SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Social and Economic Studies

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 **mission** of the Faculty of Social and Economic Studies ('*Faculty*') is to contribute to the increase of competitiveness of the Ústí Region and to the improvement in the quality of life here.

The Faculty **views itself** as the respectable educational institution preparing graduates successfully employed in the regional labour market. In research, it highlights socio-economic challenges of the transforming post-industrial and post-mining region and contributes to their solutions, including cross border Czech-German agenda. It closely cooperates with the private, public and non-governmental sector at the regional and national scales. It also serves as the main gateway for international cooperation in education and research in the area of applied economics and policy, regional development and social work between the Ústí Region and the outside world.

Specifically, there are **7 priority reseach areas** established in 2023 that the Faculty has been strengthening in time:

1) **Management of public services (transport and mobility, waste, energetics)**
2) **Environmental economics and policy**
3) **Regional development**
4) **Behavioral economics and behavioral studies**
5) Social work (gender, war veterans, exposed professions)
6) Applied economic and management (market analysis, firms)
7) **Cultural and creative industries**

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

These priority research areas cover main research activity of the Faculty staff. Some of them (1-3) have been strongly represented and deliver good or excellent research results (in terms of publications and international projects). Some of them (4 and 7) are new, emerging from the overall evolution in economics, policy and from the regional needs and – these topics are promising and they are represented by doctoral students and newcomers. Topics 5 and 6 might be seen as traditional, but not yet scientifically accelerated.

The **typology** of external funging regarding R&D&I is as follows: Majority of research project funding from Czech and European public agencies is focused on applied research (such as developing of methodologies, capacity building, stakeholder coordination and empowerment etc.) (Technology Agency of the Czech Republic, Czech Science Foundation, Horizon, cross-border grants). There are also numerous international projects with the strong networking and educational component (Erasmus+, COST). There is a contractual research for Czech public and private agencies, mostly focused on expert consultancy of key regional of national challenges. The contractual research does not bring substantial sum of resources, but it is important in terms of using the Faculty staff expertise in practice. There is the new and increasing trend of getting donations from private funders in order to develop priority topics important for the region and/or to support extraordinary activity of talented students.

The Faculty **is divided** into 7 teaching departments and one Center for Research (there are 5 specialized research institutes under this center, https://www.fse.ujep.cz/en/research-centers-institutes/). Together, there are currently aroung 82 employees (including technical and economic staff).

There are 12 study programs (bachelor, master, doctoral, lifelong learning) belonging to one of three teaching priorities: a) economics and management, b) public policy and administration, c) social policy and social work. There is one Ph.D. program (Regulation and behavioral studies) in English. The second Ph.D. program, Applied Economics and Public Administration, will be prepared in English mutation in next years.

Annualy, the Faculty serves to aprox. 1300 students, majority of them being women.

Table 3.1.1 - Staffing per FTE[2]

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	1/0.70	0.90/0.60	1.2/1.0	0.10/0.0	0.10/0.0	3.3/2.3
Associate Professor	10.25/3.20	10.13/3.20	12.51/4.38	12.20/4.40	10.15/4.27	55.24/19.45
Assistant Professor	38.04/17.74	36.40/18.35	40.49/18.68	40.80/17.05	40.77/17.34	196.5/89.16
Assistant	0	0	0	0.30/0.0	0.69/0.39	0.99/0.39
R&D Personnel[3]	0	0	0	0	0	0

[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).

Researchers in other categories[4]	39.35/12.27	13.47/7.35	6.51/4.89	7.58/4.68	3.58/2.94	70.49/32.13
Technical and economic staff[5]	25.87/21.78	24.31/19.93	26.02/21.22	26.60/22.90	27.28/23.43	130.08/109.26
Scientific, research and development staff involved in teaching activities	0	0	0	0	0.29/0.0	0.29/0
Early career researchers[6]	0	0	0	0	0	0
Total[7]	114.51/55.69	85.21/49.43	86.74/50.17	87.58/49.03	82.86/48.37	456.9/252.69

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					2	0			1	1		
Associate Professor			4	0	6	2			4	2	3	0
Assistant Professor	1	1	16	7	21	10	4	4	6	2		
Assistant												
R&D Personnel[9]												
Researchers in other categories[10]	31	9	7	1	4	2	1	1				
Technical and economic staff[11]	6	6	4	3	6	5	11	10	1	1		
Scientific, research and development staff involved in teaching activities												

[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.
[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.

Early career researcher[12]												
Total[13]	38	16	31	11	39	19	16	15	12	6	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 in only one category. The categories of scientific, research and development staff involved in teaching activities and early career researchers are reported collectively for all the above-mentioned categories.

3.1.3 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2023 (numbers of physical employees and personnel)[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							1	0				
Associate Professor					5	2	2	1	2	2	4	0
Assistant Professor	4	2	15	4	21	9	5	2	3	3	1	0
Assistant												
R&D Personnel[15]			1	0	3	2						
Researchers in other categories[16]	2	2	1	1	4	2			1	1		
Technical and economic staff[17]	2	2	3	3	9	6	10	10	4	3		
Scientific, research and development staff involved in teaching activities												
Early career researcher[18]												
Total[19]	8	*6*	10	8	42	*21*	18	*13*	10	*9*	5	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.

[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.
[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	965	710	1,106	787	1,216	845	1,039	740	1,102	775	5,428	3,857
Master's[20]	198	139	185	131	175	124	141	107	129	93	828	594
Doctoral	36	14	57	20	52	18	39	16	42	19	226	87
Lifelong Learning Courses	8	6	5	4	3	2	3	3	2	1	21	16
Total	1,207	869	1,353	942	1,446	989	1,222	866	1,275	888	6,503	4,554

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	0/0	3/0	0/0	3/0	0/0	3/0	0/0	3/0	0/0	15/0	0/0
Master's	3/0	0/0	3/0	0/0	3/0	0/0	2/0	0/0	2/0	0/0	13/0	0/0
Doctoral	1/0	0/0	1/0	0/0	2/1	0/0	2/1	0/0	2/1	0/0	8/3	0/0
Lifelong Learning courses	6/0	0/0	6/0	0/0	6/0	0/0	5/0	0/0	5/0	0/0	28/0	0/0
Total	13/0	0/0	13/0	0/0	14/1	0/0	12/1	0/0	12/1	0/0	64/3	0/0

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.	4.7
	1.2 Computer and information sciences	0.8	Basic Research	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences		Zvolte položku.	
	1.5 Earth and related environmental sciences	3.9	Balanced basic and applied research	
	1.6 Biological sciences		Zvolte položku.	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and	2.1 Civil engineering		Zvolte položku.	1.3

[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	1.3	Balanced basic and applied research	
	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.	6.7
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences	6.7	Basic 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	4.5	Basic Research	84
	5.2 Economics and Business	26.8	Basic Research	
	5.3 Education		Zvolte položku.	
	5.4 Sociology	4.6	Basic Research	
	5.5 Law	1.0	Applied Research	
	5.6 Political science	3.4	Basic Research	
	5.7 Social and economic geography	35.4	Balanced basic and applied research	
	5.8 Media and communications	0.2	Balanced basic and applied research	
	5.9 Other social sciences	8.1	Balanced basic and applied research	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	3.3
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion	3.3	Basic Research	
	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 is well recognized nationally and internationaly due to its **elite research teams** under two research priorities: 1) Management of public services (transport and mobility, waste, energetics) and 2) Environmental economics and policy (see 3.1. for the full list of research priorities). Members of these research teams are active in national and international scientific boards, they regularly evaluate national and international research project proposals (including HorizonEurope) and are responsible for the the invitation of the majority of foreign speakers visiting the Faculty. Few members of these research teams compete every year for different kinds of prestigeus awards (in 2021, Assoc. Prof. Lenka Slavíková was awarded the Fulbright Award and spent one year at UMass, Amherst, USA, working to gether with Prof. Anita Milman).

Further, there was another faculty member awarded **Fulbright** scholarship that was accomplished in 2019 – Assoc. Prof. Jaroslav Koutský spent 6 month in Tufts University (Boston, USA) cooperating with Prof. Justin Hollander.

In general, as apparent from the list in Module 2, there was the significant increase in the high featured **journal articles** indexed at WoS (Q1/Q2), on which the faculty members collaborated with **colleagues from abroad**.

Besides of invited lectures, there were several **long term stays and collaborations** with international visiting researchers:

- In 2021-2022, Dr. **Steven Forest** (UK) (https://www.hull.ac.uk/staff-directory/steven-forrest) spent altogether 3 month at the Faculty co-developing the "flood game", the experimental design enabling the simulation of up-stream/down-stream situation within the small catchment and encouradging players (city Mayors and experts) to negotiate the effective flood risk reduction solution. Together with Dr. Jan Macháč, they tested the game in 3 countries (Czechia, Germany and the Netherlands) and published the international paper on serious gaming (https://wires.onlinelibrary.wiley.com/doi/10.1002/wat2.1589).
- In January-February 2019, **Weronika Warachowska** (Poland) came to Ústí nad Labem in Czechia to work on the join research paper on relations between flood risk perception and individual flood mitigation measures. Her goal was to analyze survey data from two Czech flood prone municipalities. Together with Assoc. Prof. Lenka Slavikova and colleagues from the Faculty of Sciences UJEP they published the join paper (https://onlinelibrary.wiley.com/doi/10.1111/jfr3.12615).
- In January-February 2020, Dr. **Paul Hudson** (UK) came to Usti nad Labem to work on the cost-benefit analysis of changing property rights in flood-prone areas (with the focus on one particular case in Usti). The joint paper (together with Dr. Machac and L. Slavikova) was published in Land Use Policy (https://www.sciencedirect.com/science/article/pii/S0264837722003039)

- In the entire period of 2019-2023, there were two visiting professors associated with the Faculty, Prof. **Thomas Hartmann** (https://bbv.raumplanung.tu-dortmund.de/team/hartmann/) and Prof. **John Sheehan** (Bond University). Both professors are part of the Ph.D. program Applied Economics and Public Administration teaching the doctoral course Spatial planning and governance. In practice, they visit the Faculty once per year for teaching (except of COVID times). There are also multiple high features projects and publications, they collaborate with the Faculty teams (Slavíková, Macháč, Vejchodská) on flood risk governance (LAND4FLOOD, LAND4CLIMATE).

Broader range of the Faculty staff is involved in travelling abroad for **invited lectures**. These visits are further used for networking and capacity building and the preparation of join project proposals and publications with international partners. Broad range of topics lectured abroad may result in future higher diversification of research agenga, publications and the strengthening of other research priority topics of the Faculty.

In addition to filled tables, the Faculty members hold the **prestigeus positions or/and executive tasks** in international boards and commissions. Such as:

- Prof. Jiřina Jílková was the chair of the expert platform RegWatchEurope and worked as the expert for regulatory impact assessment (RIA) for OECD and the European Commission (2022). She also served as the chair of the RIA Board of the Czech Government (https://ria.vlada.cz/ria-in-czechia/) (2015 – 2022).
- Assoc. Prof. Lenka Slavíková served as the elected chair of COST Action LAND4FLOOD (https://www.land4flood.eu/) consisting of 200 scientists European-wide (2018-2022). In 2022, the group transformed into the Task Force of the International Water Resources Association (https://www.iwra.org/), and Lenka has been its chair since than.
- Dr. Hana Brůhová-Foltýnová has been member of Network on European Communications and Transport Activities Research (Nectar Treasury, https://nectar-eu.eu/) and also the member of CIVITAS Network of Universities in transport planning and education (2019-2023)
- Dr. Eliška Vejchodská was member of the board of the International Academic Association on Planning, Law and Property Rights (PLPR, https://plpr-association.org/) (2020-2022)
- Assoc. Prof. Jan Slavík has been the elected member of the scientific advisory board of the International Waste Working Group (https://iwwg.eu/), leading the group on Economics of Waste (2019-2023).
- Assoc. Prof. Lenka Slavíková and Dr. Eliška Vejchodská served as appointed members of ARL (Academy for Territorial Development in the Leibniz Association) woking groups for Gender- and climate-just Cities and Urban Regions and Land Value Capture.
- Dr. Radomira Jordova has been the member of the working group Urban Mobility under the European Road Transport Research Advisory Council (https://www.ertrac.org/), advisory body serving the European Commission in the field of transport and mobility research and their future financing. She was also member of the Regional Studies Association (2019-2023)
- Dr. Tomáš Sýkora is the member of the management board of the 4K – Agency of the cultural and creative industries of the Karlovy Vary Region. He is also a member of the working group Cohesion Policy under the Union of Towns and Municipalities of the Czech Republic.

Further, in February 2020 (literally one week before the COVID paralyzed the world) the Faculty **hosted the Annual Conference of the International Academic Association on Planning, Law**

and Property Rights (PLPR, https://plpr-association.org/) attended by 120 scientists and practitionairs from 3 continents. The conference was devoted to the problem of fragmentation (of land, institutions and planning). The theme reflects the post-socialist Central European reality dealing with the enormous fragmentation of land ownership as well as responsibilities and rules regarding the use of (public) spaces.

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. Ing. Lenka Slavíková, Ph.D.	Fulbright-Masaryk Award for Research: Senior Category	Fulbright Commission
Ing. Sylvie Kotíková, Ph.D.	3rd place in the competition for excellent scientific publication in the category: Best journal article at the Faculty of Economics, TUL Awarded publication: Potential of the Czech Business Environment Assumes the Effects of Foreign Direct Investment (Jimp)	The Faculty of Economics, The Technical University of Liberec
prof. Ing. Jiřina Jílková, Ph.D.	Elected chair of RegWatchEurope	International advisory group RegWatchEurope
Doc. RNDr. Jaroslav Koutský	Fulbright-Masaryk Award for Research: Senior Category	Fulbright Commission
doc. PhDr. Jiří Buriánek, CSc.	Silver medal of Charles University	Charles University Prague
Ing. Jan Macháč, Ph.D.	Rector's Award for the excellent results in the field of humanities and social sciences for a worker under 35 years of age.	Jan Evangelista University in Usti nad Labem
Ing. Mgr. Hana Brůhová Foltýnová, Ph.D.	Rector's Award for the excellent results in the field of humanities and social sciences	Jan Evangelista University in Usti nad Labem
Ing. Miroslav Kopáček, Ph.D.	Rector's Award for the excellent results in the field of humanities and social sciences for a worker under 35 years of age.	Jan Evangelista University in Usti nad Labem

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
doc. Ing. Lenka Slavíková, Ph.D.	WIRES Water, Online ISSN:2049-1948, Print ISSN:2049-1948 / Q1/D1
Ing. Radek Soběhart, Ph.D.	Journal of the History of Economic Thought, ISSN: 1053-8372 (Print), 1469-9656 (Online) / Q2
doc. PhDr. Peter Brnula, Ph.D.	Revue of Social Services / Revue sociálnych služieb, ISSN 2729-9120 (online)
doc. PhDr. Ing. Martin Boďa, PhD.	International Journal of Bank Marketing, ISSN 0265-2323 / Q3

doc. Ing. Petr Hlaváček, Ph.D.	Regional Journal/Biblioteka regionalisty, ISSN: 2081-4461 (print) | e-ISSN: 2449-9781 (online)
doc. RNDr. Jaroslav Koutský, Ph.D.	E&M Economics and Management, ISSN (Print) 1212-3609, ISSN (Online) 2336-5064 / Q4
doc. Ing. Lenka Slavíková, Ph.D.	Water International, ISSN: 0250-8060 / Q2
Ing. Marek Vokoun, Ph.D.	New Perpectives on Political Economy, ISSN 1801-0938
doc. Ing. Petr Hlaváček, Ph.D.	Geoscape, ISSN 1802-1115 / Q4

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

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

Name, surname and title(s) of the evaluated unit's staff member	Invited lecture title	Name of host institution, or name of conference or event	Year
Ing. Sylvie Blaschke Kotíková, Ph.D.	Evaluation and measurement of spillover effect at the subnational level	Czech Research Centre, Zhejiang Financial College, China	2019
doc. Ing. Lenka Slavíková, Ph.D.	Implementation challenges of Nature-based Solutions: The Way forward?	Keynote, Terra Envision Conference, Barcelona, Spain	2019
Ing. Tomáš Siviček, PhD.	Technologies and Innovation in Regional Policy: Catching a technological wave, regional development	Universitá degli Studi Mediterranea di Reggio Calabria, Spain	2020
doc. Ing. Jan Slavík, Ph.D.	Challenges of the European Regulation in the Waste Management for Waste Economists	University of Massachusetts, USA	2021
doc. Ing. Petr Hlaváček, Ph.D.	Strategic management focused on the specifics of foreign investment flows	University of the West of Scotland, GB	2021
doc. Ing. Lenka Slavíková, Ph.D.	European flood retention strategies and their implementation challenges	Dartmouth College, USA	2022
Ing. Eva Fuchsová, Ph.D.	Government measures related to Covid-19 and gender differences in the Czech Republic	Univerza v Mariboru, Slovenia	2022
PhDr. Alice Reissová, Ph.D.	Brain Drain a Threat or an Opportunity	Instituto Politécnico de Leiria, Portugal	2022
Ing. Jan Macháč, Ph.D.	Introduction to Wetland ecosystem services and their socio-economic importance	Keynote, The 5th European Conference on Biodiversity and Climate Change	2023
Ing. Libor Měsíček, Ph.D.	Smart City: Current state and challenges a Process mining with Celonis	Schmalkalden Unviersity of Applied Sciences, Germany	2023
Mgr. Jitka Laštovková, Ph.D.	Use of Experimental Methods in Social Sciences	Panteion University of Social and Political Sciences, Greece	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. Thomas Hartmann	TU Dortmund, Germany	Dynamics of Land Policies in Europe	2022
prof. John Sheehan	Bond University, Australia	Flooding and damage to coastal private property arising from climate change: Should TDRs be the primary risk management tool	2022
dr. Wafa Elias	SCE- Shamoon College of Engineering v Beer Sheva, Izrael	Gender Differences in Transportation Behavior: How to Conduct Transportation Surveys and Data Collection Challenges	2022
Aud Tennoy, PhD.	Transportøkonomisk institutt, TØI, Norway	Integration of spatial planning and transport – key challenges for the future	2022
Don Guikink	Breda University of Applied Sciences, The Netherlands	CIVITAS Programme – Latest outputs, main trends and priorities and measures at European level	2022
dr. Karsten Grunewald	Leibniz Institute of ecological urban and regional development, Germany	Relevance of Green and BlueInstractuture for Quaility of Life in Cities	2022
Görkem Gülhan	Pamukkale Universitesi, Turkey	The Paradigm of Transportation Planning and Improving the Performance of Transport Systems	2023
prof. Thomas Jones	Ritsumeikan Asia Pacific University, Tokio, Japan	Monitoring and managing visitor mobility in national parks: examples from Japan and the UK	2023
prof. dr. Alexandra Geisler	Fachhochschule Dresden, Germany	Social work as a human rights profession demand or overload?	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	Name of the contracting authority/guarantor of the project/programme call	Year
doc. Ing. Lenka Slavíková, Ph.D.	HorizonEurope	European Commission	2023
Ing. Mgr. Hana Brůhová-Foltýnová, Ph.D.	ERC grants (ERC-2023-SyG)	European Commission	2023
Ing. Jan Macháč, Ph.D.	7th Call for Living Environment	Technology Agency of the Czech Republic	2023
doc. Ing. Lenka Slavíková, Ph.D.	Fulbright-Masaryk Award for Research	Fulbright Commission	2023
Ing. Mgr. Hana Brůhová-Foltýnová, Ph.D.	Horizon Europe (Cross-sectoral solutions for the climate transition, Horizon Europe Mission: Climate neutral and smart cities)	European Commission	2022-2023
doc. Ing. Lenka Slavíková, Ph.D.	Austrian Climate Research Programme (ACRP)	Climate and Energy Fund of Austrian Government	2021-2022
Ing. Mgr. Hana Brůhová-Foltýnová, Ph.D.	Horizon 2020 (Climate neutral and smart cities, Mobility for Growth)	European Commission	2020-2021

prof. Ing. Jiřina Jílková, Ph.D.	Evaluation of ARL internal granting schemes	ARL, Akademie für Raumentwicklung in der Leibniz-Gemeinschaft, Germany	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 research[22]) that it has implemented or participated in during the period of 2019–2023[23]. 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:

Centre for Regulation and Behavioural Studies for research-oriented study programmes at UJEP (2019-2022)

https://labs.regbes.eu/

The project aimed at launching the new research center (LABS) focused on behavioral studies, the emerging field within economics and social sciences in general – previously this research topic was underdeveloped at the Faculty. Project included also the purchase of basic equipment for the laboratory (eye-tracking, mindball etd.). Preparing the accreditation of the new Ph.D. program Regulation and behavioral studies was also part of the project. The doctoral study program was first open in 2020 and there have been 17 students appointed since then (aprox. 12 untill 2023, remaining 5 in 2024). The reseach agenda of doctoral students and the possibility for the students and the staff to use the new infrastructure of LABS, especially in the field of marketing and economic experiments, helped to extablished the new research topic (as one of the seven priority topics of the faculty – see the full list in 3.1.). The project, therefore, accelerated development of the new research field at the Faculty, enlarged the portfolio of doctoral programs in Czech and English and brought research and practical outputs focused on Usti region markets and economy. The interdiciplinarity is the integral part of the project via intensified collaboration of economists and psychologists within LABS (the Faculty staff collaborate with colleagues from Faculty of Education and Faculty of Arts). The Faculty share within this project was 100 %.

COST Action: LAND4FLOOD - Natural Flood Retention on Private Land (2019-2022)

[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.

https://www.land4flood.eu/

The networking coordination and the scientific leadership of the COST Action was the breakthrough of the Faculty regarding the the excelent research collaboration in the research priority 2) Environmental Economics and Policy. Despite of the COVID pandemics that limited the face-to-face interactions for the half of the project, the group 200+ scientists from more than 30 European countries produced more than 50 join papers, books and policy reports, of which the Faculty staff were frequently co-authors or lead authors. Further, up to 10 Horizon2020 and HorizonEurope and CentralEurope project proposals were submitted, two of them succeeded (LAND4CLIMATE and SPONGEBOOST starting from 2023). The conceptualization of nature-based solutions and exchange of know-how on the implementation barriers of the small-scale flood retention measures, redirected the attention of regional, national and international stakeholders towards the availability of land and the willingness of landowners to cooperate. The successful Fulbright proposal of Assoc. Prof. Lenka Slavikova was compiled based on these findings. From many perspective the entire COST Action was strongly interdisciplinary and transdisciplinary in terms of getting together different scientific perpestives (of hydrologists and engineers, planners, geographers and lawyers, economicst and sociologists), different actors (scientists, practitionaires, students) and different horizontal policies, such as supporting gender balance and young scholars from research inclusiveness countries in particular.

In 2019 the Faculty was only the 4th Czech HEI leading the COST Action project. The portion of the Faculty was 100%, although many people from abroad was funded within the project. Within the reseach priority 2) the Faculty has closely collaborated with the Department of Geography of Faculty of Sciences UJEP on many join project and publications.

Strategical tools to support decision-making processes of municipalities in the field of sustainable mobility (2018-2022)

https://mobilita-ieep.cz/en/projects/strategicke_nastroje/

The main goal of the project was to support municipalities with strategic planning of sustainable mobility with an emphasis on the usage of modern technologies and innovative measures, integrated decision-making (including interdisciplinary and inter-sectoral approach), and (ex-ante) evaluation of their impacts. The main output of the project was a certified methodology of the Czech Ministry of Transport on measures selection and evaluation complemented by a web-based tool. The project represents one of many successful examples of cooperation between the Faculty and the local governments within the Usti and KarlovyVary Regions, both of them being labeled as post-mining and in transition. The project was also one of the first ones launching the currently strong research group Transport and Mobility (https://mobilita-ieep.cz/en/home/) under the Faculty priority research area 1) Management of public services. The portion of the Faculty within the project was 100% and main cooperation partners are grounded in practice (municipal and regional representatives, Usti Region Innovation Center etc.).

Brain circulation as a pillar of a possible transformation of a structurally affected region (2021-2023)

The project focused on data collection and analysis of younger generations and their behavior at the labour market. In particular, it addressed the question of the brain drain from structurally affected regions, including Usti Region, from which many young and well educated people move to Prague or abroad. Results of the project were recommendations to employees regarding the

changing preferences of your generations. The project was one of the few under the priority research area 6) Applied economics and management. Labor market analysis, HR and leadership are all topics the Faculty wishes to pursue in future in the greater extent. Avoiding the brain drain from Usti Region is one of the regional priority in general. The portion of the Faculty within the project was 100% and main cooperation partners are grounded in practice (municipal and regional representatives, Usti Region Innovation Center, Regional Labour Office etc.).

Waste from tobacco products with filters (cigarette butts) and its presence in the litter and municipal waste (2022, 2023)

This contractual research represents the good practice how to cooperate with private sector and to use the Faculty staff know-how to deliver expert output on a specific topic. In this case, the data on the amount and types of tobacco products in littering and household waste were collected in selected case sites and the results helped to define boundaries of the extended producer responsibility that is currently pursued within the waste legislation up-dates. Unfortunately, results of this privately funded research belong to the funder and cannot be published. In the Czech Republic, the contract between the Faculty and the private company labels this activity as the “the contractual research”, but the activity could be also reported under 3.5. Up to 10 bachelor and master students were involved in the data collection and partial results became parts of some of their thesis. The portion of the Faculty within the project was 100% and main cooperation partners are grounded in practice (tobacco industry, Ekokom).

Interdisciplinary Bilateral Summer School on Energy Systems in Austria and the Czech Republic (2019, 2020, 2021, 2023)

Annually (with the exception of COVID pandemics) the Faculty gets the small grant from the Czech Ministry of Education and together with the Czech Technical University in Prague and Austrian universities organizes the summer and winter school for 10 Czech and 10 Austrian students within the fiel of energetics and energy economics. Students spent one week in Czechia and, half a year later, one week in Austria, having lectures from energy experts and professors, visiting the energetics infrastructure and working on join thesis in Czech-Austrian pairs. The grant covers the costs of travelling and accommodation of the group. The activity represents the good practice of international cooperation in teaching. It is also one activity under the Faculty research priority 1) Management of public services. The collaboration with the technical universities in Czechia and Austria make it strongly interdisciplinary. The Faculty brings the economic and social background to the table. Being responsible, for the organization of the school, the portion of the Faculty is 100% within the project.

LAND4CLIMATE: Utilization Of Private Land For Mainstreaming Nature-Based Solution In The Systemic Transformation Towards A Climate-Resilient Europe (2023-2027)

https://land4climate.eu/

This is the first (and recently one of two) Faculty Horizon Europe project building on the research excellency developed within the LAND4FLOOD COST Action. The Faculty closely collaborates with the Department of Geography from university’s Faculty of Science, again. Within the large project consortium, we are leading the work package focused on the analysis of barriers for the nature-based solution implementation, the identification of land policies and instruments that could enable the implementation of measures on private land. Part of our tasks is also propose the serious gaming excercize to test innovative instruments within the experimental design. The

project also include large number of practice parters that physically implements nature based solutions in field – for Czechia, there is the municipality Krasna Lipa (situated in the Usti Region) that has already started with the stream re-meandering in the urban part of the municipality. There is also the National Park Czech Switzerland Administration as the second partner, aiming at the wetland restoration in the agricultural countryside. The Faculty project team supports the practice partners and monitors the progress of implementation of measures in practice, including the capturing the change of aesthetical values for citizens. Important part of the project is the knowledge co-creation that should speed up implementation of measures in future. The Faculty is one partner out of the large consortium of 18 partners from 6 countries, that cover broad range of expertice, including climatology, sociology, hydrology and modelling, economics etc. (the Faculty share is 5 %). The main value added of this project for the Faculty and the region is the strong practical impact (two climatically adapted sites).

Coordinated model of care for postmodern war veterans in the Czech Republic (2023 – 2025)

The project covers the important topic of mental health of former Czech soldiers and aimes at the revision and strengthening the current system of care as organized and financed by the Czech Ministry of Interior. Therefore, the project has the national focus and its results shall in future have practical impact on quality of life of war veterans. It is one of the first ones within the Faculty priority research area 5) Social work. The portion of the Faculty is 100% and the interdisciplinary aspect is weaker, because the project focus is strongly embeded in te social work expertise.

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	Centre for Regulation and Behavioural Studies for research-oriented study programmes at UJEP	8586 / 339 905	9500 / 376 088	8773 / 347 308	8833 / 349 683	
Technology Agency of the Czech Republic	Strategical tools to support decision-making processes of municipalities in the fiel of sustainable mobility	1098 / 43 468	1438 / 56 928	1023 / 40 499		
COST	Natural Flood Retention on Private Land	4536 / 179 572	4210 / 166 666	3200 / 126 682		

[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.

Technology Agency of the Czech Republic	Development of methods of economic evaluation of green and blue infrastructure in urban areas	484 / 19 160				
Technology Agency of the Czech Republic	COMNID: Support for the transfer of applied research results into new technologies and services	4815 / 190 6 175				
Czech Science Foundation	Religion under communist regime: A rational choice perspective	642 / 25 415	636 / 25 178	675 / 26 722	190 / 7 522	
Ministry of Education	Interdisciplinary Bilateral Summer School on Energy Systems in Austria and the Czech Republic 2019	27 / 1 069				
Ministry of Foreign Affairs	Sustainable Energy Policy in Europe 2019	350 / 13 859				
Operational Program Employment	IKM Communitas / IRO Communitas	1020 / 40 380		2300 / 91 053	4100 / 162 312	450 / 17 8 147
Norwegian Funds	FOREST-AGRICULTURE-WATER NEXUS: Bilateral Workshops for Supporting Tools for Ecosystem Services Governance (ForAWat Bilateral Workshops)	210 / 8 313	210 / 8 313	88 / 3 483	88 / 3 483	
Technology Agency of the Czech Republic	Methodology of mobility plans for environmentally sensitive areas		1180 / 46 715	2841 / 112 470	1728 / 68 408	917 / 36 303
Technology Agency of the Czech Republic	Implications and adaption of mobility innovative solutions on structural changes and functional develompent of Usti region cities		1265 / 50 079	1892 / 74 901	2312 / 91 528	1439 / 56 967
Ministry of Education	Interdisciplinary bilateral winter and summer school on energy systems in Austria and Czech Republic 2020		285 / 11 282			

Technology Agency of the Czech Republic	Smart countryside: sustainable rural development using Smart solutions		908 / 35 946	1653 / 65 439	791 / 31 314	
Technology Agency of the Czech Republic	Application of psychosocial approach to identify and strengthen human adaptation mechanisms during long-term spaceflights into deep space	1263 / 50 000	990 / 39 192	2200 / 87 094	2200 / 87 094	2200 / 87 094
Technology Agency of the Czech Republic	Analysis of cross-border competitivness of regions in the Czech Republic		3244 / 128 424	2000 / 79 176		
Ústecký region	FORPOLIS		580 / 22 961			
Ministry of Foreign Affairs	Sustainable Energy Policy in Europe 2020		350 / 13 855			
Technology Agency of the Czech Republic	Changes in transport behaviour caused by Covid-19 and their social impacts		550 / 21 773	1155 / 45 724	691 / 27 355	
Technology Agency of the Czech Republic	Effectiveness of the system of addictology services in the Czech Republic in connection with the COVID-19 pandemic		322 / 12 747	563 / 22 288	685 / 27 118	
Ústecký region	Assistance voucher for TRANSCARB TRANSCARB project: Transformation to the conditions of a low-carbon economy - change of region and companies		180 / 7 125			
Ministry of Education	Interdisciplinary bilateral winter and summer school on energy systems in Austria and the Czech Republic 2021			300 / 11 876		
Technology Agency of the Czech Republic	Municipalities talk about water: Communications of the implementation of			792 / 31 354	1590 / 62 945	1770 / 70 071

	rainwater management measures in cities					
Technology Agency of the Czech Republic	A greater society's resilience to the effects of crisis through increasing food selfsufficiency			763 / 30 205	1439 / 56 967	1733 / 68 606
Technology Agency of the Czech Republic	Brain circulation as a pillar of a possible transformation of a structurally affected region			1031 / 40 815	1024 / 40 538	202 / 7 996
Ministry of Foreign Affairs	Sustainable energy policy in Europe 2021			300 / 11 876		
Ministry of Agriculture	Taxonomy – classification scheme for evaluation of sustainability in agriculture				467 / 18 487	461 / 18 250
Norwegian Funds	Prevention of gender-based violence in work environment of Czech public research institutions and universities				112 / 4 434	105 / 4 168
Ministry of Foreign Affairs	Sustainable energy policy in Europe 2022				200 / 7 918	
Norwegian Funds	Emerging Issues in Sustainable and Effective Regional Mobility Planning and Research (EMPIRIC)				403 / 15 954	404 / 15 994
Ministry of Agriculture	Assessment of organic and conventional agriculture in terms of their impacts on ecosystem services to support strategic and decision-making processes					4141 / 163 935
Ministry of Foreign Affairs	Sustainable Energy Policy in Europe 2023					320 / 12 668
Ministry of Education	Interdisciplinary Winter and Summer School on Energy Systems in Austria and the					180 / 7 126

	Czech Republic 2023					
Technology Agency of the Czech Republic	Coordinated model of care for post-modern war veterans in the Czech Republic					3413 / 135 114
Visegrad Fund	Sustainable population consumption in a post-pandemic economy. The perspective of three countries					392 / 24 968
Total		**23 031 / 911 757**	**25 848 / 1 023 277**	**31 549 / 1 248 970**	**26 853 / 1 063 064**	**18 127 / 717 616**
In the role of another participant						
Provider[27]	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Interreg SN-CZ	STRIMAII: Saxon-Czech Flood Risk Management II	1735 / 68 686	1651 / 63 360			
Interreg SN-CZ	Kultura.Digital	35 / 1 386				
Interreg SN-CZ	Cross-border cooperation for the development of rail transport between Saxony and the Czech Republic	866 / 34 283	95 / 3 760			
Interreg CE	Comprehensive model of waste heat utilization in CE regions (CE-HEAT)	852 / 33 729				
Interreg SN-CZ	BIDELIN	1920 / 76 009	693 / 27 434			
Czech Science Foundation	Paths development in traditional industries in old industrial regions in Czechia: governance, actors, institutions and leadership	408 / 16 152	408 / 16 152	106 / 4 196		
Interreg SN-CZ	Artomat	365 / 14 449				

[27] Ibid.

Technology Agency of the Czech Republic	WATER IN THE CITY: Blue and green infrastructure interdisciplinary	678 / 26 840	162 / 6 413	137 / 5 423		
Erasmus+	Integrated approach to sustainable urban mobility teaching focusing on real-world users requirements and case studies	1081 / 42 795	1000 / 39 588	1146 / 45 368	1000 / 39 588	
Interreg CE	D-CARE Developing, piloting and validating smart care models in Danube region for supporting social innovation, improving competences and entrepreneurship		696 / 27 553	1889 / 74 782	1591 / 62 985	
Erasmus+	Research for innovative practices in emergency management of Erasmus community (RIPEC).			557 / 22 050	337 / 13 341	300 / 11 876
Horizon Europe	Upscaling the natural sponge functions of freshwater ecosystems to deliver multi-benefit green deal solutions					1529 / 60 530
Horizon Europe	LAND4CLIMATE					6504 / 257 482
Erasmus+	Embedding EU values in teaching and learning in higher education					52 / 2 058
Erasmus+	GREEN NETIQUETTE					72 / 2 850
Erasmus+	Advanced data analysis for transportation and mobility teachers (AdTrans)					170 / 6 730
Interreg CE	GREENE 4.0 SMART AND GREEN INNOVATION APPROACHES FOR SCALLING UP DIGI-					1277 / 50 554

	TAL TRANSFORMATION OPPORTUNITIES IN CE					
Czech Science Foundation – Lead Agency (Slovenia)	Evaluation of hazard-mitigating hybrid infrastructure under climate change scenarios					1357 / 53 721
Total		**7 940 / 314 330**	**4 705 / 186 262**	**3 835 / 151 821**	**2 928 / 115 914**	**11 261 / 445 803**

Table 3.3.2 - Contract research activities

Client[28]	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Union of Towns and Municipalities of the Czech Republic	Evaluation of suburbanization impacts on municipalities in the Czech Republic	400/ 1 583				
VALEO AUTOKLIMATIZACE k.s.	Analysis and evaluation of data inputs for research and development in the field of autonomous driving systems and related fields and subfields of smart and clean mobility, and other smart concepts, evaluation and design of new methods and forms.	21 947/ 868 844				
Economic and Social Council of the Ústecký region z.s.	Feasibility study on the development of an innovation environment for strengthening R&D and related educational capacities in the field of hydrogen in the Ústí nad Labem Region			310 / 12 272		
PGM. s. r. o.	High-speed networks of new generation in the context of the development of the Ústí nad Labem region			217,5 / 8 610		
EKO-KOM, a.s.	Litter evaluation as the scientific foundation for the Plan of packaging litter solution in the Czech Republic (incl.evaluation of the packaging fraction)			152 / 6 017		
Czech Hydrometeorological Institute	Regional and national analysis of water consumption and selected socio-economic indicators in individual sectors according to classification of economic activities CZ-NACE			72 / 2 862		
South Moravian Region	Employment Research in the South Moravian Region on 31. 12. 2021				108,4 / 4 291	

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

Ústecký region	Starting points for the creation of family policy of the Ústí region				182 / 7 205	
Philip Morris ČR a.s., British American Tobacco (Czech Republic), s.r.o., JT International spol. s r.o., Imperial Tobacco CR, s.r.o.	Waste from tobacco products with filters (cigarette butts) and its presence in the litter and municipal waste (2021)				1430/ 56 611	
Philip Morris ČR a.s., British American Tobacco (Czech Republic), s.r.o., JT International spol. s r.o., Imperial Tobacco CR, s.r.o.	Waste from tobacco products with filters (cigarette butts) and its presence in the litter and municipal waste (2021)					404,8 / 16 025
Union of Towns and Municipalities of the Czech Republic	Impact Assessment of Urban Wastewater Treatment Directive (91/271/EEC): Summary of Key Impacts on Cities and Municipalities					66,5 / 2 632
South Moravian Region	Employment Research in the South Moravian Region (2022)					124 / 4 909
AE Holding a.s.	Analysis of the content of wet wipes in littering, street cleaning and waste bins in selected locations					425 / 16 825
Union of Towns and Municipalities of the Czech Republic	Analysis of the needs of cities and municipalities of the Czech Republic in the context of the preparation of cohesion policy 2028+					272 / 10 768
Municipality Dubí	Perception of safety in the city of Dubí					83 / 3 285
Total		**22 347 / 884 679**		**751,5 / 29 750**	**1 720,4 / 68 107**	**1375,3 / 54 445**

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[29], 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

[29] See Terms definition.

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:

WATER in the CITY: Methodology for rainwater management in conjunction with green infrastructure developed within the project WATER IN THE CITY: Blue and green infrastructure interdisciplinary (https://www.ieep.cz/metodika-pro-hospodareni-s-destovou-vodou-ve-vazbe-na-zelenou-infrastrukturu/, Czech only)

The project result is the multidisciplinary book compiled together with hydrologists, architects, urban planners and us, economists, in order to provide clear and practical guidelines for practitionaires regarding implementation of green and blue infrastructure in cities (about 30 different measures are described). As the project output, the "book" started to be used in practice for the design and engineering of rainwater retention measures. In particular, city of Liberec adopted its manual for green spaces based on our methodology. Also within IROP (Integrated Regional Operational Program) funding scheme, the methodology was part of the legal and methodological frame of the call. The Czech Ministry of the Environment used the methodology as the recommendation for schools and other public buildings when designing the climate adapted innovations.

In 2021, when the project was finished, the methodology was published on-line (www.vodavemeste.cz). By the end of 2023, it was downloaded more than 4800-times. In October 2023, people who downloaded the book were approached with the questionnaire. We obtained 143 responses, from which following results are derived: 96% of people actively used the dowloaded material, the engineers and teachers used it the most often. The main purpose was during the design of particular measures, or teaching students about the launching the new public greenery.

When first printing (200 pieces) was given out, the Faculty together with the research center of the Czech Technical University (the project partners) decided to run the crowdfunding campaign for the re-print of the enlarged and up-dated volume. The campaign was successful and reprint of 500 pieces was done, together with two public debates and several excursions for fungers.

The project rationale (more resilient cities adapted to climate change) is directly linked to sustainability. The gender dimension is considered in connection to Equal Opportunities Plan 2023-2025 developed by UJEP (e.g. balance of the research team).

Guidelines for the evaluation of sustainable urban mobility developed within the project **Strategical tools to support decision-making processes of municipalities in the fiel of sustainable mobility** (2018-2022)
(mobilita-ieep.cz/en/Vystup_PLUMM/)
The methodology is intended for municipalities, regional authorities, SUMP developers, public transport operators, and national institutions (relevant ministries). The academic community, transport experts, and urban planners will also benefits. This methodology guides Czech cities in evaluating Sustainable Urban Mobility Plans (SUMP) and transport measures. Since 2021, SUMPs have been key planning documents for cities over 40,000 inhabitants. Smaller municipalities and urban agglomerations can also apply the methodology. Cities with over 50,000 inhabitants are required to develop a SUMP, and they are expected to actively use this methodology for

strategy and measure evaluation. By applying this methodology, cities, and regions enhance efficiency in planning and implementing transport measures, preventing ineffective investments and ensuring better public fund management.

A part of the methodology is PLUMM - Planner for Sustainable Urban Mobility. This web-based tool supports municipal and regional governments in planning and decision-making. It helps select suitable transport measures to address mobility challenges and achieve SUMP objectives. The model integrates innovative, evidence-based measures, offering quantified impacts and practical insights from successful city implementations. PLUMM ensures effective, sustainable urban mobility strategies that are just and inclusive (including the gender inclusivity).

The gender dimension is directly incorporated in the strategic planning of mobility as the transport and mobility issues must be inclusive and just for all types of city inhabitants. The sustainability is directly addressed due to the effort to reduce individual car transport and to swich to more sustainable alternatives.

Methodology for economic evaluation of green and blue infrastructure in cities developed within the project **Development of methods of economic evaluation of green and blue infrastructure in urban areas** (2017-2019)
(https://www.ieep.cz/en/metodika-pro-ekonomicke-hodnoceni-zelene-a-modre-infrastruktury-v-lidskych-sidlech/)
The methodology is the transparent, fast and easy-to-replicate procedure (build on cost-benefit analysis) for practitionaires who need to undertake the evaluation of green and blue infrastructures in cities or to compare several alternatives for the investments in this area. It has been used in practice – the Council for Sustainable Buildings used the methodology to support investments into green roofs and walls. The methodology was also translated into English to make it comparable with other approaches in abroad serving the same purpose. Based on this comparison the join paper was published (https://doi.org/10.1016/j.jclepro.2023.137531).

The project rationale (more resilient cities adapted to climate change) is directly linked to sustainability. The gender dimension is considered in connection to Equal Opportunities Plan 2023-2025 developed by UJEP (balance of the research team).

Application of the psychosocial approach to the identification and strengthening of adaptation mechanisms of human and a small social group during the isolation experiment SIRIUS 2017 – 2023
developed within the project Application of psychosocial approach to identify and strengthen human adaptation mechanisms during long-term spaceflights into deep space

The methodology offers the unique approach of how to systematically deal with psycho-social challenges of small social groups in isolation (in space, under the water surface). This research result builds on the experience of Dr. Bernardova, the psychologist, who was the active officer in the army and has dealt with psychological health of first reponders in general (for more information about the impact see the Czech article here: https://www.ujep.cz/cs/48428/ujep-zalozila-institut-kosmickeho-vyzkumu-jaroslava-sykory-ujep).

The social relevance of this manual is two-fold. First, the Czech Ministry of Foreign Affairs and US NASA seeks this knowledge to increase the resilience of piloted space-flights (e.g. the planned mission to Mars). Dr. Bernardova presented the results at international conferences and gained the attention of U.S. and other research teams. Secondly, the knowledge might be used for other exposed profession in which the long-term isolation might be expected and the mental health is an issue.

The project sounds “exotic”, but it is part of the social work research agenda developed at the Faculty (next to the well-being of war veterans). The gender dimension is the integral part of

the metolology that needs to systematically treat all kinds of socio-psychological issues occurring in small isolated groups.

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

Type of result[30]	Year of application	Name
NmetC - Methodologies certified by the authorised body	2019	Methodology for economic evaluation of green and blue infrastructure in cities
Vsumm - Summary research report	2019	Strategic tools to support decision-making processes of municipalities in the field of sustainable mobility - Scientific results of the project reached during 2018: Analysis of methodology and audits for strategic urban transport decision-making; quantitative and qualitative analysis of barriers of sustainable mobility at the local (city) level.
O - Other results	2019	Nature-based flood risk management on private land
Nmap - Specialised map	2020	Specialized map of competitiveness of border regions of the Czech Republic
O - Other results	2020	Model of marketing communication for health-oriented shopping behaviour of consumers with regard to attitudes towards the consumption of healthy food
O - Other results	2020	The Size of Government: Measurement, Methodology and Official Statistics
O - Other results	2020	Inspection of the file according to the Code of Civil Procedure, the Code of Criminal Procedure, the Code of Administrative Procedure, the Code of Administrative Procedure and the Tax Code
Vsumm - Summary research report	2021	Analysis and recommendations for the development of border regions of the Czech Republic
O - Other results	2021	Essential Institutes of the Right of Assembly
NmetC - Methodologies certified by the authorised body	2021	Methodology for valuing the externalities of biomass production and for including their effects in the regulation of RES development
B – Book	2021	Financial Schemes for Resilient Flood Recovery
NmetC - Methodologies certified by the authorised body	2021	Methodology of comparing the mutual competitiveness of cross-border regions
NmetC - Methodologies certified by the authorised body	2021	WATER in the CITY: Methodology for rainwater management in conjunction with green infrastructure
O - Other results	2022	Evaluation of mobility plans and projects: Guide for the proper evaluation of sustainable urban measures and mobility strategies
Vsumm - Summary research report	2022	How to talk to the public about the implementation of the rainwater management measures
B – Book	2022	Recycling behavior of households and instruments for its change
Vsumm - Summary research report	2022	Summary research report from the project. Changes in traffic behavior caused by COVID-19 and their social impact

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

NmetC - Methodologies certified by the authorised body	2022	Smart villages: methodology and smart solutions
NmetC - Methodologies certified by the authorised body	2022	Guidelines for evaluation of sustainable urban mobility
NmetC - Methodologies certified by the authorised body	2023	Methodology for the creation and implementation of mobility plans for large-scale specially protected areas
Vsumm - Summary research report	2023	Comprehensive analysis of the level of psychosocial conditions and functioning of the space crew in the 3rd simulated space flight to the Moon of the SIRIUS-21 crew
Vsumm - Summary research report	2023	Community gardens: Why and where should new gardens be established?
O - Other results	2023	Starting points for the creation of family policy of the Ústí region in 2022
Hstrat - Results projected into approved strategic and policy documents by state or public administration bodies	2023	Update of the Sustainable Mobility Plan of the City of Ústí nad Labem
Nmap - Specialised map	2023	Specialized map of Ústí nad Labem and its modal region - mobility service and demand
Nmap - Specialised map	2023	Specialized map of Lovosice and its modal region - mobility service and demand
Hstrat - Results projected into approved strategic and policy documents by state or public administration bodies	2023	Update of the Strategic Development Plan of the City of Lovosice
O - Other results	2023	A workplace free of sexual harassment – how to do it?
O - Other results	2023	Cities talk about water: Rules and procedures for communicating selected stormwater management measures between local governments and the public
O - Other results	2023	Sociomapping. Qualitative analysis of the structure and dynamics of relationships and ties in the crews of SIRIUS-18/19 and SIRIUS-21 during a simulated space mission to the Moon through the lens of comparison
O - Other results	2023	Teenage intimate partner violence
O - Other results	2023	Application of the psychosocial approach to the identification and strengthening of adaptation mechanisms of human and a small social group during the isolation experiment SIRIUS 2017 – 2023
O - Other results	2023	Minors committing child sexual abuse: Characteristics, legal framework, therapy
O - Other results	2023	Measurement and analysis of the structure and dynamics of crew communication concerning its quantity and quality in three stages of the SIRIUS experiment

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:

In the field of the socio-economic reaseach of the Faculty, there have been limited potential for the commercionalization that is understood as "selling licences" or "setting spin-off companies". As apparent from the results presented in 3.4.1, we do not produce patents, licenses or other protected content that could be further commodified. Most of the methodologies, handbooks, software, reports and other socially relevant outputs do not have protected content and are publicly available for application, e.g. on-line for download (which is often required by public funders). Open data science requires to make even primary data of our work available for everyone.

