

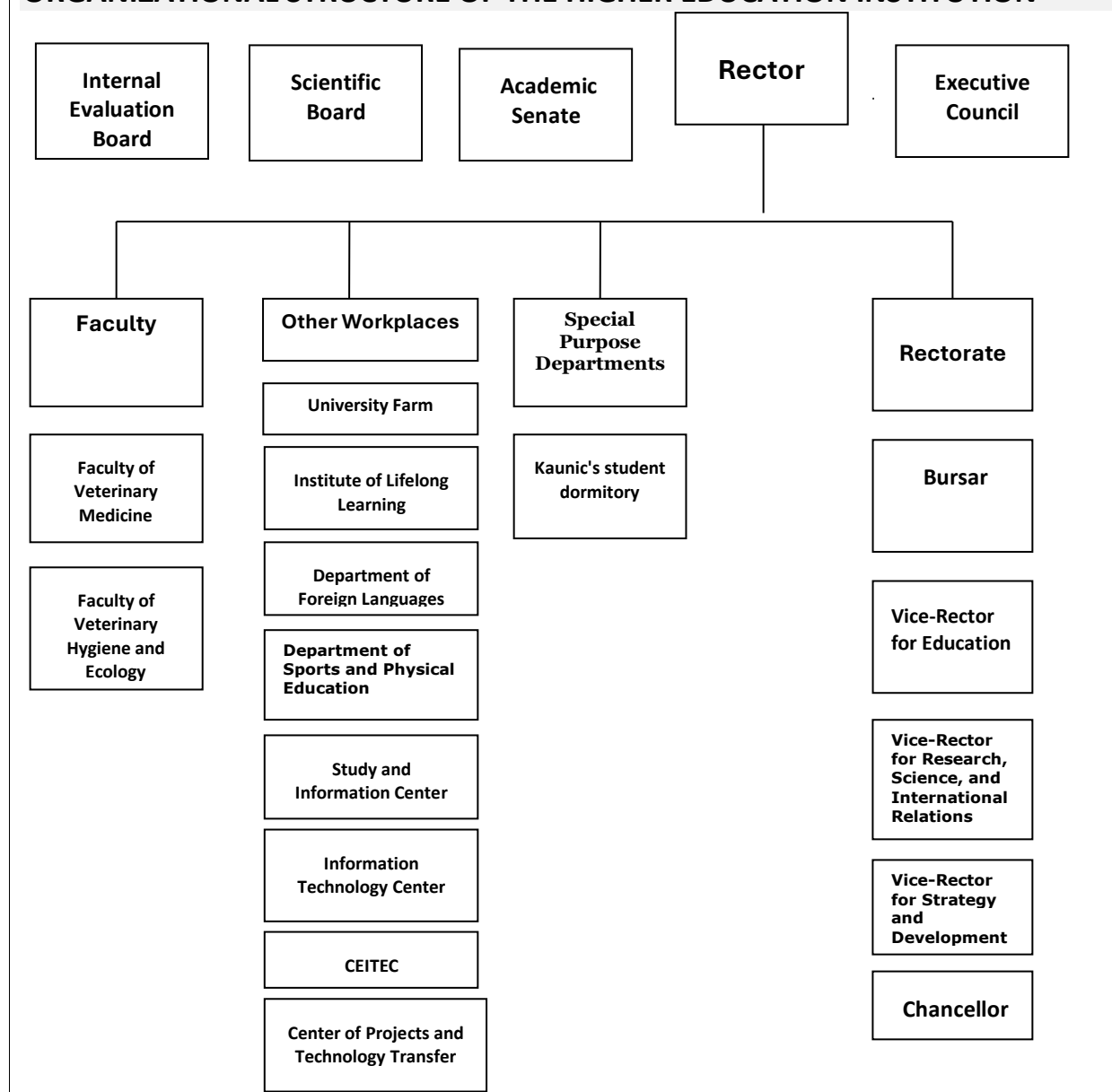
SELF-EVALUATION REPORT FOR THE EVALUATION OF RESEARCH ORGANIZATIONS IN THE SECTOR OF HIGHER EDUCATION INSTITUTIONS FOR 2025

HIGHER EDUCATION INSTITUTION NAME: University of Veterinary Sciences Brno

CORPORATE IDENTIFICATION NUMBER (CIN): 62157124

THE LIST OF EVALUATION UNITS IN MODULE 3: Faculty of Veterinary Medicine, Faculty of Veterinary Hygiene and Ecology, CEITEC VETUNI

ORGANIZATIONAL STRUCTURE OF THE HIGHER EDUCATION INSTITUTION



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

THE HIGHER EDUCATION INSTITUTION CONTACT PERSON

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Phone number: +420 606941912

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Signature (Rector), stamp

Introductory information about the evaluated higher education institution

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

Maximum 500 words.

Description:

VETUNI is a research university focused on both theoretical and applied research in veterinary medicine, veterinary hygiene and ecology, animal protection and welfare, food safety and quality, and the veterinary aspects of gastronomy. Its academic staff are prominent authors of professional and scientific publications, monographs, university textbooks, patents, and other creative outputs. Scientific research is the primary and most prestigious activity of the academic staff, enabling them not only to pursue their creative ambitions but also to involve undergraduate and postgraduate students in these activities. This approach effectively integrates the University's creative and teaching environments.

VETUNI recognizes its unique position as the only university in the Czech Republic specializing in veterinary medicine, veterinary hygiene, and ecology. It also acknowledges its responsibility to advance scientific research, innovation, and development in these fields.

The University's vision is to conduct excellent research activities that meet European and international standards, supported by national and international grant projects. It aims to create optimal conditions for conducting high-quality research and achieving exceptional results. The University also aspires to become a sought-after and trusted innovation partner for commercial and academic entities in veterinary practice, agricultural production, and related industries.

The University of Veterinary Sciences Brno is managed by the Rector, who is supported by three Vice-Rectors: The Vice-Rector for Education, the Vice-Rector for Science, Research, and International Relations, and the Vice-Rector for Strategy and Development. The bursar oversees the university's economic and administrative operations, while the Chancellor manages its administrative agenda. Self-governing activities are conducted through the University's Academic Senate. Additionally, the University of Veterinary Sciences Brno operates under the guidance of the University Board, and educational and scientific activities are addressed by the University Scientific Board.

The University is organized into the rectorate, which includes various workplaces, and two faculties: The Faculty of Veterinary Medicine and the Faculty of Veterinary Hygiene and Ecology. As of 2024, the University of Veterinary Medicine Brno comprises 265 academic and scientific staff members, along with 2,198 students enrolled in various bachelor's and master's programs, and 102 doctoral students. The University includes two faculties: The Faculty of Veterinary Medicine and the Faculty of Veterinary Hygiene and Ecology, as well as the research unit CEITEC VETUNI.

SWOT ANALYSIS

Strengths

- tradition and unique position of the University within the Czech Republic
- strong international relations and background (students, cooperation)
- high standard of education in veterinary medicine, veterinary hygiene and ecology, safety and quality of food complying with the Directive 2005/36/EC on the recognition of professional qualifications and meeting other requirements set by European institutions on veterinary education, placing the University among the top third of veterinary universities in Europe,
- international recognition of veterinary study programs. In 2023, the University's veterinary programs underwent international re-evaluation by the European Association of Establishments for Veterinary Education (EAEVE) and Federation of Veterinarians of Europe (FVE), earning VETUNI Brno a place on the prestigious list of European veterinary universities,
- high level of interfaculty integration of education, particularly between veterinary faculties in foundational and preparatory subjects allowing for the concentration of critical resources — facilities, equipment, material, and staff— on specialized subjects, enhancing the quality of education and expertise,
- high demand for studies in all study programs at VETUNI Brno, with interest often far exceeding the available capacity.

Opportunities

- opportunities for cooperation with companies on applied research projects,
- a number of patients available for analysis and various research activities,
- establishment of a higher education institution
- strong interest in studying veterinary medicine, veterinary hygiene and ecology, safety and quality of food
- growing prospects for securing research grants and publishing research outcomes,
- participation in the CEITEC project enhances the University's research capacity and excellence in its specialized areas,

Weaknesses

- the absence of an HR award may cause insecurity among research staff, affecting their ability to plan and achieve their personal ambitions,
- low number of submitted research projects, especially those of international scope,
- insufficient publishing activity in Q1-Q2 journals
- uneven educational workload across departments and clinics at the faculties, resulting in unequal distribution of teaching responsibilities among the academic staff. This imbalance creates uneven conditions for conducting research and other academic activities among individual academic staff members.

Threats

- limited support of higher education in the Czech Republic's budget allocation, coupled with rising financial costs of high standard veterinary education, may threaten the quality of education at VETUNI Brno. With veterinary programs in Europe and U.S. receiving adequate funding, reduced normative funding in Czechia could jeopardize VETUNI Brno's prestigious position among the top third veterinary universities in Europe,
- changes in external conditions affecting VETUNI Brno may limit its ability to implement veterinary activities, offer English-language study programs for private students, organize

- participation in other research projects, opportunities of international research projects, - growing opportunities for mobility of students and academic staff, - expanding education in University's international summer schools, - increasing computerization of all the activities at VETUNI Brno, - increasing availability of informational resources for education, research and professional activity, - participation in MEYS' development projects and EU programs (mainly <i>Education for Competitiveness</i> and <i>RDI</i>), - developing regional cooperation through the Brno Centre of European Studies, South Moravian Innovation Centre, collaboration with the Brno City Council, South Moravia Region and local companies, - expanding professional cooperation with institutes of state administration, professional administration, organizations of professional interest at VETUNI Brno, and other companies, - developing international cooperation and increasing VETUNI Brno's involvement in international structures, EU in particular, - machine modernization through non-regulatory funding and EU sources (particularly investment programs), - construction modernization with support from MEYS and EU sources (specifically through investment programs).	paid lifelong learning, or participate in development projects and European structural funds. This could result in restricted funding for research processes at VETUNI Brno, - changes in European and national programs that reduce support for student and academic staff mobility could limit the internationalization of VETUNI Brno, - changes in the criteria for accessing European structural funds could prevent VETUNI Brno from obtaining EU financial support, excluding it from investment and non-investment modernization processes and limiting its competitiveness within the European university environment, - a significant increase in the range of outcomes required by law and other regulations in legal, management, economics, and administration areas from the University's funding providers could lead to an expansion of operations in legal matters, public procurement, investment construction and financial management. This may limit the University's ability to manage effectively, - challenges in managing legal and administrative changes— frequent and substantial changes to fundamental laws and other relevant legal norms, especially in legal matters, public procurements, investment construction, and the University's economic operations, pose significant management challenges. Additionally, expected reforms in higher education funding could further impact the University. The solution lies in strengthening the University's processes to ensure, primarily through laws and other required provisions, the achievement of legal, management, economic, and administrative outcomes.
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SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: The Faculty of Veterinary Medicine

FORD: 4 - Agriculture and veterinary sciences

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

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

Maximum 1000 words.

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

Self-assessment: The societal contribution of the Faculty of Veterinary Medicine lies in disseminating knowledge in veterinary medicine and promoting societal values that enhance regional, national, and international social environments. FVM VETUNI Brno collaborates with institutions, organizations, enterprises, and other entities operating in veterinary medicine, particularly those that can positively influence the advancement of research and professional activities beneficial to society.

The Faculty offers high-standard professional services, providing expert consultation to practitioners, engaging industry experts in its activities, and seeking their input to guide further development in creative, professional, and social endeavours. **Examples include:** Cooperation with state authorities, organizing training sessions and seminars for practitioners, collaborating with the private sector to address specific technological challenges or verify procedures, and commercializing creative outcomes in veterinary practice, particularly through utility models and certified methodologies. Additionally, the Faculty works with other educational and research institutions to provide professional events, as well as analytical and advisory services for veterinary practitioners and the general public.

In the field of research, the FVM primarily focuses on applied research projects, particularly those supported by the Grant Agency for Agricultural Research (NAZV), the Technology Agency of the Czech Republic (TAČR), and agencies of the Ministry of Industry and Trade (MIT). However, the Faculty has also been successful in securing basic research projects from the prestigious Czech Science Foundation (GAČR).

The Faculty is managed by the Dean within the executive department. The Dean is represented by Vice-Deans, including the Vice-Dean for Education, the Vice-Dean for Science, Research, and International Relations, and the Vice-Dean for Strategy and Development. The Secretary oversees the economic and administrative operations of the Faculty. Self-governing activities are conducted through the Faculty's Academic Senate, while matters related to education and scientific activities are addressed by the Faculty's Scientific Council. For effective faculty management, the Dean establishes advisory bodies,

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

primarily the Dean's College, along with other expert committees serving as advisory bodies. The Dean's Office handles the administrative operations of the Faculty.

The Faculty employs an average of 250 staff members, of which approximately 100 are involved in teaching and research activities.

The category of "Early Career Researchers" includes researchers within 8 years of completing their PhD studies. This category listed in the attached tables includes only pure researchers. If we also include academics involved in research activities in this category, it is estimated to represent approximately 10% of all faculty staff.

The category "Other scientific, research and development personnel" includes by definition, researchers who participate in research activities only by, for example, operating specialized equipment. This category is not represented at FVM; the equipment is operated by academic or research workers from other categories.

Regarding the category "Scientific, research and development staff involved in teaching activities", it should be noted that research and teaching activities at the university are closely linked. Every academic worker is involved in research activities and similarly every researcher is involved in teaching in some way.

In 2023, a total of 1,198 students were enrolled at the Faculty, including 1,036 students in the Master's programme in Veterinary Medicine, which is the Faculty's primary field of study. Additionally, 43 students were enrolled in the newly established Bachelor's programme, "Veterinary Assistant," and 119 students were pursuing doctoral programmes.

The Veterinary Medicine and PhD programmes are also offered in English for self-paying students from various European countries (France, Cyprus, Greece) as well as Israel.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	14.782/3.016	14.325/2.810	13.333/2.600	11.928/2.600	12.902/2.836	13.454/2.772
Associate Professor	8.958/1.000	9.308/1.000	10.300/1.000	10.270/1.047	10.138/1.084	9.794/1.026
Assistant Professor	50.546/30.817	56.634/35.112	62.913/40.022	61.797/39.208	60.907/39.728	292.797/36.977
Assistant	19.234/11.634	28.063/19.772	22.074/15.624	14.950/10.712	12.578/8.904	19.379/13.329
R&D Personnel ³	0/0	0/0	0/0	0/0	0/0	0/0
Researchers in other categories ⁴	6.502/4.902	3.976/2.817	2.150/1.650	1.897/1.297	3.15/2.1	3.535/2.553
Technical and economic staff ⁵	138.707/114.786	128.503/109.099	123.449/103.991	129.574/108.028	130.08/107.476	130.062/108.676
Scientific, research and development	6.502/4.902	3.976/2.817	2.150/1.650	1.897/1.297	3.15/2.1	3.535/2.553

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.

staff involved in teaching activities						
Early career researchers ⁶	6.502/4.902	3.976/2.917	2.100/1.500	1.790/1.097	3.15/2.1	3.503/2.503
Total ⁷	238.729/166.155	240.809/170.610	234.219/164.887	230.416/162.892	229.755/162.128	234.785/165.334

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

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

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	1	1	3	0	9	2	5	0
Associate Professor	0	0	0	0	3	0	3	1	3	0	2	0
Assistant Professor	0	0	28	21	20	9	11	7	5	2	0	0
Assistant	5	5	15	8	4	2	6	1	3	1	1	1
R&D Personnel ⁹	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	2	2	4	4	1	1	0	0	0	0	0	0
Technical and economic staff ¹¹	28	20	13	9	43	37	37	33	16	13	4	4
Scientific, research and development staff involved in teaching activities	2	2	4	4	1	1	0	0	0	0	0	0
Early career researcher ¹²	2	2	4	4	0	0	0	0	0	0	0	0
Total ¹³	35	27	60	43	72	50	60	42	36	18	12	5

⁶ See Definition of Terms in Methodology HEI2025+.

⁷ The total is the sum of categories professor, associate professor, assistant professor, assistant, other scientific, research and development staff, and scientific staff, not falling into 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 The total staff count comprises the following categories: professors, associate professors, assistant professors, assistants, other scientific, research, and development staff, scientific personnel not classified under other categories, and technical and economic staff.

