociology	0.79	Balanced basic and applied research	
	5.5 Law	0.74	Applied research	
	5.6 Political science	0	Zvolte položku.	
	5.7 Social and economic geography	2.40	Balanced basic and applied research	
	5.8 Media and communications	0	Zvolte položku.	
	5.9 Other social sciences	1.72	Balanced basic and applied research	
6. Humanities and the Arts	6.1 History and Archaeology	2.41	Basic research	14.76
	6.2 Languages and Literature	5.07	Balanced basic and applied research	
	6.3 Philosophy, Ethics and Religion	4.66	Balanced basic and applied research	
	6.4 Arts (arts, history of arts, performing arts, music)	2.18	Basic research	
	6.5 Other Humanities and the Arts	0.44	Balanced basic and applied research	
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
The Strategic Plan of the Ministry for Higher Education for the period from 2021	Improve the efficiency and quality of doctoral studies, strengthen strategic management and the effective use of capacities in research
The Internationalisation of Higher Education Strategy for the period from 2021	Developing global competencies of university students and staff, creating an international environment at universities and promotion abroad, strengthening the strategic management of internationalisation
Research and Innovation Strategy for Smart Specialisation - RIS3	Increasing innovation performance, improving the quality of research, increasing the availability of qualified people for R&D, technology exploitation, and digitisation
Innovation strategy of the Czech Republic – Country for the future	Intellectual property protection, smart investments, mobility, research centres

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:

In general, virtually any form of support we identify in this report's Module 4 text as not fully addressed from the central level is listed in this box as something we aim to address. Those issues have commonly been discussed at various levels of USB management (central management, deans, vice-deans) for some time. Still, no definite solution in the form of a supporting instrument has been adopted. The other type of goal we list below is a response to a recent request from an education- or research-related state authority. Finally, some of our goals respond to the trends in higher education on a national, European, and even global scale.

A full implementation of the USB Research Strategy. This document, stemming from the USB Strategic Plan 2021-2030, defines an environment where leadership skills are developed, knowledge is respected and appropriately valued, a desire to cross boundaries, including between disciplines, is encouraged, and the impact of work on society is supported and appropriately valued. It thus mirrors the four pillars today's research organisations should stand on: excellence, interdisciplinarity, societal relevance, and internationalisation. Instruments supporting excellence, new research directions, interdisciplinarity, and cross-faculty collaboration belong here.

Enhancing quality of research in social sciences. Compared to other research areas, research in social sciences is weak in the Czech Republic, so USB is not exceptional, even though respectable research in social science is provided partly by FTH and FHSS. Still, we are unsatisfied with this state and would like to enhance its quality. We aim to analyse doctoral study programmes in social sciences and find ways to reinforce them. Also, discussions are ongoing regarding a new bachelor study programme in sociology, potentially attracting good researchers, first as collaborators and later as regular staff. Some promising research groups in social sciences could also be financially supported to allow for better research output production; selection criteria only need to be negotiated.

Ombudsperson at all faculties. Ombudspersons are now at two USB faculties, and we plan to have them at all of them in a relatively short term.

Research assessment revision. Following the ten commitments listed in the CoARA document "[Agreement on Reforming Research Assessment](#)," which USB subscribed to in 2023, we plan to audit all our research assessment procedures considering these commitments and perform appropriate steps if needed. This document sets a shared direction for changes in assessment practices for research, researchers, and research-performing organisations, aiming to maximise the quality and impact of research. In 2024, we published the [Action Plan](#) for achieving this, which we will follow until 2028.

Increasing the number of foreign researchers and other academic staff. This item is related to increasing USB participation in prestigious research projects and consortia, preferably as a leader

(which unfortunately has not been the case so far), and increasing the number of bachelor and master study programs taught in English. We will strive for both, but we also think about central support for incoming sabbaticals (such as supporting centrally 24 months of incoming sabbaticals annually).

Further spin-off companies with USB participation. With an increased number of applied projects, improved communication between the USB Technology Transfer Office and faculties, and organized meetings with potential investors, USB has the potential for further spin-off companies to be established. The two working examples may motivate the others, too.