The expertise gained within the reaseach projects is further "monetized" within contractual research (see table 3.3.2) that shows the interest of various stakeholders to contract the Faculty and its staff for further collaboration beyond public grant schemes. Reports and analysis are developed, but they belong to the resource provider.

Further, the table 3.5.1. lists the donations from private companies and foundation to the Faculty. As apparent, the sum of the gifts is rather negligible in comparison to public grants and contractual research, but we consider this field as underdeveloped and with the large future potential for fundraising.

Since 2023, the Faculty started the preparation of the expert advisory board of the dean that will consist of important employers, stakeholders and often also former students from the Usti region. One of the follow-up idea is to launch the **fund for private donations** (e.g. from the firms and other employers) that would support talented students and fund partial analysis and start-up ideas important for the funders. This idea is being developed and in the next reporting period we will be able to report the functioning of the expert advisory board and the fund (including the amount of donations and the overall success, having already some data from 2024-2025).

During past 2 year (since aprox. 2023), at the university level the coordination effort of the commercialization and transfer was intensified – this is done via the Center for Technology 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.

Knowledge Transfer (CTTZ). Via this center the Faculty might be able to find ways for commercialization in future.

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
Metrostav a.s.	30 / 1 187	30 / 1 187	30 / 1 187	25 / 989	25 / 989
AGC a.s.	60 / 2 375				
SKALIN & LAYOUT, s.r.o.	60 / 2 375	60 / 2 375	60 / 2 375	92 / 3 642	60 / 2 375
Nadační fond Severočeská voda	10 / 395	12 / 475	15 / 593	15 / 593	15 / 593
Total	**160 / 6 334**	**102 / 4 038**	**105 / 4 156**	**132 / 5 225**	**100 / 3 958**

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 2019 – 2023, there were following traditional ways how make the research work/expertise of the Faculty teams more visible, more usefull for practical partners from the region and more understandable for the public:

- Annually, there are 15-20 **mass-media commentaries** (podcasts, radio, TV, newspapers) of staff members on recent society problems (such as droughts, flash floods, Czech-German relations, elections, the regional development etc.). The Faculty employees are encouraged to enter the mass-media. The list of the most important mass-media commentaries is available od the faculty webpage (articles are in Czech only).
- In order to reach practitionaires, the Faculty staff publishes Czech **articles in expert journals** – these journals are not ranked academically, but are followed by experts, such as municipal and regional representatives, consultants, architects, teachers, social workers etc. More than 10 of these articles are published, annually. The main goal is to present the results of the research in Czech and with the use of non-academic language.

- The social media are gaining the importance in dissemination and popularization – for the purpose of the research outputs, LinkedIn has been established as the main platform (displayed also in English: https://www.linkedin.com/company/fseu-jep/posts/?feedView=all). It is followed by 500+ followers (increasing 15-20 % every year), usually stakeholders from the region, other universities, former students. The LI account provides the up-dates on project progress, outputs etc.

On top of these traditional ways, several innovative popularization activites have been launched:

CzechEnviThesis, annualy since 2019

In 2019, the Faculty started the tradition of the national-wide contest titled CzechEnviThesis for the best bachelor and master thesis in the field of social aspects of environmental protection. Annually, around 50 thesis from more than 10 faculties all around the Czechia compete, of which five gets to the final. The finalists get the media training on how to prepare presentation and how to talk about the research topic in front of public. Than, they present at the public event held in November every year in front of the jury who selects the winner. The contest is organized under the supervision of the Czech Ministry of the Environment and the winners get financial contributions from the sponsors (such as Vodafone). Finalists also talk about their research in nationally broadcasted podcasts. The goal is to make the high quality student work more popular, to stress the contribution of the socio-economic research focused on environmental protection and to highlight the findings of high quality thesis that might also be usefull for the public administration or private sector in general. The Czech Ministry of the Environment also hires the talented students at the contest.

FSE Talks

Since 2023, the Faculty organizes one open lecture for studens, former students and the public with the VIP guest called FSE Talks. The lecture is in our biggest aula and it is attended by 150+ attendees. The lecturer is the successful CEO from the international business addressing the up-to-date economic topic, such as the challenges of the region, the employments of young generations, neuro-management etc. There is a reception afterwords, at which the Faculty management meets with everyone interested and talks about the presented topic and also the key challenges of the region and future collaboration. The lecture attracts former students from business that further supports the Faculty via their own participation in teaching and via financial contributions.

Series of stakeholder meetings within **Forpolis, the Institute for Community and Settlement Development**

In 2022 and 2023, the Faculty institute FORPOLIS organized series of talks and workshops that targeted regional and local stakeholders. Each event was attended by 20-30 people, such as public representatives and officials, experts, high-school teachers, NGO representatives and other people from the public interested. Topics were, such as the sustainability of financing of social services in the region, who are the local “actors of change” and how are they motivated etc. The

goal is to meet and network via discussion, but also informal interactions over the drink afterwords.

The Platform for the Green and Blue Infrastructure

The platform was launched in 2019 to support networking and exchange of information among scientists, private sector and public administration. Main topics are related to climate change adaptation of urban areas, such as the heat island mitigation, rainwater management, urbanization and quality of green places. In 2019-2022, the Platform organized 4 workshops in Prague and Usti nad Labem with the main goal to share and popularize result of the Faculty research projects. The platform also issued six reports for decision-makers – these are short, easy to read, publications distributed on-line and via mailing list of more than 100 key stakeholders who sign up on it. These report were focused on maintenance of trees in cities, motivations of households to retain more rainwater, community garden management, green roof effects on negative effects of climate change and the effective communication about the importance of green and blue infrastructure in general.

Social Clinic (SocKa) and the **large-scale event on social exclusion**

In 2023, the Faculty established the new entity called the Social Clinic (SocKa) to support the social work in the Usti nad Labem and Usti region that are both negatively affected by the social exclusion. The clinic cooperates with the regional court and the National institute for children and family. In November 2023, the clinic organized the high featured event (the regional meeting for the Platform for the community work) for the public and the key stakeholders at the university. The event was attended by more than 200 people from different fields and during keynotes and roundtables, the problem of social exclusion and the potential solutions were addressed.

Sucessful crowd-funging campaign for the Water in the City

The book "*WATER in the CITY: Methodology for rainwater management in conjunction with green infrastructure*" developed within the project WATER IN THE CITY: Blue and green infrastructure interdisciplinary, represented the successful project outpust with the high practical impact (see section 3.4. for more information). When first printing (200 pieces) funded from the project was given out, the Faculty decided to run the crowdfunding campaign for the re-print of the enlarged and up-dated volume. Funders could have decided to pay the donation just for the book, or to select other rewards for their higher contribution, including the excursion in the selected city, consultancy about potential measures with the book authors etc. The campaign was successful and re-print of 500 pieces was done, together with two public debates and several excursions and one consultancy for fungers.

The **Science Fair, Night with Scientists, Become the University Student for 1 Day**

On annual basis, the Faculty participates on national events for the research popularization and attraction of high-school students. The entire university coordinates to represent key research areas and to show the public and future students how the science can be, both usefull and fun.

Futher information on events and highlights within particular years might be found in our Annual Reports (available in English, see the list of supporting documents at the end of this report).

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:

There were **5 main recommendation** derived from the previous Module 3 report. We address them one after another:

Recommentation 1: Learn lessons from your abrupt improvement (what, how, why) and build on them in the next period

Based on presented results for the period 2019-2023, we can conclude that learning process from the previous period was successful – the Faculty further strengthened and developed its research flagship topics and made them competitive in the international environment (research prioritites 1,2, and 3). This was done by the extended administrative and financial support of key researchers, combined with the large amount of freedom and flexibility to work on research topics. Further, the high level of creative independency helped to extablished two new and promising research priorities (4 and 7). Also the clear articulation of the minimal need to participate in research and publishing incentivized the broader range of the Faculty staff.

Recommentation 2: Make the Faculty environment attractive to academics from abroad, focus on international cooperation

This is a difficult one – mainly from the perspective, that salaries offered by the Faculty are not competitive from the international perspective. So from the regular budget the Faculty lacks both, the resources and the options to attract people from abroad. Despite of this limitation, the international cooperation of the Faculty at least doubled in comparison to previous period.

From project resources, it was possible to sucesfully invite and host foreign scholars – and information from 3.2. shows that the Faculty managed to do so for several short-term and mid-term visits that ended up with join publications (and further collaboration on international projects). It is also possible to cooperate with visiting professors, that visit the Faculty regularly for short-term (while still working full time at their home institutions), engage with students and researchers and stay in touch remotely in the meantime. Again, numerous join publications and projects emerged from this cooperation – above all there is the super-productive collaboration with TU Dortmund and Prof. Thomas Hartmann (Horizon Europe project, joint books and papers).

What we still lack, is the ability to offer the long-term or permanent positions for academics from abroad. However, the Faculty has Assoc.Prof. Silvester van Koten (https://www.fse.ujep.cz/en/doc-drs-silvester-van-koten-ph-d/) who is Dutch-native, living in Czechia from late 90s and teaching in English.

Recommentation 3: Get more practical results out of academic research projects and offer practical applications to wider audience

Based on information listed in 3.6 (but also 3.4.), I would conclude that we try hard – both, to feed traditional channels and to develop new ones to reach new target groups ano/or to approach the old ones with new forms. We can always do more and we can always be more systematic, but I see clear increasing trajectory here.

Recommentation 4: Undertake popularization and communication with the public more systematically as the integral part of research projects
Currently, majority of projects do have the popularization as one of the monitoring indicators (including post at social-media, etc.), so it is the combination of our interest and the external pressure that helps to make project results more visible to wider audiences.

Recommentation 5: Focus on the same areas – geographically or/and topic-wise?
Topic-wise, the Faculty established seven research priorities listed in 3.1. This overview and classification of what is happening and who does what helped us to clearly see the flagship research, the emerging research areas and the underdeveloped topics that we need to strenghted to feed the teaching programs. The Faculty hired the new project manager that helped to set up project teams and to launch project proposals for low-skilled staff. As a result, there were first successful projects under the research priority 5 (social work).
In case of social-economic research, our results (methodologies, publications, manuals) are applicable at different places, so we are not so much place-dependent as colleagues from natural sciences. Nevertheless, we repeatedly cooperate with towns and municipalities of Usti region (and outside) that are interested in increasing the quality of live via green and blue infrastructure enhancement or mobility adjustments (such as Litomerice, Lovosice, Krasna Lipa etc.).

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
The Faculty Annual Report 2023	3.6 (partly also 3.4 and 3.5)	https://www.fse.ujep.cz/wp-content/uploads/2024/10/UJEP_vyrocni_zprava_ENG_screen-1.pdf
The Faculty Annual Report 2022	3.6 (partly also 3.4 and 3.5)	https://www.fse.ujep.cz/wp-content/uploads/2023/10/UJEP_vyrocka_2022_ENG_v7_screen.pdf
The Faculty Annual Report 2021	3.6 (partly also 3.4 and 3.5)	https://www.fse.ujep.cz/wp-content/uploads/2023/10/UJEP_vyrocka_2021_ENG_v5_screen-1.pdf
The Faculty Annual Report 2020	3.6 (partly also 3.4 and 3.5)	https://www.fse.ujep.cz/wp-content/uploads/2022/01/Annual_Report_2020.pdf
The Faculty Annual Report 2019	3.6 (partly also 3.4 and 3.5)	https://www.fse.ujep.cz/wp-content/uploads/2022/01/Annual_Report_2019.pdf

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Health Studies

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.

The Faculty of Health Studies is the only higher education institution in the Ústí nad Labem region specializing in non-medical healthcare fields, making it one of the key actors in regional healthcare education. Since its establishment in 2012, the faculty has accredited nine bachelor's degree programs, covering specializations such as physiotherapy, occupational therapy, general nursing, midwifery, paramedic studies, radiological assistance, health protection and promotion, biomedical engineering, and pediatric nursing. In response to the growing demands of the labor market, the faculty has expanded its educational offerings to include two master's degree programs: Healthcare Organization and Management and Teaching of Vocational Subjects for Healthcare Schools. These programs were designed to address the necessary specializations and competencies required for future non-medical healthcare professionals, reflecting current trends and needs in the field. At the end of 2023, the faculty prepared the concept for a doctoral program (currently undergoing accreditation), which has been absent until now, affecting the faculty's research activities. Research at the faculty is closely linked to the professional orientation of its study programs, with a focus on contractual research and the implementation of application-oriented projects. The faculty is actively involved in development projects that enhance its infrastructure and encourage academic staff to engage in publishing activities. These projects are funded through grants from the Ministry of Health, the Ústí nad Labem region, OP TAK, OP JAK, and the Just Transition Fund, contributing to the ongoing development of the faculty and innovations in study programs.

The faculty's research activities are supported by sixteen clinical workplaces, with the Orthopedic Clinic and the Neurosurgery Clinic among the most significant and active. Collaboration with Krajská zdravotní, a.s. within the Masaryk Hospital in Ústí nad Labem has become a key pillar of research activities, ensuring the connection between theoretical knowledge and daily practice, benefiting patients, students, and the general public. Additionally, the faculty is

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

committed to fulfilling the third mission of the university, emphasizing social responsibility and close ties with the local community. Regular excursions for primary and secondary school students, partnerships with selected secondary healthcare schools (through agreements on Faculty Schools), and activities aimed at seniors (such as exercise and health assessments) demonstrate the faculty's strong engagement in education, prevention, and health awareness. Given that the region is designated as a structurally disadvantaged area, these initiatives have a tangible impact on its population.

In recent years, the faculty has clearly demonstrated qualitative and quantitative progress in its core areas, reflected in positive evaluations published in annual reports, confirming an increasing level of educational and research outputs. As a result, the faculty not only meets national standards for non-medical healthcare education but often exceeds them. To further develop its academic and research capacity, the faculty organizes thematic conferences for both professional and general audiences. For instance, the Patient Academy is a dynamic project actively involving students and faculty members, facilitating the dissemination of innovative findings to a broad audience with the goal of improving and accelerating post-operative patient recovery. The faculty is also strongly committed to technological innovation, as evidenced by the development of a joint biomedical 3D printing facility, reflecting modern trends in education and research.

A key aspect of the faculty's conceptual development remains multidisciplinary collaboration, which integrates teaching with practical skills. Students thus gain access to the latest knowledge and technologies, increasing their employability in the labor market. Simultaneously, the faculty places great emphasis on international partnerships and actively engages in global projects, strengthening its international reputation and contributing to the exchange of knowledge on a global scale. The Faculty of Health Studies is a dynamic, innovative, and highly specialized institution dedicated to continuous development in educating non-medical healthcare professionals with a regional impact. By combining high-quality study programs, application-oriented research, and strong collaboration with practice, the faculty elevates healthcare education not only regionally but also nationally and internationally. This strategy ensures that students graduate with comprehensive knowledge and practical skills, essential for the rapidly evolving landscape of modern healthcare.

State-of-the-Art Infrastructure and Facilities

As part of a development project, the faculty constructed a new, modern building that meets 21st-century standards and is equipped with cutting-edge technology. In addition to modern lecture halls featuring high-end audiovisual equipment, the facility houses two simulation centers and one mobile simulation center (an ambulance unit). These centers are currently equipped with state-of-the-art technology and supported by highly trained technical staff who continuously enhance their expertise at international conferences. This unique facility, situated in the heart of the Ústí nad Labem hospital, provides an exceptional environment for education and research.

Academic Excellence and Faculty Expertise

The faculty currently maintains high-quality staffing levels, with an academic team composed of experts from clinical practice as well as internationally recognized specialists in various healthcare fields. Notable members include Prof. MUDr. Martin Sameš, CSc., Prof. MUDr. Vladimír Černý, Ph.D., and Assoc. Prof. MUDr. Roman Škulec, Ph.D., among others. These experts incorporate modern trends into non-medical healthcare education and significantly contribute to the faculty's growing research activities. The faculty's increasing reputation is evident from the rising number of physicians involved in teaching and research, as well as the steadily increasing number of applicants for study programs. Currently, nearly 40% of students come from the Ústí nad Labem region, with the remaining 60% from other regions of the Czech Republic.

Expansion of Study Programs and Long-Term Accreditation
In response to labor market needs and regional demands, the faculty continues to accredit and expand its study programs, which are gradually attracting more students. Newly accredited programs include Biomedical Engineering and Health Protection and Promotion. Additionally, the faculty has successfully secured 10-year accreditations for most of its existing and new study programs, ensuring long-term stability and quality in education.

Table 3.1.1 - Staffing per FTE[2]

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	2.4/1	2.4/1	1.7/0	2.1/0.2	2.1/0	10.7/2.2
Associate Professor	2.6/0.2	2.9/0.2	3.4/0.7	2.9/0.2	2.4/0.7	14.2/2
Assistant Professor	13/8.85	20.85/15.45	25.3/20.25	29.2/18.1	28.45/17.8	116.8/80.45
Assistant	5.4/3.4	3.6/2.6	4.7/4.5	6.5/5.3	11.2/8.7	31.4/24.5
R&D Personnel[3]	0/0	0/0	0/0	0/0	0/0	0/0
Researchers in other categories[4]	0/0	0/0	0/0	0/0	0,1/0	0.1/0
Technical and economic staff[5]	14/10.3	16.5/11.8	19.5/13.5	18.9/11.6	20/11	88.9/58.2
Scientific, research and development staff involved in teaching activities	0/0	0/0	0/0	0/0	0/0	0/0
Early career researchers[6]	0.2/0.2	0/0	0/0	0/0	0/0	0.2/0.2
Total[7]	37.6/23.95	46.25/31.05	54.6/38.95	59.6/35.4	64.25/38.2	262.3/167.55

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							3	0	1	0	1	1
Associate Professor					2	1			1	0	2	0
Assistant Professor	1	0	6	4	10	6	7	5	3	1		
Assistant	6	4	1	1								
R&D Personnel[9]												
Researchers in other categories[10]												
Technical and economic staff[11]	2	2	5	5	3	2	2	1	2	1	1	0
Scientific, research and development staff involved in teaching activities							1	1				
Early career researcher[12]												
Total[13]	9	6	12	10	15	9	13	7	7	2	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 in only one category. The categories of scientific, research and development staff involved in teaching activities and early career researchers are reported collectively for all the above-mentioned categories.

3.1.3 Age structure of R&D&I personnel of the evaluated unit and their structure by job title and gender in the year 2023 (numbers of physical employees and personnel)[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							1	0	3	0		

[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.
[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.

Associate Professor					1	0	3	2			2	0
Assistant Professor	2	1	12	7	20	10	13	9	7	3		
Assistant	9	5	2	2	2	2	2	1				
R&D Personnel[15]												
Researchers in other categories[16]			1	0								
Technical and economic staff[17]	5	4	5	4	5	2	2	1	1	0	2	0
Scientific, research and development staff involved in teaching activities							1	1				
Early career researcher[18]												
Total[19]	16	10	20	13	28	14	22	14	11	3	4	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.

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	705	623	687	586	812	674	864	687	951	764	4019	3334
Master's[20]	40	38	65	58	99	87	130	116	134	121	468	420
Doctoral	0	0	0	0	0	0	0	0	0	0	0	0
Lifelong Learning Courses	0	0	23	19	28	17	34	22	44	33	129	91
Total	745	661	775	663	939	778	1028	825	1129	918	4616	3845

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

[15] The category "R&D Personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).
[16] The category "Researchers in other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).
[17] Who participates in the management and support of R&D&I in the institution.
[18] See Definition of Terms in Methodology HEI2025+.
[19] Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.
[20] All master's degree students are listed, regardless of the length of their programme of study.
[21] The total number of study programmes for which admissions have been announced in a given academic year.

Undergraduate	4/0	4/0	6/0	6/0	7/0	7/0	7/0	7/0	7/0	7/0	31/0	31/0
Master's	1/0	1/0	1/0	1/0	1/0	1/0	2/0	1/0	2/0	1/0	7/0	5/0
Doctoral	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Lifelong Learning courses	0/0	0/0	2/0	0/0	2/0	0/0	2/0	0/0	1/0	0/0	7/0	0/0
Total	5/0	5/0	9/0	7/0	10/0	8/0	11/0	8/0	10/0	8/0	45//0	36/0

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.	
	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	6.5	Applied Research	94
	3.2 Clinical medicine	70	Applied Research	
	3.3 Health sciences	17.5	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	Basic Research	6
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education	4	Basic 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.

The Faculty of Health Studies (FHS UJEP), as an assessed unit, focused on strengthening its position within the research community during the 2019–2023 period. Although its primary mission remains professional education for non-medical healthcare professionals with a regional impact, the faculty has achieved significant successes and demonstrated its international reach. One of its major achievements was securing the global expert position in 2023, which led to the recruitment of a prominent researcher, Prof. Robergs (H-index 35, Queensland University of Technology). As of 2024, he has become a strong international research asset for FHS UJEP.

Among the distinguished figures in science and research, Prof. MUDr. Martin Sameš, CSc. stands out. He serves as the President of the Czech Neurosurgical Society, is a member of editorial boards of two international journals, and in 2020, he received the Governor's Award of the Ústí nad Labem Region for Science and Research. His invited lecture, "Stroke Networks in the Czech Republic," delivered at the Brigham Cerebrovascular and Skull Base Symposium (Harvard University, Boston) in 2023, underscores his international reputation. According to Forbes rankings, he is among the fifty most respected physicians in the Czech Republic. At the faculty, he serves as the guarantor of the master's program in Healthcare Organization and Management and leads a team working on the accreditation of a new doctoral program, Efficiency and Management in Healthcare. Another leading neurosurgical expert is Assoc. Prof. MUDr. Aleš Hejčl, Ph.D., who is currently undergoing appointment as a professor and has been repeatedly recognized for his exceptional scientific contributions. His achievements include the Rudolf Petr Award,

presented by the Czech Neurosurgical Society. MUDr. Tomáš Novotný, Ph.D., has also achieved outstanding results—he received the 2023 Governor's Award of the Ústí nad Labem Region in the Social and Health Sector, the 2022 OrthoPediatric/SICOT Foundation Scholarship, and the 2019 Lester Lowe SICOT Award. In the humanities and social sciences, Assoc. Prof. PhDr. Michal Vostrý, Ph.D., stands out, serving on editorial boards of multiple international journals focused on education and rehabilitation. For his publishing and research activities, he was awarded the UJEP Rector's Award for Outstanding and Excellent Results for Academics Under 35. In pre-hospital emergency care, PhDr. Patrik Christian Cmorej, Ph.D., made significant contributions, earning the UJEP Rector's Award twice during the evaluation period, as well as recognition from the Slovak Cardiology Society for the best original article published in Cardiology Letters.

Last but not least, PhDr. Miroslav Barták, Ph.D., significantly contributes to public discussions on addiction behavior, frequently appearing in media debates. He is also the recipient of several awards and a principal investigator in multiple research projects. The faculty's academic staff actively participate in evaluating both national and European project calls, contributing their expertise to the development of research and innovation in healthcare. This reinforces the strategic role of the Faculty of Health Studies within the broader R&D&I ecosystem. The faculty aims to provide services to the scientific community by organizing specialized conferences, panel discussions, and workshops, regularly hosting leading international guests and industry experts.

These achievements demonstrate that, despite its focus on non-medical healthcare professions, the faculty possesses strong potential for international collaboration and research excellence. This is further evidenced by its active participation in the EduCare 5.0 research alliance, where the faculty serves as the main coordinator. Alongside high-quality education, the faculty places strong emphasis on targeted publishing activities, integration into international research networks, and active involvement in project evaluation, which contributes to its growth and increasing prestige in both academic and professional spheres.

Strengthening International Recognition and Future Prospects

Compared to the previous period, the faculty has significantly expanded and deepened its research activities, further solidifying its prestige and relevance within both national and international research communities. Maintaining and advancing this trend remains a strategic priority, supported by the submission of national and international research projects, some of which are currently under evaluation, while others have already been approved. As a regional faculty historically focused primarily on education, the institution has experienced a rapid surge in research activities and internationalization. This upward trajectory is expected to become even more pronounced in the next evaluation period from 2024 onwards, as ongoing research and collaboration efforts yield further tangible outcomes.

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
Patrik Christian Cmorej, PhDr., PhD.	**Award for the best original publication in Cardiology Letters - author under 35 years of age**	**Slovak Society of Cardiology (2019)**
Michal Vostrý, doc., PhDr., Ph.D.	**The Rector's Award for Excellence in the Humanities and Social Sciences for an employee under 35 years of age**	**Rector of the J. E. Purkyně University in Ústí nad Labem**
Patrik Christian Cmorej, PhDr., Ph.D.	**The Rector's Award for Excellence in the Humanities and Social Sciences**	**Rector of the J. E. Purkyně University in Ústí nad Labem**

Tomáš Novotný, MUDr., Ph.D., MBA	**The OrthoPediatric/SICOT Foundation Scholarship - 2022**	**International Society of Orthopaedic Surgery and Traumatology (SICOT)**
Tomáš Novotný, MUDr., Ph.D., MBA	**Lester Lowe SICOT Award - 2019**	**International Society of Orthopaedic Surgery and Traumatology (SICOT)**
Martin Sameš, prof., MUDr., CSc.	**Award of the professional society ČNCHS ČLS JEP**	**Czech Medical Society**
Martin Sameš, prof., MUDr., CSc.	**Featured Article CSNN 2022**	**Czech and Slovak Neurology and Neurosurgery**
Martin Sameš, prof., MUDr., CSc.	**TOP 50 doctors in the Czech Republic**	**Forbes 2023**
Aleš Hejčl, doc. MUDr., Ph.D.	**Featured Article CSNN 2022**	**Czech and Slovak Neurology and Neurosurgery**

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
Martin Sameš, prof., MUDr., CSc.	**Journal of Neurological Surgery, ISSN 2193-6315**
Martin Sameš, prof., MUDr., CSc.	**Acta Neurochirurgica, ISNN 0001-6268**
Michal Vostrý, doc., PhDr., Ph.D.	**Rehabilitácia, ISSN 0375-0922**
Michal Vostrý, doc., PhDr., Ph.D.	**EduPort, ISSN 2695-0936**
Michal Vostrý, doc., PhDr., Ph.D.	**Geriatrics, ISSN 2308-3417**
Michal Vostrý, doc., PhDr., Ph.D.	**Behavioral Psychology, ISSN 0345-2332**
Michal Vostrý, doc., PhDr., Ph.D.	**Journal of Exceptional People, ISSN 1805-4986**
Aleš Hejčl, doc. MUDr., Ph.D.	**Neural Regeneration and Research**
Aleš Hejčl, doc. MUDr., Ph.D.	**Journal of Neural Tissue Engineering**
Karel Hrach, RNDr., Ph.D.	**Health & Caring**

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
Martin Sameš, prof. MUDr. CSc.	**Stroke networks in Czech Republic**	**Brigham Cerebrovascular and Skull Base Symposium, Harward University in Boston**	**2023**
Martin Sameš, prof. MUDr. CSc.	**Surgery for stroke prevention. EANS Training Course.**	**Vascular neurosurgery. Jerusalem, Israel**	**2019**
Martin Sameš, prof. MUDr. CSc.	**Results if microsurgical management of anterior communicating artery aneurysms**	**The Joint Meeting od 15th AACNS, 68th Annual Conference of the Neurological Socuety of India&International Meningioma Society Congress. Mumbai, India**	**2019**

Aleš Hejčl, doc. MUDr., Ph.D.	**Results of microsurgical management of anterior communicating artery aneurysms**	**SUN Annual Meeting Prague**	**2022**
Michal Vostrý, doc., PhDr., Ph.D.	**Possibilities of Outdoor Combination Therapy for the Elderly (aspects of special education and occupational therapy)**	**University of Strategic Planning in Dąbrowa Górnicza, Social and Medical Faculty, Poland**	**2022**
Patrik Christian Cmorej, PhDr., PhD.	**Inadequate subcutaneous implantable cardioverter defibrillator discharges induced by chest compressions.**	**X. Central European Congress of Emergency and Disaster Medicine, Slovakia**	**2019**
Patrik Christian Cmorej, PhDr., PhD.	**Brugada syndrome in prehospital emergency care.**	**X. Central European Congress of Emergency and Disaster Medicine, Slovakia**	**2019**
Patrik Christian Cmorej, PhDr., PhD.	**Educational system at the medical rescue service in Ústí nad Labem region**	**Tartu linna XVI tervisekonverents „Enesega läbisaamise kunst, Estonsko**	**2019**
Tomáš Novotný, MUDr., Ph.D., MBA	**Periprosthetic Fractures treatment options and outcomes.**	**The 49th Annual Meeting of the Japanese Society for Fracture Repir. Japan.**	**2023**
Tomáš Novotný, MUDr., Ph.D., MBA	**Ultrasound guided interventions in orthopaedic surgery.**	**Euroson 2023 – Riga, Litva.**	**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
Táňa Bulíková, MD, PhD.	**Slovak Medical University**	**Arrhythmias in prehospital emergency care**	**2021**
PhDr. Lucia Demjanovič Kendrová, PhD.	**University of Prešov**	**Impact of respiratory physiotherapy on quality of life in patients with post-covid syndrome**	**2023**
Ing. Bc. Danka Boguská, PhD., MSc.	**University of Prešov**	**Interaction of integrated rescue system components in dealing with a mass casualty incident involving a hazardous substance**	**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	Name of the contracting authority/guarantor of the project/programme call	Year
Michal Vostrý, doc., PhDr., Ph.D.	**GAUK**	**Charles University Grant Agency**	**2019-2023**
Aleš Hejčl, doc. MUDr., Ph.D.	**Panel Epsilon**	**Technology Agency, Czech Republic**	**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 research[22]) that it has implemented or participated in during the period of 2019–2023[23]. 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.

Research Activities of the Faculty of Health Studies: Contribution to Professional Education and Application of Research Findings in Practice

The research activities of the Faculty of Health Studies reflect its position as a key educational institution specializing in the professional training of non-medical healthcare professionals in the Ústí nad Labem region. The projects undertaken have a direct impact on the innovation of study programs while also supporting the application of research findings in clinical practice. The faculty focuses its research efforts on an interdisciplinary approach, close collaboration with healthcare providers, and addressing current challenges in the healthcare sector.

Research Projects of the Joint AZV ČR Workplace

NV17-32872A – Correlation of Hemodynamic Parameter Modeling with Histological Changes in the Walls of Brain Aneurysms (2017-2020, MZ0/NV)

The number of patients incidentally diagnosed with a brain aneurysm—whose rupture can lead to one of the most severe types of stroke—is increasing. Hemodynamic modeling of brain aneurysms seeks to describe the pathophysiology and risk of rupture of intracranial aneurysms. This project evaluates hemodynamic models based on non-invasive radiodiagnostic methods and a custom-developed mathematical algorithm from the Mathematical Institute of Charles University. The primary goal is to correlate hemodynamic parameters with histological changes in the blood vessel walls of aneurysm sacs in patients undergoing surgery for both ruptured and unruptured aneurysms.

NU22-08-00124 – Modeling Flow in Intracranial Vessels in Relation to Endothelial Changes and the Development of Intracranial Aneurysms (2022-2025, MZ0/NU)

The rupture of intracranial aneurysms (IA) leads to one of the most severe types of strokes, with high morbidity and mortality. Deviations in hemodynamics within an IA are associated with inflammatory reactions in the vessels, including macrophage activation, leading to endothelial damage. Structural changes in the vessel wall lining reduce wall strength, increasing the risk of IA growth or rupture. This project examines the association between hemodynamics, endothelial damage, and inflammation using computational fluid dynamics (CFD), laboratory models, and microfluidic aneurysm models based on real patient data.

[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.

Supported Research Projects and Their Impact
During the assessment period, four research projects were supported by the Ústí nad Labem Regional Fund, demonstrating strong regional cooperation and support for applied research:

Outcomes of Endovascular Treatment for Wake-Up Stroke and Stroke in the 6–24 Hour Window
This project evaluated the efficacy and safety of endovascular treatment for patients with acute ischemic stroke (AIS) treated under the Stroke Protocol of Masaryk Hospital in Ústí nad Labem. It focused on predictors of successful therapy, comparisons with conventional treatments, and an analysis of clinical and economic impacts. The findings contributed to optimizing treatment protocols in the region.

Professional Stress in Paramedics and the Use of 3D Virtual Reality
Conducted in collaboration with the Emergency Medical Services of the Ústí nad Labem Region, this project analyzed stress responses in paramedics during mass casualty incidents in a virtual environment. The results led to the implementation of 3D virtual reality in postgraduate paramedic training and the innovation of internal education programs focused on disaster response.

The faculty also conducted additional research projects supported by institutional funding from Jan Evangelista Purkyně University in Ústí nad Labem:

Psychomotor Therapy as Part of Occupational Therapy Interventions for Seniors
This project evaluated the effectiveness of psychomotor therapy for seniors with neurodegenerative diseases, post-stroke patients, and those with mobility disorders. The findings contributed to the implementation of new rehabilitation approaches in social services and innovative occupational therapy methods aimed at preserving cognitive and motor functions in seniors.

Objectification of Stress Responses in Non-Medical Healthcare Workers Using Personal Protective Equipment During the Pandemic
This study responded to the needs of the Emergency Medical Services of the Ústí nad Labem Region by assessing the quality of resuscitation performed using protective equipment. The findings led to the optimization of local resuscitation protocols for emergency response teams, significantly improving intervention effectiveness under pandemic conditions.

Physical Restraint of Patients in the Prone Position and Its Impact on Dynamic Spirometric Parameters and End-Tidal CO_2 Concentration – A Pilot Study
This project provided new insights into the pathophysiology of sudden death due to physical restraint in the prone position. The results attracted the interest of the Regional Police Directorate of the Ústí nad Labem Region and initiated collaboration with the Czech Police Academy for further research into safe immobilization techniques.

Contract Research

Expanding the Competencies of General Nurses in Outpatient Care
This project focused on expanding the professional competencies of general nurses in outpatient settings, aiming to increase care efficiency and support multidisciplinary collaboration. It resulted in specialized training programs covering diagnosis, therapy, prevention of chronic diseases, and patient communication, ultimately strengthening the role of nurses in outpatient healthcare and improving care accessibility.

Special Educational Aspects of Teaching Czech as a Foreign Language (Contract Research, DO-CEO České Budějovice)
This project addressed the specific educational needs in Czech language instruction for foreigners, with a particular focus on applying special education principles. The project produced a comprehensive research report analyzing current challenges and providing practical recommendations for teacher training, emphasizing inclusive education and language integration.

Interdisciplinary Collaboration and Integration with Clinical Practice
All research activities were conducted in collaboration with clinical workplaces, including the Faculty of Health Studies clinics and Masaryk Hospital in Ústí nad Labem. Other key partners included the Emergency Medical Services of the Ústí nad Labem Region, the Regional Public Health Authority, social service providers, and the Czech Police Academy. The interdisciplinary nature of these projects integrated knowledge from health sciences, psychology, social work, and crisis management.

The faculty's engagement in applied research and contractual projects not only responds to MEP recommendations but also confirms the strategic direction the faculty intends to pursue. However, these successes require systematic support for academic staff in research project preparation and execution. To address this, the Research Office was expanded to include a specialized non-academic staff member, whose role is to assist with project administration and preparation, thereby enhancing the faculty's research capacity and improving project management efficiency.

Strategic Importance of Research for the Faculty
The faculty's research activities contribute to its long-term goal—developing and applying expertise in healthcare, with a focus on innovating non-medical healthcare professions. By ensuring a strong link between theory and practice, the faculty not only modernizes its study programs but also enhances clinical work methodologies and healthcare education.

The projects implemented have led to tangible improvements in healthcare professional training, enhanced intervention procedures in emergency medicine, and reinforced the importance of a multidisciplinary approach in education and clinical practice. The Faculty of Health Studies thus confirms its position as a center of excellence in applied healthcare research, positively impacting not only the regional but also the national level.

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
Ústí nad Labem Region	**Results of endovascular treatment of wake up ischemia and ischemia in a 6-24 hour window**	0	0	0	0	50/2000

[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.

Ústí nad Labem Region	**Occupational stress in paramedics and 3D virtual reality**	0	0	0	0	102/4000
Ústí nad Labem Region	**Prediction of cardiovascular risk factors**	0	0	0	0	105/4000
Ústí nad Labem Region	**Analysis of the social health care model**	0	0	0	0	200/8 000
UJEP	**Empathy and prosocial behaviour in FZS students**	200/8000	0	0	0	0
UJEP	**Psychomotor therapy as a part of occupational therapy intervention in the elderly with regard to selected diagnoses**	960/38000	0	0	0	0
UJEP	**Objectification of the stress response during the use of personal protective equipment in non-medical health care workers in prehospital emergency care during a disease pandemic**	0	0	285/11000	0	0
UJEP	**Physical restraint of the patient in the prone position and its effect on dynamic spirometric parameters and end tidal C02 concentration - a pilot study**	0	0	0	118/5000	0
UJEP	**Analysis of the impact of the COVID-19 pandemic on the incidence of suicidal behaviour in patients treated by the Emergency Medical Service service of the Ústí nad Labem region.**	0	0	0	0	125/5000
Total		**1160/46000**		**285/11000**	**118/5000**	**582/23000**
In the role of another participant						

Provider[27]	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
		0	0	0	0	0
		0	0	0	0	0
Total			0	0	0	0

Table 3.3.2 - Contract research activities

Client[28]	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
EUC Foundation "Elucidate"	**Extending the competences of general nurses in outpatient care providers**		710/28 000			
State Institute of Health of the Czech Republic	**Monitoring according to NetCode protocol (S-SZU/07915/2024 (approved 2023)**					950/39584
DOCEO České Budějovice	**Special Pedagogical Aspects of Teaching Czech Language to Foreigners**					200/8334
Total			710/28 000			1150/47918

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[29], 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.

[27] Ibid.

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

[29] See Terms definition.

Research Activities of the Faculty of Health Studies: Contribution to Professional Education and Application of Research Findings in Practice

The research activities of the Faculty of Health Studies reflect its position as a key educational institution specializing in the professional training of non-medical healthcare professionals in the Ústí nad Labem region. The projects undertaken not only support the innovation of study programs but also contribute to implementing research findings in clinical practice. The research projects affirm the Faculty of Health Studies as a center for applied healthcare research, with a direct impact on clinical practice and the education of healthcare professionals.

The research activities of the Faculty of Health Studies also reflect a gender dimension, particularly in professional education and healthcare interventions. Projects focusing on expanding the competencies of general nurses, psychomotor therapy for seniors, and stress response in paramedics take into account gender-specific aspects, both in terms of professional roles and physiological and psychological reactions.

Research on innovative teaching methods plays a significant role in the sustainability of the healthcare system. For instance, the implementation of 3D virtual reality in paramedic and midwifery crisis training allows for more effective education while reducing the burden on physical resources. Similarly, the optimization of resuscitation protocols and the prevention of long-term health complications improve the efficiency of care while reducing economic and environmental costs. The faculty thus not only supports the professional growth of healthcare workers but also contributes to the long-term sustainability of the healthcare system.

Research Projects Supported by the Ústí nad Labem Regional Fund

Outcomes of Endovascular Treatment for Wake-Up Stroke and Stroke in the 6–24 Hour Window

This project analyzed the efficacy and safety of endovascular treatment for patients with acute ischemic stroke (AIS) with an unknown onset time (wake-up stroke) and for patients treated within an extended time window of 6–24 hours. The study focused on identifying key predictors of successful therapy, comparing endovascular and conventional treatment approaches, and evaluating clinical and economic impacts in patients treated under the Stroke Protocol of Masaryk Hospital in Ústí nad Labem.

- Long-Term Impact: The findings were integrated into clinical practice and may contribute to revising national recommendations for stroke treatment.

Professional Stress in Paramedics and the Use of 3D Virtual Reality

This research project objectified stress responses in paramedics by simulating mass casualty incidents in a virtual environment. Based on the results, 3D virtual reality was incorporated into postgraduate training programs for paramedics in the Ústí nad Labem region.

- Long-Term Impact: The research expanded into the field of midwifery, leading to the purchase of MR Maternity for crisis simulation training.

Psychomotor Therapy in Occupational Therapy for Seniors

The study evaluated the benefits of psychomotor therapy for patients with neurodegenerative diseases, post-stroke conditions, and mobility disorders. The results led to the expansion of rehabilitation strategies among social service providers.

- Long-Term Impact: The implementation of new cognitive-rehabilitation approaches into routine clinical practice.

Objectification of Stress Response in Healthcare Workers Using Personal Protective Equipment During the Pandemic

This project analyzed the quality of resuscitation performed while wearing personal protective equipment in pre-hospital emergency care. Based on the findings, local resuscitation protocols were optimized.

- Long-Term Impact: The study led to adjustments in resuscitation protocols for the Emergency Medical Services of the Ústí nad Labem region, improving intervention efficiency and safety.

Physical Restraint in the Prone Position and Its Impact on Respiratory Parameters

This research provided new insights into the mechanisms of sudden death during physical restraint in the prone position. The findings led to collaborations with the Regional Police Directorate of the Ústí nad Labem Region and the Czech Police Academy.

- Long-Term Impact: The research findings were applied in police training and contributed to methodological recommendations for law enforcement.

Contract Research

Expanding the Competencies of General Nurses in Outpatient Care

This project focused on expanding the professional competencies of general nurses in outpatient settings, aiming to increase care efficiency and support multidisciplinary collaboration. Specialized educational courses were developed, covering diagnostic and therapeutic procedures, chronic disease prevention, and patient communication.

- Long-Term Impact: The integration of specialized training programs into educational curricula enhanced nurses' competencies in outpatient care, improving access to and quality of healthcare services.

Special Educational Aspects of Teaching Czech as a Foreign Language (Contract Research, DOCEO České Budějovice)

This project focused on the specific educational needs in Czech language instruction for foreign students, with an emphasis on applying special education principles. The key outcome was a comprehensive research report analyzing current challenges and providing practical recommendations for teacher training, particularly in inclusive education and language integration.

- Long-Term Impact: The research report provided methodological guidelines for improving conditions for international students at the Faculty of Health Studies (FHS UJEP) in collaboration with the Faculty of Education (PF UJEP). As a result, a comprehensive document was created to enhance the integration process for international students.

Research Projects Supported by Krajská zdravotní, a.s.

Joint Research Facility of the Faculty of Health Studies and Masaryk Hospital in Ústí nad Labem

The project aimed to establish an innovative laboratory for 3D printing and virtual reality in biomedicine to support preoperative planning, personalized medicine, and the development of surgical instruments. The laboratory will provide comprehensive services to hospitals, including design and production of anatomical models, planning systems, surgical instruments, and patient-specific orthoses.

- Long-Term Impact: A grant application was submitted to the Just Transition Fund, with a proposed budget of approximately 20 million CZK (€833,000). The project aims to stabilize and staff the facility, ensuring its rapid implementation into clinical practice.

Conclusion: Research Contributions and Sustainability

The research activities of the Faculty of Health Studies have led to tangible outcomes that directly impact clinical practice, healthcare education, and the optimization of medical procedures. The results of the endovascular stroke treatment project have been integrated into clinical guidelines, contributing to national recommendations and improving stroke therapy accessibility. The paramedic stress response study validated the effectiveness of 3D virtual reality for training and expanded into midwifery crisis simulations.

The psychomotor therapy project demonstrated its benefits for seniors with neurodegenerative diseases and enhanced rehabilitation strategies in social services. Research on stress responses in healthcare workers led to revised resuscitation protocols, increasing safety and efficiency in emergency interventions.

The faculty's research outputs also reflect a gender dimension, particularly in professional education and healthcare interventions. For example, the stress response study in paramedics compared gender-specific physiological and psychological reactions, optimizing training strategies for different groups. Similarly, the psychomotor therapy study considered gender differences in neurodegenerative diseases, tailoring rehabilitation approaches accordingly.

By integrating research findings into education and clinical practice, collaborating with relevant institutions, and continuously innovating, the Faculty of Health Studies supports the long-term sustainability of the healthcare system and reinforces its role as a center of excellence in applied healthcare research.

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

Type of result[30]	Year of application	Name
Patent/Utility Model	2020	OŠŤÁDAL, M., BAČÁKOVÁ, L., DOUBKOVÁ, M., ECKHARDT, A., KNITLOVÁ, J., NOVOTNÝ, T.: Směs pro léčbu pes equinovarus a farmaceutický přípravek ji obsahující. (A mixture for the treatment of talipes equinovarus and a pharmaceutical composition comprising it.) Utility model, Industrial Property Office, Prague, Czech Republic; No. 34329, accepted 27. 08. 2020. Owners: Fyziologický ústav AV ČR, v. v. i. - Nemocnice na Bulovce - Krajská zdravotní, a.s.
Establishment of a laboratory for 3D printing in medicine at FZS UJEP - linking with the Regional Healthcare a.s. with practical application in pre-operative planning of patients of this hospital on a daily basis.	2023	Result of the grant project. "Establishment of a joint workplace of Krajská zdravotní, a.s. and the Faculty of Health Studies of the Jagiellonian University - "Laboratory for 3D printing in biomedicine". Internal grant support of Krajská zdravotní a.s. No. IGA-KZ-2023-1-1

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.*
The Faculty of Health Studies systematically transfers research results into clinical practice and education of health professionals, thus strengthening the link between academic research and the real needs of the health sector. This transfer is implemented through peer-reviewed publications including impact journals, professional conferences and direct implementation of research findings into practice through collaborating health care facilities and clinics that serve as joint faculty sites. An important platform for sharing scientific knowledge is the New Trends in Health Sciences conference, organised by the Faculty, and the partner conference Quo vadis zdravotníctvo, organised by the University of Prešov. The Faculty also popularises research outputs on social networks, thus extending their reach among the professional and lay public. Direct application of research results is carried out in cooperation with Masaryk Hospital and medical staff of individual clinics of the Faculty of Health Sciences of the University of Applied Sciences, where their practical verification and implementation takes place. New plans are underway to expand the participants at the conference in cooperation with universities from the EduCare 5.0 research alliance (Germany, Portugal, Spain). In the field of pre-hospital emergency care, the faculty has established close cooperation with the Ústí nad Labem Region Health Ambulance Service (ZZS ÚK), which has been granted the status of a Faculty of Health Studies Specialist Unit. This cooperation enables direct transfer of knowledge into practice, as evidenced by two key joint projects. The project "Occupational Stress in Paramedics and 3D Virtual Reality" led to innovation in postgraduate education of professional paramedics, especially in the area of preparation for mass casualty situations. The project "Objectification of the stress response in the use of personal protective equipment by non-medical healthcare workers in pre-hospital emer-

[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.

gency care during a pandemic" contributed to changing the local resuscitation protocol and increased the effectiveness of the care provided in crisis conditions. The transfer of research results is further supported by regular meetings with heads of clinics and other collaborating institutions, where the research projects of the faculty are presented and discussed with the professional public. In order to ensure effective distribution and application of innovative outputs in practice, the faculty started cooperation with the Innovation Centre of the Ústí nad Labem Region in the period under review, thus expanding its possibilities in the field of applied research and interdisciplinary innovations. The faculty's primary focus is on improving the quality of health care and professional education, not on commercialisation. For this reason, it does not generate non-public financial gains from technology transfer, but its contribution lies in the long-term improvement of the quality of healthcare practice and the strengthening of the competences of healthcare personnel. Nevertheless, the faculty is pursuing the potential for future commercialization of selected research outputs, particularly in the area of simulations in medical education and innovations in resuscitation procedures. Possible applications could include the development of simulation-based teaching tools for medical schools, software platforms for crisis management in healthcare, or the use of virtual reality in rehabilitation and training of healthcare professionals. The Faculty of Health Studies focuses on the transfer of its research results to target users, which include in particular health care institutions, educational institutions, government and public institutions, the private sector in the field of health technology and professional organizations. The Masaryk Hospital, the clinics of the Faculty of Health Sciences of the Jagiellonian University, and the ZZS ÚK use the new findings directly in clinical practice, while universities and educational institutions apply them in the professional training of health professionals. Ministries of Health and Social Affairs can use the outputs for health policy making, while health technology companies can collaborate on their further development and implementation. Professional organisations and professional societies also play an important role, updating clinical guidelines and standards of care based on research findings. The search for new users of research results is carried out through professional conferences, publications and direct cooperation with partners from clinical practice. Networking within the EduCare 5.0 research alliance, which links academic and clinical sites from different European countries, plays an important role. The Faculty also concludes memoranda of cooperation with medical institutions and actively participates in project calls focused on applied research, which contributes to attracting new partners in the field of medicine and technological development. The Faculty monitors the possibilities of transferring results into practice through cooperation with the Innovation Centre of the Ústí nad Labem Region and participates in professional platforms focused on innovations in healthcare. This systematic approach extends the reach of its research outputs and ensures their application in practice.