Note: The categories professor, associate professor, assistant professor, assistant, other scientific, R&D Personnel, Researchers in other categories and Technical and economic staff are mutually exclusive, i.e. one staff member is reported 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)¹⁹

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.

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	0	0	3	1	5	1	7	1
Associate Professor	0	0	0	0	3	0	3	1	3	0	2	0
Assistant Professor	0	0	23	16	32	20	10	5	7	5	0	0
Assistant	0	0	9	7	3	1	8	2	0	0	2	1
R&D Personnel ¹⁴	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁵	1	1	2	1	1	1	0	0	0	0	0	0
Technical and economic staff ¹⁶	25	23	16	11	40	33	34	28	22	18	4	4
Scientific, research and development staff involved in teaching activities	1	1	2	1	1	1	0	0	0	0	0	0
Early career researcher ¹⁷	1	1	2	1	0	0	0	0	0	0	0	0
Total ¹⁸	26	24	50	35	79	55	58	37	37	24	15	6

¹⁴ 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).

¹⁵ 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).

¹⁶ Who participates in the management and support of R&D&I in the institution.

¹⁷ See Definition of Terms in Methodology HEI2025+.

¹⁸ 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.

¹⁹ 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.

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	0	0	0	0	0	0	66	58	119	112	185	170
Master's ²⁰	897	757	904	767	889	750	968	821	1036	890	4694	3985
Doctoral	58	45	66	53	64	51	61	45	43	29	292	223
Lifelong Learning Courses	0	0	386	0	731	0	523	0	699	0	2339	0
Total	955	802	1356	820	1684	801	1618	924	1897	1031	7510	4378

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	-	-	-	-	-	-	-	1/0	-	1/0	-	1/0
Master's	1/1	-	2/2	-	2/2	-	2/2	-	2/2	-	2/2	-
Doctoral	13/10	-	19/11	-	19/11	-	19/11	-	20/12	-	20/12	-
Lifelong Learning courses	9/0	-	9/0	-	11/0	-	8/0	-	9/0	-	46/0	-
Total	14/11	-	21/13	-	21/13	-	21/13	-	22/14	-	69/14	1/0

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

3.1.6 – R&D&I capacities

R&D&I field	FORD	FORD share [%]	Predominant type of research	Total share of industry group [%]
1. Natural Sciences	1.1 Mathematics		Zvolte položku.	12
	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.	

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

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

	1.6 Biological sciences	12	Basic Research	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	1
	2.2 Electrical engineering, Electronic engineering, Information engineering		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	1	Basic Research	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine	6	Zvolte položku.	8
	3.2 Clinical medicine	2	Basic Research	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	79
	4.2 Animal and Dairy science	1	Balanced basic and applied research	
	4.3 Veterinary science	78	Balanced basic and applied research	
	4.4 Other agricultural sciences		Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	0
	5.2 Economics and Business		Zvolte položku.	

	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	0
	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: During the period under review, the Faculty demonstrated significant activity in the field of R&D&I, earning recognition from the scientific community. This is evidenced by numerous invited lectures delivered by academic staff at foreign universities, conferences, and other professional events.

Faculty members have also served, or continue to serve, on editorial boards of international scientific journals, hold elected memberships in professional societies, and participate in the evaluation of R&D&I outcomes through research project and programme calls.

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
Clinic of diseases of birds, reptiles and small mammals	Silver Rabbit Friendly – Rabbit Welfare Association and Fund Award	Rabbit Welfare Association and Fund
Eva Matalová, prof. RNDr., Ph.D.	Commemorative bronze medal on the 100th Anniversary of Masaryk University	Masaryk University Brno
MVDr. Miloš Vávra, Ph.D.	Medica Veterinaria Award for Publications	Medica Veterinaria Veterinary Doctors Chamber
MVDr. Eva Šamonilová, Ph.D.	Medica Veterinaria Award for a publication in the Equine Diseases	Medica Veterinaria Veterinary Doctors Chamber
MVDr. Michaela Kolečkářová, Ph.D.	Medica Veterinaria award for publication in Diseases of pet animals and zoo animals	Medica Veterinaria Veterinary Doctors Chamber
MVDr. Romana Kadek, Ph.D.	Medica Veterinaria Award for publication in Diseases of livestock	Medica Veterinaria Veterinary Doctors Chamber

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

Name, surname and title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
Vladimír Celer, Prof. MVDr. Ph.D.	Acta Veterinaria Brno, printed 0001-7213, 1801-7576 (electronic)
Vladimír Celer, Prof. MVDr. Ph.D.	Folia Veterinaria, ISSN, 0015-5748
Petr Hořín, Prof. MVDr. et RNDr., CSc.	BMC Genomics, ISSN: 1471-2164, Editor
Petr Hořín, Prof. MVDr. et RNDr., CSc.	Frontiers in Immunology, ISSN: 1664-3224, Review Editor
Petr Hořín, Prof. MVDr. et RNDr., CSc.	Frontiers in Genetics, ISSN: 1664-8021, Review Editor
Petr Hořín, Prof. MVDr. et RNDr., CSc.	Frontiers in Veterinary Science: ISSN: 2297-1769

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. MVDr. Zdeněk Knotek, CSc., Dipl. ECZM	Exotic Pets 1: Methods of Diagnostic Imaging and Clinical Cardiology – reptiles, birds	ESAVS Asia	2023
MVDr. Hana Černochová, Ph.D.	Exotic Pets 1: Methods of Diagnostic Imaging and Clinical Cardiology – small mammals	ESAVS Asia	2023
Prof. MVDr. Zdeněk Knotek, CSc., Dipl. ECZM	Exotic Pets 2: Anaesthesia, Analgesia, Surgery, Endoscopy – reptiles	ESAVS Asia	2023
Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Small Mammal Dentistry – most common problems and how to address them	Congress and 26th FECAVA Eurocongress. 21-24 March	2021
Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Diagnostische Abbildung des Schädels und der Zähne. Dentalchirurgische Techniken bei Nagetieren und Frettchen. Veterinärkurs Medizin der kleinen Heimtiere. Praxismodul	ISVPS General Practitioner Certificate (GPCert). Improve International, Frankfurt, Germany	2023
Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Gastrointestinal tract surgery in small mammals	FAUNA – Núcleo de Animais Exóticos, Selvagens e Silvestres da FMV-U Lisboa, Portugal	2023
Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Respiratory diseases in small mammals	ODJEL VETERINARA MALE PRAKSE HRVATSKE, Zadar, Croatia	2023

Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Analgesia in patients with dental disease (local and systemic) “Small Mammal Dentistry”	ESAVS Course “Small Mammal Dentistry”. ESAVS, Dublin, Ireland	2023
Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Ear surgery in small companion mammals	SIVAE (Società Italiana Veterinaria per Animali Esotici) and ISVPS (International School of Veterinary Postgraduate Studies), Cremona, Italy	2021
Doc. MVDr. Vladimír Jekl, Ph.D., DipECZM	Masterclass: Radiography and computed tomography in guinea pigs	Danish Veterinary Conference (DDD Arsmode), Nyborg, Denmark	2022

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the lecturer	Lecturer’s employer at the time of the lecture	Invited lecture title	Year
DVM. Steve B. Thompson, DABVP-Canine and Feline Practice	Purdue University, College of Veterinary Medicine, USA	Clinical approach to geriatric canine patients	2023
Pogranichniy, R.M. Prof., DVM.	College of Veterinary Medicine, Kansas State University	Veterinary diagnostic and detection of SARS-cov-2 virus in animals	2023

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the evaluated unit’s staff member	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	Year
Vladimír Celer, Prof. MVDr. Ph.D.	Prostředí pro život 5	National Agency for Agricultural Research	2021
Vladimír Celer, Prof. MVDr. Ph.D.	VS Země II	National Agency for Agricultural Research	2023
Vladimír Celer, Prof. MVDr. Ph.D.	Země 6	National Agency for Agricultural Research	2022
Vladimír Celer, Prof. MVDr. Ph.D.	Země 4	National Agency for Agricultural Research	2020
Vladimír Celer, Prof. MVDr. Ph.D.	Země 5	National Agency for Agricultural Research	2021
Vladimír Celer, Prof. MVDr. Ph.D.	Trend 10	National Agency for Agricultural Research	2023
Vladimír Celer, Prof. MVDr. Ph.D.	Trend 12	National Agency for Agricultural Research	2024
Vladimír Celer, Prof. MVDr. Ph.D.	Trend 8	National Agency for Agricultural Research	2022

RESEARCH PROJECTS

3.3 Research projects

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

Maximum 300 words per project.

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

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

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

Self-assessment: list a maximum of 10 projects (public or contract research) for the period 2019–2023

GACR Project – Novel physiological functions of pro-apoptotic cysteine proteases in endochondral ossification (2019–2021)

The project was conceived in cooperation between VETUNI and the Institute of Animal Physiology and Genetics CAS, where the main investigator was an expert from France, who has been cooperating with both institutes for a long time. The project team included students and young researchers.

The professional framework covered the growth plate of long bones and chondrogenesis. The specific focus was on novel functions of caspases, cysteine proteases traditionally associated with apoptosis and inflammation. The project yielded results on the impact of caspase inhibition on chondrogenesis, including key markers and cartilage nodule morphogenesis in microarray cultures. Follow-up research focused on specifying the functions of individual caspases, particularly apical caspases. The research identified novel functions of caspase-1 and caspase-9 in physiological chondrogenesis. The application potential is particularly relevant to osteoarthritis, where caspase-1 plays an important role and is one of the targets of therapeutic strategies.

The main achieved results were summarized in four original scientific articles, which were published in journals with IF category Q1. The results, including the project dedication, were also reflected in the dissertation of the doctoral student, who, after successful completion of her studies, continues her research at a foreign university and further develops international cooperation established at VETUNI Brno.

GACR Project – Physiological properties and functions of dentition related stem cells with focus on in vivo context (2021–2023)

The project was implemented within the long-term cooperation of VETUNI with the Institute of Animal Physiology and Genetics of the CAS. The international cooperation was supported by the principal investigator of the project, whose home institution is King's College London. The co-investigators were linked to VETUNI and also to the Faculty of Medicine of MUNI. A number of tribal students and early career researchers were involved, and supporting their career development was part of the project's aims.

The main research area has been stem cells, which are generally an attractive means of achieving therapeutic goals. In relation to the dentition, their in vitro characterization has been mainly carried out so far. The aim of the project research was to contribute knowledge in an in vivo context, which is essential for medical applications. The strategy focused on two types of stem cells, namely dental pulp cells and periodontal ligament cells, using a range of advanced techniques such as transcriptomics at the single cell level, proteomics, high-resolution spatiotemporal analysis and specific mapping of cells and their populations.

With the dedication of the project, ten articles were published in journals with IF of above-average quality (including Nature Communications, eLife). The results document the evolutionary dynamics of stem cell markers, their localization and novel metabolic aspects, and point towards the possibility of regeneration. The applicability of the results in the management of periodontal disease is also demonstrated by other publications, e.g. in the Journal of Translational Medicine.

NAZV Project "The influence of the level of livestock management and prevention of diseases, including biosecurity, on the reduction of antimicrobials usage and the spread of antimicrobial resistance"

The project was implemented at VETUNI in the position of co-principal investigator with the main investigator being the Institute of Animal Science, Praha Uhřetěves. The intangible result of the project is a total of **four certified methodologies**, forming an original set of related methodologies enabling a comprehensive assessment of the impact of breeding management, biosecurity and the level of immunoprophylaxis on antibiotic consumption, the emergence and spread of antibiotic resistance. One of the methodologies includes a guide to antibiotic selection for the treatment of bacterial diseases in livestock, which is unique in the Czech Republic and is intended primarily for the needs of practising veterinarians. All methodologies are intended for livestock (cattle, pig and

poultry) breeders in the Czech Republic, breeders' associations, state administration authorities through the Ministry of Agriculture and the State Veterinary Administration of the Czech Republic, as well as private veterinarians working in livestock farms. The methodologies are available on the websites of the Ministry of Agriculture of the Czech Republic, the Research Institute of Animal Production and VETUNI.

TACR Project "Development of an anti-methanogenic feed supplement to mitigate the environmental impact of livestock farming"

The aim of this phase of the project was to verify the effect of the addition of selected bioactive antimethanogenic components (macroalgae *Asparagopsis taxiformis* and plant tannins – a) tannin from the bark of willow-leaf red quebracho (*Schinopsis balanceae*), b) tannin from sweet chestnut (*Castanea sativa*)) to the diet of high-producing dairy cows on methane emission.

The project was solved in cooperation with the project partner MIKROP Čebín, a.s. One of the results was a functional sample of feed premix for ruminants. The effect was experimentally verified in pilot in vivo experiments on cattle.

NAZV Project "Preventive measures towards restricted and rational use of antibiotics in broiler production in the Czech Republic"

The result of the project in cooperation between VETUNI and the Veterinary Research Institute is

- 1) a functional sample of a probiotic preparation composed of 11 different bacteria, namely *Bacteroides caecigallinarum*, *Bacteroides gallinaceum*, *Bacteroides mediterraneensis*, *Bacteroides salanitronis*, *Mediterranea massiliensis*, *Megamonas funiformis*, *Megamonas hypermegale*, *Megasphaera stantonii*, *Megasphaera elsdenii*, *Lactobacillus aviarius* and *Lactobacillus ingluviei*. This mixture, when administered orally to day-old chicks, significantly reduces their colonisation with *E. coli*. The probiotic product reduces the incidence of avian pathogenic *E. coli* when administered to chicks from hatcheries in the first days of life, thus reducing farm mortalities in the first days after stocking. An invention and utility model application are currently filed with the Industrial Property Office.
- 2) In addition, a (ii) certified methodology approved by the competent State Administration (Active monitoring of serious *E. coli* clones in parent breeding, hatcheries and productive meat poultry farms) was developed and validated. The methodology provides a procedure that can be used to actively monitor the presence of epidemiologically relevant *E. coli* clones in the production pyramid of meat poultry. Knowledge of the occurrence of such clones in parent breeding, hatcheries and production breeds is an important prerequisite for the implementation of preventive and prophylactic programmes to control economically important co-infections in meat poultry.

Ministry of Industry and Trade Project "Research of recombinant protein for immunoprophylaxis of pigs against circovirus disease"

The project was implemented at VETUNI, the main investigator, in cooperation with Bioveta a.s. as a co-investigator. The result of the project was a validated technology for the production of a recombinant vaccine against porcine circovirus disease. The vaccine is currently in the clinical trials stage. This is an applied research project with a focus on obtaining a result with the potential for commercialization.

TACR Project "The development of a rabbit plague vaccine based on recombinant technologies"

The project has been implemented since 2023 at VETUNI, which is the main investigator. Bioveta a.s. is the co-investigator. The project will result in a VLP vaccine against haemorrhagic disease in rabbits and an ELISA test for the detection of antibodies against RHD in rabbits. Currently, the research team has developed a recombinant antigen for the development of the ELISA test, followed by the development of the VLP vaccine in the next phase.

Table 3.3.1 – Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Czech Science Foundation (GACR)	Novel physiological functions of pro-apoptotic cysteine proteases in endochondral ossification	2491/98.3	2491/98.3	2491/98.3	0/0	0/0
Total		2491/98,3	2491/98.3	2491/98.3	0/0	0/0
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Czech Science Foundation (GACR)	The role of urban wildlife in the circulation of vector-borne zoonotic pathogens with emphasis on Anaplasma phagocytophilum	959/37.8	0/0	0/0	0/0	0/0
Czech Science Foundation (GACR)	Epidemiology and pathological effects of gastrointestinal helminthiases in critically endangered mountain gorillas	1183/46.7	924/36.5	0/0	0/0	0/0
Agency for Health Research of the Czech Republic (AZV)	Functionalized nanofibers for prevention of incisional hernia formation	761/30	769/30.3	0/0	0/0	0/0
Agency for Health Research of the Czech Republic (AZV)	Bones, tendons and ligaments extent defects healing with using of new biomaterials	1252/49.4	0/0	0/0	0/0	0/0
Agency for Health	Functionalized nanofibres for	646/25.5	0/0	0/0	0/0	0/0

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

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

²⁷ Ibid.