Increasing the number of EU-funded grants (ERC, EU as a leader). This is necessary to keep our position as a leading, research-oriented university. USB is a partner in several HE consortia and holds two ERC-CZ grants, as commented above in this Module's report. Recently, six ERC proposals were submitted by researchers from FCS, of which three have made it to the second round. EU Desk, also already mentioned, and a modification of our university postdoc competition such that one of the outcomes of supported projects will be an ERC proposal are further important steps in this direction. In addition, we have just released a central project call for (i) financially supporting the preparation of ERC projects and (ii) financially supporting teams that were successful in the ERC project call. We must change our academic staff mentality to risk and go beyond national funding providers.

Further encouragement of innovation and collaboration with the commercial world. The USB Technology Transfer Office unceasingly seeks funding schemes and opportunities to support applied research at USB. Proof-of-concept projects, meeting with investors, and encouragement to think of possibilities to push one's results beyond the academic world are ways we would also go on in the future. A finer classification of research results from basic to transferred to practice and its incorporation into our research assessment processes might help, too.

Strengthening the role of science in forming public policies. Research-based / evidence-based policy-making, highly promoted by the research community during the COVID-19 pandemic, is inevitable for sustainable solutions. Researchers at FED, for example, help formulate education policies. USB will encourage and value this societally relevant research output (non-monetised knowledge transfer) by incorporating it into research assessment processes.

Reforming USB Grant Agency to cover more types of project calls (currently limited by law to PhD students' grant support). Funding that the USB Grant Agency currently stands on disables calls beyond supporting Ph.D. students. This somewhat limits (not only) USB. The Czech government intends to change the rules so that one can use that subsidy for other types of grants. We have already discussed new forms of support once this happens, including supporting researchers returning from career breaks, projects with high societal relevance, or projects with strong interdisciplinary character. Calls supporting Ph.D. students will, of course, remain.

Incentives and rewards to further strengthen open science practices. Open science is centrally supported by disseminating actual information on its various aspects through the [dedicated webpage](#), seminars organized by the USB Academic Library, and a visit by representatives of the EOSC-CZ initiative. On the other hand, USB does not have a central perspective over data production, data management, open access practices, and citizen science. We need to formulate and implement an open science strategy, including how to deal with (sensitive) research data produced at USB. We also discuss central solutions, such as building an institutional data repository or a fund to support Article Processing Charges. As with the previous item, open science activities should be valued, and we plan to incorporate them into research assessment processes.

Working and useful USB School of Doctoral Studies. Following the establishment of the USB School of Doctoral Studies, hard work now awaits us to set up the necessary environment, implement our vision, and make it useful for everyone. An agreement with the Czech Academy of Sciences and its

institutes (our leading external partner in Ph.D. studies), the Ph.D. study guide for applicants and students, the onboarding plan for new students, quality assessment criteria of doctoral study programs and related motivational and supporting tools for their further improvements, fully working Ph.D. information hub, harmonization of related faculty documents, are just a few examples we need to work on in 2025 and 2026, with the ultimate aim to provide motivated students outstanding preparation for their further career.

HEIs in Czechia now face a challenge regarding the amendment to the Higher Education Act concerning the so-called doctoral student income, which is more than doubled relative to the current stipend. USB now prepares instruments that would mitigate the impacts of this situation, including ongoing negotiations on the continued successful collaboration with the Czech Academy of Sciences on doctoral studies through the USB School of Doctoral Studies.

Full implementation of institutional resilience processes. We have recently issued the Rector's Ordinance R 566 on strengthening resilience to illegitimate influence at USB. This ordinance sets basic processes and responsible personnel. Still, the second step is now necessary: implementing this ordinance via issuing practical methodologies on how to behave and what to do in various relevant situations. This is what we are working on now.

Training academic staff in various aspects of research, such as institutional resilience, communication of science (with the public and media), or responsible use of AI. New challenges and trends call for continuous academic and research staff training. We will do our best to keep our staff updated with all such trends and challenges.