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

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
Donation from a private entity to equip the anatomy classroom					20/800

Total					20/800

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.

The Faculty of Health Studies (FZS UJEP) actively participates in the popularization of science, research and innovation through a wide range of professional and popularization activities that bring the results of research projects to the professional and lay public. An important platform for the presentation of the Faculty's research activities is the national event Night of Scientists, where the latest scientific findings and innovative projects of individual departments of the Faculty are presented every year. The Faculty also regularly participates in the Science Fair, where academic staff popularise research results through interactive presentations and expert discussions. An indispensable role in the dissemination of scientific knowledge is also played by professional lecture activities for the public, including the prestigious Nobel Picnic event, where faculty academics share current scientific trends with the general public. Popularisation of science is also carried out in the form of specialised workshops organised as part of the Open Day, which are aimed at prospective students, and excursions for primary and secondary school pupils, where modern technologies and current research trends are introduced to young people interested in health care. The media outreach of the Faculty's science popularisation is extended by news reports on Czech Television, which present important research projects and their benefits for society. In addition, the results of studies are regularly presented at UJEP student scientific conferences, where students have the opportunity to present their work and discuss scientific topics in an academic environment. Dissemination of information about ongoing research projects is also carried out through social networks, where the faculty uses not only its own communication channels, but also the platforms of partner institutions, such as the Facebook of the Medical Rescue Service of the Ústí nad Labem Region, thus effectively disseminating scientific knowledge among the professional community and the public. Thanks to these activities, the faculty systematically spreads awareness of scientific research in the field of health studies and promotes interest in science among students, future professionals and the public. The dominant activities in popularizing VaVaI include:

1. Organization of the international conference New Trends in Health Sciences, Quo vadis zdravotníctvo
2. Taste Fair Teplice - focused on new knowledge in the field of healthy lifestyle
3. Expert lectures at the faculty and workshops organized for the public
4. Night of the Scientists - regular representation of the study programmes with the most significant scientific progress each year
5. Regular meetings with the heads of clinics and sharing of results

6. Regular meetings at the Ústí nad Labem City Council and at the Ústí nad Labem Region, where faculty representatives comment on the education of medical staff in the Ústí nad Labem 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.

In the period under review, the Faculty of Health Studies (FZS UJEP) reflected the recommendations from the previous evaluation and took measures leading to the development of its research and educational potential. In cooperation with the Regional Faculty of Health, the Faculty has expanded the number of clinical departments to 16, and this network includes 15 clinics and the Institute of Biomedicine and Laboratory Diagnostics, which represent a key pillar of the Faculty's clinical research. A significant step in the field of pedagogical and scientific research activities was the establishment of the Specialist Workplace of the Faculty of Health Sciences of the University of Veterinary Medicine of the Ústí nad Labem Region, which is profiled as a unique platform linking academic education with specialized research in the field of paramedicine. In the context of the Czech Republic, it is an innovative model of linking a higher education institution with an emergency health care provider, which ensures effective transfer of research results into practice. As part of the strategy to strengthen scientific activities, the Faculty has established the Research Centre of the Faculty of Science and Technology of the Faculty of Science and Technology of the University of Ljubljana, which aims to integrate academic staff across departments and support interdisciplinary research towards national grant schemes.

The Faculty recognises the need to overcome its status as a regional institution and transform into a respected national research institute with international impact. In this context, the faculty has expanded its international collaborations with newly concluded agreements with partners in Portugal, Norway and Germany, opening new opportunities for joint research projects and mobility of academic staff. In accordance with the recommendation of the evaluation committee, the faculty is further developing the university infrastructure. From 2022, it operates in a brand-new building on the premises of the largest regional hospital, which meets the modern requirements for higher medical education. The faculty has specialised laboratories for research on movement and civilisation diseases and three simulation centres, including an ambulance simulator. Students have access to the advanced patient simulators SimMan 3G and SimMam, which allow for the faithful simulation of clinical situations. In the field of international scientific cooperation, FZS UJEP is actively involved in the E-NUREMS project ("The use of innovative education tools in the fields of nursing and emergency medical services") within the Erasmus+ programme, where six academic staff from the Nursing and Emergency Medical Services study programmes contribute to the development of innovative pedagogical methods.

The faculty's new involvement in the EduCare 5.0 alliance, where FZS UJEP acts as a leader on behalf of UJEP in negotiating scientific and academic partnerships, contributes to the further expansion of the faculty's international research activities. Although the faculty has made significant progress in the areas of education, research and infrastructure, it has identified the need to strengthen its participation in the national grant schemes of TAČR and GAČR. During the period under review, the faculty submitted four applications for support from these agencies, but

the projects were not selected for funding. In response, the Faculty is implementing measures to improve the quality of project applications and strategic support for scientific research activities. In conclusion, the Faculty of Health Studies of the Jagiellonian University has demonstrated a significant shift towards establishing itself as a national research institute with international overlap. Thanks to targeted strengthening of research infrastructure, deepening of international cooperation and strategic involvement in prestigious scientific alliances, the Faculty is systematically fulfilling its ambition to become a respected centre of applied health research with a direct impact on innovations in healthcare and education of health professionals.

Australian Professor Robert Robergs, who with an H index of 35 will be a distinguished researcher at the Faculty, will also be strengthened for the next term. The faculty's shortcomings are still in obtaining research grants. The assessment period 2019-2023 was a period of preparation for a change in faculty leadership and the associated preparation of development projects. A number of projects were supported in 2023, but the period of development began in 2024 or 2025.

Based on the previous evaluation, the faculty has taken a clear stance on subsequent development. In terms of quality infrastructure, the faculty is located in a new building which is 3 years old. The equipment in classrooms, lecture halls, auditoriums, laboratories and simulation centres is state-of-the-art, and the faculty budget continues to provide for regular investment in these essential areas. Modern facilities and a quality composition of academic staff are the basis for further development in the field of creative activities. From past evaluations, the faculty has developed supporting documents that better and effectively evaluate academic staff and set clear rules for remuneration in the form of incentive rewards.

Compared to the last evaluation, the faculty has achieved qualitative and quantitative improvements, but it should be noted that it is at the beginning, from a regional level, where it wants to reach a stable position at national and international level in the next 5 years. To achieve this, work needs to be done on better internationalisation, which is helped by a long-term visiting professor from Australia and an increasing number of Erasmus+ visits and arrivals for both academic staff and students.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
English versions of documents	3.7	https://fzs.ujep.cz/cs/mep-documentation-2025

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 of Jan Evangelista Purkyně University in Ústí nad Labem is an integral part of the university whose primary mission is the preparation of highly qualified professionals in education, schooling, and related helping professions. The faculty strives to develop critically-minded, socially responsible, and innovative educators who are capable of reflective practice and flexible responses to current and future demands of the educational system and society.

The vision of the faculty emphasizes achieving excellence in teaching and research, systematically supporting research activities, internationalizing education, and expanding cooperation with local, national, and international partners. Faculty of Education has long positioned itself as a key actor in the field of education, contributing through its activities to the sustainability and development of not only regional schooling but broader educational policies as well.

The faculty's societal contribution primarily lies in training educators and specialists who significantly influence the quality of education and life prospects of regional inhabitants. Priority research areas include special and inclusive education, kinanthropology, environmental and sustainable education, and contemporary socio-educational topics such as prevention of risk behaviors and mental health promotion in school environments. These research areas align with the FORD classification structure, encompassing Social Sciences (71%, especially education), Humanities (18%, especially languages and literature), and Health Sciences (11%). Such a structure can be expected at the Faculty in the future, with a stronger involvement of psychological research, which is becoming one of the Faculty's priorities.

Long-term research objectives include developing interdisciplinary research teams, strengthening international scientific collaboration, participation in prestigious international

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

projects, and effectively transferring research results into practice through intensive collaboration with schools, public administration institutions, and the nonprofit sector. Research activities are balanced between fundamental and applied research, focusing on innovative pedagogical methods, developing new educational tools, and promoting environmental education and education for a sustainable future.

Organizationally, the faculty has been divided into four specialized centers and ten departments focusing on pedagogy, psychology, subject-specific didactics, and special education during the period under review. The faculty has a stable workforce averaging 101 employees (full-time equivalent - FTE), including approximately 5 professors, 22 associate professors, and 68 assistant professors. Female academic staff accounted for approximately 45%, reflecting the faculty's targeted gender equality policy.

The average number of students was approximately 2,900 annually, rising to around 4,200 when including participants in lifelong learning courses, with women representing approximately 79% of the total number. The faculty offered an average of 21 study programs—8 bachelor's, 9 master's, and 4 doctoral degrees—with an additional 21 programs provided within lifelong learning.

Overall, fakulty represents a stable and respected institution that actively responds to contemporary societal challenges and significantly contributes to the development of educational systems on regional, national, and international levels.

Table 3.1.1 - Staffing per FTE[2]

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	4.9/2	5/2	5.3/1	6/0	6.2/0	27.4/5
Associate Professor	22.4/14.4	21.8/13.9	22.3/14	23.3/13.5	22.6/1.5	112.4/69.3
Assistant Professor	71.9/32.3	73/26.9	65.9/22.5	63.4/21.2	66.3/27.4	337.5/130.3
Assistant	0	0.8/0.4	1.1/0.6	1.8/0.9	1.3/0.5	5/2.4
R&D Personnel[3]	5.2/3	3.5/2.2	1.1/0.5	1/0.5	0	10.8/6.2
Researchers in other categories[4]						
Technical and economic staff[5]	1/1	1/1	1/1	1/1	1/1	5/5
Scientific, research and development staff involved in teaching activities	0/0	1.2/0	1.7/0	1.7/0	1.7/0	6.3/0

[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.

Early career researchers[6]	14.1/6.2	14.6/7	14.8/7.2	15/7	15.2/7.1	73.7/34.5
Total[7]	105.4/52.7	106.3/46.4	98.4/39.6	98.2/37.1	99.1/49.5	

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 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									4		2	2
Associate Professor					7	2	8	7	6	6	4	2
Assistant Professor	3	1	18	7	29	12	18	9	13	6	1	1
Assistant												
R&D Personnel[9]			7	3								
Researchers in other categories[10]	3	1	2	1	1	1	2					
Technical and economic staff[11]							1	1				
Scientific, research and development staff involved in teaching activities												
Early career researcher[12]			10	5	7	4						
Total[13]	6	2	37	11	37	15	29	17	23	12	7	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.

[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.
[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							1		5			
Associate Professor			2		5	1	8	5	6	5		
Assistant Professor	1	1	16	4	25	11	21	10	8	4	1	1
Assistant												
R&D Personnel[15]												
Researchers in other categories[16]			1									
Technical and economic staff[17]							1	1				
Scientific, research and development staff involved in teaching activities			2									
Early career researcher[18]			11	6	7	4						
Total[19]	1	1	21	4	20	12	31	16	19	9	1	1

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

Table 3.1.4 – Students

Type of study	2019		2020		2021		2022		2023		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Undergraduate	1755	1343	1730	1273	1600	1189	1567	1148	1590	1145	8242	6098
Master's[20]	1152	989	1148	983	1190	1015	1232	1037	1276	1091	5998	5115

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

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

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

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

[18] See Definition of Terms in Methodology HEI2025+.

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

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

Doctoral	66	30	59	31	51	30	60	36	60	36	296	163
Lifelong Learning Courses	1395	1101	1194	983	1306	998	1229	969	1335	1103	6459	5154
Total	4368	3463	4131	3270	4147	3232	4088	3190	4261	3375	20995	16530

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	4/0	0/0	4/0	0/0	12/0	0/0	12/0	0/0	10/0	0/0	42/0	0/0
Master's	7/0	0/0	7/0	0/0	10/0	0/0	10/0	0/0	9/0	0/0	43/0	0/0
Doctoral	1/0	0/0	4/0	0/0	4/0	0/0	4/0	0/0	4/0	0/0	17/0	0/0
Lifelong Learning courses	30/0	23/0	21/0	19/0	17/0	16/0	19/0	18/0	20/0	16/0	107/0	92/0
Total	42/0	23/0	36/0	19/0	43/0	16/0	45/0	18/0	43/0	16/0	209/0	92/0

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.	
	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.	

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

	2.10 Nanotechnology		Zvolte položku.	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	11
	3.2 Clinical medicine	1	Basic Research	
	3.3 Health sciences	10	Balanced basic and 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	5	Balanced basic and applied research	71
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education	65	Balanced basic and applied research	
	5.4 Sociology		Zvolte položku.	
	5.5 Law	1	Applied Research	
	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.	18
	6.2 Languages and Literature	14	Balanced basic and applied research	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)	4	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:

During the evaluated period of 2019–2023, the Faculty of Education at Jan Evangelista Purkyně University in Ústí nad Labem strengthened and further developed its position as a respected research institution within the national and international academic community. The Faculty actively engaged in scholarly discourse through individual achievements of its staff, expert participation in national and international scientific activities, and extensive involvement in research project evaluations.

Prestigious awards received by the Faculty's academic staff underscore its high-quality research and creative activities, particularly in arts and education. Among these achievements, Prof. Martin Velíšek stands out prominently, having received an award from the Association of Czech Graphic Artists Hollar in 2023, being a finalist at the international Figurativas art competition in Barcelona (2019), and winning the main prize in the Czech "Grafika roku" competition in 2020. Additionally, Mgr. Kristýna Volfová and Zdeněk Svoboda, Ph.D., received the National Career Guidance Award in 2023, highlighting the Faculty's influential work in educational guidance.

The Faculty's international recognition is further evidenced by active memberships of its academics on editorial boards of prestigious international journals. Examples include Milan Kubiatko, Ph.D., serving on the editorial boards of the Journal of Baltic Science Education and Problems of Education in the 21st Century, Jan Tlustý, Ph.D., on the editorial board of Bohemica Litteraria, and Štefan Balkó, Ph.D., serving journals such as Physical Activity Review and Perceptual and Motor Skills. These activities reflect the Faculty's prominent position in shaping international academic discourses.

International visibility of the Faculty's researchers was strengthened through invited lectures at reputable institutions abroad, including Jan Tlustý, Ph.D., at the University of Glasgow, Université Libre de Bruxelles, and Université de Paris-Sorbonne; and Michal Vostrý, Ph.D., at the University of Strategic Planning in Poland, among others.

Equally important was the Faculty's role as a host to distinguished international researchers and experts. Notable guests included Prof. Albrecht Classen from the University of Arizona, who delivered a lecture on antisemitism in the pre-modern world (2022), and Prof. Osamu Takeuchi along with Dr. Maiko Ikeda from Kansai University, Japan, who presented their research on the effects of classroom environments on second-language learners' affective factors (2023).

Additionally, academic staff at the Faculty played a significant role in evaluating research projects and programs at national and European levels, including involvement in the Czech Science Foundation, the Slovak Research and Development Agency, the Slovenian Research Agency, and various Czech university grant agencies.

The Faculty also actively contributes to the broader academic community through organizing significant international conferences such as the International Conference of Sport, Health and Physical Education; School, Language, and Literature; the International Conference on Psychomotorics; and specialized seminars. Further extending its academic impact, fakulty publishes reputable scholarly journals including EduPort, Aura Musica, and Usta ad Albim Bohemica, aiming to be indexed in recognized international academic databases.

Compared to the previous evaluation period, the Faculty has significantly expanded and deepened activities across all monitored areas, clearly demonstrating its growing academic prominence and enhanced research quality. The Faculty intends to continue this positive trajectory, reinforcing its position as a leading institution in scientific research and innovation.

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
Martin Velíšek, prof. akad. mal. Mgr. Ph.D.	Laureate of the SČUG HOLLAR Prize, 2023	Association of Czech Graphic Artists Hollar
Martin Velíšek, prof. akad. mal. Mgr. Ph.D.	Finalist, Figurativas, Barcelona, Spain, 2019	MEAM (Museu Europeu d'Art Modern), Barcelona
Kristýna Volfová, Mgr., Zdeněk Svoboda, Mgr. Ph.D.	National Award for Career Guidance, 2023	Euroguidance Centre
Eva Vápenková, Mgr.	Award for Small-Format Graphics, 2022	Hollar Foundation
Martin Velíšek, prof. akad. mal. Mgr. Ph.D.	Main Prize, Graphics of the Year, 2020	Hollar Foundation
Jakub Pivarč, PhDr. Ph.D.	Best Poster Award, ČAPV 2023	Czech Educational Research Association
Jan Janovec, Mgr. Ph.D.	3rd Place, Technical Olympiad Pilsen, 2021	University of West Bohemia, Confederation of Industry of the Czech Republic

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
Milan Kubiatko, PaedDr. PhD.	Journal of Baltic Science Education; ISSN 1648-3898
Milan Kubiatko, PaedDr. PhD.	Problems of Education in 21st Century; ISSN 1822-7864
Jan Tlustý, doc. Mgr. Ph.D.	Bohemica Litteraria; ISSN 1213-2144
Štefan Balkó, doc. PhDr. Ph.D.	Physical Activity Review; eISSN 2300-5076
Štefan Balkó, doc. PhDr. Ph.D.	Perceptual and Motor Skills; ISSN 0031-5125
Miloš Hons, prof. PaedDr. Ph.D.	Hudební věda; ISSM 0018-7003
Michal Vostrý, doc. PhDr. Ph.D.	Geriatrics; ISSN 2308-3417
Michal Vostrý, doc. PhDr. Ph.D.	Rehabilitácia; ISSN 0375-0922
Vlastimil Chytrý, doc. PhDr. Ph.D.	Elementary Mathematics Education Journal; ISSN 2694-8133
Kateřina Dytrtová, doc. Mgr. Ph.D.	ESPES. The Slovak Journal of Aesthetics; ISSN 1339-1119

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
Jan Tlustý, doc. Mgr. Ph.D.	Narrative identity, Ethics and Three Forms of Memory Abuse	School of Modern Languages and Cultures, University of Glasgow, Velká Británie	2019
Jan Tlustý, doc. Mgr. Ph.D.	Mind, Robots and Human Life	Université Libre de Bruxelles, Faculté de Lettres, Traduction et Communication	2021
Jan Tlustý, doc. Mgr. Ph.D.	Central Europe Through Train Windows: Jaroslav Rudiš and his Winterberg's Last Journey	Université de Paris-Sorbonne IV, Etúdes Slaves, Francie	2023
Christoph Haase, Ph.D.	English in Australia	Bielefeld University in Bielefeld, Germany	2019
Natalia Orlova, doc. CSc,	Teaching practicum in educational paradigm: the ways of Innovation.	Institute of Foreign Languages, Herzen State Pedagogical University, St.Petersburg, RF	2019
Michal Vostrý, doc. PhDr. Ph.D.	Possibilities of Outdoor Combination Therapy for the Elderly (aspects of special education and occupational therapy)	University of Strategic Planning in Dąbrowa Górnicza, Social and Medical Faculty	2022
Kateřina Hádková, doc. PhDr. Ph.D.	Respekt gegenüber Werten und Aktivität von Schülerinnen und Schülern der Sekundarstufe unter den Bedingungen einer beschränkten gesellschaftlichen Partizipation	Universität-Halle (Salle)	2022
Štefan Balkó, doc. PhDr. Ph.D.	The phenomenon of reaction time in sport	Jan Dlugosz University, Poland	2019
Štefan Balkó, doc. PhDr. Ph.D.	The phenomenon of reaction time in sport and health	Lesya Ukrainka Eastern European National University, Ukraine	2019
Pavel Doulík, prof. PaedDr. Ph.D.	Czech Teacher (Still) at the Crossroads: Present and Perspectives of Pre-service Teacher Education (What Teacher Training Is and What It Could	Comenius University, Bratislava, Slovakia	2019

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the lecturer	Lecturer's employer at the time of the lecture	Invited lecture title	Year
Albrecht Classen, prof.	University of Arizona, Tucson	Antisemitism in Pre-Modern World	2022
Linas Selmistraitis, prof. dr.	Mykolas Romeris University, Lithuania	English as a global language, cross-linguistic transfer phenomena	2022

Lisa Baer, Msc.	Olivet University, California	Cooperation with within the English Language Fellow program	2021
Kamila Ciepiela, dr.hab.	University of Łódź, Polsko	Language acquisition. Nature and Nurture approach.	2020
Maiko Ikeda, Ph.D.	Kansai University, Osaka	Effects of Classroom Environment on L2 Learners' Affective Factors	2023
Osamu Takeuchi, prof.	Kansai University, Osaka	Effects of Classroom Environment on L2 Learners' Affective Factors	2023
Dana Baláková, doc. PhDr. PhD.	Katolícka univerzita v Ružomberoku, Filozofická fakulta	K výskumu poznania biblickej frazeológie z pohľadu používateľov slovenského a českého jazyka	2023
Jaromír Šimonek, prof. PaedDr. PhD.	Univerzita J. Selyeho, Komárno	Agility in Sport	2021
Petra Jesenská, doc. PaedDr. PhD.	Univerzita Mateja Bela v Banské Bystrici, Filozofická fakulta	Morphology of English Verbs. English as a satelite language.	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 project/programme research call	Name of the contracting authority/guarantor of the project/programme call	Year
Milan Kubiatko, PaedDr. PhD.	Standard Projects	Czech Science Foundation	2023
Milan Kubiatko, PaedDr. PhD.	Lead Agency, Senior Research Projects	Slovenian Research Agency	2019-2023
Milan Kubiatko, PaedDr. PhD.	Standard Projects	Cultural and Educational Grant Agency of the Slovak Republic	2019-2023
Milan Kubiatko, PaedDr. PhD.	Standard Projects	Scientific and Educational Grant Agency of the Slovak Republic	2019-2023
Milan Kubiatko, PaedDr. PhD.	Standard Projects	Slovak Research and Development Agency	2019-2023
Michal Vostrý, doc. PhDr. Ph.D.	GAUK Standard Projects	Charles University Grant Agency	2019-2023
Roman Kroufek, PhDr., Ph.D.	GAJU Standard Projects	University of South Bohemia Grant Agency	2021, 2023
Roman Kroufek, PhDr., Ph.D.	M17+	Research, Development and Innovation Council of the Government of the Czech Republic	2019-2023
Jiří Koten, doc. Mgr. Ph.D.	M17+	Research, Development and Innovation Council of the Government of the Czech Republic	2019-2021

Zdeněk Svoboda, Mgr. Ph.D.	GAUK Standard Projects	Charles University Grant Agency	2020

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 research[22]) that it has implemented or participated in during the period of 2019–2023[23]. 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:

During the evaluation period of 2019–2023, the Faculty of Education at Jan Evangelista Purkyně University in Ústí nad Labem carried out several research projects contributing directly to fulfilling the faculty's mission and vision. Below is an overview of five particularly significant projects demonstrating the faculty's strengths in applied research, interdisciplinarity, and community collaboration.

Outdoor Teaching in Times of Crisis: Reflections on Distance Education in Primary Schools during the Covid-19 Pandemic and Recommendations for Educational Practice (Technology Agency of the Czech Republic)

This project addressed the educational crisis caused by the Covid-19 pandemic by researching the effectiveness of outdoor education in primary schools. In line with the faculty's mission, the project provided teachers with materials and competencies to navigate unprecedented challenges. Key outcomes included detailed methodological resources, practical teaching guidelines, and recommendations aimed at enhancing educational system resilience in crises. The interdisciplinary approach, integrating pedagogy, psychology, and health sciences, facilitated direct application in schools and supported broader educational strategies. Outputs were disseminated through workshops, provided to regional schools, and integrated into the training of future primary educators. The project's practical application is highly relevant during external crises, offering clear guidelines for achieving broad educational objectives. Faculty of Education was the principal investigator.

Responsible Consumption – Educational Resources for Sustainable Lifestyle Education (Technology Agency of the Czech Republic)

This project promoted sustainable consumer behavior through comprehensive educational materials and certified teaching methodologies. Developed resources included methodological

[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.

guides, thematic lessons suitable for various educational levels, and extensive web-based materials, significantly expanding sustainability education opportunities. The project particularly addressed SDGs 4 and 12, directly aligning with the faculty's strategic priorities on social responsibility. Outputs were presented via workshops, integrated into future teachers' education, and utilized by the application guarantor, the NGO Sdružení TEREZA. Faculty of Education participated as a project partner, responsible for producing foundational studies, contributing to scientific publications, and certified methodologies. The Centre for Natural Science Education Support at UJEP's Faculty of Science was also involved. The main investigator was the Environment Centre of Charles University in Prague.

Methodological Framework for Environmental Literacy in Schools (Technology Agency of the Czech Republic)
The project's goal was to assess pupils' environmental literacy through a validated methodological framework. The resulting certified methodology and research report provided educators and policymakers with tools for systematically analyzing environmental education and evaluating the effectiveness of sustainability education. This reaffirmed the faculty's ongoing commitment to environmental education and sustainability. Outputs are actively utilized by the Ministry of the Environment and regional administrations and schools, demonstrating robust practical applicability, including policy formulation and grant-making strategies. The methodology is also employed in Slovakia. Faculty of Education participated as a partner, responsible for preparing the final research report and collaborating on the methodology's development. The leading organization was the NGO BEZK, with Masaryk University in Brno as an additional partner.

Public Opinion Research on Crime Issues (Contract Research, Ústí nad Labem Region)
This collaborative project with the Ústí nad Labem Region examined public attitudes towards crime, security, and preventive measures. Detailed analyses provided valuable insights for regional policymakers and security authorities. The project's applied nature demonstrated active faculty engagement in addressing regional societal issues and enhancing security strategies, aligning with the faculty's mission focused also on non-teaching pedagogy. Outcomes are relevant for training future social educators, serving both as best practice examples and instructional resources for social pedagogy education.

Special Educational Aspects of Teaching Czech Language to Foreigners (Contract Research, DOCEO České Budějovice)
This project focused on the specific educational needs encountered in teaching Czech as a foreign language from the perspective of special education. The output included a research report with recommendations for teacher training. Emphasis on inclusive education and linguistic integration aligned with the faculty's long-term mission of promoting accessibility and equality in education. The interdisciplinary project involved specialists in special education, linguistics, and work with non-native Czech speakers.

Acquiring applied research projects and supporting contract research responded to the international evaluation panel's recommendations, representing a strategic direction for the faculty. Recognizing that continued success requires deepening support for academic staff, the faculty expanded its Science Department by adding one non-academic staff member responsible for assisting with research project preparation and administration, a step already resulting in increased project submissions and improved quality.

All mentioned projects align clearly with the faculty's strategic objectives, mission, and vision, embodying robust interdisciplinary approaches and strong community collaboration. Faculty of Education intends to further develop and support similar research activities, continually reinforcing its role as a significant actor in education and social development.

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
Technology Agency of the Czech Republic	Outdoor Teaching in Times of Crisis: Reflections on Distance Education in Primary Schools during the Covid-19 Pandemic and Recommendations for Educational Practice		130/5145	668/26437	528/20896	
Total			**130/5145**	**668/26437**	**528/20896**	
In the role of another participant						
Provider[27]	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Technology Agency of the Czech Republic	Responsible Consumption – Educational Resources for Sustainable Lifestyle Education	348/13772	338/13377	115/4551		
Technology Agency of the Czech Republic	Methodological Framework for Environmental Literacy in Schools	79/3126	137/5422	32/1266		
Total		**427/16899**	**475/18799**	**147/5817**		

Table 3.3.2 - Contract research activities

Client[28]	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Ústí nad Labem Region	Public Opinion Research on Crime Issues				175/6926	

[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.
[27] Ibid.
[28] If the client is from abroad, indicate in brackets the country of origin of the client.

DOCEO České Budějovice	Special Educational Aspects of Teaching Czech Language to Foreigners					165/6530
Total					**175/6926**	**165/6530**

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[29], 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:

During the evaluation period of 2019–2023, the Faculty of Education at Jan Evangelista Purkyně University in Ústí nad Labem developed several impactful research outputs, contributing significantly to the faculty's mission and vision. The following is an overview of notable outputs highlighting strengths in applied research, interdisciplinarity, and community collaboration.

Certified Methodology: Education for Responsible Consumption and Sustainable Lifestyle
This certified methodology supports sustainability education and ecologically responsible behaviors, targeting primarily primary and secondary school teachers. The materials, approved by the Ministry of the Environment, provide comprehensive tools for teaching responsible consumption and environmental impacts. Its implementation has notably influenced educational curricula in selected schools, contributing to students' informed consumer decisions. Teachers, educational institutions, and environmental NGOs actively use the methodology, integrating it into teacher training programs.

Certified Methodology: Assessment Methodology for Environmental Literacy
This methodology provides a comprehensive evaluative framework for measuring environmental literacy among primary and secondary school students. It aims to equip schools with diagnostic tools for assessing students' environmental knowledge, values, and attitudes, enabling targeted improvement strategies in environmental education. Its practical impact is evident in educational reforms and strategic documents on sustainability education. The methodology facilitates data collection at both national and regional levels.

Research Report: Methodological Framework for Environmental Literacy in Schools
Closely connected to the previous methodology, this research report served as essential input for the Ministry of the Environment in developing sustainability-oriented educational policies and grant frameworks. It contributed to revising cross-cutting themes in the Framework Educational Program for primary education.

[29] See Terms definition.

Research Report: Distance Education during the Covid-19 Crisis, with Emphasis on Outdoor Learning
This study investigated the effectiveness of outdoor learning in distance education during the Covid-19 pandemic. Findings indicated that outdoor education significantly enhanced student engagement, reduced psychological impacts of isolation, and maintained educational quality. Recommendations have been integrated into school strategies, with some schools permanently incorporating outdoor learning into their curricula.

Didactic Publication: Guide to Distance Outdoor Education
This instructional manual supports educators and teacher trainees in integrating outdoor environments into distance education effectively. It includes practical guidelines for outdoor lesson organization, digital technology integration, and assessment methodologies. Schools, teacher-training programs, and environmental NGOs widely utilize this resource.

Research Report: Public Opinion Research on Crime Prevention in the Ústí nad Labem Region
This report provided an in-depth analysis of public attitudes toward regional security and preventive measures. The results significantly influenced regional crime-prevention strategies and resource allocation, improving communication between the public and security services and shaping preventive measures.

Certified Methodology: Biological Invasions in Environmental Education for Primary Schools
Developed collaboratively, this methodology responds to the need to include biological invasions in educational programs. It equips educators with interactive tools for teaching about invasive species' ecological impacts. The Ministry of the Environment actively promotes the methodology for primary education.

Methodology: Methodology for Career Counseling to Prevent Early School Leaving
Focused on career counseling, this methodology aims to reduce early school dropouts. Implemented in numerous school counseling programs, it significantly decreased dropout rates in targeted regions, positively affecting students' academic results and motivation, and prompting systemic changes in dropout prevention strategies.

Policy Paper: Inclusive Education Strategy for the Ústí nad Labem Region 2019–2020
This document outlined strategies to expand inclusive education in the region, influencing political decisions on resource allocation for students with special educational needs and resulting in tangible improvements in school inclusivity.

Policy Paper: Regional Strategy for Environmental Education, Awareness, and Enlightenment in the Ústí nad Labem Region
Developed in collaboration with UJEP's Faculty of Environment, this strategic document set environmental education priorities, leading to enhanced sustainability programs in schools and increased funding. Its recommendations shape the region's environmental education strategy until 2030, significantly boosting financial support for sustainability education.

All research outputs considered gender equality and sustainability aspects. Outputs such as the Career Counseling Methodology explicitly address gender equality in education and career opportunities. Similarly, the Inclusive Education Strategy emphasizes gender equity, ensuring accessibility to supportive measures regardless of gender.

Sustainability considerations are central to outputs focusing on environmental education. Methodologies addressing responsible consumption, environmental literacy, and biological invasions actively promote a generation that understands and embraces ecological responsibility. Practical sustainability impacts include policy implementation and increased financial and strategic support for sustainable education. The faculty's research thus significantly enhances social, environmental, and economic sustainability in education, ensuring long-term societal benefits.

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

Type of result[30]	Year of application	Name
Certified Methodology	2021	Education for Responsible Consumption and Sustainable Lifestyle
Certified Methodology	2021	Assessment Methodology for Environmental Literacy
Research Report	2021	Methodological Framework for Environmental Literacy in Schools
Research Report	2022	Distance Education during the Covid-19 Crisis, with Emphasis on Outdoor Learning
Didactic Publication	2022	Guide to Distance Outdoor Education
Research Report	2022	Public Opinion Research on Crime Prevention in the Ústí nad Labem
Certified Methodology	2023	Biological Invasions in Environmental Education for Primary Schools
Methodology	2023	Methodology for Career Counseling to Prevent Early School Leaving
Policy paper	2019	Inclusive Education Strategy for the Ústí nad Labem Region 2019–2020
Policy paper	2021	Regional Strategy for Environmental Education, Awareness, and Enlightenment in the Ústí nad Labem Region

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 transfer of research, development, and innovation (R&D&I) results into practice at faculty is carried out continuously. Both initial teacher training and professional development for current educators are regularly innovated using the faculty's research outputs. Results are disseminated to practicing teachers through workshops and seminars organized by faculty staff, as well as through courses provided by the Centre for Lifelong Learning. This centre also offers courses used by Czech Railways to enhance employee competencies.

Typical end-users of the faculty's R&D&I outputs include: Preschools, primary and secondary schools, both regionally and nationally.

Research outcomes are implemented into school curricula and inform changes in educational approaches. Some faculty members contribute as co-authors of textbooks for primary education.

Teachers and professionals in helping professions utilize the faculty's research results to expand their competencies, enrich their professional portfolios, and thus achieve higher pedagogical self-efficacy.

Public administration and regional government use research findings to formulate educational policies at national and regional levels. Research from faculty influences national policies on inclusion and the revised Framework Educational Program. The Ústí nad Labem region employs these outputs for strategic educational planning in areas such as inclusion and sustainability.

The NGO sector frequently utilizes research outputs, including methodological guides, didactic materials, and research reports. NGOs apply these results directly in their activities or in partnerships with the faculty. Typical NGO partners include environmental centers, sports clubs, and art galleries.

Companies – In collaboration with the Transport Educational Institute, the faculty provides specialized skills training (managerial and pedagogical) for Czech Railways employees. Approximately 45 participants annually attend a two-week course. The faculty sees further potential for private-sector collaboration, which could increase revenues from non-public sources in the future.

[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.

As shown, the continuous transfer of fundamental and applied research results into practice has substantial societal impact, although commercialization from non-public funding sources remains limited. While research outcomes listed in Table 3.4.1 significantly influence society, they have not yet been leveraged substantially for revenue generation. Faculty sees potential primarily in expanding educational activities into the private sector, following the successful model established through training provided to Czech Railways employees. Specific revenues include donations (see Table 3.5.1), which support events such as conferences and artistic performances.

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	36/1425	11/435	80/3166	116/4591	29/1148
Courses for Companies	216/8549	216/8549	216/8549	216/8549	216/8549
Total	**252/9974**	**227/8984**	**296/11715**	**332/13140**	**245/9697**

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 popularization activities of the academic staff at the Faculty of Education are broadly represented across all departments, reflecting the diverse professional expertise of the faculty. Academics regularly participate in public lectures, discussions, debates, and educational events aimed at pupils, students, and the general public. These activities not only contribute to the popularization of science and arts but also reinforce the faculty's role as a significant regional and national actor. Many academics appear in media, participate in public discussions, prepare expert workshops, and bridge university research with practical applications.

An illustrative example of these extensive popularization efforts is the involvement of Dr. František Čajka, who regularly gives lectures to primary and secondary school students and contributes to Czech Radio programs on early medieval culture. Assoc. Prof. Jiří Koten actively participates in expert panel discussions on Czech Radio Vltava, where he serves as a jury member evaluating prominent literary awards. Dr. Zdeněk Svoboda and Mgr. Kristýna Volfová present their research findings on career counseling in public discussions. Assoc. Prof. Lenka Přibylová regularly promotes musicology; for instance, in 2021, she delivered a lecture titled "From Janáček to the Present" at the Moravian Composers' Club, and in 2022, she spoke at the Czech Composers' Society meeting with her presentation "On My Encounters with Music." Dr. Kateřina Šteklová is dedicated to nurturing talented students in English philology and serves as a consultant for high school research projects at Teplice Grammar School.

Faculty of Education takes pride in its rich tradition of choir singing, represented by three prominent ensembles: the Faculty Female Chamber Choir, Chorea Academica, and NONA. These choirs enrich university cultural life and significantly promote music locally and internationally. The Faculty Female Chamber Choir, also known as "Kuželky," primarily comprises music students from the faculty and performs a wide repertoire ranging from Renaissance to contemporary music, emphasizing Czech choral works. The choir provides valuable practical experience in choral singing and pedagogy. Chorea Academica, a mixed chamber choir established in late 1989 by university lecturers Josef Říha and Jiří Holubec, includes students, alumni, and educators from the Department of Music Education. This choir interprets compositions from various historical periods and has achieved numerous successes domestically and internationally, collaborating with professional ensembles and participating in international festivals. NONA is a mixed choir focused on an extensive repertoire, including classical and popular music, composed of talented students and alumni whose enthusiasm and professionalism ensure high-level performances. NONA frequently performs at university and public events, thus enriching regional cultural life. These ensembles actively collaborate with other institutions, organize music festivals, and host workshops, significantly contributing to cultural development and music education.

Through these activities, the faculty substantially contributes to the popularization of scientific knowledge, art, and culture, strengthens community relations, and supports regional identity and quality of life. The most significant periodic popularization activities include:

Cantus Choralis, an international choral symposium, represents one of the faculty's most prominent popularization activities. Its 16th edition was successfully held in 2023. Conducted biennially, it combines expert discussions on methodological, interpretative, and pedagogical aspects of choral singing with public concerts, creating a unique platform for exchanging experiences among experts, educators, conductors, and students and promoting choral art and music education.

The Koridor Gallery at faculty serves as an important cultural-educational venue facilitating dialogue among academia, students, and the general public. Regular art exhibitions showcase the work of doctoral students, academics, and other artists. Between 2019 and 2023, the gallery hosted several thematic exhibitions that attracted considerable attention from both the professional community and the general public. Successful exhibitions included "Explore Some of Your Findings in Greater Detail" (2020), offering fresh perspectives on discovery and interpretation through diverse artistic forms; "Messages" (2022), addressing contemporary social issues and intergenerational communication through visual art; and "And Man Created the Dog" (2023), exploring human-animal relationships through artistic and educational approaches, significantly touching upon themes of responsibility and ethical values.

The Summer Music Education Workshop, an annual gathering of music educators accredited by the Czech Ministry of Education, Youth and Sports, serves as a platform for professional exchange, competence development, and pedagogical inspiration. Organized in cooperation with the Czech Society for Music Education, it has attracted considerable professional interest over the long term. Participants engage in workshops, lectures, and practical demonstrations focused on innovative music teaching methods, rhythmic and vocal skill development, and technology integration in music education. The workshop also fosters networking, facilitating long-term cooperation and sharing best pedagogical practices. The 34th edition in 2023 reaffirmed its ongoing quality and significance.

The Student Film Festival provides a unique platform for university and high school students interested in filmmaking. Its objectives include developing technical and creative audiovisual production skills, enhancing teamwork, English communication, and project management skills. Structured as workshops led by film, media, and communication experts, students gain

hands-on experience in scriptwriting, cinematography, editing, and dramaturgical analysis. Emphasizing international collaboration, the festival enables students to work in multicultural environments and enhance language proficiency. Held in 2019 and 2022, it promotes interdisciplinary connections between pedagogy, art, and technology, thus significantly advancing media literacy among young creators.

TěloÚstí, an annual national gathering of physical education teachers organized by faculty's Department of Physical Education and Sport, provides a platform for exchanging the latest insights into physical education, sports methodologies, and pedagogical innovations. The event includes professional workshops, practical demonstrations, and lectures emphasizing innovative approaches to physical education, modern sports training methods, adaptive physical education, and integrating physical activities into educational settings. The event supports healthy lifestyles and strengthens the faculty's role in sports education professionalization.

Jirkovský Písňovar, an international choral music competition held annually at Červený Hrádek Castle near Jirkov, celebrated its 16th edition in 2023. Co-organized by faculty's Department of Music Education, the festival promotes choir singing through competitions, professional jury evaluations, workshops, and seminars on choral techniques and performance. The festival enjoys high international participation and significantly contributes to regional cultural enrichment.

Researchers' Night, a national event regularly joined by faculty, aims to bring science closer to the public interactively and engagingly through demonstrations, experiments, and lectures. The faculty presents diverse thematic activities covering pedagogy, psychology, special education, visual and music education, and sports sciences. Visitors can experience educational techniques, engage in creative workshops, and learn about current faculty research projects.

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, several key recommendations were provided to the Faculty of Education, focusing on strengthening research activities, interdisciplinarity, enhancing connections with applied sectors, increasing the visibility of research outcomes, and deepening involvement in international contexts. Between 2019 and 2023, the faculty actively responded to these recommendations and implemented measures aimed at enhancing the relevance of its research and the societal impact of its activities.

Improving Research Applicability in Practice and Strengthening Collaboration with Applied Sectors

The International Evaluation Panel (MEP) recommended that the faculty better integrate its research activities with real-world practice and enhance their applicability. In response, the faculty developed and implemented several research outputs directly influencing educational policy and practice. The faculty placed increased emphasis on applied research, whose outcomes became relevant resources for educational policy at regional and national levels, thereby significantly enhancing the societal impact of the research.

The commercialization of R&D&I results remains problematic. The faculty's mission, primarily focused on preparing teachers and educational professionals, defines possibilities and limitations for generating additional private-sector funding. Many research outcomes were financed from sources prohibiting further commercial use. However, the faculty still has untapped potential in expanding its continuing education offerings, not only for educators but also for private-sector clients. Although some such activities already exist, there remains room for substantial expansion.

Developing Excellence and Interdisciplinarity in Research

The panel recommended enhancing interdisciplinary collaboration. In response, several research projects integrating pedagogy, social sciences, and environmental studies were implemented. During the evaluated period, three projects funded by the Technology Agency of the Czech Republic explicitly reflected interdisciplinary connections with environmental sciences. Consequently, environmental education and sustainability in education became key research areas for the faculty, alongside special education and kinanthropology—topics identified by faculty management as areas of excellence. These fields also produced the highest-quality scientific outputs, particularly in publications within impact-factor journals.

More Structured Approach to Evaluating and Supporting Research Activities

The panel advised adopting a more systematic approach to evaluating research activities and their impacts. In response, the faculty:

- Established internal mechanisms for monitoring practical applications of research outputs and regularly assessing individual project impacts. It systematically utilizes the Information system for academic staff performance evaluation (IS HAP) and reflects the outcomes in employee remuneration. Faculty regulations now include guidelines on Stimulating Qualification Growth and Creative Activities of Academic and Research Staff at Faculty of Education, which defines key creative outputs and their evaluation. Another guideline, Establishment of Postdoctoral Positions at Faculty of Education, further strengthens the systematic support of young researchers and Support for Internal Scientific and Creative projects.
- Strengthened cooperation with international institutions and increased the number of publications in prestigious international scientific journals.
- Stabilized offerings for continuous staff education in R&D&I, including language courses and seminars on research methodology and scientific writing.
- Placed greater emphasis on applying research conclusions to educational policies, exemplified by implementing regional-level environmental and inclusive strategies.

Between 2019 and 2023, the Faculty of Education at UJEP actively addressed key recommendations from the International Evaluation Panel, implementing concrete measures to enhance research relevance, interdisciplinarity, collaboration with applied sectors, popularization of scientific outputs, and a focus on gender equality and sustainability. These efforts not only improved the quality of the faculty's research but also increased its societal impact. The faculty intends to continue this trajectory, further developing research activities emphasizing the integration of scientific knowledge with societal needs.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Establishment of Post-doctoral Positions at Faculty of Education	3.7	https://drive.google.com/file/d/1FjgE2D4c5JnRN-wNwOKaY4w8eBdQ9J10B/view?usp=sharing
Stimulation of Qualification Growth and Creative Activities of Academic and Research Staff at Faculty of Education	3.7	https://drive.google.com/file/d/1GZcULMhbeNYAKi_sfMBkx-saTy1cwavBz/view?usp=sharing
Support for Internal Scientific and Creative Projects at FE UJEP Departments	3.7	https://drive.google.com/file/d/1dPS_qCvqLRx1wEM3NDYZnAT8kw7C9N-X/view?usp=sharing

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Science UJEP

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:

Faculty Mission:
Despite its youth (founded in 2005), the Faculty of Science is an established and dynamically developing part of Jan Evangelista Purkyně University in Ústí nad Labem. As the only Faculty of Science in the Ústí Region, it plays a key role not only in advancing scientific knowledge but also in preparing highly qualified professionals and teachers for the region and the entire Czech Republic. The faculty's research activities cover a broad spectrum of fields from basic research to highly applied projects with direct impact on industrial practice and quality of life in the region. The faculty is building its position as a confident, open, and innovative research institution with significant regional impact and growing international prestige. It strategically strengthens ties with both academic partners and the application sphere, thereby fulfilling its role as a leading regional center of research excellence and quality education in natural sciences, nanotechnology, computer science, and mathematics.

Faculty Vision:
The faculty aims to be a dynamic, maximally open, confident, academically oriented research faculty with strong connections to both the region and partner educational and research institutions in national and international contexts. It strives for quality, international relevance, and good reputation in all areas of its activities, especially in research and education. The goal is to be an attractive faculty for students with close ties to the applied sphere and public sector, offering quality education in natural sciences, nanotechnology, computer science, and mathematics, and stimulating a friendly environment for students' personal development. The

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

faculty's long-term vision is continuous growth and strengthening of its prestige in the academic world, development of strategic partnerships with industry and international institutions, and consolidation of its position as a center of scientific excellence.

General Self-Reflection:
The Faculty of Science at UJEP actively embraces its third role, which it perceives as an inseparable part of its academic and scientific activities. Its mission is not only to conduct cutting-edge research and provide quality education but also to share scientific knowledge with the general public, promote education, and contribute to the sustainable development of the region. The faculty systematically engages in science popularization through lectures, workshops, public debates, science festivals, and collaboration with schools. It also emphasizes the transfer of current scientific knowledge to secondary and primary education and the development of methodological and didactic competencies of teachers through its Center for Promotion of Science Education. The faculty recognizes its responsibility to the region and actively contributes to its development through extensive cooperation with local companies, public administration, and the non-profit sector. Through its third role mission, the faculty fulfills the university's social responsibility, connects the academic world with the wider public, and creates a bridge between science, education, economy, and society.

In terms of social impact, one of the important roles of the faculty is the education and professional preparation of future teachers of science subjects, especially for secondary schools, but also for primary schools. The faculty prepares teachers in the fields of biology, physics, geography, chemistry, mathematics, and computer science, both through full-time study and, in some fields, through part-time study. Part-time (distance) study for some non-teaching science fields is also available. The faculty's scientific research activities are primarily focused on basic research in all the mentioned fields. However, they are increasingly expanding into applied or experimental research. The faculty's research activities continue to focus primarily on more specifically defined topics of basic research. Recently, topics targeting the application sphere have been increasingly included. The faculty is characterized by intensive cooperation with numerous academic and research institutions in the Czech Republic and abroad. Cooperation with the Czech Academy of Sciences is primarily focused on joint doctoral training, project solutions, joint publications, and collaboration involving students in research through diploma or dissertation theses.