Research of the Czech Republic (AZV)	external coating of colorectal anastomoses					
Ministry of Industry and Trade	Research of recombinant protein for immunoprophylaxis of pigs against circovirus disease	1000/39.4	500/19.7	0/0	0/0	0/0
Ministry of Industry and Trade	Immunoprophylaxis of equine leptospirosis	1000/39.4	500/19.7	0/0	0/0	0/0
National Agency for Agricultural Research/VV V	Study of the prevalence of influenza C and D in cattle in the Czech Republic	60/2.4	0/0	0/0	0/0	0/0
MGVP-USFWS	Evaluation of parasitic infections involved in mortalities of mountain gorillas of Virunga Massif using advanced genomic	0/0	633/25	0/0	0/0	0/0
Czech Science Foundation (GACR)	Physiological properties and functions of dentition related stem cells with focus on in vivo context	0/0	0/0	1074/42.3	1084/42.7	1171/46.2
National Agency for Agricultural Research (NAZV)	The influence of the level of livestock management and prevention of diseases, including biosecurity, on the reduction of antimicrobials usage and the spread of antimicrobial resistance	0/0	0/0	965/38.1	965/38.1	965/38.1
National Agency for Agricultural Research (NAZV)	Preventive measures towards restricted and rational use of antibiotics in broiler production	0/0	0/0	0/0	983/38.8	983/38.8

	in the Czech Republic					
Technology Agency of the Czech Republic (TACR)	The development of a rabbit plague vaccine based on recombinant technologies	0/0	0/0	0/0	0/0	1125/44.3
Technology Agency of the Czech Republic (TACR)	Development of an anti-methanogenic feed supplement to mitigate the environmental impact of livestock farming	0/0	0/0	0/0	0/0	1007/39.7
Total		6861/270.6	3326/131.2	2039/80.4	3032/119.6	5251/207.1

Table 3.3.2 – Contract research activities

Client ²⁸	Activity name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
GATT	Evaluation of the haemostatic effect (time to achieve haemostasis) and comparison of the properties of different hemostatic materials	182/7.2	0/0	0/0	0/0	0/0
USFWS (USA)	Evaluation of parasitic infections involved in mortalities of mountain gorillas of Viruga Massif using advanced genomics	753/29.7	0/0	0/0	0/0	0/0
SurGal Clinic s.r.o. Brno	Anti-adhesive effect of Hyalobarrier Gel/Endo and 4 DryField PH in doe-rabbit reproductive organ surgery	0/0	0/0	447/17.6	0/0	0/0
Charles University in Prague, 1st Faculty of Medicine	Verification of the effect of nanofibrous materials in combination with antibiotics and/or antioxidants on healing of acute wounds and infected wounds	0/0	0/0	393/15.5	0/0	0/0
Total		935/36.9	0/0	840/33.1	0/0	0/0

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

Note: List and describe contract research activities with a revenue in a given calendar year.

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts²⁹, on society (e.g. description of how the results are used by various users, the range of persons/institutions for which the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

CELER V, KOLAŘOVÁ BD: Functional sample: ELISA kit for the detection of ASFV C-type lectin protein-specific antibodies in swine serum. VETUNI, 2021, ISBN: 978-80-7305-868-5.

The project analysed other candidate proteins suitable for ASFV vaccine development, in particular the C-type lectin protein of the virus. The aim of the work was to identify antigenic regions in the structure of C-type lectin protein by comparing in-silico and pepscan analysis of this protein. Regions of the protein with antigenic properties were identified by in silico analysis. Furthermore, peptides covering the entire length of the C-type lectin protein were designed and synthesized. Their serological reactivity was tested on a set of sera from African swine fever virus-positive pigs. According to our experiments, the C-type lectin protein appears to be a suitable candidate not only for a protein of relevance in the serological diagnosis of the virus but also for a subunit vaccine against African swine fever. The functional sample represents a functional ELISA detecting antibodies directed against the C-type lectin protein of the virus.

ČECH S, ANDRLÍKOVÁ M, KOS V, MARKOVÁ B, ŠTENCLOVÁ L: Intrafollicular oocyte transfer in cattle. Certified methodology, 14 pages, 2021. ISBN 978-80-7305-788-6, No. MZE-67432/2021-18141 The methodology of intrafollicular oocyte transfer is intended primarily for departments dealing with assisted reproduction techniques in large animals. The methodology will be used in research to monitor the properties of embryos derived by IFOT in comparison with embryos produced in vivo or in vitro as well as in the study of oocyte maturation. The methodology is primarily intended for cattle, but can also be applied to other large animal species (horses, exotic animals).

RYCHLÍK I, FALDYNNOVÁ M, KUBASOVÁ T, VOLF J, JUŘICOVÁ H, MATIAŠOVICOVÁ J, KARASOVÁ D, CRHÁNOVÁ M, ŠEBKOVÁ A, SEIDLEROVÁ Z, ČÍŽEK A: Utility model: Probiotic preparation for poultry. Veterinary Research Institute, Brno, 2021. Model No.: CZ 35185 U1

Currently already in the pilot phase of sales to customers.

NOVÁK P, MALÁ G, PRÁŠEK J, SMOLA J. Evaluation of the impact of livestock management on antimicrobial consumption in livestock farms. Institute of Animal Science in Uhřetěves and at VETUNI Brno, Czech Republic. Certified methodology 978-80-7403-279-0. The methodology received certificate No. Mze-73088/2022-13141 of 29 Dec 2022. (The methodology provides users with a proposal of critical control points that directly affect health status, production and reproduction indicators, which can be used in a comprehensive assessment of the impact of livestock management (cattle, small ruminants, pigs, poultry) on the emergence and spread of antimicrobial resistance. In each farm, it is necessary to focus on these critical control points when analysing the level of management with a view to maintaining and progressively improving the

²⁹ See Terms definition.

health status of the animals kept and reducing the amount of antimicrobials used, while at the same time reducing the potential risk of the emergence and spread of antimicrobial resistance.)

SMOLA J, PRÁŠEK J, NOVÁK P, MALÁ G. Choices of antimicrobial agents for the rational treatment of infectious diseases in livestock (cattle, pigs and poultry). The project was collaborated by the Institute of Animal Science in Uhřetěves and at VETUNI Brno. Certified methodology 978-80-7403-284-4. The methodology received certificate No. Mze-73088/2022-13141 of 29 Dec 2022. (The methodology provides users with a simple guide to antibiotic choices for food animals, which can be adapted over time to meet the current needs of veterinary practitioners working in cattle, pig and poultry farms as new measures and regulations are introduced. In this form, the methodology creates the preconditions for a systematic approach to addressing the current challenges of antibiotic policy in veterinary practice with the aim of reducing the consumption of antibiotics while maintaining the ability to use them rationally in order to restore the health of sick animals and improve the welfare of livestock.)

NOVÁK P, MALÁ G, PRÁŠEK J, SMOLA J: Certified methodology: Evaluation of the impact of biosecurity on antimicrobial consumption in livestock farms, 2023, 56pp. (NAZV QK21020304) (The methodology is primarily intended for all livestock breeders in the Czech Republic, breeders' associations, state administration authorities through the Ministry of Agriculture and the State Veterinary Administration, private veterinarians, regional information centres, agricultural advisors including the professional public and other interested parties. The content of the methodology is also intended for inclusion in syllabuses and teaching texts for secondary vocational schools and universities with a veterinary and agricultural focus.)

SMOLA J, NOVÁK P, PRÁŠEK J, MALÁ G: Certified methodology: Evaluation of the effect of prophylaxis on antimicrobial consumption in livestock farms, 2023, 34pp. (NAZV QK21020304) (The methodology is primarily intended for the authorities of the State Veterinary Administration as a part of epidemiological surveillance, and also for practising veterinarians working in livestock farms, because only they, in cooperation with the breeder, can design and implement disease prevention and control programmes based on the monitoring of the level of health and disease incidence, so as to achieve a trend towards a gradual reduction in the consumption of antimicrobials while maintaining the quality of treatment and the level of welfare. The methodology is a concise guide for evaluating a comprehensive system that includes monitoring the incidence of infectious diseases using epidemiological methods such as surveillance, incidence and prevalence. The very valuable data and information thus obtained are used to analyse and evaluate herd health levels and to consider the design and implementation of disease control programmes, including the use of strategic immunoprophylaxis. It is anticipated that the methodology will be applied in collaboration with practising veterinarians working in cattle, pig, chicken and turkey farms. The methodology will be used by veterinarians where there is mutual agreement with the farmer, who must decide to what extent they are able to implement and comply with the proposed disease prevention and control programmes, including their economic feasibility. The content of the methodology is also intended for inclusion in syllabuses for teaching as well as in teaching texts for secondary vocational schools and universities with a veterinary and agricultural focus.)

ÚLEHLOVÁ Z, CELER V, POJEZDAL L, MATĚJČKOVÁ K, FALDYNA M: Functional sample – ELISA test for the detection of antibodies to L725 protein of Acanthamoeba polyphaga mimivirus in fish sera, 2023, 16pp. (ELISA test for the detection of antibodies to L725 protein of APMV can be used in diagnostic laboratories to analyse the disease situation in fish farms, but also in other animals. Further application of the functional sample is in the research field.)

Within the framework of the QK22020066 grant called "Preventive measures towards the restricted and rational use of antibiotics in broiler production in the Czech Republic", the intellectual property subject "**Probiotic preparation for the protection of the appendix mucosa of poultry and its use**" was created. Two institutions – VETUNI and the Veterinary Research Institute – participated

in the creation of the result. Currently, an invention and utility model application has been filed with the Industrial Property Office.

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

Type of result ³⁰	Year of application	Name
Functional sample	2021	ELISA kit for the detection of ASFV C-type lectin protein-specific antibodies in swine serum.
Certified methodology	2021	Intrafollicular oocyte transfer in cattle
Utility model	2021	Probiotic preparation for poultry
Certified methodology	2022	Evaluation of the impact of livestock management on antimicrobial consumption in livestock farms
Certified methodology	2022	Choices of antimicrobial agents for the rational treatment of infectious diseases in livestock (cattle, pigs and poultry)
Certified methodology	2023	Evaluation of the impact of biosecurity on antimicrobial consumption in livestock farms
Certified methodology	2023	Evaluation of the effect of prophylaxis on antimicrobial consumption in livestock farms
Functional sample	2023	ELISA test for the detection of antibodies to L725 protein of Acanthamoeba polyphaga mimivirus in fish sera

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 a 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 commercialisation.

Self-assessment: The Faculty of Veterinary Medicine VETUNI Brno cooperates with institutions, organizations, enterprises and other entities active in veterinary medicine, especially those that can positively influence the future direction of research and professional activities.

FVM provides professional services of a high professional standard, expert advice for practice subjects, and involves practitioners in the activities of the faculty.

Examples include:

- cooperation with state authorities – commenting on legislation based on the results of creative activities
- training and seminars for practitioners
- cooperation with the private sector in solving specific problems (counselling and consultation)
- validation of procedures and creative results in veterinary practice, in particular in the form of utility models and certified methodologies
- cooperation with other educational and research institutions

Concerning the Faculty of Veterinary Medicine, cooperation with the Veterinary Doctors Chamber of the Czech Republic, which organises private veterinarians and where the vast majority of the Faculty's graduates find their employment, is important. FVM cooperates with private veterinarians. The participation of their representatives in the Faculty's Scientific Council is an important contribution of the application sphere to the development and implementation of study programmes, including doctoral programmes, and also to the discussion of the Faculty's research priorities. The Faculty currently does not have financial resources obtained by commercialisation of research results (spin-offs, licenses, etc.) but focuses on the provision of veterinary services. The funds obtained are then partially reinvested in the development of research activities.

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

Type of revenue	Revenue (in thousands CZK/EUR)				
	2019	2020	2021	2022	2023
-					
-					
-					
Total	0	0	0	0	0

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.

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.

POPULARIZATION OF R&D&I

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 has long been promoting its activities and achievements in science, research and innovation and communicating with the general public. These activities and the popularisation of R&D&I outputs are carried out by publishing the results in the press, on the Internet, on the University's website, in the form of press releases and invitations to the media, as well as by giving interviews to academic staff and students on television or radio and through the communication of the External Relations Department with the general public. Examples of R&D&I publicity and communication with the general public (newspapers, press releases, television, radio):

- The university built a simulation centre for future veterinarians (Novinky.cz; presentation of a modern teaching centre on animal models, practical teaching of students – practising common and more demanding procedures on models before practical teaching on live patients)
- Chipping turtles is cruelty, don't do it, vets warn (Novinky.cz; educating the general public and pet owners)
- Veterinarians in Brno implanted special corpuscles into the eye of a sick horse (Czech Radio Brno; presentation of the therapy of an interesting patient case)
- Strengthening of excellent research at the University (Vědavyzkum.cz; presentation of strategic plans for educational, creative and other activities of VETUNI Brno)
- Snakes at the Brno Lake suffer from a skin disease. Scientists are finding out what effect it has on their population (Czech Television; general public education)
- Having eaten a stone, a dog saved its life (Novinky.cz; presentation of a surgical procedure in an interesting case of a patient)
- From elephant to bee. Brno experts study animal diseases in a new pavilion (Czech Television; presentation of new premises and animal research)
- Hedgehog started to curl up into a ball during surgery, says animal surgeon (iDnes; education of the general public, presentation of surgical procedures)

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 in the International Evaluation Panel Evaluation Report in the previous evaluation period 2019–2023, if the university was evaluated in the previous period.

Maximum 1,000 words.

Academic researchers benefit from guidance in understanding the mechanisms of transferring their knowledge and discoveries to products and procedures that aid human and animal health. Information coming from academic institutions may be discounted in its marketable value or broad appeal. An idea that may first seem a limited aspect of a field of disease and treatment can prove pivotal in the development of a successful commercial enterprise. Alternatively, an idea may be academically unique and interesting but may not have significant commercial utility. Offering seminars, lectures or workshops with examples of how ideas become products can encourage researchers to keep technology transfer concepts in the universities culture and consciousness throughout the inventive process. This, in turn, will encourage future opportunities for successful commercial enterprises.

Faculty researchers were successful in obtaining projects from grant calls focused on applied research. As a result, several certified methodologies or proven technologies have been transferred to users and contracts for their use, including commercialisation, have been signed.

*Within the framework of QK22020066 project called "Preventive measures towards restricted and rational use of antibiotics in broiler production in the Czech Republic", the intellectual property subject **"Probiotic preparation for the protection of the appendix mucosa of poultry and its use"** was created. Two institutions – VETUNI and the Veterinary Research Institute – participated in the creation of the result. Currently, an invention and utility model application has been filed with the Industrial Property Office. Commercialisation of the product is planned in this case as well.*

Being the only veterinary school of the country located close to veterinary schools in neighbour, countries participation in international research projects, included EU-funded ones is recommended.

In the period under review, the faculty was involved in one international project. It was the collaborative project between FVM and the U.S. Fish and Wildlife Service "Evaluation of parasitic infections involved in mortalities of mountain gorillas of Virunga Massif using advanced genomic".

Another interesting collaboration was contract research concluded with GATT Technologies BV (Netherlands) on the development of hemostatic materials. In addition to the financial profit, the cooperation offers opportunities for further continuation of the topic in the future.

The faculty also cooperates with neighbouring universities in Central Europe, this cooperation takes place mainly on the basis of student exchanges, summer schools, and regular meetings of faculty and university managements within project VetNEST, involving all veterinary universities and faculties in Central Europe.

A LIST OF SUPPORTING DOCUMENTS/LINKS

Document name	No. criteria	Location (link in HTML)

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: Faculty of Veterinary Hygiene and Ecology

FORD: 4 - Agriculture and veterinary sciences

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

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

Maximum 1000 words.

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

Self-assessment:

The mission of the FVHE Veterinary University Brno (VETUNI) is to implement university education, creative and professional activities in the field of veterinary hygiene and ecology, animal protection and welfare, food safety and quality, veterinary protection of public health, protection of wildlife health, and further to fulfil the university's social mission and to carry out other activities which fulfil the mission of the FVHE VETUNI as an academic institution.