Rules for responsible use of AI in research practice (research ethics and integrity). Following issuing the Rector's Ordinance R 567 on the use of artificial intelligence in the production of written papers and other types of theses of students of USB, we aim to formulate and issue rules on the responsible use of AI in research practice. In times of rapid development of AI technologies, this is intended to be a live document in which the whole research USB community needs to participate.

R&D&I at USB is organized bottom-to-top, so we keep academic freedom in choosing research topics for individual research groups. The fundamental role of central management is to define, set up, and maintain a predictable and sustainable environment where leadership skills are developed, knowledge is respected and appropriately valued, a desire to cross boundaries, including between disciplines, is encouraged, and the impact of work on society is supported and appropriately valued. And this is all the listed items should be about.

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-assessment:

USB Research Strategy. This is a policy document paving the way to developing a friendly and creative research environment. Excellence, interdisciplinarity, societal relevance, and internationalization are its major pillars. Excellence here also means the development of leadership skills and ethical and integral behaviour as a researcher and a person. Interdisciplinarity also means respect for others, colleagues from different research areas, and technical and administrative staff. Societal relevance supports innovative thinking, and internationalization is inevitably related to responsible behaviour abroad, but also when having foreign visitors. In the next step, we materialize some of the involved policies into tangible supporting instruments, and we have already started working on them.

USB School of Doctoral Studies. Ph.D. students, the next generation of researchers, are where everything described in our research strategy starts. Our doctoral school, thus, aims for the same: a friendly and creative environment in which students will get the most appropriate and actual start for their subsequent careers. This starts with quality study programs, motivated and skilful supervisors, and international experience. One of the suggestions for the doctoral thesis we now discuss is a request to include a section on how the obtained results can be potentially useful for society and how the research questions could be addressed from the perspective of other research disciplines, stimulating students to live with interdisciplinarity and societal relevance right since the beginning of their career.

Implementation of adopted AI regulations in students' works. Using AI is not bad. It is becoming a standard. It is bad to hide its use or adopt its suggestions uncritically. Our implementation aims to guide in using AI responsibly, providing a list of practical situations of its use and referring to such use. Given an unprecedentedly fast progress in this domain, it will be a live document to which anyone can add her/his own ways of using AI. We, the educators, will then try to respond to such additions by possibly providing regulations in the form of proper ways to acknowledge its use. This guarantees an ethical use of AI and increases quality and confidence in the final product.

Implementation and training of employees regarding institutional resilience. Our research ethics and integrity, as well as quality and confidence in our research results, will further be guaranteed by being aware of risks and potential influences from external (mostly foreign) powers. Respecting academic freedom, we need to know our sensitive points (courses, study programs, instruments, laboratories, research teams, projects, and specific personnel). Our implementation starts with identifying such sensitive points, followed by training for students, academic staff, managers, and

specific personnel. Negotiations are now underway with the Ministry of Interior that provides such training and related counselling for Czech higher education institutions.

Action Plan to reform research assessment at USB (CoARA). We signed the CoARA document on reforming research assessment in 2023 and issued the Action Plan to fulfil the associated commitments in 2024. Revising all our assessment procedures from the one applied to budget division among faculties down to the one used by the heads of departments to discuss further progress of individual academic employees will have an impact on the quality of the performed research, development of human potential, and adherence to the ethical standards of the scientific work.

Development of an institutional publication and data repository. Although we already have a rudimentary institutional publication and data repository, we plan to raise it to a much more professional level and complement it with some services that will directly allow some elementary work with the stored data. This will allow USB to have a more complete overview of data produced at it and protect sensitive data, contributing to our institutional resilience. Institutional data management strategy is by no means also a sign of excellence and adherence to ethical standards in science and research. We have recently contacted an IT team at Masaryk University in Brno. This team has profound experience developing and implementing a functioning and credible research data repository for eLTER, a large European research consortium focusing on interactions between humans and ecosystems. This IT team is willing to build a (scaled-down) version of this repository for USB; we now await the results of a project competition where we have dedicated resources for developing and running such a repository. But even if we are not supported, we are ready to find resources for its realisation.