In the area of science and research, the faculty has supported, supports, and will continue to support science projects falling under national priorities, university-wide priority directions, and the development of excellent teams that will be active in submitting science and research projects and will guarantee quality outputs in research, i.e., they already have quality publications or other outputs (patents, technology transfer, etc.). The faculty is also interested in supporting teams that introduce new and promising research and development directions. Besides basic research, the faculty supports applied research and cooperation with industry. The faculty is a member of technology platforms and associations (Czech Membrane Platform and Nanotechnology Industry Association since 2019) and has contractually secured cooperation with numerous companies in IT technologies and nanotechnologies for research and education collaboration. This cooperation has a positive impact on research and education development, as it leads to joint research projects, generates topics for student theses, and guarantees students opportunities for internships and employment after graduation. In addition to broadly conceived basic research, four basic research directions are being profiled at the faculty, which are promising in terms of potential technology transfer:

- Development of new nanomaterials and biotechnologies for applications in biomedicine (biosensors, tissue engineering, new drug forms), in environmental protection (sorbents, catalysts and photocatalysts with self-cleaning effect, new generation filtration media based on nanofiber textiles), surface modifications of materials (functionalized coatings: anticorrosion, adhesive, hydrophobic and hydrophilic, wear-resistant, etc.).

- Theoretical approaches to the development of new materials using computer modeling of nanostructures (studying the interaction of selected types of dendrimers with proteins and oligonucleotides) and simulation of technological processes and physical and chemical phenomena.
- Development in regional, environmental, and social dimensions: Analysis of environmental risks, environmental changes, and land use assessment. Ecosystem services. Regional cohesion policy. Institutions and governance, cross-border cooperation and development. Evaluation of public programs and policies. Geoinformatics modeling, analyses. Territorial and landscape planning.
- Focus of cooperation with companies in the IT field on data analysis in medicine using modern approaches. In all areas of science and research, we collaborate with academic institutions both in the Czech Republic and abroad. In addition, especially in recent years, the faculty has been striving for cooperation with the applied sphere in the area of applied and contractual research.

In terms of structure, the faculty is divided into six specialized departments and two research centers: Department of Biology, Department of Physics, Department of Chemistry, Department of Geography, Department of Computer Science, Department of Mathematics, Center for Nanomaterials and Biotechnologies, and Center for Promotion of Science Education. The faculty offers a wide range of study opportunities, offering more than 30 structured study programs, 12 bachelor's, 13 master's, and 6 doctoral programs. The faculty is authorized to conduct habilitation and professorship appointment procedures in the fields of Applied Physics and Applied Nanotechnologies. The number of faculty students reaches approximately 1,200, with a significant predominance of students in bachelor's degree programs and a substantially lower number of students in master's degree programs, which allows for an individual approach to education and intensive involvement of students in scientific activities, especially for students in master's and doctoral study programs. The faculty employs more than 160 academic, research, and other staff who participate in teaching, scientific activities, supervising student projects, and faculty operations. This structure enables effective management of research activities, strengthening interdisciplinary cooperation, and development of excellent teams in key areas of natural sciences and technologies.

Table 3.1.1 - Staffing per FTE[2]

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	5.6/1	4.6/1	3.3/1	4.5/2.5	5.5/2.5	23.5/8
Associate Professor	21.4/3.5	24.1/3.5	24.2/4.5	21.7/2	21.5/2	112.9/15.5
Assistant Professor	37.9/10.4	48.6/14.2	53.4/19.4	58.6/22.8	58.8/23.5	257.3/90.3
Assistant	2.7/1	2.0/1	0.8/0	1.1/0	2.4/1	9/3
R&D Personnel[3]	1/1	1/1	1/1	1/1	1/1	5/5

[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).

Researchers in other categories[4]	18.7/8.2	18.5/9.1	19.3/9.3	15.5/7.3	9.2/4.8	81.2/38.7
Technical and economic staff[5]	4.8/2.9	4.2/2.7	5.3/3.1	5.4/3.6	4.9/3.2	24.6/15.5
Scientific, research and development staff involved in teaching activities	67.6/15.9	79.3/19.7	81.7/24.9	85.9/27.3	88.2/29	402.7/116.8
Early career researchers[6]	14.5/4.2	17.6/7.3	18.2/8.4	21.8/10.1	22.2/9.5	94.3/39.5
Total[7]	**92.1/28**	**103/32.5**	**107.3/38.3**	**107.8/39.2**	**103.3/38**	**513,5/176**

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							1		2		5	1
Associate Professor			5	1	6	2	5	1	7		5	
Assistant Professor	1		19	8	18	3	8	3	4		1	
Assistant			1	1	2		1	1				
R&D Personnel[9]							1	1				
Researchers in other categories[10]	19	11	8	3	6	5	2		2			
Technical and economic staff[11]	3	2	3	2	5	4	3	2				
Scientific, research and development staff involved in teaching activities	1		25	10	26	5	15	5	13		11	1

[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.
[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.

Early career researcher[12]			12	4	5	1						
Total[13]	23	13	36	15	37	14	21	8	15		11	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.

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							2	2	1		2	1
Associate Professor			1		9	1	4	1	6		7	
Assistant Professor	1	1	24	10	28	9	12	5	3	1	2	
Assistant			2	1	3							
R&D Personnel[15]							1	1				
Researchers in other categories[16]	7	5	3		3	1						
Technical and economic staff[17]	4	2	4	3	5	4	2	1	1			
Scientific, research and development staff involved in teaching activities	1	1	27	11	40	10	18	8	10	1	11	1
Early career researcher[18]			16	5	8	3						
Total[19]	12	8	34	14	48	15	21	10	11	1	11	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.

[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.
[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	722	288	828	319	793	327	948	394	1009	402	4300	1730
Master's[20]	122	69	125	70	157	70	150	77	153	86	707	372
Doctoral	39	17	21	9	32	18	38	19	33	17	163	80
Lifelong Learning Courses	0	0	0	0	0	0	147	118	47	31	194	149
Total	883	374	974	398	982	415	1283	608	1242	536	5364	2331

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	13/0	1/0	13/0	1/0	12/0	2/0	12/0	2/0	12/0	2/0	62/0	8/0
Master's	11/0	0/0	12/0	0/0	12/0	1/0	12/0	1/0	13/0	1/0	60/0	3/0
Doctoral	2/1	0/0	2/2	0/0	3/2	0/0	4/2	0/0	4/2	0/0	15/9	0/0
Lifelong Learning courses	8/0	0/0	0/0	0/0	0/0	0/0	8/0	0/0	8/0	0/0	24/0	0/0
Total	34/1	1/0	27/2	1/0	27/2	3/0	36/2	3/0	37/2	3/0	161/9	11/0

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	3.1	Basic Research	48.3
	1.2 Computer and information sciences	11.6	Applied Research	
	1.3 Physical sciences	13.9	Balanced basic and applied research	
	1.4 Chemical sciences	8.5	Basic Research	
	1.5 Earth and related environmental sciences	4.1	Basic Research	
	1.6 Biological sciences	7.1	Basic Research	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and	2.1 Civil engineering		Zvolte položku.	29

[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	1.8	Basic Research	
	2.3 Mechanical engineering	1.1	Basic Research	
	2.4 Chemical engineering	4.3	Basic Research	
	2.5 Materials engineering	13.4	Balanced basic and applied research	
	2.6 Medical engineering	1.0	Balanced basic and applied research	
	2.7 Environmental engineering		Zvolte položku.	
	2.8 Environmental biotechnology	0.8	Basic Research	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology	6.6	Applied Research	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine	1.2	Balanced basic and applied research	3.2
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences		Zvolte položku.	
	3.4 Medical biotechnology	2.0	Balanced basic and applied research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	0.9
	4.2 Animal and Dairy science		Zvolte položku.	
	4.3 Veterinary science		Zvolte položku.	
	4.4 Agricultural biotechnology	0.9	Basic Research	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	17.9
	5.2 Economics and Business	1.1	Basic Research	
	5.3 Education	8.2	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	8.6	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	0.7	Basic Research	0.7
	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 at UJEP is a significant part of the research community in the Czech Republic and in the broader international context. It actively contributes through notable individual awards, prestigious memberships, and participation in professional societies. Academic staff of the faculty are members of editorial boards of renowned scientific journals and regularly participate in the evaluation of national and European project calls. During the evaluation period, the faculty welcomed prominent international scientists for invited lectures, while its researchers presented invited contributions at prestigious international forums.

Prof. RNDr. Ivo Nezbeda, DrSc. (Table 3.2.1)
Among notable individual recognitions is the placement of Prof. RNDr. Ivo Nezbeda, DrSc., at 5th place in the ranking of Best Engineering and Technology Scientists in Czech Republic (according to Research.com, 2nd edition, as of December 21, 2022). This evaluation reflects the citation impact and publication activity in the discipline and highlights the international significance of Prof. Nezbeda's research in the field of physical chemistry and statistical physics.

Mgr. Petr Trahorsch Ph.D., Mgr. Petr Meyer Ph.D. (Table 3.2.1)
Geographers Mgr. Petr Trahorsch, Ph.D., and Mgr. Petr Meyer, Ph.D. from the Center for Geography Education and Education in Geography (GEOEDU), which is part of the Department of Geography at the Faculty of Science, UJEP, received a prestigious award from the Czech Cartographic Society. In the Map of the Year 2023 competition, their cartographic work "Editable Outline Maps" was granted a special recognition for being a practical and effective teaching aid. This success is historically significant for the Department of Geography at UJEP – although its academics have participated in award-winning cartographic projects in the past, this is the very first award received primarily by the department itself. Over the past two years, GEOEDU has published two sets of Editable Outline Maps of continents and the Czech Republic, which significantly facilitate the teaching of geography, especially topographical concepts. These maps allow teachers to easily modify map content in MS PowerPoint – they can choose, for example, which elements (cities, rivers, peaks, scale, geographic grid, etc.) will be displayed in the resulting map. Additionally, new cartographic symbols can be inserted into the maps, enabling customization of teaching to specific educational needs. The maps are available for free download on the GEOEDU website, accompanied by a detailed tutorial and a list of topographical terms. To date, the maps have been downloaded more than 1,700 times.

Prof. RNDr. Jiří Cihlář, CSc. (Table 3.2.1)
In 2023, Prof. RNDr. Jiří Cihlář, CSc., a long-standing member of the Department of Mathematics at the Faculty of Science, UJEP, was awarded the prestigious Field Mathematics Medal of the Union of Czech Mathematicians and Physicists (JČMF). He received this award for his lifelong contribution to mathematics and its popularization. Prof. Cihlář significantly contributed to the development of mathematics not only in academic settings but also in the field of education and methodology of mathematics teaching. He was an active member of professional communities and long devoted himself to supporting talented students and developing mathematical competitions. His work has contributed to improving mathematical education at all levels and has had a significant impact not only on UJEP students but also on the broader academic and pedagogical community. The JČMF award is thus a recognition of his exceptional professional and pedagogical activities.

Assoc. Prof. RNDr. Jiří Anděl, CSc. (Table 3.2.1)
A significant figure at the Faculty of Science, UJEP, Assoc. Prof. Anděl, was honored with the Governor's Award for his extraordinary contribution in the field of science and research, as well as for his long-term pedagogical and professional activities. Associate Professor Anděl has long been devoted to geographical research, particularly in the areas of regional geography and environmental studies. His work has significantly contributed not only to the development of professional disciplines but also to the popularization of science among students and the general public. During his tenure at the Faculty of Science, UJEP, he has led numerous significant projects and research initiatives focused on landscape change analysis, regional development, and sustainable landscape management. He received the Governor's Award not only for his academic achievements but also for his active collaboration with regional government and public institutions, where his expertise contributes to more effective planning and environmental protection in the Ústí Region.

Prof. RNDr. Ivo Nezbeda, DrSc. (Table 3.2.2)
The international recognition of the Department of Chemistry is further based on the participation of academic staff in editorial boards of major scientific journals. Prof. Nezbeda has long been active in the periodicals Molecular Physics, Frontiers in Physics: Physical Chemistry-Chemical Physics, and Liquids, thereby helping to shape publication policy in the field. In addition, his invited lecture at the EMLG/JMLG conference in Barcelona (2022), listed in Table 3.2.3, presented a critical evaluation of the thermodynamic properties of water according to the SAFT and CPA equations of state.

RNDr. Silvie Rita Kučerová Ph.D. (Table 3.2.3)
In 2023, Dr. Silvie R. Kučerová from the Faculty of Science, UJEP, presented at the prestigious forum The British Academy in London with a lecture titled "Return to Rurality? Lessons of resilience and inclusion in changing attitudes to children's education in rural places as a result of the COVID pandemic." The lecture focused on the impacts of the COVID-19 pandemic on children's education in rural areas, particularly changes in attitudes toward education, inclusion, and the ability of rural communities to adapt to new challenges. Dr. Kučerová presented the results of her research in the geography of education, which examines the dynamics of educational strategies and inclusive approaches in rural environments. This lecture was part of a broader academic discussion at The British Academy, which brings together leading scientists in the social sciences and humanities. Dr. Kučerová's participation in this forum confirms the international significance of research conducted at the Faculty of Science, UJEP, and its contribution to the development of educational policy in both European and global contexts.

Prof. W. R. Smith, Prof. Tomaž Urbič, Prof. Yuriy Kalyuzhnyi, Prof. A. Trokhymchuk (Table 3.2.4)
An important component of international cooperation is visiting lectures, listed in Table 3.2.4, where the Department of Chemistry welcomed experts from Canada (University of Guelph), Slovenia (University of Ljubljana), and Ukraine (Institute for Condensed Matter Physics) during the evaluation period. At the same time, it is developing contacts with institutions in Germany, Chile, Portugal, and France, which strengthens its international network and supports the potential for joint projects and publications.

Prof. RNDr. Ivo Nezbeda, DrSc., Assoc. Prof. Ing. Jaromír Havlica, Ph.D. (Table 3.2.5)
Involvement in the evaluation of R&D&I [Research, Development, and Innovation] results confirms trust in the professional competence of faculty staff. Between 2019-2023, Prof. Nezbeda participated in evaluations according to Methodology 17+ (Research, Development, and Innovation Council), worked in evaluation committees of the National Accreditation Bureau, and assessed bilateral projects (France-Germany-Austria) for the Ministry of Education as well as projects for the Slovenian Academy of Sciences and Arts. Newly, Assoc. Prof. Ing. Jaromír Havlica, Ph.D., has also joined the evaluations according to Methodology 17+ since 2023.

Assoc. Prof. Mgr. Pavel Raška, Ph.D. (Table 3.2.5)
During the evaluation period 2021-2025, he served as an evaluator and panel chair in the prestigious European Research Council (ERC) grant program, which funds cutting-edge European research. His involvement in the SH7 panel (Human Mobility, Environment, and Space) as a panel member, evaluator, and chair in various grant categories (Starting, Consolidator, Advanced, Synergy Grants) significantly contributed to the faculty's international reputation. The participation of a faculty academic staff member at this level enhances the visibility of UJEP on the European research scene and contributes to fulfilling recommendations to increase faculty involvement in international research structures. This success underscores the faculty's ability to engage in the evaluation and development of scientific policy at the highest European level, which is a significant step toward expanding international cooperation and obtaining excellent research grants.

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
Prof. RNDr. Ivo Nezbeda, DrSc.	5th place in the ranking of Best Engineering and Technology Scientists in Czech Republic	Research.com, 2nd edition, December 21, 2022
Assoc. Prof. PhDr. RNDr. Jan Daniel Bláha Ph.D., RNDr. Silvie Rita Kučerová Ph.D.	Czech Academy of Sciences Award (for extraordinary research results, experimental development and innovations achieved while solving research tasks)	Czech Academy of Sciences (2020)
Mgr. Petr Trahorsch Ph.D., Mgr. Petr Meyer Ph.D.	Map of the Year 2023 (special award for practical and effective teaching aid)	Czech Cartographic Society
Prof. RNDr. Jiří Cihlář, CSc.	Field Medal in Mathematics of the Union of Czech Mathematicians and Physicists (JČMF)	Union of Czech Mathematicians and Physicists (JČMF)
Assoc. Prof. RNDr. Jiří Anděl, CSc.	Ústí Region Governor's Award in Science and Research for 2020	Ústí Region
Mgr. Jiří Smejkal, Ph.D.	Jan Evangelista Purkyně University Rector's Award for outstanding	Jan Evangelista Purkyně University in Ústí nad Labem

	results in technical and natural sciences for an employee under 35 years of age	

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
Prof. RNDr. Ivo Nezbeda, DrSc.	Molecular Physics, ISSN 0026-8976, Frontiers in Physics: Chemical Physics and Physical Chemistry, ISSN 2296-424X, Liquids, ISSN 2673-8015
Mgr. Vladan Hruška Ph.D.	European Countryside (WoS, 1803-8417)
Assoc. Prof. Mgr. Pavel Raška Ph.D.	Geografie (WoS, ISSN 1212-0014), Moravian Geographical Reports (WoS, ISSN 2199-6202), GeoScape (Managing Editor, WoS, ISSN 1802-1115)
Ing. Handrii Härtel Ph.D.	Příroda (ISSN 1211-3603; e-ISSN 2788-3825) [Nature]
Prof. Ing. Zdeňka Kolská, PhD.	Chemické listy; ISSN 1213-7103 [Chemical Papers]
Assoc. Prof. Yaroslav Bazaykin CSc., DSc.	Siberian Advances in Mathematics, ISSN 1055-1344, Siberian Electronic Mathematical Reports, ISSN 1813-3304
Assoc. Prof. PhDr. Ing. Martin Boďa PhD.	Forum Statisticum Slovacum, ISSN 1336-7420, Journal of Mathematical Extension, ISSN 1735-8299, Ekonomika a spoločnosť, ISSN 1335-7069 [Economics and Society]
PhDr. Magdalena Krátká Ph.D.	Scientia in Educatione, ISSN 1804-7106
Assoc. Prof. RNDr. Zbyšek Posel, Ph.D.	Polymers, ISSN 2073-4360
Dr. Hossein Moosaei Ph.D.	Advances in Operations Research, ISSN: 16879147, Axioms, ISSN: 2075-1680, Operations Research Forum, ISSN: 2662-2556, Annals of Operations Research (Lead Guest Editor), ISSN: 0254-5330, Information Systems Frontiers (Guest Editor), ISSN: 1387-3326

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
Prof. RNDr. Ivo Nezbeda, DrSc.	Thermodynamic properties of water from SAFT and CPA equations of state: Critical assessment	EMLG/JMLG Annual conference, The University of Barcelona	2022
Mgr. Vladan Hruška Ph.D.	Idylls of economic (re)localization: an example from the Bohemian Ore Mountains	Geoscience Colloquium, Institute of Geography, TU Dresden	2020
RNDr. Silvie Rita Kučerová Ph.D.	Return to Rurality? Lessons of resilience and inclusion in changing attitudes to children's education in rural places as a result of the COVID pandemic	The British Academy, London	2023
Prof. Ing. Zdeňka Kolská, PhD.	Preparation and characterization of nanostructured materials	P. J. Šafárik University, Košice, Slovakia	2022
PhDr. Jiří Přibyl, Ph.D.	Origami and mathematics	Technical University Dresden	2023

PhDr. Jiří Přibyl, Ph.D.	Heuristic strategies for solving problems in mathematics	Constantine the Philosopher University in Nitra	2023
Assoc. Prof. RNDr. Zbyšek Posel, Ph.D.	On processing of ABP and ICP signals using ML approaches	Neurosurgery department Cambridge University Hospitals, Cambridge Biomedical Campus Hills Road	2023
RNDr. Petr Kubera, Ph.D.	Neural networks in natural sciences	Applied Natural Sciences, 2023, Slovakia	2023
Prof. Sergii Babichev, DSc.,	Application of Optics Density-Based Clustering Algorithm Using Inductive Methods of Complex System Analysis	14th IEEE International Scientific and Technical Conference on Computer Sciences and Information Technologies, CSIT 2019, Lviv	2019
Prof. Sergii Babichev, DSc.,	Evaluation of the gene expression profiles complex proximity metric effectiveness based on a hybrid technique of gene expression data extraction	4th International Conference on Informatics and Data-Driven Medicine, IDDM 2021 Valencia, 19 November 2021 through 21 November 2021	2021

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. W. R. Smith	University of Guelph, Canada	Uncertainty Analysis: its importance in undergraduate education and in research with some examples.	2022
prof. W. R. Smith	University of Guelph, Canada	Discovering CO2 Capture Solvents by a Purely Predictive Combination of Electronic Structure and Atomistic Simulation Methodologies.	2022
prof. Tomaž Urbič	University of Ljubljana	The use of quantum chemical calculations on selected examples	2022
prof. Yurij Kalyuzhnyi	Institute for Condensed Matter Physics, National Academy of Sciences of Ukraine	Three- and Four-particle correlation functions	2020
prof. A. Trokhymchuk	Institute for Condensed Matter Physics, National Academy of Sciences of Ukraine	Short-range reference for the Lennard-Jones fluids	2022
dr. Michal Ptak	Economic university, Wroclaw	Tax measures to reduce CO2 emissions in Poland	2019
Panos M. Pardalos, Ph.D.	University of Florida	Unlocking the AI Potential: Accelerating Growth for the 5th Industrial Revolution	2023
Jose C. Principe, Ph.D.	University of Florida	Cognitive Architectures for Video Understanding	2023

Roman Belavkin, Ph.D.	Middlesex University London	Information Processing in the Human Brain: What are Our Models Missing?	2023
Prof. Anna Nekaris	Oxford university	A Decade of the Little Fireface Project: The Life History of the Javan Slow Loris and the Community Helping to Protect Them"	2023

Note: Provide up to 10 examples.

Table 3.2.5 - Involvement in the evaluation of national/European research project/program 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/program call research	Name of the contracting authority/guarantor of the project/program call	Year
Prof. RNDr. Ivo Nezbeda, DrSc.	M17+ Evaluation	Research, Development and Innovation Council	2019-2023
Prof. RNDr. Ivo Nezbeda, DrSc.	Member of evaluation committee for bilateral projects (France-Germany-Austria)	Ministry of Education, Youth and Sports	2019-2021, 2023
Prof. RNDr. Ivo Nezbeda, DrSc.	Member of project evaluation panel of the Slovak Academy of Sciences and Arts	Slovak Academy of Sciences and Arts	2020-2023
Assoc. Prof. Ing. Jaromír Havlica, Ph.D.	M17+ Evaluation	Research, Development and Innovation Council	2023
Assoc. Prof. Mgr. Pavel Raška, Ph.D.	European Research Council, Consolidator Grants (SH7) – panel member (2021), panel chair (2023), panel chair (2025) Starting Grants (SH7) – panel evaluator (2022–2023) Advanced Grants (SH7) – cross-panel evaluator (2023) Synergy Grants – panel evaluator (2022–2023)	SH7 panel	2021-2025
Assoc. Prof. Mgr. Pavel Raška, Ph.D.	COST – European Cooperation in Science and Technology	COST Evaluation OC-2020-1-24535	2021
Mgr. Hana Auer Malinská, Ph.D.	Member of evaluation committee	Technology Agency of the Czech Republic	2022, 2023
Assoc. Prof. PhDr. RNDr. Jan Daniel Bláha, Ph.D.	M17+ Evaluation	Research, Development and Innovation Council	2023
Mgr. Olga Šebestová – Janoušková, Ph.D.	Member of evaluation committee	Czech Science Foundation	2023
Assoc. Prof. RNDr. Jaroslav Pavlík, CSc.	M17+ Evaluation	Research, Development and Innovation Council	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 research[22]) that it has implemented or participated in during the period of 2019–2023[23]. 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:

H2PLAZMON – Advanced Plasmonic Technology for Production, Storage, and Utilization of Green Hydrogen (TK01030128)
Principal Investigator: University of Chemistry and Technology, Prague; Other co-investigators outside UJEP: LISS, joint-stock company, University of West Bohemia in Pilsen

The H2PLAZMON project was conducted throughout the entire evaluation period 2019–2023 with the aim of developing and implementing innovative plasmonic technologies for the production, storage, and utilization of so-called green hydrogen, i.e., hydrogen obtained from renewable sources. The research focused on the application of plasmonic resonance in hydrogen production through water photolysis, the synthesis of materials for solid-state hydrogen storage based on covalent organic frameworks (COFs), and the integration of plasmonic materials into fuel cells as a potential replacement for catalytic platinum. A significant output of the project is also the reduction of the operating temperature of fuel cells, which has a direct impact on their efficiency and broader applicability.

The project significantly contributed to fulfilling the mission by supporting cutting-edge research in materials science, chemistry, and energy with high application potential. The research results may be key for the development of sustainable energy technologies and contribute to expanding the possibilities of the hydrogen economy, which is strategically important in the context of the global transition to renewable energy sources.

From an interdisciplinary perspective, the project connects the fields of physical chemistry, nanotechnology, and materials engineering with applications in energy and industrial technologies. Collaboration between academia and industrial partners was significant, enabling effective transfer of theoretical knowledge into practice.

The Faculty participated in the project as an expert partner in the field of nanomaterials and plasmonics research, in cooperation with the principal investigator, the University of Chemistry and Technology in Prague, and other partners, including the University of West Bohemia in Pilsen and LISS, a. s. Within the university, other research departments were also involved in the project, thereby strengthening interdisciplinary collaboration and supporting the application potential of the achieved results.

Catalytic Decomposition of Waste Biomass (TK05020080)

[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.

Principal Investigator: Euro Support Manufacturing Czechia, Ltd; Other co-investigators outside UJEP: ORLEN UniCRE, Inc., J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences

The Catalytic Decomposition of Waste Biomass project was launched in 2023 with the aim of developing new catalysts for efficient decomposition of biomass obtained from pyrolysis and supporting its use in biofuels and hydrogen technologies. The research focused on developing two types of catalysts – an inexpensive catalyst placed directly in the biomass (in-situ), which accelerates its decomposition and increases the yield of the liquid product, and a catalyst placed above the biomass (ex-situ), which breaks down the pyrolysis liquid into lower boiling products suitable for biofuel production. The second key area of research was the creation of a functionalized nanofiber membrane enabling the capture and reuse of hydrogen during pyrolysis, thereby maximizing the energy output from waste biomass.

The project significantly contributed to fulfilling the mission by expanding research in sustainable chemical technologies and environmental innovations. The results have high application potential in the renewable energy sector, as they enable more efficient use of waste biomass for biofuel and hydrogen production, thereby contributing to reducing dependence on fossil fuels and developing the circular economy.

From an interdisciplinary perspective, the project connects chemical engineering, materials science, and environmental technologies. The research on catalysts and nanofiber membranes required a combination of knowledge from physical chemistry, nanotechnology, and energy. The project also reflects the connection between academia and industry, as its aim was the direct application of results in real technological processes.

The Faculty participated in the project as an expert partner for research on catalytic processes and nanomaterials, in cooperation with the principal investigator Euro Support Manufacturing Czechia, Ltd and other partners – ORLEN UniCRE, Inc. and the J. Heyrovsky Institute of Physical Chemistry of the Czech Academy of Sciences. Within the university, other research departments also participated in the project, thereby strengthening interdisciplinary collaboration and supporting the implementation of results into industrial practice.

Novel Vascularized Stem-cell Based Constructs for Soft and Hard Tissue Engineering (NU20-08-00208)

Principal Investigator: Institute of Physiology of the Czech Academy of Sciences; Other co-investigators outside UJEP: Bulovka University Hospital, Food Research Institute Prague, University of Chemistry and Technology, Prague

The New Vascularized Stem-cells Based Constructs project was implemented in 2020–2023 with the aim of developing innovative tissue replacements for reconstructive surgery. The research focused on developing three-dimensional nanofiber scaffolds made of biodegradable polymers and their colonization with adipose tissue stem cells (ASCs), which were obtained by liposuction from patients based on their informed consent. The project also included ensuring the penetration of cells into the interior of the scaffolds using a flow dynamic cultivation system and their subsequent differentiation into adipocytes or osteoblasts in a suitable cultivation medium environment. A significant contribution of the research was the vascularization of these tissue replacements through endothelial cells, which increases their long-term stability and supports their integration into the human body.

The project significantly supported cutting-edge interdisciplinary research in biomedical engineering and regenerative medicine. The project outputs have high application potential in reconstructive surgery, where new constructs can replace adipose tissue autografts and contribute to more effective methods of treating bone defects. This innovative approach can significantly improve the stability of transplanted tissues and increase their resistance to resorption, which increases the success of patient treatment.

From an interdisciplinary perspective, the project combined knowledge of stem cell biology, materials engineering, biotechnology, and regenerative medicine. The development of

biodegradable polymer scaffolds required connecting chemical engineering and nanotechnology, while optimizing cultivation processes and cell differentiation was a key area of biomedical research. Collaboration with medical institutions was also significant, ensuring effective transfer of results to clinical practice.

The Faculty participated in the project as an expert partner in the field of biomaterials research and tissue engineering. Collaboration took place with the principal investigator, the Institute of Physiology of the Czech Academy of Sciences, and other partners, including Bulovka University Hospital, Food Research Institute Prague, and the University of Chemistry and Technology, Prague. Within the university, other research departments were also involved in the project, thereby strengthening interdisciplinary collaboration and supporting the application potential of the achieved results in modern medicine.

Functionalization of the Nanofibrous Structure (EG17_107/0012271)
Principal Investigator: Nano Medical s. r. o.

The Functionalization of Nanofiber Structure project was implemented at the faculty in 2019–2021 with the aim of developing innovative nanofiber materials with controlled release of pharmacologically active substances. The research focused on the addition of additives to nanofiber structures made from modified chitosan, which were enriched with at least one type of antibiotic and analgesic. The main goal was to design industrially applicable technological processes to produce these materials that would allow their wide use in modern medicine, especially in the treatment of wounds and chronic skin defects.

The project supported applied research in materials science, nanotechnology, and biomedicine. The developed materials have high application potential in clinical practice, where they can improve the effectiveness of wound healing, reduce the risk of infections, and simultaneously minimize the need for systemic administration of antibiotics and analgesics. Innovations in wound healing not only have a positive impact on patients but can also contribute to optimizing costs in the healthcare system by reducing the length of hospitalizations and drug consumption.

From an interdisciplinary perspective, the project connects materials engineering, pharmacology, biochemistry, and clinical medicine. The development of advanced nanofiber structures required a combination of knowledge from polymer chemistry, nanotechnology, and medical research. Thanks to the connection between academia and industry, the project enabled effective transfer of scientific knowledge to production and its subsequent implementation into healthcare practice.

The Faculty participated in the project as a key partner in the field of nanofiber materials research and their functionalization for biomedical applications. Collaboration took place with the principal investigator Nano Medical s. r. o., which ensured the development of technological processes and their subsequent industrial application.

Pupils' Difficulties in Mathematical Problem-solving: Diagnostics, Analysis of Causes and Measures for Their Elimination (TL02000200)
The project "Pupils' Difficulties in Mathematical Problem-solving: Diagnostics, Analysis of Causes and Measures for Their Elimination" was implemented in 2019–2022 with the aim of increasing the effectiveness of mathematics teaching in Czech primary and secondary schools. The main output of the project is a comprehensive diagnostic tool that allows for the identification of obstacles preventing students from successfully solving mathematical problems. This tool includes not only a set of test tasks but also detailed instructions for teachers on interpreting the diagnostic results. Based on these results, teachers can apply targeted measures leading to the elimination of identified problems, which allows for an individual approach to students and supports their success.

The project contributed to fulfilling the mission by supporting innovations in education and mathematics teaching, which is one of the key missions of the faculty. A significant benefit is its

direct applicability in school practice, as teachers can perform testing independently during regular classes for students aged 14–15 years. The proposed measures have the potential to improve students' mathematical skills already within the horizon of one school year, which strengthens the practical impact of the project on the educational process.

From an interdisciplinary perspective, the project connects pedagogy, psychology, and mathematics, focusing on the analysis of cognitive barriers and effective strategies to overcome them. Within the project, collaboration of experts from various areas of mathematics didactics, learning psychology, and school practice was utilized, which allowed the creation of a tool adapted to the real needs of teachers and students.

The Faculty participated in the project as a key investigator and collaborated with other entities focused on pedagogical research and educational innovations. Within the university, other academic departments were involved in the project, especially experts on mathematics didactics and cognitive psychology, thereby ensuring the complexity of the research approach and higher application potential of the achieved results.

Rural 3.0: Social and Technical Conditions for Implementing Development Potentials of the 21st Century in the Rural Areas (TL02000501)

Principal Investigator: Czech University of Life Sciences Prague; Other co-investigating organizations outside UJEP: Technology Center Prague

The Rural 3.0 project was implemented in 2019–2020 with the aim of analyzing and evaluating conditions for utilizing expected socio-technical changes in rural areas. Based on extensive research on development processes and the adaptability of the countryside to these changes, a methodology was created that serves as a guide for the effective implementation of the Countryside 3.0 concept in regional development strategies, with special emphasis on the role of Local Action Groups (LAGs).

The project significantly contributed to fulfilling the faculty's mission and strengthened applied research in regional development and environmental studies. The project outputs contribute to the sustainable development of rural areas, which reflects the broader social contribution of the faculty's research activities. The developed methodology is a practical tool for regional actors and allows for effective use of technological and social innovations to improve the quality of life in rural areas.

From an interdisciplinary perspective, the project combines knowledge from sociology, regional geography, economics, and technological innovations. The use of a transdisciplinary approach enabled the connection of academia with the practical experiences of experts working directly in the regions. This model of collaboration ensured that the project results correspond to the real needs of rural communities and can be effectively implemented into practice.

The Faculty participated in the project as a key expert partner in the field of regional development and applied geography. Collaboration took place primarily with the Czech University of Life Sciences Prague and the Technology Center Prague. Within the university, other academic departments also participated in the project, thereby strengthening interdisciplinary collaboration and expanding the application potential of the project outputs.

Implementation of Map Skills in Geography Within Lower Secondary Education (TL02000114)

The Implementation of Map Skills into Geography Education project was implemented in 2019–2022 with the aim of supporting the development of cartographic literacy among students in the second stage of primary schools and lower grades of multi-year grammar schools. The key output of the project was the creation and verification of an innovative set of didactic aids, including a school atlas, workbook, and teacher's guide. This system was tested in school practice with the aim of optimizing its use in teaching and contributing to more effective acquisition of geographic skills. The project also included a broad professional discussion

among teachers, cartographers, publishers, and other experts with the aim of ensuring high quality and practical usability of the resulting materials.

The project significantly contributed to fulfilling the faculty's mission by supporting the modernization of geography teaching and implementing innovative educational methods, thereby strengthening the faculty's position in the field of pedagogical research. The project outputs have high application potential, as they allow teachers to more effectively develop students' spatial and analytical skills, which are key for their further education and practical use in everyday life.

From an interdisciplinary perspective, the project combined elements of geography, cartography, pedagogy, and cognitive psychology, which allowed for the creation of didactic aids corresponding to the current needs of school practice. A significant aspect was also collaboration with experts on the visualization of geographic data and the creation of interactive educational materials, which strengthened the modern dimension of geography teaching.

The Faculty participated in the project as a key investigator in the field of didactics of geography and cartography. Collaboration took place not only with pedagogical and geographical experts but also with publishing institutions and professional associations. Within the university, other academic departments focused on pedagogical innovations were also involved in the project, thereby strengthening interdisciplinary synergy and ensuring high quality of outputs with a direct impact on teaching in primary and secondary schools.

Characterization of Biological Properties of Carbosilane Dendrimers Potentially Used in the Area of Cancer Treatment (LTC19049)

The project, which was implemented at the faculty in 2019-2023, focuses on the synthesis, characterization, and study of biological effects of new types of carbosilane dendrimers, or dendrons, and research on their potential use for targeted delivery of anticancer agents. A library of dendritic nanostructures of 1-3 generations with terminal phosphonium or sugar surface functional groups will be synthesized. These nanostructures will be further conjugated with binding peptides/fragments of (immunoglobulin) antibodies to ensure their specific delivery to target cancer cells. Newly synthesized structures will be characterized by a range of analytical methods (NMR, MS techniques, etc.) and studied by advanced computer modeling techniques at the atomic level. Toxicity tests of these nanomaterials will be performed on various biological in vitro (2D and 3D cultures) and in vivo (FET test, Danio rerio) models. Using a wide range of biophysical methods (microDSC, microITC, CD spectroscopy, FL anisotropy, DLS, etc.), interactions of synthesized nanomaterials with lipid membranes, selected blood plasma proteins, and nucleic acids with therapeutic effects (siRNA) will be studied. From the library of these newly obtained structures, suitable nanomaterials will be selected for studying their use as transfection vectors (nanocarriers) for targeted delivery of therapeutic siRNA molecules to model cancer cell cultures in vitro (2D cultures, 3D cancer spheroids) and in vivo (Danio rerio with xenotransplanted human cancer cells). The success of transfection, specific delivery of siRNA molecules to cells, and reduction of gene expression of selected oncogenes in target cells/tissues will be studied by a combination of techniques such as confocal and light-sheet microscopy (currently the only workplace in the Czech Republic using this technology), flow cytometry, and quantitative RT-PCR. Attention will be paid especially to studying the possibility of using new types of so-called 3D in vitro models (cancer spheroids) for testing the effects of substances with therapeutic potential to validate/correlate results with in vitro or in vivo experiments. An important aspect of the project is close cooperation in addressing these tasks with collaborating foreign workplaces involved within the COST CA171140 action.

New Generation of Organic/Inorganic Materials for Carbon Dioxide Detection, Capture, and Utilization (20-01639S)

The mentioned project New Generation of Organic/Inorganic Materials for Carbon Dioxide Detection, Capture, and Utilization was conducted in the period 2020 – 2022. The main objective of the project was to develop a new generation of advanced multifunctional materials with

revolutionary use in technology for detection, capture, and utilization of CO_2. Current approaches to solving this problem are based on expensive, rare materials that often require extreme conditions for chemical conversion of CO_2. This project addresses the presented challenges by proposing a new generation of multifunctional material, based on plasmonically-active metal nanostructure in combination with a metal-organic framework (MOF). The project was focused especially on the preparation of materials that can be used as remote optical emission sensors for CO_2 (based on plasmonically-active optical fibers), selective carbon dioxide capturers (thanks to the unique properties of MOF structures) enabling light-switchable intelligent release of CO_2, with subsequent efficient utilization of CO_2 in combination with a renewable energy approach (activation of hybrid materials for chemical conversion of CO_2 using solar radiation).

The project represented highly interdisciplinary research connecting the areas of materials chemistry, physics, nanotechnology, and environmental science. Its innovative approach consisted in combining plasmonically-active metal nanostructures with metal-organic frameworks (MOF), thereby creating materials with unique functions for capturing and transforming CO_2.

Hybrid Exosome-Dendrimer Nanovesicles for Gene Therapy and Drug Delivery Applications (20-21421S)

The project was focused on the preparation of hybrid exosome-dendrimer nanovesicles (EMD) for applications in targeted drug delivery and gene therapy. EMDs were prepared from exosomes (EMs) isolated from various natural sources and dendritic carbosilane nanostructures. Synthetic procedures were used to prepare defined branched molecules - dendritic wedges (csDWs), which were used for the preparation of Janus-type dendrimers (J-csDDM), dendrons (csDD), and amphiphilic dendrons (AmpcsDD). Interaction of these nanostructures by electrostatic or hydrophobic interactions with EM membranes resulted in the spontaneous formation of hybrid nanovesicles (EMD). The resulting EMDs were studied by a wide range of biophysical methods, microscopic techniques, and computer modeling. The most promising EMDs were modified with protein/peptide ligands for targeting cancer cells, loaded with pro-apoptotic siRNAs or anticancer drugs (or both), and their resulting toxicity against tumor cells was studied in vitro on 2D/3D cell cultures and in vivo using xenografts on Danio rerio embryos.

The project represented a significant interdisciplinary contribution at the intersection of nanotechnology, biophysics, chemistry, molecular biology, and medicine. By combining synthetic chemistry of dendrimers, bioengineering of exosomes, and advanced biophysical and microscopic analysis, innovative hybrid nanovesicles with potential in targeted treatment of cancer diseases were created. The use of computer modeling allowed predicting the stability and interactions of these systems with cell membranes, while in vitro and in vivo testing provided key knowledge about their biological effectiveness. This multidisciplinary approach opened new possibilities in the field of personalized medicine and targeted therapy of cancer diseases.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary		
Provider[25]	Project name	Support (in thousands CZK/EUR)[26]

[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.

		2019	2020	2021	2022	2023
Czech Science Foundation	Separation of Racemic Mixtures by Membrane Processes (GA17-00089S)	441/17450				
Czech Science Foundation	Soil Biofilms as Collaborative Entities: Emergence and Dynamics in Heterogeneous Environment (GA17-09946S)	1039/41120				
Czech Science Foundation	Properties of Water-Based Heat Transfer Fluids under Extreme Conditions (GA19-05696S)	815/32260	701/27740	873/34550		
Ministry of Education	Characterization of Biological Properties of Carbosilane Dendrimers Potentially Used in the Area of Cancer Treatment (LTC19049)	387/15320	751/29720	760/30080	577/22840	
Technology Agency of the Czech Republic	ZEBRACHIP - Microfluidic Device for High-Throughput Automatic in Vivo Testing of Biologically Active Compounds (TJ01000077)	1365/54020				
Technology Agency of the Czech Republic	Implementation of Map Skills in Geography Within Lower Secondary Education (TL02000114)	667/26400	594/23510	324/12820	309/12230	
Technology Agency of the Czech Republic	Pupils' Difficulties in Mathematical Problem-Solving: Analysis of Causes and Measures for Their Elimination (TL02000200)	1066/42190	1055/41750	541/21410	588/23270	
Czech Science Foundation	New Generation of Organic/Inorganic Materials for Carbon Dioxide Detection, Capture, and Utilization (20-01639S)		1497/59250	1567/62020	1567/62020	
Czech Science	The Nature and Dynamics of Local		670/26520	745/29490	738/29210	

Foundation	Land use Conflicts in a Polyrational Arena (GA20-11782S)					
Czech Science Foundation	Schools in Demand: Circumstances of Elementary School Choice in Rural Space (GA20-18545S)		899/35580	934/36970	884/34990	
Czech Science Foundation	Hybrid Exosome-Dendrimer Nanovesicles for Gene Therapy and Drug Delivery Applications (GA20-21421S)		1479/58540	2047/81020	2047/81020	
Technology Agency of the Czech Republic	Integrated System of Low-Cost Retention Elements in the Landscape to Support Evapotranspiration with Fast Implementation Potential (SS03010167)			2799/110780	2203/87190	2122/83980
Ministry of Health	Galectin-Positive Glioblastoma Exosomes: New Biomarkers and Targets for Glyconanotherapeutics (NU23-08-00307)					865/34230
Total		**5780/228760**	**7646/302610**	**10590/419130**	**8913/352760**	**2987/118210**
In the role of another participant						
Provider[27]	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Ministry of Industry and Trade	Antibacterial Polymeric Nanofiber Filter Media (EG15_019/0001680)	955/37800				
Ministry of Industry and Trade	Functionalization of Nanofibrous Structure (EG17_107/0012271)		1233/48800	1139/45080		
Ministry of Health	Detection and Evaluation of Circulating Tumor Cells (CTCs) in Patients with Lung	1531/60590				

[27] Ibid.

	Adenocarcinoma by Microfluidic Chip Technology (NV16-29738A)					
VW Foundation (Germany)	Agents of Change in Old-Industrial Regions in Europe	533/21100	435/17220	455/18010	588/23270	
Technology Agency of the Czech Republic	Localization Pallets of Goods in Large Outdoor Warehouses (TJ02000080)	742/29370	852/33720	164/6490		
Technology Agency of the Czech Republic	H2PLAZMON – Advanced Plasmonic Technology for Production, Storage, and Utilization of Green Hydrogen (TK01030128)	434/17180	1360/53830	1360/53830	1360/53830	1360/53803
Technology Agency of the Czech Republic	Rural 3.0: Social and Technical Conditions for Implementing Development Potentials of the 21st Century in the Rural Areas (TL02000501)	463/18320	465/18400			
Czech Science Foundation	Smart Magnetic Materials: From Bulk Systems Towards “Spinterface” (GA20-01768S)		1158/45830	1195/47300	1195/47300	
Czech Science Foundation	Separation of Enantiomers by Chiral Membranes: Experiment and Simulations (GA20-06264S)		526/20820	543/21490	641/25370	
Ministry of Education	Nanomaterials and Nanotechnologies for Environment Protection and Sustainable Future (LM2018124)		6235/246770	5735/226980	5620/222430	
Ministry of Health	Novel Vascularized Stem-Cell Based Constructs for Soft and Hard Tissue Engineering (NU20-08-00208)		286/11320	455/18010	438/17340	455/18010
Technology Agency of the Czech Republic	METAMORPH - Advanced Hybrid Organic-Inorganic Nanofibers for CO2 Capture and			1915/75790	1915/75790	

	Photocatalysis (TO01000329)					
Czech Science Foundation	Aqueous Mixtures with Salts Under Extreme Conditions - Accurate Experiments, Molecular Simulations and Modeling (GA22-03380S)				1162/45990	1382/54700
Czech Science Foundation	Advanced Nano/Microstructure Creation Using Ion and Electron Beam Surface Modification with Potential Use in Microfluid and Lab-on-Chip Applications (GA22-10536S)				1197/47370	1673/66210
Czech Science Foundation	Tree-Ring Microscopic Anatomy as a Chronological Data Source for Optimization of Landslide Hazard Assessment (GA22-12522S)				374/14800	418/16540
Ministry of Education	Center of Excellence in Regenerative Medicine (EH22_008/0004562)					430/17020
Ministry of Education	Production Technology of Anhydrous Salts of Polyhedral Borates (EI22_002/0000491)					500/19790
Czech Science Foundation	Two-Dimensional Transition-Metal Dichalcogenides – New Concept of Synthesis and Activation for Functionality Enhancement (GA23-05197S)					1270/50260
Ministry of Education	Nanomaterials and Nanotechnologies for Environmental Protection and Sustainable Future (LM2023066)					3796/150240
Technology Agency of the	Catalytic Decomposition of					1783/70507

Czech Republic	Waste Biomass (TK05020080)					
Technology Agency of the Czech Republic	REcombinant TEchnologies for MEDicine (TN02000122)					1692/66970
Total		**4658/184350**	**12550/496700**	**12961/512970**	**14490/573480**	**14759/584130**

Table 3.3.2 - Contract research activities

Client[28]	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Czech Technical University in Prague, Czech Republic	XPS Surface Analysis	160/6330				
Technical University of Liberec, Czech Republic	Evaluation of Thin Layers; XPS Analysis; XRD Analysis	19/750	4/160		33/1310	
JETV98 Civic Association	Methodology for Implementing Open Source Technologies to Ensure GDPR Compliance within SMEs	195/7720				
SOLEDPRO Ltd.	Implementation of Innovative Security Technologies	198/7840				
ADLER International, Inc.	Analysis and Penetration Testing of Web Services, Comparative Analysis and Design of an Optimal Model for Server Technology Architecture	199/7088				
Institute of Inorganic Chemistry of the Czech Academy of Sciences, v.v.i. [public research institution]	Analysis of Elemental, Chemical and Phase Composition of Modified Samples; XPS Analysis; XRF Analysis	20/790	60/2370	85/3360	60/2370	
ORLEN UniCRE, Inc.	Characterization of Samples Using XPS	18/710				
ŠKODA AUTO Inc.	Surface Analysis of Sheet Metal; Measurement of ZnMg Wettability		85/3306	30/1190		
ADLER Czech Inc.	Development of a Platform, Implementation of Machine Learning Tools and Visualization Including Implementation of Machine Learning Methods on ADLER Czech, Inc. Company Data		264/10450			

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

Institute of Inorganic Chemistry of the Czech Academy of Sciences, v.v.i. [public research institution]	Analysis of Elemental, Chemical and Phase Composition of Modified Samples; XPS Analysis; XRF Analysis	20/790	60/2370	85/3360	60/2370	
Linet Ltd.	Hardware and Software Development for Pressure Measurement in Healthcare Mattress Testing for LINET Ltd.		68/2690			
Severočeské doly, Inc. [North Bohemian Mines]	Analysis of Natural Influences and Modeling of Water Level Behavior in 3 Observation Wells for SD Inc.			78/3090		
Town of Chabařovice	Development of Strategic Document "Development Plan for the Town of Chabařovice 2022-2027"			52/2060		
Severočeské doly, Inc. [North Bohemian Mines]	Penetration Testing of Web Application tw.sd-portal.cz			199/7808		
Agency for Nature and Landscape Protection of the Czech Republic	Evaluation of Potential and Absorption Capacity of Tourism in the Elbe Valley Region - Litoměřice			52.5/2080		
Insion Ltd.	Collaboration on Model Development – Framework for 3D Visualization of Sensor-Measured Data			287/11360		
Preciosa, Inc.	Surface Impurity Measurement			4/160		
VSB – Technical University of Ostrava [University of Mining – Technical University Ostrava]	Measurement of Samples Based on C3N4			13.5/530		
ORLEN UniCRE, Inc.	XPS Analysis			7/280	34/1305	26/1030
LAM-X Inc.	Mechanical Testing of Nanofiber Samples				4/160	
AG CHEMI GROUP Ltd.	Tests of Polymer Films for Biocidal Properties				6/240	

Constellium Extrusions Děčín Ltd.	XRD and XRF Analysis				25/990	
Astrum LT Ltd.	Sample Measurement					10/400
HENNLICH Ltd.	Sample Analysis					16/630
Chart Ferox, Inc.	Sample Analysis					3/120
Advisory Center for Integration, registered association	Modification of Electronic Registration for Czech Language Courses					25/990
RESPILON Membranes Ltd.	XPS Analysis					4/160
Jan Růžička	Computational Work					5/200
Total		**809/32020**	**481/19040**	**808/31098**	**162/6410**	**89/3520**

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[29], 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:

Within the evaluated projects, it can be stated that due to the overall balanced gender composition at the faculty, gender-balanced teams are formed in most cases. These teams are assembled with consideration of current capacities and professional competencies. The balanced gender representation contributes to diversity of opinions and approaches. The projects focus on various areas, from data analysis and software development to innovative technologies and sustainability. This diversity enables the application of gender-balanced approaches in different contexts, which supports inclusive and sustainable development. The use of modern technologies and methods contributes to more efficient and responsible problem-solving, which has a positive impact on society.