The strategic goal of FVHE VETUNI is to develop its status as an internationally recognized university institution with a specific professional focus on veterinary hygiene and ecology, animal protection and welfare, food safety and quality, veterinary public health protection and wildlife health protection, providing high quality education, implementing excellent science, research and other creative activities and carrying out professional activities at the highest level, fulfilling the role of a socially active faculty and acting as an internationally open faculty and as a faculty cooperating with professional practice, asserting itself in the national and European higher education space, possessing an academic environment and values, using knowledge-based qualified management and efficient financing, and modernising its building, technological and instrumental facilities to a level corresponding to the current requirements of similar university institutions in developed countries.

From both the national and the international perspective, the faculty enjoys an excellent position. It is one of the two faculties providing veterinary education in the Czech Republic and with its current level of education, science and research, its provision of professional veterinary activities, its position in the veterinary community and its tradition, it is considered an exceptional institution within the

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

Czech and international higher education system, especially within veterinary education. FVHE focuses on applied or contract research. FVHE carries out its creative activities by addressing grants from grant agencies (especially the Grant Agency of the Czech Republic, the National Agency of Agricultural Research, the Agency of Medical Research of the Czech Republic, the Ministry of the Interior, the Technology Agency of the Czech Republic).

At the executive department, the faculty is managed by the Dean. The Dean is represented by the Vice-Deans—the Vice-Dean for Education, the Vice-Dean for Science, Research and Foreign relations, and the Vice-Dean for Strategy and Development. The Secretary manages the economic and administrative operation of the faculty. Self-governing activities at the faculty are carried out through the faculty's Academic Senate. Issues related to educational and scientific activities are discussed at the faculty's Scientific Council. For the purpose of effective management of the faculty, the Dean establishes advisory bodies of the Dean, in particular the Dean's College; other advisory bodies of the Dean are the expert committees. The administrative activities of the faculty are carried out by the Dean's Office.

FVHE currently implements 4 bachelor study programmes (2 of which are also in English), 4 master study programmes (1 of which is also in English), 5 doctoral study programmes (all also in English) and 3 lifelong learning courses (University of the Third Age).

The faculty employs an average of 180 employees, of which approximately 100 are engaged in teaching and research activity.

The category of "Early Career Researchers" includes researchers within 8 years of completing their PhD studies. This category listed in the attached tables includes only pure researchers. If we also include academics involved in research activities in this category, it is estimated to represent approximately 10% of all faculty staff.

The category "Other scientific, research and development personnel" includes by definition, researchers who participate in research activities only by, for example, operating specialized equipment. This category is not represented at FVHE; the equipment is operated by academic or research workers from other categories.

Regarding the category "Scientific, research and development staff involved in teaching activities", it should be noted that research and teaching activities at the university are closely linked. Every academic worker is involved in research activities and similarly every researcher is involved in teaching in some way.

In 2023, the faculty had a total of 1054 students, of whom 547 were studying in the master's degree programme of Veterinary Medicine, which is the faculty's dominant field of study, as well as 374 students in bachelor programmes and 59 students in doctoral programmes.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	11.511/4.896	11.978/6.000	12.800/5.800	13.085/6.201	13.887/7.119	12.652/6.003
Associate Professor	12.559/9.767	14.633/10.917	13.590/10.400	13.890/10.086	12.833/8.553	13.501/9.944
Assistant Professor	51.037/35.792	47.941/33.792	49.165/36.542	46.494/34.117	43.202/30.709	47.567/34.190
Assistant	15.335/11.402	16.512/12.296	14.202/10.152	15.035/10.745	17.352/13.575	15.687/11.634
R&D Personnel ³	0/0	0/0	0/0	0/0	0/0	0/0
Researchers in other categories ⁴	6.008/4.148	5.021/3.421	6.945/4.367	8.488/5.954	9.187/6.647	5.292/4.907
Technical and economic staff ⁵	82.687/74.279	81.919/73.386	80.778/74.260	81.587/75.228	83.407/75.616	82.075/74.553
Scientific, research and development staff involved in teaching activities	6.008/4.148	5.021/3.421	6.945/4.367	8.488/5.954	9.187/6.647	7.129/4.907
Early career researchers ⁶	5.450/3.785	0/0	5.785/3.264	7.632/4.855	8.201/5.203	4.323/3.421
Total ⁷	179.137/140.284	178.004/139.812	177.480/141.521	178.579/142.331	179.868/142.419	178.613/141.273

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

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

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

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

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

⁶ See Definition of Terms in Methodology HEI2025+.

⁷ Total is the sum of the categories: professor, associate professor, assistant professor, assistant, R&I personnel, researchers in other categories and technical and economic staff.

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

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	3	1	4	2	4	1	2	2
Associate Professor	0	0	2	2	5	3	6	4	4	4	0	0
Assistant Professor	0	0	33	24	18	12	7	5	1	0	1	1
Assistant	22	18	4	3	0	0	1	0	0	0	1	0
R&D Personnel ⁹	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	4	4	3	2	2	1	0	0	0	0	1	1
Technical and economic staff ¹¹	18	13	14	13	13	13	20	18	17	14	8	7
Scientific, research and development staff involved in teaching activities	4	4	3	2	2	1	0	0	0	0	1	1
Early career researcher ¹²	4	4	3	2	0	0	0	0	0	0	0	0
Total ¹³	44	35	56	44	41	30	38	29	26	19	13	11

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

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

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

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

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

¹² See Definition of Terms in Methodology HEI2025+.

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

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

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	3	1	4	2	6	3	2	2
Associate Professor	0	0	0	0	7	4	6	5	5	4	0	0
Assistant Professor	2	1	28	20	26	19	0	0	3	1	0	0
Assistant	12	10	9	9	1	0	0	0	0	0	1	0
R&D Personnel ¹⁵	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	1	1	1	1	3	3	1	0	0	0	0	0
Technical and economic staff ¹⁷	15	11	11	10	19	19	20	19	20	18	6	5
Scientific, research and development staff involved in teaching activities	1	1	1	1	3	3	1	0	0	0	0	0
Early career researcher ¹⁸	1	1	1	1	0	0	0	0	0	0	0	0
Total ¹⁹	30	23	49	40	59	46	31	26	34	26	9	7

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

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

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

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

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

¹⁸ See Definition of Terms in Methodology HEI2025+.

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

Table 3.1.4 – Students

Type of study	2019		2020		2021		2022		2023		Total	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Undergraduate	330	294	312	284	248	220	317	284	374	325	1581	1407
Master's ²⁰	522	457	498	412	490	408	499	412	547	469	2,556	2,158
Doctoral	78	55	81	59	68	55	61	49	59	48	347	266
Lifelong Learning Courses	289	-	979	-	1,121	-	938	-	1,069	-	4,396	-
Total	1,219	806	1,870	755	1,927	683	1,815	745	2049	842	8,880	3,831

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	3/2	-	3/3	-	3/3	-	3/3	-	4/2	1/0	16/13	1/0
Master's	4/3	-	4/4	-	4/4	-	4/4	-	4/1	-	20/16	
Doctoral	7/7	-	7/7	-	7/7	-	7/7	-	5/5	-	33/33	
Lifelong Learning courses	2/0	-	7/7	-	7/7	-	7/7	-	5/5	-	28/26	
Total	16/12	-	21/21	-	21/21	-	21/21	-	18/13	1/0	98/88	1/0

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

3.1.6 – R&D&I capacities

R&D&I field	FORD	FORD share [%]	Predominant type of research	Total share of industry group [%]
1. Natural Sciences	1.1 Mathematics	1	Basic Research	19
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences	1	Basic Research	
	1.5 Earth and related environmental sciences	4	Basic Research	
	1.6 Biological sciences	13	Basic Research	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and	2.1 Civil engineering		Zvolte položku.	13

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

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

Technology	2.2 Electrical engineering, Electronic engineering, Information engineering		Zvolte položku.	
	2.3 Mechanical engineering		Zvolte položku.	
	2.4 Chemical engineering		Zvolte položku.	
	2.5 Materials engineering		Zvolte položku.	
	2.6 Medical engineering		Zvolte položku.	
	2.7 Environmental engineering		Zvolte položku.	
	2.8 Environmental biotechnology		Zvolte položku.	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology		Zvolte položku.	
	2.11 Other engineering and technologies	13	Basic Research	
3. Medical and Health Sciences	3.1 Basic medicine	1	Basic Research	1
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	4	Basic Research	66
		7	Balanced basic and applied research	
	4.2 Animal and Dairy science			
	4.3 Veterinary science	53	Balanced basic and applied research	
	4.4 Other agricultural sciences	2	Balanced basic and applied research	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	1
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences	1	Basic Research	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	0
	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:

Academic staff of FVHE has long been involved in membership in editorial boards of major domestic and foreign scientific journals. FVHE strengthens the position of the faculty in terms of international cooperation by regular participation of academic staff of the faculty in foreign conferences or invited lectures, or by participation of foreign experts from abroad in scientific conferences organized by the faculty, or in educational lectures. FVHE staff members are recognized members of professional societies in the Czech Republic and also abroad.

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
Miroslava Palíková, prof. MVDr. Ph.D.	Josef Hlávka Award for Scientific Literature	Josef Hlávka Foundation
Lenka Necidová, doc. MVDr. Ph.D.	Medica Veterinaria 2019 Award for the best article of 2019 in a scientific journal, awarded for the publication "Effect of selected preservatives on growth of <i>Listeria monocytogenes</i> in ready-to-eat foods" in the journal <i>Veterinářství</i> .	Profi Press s.r.o. (publisher) in cooperation with the SVA Czech Republic and the Chamber of Veterinary Doctors in 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
Eva Bártová, doc. MVDr. Ph.D.	Frontiers in Veterinary Science – Veterinary Infectious Disease, 2297-1769
Oldřich Sychra, prof. RNDr. Ph.D.	Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", ISSN 2247-0735 (online), ISSN 1223-2254 (print)
Steinhauserová Iva, prof. MVDr. CSc. Dipl. ECVPH	Meat Technology ISSN 2466-4812

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
Vojtech Baláž, Mgr. Ph.D.	Chytridiomycosis, still an emerging worldwide threat for amphibians	College of Veterinary Medicine, University of the Philippines at Los Baños, Filipíny	2019
Miroslava Palíková, prof. MVDr. Ph.D.	Component causes of severe gill damage in rainbow trout farmed under conditions of RAS.	Conference EAFP	2019
Miroslava Palíková, prof. MVDr. Ph.D.	Koi sleepy disease, KSD/Carp edema virus disease, CEVD	Wrocław University of Environmental and Life Sciences, Wrocław, Poland	2021
Vojtech Baláž, Mgr. Ph.D.	qPCR and LAMP diagnostics of <i>Angiostrongylus cantonensis</i>	Universitas Syiah Kuala, Banda Aceh, Indonesia	2022
Miroslava Palíková, prof. MVDr. Ph.D.	Proliferative kidney disease, PKD	Wrocław University of Environmental and Life Sciences, Wrocław, Poland	2022
Pavel Šíroky, prof. MVDr. Ph.D.	It is hard to re-find species. Past, present, and future pitfalls of species diagnosis and taxonomy of haemogregarines.	Fifth International Conference on Malaria and Related Haemosporidian Parasites of Wildlife, Bielefeld, Germany	2022
Vojtech Baláž, Mgr. Ph.D.	Invasive animals and emerging diseases	Universitas Syiah Kuala, Banda Aceh, Indonesia	2023
Vojtech Baláž, Mgr. Ph.D.	Measures to control the spread of <i>Batrachochytrium salamandrivorans</i> chytrid fungus (Bsal) in Czech republic	Group of Experts on the Conservation of Amphibians and Reptiles, Bern Convention, Strassburg	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
Michael A. Huffman, prof. DSc. Ph.D.	Primate Research Institute, Kyoto University	Non-invasive monitoring of health and host-parasite ecology in primates	2019
Gabrielle Harris	uShaka Sea World, South Africa (Curator of Animal Welfare and Behaviour Management)	Be kind! Behaviour management for animal welfare	2022
Niccolò Vendramin	Technical University of Denmark, National Institute of Aquatic Resources, Unit for Fish and Shellfish Diseases	Mediterranean Aquaculture Diseases: Sea Bass and Sea Bream	2022

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the evaluated unit's staff member	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	Year
Eva Bártová, doc. MVDr. Ph.D.	Standard projects	Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and Slovak Academy of Sciences (VEGA)	2020
Eva Bártová, doc. MVDr. Ph.D.	Standard projects	Veterinary Research Institute	2021
Eva Bártová, doc. MVDr. Ph.D.	Standard projects	Slovak Research and Development Agency (SRDA)	2021

Note: Provide up to 10 examples.

RESEARCH PROJECTS

3.3 Research projects

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

Maximum 300 words per project.

Self-assessment:

FVHE carries out creative activities by solving projects from grant agencies (in particular, the Czech Science Foundation (GACR), the National Agency for Agricultural Research (NAAR), the Czech Health Research Council, the Ministry of the Interior, the Technology Agency of the Czech Republic, Ministry of Industry and Trade. In the years 2019 to 2023, for scientific and research activities, FVHE utilized funds obtained from grant agencies of the Czech Republic in the role of the principal investigator or co-investigator in the total amount of 86,770 thousand CZK. In terms of the volume of funding and duration, these were among the most important projects at FVHE: Assessment of honey authenticity by pollen grain analysis (NAAR), Meat cooking loss: effect of fresh meat characteristics, cooking technology and parameters of cooking (NAAR), The degree of cold chain disruption during official sampling and sample transport and its effects on the resulting microbial profile (NAAR), Spectrum extension of medicinal products in aquaculture in the Czech Republic and evaluation of their residues in fish meat (NAAR), Mycobacteria in bats and their role in health and disease (GACR), Multiplex

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.

detection of DNA of probiotic bacteria and yeasts in food supplements using xMAP and qPCR technologies (NAZV).

The most important projects in the period under review include:

Project: MZe NAZV QK1920344, **Assessment of honey authenticity by pollen grain analysis.**

Cooperation: Bee Research Institute, s.r.o., University of Chemistry and Technology, Prague

Outcomes: A methodology for melissopalynological honey analysis, which represents a standard operating procedure for melissopalynological examination of honey using the "Pollen Classification" software developed as part the project. The methodology includes the steps of honey sample preparation, honey sample processing for semi-automatic scanning and a pollen grain evaluation system. The output of the analysis is the pollen profile of the analysed honey in absolute values and percentages of all detected taxa and percentages of pollen taxa. The analysis also includes the absolute number of pollen grains in the honey sample.

Users of the results: the State Veterinary Administration, the State Agricultural and Food Inspectorate, the VETUNI-FVHE Food Investigation Laboratory.

Project: TAČR, SS01010233, **Conservation of amphibian biodiversity when emerging infectious diseases spread**

Cooperation: Faculty of Environmental Sciences, CZU Prague, State Veterinary Institute

The project addresses the comprehensive protection of amphibians in the context of emerging infectious diseases.

Outcome 1) The methodology addresses the issue of comprehensive protection of amphibians (both wild and farmed) from the impact of emerging diseases. It includes a literature search on the biology of pathogens, their distribution, impacts on amphibians, and modes of spread. It contains suggestions for prevention and mitigation of disease impacts, including the guidelines for effective cooperation among the entities concerned, and the exact procedures in case of disease outbreaks in our country. The methodology is published on the website of the Ministry of Environment of the Czech Republic in an electronic form and is freely available. The methodology is part of the preparations of the Czech Republic for the spread of *Batrachochytrium salamandrivorans*.

User of the result: Ministry of the Environment of the Czech Republic, conservation agencies

Outcome 2) Methodology for rapid detection of infectious diseases of amphibians. 2023.

This is the first publication to include comprehensive and detailed protocols for the detection of amphibian pathogens causing population declines. The methodology describes procedures for diagnosing diseases from external symptoms, through anatomical and histological examinations. The largest section is devoted to the protocols for DNA detection of target pathogens and includes instructions and procedures for implementing them in the laboratory. Instructions are developed for the various situations in which pathogen detection is intended to serve - mortality analysis, preventive testing in livestock, field or laboratory testing. The methodology has been published online on the website of the Ministry of the Environment of the Czech Republic and is applicable to government laboratories, veterinary practices, research and conservation organisations.