A project scheme supporting researchers after return from career breaks. We now participate in the Ministry of Education project “OP JAK Returns”, to support academic staff returning from a career break and their integration into institutional research life. A part of the project is the design of an internal grant competition for such “returning grants.” In case our project will not be supported, we are ready to organize our own competition of this kind, exploiting the project proposal. This will contribute to R&D&I quality as well as human potential development.

Central support of university postdocs. We have had the central support of university postdocs for years, funding two positions in natural and agricultural sciences and two in social sciences and humanities annually in the last two years. These positions undoubtedly bring about quality, new research topics, and competitiveness and contribute to internationalisation, as we preferentially select candidates from abroad. We plan (already for 2025) to modify this support so that awardees will get funding for themselves and some small teams, conditioned by submitting an ERC project toward the end of the postdoc period.

Developing an instrument to support establishing new research teams bringing innovative topics. In addition to postdocs, we seriously discuss and aim to implement an instrument to support financially the establishment of new research teams. Preference is for those who bring an interdisciplinary topic adhering to the mission and vision of the faculty at which it is incubated. A high-risk, high-gain policy will also form the basis of the selection procedure. Excellence, innovation, and human resource development are inherent to this planned supporting tool.

Developing an instrument to support pushing promising existing teams toward excellence. Although it may sound weird, researchers and teams traditionally considered excellent do not need extra support, as they can commonly secure enough project funding just because of their excellence. Due to the Matthew effect, teams that stand close to yet below the line diverge in the longer term from those that find themselves above it, and often, who is where can initially be a matter of chance.

We seek a way to identify the poor and support them financially to push them up. Increased research quality at USB and human resource development would be obvious assets of this activity.

Novel USB Grant Agency. With the anticipated reform of LCDRO subsidy from the Ministry of Education (which should include what is now called “specific HEI research”, set just for supporting Ph.D. students and forming the current USB Grant Agency), an opportunity will arise to develop novel project calls, such as specific calls directed to support applied projects with high societal relevance, the cross-faculty projects with strong interdisciplinary characters, small mobility projects, support for outgoing sabbaticals, support for staff returning from career breaks, and other types of project calls. Adherence to ethical and integrity standards, research quality, adherence to open science policy, and innovation are among the presumed selection criteria.

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
USB Research Strategy	Development and specification of tools supporting USB academic staff in research excellence, interdisciplinarity, societal relevance, and internationalisation. Training in areas such as research ethics and integrity, open science, responsible research, and leadership.	Implemented partially	2025, 2026
Statute of the School of Doctoral Studies at USB	Set of motivational tools reflecting actual quality and leading to enhanced quality of Ph.D. research, training of Ph.D. students in general research competencies, harmonisation of Ph.D.-related measures across USB, tools to support exceptionally talented students, support of social events organised for and by students.	Implemented partially	2025, 2026
Rector's Ordinance R 567 on the use of artificial intelligence in the production of written papers and other types of theses of students of USB	A list of situations where the use of AI tools needs an explanation and acknowledgement, where it does not, and where it is prohibited. Examples of verbal statements to be used in referencing AI tools. A list of recommended and non-recommended AI tools. Live document responding to the AI development.	Not-implemented	2025
Rector's Ordinance R 566 on strengthening resilience to illegitimate influence at USB	Specific processes of how to act in specific situations. Forms to report any (potential) conflict, including forms to perform due diligence and when. Identification of sensitive study programs, laboratories, equipment, and research teams. Training to prevent and recognise influential behaviour.	Not-implemented	2025
Reforming Research Assessment at the University of South Bohemia in České Budějovice. CoARA Action Plan 2024 – 2028	https://zenodo.org/records/13861816 Four-year roadmap to revision, testing, and dissemination of procedures used at USB to assess research performance at various levels of management and for various purposes.	Implemented partially	2024-2028