Data Analysis at ADLER Czech, a.s.

The Department of Informatics applied its knowledge in data analysis to strengthen cooperation with the business sector. Modern methods and tools were applied in modeling commodity sales in national and international markets (Data Analysis at ADLER Czech, a.s.). Here, modern AI

[29] See Terms definition.

tools were used to predict commodity sales for a company with reach across international markets.

Development of Hardware and Software for Pressure Measurement in Testing Medical Mattresses for LINET spol. s r.o.
Design of hardware and software solutions for testing medical mattresses, which is used before the distribution of mattresses to hospitals and healthcare facilities. LINET Ltd manufactures advanced and multifunctional medical beds, and the developed testing was used to increase the safety of their products.

Analysis of Natural Influences and Modeling of Water Level Behavior in 3 Observation Wells of SD a.s.
The latest knowledge was used for modeling and predicting groundwater levels in control wells in the Most coal basin. The predicted information contributed to better planning of mining in various locations depending on weather, subsoil, etc. The information was used by Severočeské doly, a.s. [Northern Bohemian Mines], among other things, to better plan the maintenance of their conveyor belt wells in the given locations.

Patent CZ 310285: Self-supporting Shape-flexible Nanofibrous Membrane and Method of its Production (Catalytic Decomposition of Waste Biomass (TK05020080))
Patent CZ 310 285 B6: Self-supporting shape-flexible nanofibrous membrane and method of its preparation was created in 2023 within the framework of the project of the Technology Agency of the Czech Republic TK05020080. A nanocomposite self-supporting shape-flexible nanofibrous membrane was created based on electrospun polymer nanofibers modified with palladium nanoparticles, which are anchored and localized exclusively on the surface of the nanofibers. This material achieves a high sorption capacity for hydrogen 10.6 wt% at a temperature of 30°C and a pressure of 4 bars, while current standards for solid-state storage are 5-6 wt% at pressures of 25 bar and temperatures of 200-300°C. The material is promising for low-pressure high-capacity hydrogen storage operating at ambient temperature. Based on this patent, we are collaborating with the company Valcon International - Hydrogen generation section on the construction of a pilot plant of a high-capacity low-pressure hydrogen storage facility, which will be used to store surplus energy from the electrical distribution network when using renewable sources (wind turbines and photovoltaics). The use of low-pressure storage will bring significant energy savings, since high-pressure storage facilities commonly used for hydrogen storage require pressures of 350 bar, or 700 bar for use in the automotive industry. In addition, the high sorption capacity will lead to a reduction in the volume of hydrogen cartridges in the storage facility. Moreover, this composite material has demonstrated the ability to selectively sorb hydrogen from a mixture of waste gases, generated, for example, during the catalytic decomposition of waste biomass. (J. Mater. Chem. A, 2024,12, 25202-25210 https://doi.org/10.1039/D4TA02340D.)

Patent CZ 308875: Hydrogen Sensor Based on Plasmon-Active Fibers Functionalized with Porous Metal-Organic Layer for "Remote" Non-Electrical Detection (H2PLAZMON – Advanced Plasmonic Technology for Production, Storage, and Utilization of Green Hydrogen (TK01030128))
The technical solution concerns an optical sensor element for hydrogen detection. The invention relates to an optical element for remote detection of hydrogen without the use of electronic components and with an active detection area. A detection element based on plasmon-active optical fibers with a unique deposited layer of metal-organic networks with high affinity for hydrogen was designed, manufactured, and tested. The designed hydrogen sensor exhibits very good reversibility, reproducibility, and long-term stability. The intended application of the element is remote detection of the presence/leakage of hydrogen in technological environments where conventional electrical sensors cannot be used. The invention is useful for the production

of optical hydrogen sensors for a wide range of fields, including its use, for example, in hydrogen production technology, safe hydrogen storage, and the use of hydrogen in various technological processes.

Methodology for Using the Rural 3.0 Concept in the Preparation and Implementation of Rural Development Strategy (Rural 3.0: Social and Technical Conditions for Implementing Development Potentials of 21st Century in the Rural Areas (TL02000501))
Methodologies for the purposes of the Ministry for Regional Development of the Czech Republic were created to help rural areas adapt to megatrends newly affecting the world. They are partially reflected, but also influence the use of SMART technologies, which have recently been frequently discussed in the context of urban and regional development. The methodology warns against excessive technological determinism and highlights the key role of the community, individuals, and their knowledge in applying smart solutions and adapting to external challenges. The methodology was developed and applied in cooperation with Local Action Groups (LAGs) and their associations at the regional level – Regional Network of LAGs – and at the state level – National Network of LAGs. Currently, they are also being promoted through UJEP's membership in the Local Action Group Labské skály, where the university is represented by the Head of the Department of Geography, Dr. Vladan Hruška.

Educational Aid (Implementation of Map Skills in Geography within Lower Secondary Education (TL02000114))
Editable outline maps - Outline maps are one of the most commonly used aids for teaching topographical concepts. Many outline maps available in textbooks, on the web, or in other didactic resources do not provide teachers with the ability to differentiate instruction according to its goals. For this reason, the team of authors from the Center for Geography Education and Education in Geography (GEOEDU) at the Department of Geography at UJEP created editable outline maps, within which the teacher has the option to choose which topographical elements will appear on the final outline map and which will not. The aim of the created editable outline maps is thus to enable teachers to differentiate the teaching of topographical concepts using outline maps from the perspective of student specifics, teaching style, and educational goals. Teachers can edit the offered outline maps directly in the PowerPoint environment, which is familiar to teachers and does not require special software or registration. The maps are widely used in primary and secondary schools, are freely available on the Department of Geography's website, and have already recorded more than 1,700 downloads.

Certified Methodology (Pupils' Difficulties in Mathematical Problem-Solving: Diagnostics, Analysis of Causes and Measures for Their Elimination (TAČR TL02000200))
The certified methodology "Diagnosis of Causes of Student Failures in Solving Mathematics Problems and Proposal of Measures for Their Elimination" is a tool for mathematics teachers at the lower secondary level. It consists of a test set, a brief description of individual parts of the test set, a manual for test administration, and instructions for evaluating and interpreting results. The components of diagnosis are: mathematical sensitivity, mathematical creativity, computational skills, reading literacy, working memory, tendency to use algorithms, self-assessment, and motivation to learn mathematics. It should be noted that although the individual components are evaluated separately, together they form a structure that helps the teacher identify potential risks for the student in problem-solving and in the process of learning mathematics at the lower secondary level (8th and 9th grades). The certified methodology also includes proposals on how to prevent possible difficulties, or how to mitigate or eliminate obstacles that prevent the student from successfully solving problems, as well as instructions on how to work with diagnosed students.

Within Technology Agency of the Czech Republic project, the implementation team closely collaborated with 12 application guarantors who also supervised the entire process of creating the certified methodology. Practitioners guarantee that the resulting diagnosis is a practical tool that is not detached from school reality and allows for use in everyday school practice. This is

evidenced by the fact that 173 participants from among teachers have so far undergone training in diagnosis. It should be mentioned that the application guarantors include not only school entities but also two national organizations – the Czech School Inspectorate (ČŠI) and the Union of Czech Mathematicians and Physicists (JČMF).

The diagnosis is successfully promoted at conferences and teacher symposia, thereby successfully disseminating the acquired knowledge among the wider professional public.

Regional Policy Workshop and Publication (Agents of Change in Old-industrial Regions in Europe)

Within the international project, many interesting results were achieved with high social relevance for the Ústí Region. In collaboration with colleagues from partner institutions, it was examined how development actors in the Ústí Region mobilize their resources and how they are motivated by internal or external factors. The research findings were disseminated among development actors in many ways, not only through interviews with them (60 semi-structured interviews in the Ústí Region) but also through local and regional seminars organized in autumn 2022 to present and discuss research results and transfer them to the decision-making sphere. In December 2022, a "policy workshop" took place in Ústí nad Labem, which focused on policy recommendations arising from our research. The role of public administration in building the capacities of change agents was discussed. Workshop participants (including local, regional, and national officials, academics, and representatives of regional development organizations) also focused on the role of the education system in this process. The output of the project is the publication "Industrial Past, Creative Future? Perspectives of the Industrial Heritage of the Ore Mountains Foothills."

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

Type of result[30]	Year of application	Name
Summary Research Report	2019	Data Analysis at ADLER Czech, Inc.
Summary Research Report	2020	Hardware and Software Development for Pressure Measurement in Healthcare Mattress Testing for LINET Ltd.
Summary Research Report	2021	Analysis of Natural Influences and Modeling of Water Level Behavior in 3 Observation Wells for SD Inc.
Research Report - Software	2023	Development of a Specific Software Tool for Lesson Planning
Research Report - Software	2023	Innovative Software for Modern Teaching Development in Primary and Secondary Schools
Research Report - Software	2023	Innovative Software Tool for Supporting Modern Teaching
Patent	2023	Patent CZ 310285: Self-supporting Shaped Flexible Nanofiber Membrane and Its Production Method
Patent	2021	Patent CZ 308875: Hydrogen Sensor Based on Plasmon-active Fibers Functionalized with a Porous Metal-Organic Layer for "Remote" Non-electrical Detection
Methodology	2021	Methodology for Utilizing the Rural 3.0 Concept in the Preparation and Implementation of Rural Areas Development Strategy
Teaching Aid	2023	Editable Image Maps
Teaching Aid	2022	Teacher's Guide to the Student Atlas

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

N*METIS* – Certified Methodology	2023	Diagnostics of Causes of Student Failures in Solving Mathematical Problems and Proposed Measures for Their Elimination
Policy Workshop	2022	What Can We Do for the Ústí Region? Policy Workshop, December 7, 2022, Ústí nad Labem.
Publication	2022	Hruška, V., Raška, P., Balej, M., Bláha J. D., Hlaváček P., Kopupka J., Kučera Z., Kučerová S. R., Míšek K., Nedorostová E., Píša J., Smutná Z., Sýkora T., Štěbetáková M., Toman J., Zubík M. (2022) Industrial History, Creative Future? Perspectives of the Industrial Heritage of Podkrušnohoří Region. Faculty of Science, J. E. Purkyně University, Ústí nad Labem (Czechia).

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:

System for Knowledge Transfer to Practice

The Faculty of Science at UJEP purposefully transfers research and development results to the application sphere through cooperation with industrial partners, public institutions, and academic workplaces. Key tools include contracted research, strategic partnerships with companies and institutions, direct involvement of students in applied projects, and technology transfer. The Faculty actively supports innovation and its practical use through participation in technology platforms (e.g., Czech Membrane Platform, Association of Nanotechnology Industry), professional consulting, and advisory activities for external entities. The University established the UJEP Center for Technology and Knowledge Transfer (CTTZ), which is still in its

[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.

early development stage; therefore, practical knowledge transfer has been occurring at the faculty level. The University is aware of this limitation and plans to create functional structures during 2024-2025 that will support the transfer and commercialization of creative activity results from UJEP project teams.

Users of Results and Their Identification

Among the most significant users of the Faculty's results are:

1. Companies in nanotechnology and chemical industry – cooperation involves developing new materials, testing their properties, and implementing innovations in production. The Faculty seeks new partners through professional conferences, technology fairs, and networking within platforms.
2. Healthcare facilities and pharmaceutical companies (e.g., Krajská zdravotní, a.s.) – research in biomedicine, nanomaterials, and bioactive substances. Users are identified through grant schemes, professional seminars, and direct collaboration on research projects.
3. Public administration bodies (e.g., Regional Authority of the Ústí Region) – analyses of environmental risks, regional policies, use of geoinformatics in spatial planning. The Faculty approaches new users through applied research financed from national and European grant schemes.
4. IT and technology companies (e.g., Seyfor, a.s., Data Center of the Ústí Region) – big data analysis, cybersecurity, AI applications in industry. Cooperation develops based on student internships and diploma theses in companies.
5. Secondary schools, primary schools, and other educational institutions – development of didactic tools, implementation of AI in teaching. The Faculty acquires new partners through its network of faculty schools and popularization events (e.g., Researchers' Night, Geography Days).

Commercialization of R&D&I Results

The Faculty focuses on utilizing research results through:

- Contracted research – long-term cooperation with the application sphere, generating income from research contracts.
- Licensing of results – e.g., development of nanomaterials used in industrial applications.
- Spin-off activities – during the evaluated period, the Faculty did not establish any spin-off company. However, based on an analysis of research potential and cooperation with the application sphere, it identified several promising areas in which it plans to support the creation of spin-off companies in the future. These areas include biotechnology and its applications in industry and healthcare, or advanced methods of data analysis in healthcare.
- Popularization and educational services – organization of specialized courses and training for partners from practice.

Examples of Effective Knowledge Transfer

1. Development of new nanomaterials for filtration applications – cooperation with Nanovia Ltd, testing and implementation in production.
2. Biosensors for detecting pollutants in water – cooperation with public administration and industrial partners.
3. Regional environmental analyses – providing analytical materials for the Regional Authority of the Ústí Region.
4. AI tools for healthcare data analysis – applications developed in cooperation with Krajská zdravotní, a.s.
5. Teaching aids for science education – use in faculty schools and teacher training.

This commercialization system is continuously optimized, and the Faculty aims to strengthen contracted research and applied technology transfer in the coming years.

Selected Results

Software Development - DataPLEX Consulting, Ltd, Databig Ltd, Mr. Cloud Ltd

In cooperation with the Faculty of Education at Charles University and Mironet Ltd, the EDUBO software suite was designed to effectively support teaching in connection with the minor curricular revision of the Framework Educational Program (edubo.cz).

Our Department of Informatics conducted research on the technical implementation of modules for this software suite as part of contracted research with DataPLEX Consulting, Ltd, Databig Ltd, and Mr. Cloud Ltd, which are part of the IT People Technology Platform.

Within this collaboration, technological research and development of the following software modules were carried out:

- Development of a specific software tool for lesson planning – Research focused on block-oriented lesson planning using atomic teaching activities. Experts from the Faculty of Education at Charles University, led by Assoc. Prof. Jančařík, prepared descriptions and educational-implementation recommendations for individual teaching activities.
- Innovative software for developing modern teaching in primary and secondary schools – In our research, we analyzed architectural possibilities for synchronous and asynchronous information exchange between the teacher's server component and the student's web and mobile application. The aim was to expand channels for sharing teaching plans and enable gradual uncovering of activities according to a time schedule.
- Innovative software tool to support modern teaching – Research that dealt with possibilities for storing, managing, and sharing teaching plans in a standardized JSON data format, compatible with applications for planning teaching on web portals. The designed and implemented portal included functionalities for evaluating and discussing plans, facilitated their import into teaching applications, and supported efficient searching and sharing of plans among teachers.

All three research reports and prototypes were subsequently integrated into the EDUBO software suite. It was presented in November 2023 at the Week for Digital Czechia event and is currently operated on Mironet Ltd servers.

Financial Resources Obtained

For the evaluated period, all financial resources obtained beyond grant schemes come from the sale of software licenses.

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
Software Development - Databig Ltd					499/19750
Software Development - DataPLEX Consulting, Ltd					495/01959
Software Development - Mr. Cloud Ltd					499/19750
Total					**1493/59090**

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 of Science systematically engaged in science popularization and communication with the public through a wide range of activities during the evaluation period 2019-2023. Its aim was not only to present research results and make scientific findings accessible to the public, but also to promote interest in natural science disciplines among young people.

- The faculty has been participating in the Science Fair annually for many years, which represents one of the most significant popularization events in the field of science and research in the Czech Republic. It is a unique platform where the academic sphere meets with the public, students, teachers, and industry representatives. The Faculty of Science regularly participates in this prestigious event with the aim of presenting the latest scientific findings, popularizing natural science disciplines, and supporting young talents in their interest in science. The event is organized by the Czech Academy of Sciences.
- Researchers' Night is an annual nationwide popularization event that opens the doors of scientific institutions to the general public and provides insight into the fascinating world of science in a non-traditional and interactive way. The Faculty of Science at UJEP regularly participates in this event to bring science and research closer not only to students but also to families with children, natural science enthusiasts, and all who want to discover new knowledge through experiences.
- During the evaluation period, the faculty organized or participated in other selected significant popularization events, such as the Festival for Science and Art, which connects natural sciences with creative and artistic disciplines. Specialized professional events also play an important role, such as Biology Day, which brings the fascinating world of living nature closer to the public through experiments, excursions, and interactive lectures. Modern technologies and programming are popularized, for example, through Hackathon, which is a 24-hour competition focused on creating innovative software solutions and connecting students with industry experts. Traditional events such as Spring Herb Recognition or Geography Days emphasize the connection between theoretical knowledge and practical demonstrations and field research, thereby supporting the relationship with nature and perception of its importance for society. Equally important are Fest up, Technohraní (TechPlay), and other thematic events that bring engaging experiments, interactive demonstrations, and discussions on key topics such as sustainable development, nature conservation, modern technologies, and their applications in everyday life.
- The faculty actively participates in research and application of modern technologies, including artificial intelligence (AI). In response to the dynamic development in this area, the AI Reactor platform at the Faculty of Science UJEP was established, which aims to connect the world of science, education, and modern AI technologies. Together with academic staff and students, the platform seeks new ways to bring more innovation to research and teaching with the help of AI. Main activities include workshops, research projects, and the application of AI in natural science disciplines such as biology, chemistry, or physics. The AI Reactor also supports AI teaching in schools and helps teachers integrate modern technologies into education. The platform serves not only as a scientific center but also as a popularization and educational hub that contributes to the development of digital skills and innovation in the region.
- The faculty actively participates in the popularization of science and research through television appearances, where its experts present the latest scientific findings, innovations, and their practical applications. For example, only on the topic of AI, the faculty has organized a number of lectures, seminars, workshops, and discussions, and it also plays an

important role at the national level in debates about the role of AI and its use in science and education.

- During this period, the faculty focused on active communication through social media. It actively communicated with the public through platforms such as Facebook and Instagram with the intention of cultivating education and developing knowledge of scientific disciplines. The aim was not only to inform about current events and news but also to involve students, graduates, and the wider community in faculty activities. Thanks to this strategy, it was possible to increase awareness of faculty activities and strengthen its image as a modern and open institution.
- Another platform used for disseminating scientific knowledge is a podcast called ScienceTalks, available on Spotify and SoundCloud, which popularizes current scientific topics through interviews with students and experts, and the faculty's YouTube channel. This multimedia approach enables broader and more interactive audience engagement, thereby increasing the accessibility and attractiveness of scientific knowledge for the general public.
- As part of supporting the education of young talents, the faculty continued to establish close cooperation with primary schools, secondary schools, and grammar schools through the title "Faculty School," which enables the coordination of popularization activities and support for talented students. In addition, academic staff and doctoral students regularly conducted popularization lectures at primary and secondary schools in the wider region. The faculty also organized summer schools for pupils, students, and teachers, which developed their professional skills in mathematics, physics, computer science, AI, and biology. Activities also included supporting the participation of talented students in professional competitions, such as the Geography Olympiad, where it was involved in preparing competitors for international rounds.
- Science popularization also took place through thematic exhibitions, excursions, and expert lectures, for example "Can Technologies Save the World?", "Why? Stories of Animals from War", "Exhibition of Cacti and Succulents", "Protection and Preservation of Selected Biotopes Created by [Historical] Mining Activity and Agricultural Use of the Ore Mountains", "A decade of the Little Fireface Project: the life history of the Javan slow loris and the community helping to protect them".
- Another area of activity was cooperation with the industrial and non-profit sectors, where the faculty participated in projects focused on innovation and applied research. Results of this cooperation were presented in the form of open discussions and workshops, for example during the Innovation Exchange "New Materials and Technologies for Practice" or the NANODAY event. These activities not only support the practical application of scientific knowledge but also strengthen ties between academia and industry, contributing to the development of the regional economy and innovation.

All the selected activities mentioned above confirm the faculty's long-term effort to disseminate scientific knowledge and promote interest in science across society.
More information here in 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:

In response to the recommendations of the International Evaluation Panel from the previous assessment, the Faculty has implemented several measures to increase the volume of contractual research, diversify funding, and improve resource management (3.2, 3.3, and 3.4):

- The Faculty's strategy focuses on building a partnership network with the application sphere. This network will serve not only as a stimulus for applied research but will also benefit teaching and education of graduates and their preparation for practice as a source of topics for student theses.
- In 2023, intensive preparation of the strategic project MATECH (MAterials, TEchnology, and CHemistry) took place - a planned Center for Applied Research aimed at supporting local industry in the Ústí Region. Based on the already announced call of the Just Transition Operational Program, the content and scope of the project were updated.
- The Faculty established new contractual research projects with industrial partners and public institutions, especially in the areas of nanotechnology, environmental analysis, material and surface characterization, biotechnology, regional development, etc.
- The Faculty focused on obtaining larger grant projects that allow more efficient financing of research groups and better coverage of overhead costs, reducing the administrative burden.
- Project management implemented measures to simplify administrative processes and more efficiently manage large projects.
- By increasing the financial volume of individual contracts, the fragmentation of contractual research was reduced, thereby optimizing management and administrative costs.
- New international partnership projects were established, especially cross-border cooperation, which allowed access to additional grant sources.
- With the relocation to the new premises of the Center for Natural Sciences and Technologies (CPTO), the Faculty set up a system for planning the renewal of instrumentation, which allows for more efficient technology management and investment planning, and also established a system for financing service costs, which includes the use of contractual research and grant funds for instrument maintenance (calculation of contracts in relation to instrument use).
- Targeted investment grants led to the modernization of key research equipment and laboratory infrastructure.

The International Evaluation Panel recommended that the Faculty collaborate with economists to document the benefits of research, which could lead to better funding opportunities and increased publication activity. The Faculty responded to this recommendation with several specific steps (3.5 and 3.6):

- Some activities are consulted in collaboration with experts on economic evaluation of benefits. In relevant calls, the Faculty involves economists in analyses of economic and social impacts of contractual research; however, despite this, a certain disconnect can often be observed. In the academic and research environment, economic considerations are often separated from the technical, scientific, and application aspects of innovations. Research projects focus on technological advancement and material or process innovations, but their economic feasibility, market application, and regulatory aspects are considered only marginally or in later phases. This disconnect leads to situations where highly innovative technologies do not find practical use due to high costs, missing infrastructure, or inflexibility and existing market and legislative mechanisms. Effective application of research therefore requires an integrated approach where technical solutions are developed

with consideration of economic models, investment strategies, and the real needs of the application sphere.
- Within grant schemes and projects (TAČR, IGA, OP JAK, and others), the Faculty expanded its multidisciplinary approach and emphasizes cooperation between departments and faculties, where economists and experts in other relevant fields are part of the research teams.
- In popularization and professional articles, the Faculty began to emphasize more the economic benefits of its research, which improved the presentation of results to the application sphere and the public.

The International Evaluation Panel recommended that the Faculty use existing mechanisms for commercialization, strengthen cooperation in spin-off activities and technology transfer, and support the establishment of a university center for commercialization (3.7, 3.8, and 3.9):
- It actively participates in the transfer of knowledge into practice, for example through generative AI and technological innovations.
- The Faculty supports the development of the UJEP Center for Technology and Knowledge Transfer (CTTZ) as the main platform for technology transfer and support of scientific teams in the areas of patenting, licensing, and establishing spin-off companies.
- The Faculty's membership in professional platforms, such as the Association of Nanotechnology Industry of the Czech Republic and the Czech Membrane Platform, strengthens the connection between research and industry.

The International Evaluation Panel recommended continuing to support early-career researchers in obtaining recognition and their involvement in international activities. The Faculty responded to this recommendation with a series of measures (3.10 and 3.11):
- In 2023, the Faculty introduced the directive "Motivational System to Stimulate Creative Activity and Qualification Growth of the Staff of the Faculty of Science of Jan Evangelista Purkyně University in Ústí nad Labem" (Dean's Directive No. 1/2023), a system for recognizing the best qualification theses and research results, which motivates students and young scientists to actively participate in research.
- It established a system for awarding the Dean's Prizes of the Faculty of Science, UJEP for outstanding diploma and bachelor theses in various fields.
- The Faculty supports grant programs aimed at students and young scientists (student grant competition, IGA UJEP), which enables the development of their own research projects.
- The Faculty strengthens opportunities for international internships and research stays for both students and academic staff, especially through the Erasmus+ program and bilateral agreements.

The International Evaluation Panel recommended that the Faculty continue activities focused on public education and science popularization while supporting students who actively engage in regional initiatives. The Faculty responded to this recommendation with a series of measures (3.12):
- The Faculty significantly expanded activities in the field of science popularization, openness to the public, and strengthening its third role. The system of popularization and PR is described in detail in chapter 3.6.
- The Faculty motivates students to engage in professional internships and practice in companies and public institutions. Cooperating entities include the Regional Authority of the Ústí Region, the Nature and Landscape Protection Agency, the Innovation Center of the Ústí Region, the Data Center of the Ústí Region, and others.
- Students in teaching programs are actively involved in teaching at partner schools and participate in educational activities for pupils.
- In 2023, selected students were awarded scholarships from towns and municipalities for their contribution to regional activities (e.g., Scholarship of the Mayor of Teplice).

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)
Directive of the Dean of the Faculty of Science No. 1/2023 "Motivational system to stimulate creative activity and qualification growth of the staff of the Faculty of Science of Jan Evangelista Purkyně University in Ústí nad Labem"	3.7	https://prf.ujep.cz/wp-content/uploads/2023-1_directive_motivational_system.pdf

SELF-EVALUATION REPORT FOR MODULES 4 AND 5

HIGHER EDUCATION INSTITUTION NAME: Jan Evangelista Purkyně University

COMPANY REGISTRATION NUMBER (CRN): 44555601

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 structure[1] 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:

Jan Evangelista Purkyně University in Ústí nad Labem (UJEP) is a public university with eight faculties. Its faculties include>

1. the Faculty of Social and Economic Studies,
2. the Faculty of Science,
3. the Faculty of Health Studies,
4. the Faculty of Art and Design,
5. the Faculty of Education,
6. the Faculty of Mechanical Engineering,
7. the Faculty of Environment,
8. the Faculty of Arts.

The university also operates research centers that participate in developing science and research in various fields.

The rectorate is a university-wide workplace that provides administrative and coordination roles in the strategic management of the university and defines scientific policy. The Rector represents the university, and the Rector's deputy for research is the Vice-Rector for Science and Research. He is responsible for the research strategy and coordinating and developing scientific activities at the institution. His primary role is supporting and managing research at the university level and within individual faculties and research centers. The management of individual faculties is responsible for executive management and human resources in research and development. In terms of organization, the same structure is applied at faculties that are managed by deans. Faculty's representatives for research and development are Vice-deans for Science.

The Vice-dean for Science represents R&D at individual faculties. The vice-dean performs similar activities to the vice-rector for science, but only with effect for the relevant faculty. Within their organizational structure, faculties can create advisory bodies for R&D (such as the Industrial Council, the Faculty Grant Board, and the Editorial Board), which have their tasks in research and development. The Vice-dean for Science coordinates these activities.

Faculties are divided into departments, institutes, studios (Faculty of art and design) or clinics (Faculty of Health Studies). Research (and creative) activities are carried out in these organizational

[1] A graphical representation of the organisational structure will be provided as an annex.

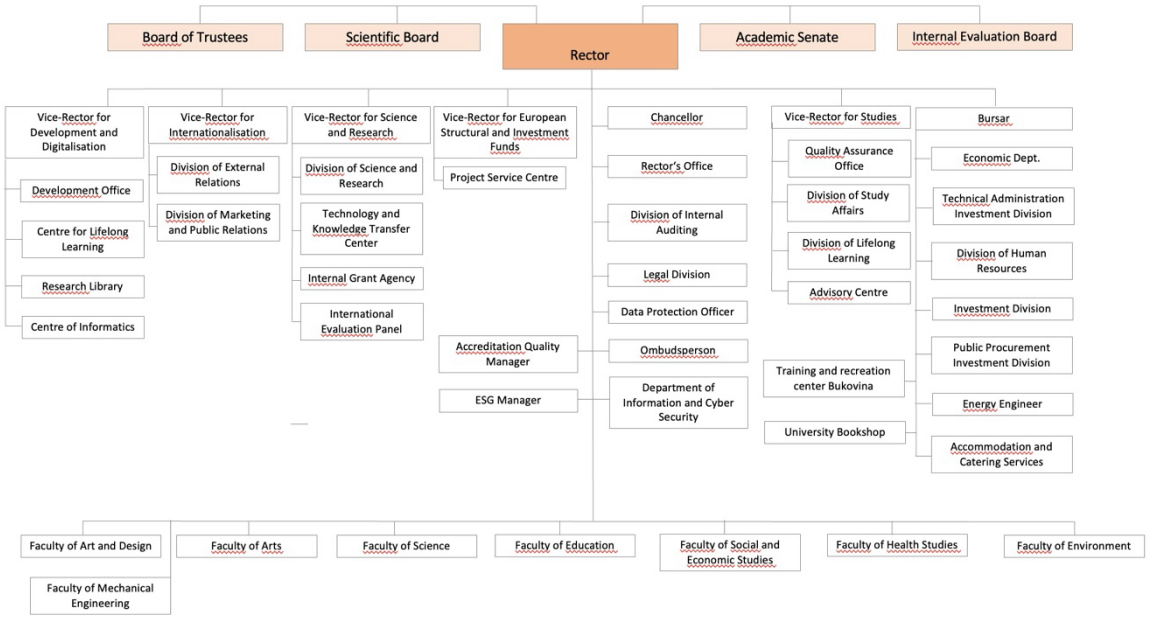
units, which also organize collaboration with industry or the public sphere, prepare and manage projects, and organize educational events, conferences, and international mobility. These activities reflect the specifics of faculties in the context of their strategic development.

Based on joint research (or creative work) and joint study programs, faculties and/or individual departments collaborate and share common development objectives. Interfaculty and interdisciplinary teams are established to address current topics in research and development, societal challenges, and industry and public administration issues. Research centers represent a stable part of the organizational structure, and their primary goal is to collaborate within the university, collaborate with the external environment (application sector - industry, NGOs, or public administration), and strengthen the role of research activities at UJEP.

Such centers at our university include, for example, the Science and Technology Park at the Faculty of Mechanical Engineering, the Center for Nanomaterials and Biotechnology (CENAB), the Center for Promotion of Science Education at the Faculty of Science, the Center for the Documentation and Digitization of Cultural Heritage at the Faculty of Arts, the Institute for Economic and Environmental Policy (IEEP) or Center for Behavioral Studies REGBES at the Faculty of Social and Economic Studies and the municipal exhibition space of the House of Arts in Ústí nad Labem.

The Center for Technology and Knowledge Transfer (CTTZ) is a key part of the research, development, and innovation infrastructure. Its main role is to connect the academic environment with the commercial sphere and transfer the results of scientific and research activities into practice. The CTTZ supports the commercialization of research and development results, provides advice on intellectual property protection, and assists in establishing collaboration with the application sector. The CTTZ thus functions as a bridge between the academic and business environments, thereby significantly contributing to fulfilling the third role of the university in the region and society.

The technical and economic apparatus (TEA) at the university has a complex structure that includes several departments that provide administrative, financial, technical, and logistical support for academic and scientific activities. Collaboration between individual faculties, research centers, and administrative departments is key to the university's practical science and research management. The TEA thus ensures the smooth operation of the university and supports its academic and research ambitions.



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:

1. A system of support for attracting national and international projects of projects.
2. A system for project consultancy/management/administrative support.
3. 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.).
4. The existence of internal funding schemes.
5. 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.).
6. Support system for students and early career researchers[2].
7. a system to support excellent science (e.g. support for excellent scientists, research teams, PhD students, collaborations, infrastructure, etc.).
8. A system of support for interdisciplinary research and collaboration within the HEIs.
9. 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:

4.2.1 and 4.2.2 A system of support for attracting national and international projects of projects, and a system for project consultancy/management/administrative support

The mentioned system has two levels: a) the university level (rectorate), b) the faculty level. At the university level, the following departments offer the mentioned support:

- Project Servis Center
- Division of Science and Research
- Division of Human Resources
- Economic Department
- Public Procurement Investments Division
- Legal Division

The **Project Servis Center (PSC)** supports the development and strategic projects financed by the European Union (e.g., Johannes Amos Comenius Operational Program, Operational Program Just Transition, etc.). The following activities cover the PSC:

1. Project consultancy (assessment of the project plan, submission of project applications, budget preparation, project implementation, negotiation with subsidy providers, and providing ongoing consultations during the project.
2. Administration of project management (creation of project applications, checking all formal requirements of the application, compliance with all conditions required by the subsidy

[2] Student grants, support for PhD students, postdocs and early career scientists.

provider, creation of monitoring reports and other project outputs, etc., compliance with the conditions of the subsidy provider, accounting and financial matters of the given project.

3. Cooperation and synergy (when implementing investment actions in the following points: public procurement, participation of the PSC employee in the selection procedure, collaboration with the project applicant, collaboration in the implementation of the investment action, control activities, when monitoring the sustainability of the project and compliance with the sustainability conditions according to a specific call or according to the conditions of the subsidy provider.
4. Publishing information on current calls for project submissions (searching, publishing, and updating subsidy options on the PSC website.
5. Educational activities (training project applicants at the start and end of project implementation and training on project calls and current subsidy titles).

The **Division for Science and Research** supports national and international scientific projects financed by national bodies (Czech Science Foundation, Technology Center of the Czech Republic, Grant Schemes of Czech Ministries, Cross-Border Cooperation, etc.) or international agencies (Horizon Europe, COST Action, etc.). Furthermore, this department addresses all the science agenda at the university (The Scientific Board, Habilitation and Professor Procedure, etc.).

Other departments have a cross-sectional character—their responsibilities embrace all projects at the university. The **Division of Human Resources** is responsible for human resources (hiring, contracting, wages, evaluation, exit strategy, ethics, etc.); the **Economic Department** guarantees the financial management of projects; the **Public Procurement Investment Department** is responsible for the management of public procurements and ensures an efficient and transparent procurement process. The **Legal Division** offers consultancies for project applicants regarding contracts with grant agencies, project partners, or researchers. These departments work in close collaboration and provide project services when needed.

At the faculty level, **faculty project departments** also provide services for project applicants, mainly help with project applications, management, and financial and/or administrative support. When necessary, these departments consult crucial questions at the university level.

4.2.3 Science management

The university's science management represents the administrative background of scientific work. The economic department, human resources department, legal department, public procurement department, investment department, project services center, controlling and budgeting, PR department, etc., provide administrative support. The university employs approximately 50 people in these departments in the following structure:

- The economic department: 13 employees.
- Division of human resources: 13 employees.
- Legal division: 3 employees.
- Public procurement investments department: 8 employees.
- Project service center + Division for science and research: 6 employees.
- Controlling and budgeting: 4 employees.
- PR department: 6 employees.

These employees share the research and science agenda at the university (central) level in their workload (part-time). Furthermore, each faculty member employs administrative support for project/science management and research. On average, each faculty member has 3 to 10 employees who support faculty research teams.

Science management is flexible and reflects the current situation in project management. When additional project support is needed (e.g., when the university succeeds in the competition for a bigger project financed from operational programs), new staff is hired.

Furthermore, since 2024, the university has employed two people (a CEO and a business manager) to run the Center for Technology and Knowledge Transfer. In the following years (with the support of external funding), we plan to hire people who help each research team look for partners, conduct market analysis, and commercialize research outcomes.

Currently, the university collaborates with external partners to establish a new advisory and management system for international projects (e.g., Horizon Europe, COST Action, ERC). Since autumn 2025, we plan to hire two people to run the office for international projects.

4.2.4 The existence of internal funding schemes

The university has the following key internal granting schemes:

1. Jan Evangelista Purkyně Development Fund
2. Internal Grant Agency
3. Student's Grant Competition
4. J.E. Purkyně Visiting Scholar Program

Jan Evangelista Purkyně Development fund

The Jan Evangelista Purkyně Development Fund (*see Annex 5*) was established in 2023 as a strategic support instrument to contribute to the quality and dynamism of the university and its faculties. The Fund is focused on supporting the personal development of key staff in all areas of the university's operations and supporting contract research.

Internal Grant Agency

The grant support aims to support excellent interdisciplinary research teams, strengthen the potential for international cooperation, and support young scientists and their professional growth at the beginning of their creative careers. For further information, please see the Rector's directive 9/2023 support scientific, research, development, and artistic activity projects for the period 2024 to 2025 (see *Annex 1*). Very similar grant support was announced in 2021 for two years.

Student's Grant Competition

This support (see the *Annex 10*) aims to involve students (young researchers) in research and development projects that address the current high demand for problematic solutions and reflect new findings into the education process and teaching in the corresponding study programs. The projects may be submitted by a Ph.D. student (in exceptional cases by academics).

J.E. Purkyně Visiting Scholar Program

The primary aim of the J. E. Purkyně Visiting Scholar Program (more information in *Annex 5*) is to facilitate meaningful academic exchanges between scholars worldwide and our university. This goal is achieved by fostering collaborative projects, creating academic networks that support professional growth and encouraging interdisciplinary approaches to address pressing social, economic and environmental challenges in transitioning regions. The program provides funding of up to 2,000 Euros for an individual scholar to cover travel and living costs related to short-term

academic stays of one week, plus travel days. (https://www.ujep.cz/wp-content/uploads/2025/02/J.-E.-Purkyně-Visiting-Scholar-Programme_2025.pdf)

4.2.5 Strategy/opportunities for establishing new research teams

The university is committed to fostering the establishment and support of new research teams, including international collaborations. The university sees networking university research teams with national and international partners as one of the most critical steps in fostering research and increasing its quality. Interinstitutional and interdisciplinary collaboration stays at the center of attention of the university and is defined in strategy documents, development goals, measures, and financial or nonfinancial instruments.

The following strategic instruments support the establishment of new research teams:

1. Rules for using institutional support for the LCDRO reflecting the quality and quantity of research at faculties
2. Jan Evangelista Purkyně Development Fund
3. Internal funding schemes
4. J.E. Purkyně Visiting Scholar Program
5. RUR project (Global Expert Position)

LCDRO rules (see the *Annex 6*) include evaluation criteria for rewarding faculties (including research teams) that report interfaculty collaboration (grants or Ph.D. study programs) and internalization (joint authorship of research papers, membership in scientific and editorial boards).

To strengthen our research teams, the **Jan Evangelista Purkyne Development Fund** offers resources for incoming new (including international) employees who will join current excellent research teams, build new research on the university's strategic topics (so-called 'research clusters'), or in the latest and innovative topics that extend the faculty's research profile.

Internal funding schemes (mainly Internal Grant Scheme) as starting and activating grants support young researchers to build an (interdisciplinary and interfaculty) team and start/continue with their research.

J.E. Purkyně Visiting Scholar Program, as a mobility program, finances short-term (maximum one week plus travel days) incoming stays of researchers who, as mentors, prepare joint projects and publications and develop professional networks.

RUR ("*Region to University – University to Region*", project funded by the Operational Program Just Transition) project defines a new work position at the university called '**Global expert**'. At maximum, the university can hire 10 global experts that fulfill qualitative criteria (e.g., a well-defined research agenda and a history of successful research projects, showing a strong commitment to advancing knowledge, primarily through international and interdisciplinary projects; strong record of scholarly publications - primarily peer-reviewed journal papers, books, or book chapters; ability to get external funding through grants, fellowships, or other funding schemes; a strong network of collaborations with other scholars. In March 2025, the university employed 4 global experts, and other 2 global expert will hire by the end of 2025. As stated in requirement, the main aim is to intensify the scientific collaboration, increase the quality of research and establish a new research teams based on young researchers (especially doctoral students, and postdocs).

4.2.6 Support system for students and early career researchers

The support system has the following pillars:

1. Institutional support (incl. internalization)
2. Financial support
3. Infrastructural support

The **institutional support** is based on the existence of three doctoral schools: a behavioral and didactic school (Faculty of Social and Economic Studies, Faculty of Education), a school for humanities (Faculty of Arts, Faculty of Art and Design), and a polytechnic school (Faculty of Mechanical Engineering, Faculty of Environment, Faculty of Science). These schools support joint educational and research/creative activities across doctoral study programs (e.g., the STUDKON conference), specific lectures (e.g., academic writing), methodology consultations of dissertation projects, and invited lectures by foreign experts - academics, and professionals. Furthermore, some ad hoc doctoral students' activities were supported - e.g., participation at scientific (international) conferences, foreign study internships, summer schools, educational courses, and organizing exhibitions.

In September 2025, the university will launch a new entity to support doctoral students: the Doctoral Academy UJEP. This institution will create a platform for professional education in various aspects of doctoral students' lives, mainly beyond the scope of obligations defined by a specific study program. We primarily want to develop soft skills to increase professional qualifications, personal growth, and interdisciplinary collaboration.

Various mobility schemes focused on doctoral students support the internalization (e.g., Erasmus or J.E. Purkyně Visiting Scholar Program).

The financial support is reflected in internal funding schemes (Internal Grant Agency and Student's Grant Competition) as starting and activating grants support young researchers to build an (interdisciplinary and interfaculty) team and start/continue with their research.

The **infrastructural support** aims to create a convenient working space for doctoral students at faculties with Ph.D. programs. Based on European funding (a project financed by the Johann Amos Comenius Operation Program called 'Development of the infrastructure of doctoral study programs at UJEP'), the doctoral infrastructure was supported—e.g., working space (doctoral rooms), electronic devices (computers, laptops, tablets), libraries (equipped with books recommended by teachers).

4.2.7 A system to support excellent science

Financial support

In 2023, the university management defined research clusters based on the university's excellent results and regional priority development areas. Based on research clusters, every two years, the Internal Grant Agency declares the Internal Granting Scheme for researchers to increase their excellence, deepen their research, and prepare a proposal for external funding schemes. The primary condition for the application in this granting scheme is the collaboration between researchers from at least two faculties (aimed at increasing the interdisciplinary collaboration between research teams), the collaboration of more faculties is rewarded in the evaluation process.

One of the key measures of the Jan Evangelista Purkyne Development Fund is the financial remuneration of excellent researchers. The faculty can receive financial support to reward these researchers and increase their payoff.

The support of doctoral students is described in the previous point.

Infrastructural support

In the last evaluation period, the university prioritized the infrastructural support of excellent research teams. The European Union financed new laboratories and their equipment (devices, machines) across all faculties (so-called development projects). The new building on campus for the Faculty of Environment and the Faculty of Science (CPTO - Center for Natural Sciences and Engineering) was built.

Institutional support

For institutional support, there are the following activities crucial:

1. **Project Service Center** - general support in the project management (especially the national funding schemes and development projects)
2. **Center for International Collaboration** (since 2025) - targeted support in international project management (especially ERC, HORIZON Europe, COST Action, Marie Skłodowska-Curie Actions, Fulbright Scholarship)
3. **Center for Technology and Knowledge Transfer** (since 2024) - comprehensive assistance in selecting and securing appropriate forms of protection of intellectual property, commercialization, etc. (for further information, please see chapter 4.4.3, or https://www.ujep.cz/cs/centre-for-technology-and-knowledge-transfer)

4.2.8 A system of support for interdisciplinary research and Collaboration within the HEIs

We are aware of the importance of interdisciplinary collaboration in current research. To increase the comparative advantage of the university in the research market in the Czech Republic and/or in Central Europa, we defined two crucial measures to support interdisciplinary research and collaboration at the university level:

1. Rules for using institutional support for the LCDRO reflecting the quality and quantity of research at faculties
2. Internal Grant Agency

Ad 1. **The financial support of faculties from LCDRO** depends on five groups of indicators with different weights in the evaluation system. One of these indicators is the collaboration between faculties (weight: 5% in the whole evaluation system). Specifically, the following set of sub-indicators are evaluated:

a. Grant collaboration in international grant schemes (e.g., HORIZON Europe) (weight: 40% in the group of indicators measuring the collaboration),
b. Grant collaboration in Czech grant schemes (weight: 25%)
c. Collaboration in applied and contract research (weight: 20%)
d. Joint Ph.D. programs (weight: 15%)

Ad 2. **Internal Grant Agency**—The primary condition for applying to this internal funding scheme is collaboration between researchers from at least two faculties (aimed at increasing interdisciplinary collaboration between research teams). Collaboration from more faculties is rewarded in the evaluation process.

4.2.9 The concept of providing conditions for the emergence of new, high-quality research directions/topics, especially those with application potential.

The university has no such a concept. However, we are taking the following steps to develop new, high-quality research directions:

1. When establishing new study programs and creating interdisciplinary research teams, we follow the '*National priorities of oriented research, experimental development, and innovations*' (https://vyzkum.gov.cz/frontclanek.aspx?idsekce=653383).
2. We set the research clusters that reflect the excellence of the university's research teams on the one hand and show the direction the university wants to take in research on the other.
3. The members of the university's management, as well as other academics, are members of local, regional, and national public bodies (e.g., Ustecky region) that shape the priorities of

future development. The university is a key stakeholder in those institutions and can adopt the mentioned priorities in its development policy.

4. The university's managing board is composed of representatives of public and private institutions who can influence the university's strategic decisions and support the establishment of new teams reflecting new and innovative topics.
5. The Center for Technology and Knowledge Transfer is actively searching for contract research partners and (so-called) application partners for applied research.

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:

1. 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.
2. 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:

4.3.1 Internal and external evaluation of R&D&I quality

Currently, the university has no **external evaluation system** for R&D&I quality. However, the project proposal for Johann Amos Comenius Operational Program ("Research Environment") works with a two-stage system of external evaluation (result of the competition is expected in September 2025).

The highest body for research evaluation is the I. Board for the Evaluation of Creative Activities ('BOARD'). Its members are university management representatives, prominent university professors, professors/associate professors from universities in the Czech Republic, and foreign experts. The BOARD has five members; its chairman is the Vice-Rector for Science. The board is responsible for:

- Approval of evaluation parameters.
- Supervision of the process and preparation of the final report - describes and evaluates the level of individual fields (scientific areas) and components (can be done using a four-level evaluation scale - A, B, C, D), states recommendations for further development and the overall direction of development of UJEP scientific activities), the report is discussed by the relevant UJEP bodies (Scientific Board, Internal Assessment Board).
- Appointment of members of expert evaluation panels.

Individual scientific areas (see below) are subsequently evaluated by II. Expert panels ('EXPERT PANEL'). Each panel consists of 3 members – a) a representative of the university, b) a representative from another Czech university or college, and c) a representative from a foreign university or college.