User: Diagnostics of selected amphibian pathogens according to the methodology is currently carried out at VETUNI, CZU and also SVI. In the case of VETUNI, it is in the process of being introduced into the publicly offered services of the Department of Ecology & Diseases of Zoo Animals, Game, Fish and Bees.

Project: NAZV QK1710114, **New viral diseases of common carp - diagnosis and prevention**

Cooperation: University of South Bohemia in České Budějovice

Outcomes: The project dealt with the issue of possible causes of carp mortality in the spring period, that is the period which is very problematic for fish health. As such cases have been occurring more and more frequently in recent years, the project summarises the research results of possible causes and appropriate diagnostic methods into a single publication, supplemented by references to methodologies published in previous years and describing the methods in more detail, intended for both farmers and veterinarians. The result of the project is a "Methodology" for fish farmers and veterinarians working in fish farming. It provides comprehensive information on the possible causes of carp mortalities in spring and on the laboratory methods used for their diagnosis.

Certified Methodology No. 181, PIAČKOVÁ, V., ZUSKOVÁ, E., KOCOUR KROUPOVÁ, H., MÁCHOVÁ, J., VESELÝ, T., MATĚJČKOVÁ, K., POJEZDAL, L., PAPEŽÍKOVÁ, I., SYROVÁ, E., PALÍKOVÁ, M., Diagnostics of spring carp mortality. 2019, vol. 181, 49 pp., 2021, 49 p.

Project: NAZV QK1710114, **New viral diseases of common carp - diagnosis and prevention**

Cooperation: University of South Bohemia in České Budějovice

Outcomes: The project result is the certified methodology PIAČKOVÁ, V., PALÍKOVÁ, M., POJEZDAL, L., ZUSKOVÁ, E., PAPEŽÍKOVÁ, I., MATĚJČKOVÁ, K., Prevention of carp edema virus disease/koi sleepy disease (CEVD/KSD) in common and koi carp farming. 2021, vol. Metodika 190, 21 pp.

This methodology summarizes the current knowledge of carp edema virus and the disease it causes. It is intended for fish farmers and for practising veterinarians working at fish farms. It is intended to inform fish handlers of the potential risk arising from non-compliance with the principles of protecting farms against the introduction of the disease. Such a comprehensive overview in Czech, including the descriptions of clinical signs, pathological changes, diagnostic procedures and preventive measures, has not been available to fish farmers so far. The description of the disease and the characteristics of its agent is crucial for understanding the importance of following the principles and measures aimed at preventing the introduction of the disease into our fish farms.

Project: NAZV QK22020101, **Multiplex detection of DNA of probiotic bacteria and yeasts in food supplements using xMAP and qPCR technologies.** The project was realised following a request from the Czech Agriculture and Food Inspection Authority (CAFIA), specified in the research needs of the Ministry of Agriculture.

Cooperation: State Veterinary Institute Jihlava

Outcomes: Two certified methodologies were developed in cooperation with SVI Jihlava; the institute will become the primary workplace to perform accredited analyses of probiotic composition for CAFIA. The methodologies describe complex procedures for the targeted and non-targeted analysis of probiotics and are a significant contribution towards maintaining food safety the compliance with the declared composition of probiotic dietary supplements is being controled.

Results:

- 1) KRÁLÍK, P., KLANICA, M., DZIEDZINSKÁ, R., KARPÍŠKOVÁ, R., DUŠKOVÁ, M., LOCHMAN, J., BRODÍKOVÁ, K., Certified methodology designed for comprehensive identification of the composition of probiotics in food supplements using the MOL-PCR method and sequencing. 2024, vol. ISBN: 978-80-7305-968-2
- 2) KRÁLÍK, P., DZIEDZINSKÁ, R., Certified methodology for quantification of probiotics in dietary supplements by qPCR. 2024, vol. ISBN: 978-80-7305-969-9.

Project: NAZV QJ1530107, **Methods for identification, traceability and authenticity verification of feed mixtures and food containing components of animal origin.**

Outcomes: The presented technical solution is designed for the comprehensive identification and quantification of dominant and minority species of up to eighteen livestock species by real-time multiplex quantitative polymerase chain reaction. This solution allows not only the determination of the presence of individual species, but also the determination of their percentage representation in meat mixtures or in selected meat products. The method is intended for the needs of inspection authorities during official controls of, for example, the composition of minced meats.

Utility model NESVADBOVÁ, M., BOŘILOVÁ, G., DUFKOVÁ, M., KRÁLÍK, P., HULÁNKOVÁ, R., PISKATÁ, Z., Set for multiplex detection of DNA from farm animals. 2020.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Czech Science Foundation (GAČR)	Physiology of bat hibernation with respect to multistressor impacts	4744/187.1	0/0	0/0	0/0	0/0
National Agency for Agricultural Research	Meat cooking loss: effect of fresh meat characteristics, cooking technology and parameters of cooking	2700/106.5	2094/82.6	1694/66.8	0/0	0/0
National Agency for Agricultural Research	Assessment of honey authenticity by pollen grain analysis	3672/144.9	4012/158.3	3940/155.4	0/0	0/0
Czech Health Research Council	Hidden threat of natural foci of understudied tick-borne infections. Case of the genera Rickettsia, Anaplasma, Babesia	1475/58.2	0/0	0/0	0/0	0/0
Adalbert-Raps-Stiftung	Analysis of relationship between air cavities and Weissella viridescens in meat products and possibilities of air cavities	0/0	80/3.1	0/0	0/0	0/0
National Agency for Agricultural Research	Spectrum extension of medicinal products in aquaculture in the Czech Republic and evaluation of their residues in fish meat	0/0	0/0	1445/57	1589/62.7	1589/62.7
National Agency for Agricultural Research	The degree of cold chain disruption during official sampling and sample transport and its effects on the resulting microbial profile	0/0	0/0	3540/139.7	3534/139.4	3161/124.7

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.

National Agency for Agricultural Research	Determination of pure muscle proteins by direct method	0/0	0/0	1970/77.7	2429/95.8	1808/71.3
National Agency for Agricultural Research	Multiplex detection of DNA of probiotic bacteria and yeasts in food supplements using xMAP and qPCR technologies	0/0	0/0	0/0	3000/118.3	3884/153.2
National Agency for Agricultural Research	Multiplex detection and identification of genes responsible for antimicrobial resistance and toxin production in important bacterial agent in foodstuffs	0/0	0/0	0/0	2807/110.7	3208/126.6
National Agency for Agricultural Research	Conditions of food delivery by courier services with regard to the growth of sporogenic bacteria	0/0	0/0	0/0	0/0	2786/109.9
Visegrad Fund	Sustainable Beekeeping in the Visegrad Group	0/0	0/0	0/0	0/0	632/24.9
MEYS	Ticks and tick-borne pathogens: new risks in the context of ongoing environmental changes	0/0	0/0	0/0	0/0	1473/58.1
Total		12591/496.7	6186/244	12589/496.6	13359/527	18541/731.4

In the role of another participant

Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
National Agency for Agricultural Research	New viral diseases of common carp - diagnosis and prevention	1002/39.5	1002/39.5	723/28.5	0/0	0/0
National Agency for Agricultural Research	Impact of reformulation on the shelf-life and physical and chemical properties of food products	730/28.8	736/29	799/31.5	799/31.5	644/25,4
National Agency for Agricultural Research	Rapid, complex and multiplex methods for simultaneous detection of food-borne pathogens in food of animal and plant origin	1012/39.9	1012/39.9	1000/39.4	775/30.6	0/0
Grant Agency of the Ministry of Interior	Multiplex xMAP technology for a complex detection of pathogenic agents significant for the protection of human and animal health	1030/40.6	671/26.5	0/0	0/0	0/0
National Agency for Agricultural Research	Methods for detection of foreign enzymes in honey using multidimensional approaches	60/2.4	0/0	0/0	0/0	0/0
National Agency for Agricultural Research /Veterinary Research Committee	New findings regarding lactose content in dairy products in the context of lactose-intolerant consumers	0/0	52/2.1	0/0	0/0	0/0

²⁷ Ibid.

Technology Agency of the Czech Republic	Conservation of amphibian biodiversity when emerging infectious diseases spread	0/0	636/25.1	865/34.1	697/27.5	0/0
Czech Science Foundation	Mycobacteria in bats and their role in health and disease	0/0	0/0	1449/57.2	1449/57.2	1449/57.2
National Agency for Agricultural Research	Globalization, modern technologies and climate change provide both new opportunities and hazards for salmonid breeding management	0/0	0/0	573/22.6	581/22.9	578/22.8
National Agency for Agricultural Research	The possibilities to influence an inhibitory substances content in milk as an effective tool to improve animal health for food quality and safety	0/0	0/0	600/23.7	600/23.7	600/23.7
National Agency for Agricultural Research /Veterinary Research Committee	Technological defects and their occurrence during animal slaughter at slaughterhouses	0/0	0/0	12/0.5	0/0	0/0
National Agency for Agricultural Research	New methods of pig carcass classification	0/0	0/0	0/0	800/31.5	800/31.5
Norwegian Biodiversity Info. Centre Taxonomy	Bird lice in Norway	0/0	0/0	0/0	98/3.9	0/0
National Agency for Agricultural Research	Verifying the possibilities of proving the use of protective cultures in the production of food of animal products origin	0/0	0/0	0/0	0/0	1340/52.9
National Agency for Agricultural Research	The comprehensive laboratory strategy for identification of insect species intended for human consumption and the production of processed animal protein, authentication of insect-based foods.	0/0	0/0	0/0	0/0	387/15.2
Total		3834/151.2	4109/162.1	6021/237.5	5799/228.8	5798/228.7

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
University of South Bohemia in České Budějovice	Physical and chemical analyses	22/0.9	0/0	0/0	0/0	0/0
ProBionic, s.r.o., Kuřim	Determining chicken meat quality parameters	0/0	0/0	0/0	176/6.9	0/0
Total		22/0.9	0/0	0/0	176/6.9	0/0

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

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

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts²⁹, on society (e.g. description of how the results are used by various users, the range of persons/institutions for which the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

FVHE has produced applied research outcomes of various sorts during the evaluated period; significant are the certified methodologies (e.g.: “Semi-automatic determination of pollen profile–melissopalynological analysis of honey”; “Methodical course of the examination of emergency fish kill causes”; “Diagnostics of spring carp mortality”; “Fast diagnostic methods of amphibian diseases”), the utility model “Set for multiplex detection of DNA from farm animals” or the software “Evaluation of the risk of microbial contamination of food”, which have an economic potential or are already being used in practice. The outcomes are produced in cooperation with practice and the private sector in relation to the current requirements of the agricultural and the food sector.

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

Type of result ³⁰	Year of application	Name
Certified methodology	2023	Fast diagnostic methods of amphibian diseases
Utility model	2020	Set for multiplex detection of DNA from farm animals
Certified methodology	2021	Diagnostics of spring carp mortality
Certified methodology	2021	Prevention of carp edema virus disease/koi sleepy disease (CEVD/KSD) in common and koi carp farming

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.

²⁹ See Terms definition.

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:

FVHE places great emphasis on obtaining grant projects or contract research projects. Its staff is successful in securing such projects through cooperation not only with Czech, but also with foreign institutions, or with commercial partners, hence implementing the findings, obtained through basic or applied research, in practice. The faculty staff which focus on this type of outcomes are financially motivated towards seeking other projects of similar categories as such work gets reflected in their personal financial evaluation or in their bonuses.

FVHE's cooperation with practice is based on its growing cooperation with institutions, organizations, businesses, and other subjects which operate in the area of veterinary hygiene and ecology, animal protection and welfare, food safety and quality, sanitariness and food quality in gastronomy. FVHE closely cooperates with organizations and companies of various kinds (public and private) and character (supervisory authorities, research and diagnostic facilities, food and agricultural places of operation and private subjects). During the evaluated period, FVHE cooperated with other companies and institutions on 2 contract research projects with the total sum of 200 thousand CZK. Other funds are obtained through advisory activities and commissions provided to companies in the field of food production and processing (appx. 1 million CZK during the evaluated period). However, as stated by the rules, these funds are not included within the contract research category and hence are not mentioned in the attached tables.

In 2023 a successful accreditation of the Food Analysis Laboratory took place. The laboratory is divided into two sections: Facility 1 at the Department of Plant Origin Food Sciences, and Facility 2 for food of animal origin. Both facilities have been appropriately equipped. At the end of 2024, a successful reaccreditation took place. In the nearest period, the laboratory will serve as another source of income and will contribute towards further knowledge transfer into practice.

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.

In 2024 a contract research project for the German company Remmers GmbH began: **Survival of *Listeria monocytogenes* on the surface of Remmers Crete industrial floors.**

In 2025, another contract research project for the Italian company SACCO System will begin; it concerns the area of starter and protective cultures for food processing.

The incomes of these projects have not been included in this self-evaluation report which spans only the period 2019–2023.

Resources from other private funds (licences, company revenues etc.) have not been secured by the faculty during the evaluated period.

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

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

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

POPULARIZATION OF VAVAI

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

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

Maximum 500 words plus 200 words for each example given.

Self-assessment:

FVHE has also engaged in the popularization of science and research towards students and laypeople. The tools for such popularization comprise lectures for the wide public, and talks on the topic of science on the radio, TV, press, popular science journals or websites. By doing so, FVHE encourages interest in scientific exploration and popularizes science on all levels, particularly in the areas of veterinary hygiene and ecology, animal protection and welfare, food safety and quality or food sanitariness and quality in gastronomy. Examples of popularization include:

Oldřich Synchrona, prof. RNDr., Ph.D. *Welcoming the Birdsong* 2019 (guided tour)

Josef Kameník, doc. MVDr., CSc., MBA *Meat in the 21st century* 2022 (lecture for meat manufacturers)

IMPLEMENTATION OF RECOMMENDATIONS

3.7 Implementation of the recommendations in Module 3

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

Maximum 1000 words.

Self-assessment:

During the on-site visit the FVHE presented a strategy to increase contract research via capital investments into accredited laboratories that will be ready for moving in in 2021. The panel fully supports this strategy. The panel also recommends maintaining and expand the national network of clients and to start looking for partners outside Czechia, especially in the area of food safety in Central Europe.

The faculty has managed to achieve this aim in 2023 when the successful accreditation of the Food Analysis Laboratory took place. The laboratory is divided into two sections: Facility 1 at the Department of Plant Origin Food Sciences, and Facility 2 for the food of animal origin. Both facilities have been appropriately equipped. At the end of 2024, a successful reaccreditation took place.

The commercial activity of the laboratory is at its very beginning, until now only a limited number of samples has been analyzed.

Contacts with the application sphere and commercialization is certainly very important aspects for FVHE and taken seriously. While maintaining and development of the level of applied and contract research in crucial for the faculty, however, the scientific output and its contribution to education must be prioritized. FVHE is correctly prioritizing scientific output and guidance for legislators, but also not neglecting applied and contract research. The panel recommends enhancing more of the collaborations to a level that they would generate revenue for FVHE.

The faculty aims to fulfil objectives in the area of both basic and applied research. Applied research associates are being sought also abroad. In 2024, a contract research project for the German company Remmers GmbH was launched, titled **Survival of *Listeria monocytogenes* on the surface of Remmers Crete industrial floors.**

In 2025, another contract research project will be launched, this time for the Italian company SACCO System in the area of starter and protective cultures for meat processing. The expected research volume is 280,000 CZK (11,000 EUR).

However, these projects have not been included in this self-evaluation report which spans only the period 2019–2023. International cooperation has also been successfully established in two international projects, although without any commercialization effect as it was not included in the project planning.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)

SELF-EVALUATION REPORT FOR MODULE 3

THE NAME OF THE UNIT BEING EVALUATED: CEITEC VETUNI

FORD: 3 - Medical and health sciences

SOCIAL CONTRIBUTION OF THE EVALUATED UNIT

3.1 Introductory information about the unit under evaluation

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

Maximum 1000 words.