Institutional publication and data repository	Development of a modern and reliable publication and data repository, defining rules of its use, and setting up the institutional strategy for dealing with research data in general and with sensitive data in particular.	Implemented partially	2025-2026
Methodology to select university postdocs	Extension of the current methodology such that larger teams are supported, and ERC proposal is one of the outputs.	Implemented partially	2025
Supporting researchers after return from career breaks	A funding scheme supporting the integration of scientists back into the scientific process after returning from a career break.	Not-implemented	2025
Support for establishing new research teams and directions	A funding scheme for supporting innovative research teams created around an excellent researcher from outside USB or cross-faculty research teams with a strong interdisciplinary character. Details still need to be discussed.	Not-implemented	
Support for pushing promising existing teams toward excellence	A funding scheme for supporting existing research teams with the potential to markedly increase quality if provided with extra funding. Although selection criteria still need to be discussed, an innovative and interdisciplinary approach will be a key parameter.	Not-implemented	
New internal grant agency	Novel types of project calls that reflect long-term strategy but also actual needs	Not-implemented	

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-assessment:

Reprinted MEP 2020 recommendations common to Modules 4 and 5:

“The viability of a university expresses the level to which the strategic ambitions of the university are supported by the quality of its managerial, financial and human resources organization and operations. In both aspects, its viability and strategies, USB is taking significant positive steps, but still needs to do a lot to reach a high international standard. Indeed, as mentioned in the overall assessment of M3, USB has gained a position among the six best Czech universities but takes a modest place on any worldwide ranking of universities. Although it has the enthusiasm and motivation to move upwards and to become a more reputed university in Central Europe, USB needs to become far more professional in its governance and management if it wishes to achieve that goal. USB does reasonably well in its policies (and operations) regarding doctoral training, and support for quality science, and has taken good steps for further improvement. However, it still needs to invest strongly in its HRM operations (in spite of the HR Award it received), internationalization, gender and diversity policy and the policy regarding research integrity. In all these matters, USB is full of good intentions, but seems to lack a sufficiently strong and effective organization to implement and coordinate all these intentions. A major barrier identified by the IEP is the disconnection between the central and the faculty level. Bold leadership is needed to change this, all focusing on a ONE-USB policy and a ONE-USB corporate feeling. It starts with reformulating its mission and vision statements, followed by clear 5-years strategic plans which need to be endorsed and implemented by all the faculties via faculty plans which should be approved by the USB leadership for its contribution to the ONE-USB strategies. The IEP considers the building of this connectivity between central and decentral levels at USB as the key performance indicator for its future success.”

Implementation (specific recommendations reprinted in bold):

USB takes a modest place on any worldwide ranking of universities.

Although we follow several worldwide rankings of universities, we have never been active in pursuing better positions in any of them. With one exception: we have recently actively participated in a ranking that assessed universities from a sustainability perspective. But even then, our ambition was to learn how we stand and to what extent we fulfil different assessed indicators rather than to know our position in the world. In this, we stick to the Agreement on Reforming Research Assessment (ARRA) fourth commitment: Avoid using rankings of research organizations in research assessment.

USB needs to become far more professional in its governance and management. USB needs to invest strongly in its HRM operations, internationalization, gender and diversity policy and the policy regarding research integrity.

We have been active in this respect. In terms of internationalisation, we have become members of a consortium of European universities (KreativeEU), have a higher proportion of foreign academic staff, our large research infrastructure CENAKVA is strongly networked at the European level, we have become a partner in several EU-funded projects (though still not as a leading partner). We already have a second version of our Gender Equality Plan, in which we clearly define our goals across many different agendas, approach men and women equally in all respects, have an established Ethics Committee and the Ombudsperson, and have recently elaborated the Principles of research integrity at USB, Standard of supervisor at USB, and allowed any USB researcher to transparently obtain ethical approval for her/his research if needed. We have also issued regulations on conflicts of interest in habilitation and professorship proceedings, institutional resilience, and responsible use of AI in students' work, and we now work on methodical materials and prepare training courses in some of these areas.

A major barrier identified by the IEP is the disconnection between the central and the faculty level. Bold leadership is needed to change this, all focusing on a ONE-USB policy and a ONE-USB corporate feeling. ... The IEP considers the building of this connectivity between central and decentral levels at USB as the key performance indicator for its future success.