The evaluation will take place in the following eight panels (respecting the number of faculties and OECD Frascati):

1. Faculty of Environment - Natural Sciences
2. Faculty of Science - Natural Sciences
3. Faculty of Mechanical Engineering - Engineering and Technology
4. Faculty of Health Studies - Medical and Health Sciences
5. Faculty of Social and Economic Studies - Social Sciences
6. Faculty of Education - Social Sciences
7. Faculty of Arts - Social Sciences and Humanities
8. Faculty of Art and Design - Arts

The main tasks of the EXPERT PANEL are:

- ensuring the course of the evaluation
- assessing the level of disciplines and scientific areas and submitting the evaluation outputs to the BOARD

The evaluation is built on three pillars:

1. Evaluation of institutional provision
2. Evaluation of indicators of creative activity
   - personnel provision,
   - results,
   - grants and projects,
   - follow-up study programs considering the number of students and graduates – the creative activity of students is also evaluated, especially Ph.D. students)
3. Bibliometric analysis (in relevant fields according to classification)

If the project proposal succeeds in the competition, the first evaluation will occur in 2027. Otherwise, the external evaluation system will undergo partial changes, but the system will still be applied in 2027.

The **internal evaluation system** for R&D&I is based on how institutional support for the LCDRO is distributed between faculties according to the quality and quantity of research. In this system, the quality of research plays a crucial role (for more information, please read Chapter 4.11). This evaluation system works with the individual performance of academics - the so-called '*Information system for academic staff performance evaluation (IS HAP)*'. IS HAP is based on four basic pillars of the evaluation: a) research and creative work (e.g., publications, research projects, etc.), b) teaching activities (incl. exams, mobilities, etc.), c) organizational activity (e.g., management of the faculty, membership in scientific or editorial boards, etc.), d) other activities (e.g., popularization, organization of summer schools, U3A, etc.). Evaluation of research teams occurs at the faculty level - e.g., evaluation of departments (often connected with the budget) or evaluation of research institutions.

4.3.2 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, ethics hotlines, and systems for reporting whistleblowing and ethical misconduct).

The university's ethical standards are based on principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (Commission Recommendation of 11 March 2005), which is published in Czech (https://www.ujep.cz/wp-content/uploads/2023/05/Charta-a-Kodex.pdf). There are following pillars defining the ethical standards at the university:

1. Ethical Code

2. Procedure Rules of the Ethical Committee
3. Rector's Directive on Ethics in Research
4. Equal Opportunities Plan 2023-2025 (https://www.ujep.cz/wp-content/uploads/2024/04/Equal-opportunities-plan_UJEP_en-web.pdf)
5. Ombudsperson
6. Disciplinary Code (https://www.ujep.cz/wp-content/uploads/2020/06/Disciplinary_Code.pdf)

However, the university's ethical standards are currently in the transition period. A new Ethical code will be in power since June 2025, covering general ethical standards (e.g., social safety, sexual and gender-based violence) and research ethics.

The Ombudsperson plays a key role in translating ethical standards into practice at the university (please see *Annex 2* – Directive Nr. 2/2024). At the end of 2024, the Ombudsperson evidenced 48 initiatives (25 from employees, 23 from students). Employees submitted the following groups of initiatives:

- Low support when starting the job
- Lack of leadership
- Failure when solving problems or conflicts
- Unclear organizational structure (incl. competencies, support) and vision of the faculty

Students had the following initiatives:

- Unprofessional teaching
- Low self-reflection
- Lack of respect
- Boundaries in the communication

The Ombudsperson contributes actively to the Working Group (WG) for Equal Opportunities established at the university in 2024. This WG coordinates all activities related to equal opportunities—organizing workshops, seminars, or lectures, participating at conferences (national and international ones), and publishing training materials (methodologies, videos, brochures, etc.).

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:

1. The sustainable development concept (strategy, objectives, plan and implementation).
2. Social responsibility strategy.
3. A knowledge transfer system, if it is established at central level.[3]
4. The third role, the transfer of R&D&I results to society and interaction with local actors.
5. 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).
6. Ethics and personal data protection.
7. Intellectual property protection.
8. 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).
9. Digitisation and the use of smart technologies.
10. 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.
11. 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:

4.4.1 Sustainable development concept

Currently, the university does not have a sustainable development concept. However, sustainability and social responsibility are two of the university's four publicly stated core values. We recognize our essential role in this context, especially through high-quality research, education, and leadership. In the past, the university has carried out individual activities supporting this role (e.g., participation in the European Sustainable Development Week since 2023, publication of the Equal Opportunities Plan 2023-2025, and participation in numerous research projects on clean energy or sustainable mobility). Nevertheless, the strategic approach was missing.

In 2025, significant progress is expected based on the project '*RUR – Region for university, university for region*' funded by the Operational Program Just Transition (from mid-2023 until the end of 2027). As a part of Key Activity 4, it is planned to systematically institutionalize sustainability in all dimensions of university operations through the ESG model. Key project outcomes include a new ESG strategy, related action plans, and relevant university policies. We also aim to share our experience and motivate other similar institutions in the region. Participation in international sustainability university rankings is planned as well.

The conceptual work on the ESG strategy has already been started by the newly appointed ESG Manager – Dr. Dana Kapitulčinová – who has previous experience in co-drafting the Sustainable Development Strategy and Action Plans at Charles University in Prague for the years 2022-2025. She is now working with colleagues from the RUR project, ESG coordinators from each faculty

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

member, and the top university management. We use a participatory approach to strategy development. Therefore, a series of workshops will be held in 2025/2026 to discuss and collect ideas on sustainability from the university community. We aim to build on existing activities, groups, and partnerships at UJEP and gradually extend the agenda throughout the university.

4.4.2 Social responsibility strategy

The university is fully aware of its responsibility for sustainable development and social responsibility in science, research, and innovation (R&I). The university implements systematic measures that strengthen the sustainability and resilience of the research infrastructure and academic community, thereby contributing to the region's and society's long-term prosperity. The university focuses on several key areas within its social responsibility strategy:

a. Environmental sustainability,
b. Social responsibility and inclusion,
c. Resilience of the research ecosystem.

In terms of environmental sustainability, these include, for example, projects focused on environmental protection, sustainable technologies, and renewable energy sources. Furthermore, the university implements the principles of a "green university" – reducing the carbon footprint, energy efficiency of buildings, recycling, and digitalization of education. In this context, it is possible to mention collaboration with regional institutions on sustainable development projects, including revitalizing brownfields and adapting urban spaces to climate change. An example is the European Sustainable Development Week (ESDW). This "Smart Countryside" project focuses on the sustainable development of rural areas by implementing SMART and innovative solutions and digital technologies.

Regarding social responsibility and inclusion, the university focuses on supporting diversity and equal opportunities in the academic environment, programs for disadvantaged groups, including scholarships for students with social or health barriers, or the Open Science chapter and popularization of research through public involvement in scientific activities. In this area, for example, the university initiated an online discussion on the social responsibility of universities, where representatives of various Czech universities met. The aim was to open the topic of social responsibility and lay the foundations of an infrastructure for more effective use of university resources to benefit society. The university supports research focused on the social responsibility of companies and organizations. An example is the publication "Social Responsibility of Companies and Organizations: Sustainably About Sustainability", which is available in the Scientific Library.

The most crucial point is the resilience of the"research ecosystem, which concerns the long-term financial sustainability of R&D&I through a combination of public and private sources, support for young scientists and doctoral students within the framework of funding and mentoring programs or strategic partnerships with industrial and public entities to strengthen applied research and innovation. The university is investing in developing its campus to create an integrated education center in the Ústí nad Labem Region. This project includes the modernization of research infrastructure and support for innovation, which contributes to the long-term resilience and sustainability of the research ecosystem. The university has established a department of the Vice-Rector for Science, which coordinates the university's scientific and research activities. This department supports strategic partnerships with industrial and public entities and ensures the long-term financial sustainability of R&D&I activities.

The university actively participates in fulfilling the UN Sustainable Development Goals (SDGs) and strives for the further development of a responsible research and innovation ecosystem. The university's long-term goal is to strengthen social responsibility in the academic environment and support innovations that contribute to the sustainable development of the region and the entire Czech Republic.

4.4.3 A knowledge transfer system

The Center for Technology and Knowledge Transfer (CTTZ) at the university is a tool for strengthening sustainability and resilience in R&D. Established in 2021, its purpose is to support and advance knowledge transfer from academia to the application sphere. The Center is firmly embedded in the university's organizational structure, reporting to the Vice-Rector for Research, and currently operates with one staff member. However, it is expanding its capacity through new funding proposals under EIT-HEI 2024 and the Johannes Amos Comenius Operational Program ("Research Environment"), and we plan to submit an Operational Program Just Transformation (OPST) application soon.

Currently, CTTZ focuses on facilitating contacts with companies, supporting license sales and spin-off creation, conducting market analyses, and collaborating on "proof-of-concept" initiatives. These activities help fulfill UJEP's long-term R&D strategy while building strong ties with the industry. We aim to become a trusted partner for businesses and investors seeking innovative solutions in areas where the university demonstrates research excellence.

We plan to develop a systematic approach to IP management, create and maintain a database of R&D outputs, actively promote research and services, and expand educational efforts. These activities include comprehensive training for staff and students in commercialization, such as start-up formation, project management, and investor negotiation skills. We also plan to support student-driven innovative projects that can bring promising applications in both research and practice. These measures should reinforce UJEP's position as a modern institution with robust knowledge-transfer mechanisms and a resilient R&D ecosystem.

4.4.4 The third role

The university actively fulfills its third mission by transferring research, development, and innovation (R&D&I) outcomes to society and engaging with local stakeholders. This commitment is evident through various initiatives and collaborations that address regional challenges and promote sustainable development.

Applied Research and Community Engagement

UJEP's faculties and research centers focus on applied research that directly benefits the community. An example of this engagement is the book '*Obce mluví o vodě*' (Municipalities Talk About Water), which enhances communication regarding rainwater management in urban areas, facilitating the adoption of sustainable practices (https://www.ieep.cz/en/obce-mluvi-o-vode/, https://www.ieep.cz/en/obce-mluvi-o-vode-pravidla-a-postupy-pro-komunikaci-vybranych-opatreni-na-hospodareni-s-destovou-vodou-mezi-mistni-samospravou-a-verejnosti/).

Strategic Collaborations with Local Entities

There are the following examples of the collaborations:

- Social Clinic (Faculty of Social and Economic Studies) is a new research center in the Ústí nad Labem region that brings concrete support and solutions for at-risk children and their families.
- Forpolis (Faculty of Social and Economic Studies) is a platform that brings together all regional development actors, whether they are representatives, municipal councilors, mayors of municipalities or authors of strategic and development documents of municipalities, consultants, the professional public, students as well as the public interested in the issue of settlement development and community in the broadest sense of the word (https://forpolis.ujep.cz/en/)
- The Center for Subject Didactics and Practices (Faculty of Arts) is a methodological workplace of subject didactics and offers teaching practices or an organizational workplace of teaching practices (https://en.ff.ujep.cz/9648-centre-for-subject-didactics-and-practises).
- Center for Social Innovation and Inclusion in Education (Faculty of Education) focuses on supporting quality and individualization in education, creating a pro-inclusive educational

environment in schools, and supporting the development of innovative educational approaches.

- Center for the Documentation and Digitalization of Cultural Heritage (Faculty of Arts) is oriented on research and training in material cultural heritage documentation, focusing on buildings (https://en.ff.ujep.cz/9650-centre-for-the-documentation-and-digitisation-of-cultural-heritage).

Support for Innovation and Technology Transfer

Through the Center for Technology and Knowledge Transfer, the university provides a platform for transforming research outcomes into practical applications. This center supports the commercialization of innovations, fosters entrepreneurship, and contributes to regional economic growth.

Educational programs for the public

The university offers education and stimulation for senior citizens ('U3A' – University of the Third Age') and for children ('Teen Age University'). For more information about U3A please visit the following websites (in Czech language): https://ccv.ujep.cz/seniori-2/.

Community-Oriented Events and Outreach

The university organizes events, workshops, and seminars that disseminate research findings to the public and encourage community participation. These activities promote a culture of continuous learning and facilitate dialogue between researchers and citizens, ensuring that scientific advancements translate into societal benefits.

4.4.5 The concept of research data management

Please see the Research data management policy of the university (*Annex 3*).

4.4.6 Ethics and personal data protection

The university's ethical standards are based on principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (Commission Recommendation of 11 March 2005), which is published in Czech (https://www.ujep.cz/wp-content/uploads/2023/05/Charta-a-Kodex.pdf). There are following pillars defining the ethical standards at the university:

1. Ethical Code
2. Procedure Rules of the Ethical Committee
3. Rector's Directive on Ethics in Research.

However, the university's ethical standards are currently in the transition period. A new Ethical code will be in power since June 2025, covering general ethical standards (e.g., social safety, sexual and gender-based violence) and research ethics.

Basic principles of personal data protection at UJEP

The university adheres to basic principles in processing personal data that ensure transparency, security, and responsible handling of data:

1. Lawfulness, fairness, and transparency—UJEP processes personal data only for a lawful reason and clearly informs data subjects about its use.
2. Purpose limitation - UJEP collects data only for specific and legitimate purposes.
3. Data minimization - UJEP collects only the data necessary.
4. Accuracy - Data is regularly updated and kept as accurate as possible.
5. Retention Limits - Data is retained only for as long as necessary.
6. Integrity and Confidentiality—UJEP ensures the protection of personal data against unauthorized access and misuse.

7. Accountability - UJEP actively ensures compliance and takes a responsible approach to data management.

For example, UJEP applies these principles when collecting student data. Only authorized staff have access to the data, which is protected and securely deleted after graduation. Thus, the University ensures compliance with legislation and privacy protection. For further information please see *Annex 4* – Personal data processing principles.

4.4.7 Intellectual property protection

Intellectual property (IP) protection is decentralized at the university, with individual faculties handling most responsibilities. However, the Rector's Directive on Intellectual Property Protection unifies core guidelines and procedures. This directive outlines the principles for safeguarding research and innovation outputs and the duties and rights of researchers, faculty deans, the Center for Technology and Knowledge Transfer (CTTZ), and the Rector's Panel for Commercialization.

It also introduces a motivational system for IP creators, encouraging researchers to proactively identify and secure marketable ideas and solutions. Although IP matters are managed primarily at the faculty level, CTTZ provides methodological and administrative assistance with rights protection and negotiations involving external partners.

UJEP now holds 15 active patents and 11 utility models, principally linked to the Faculty of Science, the Faculty of Mechanical Engineering, and the Faculty of the Environment. These portfolios attest to the university's innovative potential and reinforce ongoing efforts to transfer knowledge from academia to real-world applications.

4.4.8 Institutional resilience

The university currently has no policy dealing with resistance to foreign influence. However, based on the 'Council's recommendation on enhancing research security,' we are informing the researchers about the necessity of the economic security strategy. Furthermore, we plan to establish a university's strategy for institutional resilience as an outcome of the project for Operational Program Johannes Amos Comenius submitted in December 2024 ("Research Environment").

Cybersecurity at UJEP is ensured in compliance with the applicable Cybersecurity Act and related decrees. To ensure organizational security, the Information and CyberSecurity Department (hereinafter referred to as ICSD) has been established. Within the organizational structure of UJEP, ICSD reports directly to the Rector and is methodically guided by the UJEP CyberSecurity Committee (hereinafter referred to as UJEP CSC). ICSD is staffed in accordance with legally required security roles, each with precisely defined responsibilities.

The management of cybersecurity itself is governed by the UJEP Information Security Management System (hereinafter referred to as ISMS), which outlines the entire management process, including the organization's leadership commitment to cybersecurity, the scope of ISMS, document management, governance structure (security roles and their relationships), regular audits, and sanctions. The ISMS also mandates compliance with security policies within the prescribed scope, as defined by the relevant decree.

References

- Basic information about cybersecurity (in Czech language): https://www.ujep.cz/cs/kyberbezpecnost
- Rector's Directive No. 3/2024 about the Statute and Rules of Procedure of the UJEP Cybersecurity Committee
- Rector's Order No. 2/2024 about UJEP Organizational Rules
- Rector's Directive No. 7/2023 about Information Security Management System
- Valid security policies: https://grc.ci.ujep.cz/portal/policy

- Educational activities (in Czech language): https://www.ujep.cz/cs/osveta-a-vzdelavani-v-kyberbezpecnosti
- Phishing test statistics in 2024: please see *Annex 7* (in Czech language).

At the university, preventing the misuse of research, development, and innovation (RDI) outputs is primarily ensured using comprehensive nondisclosure agreements (NDAs) and carefully drafted contractual clauses. All employees, external collaborators, and third-party stakeholders engaged in projects with potentially sensitive or proprietary information must sign NDAs, which clearly outline their obligations regarding confidentiality and responsible data handling. Moreover, the university places significant emphasis on setting robust contractual frameworks for collaborative projects, ensuring that each participating entity's rights and responsibilities are defined and legally enforceable.

4.4.9 Digitization and the use of smart technologies

The university is actively involved in digitalizing and implementing SMART technologies in science, research, and innovation (R&D). This effort is part of the university's broader corporate social responsibility strategy, which includes several key areas:

1. Digitalization and SMART technologies in research and education. The following projects helped with the introduction of the SMART concept at the university:
    - "Smart City—Smart Region—Smart Community" project: Based on this project, between 2018 and 2022, the university created a quality infrastructure for life and provided public services through SMART technologies. The project supported collaboration between research organizations and the private and public sectors and strengthened interdisciplinary collaboration in SMART solutions.
    - Research Center for a Resilient, Smart, Innovative, and Sustainable Society (CESMOD): The university leads this interdisciplinary center, which focuses on research into the economic, environmental, social, and institutional aspects of the development of a SMART society. The goal is to strengthen public administration's professional competencies and create a research base to implement smart technologies effectively.
2. Support for digitalization in public administration and communities
    - The "Smart Countryside" project focuses on the sustainable development of rural areas by applying SMART, innovative solutions, and digital technologies. The goal is to develop the concept and methodology of "Smart Countryside," which will help develop rural communities.
    - Regional Innovation Strategy of the Ústí nad Labem Region: UJEP contributes to the creation and implementation of this strategy, which emphasizes digitalization in areas such as Industry 4.0, mobility, healthcare, education, and smart cities. In this way, the university supports the region's transformation towards modern technologies and innovations.

As part of digitalization, the agenda of streamlining processes, optimizing user comfort, upgrading existing management information systems, and creating additional functionalities to reduce the administrative burden was also addressed. The focus was mainly on supporting IS STAG, ensuring support and maintenance of iFIS, ORACLE (new versions and additional functionalities), and CUL (central document repository), and then supporting the verso and OBD modules.

4.4.10 The institutional strategy for Open Science II.

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.

At this moment, the university has no specific institutional strategy for Open Science 2.0/Open Access. We inform academics about open science (including open access, open data, European Open Science Cloud, digital repository, and predatory journals) on our website (only in Czech: https://knihovna.ujep.cz/cs/open-science).

The university representatives are members of the working group preparing the grant for Johann Amos Comenius's Operational Program, Open Science II (call deadline: June 30, 2025). The call aims to support discipline-specific and interdisciplinary activities within the framework of implementing the European Open Science Cloud initiative in the Czech Republic through the conceptual document "Architecture of EOSC Implementation in the Czech Republic." The university is ready to contribute to the national solution of the Open Science initiative.

Specifically, the call will support the development of thematic/discipline-specific repositories and their integration into the National Data Infrastructure (hereinafter referred to as "NDI") environment, the development and application of appropriate metadata models, standards, and other tools and instruments increasing the searchability, accessibility, interoperability and reusability of research data (i.e., ensuring FAIR principles within and between disciplines, including specifics for sensitive data).

The university has an agenda for assigning international identifiers that are used to identify and manage information resources. The ISBN (International Standard Book Number) identifier is used for monographs. The DOI (Digital Object Identifier) identifier identifies digital objects such as electronic publications, scientific articles or digital records.

Electronic information resources at UJEP include professional scientific databases. For selected resources, it is possible to use publication bonuses based on transformation contracts, which mean significant discounts or full payment of APC fees (Article Processing Charges). This allows authors to publish articles in Open Access (OA) mode, either in hybrid or fully open Gold titles, which supports free access to scientific outputs.

The digital repository at UJEP is operated on the ARL (Advanced Rapid Library) software platform. The repository is primarily intended for the storage, long-term preservation, and free access to full documents associated with research and educational activities within the university. The repository is part of the Scientific Library's online book catalog and is indexed in the international network of scientific repositories OpenDOAR. Thus, the repository can contribute to higher visibility and citation of the stored works. Further information can be found here: https://knihovna.ujep.cz/en/ujep-repository.

4.4.11 A system for training undergraduate and postgraduate students

The Faculty of Social and Economic Studies offers a bachelor's program in Economics and Management, emphasizing entrepreneurship and innovation skills. The university intends to expand this program under the EIT HEI 2024 (ICARE – please see *Annex 8*) initiative to strengthen students' capacities for technology transfer and intellectual property (IP) protection. Even if ICARE funding is not secured, the university will pursue similar goals through alternative grant opportunities and internal resources.

This expansion focuses on updating coursework with practical modules on IP rights, licensing, and business planning. Students and academic staff will receive mentoring and training to efficiently protect ideas, assess commercial potential, and develop partnerships for potential commercialization. In tandem, the Center for Technology and Knowledge Transfer (CTTZ) will extend its support services to bridge academic research and industry needs.

The university plans to foster new startups and spin-offs by enhancing educational and transfer activities and reinforcing its role as a key player in the regional innovation ecosystem, regardless of external funding outcomes.

The important institutional setting for education is the Center of Competence (established in 2025), which aims to develop employees' skills and competencies, including those in intellectual property protection and technology transfer. Furthermore, in 2025, the Doctoral Academy UJEP will

also offer courses for all university students to enhance startup management and commercialization skills. These courses we develop in collaboration with the Innovation Center of Ústí Region, which helps to network the students and employees with the application sector (industry, public sector, etc.).

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:

UJEP has 1211 employees (as of 28.02.2025), there are 594 academic staff, 163 scientific staff, we do not yet monitor the number of technical and economic staff who participate in R&D, because their work also includes other agendas. In addition to these employees, administrative support is provided by the economic department, personnel department, legal department, public procurement, investment department and project services center, economic administration, etc. These are service departments whose mission is to manage the agenda entrusted to them for all activities performed at the university, thus ensuring the smooth running of these activities.

In 2024, the university employed international experts from around the world - nevertheless, most foreign employees from various EU countries. Mainly border countries are widely represented, i.e., Slovakia, Germany, Poland, and Austria. We also employ people from Ukraine, Russia, the USA, Great Britain, Italy, Belgium, Australia, Hungary, the Netherlands, Lebanon, etc. The total number of foreigners employed at UJEP in 2024 was 51 people - twenty men and 16.5 women in academic and scientific positions, 4.47 men and 9.72 women in technical and economic positions (measured as FTE). Compared to 2020, the number of foreigners increased by 68 %, and their distribution across professions was similar to 2024.

In 2024, the personnel department conducted an initial audit of age management. The age and gender composition of employees is as follows: UJEP employs 1106 employees, of whom 524 are men and 582 are women. In terms of the complexity of the work performed, the mental type of work predominates among all employees. The age categories were: under 20 (1 man), age 21-30 represented by 43 men, 53 women, age 31-40 represented by 127 men and 136 women. The most workers are in the age category 41-50 (170 men, 191 women). In the oldest age categories, the representation of the employed population changes in favor of men: in the age category 51-60 there are 93 men and 46 women, in the age category 61 there are 91 men and 55 women. In the case of employees in management positions, employees under 50 have the largest representation. Men significantly predominate here (48 men vs. 29 women). In older age categories from 51 years, the representation of men and women is almost identical. This audit resulted in a few recommendations for setting an age management strategy, which we are gradually trying to implement at UJEP.

UJEP received the HR Excellence in Research Award (HR Award) from the European Commission on 3 June 2019. On 31 July 2021, it was able to enjoy its renewal, having received a positive assessment from the European Commission to maintain this important award until July 2024. UJEP fulfils the parameters for holding the HR Award during the process of implementing the Human Resources Strategy for Researchers (HRS4R). In the first two-year implementation phase, UJEP implemented the first Action Plan 2019-2020. In 1Q2024, a self-evaluation report was prepared for

the EC, reflecting the progress of the implementation of the HRS4R principles so far: the implementation of the UJEP AP 2021-2023 from the perspective of the activity guarantors (UJEP Vice-Rector) and from the perspective of the faculties, the next UJEP Action Plan for the period 2024-2026 and the evaluation of the questionnaire for researchers (cyclical questionnaire survey). On 2 July 2024, the report "Internal Review for Award Renewal" was sent. The evaluation by the Euro commissioners from both administrative and substantive perspectives and the submission of feedback to UJEP is currently pending. If accepted, a visit by the Euro commissioners will be scheduled, expected date November-December 2024. The HR Award Action Plan is available on the University website.

UJEP conducted a Gender Audit among the employed in 2022 and conducted an Equal Opportunities Audit among UJEP students in 2023 as part of the CRP project "Preventing Unethical Behavior on Campus and Promoting Competence in Victim Care". The outcome of both audits is the Equal Opportunities Plan 2023-2025, available on the UJEP website.

As a result of both activities, in particular the results of the questionnaire surveys, an Ombudsperson working position has been established at the University. Thus, since 2024, our University has had an Ombudsperson who was selected in a competitive selection process. Furthermore, a Center of Competence was established to implement training activities leading to the acquisition, renewal, enhancement of various skills, e.g., managerial, pedagogical, IT, language, psychosocial (stress management, wellbeing, etc.). The plan is to set up a children's group, which should start operating in 2025.

An equal pay audit is currently being carried out by the Ministry of Labor and Social Affairs as part of an EU-supported project called Equal Pay. Wage data is being analyzed using the LOGIB analytical tool.

Since 2024, the University has been involved in a project supported by the Ministry of Education, which focuses on strategic human resource management. Its aim is to share practice between universities, looking in detail at remuneration, appraisal, career management, exit policy, the adaptation process, working with talent and social security. The result of the cooperation is and will be a joint effort to identify problematic points in the university environment in the field of human resources management, including in the environment of individual universities, and then to take appropriate measures, introduce methodological procedures and apply them in practice.

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	27	5.8	0.3	27	6.5	1
Associate Professor	98.480	30.250	2	105.24	30.80	2
Assistant Professor	293.100	112.430	4.29	312.01	125.98	7.54
Assistant	6.650	5.600	0	16.7	11.90	0.32
R&D Personnel[5]	93.790	46.630	0	72,01	41.41	0.79
Researchers in other categories[6]	N/A		4.13	14.26	9.23	1.43
Technical and economic staff[7]	0.30	0.20		23	11.7	
Early career researcher[8]						

[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+.

Scientific, research and development staff involved in teaching activities	0	0	0	2.24	0	2
Total number of foreign nationals	34.1	14.69	10.72	51	25.74	33.08

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, research and development staff, scientific staff not falling into other categories and technical and economic staff are mutually exclusive, i.e. one staff member is reported under one category only. Scientific, research and development staff involved in teaching activities, as well as early career researchers are reported collectively for all the above-mentioned categories.
Note: The average number of hours worked is calculated as the ratio of the total number of hours actually worked during the reference period, from 1 January to 31 December, by all staff (including agreement on work activity, excluding agreement on work performance) to the total annual working time pool per full-time employee. The full- time status of the worker in the evaluated unit is always reported. If an employee holds more than one type of full-time job within the evaluated unit, the total sum of the two shall be reported.

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

Academic/professional position	Under 29 years [%]		30-39 years [%]		40-49 years [%]		50-59 years [%]		60-69 years [%]		70 years and over [%]	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor					3		11	2	12	2	14	3
Associate Professor			7	1	34	7	27	14	28	11	28	3
Assistant Professor	11	5	96	33	146	58	67	26	34	14	8	1
Assistant	6	5	2	2	1	1						
Early career researcher [9]												
R&D Personnel [10]												
Researchers in other categories [11]	35	23	43	20	28	14	9	2	7	2	4	2
Technical and economic staff [12]												
Scientific, research and development staff involved in teaching activities												

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

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

Academic/professional position	Under 29 years [%]		30-39 years [%]		40-49 years [%]		50-59 years [%]		60-69 years [%]		70 years and over [%]	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor					3		13	5	16	1	5	1
Associate Professor			6		43	8	36	13	20	12	22	3
Assistant Professor	7	4	107	38	146	53	75	37	37	46	6	1
Assistant	9	6	11	7	4	4	1	1	1			

[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.

Early career researcher [13]												
R&D personnel [14]	39	25	40	19	40	19	22	13	5	1	2	1
Researchers in other categories [15]	7	3	4	3	10	4	1	1	3	2	2	1
Technical and economic staff [16]												
Scientific, research and development staff involved in teaching activities			2									

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

4.6 Academic and Research Careers

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

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

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

Maximum 300 words per point.

Self-assessment:

Central recruitment system: Recruitment is centralized and administratively managed by the UJEP Division of Human Resources (ZAMO). Selection procedures are published at least 30 days before

[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.

the application deadline on official notice boards, websites, and international portals (e.g., Euraxess), allowing candidates to be recruited from an external environment, especially from abroad. The process includes pre-selection based on written materials, personal interviews, and possible testing methods. Selection procedures are designed according to objective and non-discriminatory criteria following the principles of the European Charter and the Code of Conduct for the Recruitment of Researchers. The composition of the selection committee reflects a balanced ratio of men and women and thus supports equal opportunities. Management positions (e.g., Bursar, Chancellor, Directors) are usually placed through a standardized selection procedure with the same principles as for other positions. When assessing candidates, gender balance following the European Charter and the Code is emphasized (Methodology No. 1/2021, Vice-Rector for Development and Quality).

Career Growth Rules: The UJEP Career Rules are based on the principles of openness, non-discrimination, and equal opportunities and thus support transparent and fair professional development of academic and research staff. Each academic staff member (or researcher) creates a binding career plan with their supervisor for up to 5 years (or according to the duration of the employment contract). This plan sets out current and required qualifications, planned steps (including foreign mobility), and work results. Direct support includes the possibility of creative leave and participation in professional events, internships, and educational programs. Indirect support is manifested by adjusting working conditions to minimize stagnation of professional growth. Regular assessment of the fulfillment of the career plan is carried out based on quantitative and qualitative indicators (including foreign mobility), and the assessment results directly impact the salary and possible transfer to another academic position (Rector's Directive No. 5/2019 about Career Structure).

Adaptation and mentoring of newly hired employees occur without a concept. Shortly, we plan to introduce an adaptation process, mentoring, and exit policy through a conceptual comprehensive system, which will be supported methodologically and by training in management skills in the Center of Competence.

Labor relations are concluded following EU and Czech legal standards, i.e., the chaining of employment contracts is entirely under the Labor Code and the collective agreement.

Sabbaticals are not used much at UJEP. The conditions under which sabbaticals take place are stated in the Work Regulations.

As for returns (after career interruptions due to parenthood, long-term illness, work internships, etc.), they occur according to applicable legal standards. Although the university does not yet have an appropriate methodology, we have not noted any significant problems with integrating affected employees into the work process in these areas. Each case is handled individually and with maximum consideration for the person concerned. The university registers maternity and parental leave at lower levels, and many parents, especially mothers, often return to work earlier, work part-time, or do not interrupt their careers at all, as this creates conditions for combining work and family life. The university plans to establish a children's group (so-called 'Ujepáček') to further support parents from among employees and students. Given the high financial cost, particularly associated with the need to reconstruct the premises to operate a children's group following the current legislation of the Czech Republic, a project, i.e., an application for a subsidy, was submitted to the Ministry of Labor and Social Affairs. The implementation of the project should begin in 2025.

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:

Evaluation and remuneration at UJEP are based on an objective and transparent system, which is closely linked to individual career plans and regular performance evaluation. The key points are: Employees are evaluated according to predefined competencies, performance criteria, and fulfillment of career plans. The evaluation results serve as a basis for salary evaluation and possible changes in classification in the salary class. The internal wage regulation sets uniform wage tariffs and bonuses (for managerial, scientific, and pedagogical ranks, overtime work, etc.), which ensure internal coherence and comparability of wage conditions. The strategy also includes setting equal remuneration, which connects internal justice, the principles of gender equality, and external competitiveness. This goal is supported by the ongoing remuneration audit (LOGIB) and age audit, and the results of the audits will be discussed across the university and with the trade union. The internal wage regulation, specifically the tariff tables, is being updated to ensure uniformity of remuneration across academic and positions of technical and economic employees.

The university implemented the following legislation and documents regulating gender equality:

- Equal Opportunities Plan 2023-2025 (https://www.ujep.cz/wp-content/uploads/2024/04/Equal-opportunities-plan_UJEP_en-web.pdf)

Although there is no other strategic document dealing with this issue, the Working Group for Equal Opportunities works systematically to disseminate information between academics, researchers, and students to build a university culture and to change informal institutions in the university environment (e.g., traditional values and habits).

The UJEP Work Regulations address flexible forms of employment in Article 18.

Flexible forms of employment are used at UJEP, which have specifics that also affect the recording of hours worked. For academic staff, recording of another place of work and the home office is considered, where it applies that if the work is performed within the framework of creative activities, this time is not subject to recording. These include, for example, a compressed work week - the specified weekly working hours are worked on selected days in agreement with the superior so that the weekly working hours are worked during the week and the maximum daily working hours do not exceed 12 hours. The employee keeps records of the hours worked similarly to flexible

working hours. A shared workplace is a type of part-time employment where two or more employees share one workplace. The direct supervisor plans the organization of working hours. The employee records the hours worked as standard in the case of flexible working hours. Other place of work – The employee works entirely or partially in another place. Adjusting the working schedule does not apply to work performed from another place of work. Home office – The employee works altogether or partially from their home. Adjusting the working schedule does not apply to working from home.

At UJEP, measures have been implemented at several levels to eliminate negative phenomena such as mobbing and sexual harassment. The first is establishing an ombudsman function, which receives complaints and suggestions, investigates them, and makes recommendations for remediation. This role guarantees that no one will be penalized for contacting her and ensures the confidentiality of information. The Code of Ethics and the UJEP Ethics Committee set clear rules of conduct, emphasize collegiality, respect, and transparency, and define procedures for resolving violations of these principles, including mobbing and sexual harassment. The Rules of Procedure of the Ethics Committee then regulate specific procedures for discussing and deciding on suggestions, thus supporting a quick and effective response to complaints. The university emphasizes prevention through training and education so that all academic community members know their rights and obligations and create a safe and respectful working environment.

The university will provide examples from practice (e.g., the use of flexible working hours, dealing with cases of mobbing or sexual harassment, adhering to the principles of gender equality in the university's professional bodies, etc.).

4.7.1 Gender balance in management positions

Senior staff	2020		2024	
	Men	Women	Men	Women
Rector	1	0	1	0
Vice-Chancellor	3	1	4	1
Dean[17]	7	1	7	1
Academic Senate	78	31	74	51
Scientific/Artistic/Academic Council/Board	170	59	121	51
Quaestor	1	0	1	0
Board of Directors	11	1	12	0

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

[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.

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:

UJEP's strategy for international mobility is defined in the Strategic Plan for 2021+ (hereinafter Strategic Plan). It aligns with the Strategy of Internationalization of Higher Education for 2021+ (Czech Ministry of Education, Youth, and Sports) and the Erasmus Charter for Higher Education 2021−2027, reflected in UJEP's Erasmus Policy Statement. Strategic objectives were piloted in the annually evaluated Strategic Measures for Strengthening Internationalization at UJEP (2020−2023), which set specific measures and criteria for financial and administrative support during the lifetime of the Strategic Plan.

The main objectives and steps of the UJEP's Strategic Plan are grouped into four key areas:

1. Internationalization of study programs, incl. doctoral programs:

Integrating international learning opportunities into new study programs submitted to the National Accreditation Bureau for Higher Education. Faculties evaluate internationalization parameters annually and receive additional resources to promote mobilities. UJEP approved a methodological guideline for incorporating foreign language courses in all study programs. Czech doctoral programs submitted for accreditation must include an international version (English or other field-relevant language).

Promoting international mobility at all levels, with a compulsory research stay for all doctoral students. In justified cases (students with disabilities, working students, low-income students, or caregivers), an alternative significant international experience (e.g., research projects, joint publications) may be substituted.

2. Mobilities of academic and research staff:

Encouraging international research mobility and integrating international staff into university life. Mobilities are evaluated annually, and UJEP aims to include them in the academic staff assessment (HAP – Information system for academic staff performance evaluation). We established intersectoral research clusters to promote excellence and international collaboration. UJEP launched seminars and consulting events on funding schemes (COST, Marie-Curie, Fulbright, ERC) and introduced new funding schemes for global researchers. Doctoral students are encouraged to engage in intersectoral mobilities through the UJEP Internal Grant Agency.

3. Organizational support:

Enhancing administrative and informational support for students and staff, establishing a Welcome Office, and aiding the integration of international staff. UJEP adopted a bilingual communication strategy defining research dissemination mechanisms. A digital Welcome Office is set to launch

[18] Long-term mobility means an uninterrupted period of more than three months.

within an EU-funded project. Networking events and funding seminars are regularly organized to support international staff and doctoral students.

4. International partnerships:

Strengthening UJEP's role in international organizations and consortia while expanding cooperation through memoranda of understanding and interinstitutional agreements. A centralized system for drafting and evaluating bilateral agreements has been implemented. UJEP completed the digital transformation of its Erasmus program agenda to improve monitoring and administration, with plans to integrate all mobility programs into a unified monitoring system.

The main barriers to mobility include:

- low proficiency in English (or other languages),
- limited internal financial resources for long-term mobilities,
- extensive teaching duties (even for staff members involved in research projects),
- lack of recognition of mobilities in some departments.

Key figures (as of 12/2024):

Long-term stays:	41
International study programs:	7
Number of students in international programs:	50
Share of international staff:	5.6%
Bilateral mobility agreements:	349
Memoranda of understandings:	33

Examples of good practice:

1. Self-evaluation of Experiences and Barriers to Mobility

UJEP conducted a survey with a representative sample of employees to assess motivations, experiences, and barriers related to internationalization. The survey mapped the extent of involvement in mobilities (46% respondents), experience with long-term (6m+) mobility (16%), and involvement in international research programs (30%). Key barriers to mobility were identified, leading to refinements in academic staff assessment criteria (HAP). These refinements included considerations for staff with unconventional career paths and individual needs (gender, social, economic). The findings also informed improvements in mobility program selection procedures, allocation of financial and administrative resources (Global Experts, Program for Strategic Support), and mechanisms for integrating international staff into university life through events, networking, bilingual documents, and media initiatives.

2. Internationalization of Doctoral Study Programs

The requirement for complementarity between Czech and international doctoral study programs, supported by financial and administrative measures, led to the (re)accreditation of five new programs: Geographies of Transformations, Environmental and Biomaterial Sciences, Regulation and Behavioral Studies, Landscape Reclamation and Ecosystem Services, and Applied Economy and Governance (still under evaluation). These programs build on UJEP's strong intersectoral research areas and reflect the university's unique regional setting, contributing to a gradual increase in international student enrolment. In addition, all doctoral students must complete an international research stay or engage in significant international cooperation (alternative arrangements are available for students with specific needs). This initiative has enhanced mobility opportunities and fostered greater engagement in international research networks.

3. Global Experts

As part of a newly launched EU-funded project, UJEP introduced a support mechanism to attract international experts (so called Global Experts) for research stays of up to 12 months. In the coming two years, up to ten additional international experts are expected to participate. Given UJEP's limited institutional resources, EU funding has been instrumental in launching this support mechanism, with the long-term goal of establishing extended research internships and maximizing research output.

4. Centralized Approach to Strategic Partnerships

UJEP has adopted a centralized approach to the annual evaluation of strategic partnerships. Over the past decade, numerous memoranda of understanding were signed, but their impact remained limited, with minimal collaboration and few joint research applications. Through this new approach, UJEP is systematically closing inactive partnerships and refocusing efforts on regions and universities with a proven history of collaboration, fostering further joint projects and research mobilities. Two key scales of strategic alliances have been prioritized. First, strategic cross-border partnerships (e.g., TU Dresden, HSZG) are strengthened due to their established record of joint research projects, summer schools, and research mobility. Second, UJEP is trying to develop research collaborations with institutions in distant regions while adhering to Czech national guidelines for research security risk management and resilience against illegitimate influence. New partnerships are formed with universities in the low-risk areas, based on evidence of existing collaboration, such as the recently signed memorandum of understanding with Penn State University College of Education and Cortland University.

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:

The acquisition and replacement of equipment at the university enables internal and (especially) external funding. Internal financing is possible through investment funds in the reproduction of capital assets. External financing is based on:

- subsidies for the activity of the university,
- institutional support and LCDRO support,

[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.

- external projects,
- donations from external subjects.

External resources from project activity represent a dominant group in acquiring and replacing equipment. The university has been successful in projects funded from European structural funds and the financial resources invested in devices, equipment, laboratories, new buildings, and building completions between 2020 and 2024. Furthermore, investments support the restoration of infrastructure across the university and all its departments.

The university has no specific policy or system for sharing devices and infrastructure. It is based on the mutual interconnection of the research teams across the university and their collaboration with external partners. Investments in devices and infrastructure are planned as part of funding project activities from external sources where an investment in the acquisition of a device is essential to studying specific research topics.

Based on the internal database of research devices and infrastructure, the team at the Faculty of Environment is developing an "online" equipment-sharing system for authorized users and external research partners. University management prioritizes device sharing.

The following infrastructural projects have significantly helped the university with investments in devices and research infrastructure:

REGBE (2017-2023)

The project aimed to create a scientific and research infrastructure for designing and developing chosen doctoral programs at the university. It consists of a new doctoral program, "Regulation and Behavioral Studies," and two modernized programs, "Applied Economics and Administration" and "Didactics of Primary Science Education." The research infrastructure was named the Center for Regulation and Behavioral Studies, which consists of research laboratories for implementing study programs. The scientific and research infrastructure represented the construction of a comprehensive system of laboratories for social science research at UJEP, whose character and focus are unique in science and research in the Czech Republic. The main emphasis was on acquiring a mobile behavioral laboratory, which differs from traditional stationary laboratories in the Czech Republic. Thanks to the mobile variant, it is possible to address those test groups that programmatically avoid stationary laboratories. An equally important goal of the project, however, was a complex of several stationary laboratories (biofeedback lab., smart public administration lab., mathematical-statistical lab., eye-tracking), which focus not only on the collection and analysis of the obtained data but also on solving practical problems that are related not only to the Ustecky region (unemployment, financial literacy, socially excluded communities, climate change) but also affect the entire Czech Republic (regulation, practical education, smart public administration, etc.). The partial goals of this project will support the long-term goals of UJEP - increasing the quality of doctoral programs at UJEP and the scientific and research outputs of academic staff.

INVUST (2018-2023)

The project was focused on modernizing the infrastructure for research associated with teaching at the J. E. Purkyně University in Ústí nad Labem and creating the necessary infrastructure for the accreditation of doctoral programs - Applied Nanotechnologies and Applied Ion Technologies (Faculty of Science), Environmental Chemistry and Technology and Landscape reclamation and ecosystem services (Faculty of Environment).

Investments in research and instrumentation were also essential to developing study programs. Top-quality (and in some cases unique in the Czech Republic) instruments enable students to carry out highly specialized experimental laboratory and field research. However, they also fundamentally expand the university's overall research capacity, manifested, for example, in the participation of teams in international research projects or more intensive cooperation with business entities and the public application sector (e.g., National Park Czech-Switzerland).

SMART (2018-2023)
The project's main objective was to intensify the research and development efforts about the Smart City concept, which aims to solve the long-term societal needs of citizens, increase the quality of life, and improve competitive abilities. The primary tool was to develop the university's research capacities in cooperation with public administration and the private sector. Partial objectives were:

- Increasing the research capacities and developing human resources by creating interdisciplinary R&D teams focusing on the university's profile topic Smart and implementing the research intents (WP1 – Innovative Public Administration, WP2 Public Services and Infrastructure, WP3 Quality of Life and the Environment, WP4 Human Resources)
- Developing strategic collaboration with research organizations, the private sector, and public administration in the Ústí nad Labem Region, the Czech Republic, and internationally
- Strengthening the partnership principle and engaging the public in the decision-making.

UNIQSURF (2018-2023)
The project focused on pre-application research and development of functional surfaces and hybrid materials for biomedical applications, bioanalytical methods, catalysis, and sorption processes. It also dealt with developing micro-equipment for drug testing in 3D cell cultures, bioadhesive and anti-adhesive surfaces, and new hybrid materials for organocatalysis, separation processes, and gas sequestration.

CACTU (2018-2022)
The main objective of the CACTU strategic project was to establish a partnership with a significant entity from the application sphere (UNIPETROL RPA) and complete the construction of open research infrastructure at the joint workplaces of UJEP, UniCRE and UNIPETROL RPA (3U consortium), which will guarantee long-term cross-sectoral cooperation of research with the application sphere in the field of chemical and related technologies, focusing on research into chemical processes of transformation of raw material resources in the region into so-called green chemicals.

NANOTECH (2019-2022)
This research project was focused on pre-applied research with a significant potential for new possibilities of surface treatment of metallic materials to increase selected mechanical (e.g., hardness, abrasion resistance), chemical (e.g., corrosion resistance) and physical (e.g., thermal stability, thermal conductivity) properties. The research team developed new possibilities for nano-technological protection of metal surfaces to increase the valuable properties and improve the surface with a focus on targeted modification of hardness, corrosion resistance, frictional properties, minimization of environmental contamination, durability, chemical resistance, and other mechanical and thermal properties. In particular, advanced surface treatment of polymer matrix coatings and the addition of various metallic and non-metallic nanoparticles (nanocomposite coatings, activity A1) and modification of the surfaces of materials by laser welding (activity A2), magnetron sputtering (activity A3) and influence of the surface structure by ion beam 4A) with the purpose to enhance the valuable properties of metallic materials. The project aimed to propose solutions in the pre-application phase, allowing efficient use of products in various working conditions (thermal, power, dimensional, etc.). The Faculty of Mechanical Engineering research laboratories (Electron Microscopy Laboratory, Corrosion Laboratory, Coating Testing Laboratory) were significantly expanded and modernized during the project.

RODOS (2023-2025)
The project's goal is to ensure the development of the material and infrastructural background of selected doctoral study programs implemented at UJEP (at all faculties except the Faculty of Health Studies which has no Ph.D. study program), increasing the quality of the education provided and the competitiveness of doctoral graduates.

MATBIOMED (2024-2028)
The project is based on the collaboration of major regional research institutions – UJEP and KZ, a.s. (Masaryk Hospital), Institute of Biotechnology of the Czech Academy of Sciences, v.v.i. and the representative from the application sphere, the company Dyntec spol. s.r.o. The project addresses serious topics associated with the limited possibilities in human and veterinary medicine. In particular, the following problems stay in the center of attention: (i) the absence of effective treatment of bacterial biofilms with developed resistance to antibiotics with significant health impacts; (ii) the absence of treatment and prevention of a serious bacterial disease of bees, the so-called bee brood plague with fatal impacts on bee colony populations; (iii) limited possibilities for early prediction and progression of tumor and acute diseases of the CNS and lungs; (iv) limited methodological possibilities for tests of drug transport and drug nanocarriers across the blood-brain barrier into the central nervous system (CNS), or tumors in the CNS; (v) limited diagnostic options in the area of prognosis of invasiveness of CNS tumors.

The following tables summarize expenditures/costs on research infrastructure and equipment financed by these projects.

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 thousand 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	38 519/ 1 524 900	40 273/ 1 594 340	49 007/ 1 940 100	1 949/ 77 160	7 201/ 285 075	136 949/ 5 421 580
Cost of repairs and maintenance of equipment	129/ 5 110	418/ 16 550	685/ 27 120	208/ 8 235	0/0	1440/ 57 010
Acquisition of tangible (DH) and intangible (DN) assets for R&D&I (investments)						
Of which software	433/ 17 140	117/ 4 630	982/ 38 880	494/ 19 560	-46/ 1 820	1 980/ 78 385
Of which other intangible fixed assets	17/ 673	190/ 7 520	381/ 15 090	-7/ -277	-4/ -160	577/ 22 840
Of which land, buildings and structures	3 667/ 145 170	-185/ 7 325	0/0	35/ 1 390	650/ 25 730	4 167/ 164 970
Other intangible fixed assets (machinery, apparatus, equipment, etc.	21 294/ 842 990	21 759/ 861 400	17 178/ 680 050	31 790/ 1 258 510	14 161/ 560 610	106 182/ 4 203 560

[20] Enter the sum of the row.