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

Self-assessment:

Focus of the Centre: CEITEC - Central European Institute of Technology is a multidisciplinary scientific centre in the field of life sciences, material sciences and technologies, founded in 2010 by a consortium of six major universities and research institutions in Brno, South Moravia: Masaryk University, Brno University of Technology, Mendel University in Brno, the University of Veterinary and Pharmaceutical Sciences Brno, the Research Institute of Veterinary Medicine and the Institute of Physics of Materials of the Czech Academy of Sciences. CEITEC aims to become a centre of scientific excellence whose results will contribute to improving the quality of life and human health. CEITEC has 7 research programmes: 1. Advanced Nanotechnologies and Micro-technologies, 2. Advanced Materials, 3. Structural Biology, 4. Genomics and Proteomics of Plant Systems, 5. Molecular Medicine, 6. Brain and Mind Research, **7. Molecular Veterinary Medicine.** CEITEC operates as a decentralised consortium without legal personality, governed by common policies and rules. The Centre's activities were carried out through CEITEC organisational units within each partner institution, such as CEITEC VFU Brno. The Centre's scientific activities are coordinated by research programme coordinators. In 2020, following the disbanding of the central CEITEC unit, VETUNI joined the renewed CEITEC consortium and retained its CEITEC VETUNI unit, similar to the other partners in the original project. CEITEC VETUNI was established as a university unit at a level comparable to faculties and fulfilling the role of a university research institute.

Since the last evaluation, the number of staff exclusively affiliated with this unit—without holding a full-time position within a faculty—has increased. However, this does not apply to higher-ranking academic staff (primarily professors), whose involvement in faculty activities remains

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

essential for accreditation purposes. Additionally, the number of research projects submitted and secured by CEITEC staff has also grown.

Newly recruited staff in CEITEC research groups are typically funded through grant projects. To ensure stability during transitional periods—such as when one project ends, and another has not yet started—temporary funding is provided through LCDRO or CEITEC funds.

The unit is led by the Director of CEITEC VETUNI and is administratively supported by a single staff member. In 2023, the unit employed 13 staff members, equivalent to approximately 9 full-time equivalents (FTE).

The category of "Early Career Researchers" includes researchers within 8 years of completing their PhD studies. The category "Other scientific, research and development personnel" includes by definition researchers who participate in research activities only by, for example, operating specialized equipment. This category is not represented at CEITEC; the equipment is operated by academic or research workers from other categories.

Regarding the category "Scientific, research and development staff involved in teaching activities", it should be noted that research and teaching activities at the university are closely linked. Every academic worker is involved in research activities and similarly every researcher is involved in teaching in some way.

CEITEC VETUNI does not offer any accredited educational programs and is therefore not directly involved in doctoral education. However, doctoral students from the university's faculties work as researchers within the unit. This classification also applies to other researchers, who are categorized under various research roles but are not considered academic staff within CEITEC VETUNI. As a result, the relevant tables in Module 3 of the SEZ are generally not completed.

Table 3.1.1 - Staffing per FTE²

Academic/ Professional position	Total / Of which women					
	2019	2020	2021	2022	2023	Total
Professor	0	0	0	0	0	0
Associate Professor	0	0	0	0	0	0
Assistant Professor	0	0	0	0	0	0
Assistant	0	0	0	0	0	0
R&D Personnel ³	0	0	0	0	0	0
Researchers in other categories ⁴	18.257/10.347	18.979/12.217	16.293/11.606	11.712/8.096	8.709/5.626	14.79/9.578
Technical and economic staff ⁵	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).

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.

Scientific, research and development staff involved in teaching activities	18.257/10.347	18.979/12.217	16.293/11.606	11.712/8.096	8.709/5.626	14.79/9.578
Early career researchers ⁶	17.856/10.347	16.150/10.160	14.356/9.987	8.850/6.849	8.439/5.150	13.130/8.498
Total ⁷	18.257/10.347	18.979/12.217	16.293/11.606	11.712/8.096	8.709/5.626	14.79/9.578

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

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

Academic/ professional position	Under 29 years		30-39 years old		40-49 years old		50-59 years old		60-69 years old		70 years and older	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	0	0	0	0	0	0	0	0
Associate Professor	0	0	0	0	0	0	0	0	0	0	0	0
Assistant Professor	0	0	0	0	0	0	0	0	0	0	0	0
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ⁹	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁰	13	9	12	8	1	1	0	0	0	0	0	0
Technical and economic staff ¹¹	0	0	0	0	0	0	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	13	9	12	8	1	1	0	0	0	0	0	0
Early career researcher ¹²	13	9	12	8	0	0	0	0	0	0	0	0
Total ¹³	13	9	12	8	1	1	0	0	0	0	0	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

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.

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	0	0	0	0	0	0	0	0	0	0	0	0
Associate Professor	0	0	0	0	0	0	0	0	0	0	0	0
Assistant Professor	0	0	0	0	0	0	0	0	0	0	0	0
Assistant	0	0	0	0	0	0	0	0	0	0	0	0
R&D Personnel ¹⁵	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁶	2	2	5	4	2	1	0	0	0	0	0	0
Technical and economic staff ¹⁷	0	0	0	0	0	0	0	0	0	0	0	0
Scientific, research and development staff involved in teaching activities	2	2	5	4	2	1	0	0	0	0	0	0
Early career researcher ¹⁸	2	2	5	4	0	0	0	0	0	0	0	0
Total ¹⁹	2	2	5	4	2	1	0	0	0	0	0	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Total	NA

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.

Master's ²⁰	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Doctoral	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lifelong Learning Courses	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Master's	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Doctoral	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lifelong Learning courses	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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.	46
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences	1	Basic Research	
	1.5 Earth and related environmental sciences		Zvolte položku.	
	1.6 Biological sciences	45	Basic Research	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	1
	2.2 Electrical engineering, Electronic engineering, Information engineering		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.	

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

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

	2.8 Environmental biotechnology		Zvolte položku.	
	2.9 Industrial biotechnology		Zvolte položku.	
	2.10 Nanotechnology	1	Basic Research	
	2.11 Other engineering and technologies		Zvolte položku.	
3. Medical and Health Sciences	3.1 Basic medicine		Zvolte položku.	1
	3.2 Clinical medicine		Zvolte položku.	
	3.3 Health sciences	1	Basic Research	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries		Zvolte položku.	52
	4.2 Animal and Dairy science		Zvolte položku.	
	4.3 Veterinary science	52	Basic Research	
	4.4 Other agricultural sciences		Zvolte položku.	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	0
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	0
	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 researchers at CEITEC VETUNI have demonstrated extensive involvement in R&D&I activities during the evaluated period and have earned recognition within the scientific community, as evidenced by numerous invited lectures at conferences and other professional events. Additionally, CEITEC staff have served, or are currently serving, on the editorial boards of international scientific journals, as well as holding elected positions in professional societies. They are also actively engaged in evaluating R&D&I outcomes through participation in research project/programme calls.

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

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

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the evaluated unit's staff member	Name of scientific journal, ISSN
Petr Hořín, prof. MVDr. et RNDr., CSc.	BMC Genomics, ISSN: 1471-2164, Editor
Petr Hořín, prof. MVDr. et RNDr., CSc.	Frontiers in Immunology, ISSN: 1664-3224, Review Editor
Petr Hořín, prof. MVDr. et RNDr., CSc.	Frontiers in Genetics, ISSN: 1664-8021, Review Editor
Petr Hořín, prof. MVDr. et RNDr., CSc.	Frontiers in Veterinary Science: ISSN: 2297-1769
Monika Dolejská, doc. RNDr., Ph.D.	Plasmid, 2019-2021
Monika Dolejská, doc. RNDr., Ph.D.	Antimicrobial Agents and Chemotherapy, 2021-2024

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

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

Name, surname and title(s) of the evaluated unit's staff member	Invited lecture title	Name of host institution, or name of conference or event	Year
Pavel Šíroký, prof. MVDr. Ph.D.	It is hard to re-find species. Past, present, and future pitfalls of species diagnosis and taxonomy of haemogregarines	Fifth International Conference on Malaria and Related Haemosporidian Parasites of Wildlife, Bielefeld, Germany	2022
Monika Dolejská, doc. RNDr., Ph.D.	Plasmid-mediated antibiotic resistance is going wild	One Health Sweden, Uppsala, Sweden	2019
Monika Dolejská, doc. RNDr., Ph.D.	The emergence of resistance to the last line of defence antimicrobials in wildlife	The 31st European Congress of Clinical Microbiology & Infectious Diseases,	2021
Monika Dolejská, doc. RNDr., Ph.D.	Antibiotic-resistant bacteria in wildlife: epidemiology and transmission of clinically important resistances"	5th International Conference on Responsible Use of Antibiotics in Animals,"	2021
Monika Dolejská, doc. RNDr., Ph.D.	Plasmids: their role in antibiotic resistance	The 32nd European Congress of Clinical Microbiology & Infectious Diseases, Lisbon, Portugal	2022
Monika Dolejská, doc. RNDr., Ph.D.	WGS for the epidemiology of MDR Gram-negative bacteria: is it necessary to use long-read sequencing?	The 33rd European Congress of Clinical Microbiology & Infectious Diseases, Copenhagen, Denmark	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

Note: Provide up to 10 examples.

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

Name, surname and title(s) of the evaluated unit's staff member	Name of the research project/programme call	Name of the contracting authority/guarantor of the project/programme call	Year
Monika Dolejská, doc. RNDr., Ph.D.	Evaluator in the Czech Science Foundation Panel P302	2020-2023	
Monika Dolejská, doc. RNDr., Ph.D.	Evaluator for the Grant Agency of Charles University since 2023	2023-	

Note: Provide up to 10 examples.

RESEARCH PROJECTS

3.3 Research projects

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

Maximum 300 words per project.

Self-assessment:

GAČR Project: **Multidrug-Resistant High-Risk *Escherichia coli* Strains – A Story of Successful Chromosome-Plasmid Interplay.**

The project aimed to provide new insights into the diversity and evolution of extraintestinal pathogenic *Escherichia coli* strains from humans, animals, and the environment, using the One Health concept. The goal was to understand the significance of interactions between resistant plasmids and the host bacterial genome in the pandemic spread of certain strains.

The project resulted in scientific publications in high-impact journals. Its significance lies primarily in enhancing VETUNI's profile as a research institution with a notable impact on both animal health and public health.

NAZV Project: **African Swine Fever in the Czech Republic – Study of Molecular Epizootiology and Biological Properties of Domestic Virus Isolates.**

The project focused on studying selected viral proteins that could play a role in the development of new diagnostic tests or subunit vaccines for controlling this serious disease in pigs. It was carried out in collaboration with the Research Institute of Veterinary Medicine and the State Institute for Investigation in Jihlava. In addition to the publication in an impact factor journal, the project resulted in a certified methodology for detecting antibodies to the viral protein C-type lectin. The significance of the project lies primarily in enhancing VETUNI's profile as a research institution with a notable impact on animal health.

GAČR project: **Horizontal Gene Transfer Network in the Chicken Gut Microbiome: Detection and Prediction of the Antibiotic Resistome and Mobilome.**

The project aimed to identify, compare, and quantify mobile genetic elements and antibiotic resistance genes from chicken appendix and faeces samples. Furthermore, the project sought

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.

to identify their bacterial hosts and describe novel antibiotic-resistance genes using functional metagenomics methods.

The project was carried out in collaboration with Brno University of Technology.

AZV Project: Whole Genome Sequencing and Metagenomics as Tools to Understand the Routes of Transmission of Antibiotic-Resistant Bacteria from Hospitals to the Environment.

The project resulted in scientific publications in high-impact journals. Its significance primarily lies in enhancing VETUNI's profile as a research institution with a substantial impact on both animal health and public health.

Contract research project: **Detection of endogenous retrovirus RD114.** The output of the project was a diagnostic protocol for Bioveta a.s. enabling the detection of endogenous retrovirus RD114 in vaccines cultured on feline cells. The project enabled Bioveta to comply with EU rules on the presence of RD114 in vaccines for dogs and cats. It is an opportunity for the university to commercialize the results in the future.

Project NAZV: **Monitoring of helminthiasis agents in beef cattle breeding and analysis of anthelmintic resistance and genetic diversity.** One of the results of the project is a certified methodology, especially for examination institutes, for the detection of piroplasma in cattle. The project was carried out in cooperation with the State Veterinary Institute Jihlava.

Table 3.3.1 Projects supported by public funds

In the role of beneficiary						
Provider ²⁵	Project name	Support (in thousands CZK/EUR) ²⁶				
		2019	2020	2021	2022	2023
Czech Science Foundation (GAČR)	Multidrug-Resistant High-Risk <i>Escherichia coli</i> Strains: A Story of Successful Chromosome-Plasmid Interplay	3757/148.2	3463/136.6	0/0	0/0	0/0
Czech Science Foundation (GAČR)	Midgut microbial ecology, epithelial immunity, and vector competence of <i>Ixodes ricinus</i> and <i>Amblyomma americanum</i>	3261/128.6	3122/123.2	3230/127.4	0/0	0/0

²⁵ If the provider is from abroad, please indicate the provider's country of origin in brackets. For the determination of the country of origin of the provider, the place of residence of the provider is decisive.

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

National Agricultural Research Agency	Monitoring of strongylids involved in helminthoses of beef cattle in CR and analysis of anthelmintic resistance and diversity	3628/143.1	3758/148.2	3718/146.7	3172/125.1	0/0
Agency for Health Research of the Czech Republic	Enterobacteriaceae resistant to carbapenems and colistin: One-Health approach in addressing human and non-human sources of emerging antimicrobial resistance mechanisms	3286/129.6	3062/120.8	2916/115	0/0	0/0
Agency for Health Research of the Czech Republic	Whole Genome Sequencing and Metagenomics as Tools to Understand the Transmission Routes of Antibiotic-Resistant Bacteria from Hospitals to the Environment	0/0	1405/55.4	3156/124.5	3156/124.5	3486/137.5
Czech Science Foundation (GAČR)	Characterization of Selected Natural Immunity Genes in Domestic and Feral Cats	0/0	0/0	1715/67.7	1609/63.5	1603/63.2
Czech Science Foundation (GAČR)	Comparative Ecology and Epidemiological Significance of the Tick <i>Ixodes inopinatus</i> , a Newly Recognized Vector of Pathogens in Central Europe	0/0	0/0	4175/164.7	4174/164.7	4281/168.9
Total		13932/549.5	14810/584.2	18910/746	12111/477.8	9370/369.6
In the role of another participant						
Provider ²⁷	Project name	Support (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Ministry of Education,	National Sustainability	1613/63.6	1634/64.4	0/0	0/0	0/0

²⁷ Ibid.

Youth and Sports	Programme II – 'CEITEC 2020'					
National Agricultural Research Agency	The Spread of Ticks and Tick-Borne Diseases: New and Neglected Risks to Domestic and Farm Animals, and Humans	1161/45.8	1061/41.9	1222/48.2	0/0	0/0
National Agricultural Research Agency	National Agricultural Research Agency: Solving the Problem of Bacterial, Protozoan, and Viral Zoonotic Agents in Small Ruminant Farms	600/23.7	660/26	660/26	630/24.9	540/21.3
National Agricultural Research Agency	African Swine Fever in the Czech Republic: Study of Molecular Epidemiology and Biological Properties of Domestic Virus Isolates	980/38.7	980/38.7	980/38.7	0/0	0/0
National Agricultural Research Agency	Manipulation of Gut Microbiota Composition in Monogastric Animals as a Strategy to Suppress <i>E. coli</i> Infections and Reduce Antimicrobial Consumption	1185/46.7	1207/47.6	1115/44	1035/40.8	0/0
Agency for Health Research of the Czech Republic	Pathways of Spread, Evolution, Adaptation, and Significance of Antibiotic Resistance: Application of Whole Genome Sequencing	0/0	378/14.9	1540/60.7	1527/60.2	1435/56.6
Czech Science Foundation (GAČR)	Horizontal Gene Transfer in the Chicken Gut Microbiome: Detection and Prediction of Antibiotic	0/0	0/0	0/0	1923/75.9	2216/87.4

	Resistance and the Mobioime					
Total		5539/218.5	5920/233.5	5517/217.6	5115/201.8	4191/165.3

Table 3.3.2 - Contract research activities

Client ²⁸	Activity name	Revenue (in thousands CZK/EUR)				
		2019	2020	2021	2022	2023
Bioveta a.s.	Detection of Endogenous Retrovirus RD114	75/3	0/0	0/0	0/0	0/0
Total		75/3	0/0	0/0	0/0	0/0

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

3.4 Research results with existing or prospective impact on society

The evaluated unit shall briefly comment on a maximum of 10 (considered most significant by the evaluated unit) research results already applied or realistically heading towards application during the period of 2019–2023, based on the overview annex table 3.4.1 (it is recommended to indicate results with a link to projects listed in indicator 3.3). The evaluated unit must demonstrate in its description that the research results have led or will soon lead to positive impacts²⁹, on society (e.g. description of how the results are used by various users, the range of persons/institutions for which the result is relevant, measurable economic impacts, etc.). The evaluated entity shall indicate in its commentary whether the gender dimension is considered in these results and discuss the impacts of the results regarding sustainability.