Every day, we attempt to implement a ONE-USB policy and a ONE-USB corporate feeling. The USB Strategic Plan 2021-2030, formulated in 2021 and including the USB's mission and vision, is our key strategic document. Based on this, faculties prepare their own strategic plans, using the USB one as the framework for adopting faculty-specific missions, visions, and needs. Since 2024, regular meetings have occurred among the rector and all deans at which cross-faculty collaboration, actual and future USB and faculty plans, and inter-faculty and faculty-rectorate conflicts are discussed.

In the science and research agenda, there has been no material during the last couple of years that the Vice-rector for Science and Research would create without collaboration with vice-deans with the agenda of science and research and with the final approval by the USB management and faculty deans. This ensures sharing and incorporating diverse experiences from all our faculties, immediate acceptance of the adopted material, and a feeling of having something from and for us. Also, our aim at the central level is to change the faculty management mindset. If faculties start implementing a process or preparing a document, they are encouraged to think more broadly and ask themselves if that would not be useful centrally. Of course, it does not always work that way, but it is a win-win strategy. Another example is the recently introduced internal evaluation of USB units by internal commissions formed by the rectorate. One or two faculties are evaluated each year, and each will be evaluated every five years. Three faculties have been evaluated so far, and they have taken it very seriously, broadly collaborated, adopted it as an opportunity to reflect on themselves, and suggested improvements at the whole university level. This data-based, two-way feedback is indispensable to pursuing our common goal.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 5

Document name	No. criteria	Location (link in HTML)
University web page	5.1	www.jcu.cz/en/
Science and Research Office of the Rectorate web page	5.1	www.jcu.cz/en/science-and-research/about-us
CENAKVA	5.1	www.frov.jcu.cz/en/faculty/faculty-parts/south-bohemian-research-centre-for-aquaculture-and-biodiversity-of-hydrocenoses-cenakva
Research Universities Association (AVUni)	5.1	www.avuni.eu/en
USB Technology Transfer Office web page	5.1, 5.2	www.jctt.cz/en/
USB School of Doctoral Studies web page	5.1, 5.3	www.jcu.cz/en/science-and-research/usb-school-of-doctoral-studies

USB Strategic Plan 2021-2030	5.1	www.jcu.cz/en/university/documents/long-term-strategic-plan-of-the-usb
USB Strategy of Sustainability and Green Transformation	5.1	www.jcu.cz/images/UNIVERZITA/rozvoj/strategie-a-rozvoj/udrzitelnost-2024/dokumenty/english-strategie-udrzitelnosti-ju_25-30_fin.pdf
USB Research Strategy	5.1, 5.3	www.jcu.cz/images/veda-a-vyzkum/dokumenty-vav/vedecka-strategie-ju/ENGLISH-VaV_strategie_JU_final.pdf
KreativEU web page	5.1	www.kreativeu.org
USB research infrastructures and consortia	5.1	www.jcu.cz/en/science-and-research/research-infrastructures-and-consortia-at-the-university-of-south-bohemia
USB Annual Activity Reports	5.1	www.jcu.cz/en/university/documents/the-annual-report-of-the-usb
EU Desk	5.1, 5.2	www.jcu.cz/en/science-and-research/eu-desk/
USB Grant Agency	5.2, 5.3	www.jcu.cz/en/science-and-research/usb-grant-agency
Reforming Research Assessment at USB: CoARA Action Plan 2024 – 2028	5.2, 5.3	Reforming Research Assessment at the University of South Bohemia in České Budějovice. CoARA Action Plan 2024 – 2028 zenodo.org/records/13861816
Rector's ordinance R 567 on the use of artificial intelligence in the production of written papers and other types of theses of students of USB	5.2, 5.3	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2024/R_567_english-on-the-use-of-artificial-intelligence-in-the-production-of-written-papers-and-other-types-of-theses-of-students-of-the-USB.pdf
Web page on Open Science at USB	5.2	www.lib.jcu.cz/en/open-science
Rector's Ordinance R 566 on strengthening resilience to illegitimate influence at USB	5.2, 5.3	www.jcu.cz/images/UNIVERZITA/Dokumenty/opatreni-rektora/platna-opatreni/2024/R_566_english-on-strengthening-resilience-to-illegitimate-influence-at-the-USB.pdf