Total infrastructure spending in years[21]	64 059/ 2 535 990	62 572/ 2 477 120	68 233/ 2 701 230	34 469/ 1 364 570	21 962/ 869 440	251 295/ 9 948 340

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 (ERC[22], MSCA[23], HHMI[24], HFSP[25], NSF[26], Horizon Europe[27], NIH[28], Wellcome Trust[29], EDF[30], OP JAK[31], OP TAK[32], NPO[33], GA ČR[34], TA ČR[35] 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:

[21] Enter the sum of the column.
[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.

The total budget of the university for the observed period 2020-2024 was CZK 744 243 thousand, which CZK 725 010 thousand came from domestic sources and CZK 17 757 thousand from foreign sources and 1 476 from other sources.

The key pillar of financing is domestic institutional funding from the Ministry of Education, Youth, and Sports, specifically the programs "15-specific university research" and "16-conceptual development of research organizations," which together account for CZK 447 829 thousand. This institutional support ensures stable and predictable funding for the university's research activities.

Within the organizational structure, the total budget is divided among individual faculties and the rectorate, with the dominant position held by the Faculty of Science. Other significant shares include the Faculty of Environment, the Faculty of Arts and the Faculty of Social and Economic Studies. From the perspective of foreign funding, the Faculty of Social and Economic Studies shows the greatest activity, followed by the Faculty of Environment.

An analysis of the structure of research activities by type shows that basic research represents the dominant share. Applied research shows a slight decreasing trend. In contrast, experimental development and innovation have seen a significant increase indicating a growing focus on practical applications and innovative solutions.

This overall development suggests a strategic transformation of the university's research portfolio – from a traditional focus on basic and applied research towards a more balanced model, which, while maintaining a strong foundation in basic research, places greater emphasis on experimental development, innovation, and interdisciplinary collaboration.

List of the five most significant projects from foreign programs:

COST Action: LAND4FLOOD: Natural Flood Retention on Private Land
2017 – 2021 recipient UJEP
Total cost: 517 000,00 €
Since 2017, we have been coordinating the Cost project focused on opportunities and barriers to implementing nature-based flood protection measures on private land. The project involves hydrologists, economists, geographers, experts on environmental law and spatial planning or sociology from 34 European countries and other colleagues from the USA, Australia, Belarus and Ukraine. One of the key recommendations of the project is the need to integrate territorial and ownership aspects into flood management. Since nature-based flood protection measures are typically area-based in character, their implementation leads to conflicts with other ideas about land use. Flood risk management can therefore no longer be implemented in the form of sectoral water management measures tied to the riverbed. It necessarily requires links to other spatial planning measures in the landscape.
Web: LAND4FLOOD – Přírodě blízká opatření na soukromé půdě – voda.ujep.cz

Horizon Europe: SPONGEBOOST: Upscaling the natural sponge functions of freshwater ecosystems to deliver multi-benefit green deal solutions
2024 – 2027, recipient Helmholtz Center for Environmental Research (UFZ), UJEP – partner
Total cost: 2 999 918,75 €
The SpongeBoost project focuses on supporting the increased natural water retention within freshwater ecosystems and multi-purpose nature-based solutions (such as wetlands and peatlands). The consortium consists of 10 partners from 7 European countries with an interdisciplinary background in research, policy, and management. The project aims to collect and recommend the best nature-based solutions for effectively increasing or restoring the natural water retention function in the landscape. By compiling available knowledge and best practices, along with adapting and testing new innovative approaches, a plan will be developed that engages regions and communities in actively implementing transformative measures to improve resilience to climate change manifestations. Attention will also be devoted to creating and implementing new business

models and policy instruments supporting the implementation of these measures, such as payments for ecosystem services.
Web: https://cordis.europa.eu/project/id/101112906

Horizon Europe: INERRANT: Integrating Novel Materials with Scalable Processes for Safer and Recyclable Li-ion Batteries
2023 – 2027, recipient Foundation for Research and Technology Hellas, UJEP - partner
Total cost: 4 433 848,75 €
The INERRANT project will focus on developing safe and sustainable materials for lithium-ion batteries, which are now an essential part of our modern world. The project goals are in line with the technical and economic standards established in the European SET Plan for 2030, targeting 3rd generation LIB technologies that reduce dependence on critical raw materials.
Web: https://cordis.europa.eu/project/id/101147457

Horizon Europe: Land4Climate: Utilization of private land for mainstreaming nature-based solutions in the systemic transformation towards a climate resilient Europe
2023 – 2027, recipient TU Dortmund, UJEP – partner
Total cost: 12 904 833,50 €
Nature-based solutions have the potential to mitigate the impacts of natural extremes and climate change, but compared to traditional infrastructure, they typically require more space for implementation. The Land4Climate project aims to increase the resilience of rural and urban landscapes. This will be achieved by utilizing innovative management systems and business models for accessing private land to implement NBS. The proposed approach seeks to eliminate the need for direct land acquisition, thus enabling the implementation of measures even in complicated property or other challenging situations.
Within the project, collaboration with landowners is being developed to design and test NBS on private properties using new land policies and business models. The project is testing these possibilities in the Czech Republic, Germany, Italy, Austria, Romania, and Slovakia.
Web: UTILIZATION OF PRIVATE LAND FOR MAINSTREAMING NATURE-BASED SOLUTION IN THE SYSTEMIC TRANSFORMATION TOWARDS A CLIMATE-RESILIENT EUROPE | LAND4CLIMATE | Project | Fact sheet | HORIZON | CORDIS | European Commission

MSCA: TICASS – Technologies of Imaging in Communication, Art and Social Sciences
2017-2021, recipient Sztuki w Szczecinie, UJEP – partner
Total cost: 630 000,00 €
Educational programmes are insufficiently structured when it comes to teaching students how to read and interpret visual communication signs present in social spaces, a skill that is indispensable for culturally developed communication. The MSCA-funded TICASS project aims to introduce visual literacy into educational programmes and contribute to the development of cultural awareness in the business sector. European and African project partners will conduct seminars, trainings, workshops and research and elaborate artistic exhibitions and reports on education. Three anthologies will also be delivered. Research outcomes will be shared with market representatives as the technologies of imaging analysis could be beneficial to conscious business enterprises and creative industries.
Web: https://cordis.europa.eu/project/id/734602/results/it

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
Rectorate	6 633/262 588	0.89		
Faculty of Education	54 477/2 156 642	7.32		
Faculty of Environment	136 743/5 413 397	1.30	1.07	
Faculty of Social and Economic Studies	102 330/4 051 051	12.44	1.31	
Faculty of Art and Design	13 503/534 558	1.81		
Faculty of Mechanical Engineering	53 842/2 131 503	7.23		
Faculty of Science	251 422/9 953 322	33.58		0.20
Faculty of Arts	116 560/4 614 390	15.66		
Faculty of Health Studies	8 733/345 723	1.17		

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	70.1	72.8	68.8	68.6	73.3	70.7
Applied Research	25.5	23.4	22.9	16.0	12.1	19.8
Experimental development and innovation	4.4	3.8	8.2	15.4	14.7	9.5
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
COST	COST	LAND4FLOOD: Natural Flood Retention on Private Land	2 355/ 93 230	127/ 5 028	1 126/ 44 576		
Celkem			2 355/ 93 230	127/ 5 028	1 126/ 44 576		
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	Horizon Europe - HORIZON-CL5-2023-D2-02	Integrating Novel matERials with scalable processes for safer and recyclAble Li-ioN baTteries					7 977/ 315 796
European Commission	Horizon 2020 - MSCA	TICASS - Technologies of Imaging in Communication, Art and Social Sciencies					
European Commission	Horizon Europe - HORIZON-MISS-2022-CLIMA-01	LAND4CLIMATE				1 863/ 73 753	1 329/ 52 613
European Commission	Horizon Europe - HORIZON-MISS-2022-CLIMA-01	Upscaling the natural sponge functions of freshwater ecosystems to deliver multi-benefit Green Deal solutions - Spongeboost					2 980/ 117 973
Celkem						1 863/ 73 753	12 28 6/486 382

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	summary list	summary list	7 959/ 315 083	8 924/ 353 286	8 083/ 319 992	3 073/ 121 655	5 085/ 201 306
Technology Agency of the Czech Republic	summary list	summary list	12 26 7/485 629	19 05 7/754 434	16 27 2/644 181	13 33 6/527 949	9 827/ 389 034
Ministry of Education, Youth and Sports	15-specific university research	15-specific university research	11 53 1/456 492	11 88 1/470 348	11 53 4/456 611	12 12 8/480 127	11 42 0/452 098
Ministry of Education, Youth and Sports	16-conceptual development of research organizations	16-conceptual development of research organizations	73 55 6/2 911 956	73 59 8/2 913 618	79 68 9/3 154 751	79 33 9/3 140 895	83 15 3/3 291 884
Ministry of Education, Youth and Sports	8X	Redox active metallocomplexes as catalysts for production of energetically rich materials		125/4 949	125/4 949		
Ministry of Education, Youth and Sports	8J	Childhood Imag(inari)es: Innovative Strategies of Narration in Children‘s and Young Adult Literature			38/1 504	38/1 504	
Ministry of Culture	NAKI II	Central Uplands Garden Cultural heritage documentation and presentation of selected locations of eastern Central Boheiman Uplands	3 681/ 145 724	3 656/ 144 735	2 993/ 118 488		
Ministry of Culture	NAKI III	FINIS CONFESSIONIS. Baroque of the Eastern Ore Mountains. Sacral Buildings and Artistic Decoration of Architecture and Landscape				2 967/ 117 458	3 613/ 143 032
Ministry of Education, Youth and Sports	INTER EXCELLENCE	Problems of cross-border cooperation and cross-border management in the Czech-Bavarian border regions	400/ 15 835	398/ 15 756			
Ministry of Education, Youth and Sports	INTER EXCELLENCE	LAND4FLOOD: Natural Flood Retention on Private Land	432/ 17 102	185/7 324			
Ministry of Education, Youth and Sports	INTER EXCELLENCE	Characterization of biological properties of carbosilane dendrimers potentially used in the area of cancer treatment	751/ 29 731	760/ 30 087	577/ 22 842		
Ministry of Education, Youth and Sports	INTER EXCELLENCE	Participation of a Czech representative in IUVSTA committees	162/6 413	175/6 928	175/6 928		
Ministry of Health	AZV	Galectin-positive glioblastoma exosomes: new biomarkers and targets for glycoanotherapeutics				865/ 34 244	1 007/ 39 865
Ministry of Agriculture	ZEME	Assessment of organic and conventional agriculture in terms of their impacts on ecosystem services to support strategic and decision-making processes				1 176/ 46 556	1 325/ 52 454
Ministry of Education,	OPVVV	UniQSurf - Center of biointerfaces and hybrid functional materials	13 50 8/534 759	6 498/ 257 245	12 60 3/498 931		

Youth and Sports							
Total			12 4247/ 4 918 725	12 5257/ 4 958 709	13 2089/ 5 229 177	11 2922/ 4 470 388	11 5430/ 4 569 675
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	summary list	summary list	2 919/ 115 558	3 185/ 126 089	5 972/ 236 421	5 165/ 204 473	4 465/ 176 762
Technology Agency of the Czech Republic	summary list	summary list	3 735/ 147 862	3 564/ 141 093	6 622/ 262 154	13 18 2/ 521 853	12 67 1/ 501 623
Ministry of Culture	NAKI II	Documentation of the historical buildings for hops processing	2 963/ 117 300				
Ministry of Culture	NAKI III	Cultural, historical and natural aspects of terroir in the Czech Republic				1 519/ 60 135	1 908/ 75 534
Ministry of Culture	NAKI III	Most – a city that did not disappear				962/ 38 084	896/ 35 471
Ministry of Industry and Trade	TRIO	Research and development of new technology for non-contact measurement and checking of windscreens '	253/ 10 016				
Ministry of Industry and Trade	TRIO	Research into the conditions and forms of the application of products lignite as a sorbent of ammonia, and as stimulators of biological activities in vegetable cells	1 274/ 50 435	1 274/ 50 435	1 259/ 49 842		
Ministry of Health	AZV	Novel vascularized stem-cell based constructs for soft and hard tissue engineering	289/ 11 441	455/ 18 013	438/ 17 340	455/ 18 013	
Ministry of Agriculture	ZEME	Economic support for strategic and decision-making processes at national and regional level, leading to sustainable energy use of agricultural biomass, while respecting food self-sufficiency and soil conservation.	470/ 18 606				
Ministry of Agriculture	ZEME	Taxonomy - classification scheme for evaluation of sustainability in agriculture			468/ 18 527	461/ 18 250	578/ 22 882
Ministry of Agriculture	ZEME	System of environmental-technical optimization of spatial parameters of agricultural land in the context of permanent efficient management					393/ 15 558
Ministry of Education, Youth and Sports	OPVVV	New Composite Materials for Environmental Applications	618/ 24 466	102/ 4 038			
Ministry of Industry and Trade	OPPIK	Inovative technology of waste water treatment using sorbents					
Ministry of Industry and Trade	OPPIK	Hi-tech materials for space applications					
Ministry of Industry and Trade	OPPIK	Zinc waste research and development of zinc products	1 492/ 59 066				
Ministry of Industry and Trade	OPPIK	Production of Biochar by Thermal Decomposition of Sewage Sludge from WWTP					
Ministry of Industry and Trade	OPPIK	Functionalisation of the nanofibrous structure	854/ 33 808	855/ 33 848			

Ministry of Industry and Trade	OPPIK	Research and development of the process of zinc raw material recovery and the development of innovative recyclable products	1 507/ 59 660	564/ 22 328	520/ 20 586		
Ministry of Industry and Trade	OPPIK	Gastro-waste - research of effective methods of its use		640/ 25 337	513/ 20 309	1 114/ 44 101	
Ministry of Industry and Trade	OPPIK	Research of plastic waste recycling technology - POL 2.0		310/ 12 272	254/ 10 055	1 408/ 55 740	
Ministry of Industry and Trade	OPPIK	C4 Concept of clean crack clothes - development of the process cycle for clothes recycling		326/ 12 906	2 169/ 85 867	429/ 16 983	233/9 224
Ministry of Industry and Trade	OPPIK	Research and development of technological processes of industrial Li-ion batteries for secondary energetic and material utilization			1 270/ 50 277		1 883/ 74 545
Ministry of Industry and Trade	OPPIK	Flexible nanostructured layers for applications in the space industry			807/ 31 948	442/ 17 498	
Ministry of Industry and Trade	OPPIK	R&D of Biodegradable Composite Material Based on Viscose Fibers			373/ 14 766	853/ 33 769	920/ 36 421
Ministry of Industry and Trade	OPPIK	ALTERNATIVE USE OF WASTE FROM VISCOSE YARN PRODUCTION			641/ 25 376		702/ 27 791
Ministry of Industry and Trade	OPPIK	New preparations for optimizing the biomass of energy plants of the second generation			1 415/ 56 017	2 557/ 101 227	
Ministry of Industry and Trade	OPPIK	New methods of high power laser welding of critical components based on Cu, Al, Cu-alloys a Al -alloys for the TRANSPORT and ENERGY INDUSTRY				824/ 32 621	2 858/ 113 143
Ministry of Industry and Trade	OPPIK	R&D OF INDUSTRIAL TECHNOLOGY REDUCING OPERATING EMISSIONS FROM VISCOSE FIBER PRODUCTION			214/ 8 472		791/ 31 314
Ministry of Industry and Trade	OPPIK	Possibilities of using energy by-products in the circular economy				805/ 31 869	2 466/ 97 625
Ministry of Industry and Trade	OPPIK	Research and development of methodology for identification of point sources of pollution using drones				3 134/ 124 070	
Ministry of Industry and Trade	OPTAK	Research and development of the MASEC RadarCrate prototype					
Ministry of Industry and Trade	OPTAK	Production technology of anhydrous salts of polyhedral borates					407/ 16 112
Ministry of Industry and Trade	OPTAK	APPLICATION OF NEW ROBOTIC FRICTION STIR WELDING TECHNOLOGIES APPLICABLE IN THE MANUFACTURE OF PRESSURE AND CHEMICALLY EXPLOITED ALUMINUM ALLOY TANKS FOR THE TRANSPORTATION, CHEMICAL AND ENERGY INDUSTRY					
Ministry of Industry and Trade	OPTAK	Assistive technology for physiotherapists					
Ministry of Industry and Trade	OPPIK	Inovative technology of waste water treatment using sorbents					
Total			16 37 4/648 219	11 27 5/446 358	22 93 5/907 957	33 31 0/1 318 686	31 17 1/1 234 006

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
In the role of another participant						
Provider / Investor	Project name	Support (in thousands CZK/EUR)				
		2020	2021	2022	2023	2024
Volkswagen	Agents of change in old-industrial regions in Europe	434/ 17 181	455/ 18 013	587/ 23 238		
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 university has a two-dimensional system of how to manage institutional support of research activities:

1. University level
2. Faculty level

At the university level, we have the following instruments of support:

- 1a. Rules for using institutional support for the LCDRO reflecting the quality and quantity of research at faculties
- 1b. Jan Evangelista Purkyne Development Fund
- 1c. Internal grant schemes

At the faculty level, there are the following instruments used:

- 2a. Motivational Directives
- 2b. Faculty grant schemes
- 2c. Ad hoc rewards for researchers

1a. All the financial sources from the institutional support for the LCDRO are distributed between faculties following university rules. Between 2019 and 2024, the rules reflected faculty results from Module 1 (quality of selected results), Module 2 (research performance), and, since 2021, Module 3 (International Evaluation Panel and results of the evaluation) of the Methodology for evaluating research organizations in the universities sector. Since 2025, the university rules have changed, and the following indicators play a crucial role (incl. weight):

1. Quality of publications (weight: 65 %),
2. Grant indicators (weight: 20 %),
3. Evaluation results by IEP from 2020 (weight: 2 %),
4. Collaboration between faculties (weight: 5 %),
5. Internationalization (weight: 8 %)

For further information about the detailed structure of indicators, please see the *Annex 6*.

1b. The Jan Evangelista Purkyně Development Fund was established in 2023 as a strategic support instrument aimed at contributing to the quality and dynamism of the university and its faculties. The Fund is focused on supporting the personal development of key staff (incl. international) in all areas of the university's operations and supporting contract research. For further information, please see the *Annex 5*.

1c. The university established two internal granting schemes: a) the Internal Grant Agency (IGA) and b) the Student's Grant Competition (SGS). IGA (so-called 'initiatory grants') supports young researchers (postdocs) and is based on the interdisciplinary collaboration between faculties (at least two; collaboration of more faculties is rewarded by a higher number of credits in the evaluation process). Only those projects are supported when they are a part of research clusters (for more information, please see: https://www.ujep.cz/en/research-clusters). The university supports research teams and topics with comparative advantage based on this grant scheme. SGS (so-called 'starting grants') supports young researchers, especially Ph.D. students, with their supervisors and a small team. The research topic relates to the dissertation.

2a. Every faculty established a (so-called) motivational directive in the last few years. The directives introduce the instruments that motivate researchers to assess research and have high-ranked results. The following results are supported:

- Papers indexed at Web of Science, or SCOPUS (D1, Q1, or Q2)
- Monographs
- Other results (e.g., conference proceedings, patents, etc.)
- Grant management (e.g., finalization of the application or success in the competition)
- Qualification (Ph.D., Habilitation, Professorship)
- and other.

2b. Few faculties introduced grant schemes that support chosen researchers and research topics reflecting the faculty's priorities. These schemes support not only Ph.D. students or postdocs but also other academics.

2c. In case of excellent results, researchers are rewarded by ad hoc rewards.

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:

There are following examples of R&D&I collaboration at the international level:

1. **SPONGEBOOST: Upscaling the natural sponge functions of freshwater ecosystems to deliver multi-benefit green deal solutions (Horizon Europe, 2024–2027)**

Beneficiary: Helmholtz Center for Environmental Research (UFZ)
Co-investigator: IEEP UJEP (www.ieep.cz/en)

The SpongeBoost project supports enhancing natural water retention within freshwater ecosystems and multi-purpose nature-based solutions (e.g., wetlands and peatlands). The consortium comprises 10 partners from 7 European countries with interdisciplinary research, policy, and management backgrounds. The project aims to collect and recommend the best nature-based solutions for effectively enhancing or restoring the natural water retention function in landscapes. By compiling available knowledge and best practices, together with the adaptation and testing of new innovative approaches, a roadmap will be developed that will engage regions and communities in the active implementation of transformational measures to improve resilience to climate change. Attention is devoted to developing and implementing new business models and policy instruments supporting the implementation of these measures, such as payments for ecosystem services.

By synthesizing knowledge for policymaking, practical restoration, and adaptive land-use planning, as well as showcasing successful examples of restoration measures supporting water retention with a so-called sponge function and multiple benefits, stakeholders at the local and European levels will be supported in implementing cost-effective and innovative solutions. SpongeBoost will thus contribute to achieving the ambitious objectives of the EU Climate Change Adaptation Mission and its plan to maximize climate change adaptation, disaster risk reduction, biodiversity and other societal benefits from nature-based solutions.

The SpongeBoost consortium members are involved in several scientific and implementation projects and work closely with relevant actors, supporting networking and knowledge exchange and creating synergies at the regional level and across all European regions. They contribute to the overall goal of SpongeBoost, which is a lasting positive impact on restoring water retention in the landscape for climate change adaptation. The FSE IEEP team is responsible for leading one work package and is also significantly involved in implementing institutional analysis, barrier analysis, and the design and validation of innovative business models.

2. **INERRANT: Integrating Novel Materials with Scalable Processes for Safer and Recyclable Li-ion Batteries (Horizon Europe, 2023 – 2027)**

Beneficiary: Foundation for Research and Technology Hellas, role of persons from UJEP
Co-investigator: Faculty of Environment incl. Faculty of Science as a team member

The INERRANT project will address the development of safe and sustainable materials for lithium batteries (LIBs), an essential part of our modern world. The project objectives align with the technical and economic standards set out in the European SET-Plan for 2030, which targets 3rd generation of LIB technologies, reducing dependence on critical raw materials. The team led by Jiří Orava is part of an international research group consisting of 12 participants in total, namely Foundation for Research and Technology Hellas, Patras, Greece (main coordinator), Pleione Energy SA (Greece), University College Dublin (Ireland), Fraunhofer Institute for Silicate Research ISC (Germany), Julius Maximilians Universität Würzburg (Germany), IBG Česko s.r.o. (Czech Republic), NanoSpace Technology s.r.o. (Czech Republic), Keysight (Austria), Verkor (France), Eurice (Germany), and Oak Ridge National Laboratory (USA). The project's holistic approach aims to increase safety, improve performance, and accelerate the charging properties of LIBs designed for electromobility. The project will address scientific and technological challenges, the development of functional materials, sustainable processes, and an understanding of relevant interface phenomena and degradation mechanisms.

3. **LAND4CLIMATE: Utilization of private land for mainstreaming nature-based solutions in the systemic transformation towards a climate-resilient Europe (Horizon Europe, 2023 – 2027)**

Beneficiary: TU Dortmund
Co-investigator: IEEP UJEP (www.ieep.cz/en) incl. Faculty of Science as a team member

Nature-based solutions (NBS) have the potential to mitigate the impacts of natural extremes and climate change, but compared to traditional infrastructure, they usually require more space for implementation. The Land4Climate project aims to increase the resilience of rural and urban landscapes. This aim will be achieved using innovative governance systems and business models to access private land when implementing NBS. The proposed approach aims to eliminate the need for direct land acquisition and thus enable the implementation of measures even in property-related or otherwise complicated situations. The project is developing cooperation with landowners to design and test NBS on private land using new land policies and business models. The project tests these options in the Czech Republic, Germany, Italy, Austria, Romania, and Slovakia (https://land4climate.eu).

4. **TICASS – Technologies of Imaging in Communication, Art and Social Sciences (Horizon Europe, 2017-2021)**

Beneficiary: Sztuki w Szczecinie
Co-investigator: Faculty of Art and Design

Visual technologies significantly impact various areas that form important places in current society. They bring a new language of visual storytelling and a new way of reading visual signs. To be able to recognize and describe the possibilities and limitations of visual technologies in the current ionosphere, we ask ourselves the following questions: How do people in different cities perceive visual signs, icons, QR codes, signage, digital signs, etc.? What function do image technologies perform in various cities, countries, and on other continents? In the TICASS project, these questions are concentrated within the framework of the so-called "North-South" cooperation, which is depicted by the geographical location of the participants from London to South Africa (via Poland, the Czech Republic and Italy).

5. **LAND4FLOOD: Natural Flood Retention on Private Land (CA16209) (2017 – 2022)**

Beneficiary: Jan Evangelista Purkyně University (UJEP)

Role of persons from UJEP: Faculty of Social and Economic Studies = event chair; Faculty of Science: member of the steering committee

The project focused on implementing natural water retention measures (NWRM) on private land to mitigate flood risks. Key topics were synergies between different land uses and the provision of water retention and ecosystem services; strengthening the knowledge base on the benefits and potential of NWRM, large-scale flood retention, and resilient cities; communicating the importance of these measures to different actors at local, regional and river basin levels; incentives for landowners to adapt land use and land management strategies that allow for increased water retention capacity. The project was followed up by a working group within the International Water Research Association (https://www.land4flood.eu).

There are following examples of R&D&I collaboration at the national level:

1. **SYNERGIS (Operational Program Just Transformation, 2023-2028)**

Beneficiary: Charles University Prague
Co-investigators:

- Jan Evangelista Purkyně University
- The University Center for Energy Efficient Buildings (Czech Technical University)
- Czech Geological Survey
- The Institute of Geophysics (Czech Academy of Sciences)
- City of Litoměřice

The main objective is to build a comprehensive testing center where pilot demonstrations and verifications of the possibilities of effectively connecting and integrating individual innovative energy sources into the existing energy mix and subsequently increasing their share in the energy market will be made. The project will contribute to solving problems and challenges in the energy sector, reducing energy intensity and replacing fossil fuels.

The project develops conditions for developing and applying new clean energy sources and storage options in the rock environment for inter-seasonal use. The key output is a set of pilot technologies for a deep geothermal source, underground heat storage and an electrolytic unit for the production of green hydrogen.

2. **NanoEnviCz: Nanomaterials and nanotechnologies for environment protection and sustainable future (Ministry of Education, Youth, and Sports, 2016-2022)**

Beneficiary: The Heyrovský Institute of Physical Chemistry (Czech Academy of Sciences)
Co-investigators: Faculty of Science, and Faculty of Environment UJEP

NanoEnviCz integrates the infrastructure capacities of several research organizations in the Czech Republic in complex interdisciplinary research of a wide range of nanomaterials and nanotechnologies. The portfolio of operated facilities and expertise provided by NanoEnviCz covers various research areas into nanomaterials, surfaces, and nanocomposites as materials for environmental protection and other related applications. The services of the NanoEnviCz research infrastructure include controlled syntheses of nanostructured materials, their comprehensive chemical, structural, morphological, and surface characterization, optimization of their functional properties, monitoring of their potential toxicity and environmental hazards, and development of their applications for advanced technologies. The NanoEnviCz research infrastructure creates an effective multi-purpose platform for partner research organizations participating in its operation and activities and for users from academia, industry, and government organizations. NanoEnviCz

provides open centralized access to all capacities of this "distributed" research infrastructure for domestic and foreign users.

3. **Evaluation of hazard-mitigating hybrid infrastructure under climate change scenarios (Czech Science Foundation, 2023-2025)**

Beneficiary: Jan Evangelista Purkyně University (Faculty of Social and Economic Studies)
Co-investigators: University of Ljubljana and Czech Globe (Global Change Research Institute at the Czech Academy of Sciences)

What are hybrid measures for mitigating complex natural risks? How do we model their impacts and demonstrate their effectiveness?

The project will critically assess hybrid infrastructure as a promising option for adapting to climate change, serving as a more effective alternative to conventional gray and green measures. The project is focused on studying floods, soil erosion, slope movements, and other complex risks. The goal is to identify effective hybrid measures that can successfully address multiple risks. The effects of hybrid infrastructure will be evaluated through environmental modeling in various climate change scenarios.

4. **CESMOD: Research Center for a Resilient, Smart, Innovative, and Sustainable Society (Technological Center of the Czech Republic, 2024-2029)**

Beneficiary: Jan Evangelista Purkyně University (Faculty of Social and Economic Studies)
Co-investigators:

- The University Center for Energy Efficient Buildings (Czech Technical University)
- University of Economics Prague
- Technical university Ostrava
- Masaryk university Brno
- South Moravian Agency for Public Innovation JINAG
- National Healthy Cities Network
- Innovation Center of the Ústecký region
- STEM/MARK
- Obce v datech (Municipalities in Dates)

The CESMOD project supports implementing the SMART concept in the Czech Republic. The goal is to create a theoretical and methodological framework for effectively implementing SMART solutions at the local and regional levels, supporting innovation, and improving residents' quality of life. The project includes creating a data and information platform, supporting innovation brokers in municipalities and regions, and implementing the SMART Academy educational program. We cooperate with leading universities, experts, and institutions to contribute to the sustainable development of our cities and municipalities.
The main expected outcomes are:

- SMART Methodological Framework: The project will develop clear and practical methodologies for implementing SMART concepts that consider the specifics of the Czech environment.
- Data and Information Platform: The project will create a user-friendly platform for sharing data and information that will facilitate the planning and implementation of projects in the municipality or region.
- Innovation Broker Support: The project will provide target groups with access to a network of experts who will help you navigate the field of innovation and SMART solutions.

- SMART Academy: The project will offer educational programs and workshops to successfully develop the skills to implement SMART technologies and procedures.

5. "FINIS CONFESSIONIS" Baroque of the Eastern Ore Mountains. Sacral Buildings and Artistic Decoration of Architecture and Landscape (Ministry of Culture, 2022 - 2027)

Beneficiary: Jan Evangelista Purkyně University (Faculty of Arts)
Co-investigator: National Heritage Institute in Ústí nad Labem

The project aims to define the role of sacred monuments in the religious process of the 17th and 18th centuries in the eastern Ore Mountains. The aim will be achieved by documentation, construction, and art-historical analysis of churches and chapels, emphasizing their significant features and determining mutual ties and relationships. Simultaneously with the study of architecture, attention will be focused on the artistic decoration of buildings, especially on sculptural production and other creative items from the Baroque period. Other small Baroque sacred monuments will be documented, studied, and interpreted.

Archival and historical research will take place together with documentation: the task will be to map the process of religious transformation of the region and detailed elucidation of the historical and architectural development of the monuments. The data obtained will be compared and linked to data from the direct study of buildings and artistic items to achieve the main project aim. The area of interest is the eastern Ore Mountains. Concerning the impossibility of an unclear definition of the area by fixed borders, we define this area as the mountain and submontane parts of two current vicariates – Ústecký and Teplický. The state border and Nakléřovský pass can pro tem delimit the area on the opposite side of the course of railway lines 139 and 135. One of the aims is also to verify and optimize research methods and their combination, which could later be applied to the central and western areas of the Ore Mountains.

The project also aims to make knowledge available to the general public, both lay and professional. The project results seek a suitable intersection between a critical scientific approach and an attractive and comprehensible form of presenting them. A significant practical benefit of the project will be to increase the tourist attractiveness of the eastern Ore Mountains and strengthen the potential of the UNESCO monument Erzgebirge/Krušnohoří Mining Region.

STUDIES

4.13 Doctoral studies

The HEI will briefly describe the organisation of the doctoral studies (if there are any doctoral study programmes[37]). HEI will comment on:

1. Structure and organization of studies.
2. A system of cooperation between PhD students and their supervisors.
3. Basic statistics (including drop-out rate, student workload, etc.).
4. Information on promotion and recruitment schemes.
5. 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.).
6. Student care system (e.g. counselling, wellbeing care, career guidance).
7. A system for tracking the future careers of graduates[38].
8. 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:

4.13.1 Structure and organisation of studies

There are 20 doctoral study programs at the University, 19 of which have been accredited by the National Accreditation Bureau for Higher Education, and one has been approved by the Internal Evaluation Board based on the authorization resulting from the institutional accreditation for the field of education of Historical Sciences. All programs are offered in full-time study form, 13 of them in addition in combined (part-time) form. A quarter of the programs are accredited in English.

Study programs are implemented by faculties, in two cases in cooperation on the basis of inter-faculty agreements and in nine cases in cooperation with departments of the Academy of Sciences of the Czech Republic.

For each doctoral program, there is a Program Board appointed that monitors and evaluates studies in this program. The chair of the Program Board is the guarantor of the doctoral program, who ensures the quality of its implementation and is responsible for the coordination of teaching content, ensuring and developing the professional level of the program and for drawing up a self-assessment report during the regular evaluation of the quality of doctoral studies managed by the Internal Evaluation Board. The members of the Program Board are appointed by the Dean of the Faculty for a period of five years on the proposal of the supervisor and after the opinion of the Faculty's Scientific or Artistic Council.

The course of study is governed by the doctoral student's individual study plan, which is proposed by the supervisor after discussion with the doctoral student and approved by the Program Board. The plan is binding for all parties involved. The individual study plan must be drawn up at the beginning of the doctoral student's studies in such a way as to enable him/her to complete his/her studies within the standard study period (up to four years). The maximum period of study is seven years.

[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.

The individual study plan determines the content of the student's independent educational and creative activities (regarding the topic of the dissertation), the subjects he/she is obliged to take and the timing of his/her studies. A doctoral student applies for the state doctoral examination after completing all the compulsory courses and, after successfully passing it, concludes his/her studies with a public dissertation defence.

Further details on the organisation of studies are set out in the Study and examination rules for doctoral study programs of Jan Evangelista Purkyně University in Ústí nad Labem, which are approved by the Academic Senate and registered with the Ministry of Education.

Links to additional documentation
https://www.ujep.cz/wp-content/uploads/2020/06/Study_phd.pdf

4.13.2 The system of cooperation between PhD students and supervisors

The general rules for cooperation between doctoral students and supervisors are set out in the Rector's directive Nr. 4/2023 Supervisor's Standards in Doctoral Study Programs at UJEP, which is valid throughout the university. Specifically, these principles are:

- The supervisor proposes the topic or subject area of the dissertation.
- The applicant consults the project that is part of the admission procedure with the chair of the Program Board and, on his/her recommendation, with the prospective dissertation supervisor before submitting the application for studies.
- The supervisor together with the candidate will define the timetable of the study and the milestones of the PhD student's research leading to the preparation of the dissertation, the possibilities of the PhD student's involvement in an existing (or future) research team and the prospect of funding the PhD student.
- By accepting a PhD student, the supervisor declares sufficient time for responsible supervision. Personal consultations on the dissertation are held at least twice a month, for a total of at least 40 hours per year. For the supervision of a doctoral student in a combined (part-time) form of study, the volume of consultations is adjusted accordingly.
- Within a given doctoral program, the supervisor supervises a maximum of 5 doctoral students at the same time.
- The supervisor may be a co-author of the results of the doctoral student's research during the period of study, but always in proportion to his or her contribution. The supervisor supports the doctoral student in publishing first-authored outputs, in submitting his/her own research grants, in presenting research results at scientific conferences and in participating in teaching, which the supervisor covers in cooperation with the supervisor of the relevant subject as a mentor.
- The supervisor makes every effort to ensure that supervised doctoral students complete their studies successfully within the standard study period and takes care to limit the extension of the study period.
- The activity of the supervisor is subject to regular evaluation by the Program Board of the relevant doctoral study program, with a frequency of at least once a year.
- The Program Board shall define a transparent procedure for resolving conflicts that may arise between the supervisor and the doctoral student, including a procedure for the removal (and replacement) of the supervisor.

Other rules of cooperation are set out in the Study and examination rules for doctoral study programs of Jan Evangelista Purkyně University in Ústí nad Labem.

Links to additional documentation

https://www.ujep.cz/wp-content/uploads/2020/06/Study_phd.pdf
https://www.ujep.cz/wp-content/uploads/2025/03/Supervisors-Standards-in-Doctoral-SP-UJEP.pdf

4.13.3 Basic statistics

Basic statistics

Prospective students in 2020 - 2024

Doctoral programs	2020	2021	2022	2023	2024
Number of applications submitted	96	82	77	79	66
Number of enrolled	67	61	52	60	43

Number of PhD students in 2020 - 2024

Doctoral programs	2020	2021	2022	2023	2024
Number of students as of 31. 12.	279	280	272	277	244
of which number of women	116	133	130	133	116
of which number of foreigners	36	31	23	25	31

Academic failure rate in the first year of study in 2020 - 2024

Doctoral programs	2020	2021	2022	2023	2024
Doctoral attrition rate in the 1st year of study (%)	5	14	11	13	5

Number of graduates in 2020 - 2024

Doctoral programs	2020	2021	2022	2023	2024
Number of graduates in the year	15	16	17	29	53
of which number of women	7	7	8	11	25
of which number of foreigners	1	4	1	2	2

Doctoral programs by field of education (as of 31 December 2024)

Area of education	Number of programs	Number of PhD students	of which number of women	of which number of foreigners
03 Biology, Ecology and Environment	1	6	2	4
05 Economic disciplines	3	27	10	6
09 Philology	1	7	6	1
11 Physics	4	25	11	2
12 Historical Sciences	1	39	17	0
13 Chemistry	2	13	3	4
27 Engineering, Technology and Materials	1	26	7	0
30 Teaching	4	55	35	1
31 Art	1	35	20	10
33 Earth sciences	2	11	5	3
Total	**20**	**244**	**116**	**31**

of which in combined form

05 Economic disciplines	3	12	4	4
09 Philology	1	3	2	1
12 Historical Sciences	1	8	3	0
27 Engineering, Technology and Materials	1	16	5	0
30 Teaching	4	17	12	0
31 Art	1	15	7	3
33 Earth sciences	2	0	0	0
Total	**13**	**71**	**33**	**8**

4.13.4 Promotion and recruitment schemes

The following communication channels are used to reach potential applicants for doctoral studies in accordance with the University's Communication strategy:

- Direct communication of supervisors and supervisors of doctoral study programs with talented students in the final years of master's study programs: this involves communication with students who have already been involved in scientific research projects during their master's studies or who have excelled in the preparation of their thesis.
- Communication via websites and social networks: the candidate website www.myjsmeujep.cz is used, whose chatbot is used to answer basic questions from visitors to the website and to direct them to competent departments (science department, study department, Counselling center) or coordinating persons. The website is also available on the mobile university application UJEPapp, which is intended for all students, lecturers and the public.
- Communication in the network of collaborating partners (e.g. Academy of Sciences of the Czech Republic).

When promoting doctoral studies, emphasis is placed not only on informing about the conditions of study, but also on presenting the motivational environment that the university creates to support this type of study. Support in the area of creative activity is presented, which consists, for example, in the allocation of student grants implemented under the supervision of the Internal Grant Agency or faculty grant agencies, in the involvement of students in research projects, including projects implemented within the framework of institutional research, in the organisation of student scientific conferences or conferences of individual doctoral schools or in the publication of selected dissertations.

Scholarship support is also promoted, which, following the revision of the Scholarship Regulations, includes not only a doctoral scholarship (from 2025, the so-called doctoral study income), but also a merit scholarship if the doctoral student achieves outstanding creative results, a special stipend provided as part of a student grant competition, an extraordinary scholarship to support study abroad, a merit scholarship if the doctoral student is in the first year of study with outstanding results in master's studies, or an accommodation scholarship.

As part of the motivational environment, a system of student care (well-being, counselling, etc.) is also promoted.

4.13.5 Cooperation within doctoral studies

The University has an agreement with the Academy of Sciences of the Czech Republic, based on which the faculties have concluded partial agreements with its research institutes on cooperation in the implementation of these doctoral studies:

Cooperating research institute of the	Doctoral program
Global Change Research Institute, CAS, v.v.	Regulation and Behavioural Studies (in English) Regulation and Behavioural Studies (in Czech) Landscape Reclamation and Ecosystem Services
Institute of Inorganic Chemistry of the CAS, v.v.	Environmental Chemistry and Technology Environmental and Biomaterial Sciences Applied Nanotechnologies
Institute of Nuclear Physics of the CAS, v.v.i and its Subsidiary company Centrum výzkumu Řež	Applied Ion Technologies
Institute of Astronomy of the CAS, v.v. Institute of Chemical Processes of the CAS, v.v. Institute of Nuclear Physics of the CAS, v.v. Institute of Thermomechanics of the CAS, v.v.	Computer Modelling in Science and Technology (in English) Computer Modelling in Science and Technology (in Czech

Based on these agreements, the collaborating research institutes become partner training organizations for doctoral students. A representative of the research institute is a member of the Program Board after approval by the faculty's scientific council and a member of the admissions committee, the committee for the state doctoral examination and the dissertation defence. Dissertation topics are offered by both collaborating parties. Doctoral students can become members of the research teams of both the faculty and the partner institution and can also apply for internal research funding from both collaborating parties. The presentation, publication and reporting of research results arising from the collaboration of these parties in the pursuit of doctoral studies is governed by the obligation to indicate the affiliation of both departments.

The collaboration of several partners is recorded in the doctoral program Environmental and Biomaterial Sciences, which involves not only the research institute of the Academy of Sciences of the Czech Republic but also the Fraunhofer Institute in Dresden and specialized laboratories such as the Institute of Health and the Neurosurgical Clinic in Ústí nad Labem.

Since the main barrier to entry of foreigners into doctoral studies is the language barrier, the Internal Evaluation Board has established the obligation to submit doctoral studies for accreditation always in English or at least in both languages (Czech and English).

Links to additional documentation
https://www.fzp.ujep.cz/envibio

4.13.6 Student care system

The needs of all students are served by the Counselling Center and its specialised counselling centers (the University Support Center for Students with Specific Needs, the Psychological Counselling Center and the Career Counselling Center) in accordance with the Standards of University Counselling applicable to the environment of Czech universities. The services of the Counselling Center are regularly evaluated, and training of the Center's staff and student assistants is provided, who act as ambassadors at the faculties to inform students directly about the counselling services provided.

Career counselling is usually not used by PhD students (also given their zero-unemployment rate). Although employers are increasingly interested in cooperating with this counselling service, they are not generally offering postdoctoral positions. The University monitors the unemployment

of its graduates through the portal of the Ministry of Labour and Social Affairs, where unemployment statistics from the Labour Office are published, while in the long term no graduates of the University's doctoral es are registered in these statistics. The University also evaluates data from the Ministry of Education, but according to them, the simple and standardised unemployment rate of graduates of the University's doctoral programs is zero.

According to the Rector's directive Nr. 4/2023 Supervisor's Standards in Doctoral Study Programs at UJEP, the supervisor not only provides professional and constructive feedback to the doctoral student but also communicates with him/her the possibilities for his/her personal development and employment after the completion of the doctoral studies. The supervisor is also obliged to reflect the doctoral student's individual situation and needs, e.g. health problems, caregiving, and language barrier in the case of foreign students.

The University also has measures in place for student-parents. These include extending deadlines for fulfilling study obligations, interrupting studies during the recognised period of parenthood or providing the possibility to replace a compulsory internship abroad with other international cooperation. Another measure on the part of the University is the commencement of work on the reconstruction of a building on the University campus, which will be adapted to the needs of the children's group - children aged from 1 to 6 years of UJEP employees and students.

The University also has an ombudsperson who ensures and promotes social safety and provides related advice.

4.13.7 Graduate career tracking system

The University is committed to the further development of graduates of doctoral programs, who remain as assistant professors at the faculties. The University's career system defines the position of "post-doc", which is held by graduates of doctoral programs for four years after the completion of their doctoral studies.

The University provides direct support for the career development of postdoctoral fellows through support in preparation for the submission of a proposal to start the habilitation procedure. This support includes the provision of sabbatical leave (however, this institute is not used very often, or at all), the opportunity to participate in internships abroad and the creation of facilities for research and artistic work. Indirect support for career development is based primarily on adjusting the working conditions of postdoctoral fellows who are completing the preparation of their habilitation proposal and on ensuring a balance between their teaching and creative activities.

Top six graduates in the last five years:

RNDr. Adéla Jagerová, Ph.D. - graduate of the doctoral program Applied Nanotechnology

- Recipient of the Henri Becquerel Prize awarded by the Embassy of the French Republic in the Czech Republic to the best young scientists involved in nuclear research (2024)
- Researcher at the Institute of Nuclear Physics of the CAS
- Senior Lecturer and Postdoctoral Researcher at the Department of Physics, Faculty of Science, UJEP

Mgr. Tolasz Jakub, Ph.D. - graduate of the doctoral program Environmental Analytical Chemistry

- Researcher at the Institute of Inorganic Chemistry of the CAS

RNDr. Jiří Smejkal, Ph.D. - graduate of the doctoral program Applied Nanotechnology

- Recipient of the Rector's Award for Excellence in Engineering and Science (2023)

- Senior Lecturer and Postdoctoral Researcher at the Center for Nanomaterials and Biotechnology, Faculty of Science, UJEP

Ing. Hana Burdová, Ph.D. - graduate of the doctoral program Environmental Analytical Chemistry

- Recipient of the Rector's Award for Students for Outstanding Achievements in Creative Activities in the Field of Engineering, Science, Economics (2023)
- Senior Lecturer and Postdoctoral Researcher at the Institute of Technology and Materials, Faculty of Mechanical Engineering, UJEP

Ing. Lenka Dubová, Ph.D. - graduate of the doctoral program Applied Economics and Administration

- Recipient of the Rector's Award for Excellence in the Humanities and Social Sciences (2024)
- Senior Lecturer and Postdoctoral Researcher at the Department of Regional Development and Public Administration, Faculty of Social and Economic Studies, UJEP

MgA. Zdeněk Svejkovský, Ph.D. - graduate of the doctoral program Visual

- Recipient of the Rector's Award for Outstanding Artistic Achievement (2023)
- Head of the Department of Fine Arts, Faculty of Art and Design, UJEP, postdoctoral fellow

HTML links to additional documentation
https://www.researchgate.net/profile/Adela-Jagerova
https://orcid.org/0000-0003-3180-2703
https://www.researchgate.net/profile/Hana-Burdova
https://www.researchgate.net/scientific-contributions/Jakub-Tolasz-2056637333
https://www.e-academia.eu/en/competence-teams/121-water-and-nature/team/73-lenka-dubova-en

4.13.8 Doctoral schools and basic soft skills courses

The University financially supports the activities of three doctoral schools established at UJEP - the School of Behavioural and Didactic Studies, the School of Humanities and the School of Polytechnic Studies. Within each school, the University supports joint educational and research activities for doctoral students across doctoral programs. These activities include the organisation of disciplinary conferences, lectures and seminars, courses and workshops aimed at developing competencies in scientific writing or invited lectures by international experts.

Through the doctoral schools, the University also supports individual activities of doctoral students, especially their participation in conferences, including foreign conferences, study stays and excursions abroad, summer schools for doctoral students, and educational courses. Other activities are aimed at supporting the material and technical support of research related to the topic of the dissertation, the realisation of exhibitions or the awarding of doctoral students for excellent creative activities.

Another initiative is the joint project of domestic universities Preparation for the implementation of the reform of doctoral studies that also aims to support the development of the concept of doctoral schools. Within this project, the concept of the so-called Doctoral Academy has been created at the university, the aim of which is to create a platform for the professional training of doctoral students, mostly beyond the obligations defined by a specific study program.

Primarily, we aim to develop soft skills of PhD students, which will not only increase their professional qualification for research activities, but will also lead to their personal growth. In this

context, a questionnaire survey was conducted among doctoral students, supervisors and supervisors of doctoral programs to identify the strengths and weaknesses of existing programs and areas for development. Subsequently, the concept of the Doctoral Academy was formulated and structured into four pillars - Scientific Thinking and Principles of Research and Crearive Work, Management of Research and Crearive Activity, Communication and Popularisation of Research and Crearive Activity and Career Growth and Personal Development.

The concept was consulted with representatives of the guarantors of doctoral study programs in order to obtain feedback and guarantee cooperation. The launch of the Doctoral Academy is planned for September 2025.

Links to additional documentation
http://projects.fzp.ujep.cz/studkon

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:

Evaluation report 2020 - chapters 4.1 - 4.5

The linkage between research and teaching skills is guaranteed by the Center for Subject Didactics and Practices (Faculty of Arts) and Center for Social Innovation and Inclusion in Education (Faculty of Education). All the outcomes resulting from their activity are transferred into teaching (e.g., through Ph.D. students who have didactics courses).