Maximum range 300 words/result.

Self-assessment:

Certified methodology: Molecular detection and species classification of piroplasm was created in cooperation with the State Veterinary Institute Jihlava, which is also, together with the Czech Association of Beef Cattle Breeders, the main customer of the result. The result is already used in diagnostic practice and is available free of charge to other diagnostic institutes. The result is an important contribution to sustainable agricultural production.

The certified methodology Molecular Detection of *Anaplasma phagocytophilum* from Vertebrate Samples and Tick Vectors has the same importance and application.

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

Type of result ³⁰	Year of application	Name
Certified Methodology	2020	Molecular Detection and Speciation of Piroplasm Species
Certified Methodology	2020	Molecular Detection of <i>Anaplasma phagocytophilum</i> from Vertebrate Samples and Tick Vectors
Functional Sample	2021	ELISA kit for the detection of ASFV C-type lectin protein-specific antibodies in swine serum

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

²⁹ See Terms definition.

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

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:

The CEITEC VETUNI unit primarily focuses on basic research and aims to secure projects, mainly from agencies such as the Czech Science Foundation. The main outputs of its research are impactful scientific publications. Although only marginally, some of its projects also produce certified methodologies, as shown in Table 3.4.1. The unit does not currently have commercialization opportunities in the form of licensing or spin-offs.

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

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

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

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.

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:

CEITEC VETUNI is promoting its activities and achievements in science, research and innovation and communicating with the general public. These activities and the popularisation of R&D&I outputs are carried out by publishing the results in the press, on the Internet pages. Examples of R&D&I publicity and communication with the general public (newspapers, press releases, television, radio):

Prof. Žurek: Scientists map the occurrence of exotic ticks in the Czech Republic thanks to people (České noviny; education of the general public, a project in cooperation with the public – call for ticks to be sent for analysis from all over the Czech Republic for the detection of pathogens of communicable diseases)

Prof. Žurek: How to effectively eliminate ticks and not harm plants? Brno scientists have discovered a new way (Czech Radio Brno; education of the general public; some ticks suck not only blood but also water from the surrounding environment – thanks to the new knowledge it could be easier to eliminate ticks in the future)

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:

Since the initiation of this unit, the research groups were able to attract a large number of post-docs and junior researchers and build up a critical research mass, resulting in increased grant success and grant funding. The panel strongly recommends working on strategies to retain expertise and manpower in the unit. The ability to retain research capacities will be critical for maintaining CEITEC as an independent unit of the university. Mammalian Reproduction, Animal Cytogenomics and Animal Immunogenomics are well defined. Molecular Microbiology has all the ingredients for a successful research group with tremendous synergies between the subgroups. Orthopaedics and Surgery is a newer group with the potential to substantially contribute to the unit. Monika Dolejska has received several awards and successfully built her research group over the past few years. We recommend that successful junior scientists like her are further supported by UPVS to achieve their ambitious goals.

Since the last evaluation, the Molecular Microbiology and Animal Immunogenomics research teams have been stabilized. A larger percentage of researchers are now exclusively affiliated with the CEITEC unit, without shared appointments to faculties, for example. However, as mentioned earlier, staff

holding senior academic positions are exempt from this arrangement. Researchers have access to equipment dedicated to the unit and receive the same incentives as other researchers at the university. By definition of their positions, they are not involved in teaching and can focus solely on research activities.

The panel recognizes the potential in the certified methodologies and the patent applications and strongly recommends continuing with finding partners to transfer those results into practice....

.....Interactions with the application sphere present a good start, with more applied results evolving from the research the unit needs to expand its network of contacts and collaborators nationally but also internationally where possible.

As described above, the unit's objective is to conduct basic research. Certified methodologies and other outputs of applied research are rather occasional, with their primary users being government authorities or investigative institutes. Opportunities for the commercialization of these results are limited.

Support the junior faculty in their efforts to gain international recognition and establish themselves in the scientific community.

CEITEC's young researchers receive the same level of support as faculty researchers in the same category. They are encouraged to pursue mobility opportunities, collaborate with international institutions, and participate in conferences.

The panel recommends that CEITEC UPVS should become a research institute of the University with a director on the level of a dean reporting to UPVS administration. The panel also emphasizes the need to establish clear policies that define the framework for joint affiliations of faculty and staff and ensure that neither the future CEITEC institute nor the two faculties are risking being drained mutually.

"CEITEC VETUNI has become a unit of the university, with a director at its helm, who holds powers and duties equivalent to those of a faculty dean. While CEITEC is not formally designated as a research institute of the university, it effectively performs this role. Although senior-level staff (professors, associate professors) maintain affiliations with other parts of the university, there is a clear effort to minimize the sharing of time between CEITEC and the faculties. New recruits to research groups at CEITEC are generally funded through grant funding. During periods when, for example, a project ends and a new one has not yet begun, their stabilization is temporarily supported through DKRVO (Funding Category for Research, Development, and Innovation) or CEITEC funds.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 3

Document name	No. criteria	Location (link in HTML)

SELF-EVALUATION REPORT FOR MODULES 4 AND 5

HIGHER EDUCATION INSTITUTION NAME: University of Veterinary Sciences Brno

COMPANY REGISTRATION NUMBER (CRN): 62157124

MODULE 4 – VIABILITY

ORGANISATION AND MANAGEMENT OF R&D&I

4.1 Organisation and management of R&D&I

The HEI will briefly describe its organisational structure¹ and describe the R&D&I management system including the role of the HEI's central management, the management of faculties, and the HEI's institutes in organizing and managing R&D&I. It should also describe the role and structure of the technical and economic apparatus.

Maximum 1000 words.

Self-assessment:

The University of Veterinary Sciences Brno (VETUNI) has been composed of the Faculty of Veterinary Medicine, the Faculty of Veterinary Hygiene and Ecology, and the research unit CEITEC VETUNI since 2020. The system of R&D&I management at VETUNI takes place in two stages reflecting the interdependence of the management of the University and the faculties and other units of the University.

At the university level, the Department for Science, Research and International Relations is responsible for the management of research activities, which keeps records of projects, carries out their administration in accordance with the rules of the providers and public authorities. It is responsible to the Rector of the University. The Vice-Rector of Science, Research and International Relations is also the chairman of the committees established by the Rector (Commission for Science, Research and Foreign Relations, Commission for Genetically Modified Organisms, Commission of the Internal Creative Agency, Commission for Inventions, Patents, Utility Models and Trademarks, Commission of the Internal Agency for Technology Transfer), which further shape the nature and rules of research activities at VETUNI.

Another part of the university's R&D&I management structure is the Centre for Projects and Technology Transfer, which, in addition to managing development projects (not of a research nature), also deals with the area of knowledge and technology transfer. The Unit works with the Commission for Inventions, Patents, Utility Models and Trademarks and the University's Legal Department and administers the application of the results of applied research.

The Science, Research and International Relations staff is responsible for searching for calls from grant agencies and publishing them, assisting in writing and submitting grant applications by university researchers, and administering the partial and final reports of grant projects.

The role of the Dean's Office or the CEITEC Directorate is primarily to approve submitted projects in terms of their compliance with the research focus of the department and also to act as a check on the economic and personnel parameters of research projects. This role is usually performed by the Vice-Deans for Science and Research or the Secretaries of the Faculties.

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

Another body of R&D&I control at VETUNI are the scientific councils of the faculties and the scientific council of the university, composed of experts of the corresponding professional focus. Although these scientific councils are not strictly international in character, experts from abroad are represented in them. These councils meet several times a year and also discuss and approve documents in relation to faculty or university R&D&I plans.

Research teams are established at individual faculty departments or from CEITEC research groups, mainly on an ad hoc basis, to ensure the efficient handling of research projects requiring the collaboration of scientists from different professional specializations, the effective use of instrumentation and the involvement of PhD students. Such teams also collaborate across the university, thus increasing the competence of these units in dealing with research projects.

The University's research groups are not only supported in administrative activities, but the University also provides service to the technical and economic apparatus. There are staff from the economic and personnel departments, the procurement department, but also technical staff providing basic services to the facilities, clinics, care of patients and experimental animals, secretariats of the University, faculties, institutes and clinics. These activities are carried out by approximately 300 staff at the University. Some research and teaching activities also take place on the school farm in Nový Jičín, the activities of this detached workplace are provided by other technical/administrative staff.

R&D&I QUALITY MANAGEMENT AND SUPPORT SYSTEM

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

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

- A system of support for attracting national and international projects of projects.
- A system for project consultancy/management/administrative support.
- Science management (e.g., personnel and financial capacity for R&D&I transfer, personnel and financial capacity of the project acquisition support system, science managers, data analysts, business and innovation advisors, etc.).
- The existence of internal funding schemes.
- Strategy/opportunities for establishing new research teams (including international ones) and supporting them within the HEI (e.g. sharing of R&D&I equipment, laboratory and information facilities, administrative support, etc.).
- Support system for students and early career researchers².
- a system to support excellent science (e.g. support for excellent scientists, research teams, PhD students, collaborations, infrastructure, etc.).
- A system of support for interdisciplinary research and collaboration within the HEIs.
- The concept of providing conditions for the emergence of new, high quality research directions/topics, especially those with application potential.

Maximum 300 words per point.

Self-assessment:

- **support system for attracting projects (national and international)**

The staff of the Science, Research and International Relations Department regularly searches for open calls from national and international agencies and links and informs the University staff about the

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

suitable opportunities found. They also publish the rules for project submission and important deadlines. Information on potential applicants is provided by the faculties. The Science, Research and International Relations Department will then begin working with project proposers to assemble research teams and project financial budgets to align with the requirements of the granting agencies and the University's internal regulations. The Science, Research and International Relations staff also participates in the approval of project submissions at the university level and generally administers the submissions. In the later stages of the accepted projects, they work together to administer the required changes and control the use of funds.

Approximately 20 national grant agency projects are administered each year, and approximately 15 more are submitted each year. The University's success rate in national grant competitions is approximately 20-30% (see table below).

Year	Projects submitted	Projects accepted
2020	31	10
2021	25	5
2022	15	4
2023	15	3
2024	9	2

Each year, the staff of the department undergoes various training courses or courses on the development of knowledge in the administration of national and international grant projects. Examples of such training during the reporting period are listed below:

- Fundamentals of Project Management in Higher Education (APUA, 2024)
- Scientific data management training with Data Stewardship Wizard (in cooperation with GA ČR, 2024)
- Participation in the conference Days of Science, Research and Innovation 2024 (Ministry of Education and Science)
- Participation in the 1st project meeting of the RONALDO+ platform 2024
- Online participation in Open Science Week (2024, 2023)
- Regular participation in thematic seminars for applicants organized by national grant agencies (e.g. NAZV, AZV)
- Regular participation in meetings of the professional association CZARMA (REGON)

- **project consultancy/management/support administration system**

The system of project advice for newly submitted projects is two-stage and, as already described, takes place in continuity between the faculty and the university's science and research department and further cooperation with the university's legal and human resources department.

The administration of projects already accepted is carried out on an ongoing basis, again in cooperation between the aforementioned departments of the faculties and the University, so as to meet the necessary deadlines set by the granting agencies and the University regulations.

The projects are also administered using the GAP electronic system, which facilitates the administrative processes.

- **science management (e.g. personnel and financial capacity for transferring R&D&I results to society, personnel and financial capacity of the project acquisition support system, science managers, data analysts, business and innovation advisors etc.)**

The University does not have the staff or financial capacity to provide similar support through science managers, consultants or data analysts. To the extent necessary, these activities are self-supported within the full-time staff of the Science and Research Department.

- **existence of internal grant titles**

VETUNI staff can use two internal grant titles. The Internal Grant Agency (IGA) is more suitable for DSP students and young postdoctoral fellows, allowing them not only to gain their first experience in preparing, solving and administering their research projects, but above all to obtain relatively significant funding for their first independent research projects.

Calls of this agency are launched every year and on average 40 projects are submitted and less than 40% of them are accepted. The funded projects are evaluated at the annual IGA conference where the researchers present the results of the project. Statistics on IGA project funding can be found later in this chapter.

Another internal grant is the Internal Creative Agency (ITA VETUNI). Its calls is also announced annually. The agency was established in 2019, and its activities are covered by LCDRO funds. The target group of this new agency is all academic and research staff of the university. The reason for its establishment is to stimulate research programs in the field of mainly basic research in order to obtain scientific data to facilitate subsequent application in national or international grant calls. ITA VETUNI has become a much-needed catalyst for the research activities of the University. Each year, it provides funding for 12-13 one-year projects. Successful projects are selected on the basis of an evaluation of the timeliness and novelty of the project topic, as well as consideration of the previous publication and other creative activity of the research team, or the representation of PhD students in the research teams.

The success of these projects is evaluated by the committee at an annual conference. Examples of ITA projects can be found further in Section 4.11.

- **strategies/opportunities for establishing new research teams (including international ones) and supporting them within the university (e.g. sharing of R&D&I equipment, laboratory and information facilities, administrative support, etc.)**

Research teams are established at individual faculty departments or from CEITEC research groups, primarily on an *ad hoc* basis, to ensure effective handling of research projects requiring collaboration between researchers of different professional specializations and also the involvement of PhD students. Such teams also collaborate across the university, thus increasing the competence of these units in dealing with grant projects. This method of forming research teams also facilitates the sharing of instrumentation and laboratory equipment. Teaming occurs most often between faculty research teams and CEITEC teams, for the reasons already mentioned, where synergies combine the application potential of faculty teams with the methodological and instrumental facilities of CEITEC research groups. Examples of such cooperation are projects between the Institute of Genetics of the FVM and CEITEC laboratories, between the Institute of Biology and CEITEC laboratories, between the Institute of Infectious Diseases and Microbiology and the Institute of Pathological Morphology and Parasitology, etc. The university's research teams can also carry out experiments using animals in experimental animal houses. Currently, VETUNI has a valid decision on granting permission to use experimental animals for most institutes, clinics and the ŠZP Nový Jičín until 2029. Experiments, including teaching, may be carried out according to the permission on fish, amphibians, rodents, rabbits, but also on farm and pet animals. VETUNI may also conduct, with the consent of the nature

protection authorities, experiments in the wild throughout the territory of the Czech Republic. The purpose of most experiments is mainly teaching and basic research, the most used species at VETUNI is fish (ecotoxicology).

- **support system for students and early career researchers**

Students and early career researchers gain their first experience as members of research teams of more experienced colleagues, usually during their studies. In the following period (usually during their DSP studies or as recent post doctorands), they then participate in the already mentioned Internal Grant agencies, where they gain their first practical experience in preparing, solving and administering their own research projects. On average, 15 projects are funded each year.

Year	Number of Internal Grant Agency projects
2020	13
2021	16
2022	15
2023	11
2024	23

Early career researchers attend a number of regularly organized training courses or seminars. Popular courses include courses on intellectual property and technology transfer, a course on methods of working in research, biostatistics in science and research, a course on presentation skills, a course on electronic information resources, or English language courses. For many of these budding researchers, the course for certification to handle experimental animals is also important.

An important part of the support for early career researchers is the system of internships at foreign institutions. One-month internships are even a compulsory part of the education of DSP students but the system in place allows them to undertake longer stays at sites of their choice. The University spent an amount of CZK 4-6 million annually on the mobility of all students, including DSPs, in the monitored period, which is approximately twice as much as in the previous monitoring period (2017-2020). The amount of mobility of PhD students exceeding one month is shown in the table below.