The university established the *Counseling Center* (https://poradenske-centrum.ujep.cz/en/ujep-counseling-center/) and *Competence Center*, which is responsible for language, communication, and intercultural skills training opportunities. These activities mainly target employees (academics and other personnel) and university students.

Sports opportunities at the university are open to all employees and students, and most are provided for free. The inclusion of sports in university life demonstrates the 'Rector's Sports Day', which is organized for staff and students every year during the summer semester.

Regarding the university's incentive schemes and their perception by the staff, the university (central level) and faculty management (faculty level) established a wide range of instruments that help academics fulfill their research duties (please see chapters 4.2 or 4.8). The university management uses different communication channels (e.g., newsletters, social networks, and websites) to inform the staff about all the available instruments. The faculty administration offers consultancy and helps academics with applications and evidence.

Since 2024, the Center for Technology and Knowledge Transfer has guaranteed the management of intellectual property and technology transfer (please see chapter 4.4).

Evaluation report 2020 - chapters 4.6 - 4.9

Chapter 4.13 describes the current management of doctoral studies. So-called doctoral schools organize thematic seminars and provide students with information about the Ph.D. study program. Some Ph.D. study programs incorporate specific courses for new students that help them get all the program information. Starting in September 2025, the university will establish the *Doctoral*

Academy UJEP (DA UJEP). DA UJEP will primarily develop soft skills that will increase professional qualifications for creative activities, lead to students' personal growth in Ph.D. programs, and give them the opportunity to interdisciplinary networking with students from other faculties. The following groups of courses are at the center of attention:

- Scientific Thinking and Principles of Creative Work
- Management of Creative Work
- Communication and Popularization of Creative Activity
- Career Growth and Personal Development

The university established internal funding schemes to help doctoral students with their research (please see chapter 4.2). Furthermore, doctoral students can receive support for internationalization (e.g., mobility programs, seminars about scholarships, etc.).

In 2023, the university adopted the *Supervisor's Standards in Doctoral Study Programs* as an instrument how to increase the graduation rate. The key presumptions for long-term collaboration and satisfaction are active collaboration, trust, and respect between supervisors and their students.

Evaluation report 2020 - chapters 4.10 - 4.13

A survey was conducted between 2023 and 2024 to increase the university management's knowledge about the barriers to international mobility. The results confirmed the language gap, administrative barriers, limited internal financial resources for long-term mobilities, extensive teaching duties, and the work-life balance. To support academics in their international mobility, the following measures were implemented:

1. Jan Evangelista Purkyne Development Fund that includes the mobility support
2. Internal Funding Schemes that enable academics to finance their mobility plans
3. Establishment of Competence Center that helps with language skills
4. Administrative support at the central and faculty level

Evaluation report 2020 - chapters 4.14 - 4.18

In 2023, the university management established the '*Working Group for Equal Opportunities and Social Security*' to support a safe environment for education, research, and other university activities. We build a positive environment based on openness, respect, collegiality, and equal opportunities. The university implemented the following key measures to support equal opportunities and social security:

- Since 2024, the university has had an '*Ombudsperson*' (Website in the Czech language: https://www.ujep.cz/cs/ombudsmanka-ujep-2)
- In 2022, based on auditing between students and academics, the university adopted an '*Equal Opportunities Plan 2023-2025*' (https://www.ujep.cz/wp-content/uploads/2024/04/Equal-opportunities-plan_UJEP_en-web.pdf)
- In 2019, UJEP received the prestigious European Commission HR Excellence in Research Award (hereinafter HR Award) for its research on human resources.
- The university adopted the Code of Ethics in 2019. However, it has been updated recently, incorporating research ethics and the role of the ombudsperson. The final version will be finished in June 2025.
- The Working Group for Equal Opportunities and Social Security presents materials about sexual and gender-based violence and social security. It organizes workshops, round tables, etc., to increase awareness about this topic among students and academics.

Evaluation report 2020 - chapters 4.19 - 4.20

Chapters 4.2 and 4.4 present the project management support system, which has two levels: a central (university) level and a faculty level. Both levels offer help with project applications, project management (including financial), and organizations. Based on the development project called

'Research Environment' (Johann Amos Comenius Operational Program) applied in December 2024, we plan to open the international project office, which will help academics with the project applications for Horizon Europe, COST Action, ERC grants, Marie Skłodowska-Curie Action, Fulbright Scholarship.

Evaluation report 2020 - chapters 4.21 - 4.23

Chapter 4.3 presents the internal and external evaluation systems. In addition to the IEP, the university plans to establish an external evaluation of each faculty member in the next three years.

Some faculties undergo benchmarking of their scientific performance—a comparison with other faculties at Czech universities in the same field of research (e.g., faculties of arts). This comparison is based on data from M1 and/or M2 modules published by the Czech Ministry of Education.

Students' participation in internal evaluation concerns the evaluation of course leaders and teachers. This evaluation is one part of the general evaluation of academics (HAP—Information System for Academic Staff Performance Evaluation).

Evaluation report 2020 - chapters 4.24 - 4.25

The system of acquiring new equipment and renewing older equipment is based on provisions from both internal and external sources - especially from European Funding Schemes (development projects), but also from internal sources such as LCDRO support, contract, and/or applied research, or donations from external subjects).

The university provides a database of laboratory equipment, which is available for research teams and (doctoral) students. The main aim is to share the equipment among researchers without regard for the faculty where it is situated. Laboratory management is responsible for utilizing laboratories. This database is one of the key instruments supporting the interdisciplinary collaboration between doctoral students (please see the 'Doctoral Academy UJEP').

The database will also be available for external partners in 2025. The main intention is to extend the number of external partners for applied, contract, and experimental research.

Evaluation report 2020 - chapters 4.26 - 4.28

Please see the chapter 4.4 for further information.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 4

Document name	No. criteria	Location (link in HTML)
Annex 1	4.2.4	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 2	4.3.2	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 3	4.4.5	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 4	4.4.6	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 5	4.2.4 + 4.11	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 6	4.2.5 + 4.11	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 7	4.4.8	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 8	4.4.11	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 9	5.1	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link

Annex 10	4.2.10	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link

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 fields[39] (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's vision, mission, and key values

1. Vision

Jan Evangelista Purkyně University in Ústí nad Labem comprises a diverse community of students and employees, a strong, constructive, and respected institution, creating stable international ties with clearly defined excellent interdisciplinary scientific research and artistic directions.

2. Mission

UJEP fulfills the role of the most essential and irreplaceable scientific, research, artistic, and educational institution of the Ústí Region and the role of an important actor and partner in socio-economic relations at the regional, national, and international levels. It will ensure the highest possible quality and responsibility in all its activities. Furthermore, it will apply and develop information technologies and systems to support educational and creative activities and reflect society's new needs and challenges, the labor market, and technological development. In achieving its strategic development goals, it will simultaneously honor its social mission – to be an active carrier and promoter of education, moral and social values.

3. Values

In all our activities, we honor the following values:

- Freedom of research, creativity, and expression: We value free research and creative activity, creativity that crosses disciplinary and territorial boundaries, openness to new ideas, and the free expression of ideas and opinions. We believe a free society must be based on the critical and informed discussion of diverse ideas. Inherent in this commitment is the freedom to express reasoned disagreement with messages to which one is opposed.
- Integrity and credibility: We strive for honest and ethical behavior that demonstrates high moral standards and is consistent with the university's role as a creative, educational, and discussion platform that articulates its views and positions transparently and independently of political and economic interests. We uphold the principles of the integrity of academic

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

work and accountability for our results. We can only fulfill our vision, mission, and goals as a credible, respected, and honest institution.

- Inclusivity and social relevance: We are a community where everyone is welcome, where everyone belongs, and where everyone is treated with dignity and mutual respect regardless of age, religion, faith, race, gender, sexual orientation, family status, socio-economic differences, health status, or caring responsibilities. We consider inclusivity and empathy as the foundation of our social relevance and the pro-social fulfillment of all our creative and educational activities.
- Sustainability and social responsibility: We are committed to leading by example in protecting natural resources and natural diversity, preserving cultural heritage, ensuring a just quality of life, and in our approach to responsible financial planning. We value our role in shaping, discussing, and promoting ideas and solutions for a sustainable future. We emphasize the relationship between people and the natural environment with responsibility for the lives of current and future generations. At the same time, we also recognize our social, economic, and environmental responsibility to the region where we live and the people who are part of our community.

Relation to the strategic objectives of the Provider

Jan Evangelista Purkyně University in Ústí nad Labem (UJEP) outlines a vision to be a **research-oriented and innovative institution** that actively contributes to societal development in the region. Its mission is to foster education, research, and innovation while addressing societal and environmental challenges. This mission aligns with the strategic goals outlined in the **National Policy for Research, Development, and Innovation of the Czech Republic 2021+** (see Annex 11), the **Strategy for Gender Equality 2021–2030** (see Annex 13), and the **Innovation Strategy of the Czech Republic 2019–2030 (**see Annex 12).

1. **Alignment with the National Policy for Research, Development, and Innovation (NP RDI 2021+)**

The **NP RDI 2021+** aims to position the Czech Republic as a knowledge-based economy, focusing on improving research quality, international cooperation, and innovation capacity. UJEP contributes to these goals through:

- **Research Excellence and Internationalization:** UJEP emphasizes interdisciplinary research and international collaborations, aligning with **NP RDI's goal of elevating Czech research to global standards**.
- **Sustainability and Societal Impact:** UJEP addresses environmental and social challenges, supporting **NP RDI's emphasis on research that contributes to sustainable development**.
- **Technology Transfer and Application of Research Results:** The university fosters collaboration with industry and technology transfer, contributing to **NP RDI's objective of enhancing cooperation between academia and the private sector**.

2. **Alignment with the Innovation Strategy of the Czech Republic 2019–2030**

The **Innovation Strategy 2019–2030** envisions the Czech Republic as an innovation leader. UJEP supports this strategy through:

- **Developing Polytechnic Education:** The university strengthens STEM (Science, Technology, Engineering, and Mathematics) education, aligning with **the strategy's emphasis on strengthening technical education**.
- **Start-up and Spin-off Support:** UJEP fosters an ecosystem for research commercialization, supporting **the strategy's entrepreneurship and innovation infrastructure** goals. The **Center for Technology and Knowledge Transfer** helps with consultation, defines institutional settings, and organizes seminars for students and academics to increase their start-up and spin-off management skills.
- **Digitalization and Smart Technologies:** UJEP integrates digital tools and smart/innovative technologies into research and education, contributing to **the national goal of digital transformation and Industry 4.0 readiness**. Digitalizing the project agenda decreases administrative demands on academics and helps with evidence duties or evaluations. Smart approaches are reflected in the CESMOD project (please see the 4.12 chapter).

3. **Alignment with the Strategy for Gender Equality 2021–2030**

The **Strategy for Gender Equality 2021–2030** aims to eliminate gender disparities in education, research, and employment. UJEP contributes through:

- **Gender Balance in Research and Academia:** The university promotes inclusive hiring and career advancement policies, supporting **the strategy's goal of gender equality in science and research** (please see the UJEP Equal Opportunities Plan 2023-2025).
- **Work-Life Balance and Flexible Working Conditions:** UJEP implements flexible work arrangements, aligning with **the strategy's objectives to improve work-life balance for researchers and educators**.
- **Diversity and Inclusion in STEM:** The university encourages female participation in STEM fields, addressing **the gender gap in technical and scientific disciplines**.

UJEP's vision and mission align closely with the Czech Republic's national strategies for research, innovation, and gender equality. By fostering **high-quality research, technology transfer, gender-inclusive policies, and digital transformation**, UJEP will play a vital role in achieving the country's strategic goals, ultimately contributing to the Czech Republic's position as a leader in research and innovation by 2030.

Strategic Plan 2021 + (see *Annex 9*) and Research Strategy at UJEP and their relation to the strategic objectives of the Provider

Jan Evangelista Purkyně University in Ústí nad Labem (UJEP) has formulated its Strategic Plan for the period from 2021, outlining its vision and mission to enhance educational quality, research excellence, and societal engagement. This strategic plan aligns with several national policies, including the **National Policy for Research, Development, and Innovation of the Czech Republic 2021+ (NP RDI 2021+)**, the **Innovation Strategy of the Czech Republic 2019–2030**, and the **Strategy for Gender Equality 2021–2030**. This analysis explores how UJEP's strategic objectives correspond to the specific goals of these national policies.

1. **Alignment with the National Policy for Research, Development, and Innovation (NP RDI 2021+)**

The NP RDI 2021+ serves as the overarching strategic document at the national level for developing all components of research, development, and innovation in the Czech Republic. It defines five strategic goals:

- **Goal 1:** Establish a strategically managed and efficiently funded RDI (Research, Development, innovation) system.
- **Goal 2:** Support research organizations in creating motivating working conditions and developing human potential across the entire spectrum of research and development.
- **Goal 3:** Increase the quality and international excellence of RDI in the Czech Republic, enhance openness and attractiveness for international RDI, and intensify integration into the European Research Area.
- **Goal 4:** Support expanding collaboration between the research and application spheres in RDI.
- **Goal 5:** Achieve the development of RDI in enterprises and the public sector.

UJEP's Strategic Plan 2021+ aligns with these goals as follows:

- **Strategic Management and Funding (Goal 1):** UJEP emphasizes building capacities for strategic management in higher education, aiming to enhance the efficiency and effectiveness of its operations, which aligns with establishing a strategically managed and efficiently funded RDI system.
- **Human Resources Development (Goal 2):** The university focuses on reducing administrative burdens on staff to allow complete dedication to their mission, thereby creating motivating working conditions and supporting the development of human potential.
- **Research Quality and International Excellence (Goal 3):** UJEP aims to strengthen strategic management and effective utilization of capacities in research and development, contributing to increased quality and international excellence in RDI.
- **Collaboration with Application Sector (Goal 4):** The university seeks to enhance cooperation with external entities, facilitating the transfer of research outcomes into practical applications, thus supporting the expansion of collaboration between the research and application spheres.
- **RDI Development in Public Sector (Goal 5):** By developing competencies of students directly relevant to life and practice in the 21st century, UJEP contributes to the development of RDI in the public sector.

2. Alignment with the Innovation Strategy of the Czech Republic 2019–2030

The Innovation Strategy envisions the Czech Republic as an innovation leader by 2030, focusing on digitalization, artificial intelligence, and smart specialization. UJEP's strategic objectives align with this vision in the following ways:

- **Digitalization and Smart Technologies:** UJEP emphasizes building and developing the university's facilities and infrastructure as a modern educational institution, which includes integrating digital tools and smart technologies into research and education, aligning with the national goal of digital transformation and Industry 4.0 readiness.
- **Support for Start-ups and Spin-offs:** UJEP supports the strategy's goals related to entrepreneurship and innovation infrastructure by fostering an ecosystem conducive to research commercialization.
- **Development of Polytechnic Education:** The university's focus on enhancing competencies relevant to the 21st century aligns with strengthening technical education, a key aspect of the Innovation Strategy.

3. Alignment with the Strategy for Gender Equality 2021–2030

The Strategy for Gender Equality aims to eliminate gender disparities in various sectors, including education and research. UJEP's Strategic Plan reflects this commitment through:

- **Promoting Gender Balance:** UJEP's emphasis on creating motivating working conditions and developing human potential aligns with promoting gender balance in research and academia.
- **Supporting Work-Life Balance:** The university's efforts to reduce administrative burdens on staff to allow full dedication to their mission contribute to improving work-life balance, supporting the strategy's objectives.
- **Encouraging Diversity in STEM:** By developing students' competencies relevant to the 21st century, UJEP encourages diversity and inclusion in STEM fields, addressing gender gaps in technical and scientific disciplines.

UJEP's Strategic Plan strongly aligns with the national strategic goals outlined in the NP RDI 2021+, the Innovation Strategy 2019–2030, and the Strategy for Gender Equality 2021–2030. Through its focus on strategic management, human resource development, research excellence, collaboration with industry, digitalization, and gender equality, UJEP contributes significantly to the Czech Republic's vision of becoming a leader in research, innovation, and equal opportunities by 2030.

The **Research Strategy 2025–2030** aligns with **National Policy for Research, Development, and Innovation of the Czech Republic 2021+ (NP RDI 2021+)** in the accent on human resources development (young researchers, doctoral students and excellent researchers), research quality and international excellence (by strengthening international collaboration and partnerships with excellent research teams) and applied research in the collaboration with application sector (business, industry, public bodies, NGOs, and other regional stakeholders).

The **Innovation Strategy of the Czech Republic 2019–2030** is reflected in the **Research Strategy 2025-2030** in the emphasis on technology transfer and in the support of startup incubation within UJEP's innovation ecosystem.

Research Strategy 2025-2030 deals also with the objectives of the Strategy for Gender Equality 2021–2030. Institutional policies (e.g., Ethical Code, Ombudsperson, etc.) and targeted support mechanisms ensure equity and inclusion in research.

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 research [%]
1. Natural Sciences	1.1 Mathematics	0.18	Basic research	21.08
	1.2 Computer and information sciences	0.66	Balanced basic and applied research	
	1.3 Physical sciences	7.80	Balanced basic and applied research	
	1.4 Chemical sciences	3.41	Basic research	
	1.5 Earth and related environmental sciences	7.01	Balanced basic and applied research	

	1.6 Biological sciences	1.91	Basic research	
	1.7 Other natural sciences	0.11	Balanced basic and applied research	
2. Engineering and Technology	2.1 Civil engineering	1.45	Basic research	19.34
	2.2 Electrical engineering, electronic engineering, Information engineering	0.62	Basic research	
	2.3 Mechanical engineering	5.92	Balanced basic and applied research	
	2.4 Chemical engineering	1.15	Basic research	
	2.5 Materials engineering	3.41	Balanced basic and applied research	
	2.6 Medical engineering	0.15	Balanced basic and applied research	
	2.7 Environmental engineering	3.26	Balanced basic and applied research	
	2.8 Environmental biotechnology	1.77	Basic research	
	2.9 Industrial biotechnology	0.14	Basic research	
	2.10 Nanotechnology	0.80	Applied research	
	2.11 Other engineering and technologies	0.68	Balanced basic and applied research	
3. Medical and Health Sciences	3.1 Basic medicine	0.67	Balanced basic and applied research	5.23
	3.2 Clinical medicine	1.52	Applied research	
	3.3 Health sciences	3.04	Applied research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	0.91	Basic research	1.42
	4.2 Animal and Dairy science	0.06	Basic research	
	4.3 Veterinary science	0	Zvolte položku.	
	4.4 Other agricultural sciences	0.45	Basic research	
5. Social Sciences	5.1 Psychology and cognitive sciences	1.55	Balanced basic and applied research	26.78
	5.2 Economics and Business	4.57	Balanced basic and applied research	
	5.3 Education	6.33	Balanced basic and applied research	
	5.4 Sociology	1.13	Balanced basic and applied research	
	5.5 Law	0.25	Balanced basic and applied research	
	5.6 Political science	3.06	Balanced basic and applied research	
	5.7 Social and economic geography	8.17	Balanced basic and applied research	

	5.8 Media and communications	0.09	Balanced basic and applied research	
	5.9 Other social sciences	1.63	Balanced basic and applied research	
6. Humanities and the Arts	6.1 History and Archaeology	13.08	Basic research	26.15
	6.2 Languages and Literature	3.29	Balanced basic and applied research	
	6.3 Philosophy, Ethics and Religion	0.75	Basic research	
	6.4 Arts (arts, history of arts, performing arts, music)	8.78	Balanced basic and applied research	
	6.5 Other Humanities and the Arts	0.26	Basic 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 research [%]
1. Natural Sciences	1.1 Mathematics	0.2	Basic research	22
	1.2 Computer and information sciences	0.5	Balanced basic and applied research	
	1.3 Physical sciences	8	Balanced basic and applied research	
	1.4 Chemical sciences	3.5	Basic research	
	1.5 Earth and related environmental sciences	8	Balanced basic and applied research	
	1.6 Biological sciences	1.8	Basic research	
	1.7 Other natural sciences	0	Balanced basic and applied research	
2. Engineering and Technology	2.1 Civil engineering	1.4	Basic research	21
	2.2 Electrical engineering, electronic engineering, Information engineering	0.5	Basic research	
	2.3 Mechanical engineering	6.5	Balanced basic and applied research	
	2.4 Chemical engineering	1.2	Balanced basic and applied research	
	2.5 Materials engineering	4.0	Basic research	
	2.6 Medical engineering	0.1	Basic research	
	2.7 Environmental engineering	3.5	Basic research	
	2.8 Environmental biotechnology	2.0	Balanced basic and applied research	
	2.9 Industrial biotechnology	0.1	Balanced basic and applied research	
	2.10 Nanotechnology	1.0	Applied research	

	2.11 Other engineering and technologies	0.7	Balanced basic and applied research	
3. Medical and Health Sciences	3.1 Basic medicine	0.3	Balanced basic and applied research	5
	3.2 Clinical medicine	1.2	Applied research	
	3.3 Health sciences	3.5	Applied research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	0	Zvolte položku.	0
	4.2 Animal and Dairy science	0	Zvolte položku.	
	4.3 Veterinary science	0	Zvolte položku.	
	4.4 Other agricultural sciences	0	Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences	1.3	Balanced basic and applied research	26
	5.2 Economics and Business	5.0	Balanced basic and applied research	
	5.3 Education	6.0	Balanced basic and applied research	
	5.4 Sociology	1.1	Balanced basic and applied research	
	5.5 Law	0.1	Balanced basic and applied research	
	5.6 Political science	3.5	Balanced basic and applied research	
	5.7 Social and economic geography	9.0	Balanced basic and applied research	
	5.8 Media and communications	0	Balanced basic and applied research	
	5.9 Other social sciences	0	Balanced basic and applied research	
6. Humanities and the Arts	6.1 History and Archaeology	13.5	Basic research	26
	6.2 Languages and Literature	3.0	Balanced basic and applied research	
	6.3 Philosophy, Ethics and Religion	1.0	Basic research	
	6.4 Arts (arts, history of arts, performing arts, music)	8.0	Balanced basic and applied research	
	6.5 Other Humanities and the Arts	0.5	Basic 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
Strategic Plan 2021+	NP RDI 2021+
Strategic Plan 2021+	Innovation Strategy

Strategic Plan 2021+	Strategy for Gender Equality
Research Strategy 2025-2030	NP RDI 2021+
Research Strategy 2025-2030	Innovation Strategy
Research Strategy 2025-2030	Strategy for Gender Equality

5.2 Research and development objectives

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

Maximum 2000 words.

Self-assessment:

The university defines its research policy in two documents:

- Strategic Plan 2021+
- Research Strategy

The **Strategic Plan 2021 +** (*see Annex 9*) of the university defines in Part 4 (*Strengthen Strategic Management and Effective Use of Research and Development Capacities at Higher Educational Institutions*) the following objectives in the field of research development, innovation, and knowledge transfer for year 2021 +:

4.1 Annually monitor and evaluate the scope and quality of creative activity using a set of criteria according to which changes in the performance of the monitored activities will be assessed concerning the structure of FORD fields, doctoral studies, and the profile of the study program. Based on performance monitoring, the university will implement measures to increase the quality and competitiveness of creative activity at UJEP. At the same time, the established model should be used to support successful creative activity results.

4.2 Support an increase in the share of high-quality bibliometric results, namely through publications in recognized periodicals listed in international citation databases (Web of Science or Scopus) regarding their rating (D1, Q1, or Q2). To jointly strive for an annual improvement in the evaluation of individual bibliometric and non-bibliometric results that are selected as part of the collection of quality results, to monitor the annual evaluation of expert evaluation panels, and to base decisions on the selection of quality results for the entire university. To increase the share of artistic activity results with fundamental and revealing significance in the international and national context.

4.3 In the area of support for the long-term conceptual development of a research organization (LCDRO), to implement new rules for the distribution of support based on quality results and areas relevant to creative activity (e.g., bibliometric and non-bibliometric results, artistic activity results with fundamental and revealing significance in the international and national context, qualification structure, volume of contractual research, doctoral students, postdoctoral students, volume and

scope of national and international projects, active international cooperation, mobility in the field of creative activity, etc.).

4.4 To use the LCDRO funds to support creative activities and scientific areas in which we:

1. achieve top and excellent results,
2. obtain significant scientific projects with national and international impact,
3. involve top foreign experts,
4. develop doctoral study programs,
5. strive for the qualification growth of employees.

4.5 Internal, national, and international grants and projects continue to support, develop, and improve the activities of the Project Service Center and the Internal Grant Agency, which together form the "Grant Office" system at UJEP. Ensure adequate personnel capacities for supporting administrative, coordination, and methodological activities and the digitalization of processes associated with grant activities and services in the internationalization of creative activities.

4.6 Continue to strive and build capacities for excellent research and increase the attractiveness of research regarding building new strategic partnerships with the application and public administration spheres.

4.7 Increase support for university research clusters - especially the MATEQ research in the field of technical and natural sciences (reflection of the issues of new progressive materials, nanotechnologies, biotechnology, IT, and transformation of raw materials and energy policy in the region) and the SMART research in the field of economic, environmental and public administration (reflection of the issues of climate change, drought, the transformation of the region, social inclusion, regulation, and behavioral studies). In these directions, actively seek and develop research topics with a societal impact while including the region's current issues and needs, national and international research policy priorities (e.g., NRIS3), platforms, and strategies in science and research. Support research and implementation of innovations in the field of creative industries in connection with artistic and educational directions as one of the key tools for accelerating the development of the overall social environment of the city and the region. Support and develop multidisciplinary cooperation in humanities and social sciences to understand the region's structure and the possibilities of its transformation in the context of the Czech Republic and the EU.

4.8 Regularly educate employees on intellectual property, support the transfer of results and knowledge into practice, and develop the Center for Technology and Knowledge Transfer activities. When publishing the results of creative activities, mainly use sources based on "Open access."

4.9 Create conditions for intersectoral collaboration, namely by building adequate capacities for effective long-term collaboration with the application sector, which has a high potential for using results in practice.

4.10 Continuously develop the transfer of knowledge from creative activity to all forms of education appropriately. To do this, new communication tools that are understandable and comprehensible to the target group should be used.

4.11 In collaboration with the PR department and external collaborators, communicate and present significant achievements and successes in creative activity, introduce successful and recognized employees and students, promote external collaboration with the application, public administration, and cultural spheres, increase public awareness of research infrastructure, instrumentation, and laboratory equipment and overall build the media image of the university as a successful, modern and generally recognized institution.

4.12 Support internationalization by establishing a "Welcome Office" concerning the needs of the university and academic staff in supporting international project activities, international conferences, and professional workshops, promoting creative activity on an international scale, in/out mobility of staff within creative activities and ensuring related personnel capacities to support administrative, methodological and coordination activities. Use the opportunities for cooperation with foreign agencies with the support of the Czech National Agency for International Education and Research.

4.13 Create networks of partners to build excellent research teams jointly, jointly strive to obtain significant international research projects (ERC, Horizon Europe, COST, etc.), participate in prestigious international scientific conferences, promote significant achievements in the field of creative activity, and thus develop the international scientific and research environment at the university.

4.14 Build an active representation of the university in the organizational structures of national and international organizations, clusters, consortia, professional platforms and commissions, and associations and thus participate in determining and directing these bodies and their policies of creative activity for the benefit of UJEP.

The Strategic Plan 2021+ emphasizes strategic management and the effective use of research and development capacities within higher education institutions. This focus supports UJEP's mission to foster education, research, and innovation, addressing societal and environmental challenges. By enhancing strategic management in R&D, UJEP aims to elevate research quality and relevance, thereby contributing to societal development and aligning with its vision of being a strong, respected institution with clear interdisciplinary research directions.

The university's Strategic Plan 2021+ (SP) defines specific goals for **human development area** in the following objectives:

- 1. Develop students' competencies directly relevant to life and practice in the 21st century
- 3. Increase the efficiency and quality of doctoral studies
- 4. Strengthen strategic management and effective use of capacities in research and development in higher education
- 5. Building capacities for strategic management of higher education

The SP in the first objective supports the creation of conditions for the initial and ongoing education of academic staff in university didactics, the cultivation of their pedagogical skills, and the sharing of didactic experience (goal 1.17 of SP). Furthermore, it supports the active involvement of foreign experts in educational activities (1.19) and creates conditions for the mobility of academic and other staff (1.20).

In the third objective, the SP defines the Supervisor's Standard (in the case of doctoral students) (3.2) and pressures the fulfillment of the obligation resulting from the "HR Award" (3.7). Furthermore, the implementation of the personnel policy in accordance with the principles of the European Charter for Researchers, the Code of Conduct for the Recruitment of Researchers, and the UJEP Code of Ethics is demanded.

The fourth objective defines the motivational structure for academics and researchers. Continuous performance evaluation, including support of excellent results, should increase the quality and competitiveness of creative work at the university (4.1). The university sets new rules on how to divide financial resources for LCDRO between faculties and, therefore, forces faculties to define so-called motivational directives that set measures aimed at increasing the motivation for excellence (4.3 or 4.4). The essential aim is regularly educating employees on intellectual property and supporting the transfer of results and knowledge into practice (4.8).

The fifth objective supports the internal evaluation system of academics and researchers (5.1), the use of existing information systems (IS for Academic Staff Performance Evaluation), and other development tools (Career Rules, personnel development plans) for work with human resources, evaluation and remuneration of academic staff (5.7). The increased importance is set on developing capacities to ensure care for human resources and support services for staff, including counseling and offering services for caring parents (5.8). Maintaining the standards of the HR Award represents one of the key challenges of the university (5.9).

The **institutional resilience** has not yet been systematically addressed, the university's policy (also based on the recommendations of the Ministry of Education, Youth and Sports from autumn

2024) will be created in 2025, potentially with the support of the Johann Amos Comenius Operational Program (project "Research Environment").

The **implementation of open science and adherence to the principles of ethics** occurs in:

- Goal 4.8 (... When publishing the results of creative activities, use mainly resources based on "Open Access");
- Goal 3.7 (Fulfill the obligation arising from the "HR Award"; Implement personnel policy following the principles of the European Charter for Researchers, the Code of Conduct for the Recruitment of Researchers, and the UJEP Code of Ethics);
- Goal 5.9 (Strive for continuous fulfillment of standards for maintaining the HR Award as one of the pillars of the internal quality assurance system. Prepare and fulfill the activities of action plans following the principles of the Charter and the Code).

The HR Award principles, the European Charter for Researchers, the Code of Conduct for the Recruitment of Researchers, and the UJEP Code of Ethics define the **scientific integrity** of UJEP researchers (goals 3.7 and 5.9).

The **good practice** and its use in teaching, research, and other activities (e.g., creative work) is reflected in the following goals:

- Goal 5.6. (Strengthen cooperation and exchange of experience between universities at the level of national committees, relevant programs, and other platforms, and seek opportunities for sharing good practice; Develop cooperation and transfer of good practice within the university, build a common identity of the institution).
- Goal 5.23 (Promote significant research, creative, educational, and other university activities towards the public, and develop communication channels to promote the university, including national and international media. Thus, expanding the possibilities for the transfer of good practice within and between the university and its partners).

The **Research Strategy 2025-2030** (see *Annex 14*) is in accordance with the Strategic Plan 2021+ and defines the following objectives:

- To enhance research excellence
- To strengthen international collaboration and partnership
- To support sustainable and applied research
- To invest in young researchers and doctoral students
- To invest in research culture and career development

This Strategy aims to prioritize the support of human resources in research. Young researchers, doctoral students, and excellent research teams with international staff stay at the center of attention. This deliberate prioritization is the foundation for developing research quality and establishing new research teams (based on international collaboration). Working with researchers, scientific integrity, and ethical principles are essential parts of the university's expectations regarding academics. The university focuses on creating suitable career development conditions and cultivating a research culture.

In the research, we want to focus on regionally relevant topics and on interdisciplinary collaboration with regional partners (private sector, public bodies, NGOs, etc.). Therefore, applied research is highly appropriate. However, basic research is also essential when defining the university's comparative advantage in the research market. Integrating international experts into the university's research teams is a crucial strategy to be a regional and national leader in some research topics.

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:

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

Maximum 2000 words.

Self-assessment:

5.3.1 Supporting quality R&D&I

In the last two years, the university has implemented a set of institutional and strategic tools to fulfill the research and development objectives for the next five years. To increase the **quality of R&D&I**, the university management implemented the following support instruments:

1. Support of young researchers
2. Support of senior (excellent) researchers
3. Financial support
4. Institutional support
5. Support of personal growth

Ad 1) As described in more detail in Chapter 4.2, young researchers and postdocs are a strategic investment of the university into the quality of human research —an investment in the future and sustainable development of the university. Therefore, based on doctoral schools, the **Doctoral Academy UJEP** stays at the center of attention. Furthermore, to support young researchers and postdocs, the university implemented internal granting schemes (Internal Grant Scheme and Student's Grant Competition) and provided infrastructural support to create a convenient working environment for doctoral students, as well as other young researchers. To increase the graduation rate and the involvement of doctoral students in departments, research institutes, and research in general, the university adopted the 'Supervisor's Standards.' These standards define the supervisor's duties and expectations in their relationship with doctoral students.

Ad 2) The support system for excellent researchers includes the **Jan Evangelista Purkyne Development Fund** (financial remuneration of excellent researchers) and the work position "**Global Expert**," which is financed by the project RUR (Operational Program Just Transition). The university can finance 10 excellent researchers for a 6—to 36-month stay until 2027. Furthermore, excellent researchers can get internal funding to develop their research ideas (Internal Grant Scheme) and prepare a project application for external funding.

However, the increasing significance is due to the infrastructural and institutional support of excellent researchers (for more information, please see Chapter 4.2).

Ad 3) The most significant financial instrument for the future motivation to increase research quality is the **institutional support system for the LCDRO**. This system defines criteria for the evaluation of the faculty performance, which reflect the quality of research (quality of papers, monographs, amount of citations, funding - rewarding the international funding schemes such as Horizon Europe, COST Action, ERC, etc.; IEP evaluation; internalization and interdisciplinary collaboration between faculties). In the next 2-3 years, the amount of money distributed between faculties according to this scheme will increase (in 2025, 80% of the total amount of money is fixed according to the previous year regardless of the quality of research, 20% of the total amount of money depends on the quality performance; in 2027 the share should be 50:50).

Motivational directives that reward specific activities of academics and researchers reflect the institutional support system for the LCDRO at the faculty level.

Other financial instruments at the university level include:

- Internal Grant Schemes
- Jan Evangelista Purkyne Development Fund (incl. support of internalization)

Ad 4) The institutional support is described in more detail in Chapter 4.2. However, starting in 2025, the university established a new institutional support at the central level: the **Competence Center**. Furthermore, the quality of research supports the Counseling Center UJEP and educational activities aimed at increasing knowledge about mobility programs and other international research programs.

Ad 5) Support of personal growth is based on academics and researchers' career structure and plans. The IS for Academic Staff Performance Evaluation (IS HAP) evaluates their fulfillment annually. Teaching and research performance are at the center of attention, as are organizational duties (e.g., committees, boards, etc.) and popularization (e.g., newspaper articles, summer schools, camps, etc.). In career plans (for 5 years), the employees must define their progress plan (e.g., academic degree) and personal growth (e.g., new skills). Furthermore, some faculties define minimum standards that the employees must accomplish in 5 years (e.g., minimum publications) to guarantee minimum standards for accreditation of study programs.

To support the personal growth of academics and researchers, the university applies further financial and institutional instruments - e.g., those that encourage internalization and mobility (please see Jan Evangelista Purkyne Development Fund). The 'Competence Center' and the 'Counseling Center' offer consultations, seminars, workshops, and other educational activities that help employees with personal growth.

5.3.2 Excellent science

In 2023, the university decided to support **excellent science** through strategic management instruments aimed at human resources and internal funding (for further information, please see Chapter 4.2). In the next 5 years, this support will continue with the focus on the following priorities:

- Incoming international experts
- Funding opportunities to prepare projects for external (especially international) funding schemes
- Research background (e.g., laboratories, equipment)
- Organizational and institutional support

The university supports incoming international experts to increase the quality of its research teams, encourage the exchange of knowledge and scientific expertise, and enrich the study programs with new courses in English. The **Jan Evangelista Purkyne Development Fund** and the work position of **Global Expert** (see the information above) will last until at least the end of 2027 as the most important instruments to increase excellence at the university.

One of the main aims of the **internal funding scheme** (Internal Grant Agency) is to support initiatory grants that help academics and researchers start their research and prepare proposals for external granting schemes. This funding opportunity (the call is every two years) is open for excellent researchers (including international ones). Although the grants should reflect the research clusters (priority research fields), the university will also support innovative and new topics.

To attract new (excellent) researchers and increase research quality, the university has invested in **new infrastructure** over the past five years. New buildings, laboratories, and research equipment were financed mainly through European funding. In the next 5 years, the university will maintain the infrastructure and invest in the equipment based on the specific project needs.

The **organizational and institutional support** includes the Project Service Center and Department for Research and Science services. Still, since 2025, the university will offer specific services for international funding schemes (Center for International Collaboration) and the transfer of technologies and knowledge (Center for Technology and Knowledge Transfer). Our focus is to help excellent research teams with the protection of intellectual property and commercialization.

5.3.3 Innovative environment and increasing the international or disciplinary competitiveness

As mentioned previously, the university management aims to encourage an **innovative environment** and increase **international or disciplinary competitiveness**. We know the university's positioning in the research market in the Czech Republic and the global context. Therefore, in defining **research clusters**, we aim to focus on research topics where the university has a comparative advantage. Furthermore, playing the third role, we concentrate on issues relevant to regional development - in the Ústí region, but in collaboration with Saxony (Germany) and their universities (Dresden, Freiberg, Chemnitz). All the instruments and measures mentioned in the previous text help the university to get this advantage and shape research teams in a direction where the university can play an active role in the research market.

5.3.4 Development of human potential

Development of human potential is based on Career Plans and their periodical evaluation by the management of the faculty (e.g., with the use of HAP). To fulfill all duties defined in the Career Plan, the university or the faculty use wide range of instruments mentioned in the text (e.g., internal funding schemes, J.E. Purkyně Visiting Scholar Program, etc.), but also an institutional support (Center of Competence, Counseling Center, etc.).

5.3.5 Institutional resilience

Although the university has no policy regarding resistance to foreign influence, based on the Ministry of Education's recommendation, it will establish a strategy for **institutional resilience** by the end of 2025 at the latest. Potentially (if successful), we will use the project for Johannes Amos Comenius Operational Program submitted in December 2024 to implement the strategy.

The cybersecurity development plan at the university will focus on strengthening the protection of key information systems (IS) and infrastructure through modern security technologies and processes.

A key element will be the deployment of a robust firewall solution with advanced threat detection and network segmentation capabilities to minimize lateral movement of attackers. At the same time, a SIEM (Security Information and Event Management) solution for centralized collection and analysis of security events will be implemented, which will enable effective anomaly detection, rapid response to incidents, and compliance with legislative requirements. These steps will be complemented by the implementation of security policies defining new rules for access management, critical event logging, supply chain security, and other tasks resulting from already adopted policies.

An important part of the development will also be the updating and expansion of security documentation, which will reflect new technological measures and current threats. A key task will be to perform a comprehensive risk analysis for the university's four basic information systems, which will allow for a better understanding of vulnerabilities and the adoption of adequate measures. The documentation will clearly define procedures for managing security incidents, rules for data backup and recovery, and strategies for continuous improvement of security levels. The plan also includes training for staff and students in cybersecurity to increase threat awareness and strengthen the security culture at the university.

5.3.6 Adherence to ethical principles, scientific integrity and good practice

Adherence to ethical principles, scientific integrity, and good practice in R&D&I is primarily based on the university's 'Ethical Code' and 'Rules of Procedure of the Ethical Committee.' Both documents are currently updated. A new Ethical code will be in power in June 2025, covering general ethical standards (e.g., social safety, sexual and gender-based violence), and research ethics.

The '**Working Group for Equal Opportunities and Social Security**', established in 2023, and the **Ombudsperson** (since 2024) play vital roles in the future development of this agenda and dissemination between employees. The Working Group (WG) will continue with presenting materials about sexual and gender-based violence and social security, organizing workshops, round tables, etc., to increase awareness about this topic among students and academics. Furthermore, activities of the WG were acknowledged by the Czech (e.g., Equal Pay Day Conference in Prague, 2024; Czeducon in Prague, 2024) and international audience (e.g., ENOHE conference about democracy, diversity, and the role of the Ombudsperson in higher education in Covilhã, Portugal, 2024; GenderSAFE conference about gender-based violence at universities in Rome, Italy, 2024). Members of the WG were repeatedly invited by national and international organizing committees to share their knowledge and to join international project teams. In collaboration with Czech and international partners, the agenda in the next 5 years will especially contain:

- Updating an 'Equal Opportunities Plan 2023-2025' for years 2026-2030
- Fulfilling all commitments of the European Commission HR Excellence in Research Award (HR Award)
- Finishing the Code of Ethics
- Presenting materials, organizing workshops, round tables, etc. for employees and students

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

Doctoral Academy UJEP	Institutional support of doctoral students and young researchers providing seminars for improving soft skills, networking activities and informational support	Implemented partially	2025
Jan Evangelista Purkyne Development Fund	Financial remuneration of excellent researchers	Implemented	2023
Work position "Global Expert"	Based on the project RUR, 10 working positions for international (in some cases also national) excellent researchers are (and will be) financed.	Implemented	2024
Institutional support system for the LCDRO	New system defining rules for redistribution of institutional finances for research development between faculties which is enhancing the research quality.	Implemented	2025
Internal Grant Schemes	Internal Grant Agency and Student's Grant Competition – both schemes support doctoral students and young researchers financially. New rules were established to support research quality, internalization, collaboration between faculties, and application in external grant schemes.	Implemented	2024
Competence Center	Offer consultations, seminars, workshops, and other educational activities that help employees with personal growth.	Implemented	2025
Academic Staff Performance Evaluation (IS HAP)	Evaluates fulfillment of career plans annually. Teaching and research performance are at the center of attention, as are organizational duties (e.g., committees, boards, etc.) and popularization (e.g., newspaper articles, summer schools, camps, etc.). Special attention is devoted to internalization.	Implemented	2024
Center for International Collaboration	Services for international funding schemes (Horizon Europe, COST Action, Fulbright Scholarship, MSCA, ERC)	Not-implemented	2025
Center for Technology and Knowledge Transfer	Transfer of technologies and knowledge, commercialization	Implemented	2024
J.E. Purkyně Visiting Scholar Program	An initiative designed to foster international academic collaboration, enrich educational and research output, and elevate the profile of J. E. Purkyně University on the global stage.	Implemented	2024
HR Award	HR Excellence in Research Award	Implemented	2019
Ombudsperson	Provides advice and supports in resolving conflicts, complaints and difficulties, serves as an independent mediator in communication between individual members of the university, promotes a	Implemented	2024

	culture of respect, ethics, fairness and openness within the university.		
'Working Group for Equal Opportunities and Social Security'	Presents materials about sexual and gender-based violence and social security, organizes workshops, round tables, etc., to increase awareness about this topic among students and academics.	Implemented	2023

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:

Recommendations to point *5.1 The evaluated institution's R&D&I mission, and vision* stated that the University should develop specific research fields to demonstrate a comparative advantage and define its regional role to become prominent in particular areas that reflect that regional experience.

The text mentions that the university-defined **research clusters** (https://www.ujep.cz/en/research-clusters) reflect the University's comparative advantage in the Czech research market and internationally. Furthermore, these clusters define the University's added value to the **region**, which is research that increases the region's visibility in the national and international context.

These clusters are also a tool for establishing new partnerships and communicating research and other creative activities aimed at intersectoral cooperation within alliances, advisory bodies, and strategic partnerships with public administration and private and non-governmental non-profit sectors in addressing serious social and environmental challenges. Intersectoral and interdisciplinary research is reflected in mission and values, administrative research support (Center for Knowledge Transfer and Innovation), specific project schemes (Internal Grant Agency), and employee career growth (Academic Staff Performance Evaluation).

The University translates **regional problems and/or challenges** into study programs, intersectoral collaboration (applied and contract research), or memberships in regional bodies. These activities have something in common—the awareness that the University is situated in a structurally affected region with all its flaws and benefits (the expertise shared with other national and international partners).

Recommendations to point *5.2 Research objectives and strategies before the next evaluation* stated the University could consider the implications of less finance in the future from European funds and if it changes some priorities and ambitions. Is the move to online space an opportunity for internationalization?

Regardless of the European funding of research capacities and infrastructure, the University's *Research Strategy* and *Strategic Plan 2021+* will contain all the goals, measures, and instruments. Implementing these strategic documents is not conditional on the success of the projects submitted within the framework of European programs.

Indeed, the online space intensified the internalization of education (lectures, presentations, etc., from global experts) and research. Although we have no data to support this statement, we are convinced that the increasing number of meetings with project partners led to an increasing success rate in Horizon Europe and COST Action projects.

Recommendations to point 5.3 *Relation to higher national and supranational strategic goals and measures for R&D&I*, and *5.4, Strategy and strategic management tools to improve the international or sectoral competitiveness and quality of the University's research work,* highlighted the need for a link between university research and EU or national priorities. Selecting priorities within that would be facilitated by using sectoral competitiveness analyses of the University's research work.

As described in more detail in Chapters 5.1 and 5.2, the University's strategic goals comply with *the National Policy for Research, Development, and Innovation of the Czech Republic 2021+, the Strategy for Gender Equality 2021–2030, and the Innovation Strategy of the Czech Republic 2019–2030*.

Furthermore, section 4 of the University's Strategic Plan 2021+, titled "Strengthening Strategic Management and Effective Utilization of Capacities in Research and Development at Universities," aligns with the European Union's research and innovation priorities as outlined in key strategic documents:

1. **Horizon Europe Framework Program for Research and Innovation**: This program aims to enhance the EU's scientific and technological bases, boost innovation capacity and competitiveness, and address global challenges. The University's focus on strategic management and effective utilization of R&D capacities supports these objectives by promoting research excellence and innovation.
2. **European Research Area (ERA)**: The ERA seeks to create a unified research area open to the world, enabling the free circulation of researchers, scientific knowledge, and technology. By strengthening strategic management in R&D, the university contributes to the integration and effectiveness of the ERA.
3. **EU's Global Approach to Research and Innovation**: This Strategy emphasizes global openness and collaboration in research and innovation to tackle global challenges. The university's strategic emphasis on effective R&D management aligns with fostering international collaborations and sharing resources for scientific progress.

By aligning its strategic management and utilization of R&D capacity with these EU priorities, the university enhances its contribution to the broader European research and innovation landscape.

Recommendations to point *5.5 Institutional tools for implementing the research strategy, emphasizing support of quality R&D&I and the innovation environment* emphasize the need for faculty collaboration and coordination. However, this may be hampered by devolution of authority to faculty levels. Another recommendation said that it is also possible to prepare university competitions in a format similar, for example, to HORIZON 2020, so that as part of their financing, preliminary research and a prepared application for a national or international grant were prepared.

The collaboration between faculties has two levels. As stated in Chapter 4.2, the university implemented internal grant schemes to encourage interdisciplinary collaboration between faculties. Furthermore, the LCDRO rules also reward collaboration on research and Ph.D. programs between faculties. Nevertheless, the partnership is also based on the natural proximity of research areas at similar faculties (e.g., Faculty of Science and Faculty of Environment, Faculty of Science and Faculty of Social and Economic Studies, or Faculty of Education and Faculty of Health Studies). Therefore, both levels of cooperation complement each other.

The internal funding schemes are divided into two groups of projects - starting grants (Student's Grant Competition) focused on doctoral students and initiatory grants (Internal Grant Agency) supporting young researchers in general (doctoral students, postdocs, and other researchers). For both grant schemes, an external project application is one of the permissible project outcomes. However, this outcome is not only permissible but obligatory for Internal Grant Agency projects. In this case, the grant application within national and international research schemes (GAČR, TAČR,

Horizon Europe, COST Action, and other cross-border and transnational cooperation programs - e.g., Central Europe, Interreg Danube, Interreg Europe, ESPON, Interact, Urbact IV, etc.) is mandatory.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 5

Document name	No. criteria	Location (link in HTML)
Annex 9	5.1	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 11	5.1	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 12	5.1	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 13	5.1	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link
Annex 14	5.2	https://drive.google.com/drive/folders/1FbHFXBxfcIKsc9FeRdrXRtrQ9cBLOeso?usp=share_link