Year	Number of DSP Internal Mobility Agency projects
2020	0
2021	0
2022	4
2023	21
2024	22

Mobility numbers in 2020 to 2022 are affected by the cessation of travel due to covid pandemic.

Young scientists are also motivated by lectures by foreign colleagues, which are regularly organized or by the organization of scientific conferences, including international ones. The best budding

scientists (usually DSP students) are further financially motivated through scholarships for outstanding publication achievements. Each year, nearly 30 DSP students are rewarded in this way and a sum of CZK 2 million is distributed among them.

- **system of support for excellent science (e.g. support for excellent scientists, research teams, PhD students, collaborations, infrastructure, etc.)**

The University offers a number of benefits for successful researchers. Administrative support is of course available. Another incentive is financial support; successful researchers of national or international projects are financially better rewarded by granting a premium component to each project they work on, and they are also financially rewarded for each impacted publication. Grant projects and published manuscripts are furthermore scored in the "Academic Staff Evaluation" system, and this evaluation is then reflected in their career growth opportunities.

The system of support for excellent science also includes the availability of electronic information resources. In the period under review, the University provided researchers with a total of 12 databases with access to all relevant professional resources, including the Web of Science database. In addition, a collection of scientific periodicals is available in the ScienceDirect database and from the publishers Wiley, Springer and Taylor Francis.

- **system of support for interdisciplinary research and collaboration within HEIs**

Interdisciplinarity of research is essential in view of the need to share sophisticated instrumentation and the associated the related know-how of the staff concerned. The cooperation between the faculties and CEITEC VETUNI is also supported, which is also taken into account in the setting of internal grant titles, especially of the ITA VETUNI agency, and is regularly used. Grant projects in the field of agricultural research and specifically veterinary research are multidisciplinary in principle, as they must include various aspects of clinical and preclinical research, therefore interdisciplinarity within faculties, cooperation of teams from both faculties or CEITEC and of course often with research teams from other institutions such as universities or state veterinary institutes is quite common in VETUNI projects. Very often, the research teams also include employees from the commercial sphere, for example, manufacturers of vaccines and biopreparations, representatives of breeders or breeders' associations, who bring their own, often specific, insight into the problem.

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

VETUNI's research activities can be characterized mainly as applied research and the search for new directions is therefore also due to this character. The focus of the research, including the search for completely new directions, is entirely at the invention and discretion of the research teams; the dean's office and the university's Science, Research and International Relations Department provide administrative support in this regard. Researchers are inspired by topics announced by the sponsoring sectoral grant agencies, especially the National Agricultural Research Agency, the grant agency of the Ministry of Industry and Trade, the Ministry of the Interior, or the Czech Technology Agency, but also by participation in meetings with breeders, producers, or at international conferences.

The broader research topics of the University are approved by the University's Scientific Council, but they are formulated in a relatively general way and therefore do not represent a limitation even for the search for new research directions. Funding new research directions by national grant agencies without preliminary research data is difficult. Therefore, ITA VETUNI plays an important role in enabling researchers to generate preliminary results that can then be used for submissions to other, mainly national, grant agencies.

In order to raise the scientific level of the academic staff but also to raise the visibility of the University and to search for new directions in research, conferences, including international ones, are organized at the University. Among those with the longest tradition are the **Middle European Buiatrics Congress** (23rd edition in 2024), the **Lenfeld and Hökl Days Conference**, the conference with international participation **Animal Protection and Welfare**, and the **Young Scientists' Conference for young researchers**, especially DSP students, which is not international in character.

4.3 Quality control system for R&D&I environment

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

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

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

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

Self-assessment:

The external advisory body of the University in all essential areas of activity, and therefore also in the field of R&D&I, are the scientific councils of the faculties and the University's Scientific Council. These bodies are composed of experts from the field of veterinary medicine and related disciplines from the Czech Republic and abroad. Scientific Councils meet several times a year, usually convened when faculties or universities need to make strategic decisions in the field of teaching or research activities.

Further evaluation of some of the University's research teams takes place regularly in conjunction with the annual ITA and IGA conferences.

Indirect evaluation of the research activities of university research teams is based on regular monitoring of their publication and creative activities. These evaluations are publicly displayed on the University's website, which undoubtedly has not only a monitoring but above all a motivational effect.

Furthermore, as part of the quality assessment system, the Academic Staff Appraisal System (HAP) was introduced at VETUNI in 2018. It includes the evaluation of the scientific performance of individuals and research teams.

It is a system of indicators with a score. For academics, these indicators cover various aspects of their teaching and research activities. In the case of the evaluation of researchers or teams, only indicators describing their creative activities are taken into account. The evaluation of research activities was first carried out in 2019 and has been carried out annually since then.

The results of the evaluation are included in the update of the internal quality assessment report, are available to the research team leaders and are taken into account, for example, in the competition for ITA VETUNI projects.

Furthermore, a major evaluation of VETUNI as a research organization was carried out in 2020 by an international evaluation panel according to the 17+ Methodology. The results of this evaluation are available at the list of supporting documents.

The ethical aspect of research activities is under the control of the University's Ethics Committee. The chairman of the committee is the vice-rector and its main role is to guarantee the personal integrity of the university staff in many aspects, including research. The activities of the Ethics Committee are governed by the University's Code of Ethics. Another possible instance dealing with the "purity" of the scientific environment of the university is the person of the ombudsman, collecting relevant complaints.

However, in the assessment period 2019-2024, no such complaints were filed, and it was not necessary to use the aforementioned protection mechanisms. However, the University has mechanisms in place to deal with similar situations.

The scientific activities of CEITEC VETUNI were evaluated in 2018 by the Scientific Advisory Board of CEITEC (ISAB), which is its highest scientific advisory body. ISAB regularly assesses the excellence of the overall research programme, sets criteria for planned research activities and makes recommendations on strategic decisions. ISAB organizes the international evaluation of CEITEC through international experts who guarantee an independent and transparent evaluation. Outside ISAB, CEITEC activities are further managed and discussed through the statutory representatives of the individual members of the community - the CEITEC Coordination Board Meeting.

4.4 Sustainability and resilience of R&D&I

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

- The sustainable development concept (strategy, objectives, plan and implementation).
- Social responsibility strategy.
- A knowledge transfer system, if it is established at central level.³
- The third role, the transfer of R&D&I results to society and interaction with local actors.
- The concept of research data management (data collection, access and sharing of data, use of the information obtained for R&D&I management, responsibility for data files, archiving and backup of data).
- Ethics and personal data protection.
- Intellectual property protection.
- Ensuring institutional resilience (resistance to foreign influence, cyber security, risk prevention, prevention of misuse of R&D&I and knowledge transfer results, a system to prevent or mitigate the negative impacts of R&D&I and knowledge transfer in society).
- Digitization and the use of smart technologies.
- The institutional strategy for Open Science 2.0/Open Access (if one exists), including information on the operation of the institutional repository or similar tools.
- A system for training undergraduate and postgraduate students as well as staff in the field of intellectual property protection and technology transfer.

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

Maximum 300 words per point.

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

Self-assessment:

- **sustainable development concept**

The Concept of Sustainable Development is part of the Strategic Plan of the Veterinary University of Brno for the period 2021-2030. The Strategic Plan is the basic conceptual document of the University, which sets out the strategies and development priorities and related measures to ensure the positive development of the University as a whole and the individual activities carried out by the University.

The long-term goal of the University is to sustainably support the University's research activities in the field of veterinary medicine and veterinary hygiene and ecology.

The strategy to achieve this objective is then

- the development of creative activities in the form of internal grants (ITA and IGA),
- promoting excellence in the research activities of the faculties and the University's research centre CEITEC
- support for doctoral programmes in their research focus

The sustainability of the University's research environment is based on the motivation of researchers in their research focus (financial evaluation of staff and DSP students, administrative support), the internationalization of the overall University environment (ensured by high support for mobility and an extensive English study programme) and the gradual introduction of HR Award principles.

- **social responsibility strategy**

The main objectives of VETUNI's social responsibility strategy are education, research, inclusion, environmental responsibility and strengthening the third role of the university. In the field of education, this includes the provision of quality education in veterinary medicine, veterinary hygiene and ecology. VETUNI is the only veterinary university in the Czech Republic, enrolling approximately 260 students each year in the first year of the Czech degree programme, thus meeting the needs of veterinary professionals in the country. In the field of scientific research, the university focuses on basic and applied research with a focus on addressing societal and environmental challenges. University research teams regularly participate in grant competitions announced by the Ministry of Agriculture, industry, or others that focus on topical issues.

Inclusion then means the university's focus on promoting equal access to education for all students, regardless of social, economic or cultural background. The University has developed a system of scholarships to enable students from different socio-economic backgrounds to successfully complete any of its degree programmes, including doctoral programmes. Some of the scholarships are specifically targeted at students with a research profile, such as the ITA, IGA scholarships or the incentive scholarships for the most successful PhD students.

In the area of the environment, the university is striving to reduce its ecological footprint, for example by partially switching to renewable energy sources. In 2024, a solar power plant project generating approximately 15 percent of the university's electricity consumption was completed.

The strengthening of the third role of the university is then oriented towards the provision of professional veterinary care services, or the transfer of knowledge to the professional and lay veterinary community in the form of lectures, seminars, consultancy.

Since 2024, the University is the project manager of the National Sustainability Programme, which focuses on:

- Creation of new programmes and courses for lifelong learning focused on ecologically vice-oriented disciplines and environmental protection
- Sustainability and green transformation strategies in cooperation with the State Veterinary Administration in the field of environmental sustainability and green deal principles.

- **knowledge transfer system, if established at central level**

The knowledge transfer system is implemented at faculty level. The data on it is collected centrally by the Science, Research and International Relations Department. At VETUNI, knowledge transfer is mainly implemented by organizing conferences and seminars for the professional and general public and at the same time by the participation of university researchers in these types of knowledge transfer. Another way of participation of the university staff in knowledge transfer are the professional activities of the university's veterinary clinics, consultancy activities, as well as the publication of professional journals (e.g. "Meat", "Meat international"). Veterinary activities, especially those of the clinical departments, are an important source of income and thus commercialization of research activities. The reputation of the VETUNI clinics in the public space is largely based on the exploitation of the research results of their staff. This form of commercialization should also be included in the system of knowledge transfer or commercialization of the results of applied research of the university.

- **third role, the transfer of R&D&I results to civil society and interaction with local actors**

The third role of the university takes place at the level of cooperation and partnership with various regional actors. The most important activities include organizing consultations, training and educational programmes for the professional and general public. The lecture series of the University of the Third Age, organized by the two veterinary faculties, and various lifelong learning courses are very popular and well attended. The University organizes several dozens of these courses each year, attended by several thousand people (e.g. 76 courses/3216 applicants in 2023, 44 courses/1973 applicants in 2022).

A number of university staff members are involved in the popularization of the university through presentations on television, radio, or social media. Similar promotion of the University is carried out during the annual Open Days. The University has a programme to stimulate similar promotional activities in the form of an annual competition. Prizes are mainly awarded for appearances by university academics in the media or on social media.

At the level of partners from the municipal government, long-term cooperation with the South Moravian Centre for Mobility or the South Moravian Innovation Council is beneficial. These collaborations offer additional forms of mobility or support for DSP studies.

Probably the most important activity in the third role of the university is the provision of veterinary care, in which all the university clinics are involved. These activities also play an important role in knowledge transfer, in attracting non-public sources of funding and in promoting the University to the general public.

- **the concept of research data management (collection, access and sharing of data, use of information for R&D&I management, responsibility for data files, archiving and backup of data)**

In the period under review, the collection and archiving of research data was the responsibility of individual faculties. Since 2019, the grant project registration system "GAP" has been in operation at VETUNI, which is designed to register grant projects and allows researchers to keep complete project administration. At the same time, this system allows the institution to collect, archive and backup important documents related to grant projects in order to comply with the rules of grant agencies. As each researcher logs into the system with his/her login details, this also guarantees the protection of personal data. Responsibility for the integrity and security of the data files entered into the application rests with the University's IT department, which also performs data backups within the University.

As part of the "Open Science" strategy, a repository for sharing research data was launched in 2023. It is currently administered by the university library staff, but later on, the entry of research data will

be the responsibility of individual researchers. The repository is linked to the university's research results registration system and also allows for the registration and public sharing of laboratory data including image and video files, genetic sequences, etc., thus fulfilling the requirements of grant agencies in the field of open science policy.

- **ethics and data protection**

Ethical issues at VETUNI are supported by the Code of Ethics, which is an internal standard of the University. This document is also valid for R&D&I and is available to all university employees. Ethical issues are under the responsibility of the Ethics Committee appointed by the Rector. This committee plays a role not only in proposing updates to the University's Code of Ethics, but also in hearing possible violations against it. In the reporting period 2020-2024, there were no ethical offences pending.

The protection of personal data is the responsibility of the University's legal department and the binding document of the University in this area is the Rector's Directive ZS1/2018 Protection and Processing of Personal Data.

- **intellectual property protection**

The protection of intellectual property is based on the Rector's Directive No. ZS 4/2011 Disposal of Research, Development and Innovation Results. Practical implementation is then ensured by the Rector's Commission for Technology Transfer or the VETUNI Commission for Inventions, Patents, Utility Models and Trademarks, which monitors the application of the interests of the University and its staff in the field of intellectual property and controls the relevant provisions in project contracts and contracts relating to applied results. Staff training in the field of intellectual property is carried out for doctoral students by means of an annual lecture attended by 10-15 students each time.

- **ensuring institutional resilience (resistance to foreign influence, cyber security, risk treatment, prevention of misuse of R&D&I results and knowledge transfer, a system for preventing or mitigating the negative impacts of R&D&I and knowledge transfer on society)**

In relation to resilience against foreign influence, employees and students are informed about possible risks and correct procedures in the anti-influence manual available on the University's website. The University also monitors compliance with international sanctions against third countries, particularly in the area of knowledge and technology transfer or employment of staff from countries under sanctions. Cyber security is continuously ensured by the University's IT department. The University has developed rules of conduct for network traffic, use of electronic mail, system use and password updates. Prevention of misuse of research results and knowledge transfer is under the control of the relevant committees of the Chancellor and ensured by the Department of Science, Research and Foreign Affairs.

- **digitization and the use of smart technologies**

The University's priorities and intentions in this area are published in the University's Strategic Plan. One of the priorities is to reduce administration for academic staff by switching to digital record systems (Erasmus without paper, ordering and procurement system, records of grant projects and publication results, study agendas accessible via mobile application, E-learning systems...). The University is also involved in building a connection to the Single Digital Gateway, which will facilitate digital communication with state authorities.

- **institutional strategy for Open Science 2.0/Open Access (if any), including information on the operation of the institutional repository or similar tools.**

The University does not currently have a strategy for Open Science 2.0 embedded in its strategic documents, however, there is a clear effort to meet the requirements set for compliance with the basic principles of this strategy. These include encouraging researchers to publish in 'open access' journals. The limitation here, however, is obtaining financial resources. The University keeps records of the number of publications and the amount of money involved in open access. Over the last 5 years, University researchers have published an average of 65 articles in open access journals for an average of CZK 1.5 million and this number is increasing year on year.

In addition, VETUNI itself publishes an open access journal Acta Veterinaria Brno. There are internal grant agencies at VETUNI that financially support the development of science and research, the involvement of students in R&D, including the financial provision of publication fees and thus the promotion of open access in science.

As part of the "Open Science" strategy, a repository for sharing research data was launched in 2024. Currently, it is administered (due to testing and starting up the repository) by the university library staff, but later on, the entry of research data will be the responsibility of individual researchers. The repository allows archiving of metadata of research publications or, depending on the licensing rights, full versions of these publications. However, the repository also allows archiving research data and presenting them to interested parties in the context of the Open Science strategy.

VETUNI staff and students are informed about the Open Science issue in documents published on the university library website (<https://www.vetuni.cz/o-univerzite/informace-o-univerzite/jina-pracoviste/studijni-a-informacni-stredisko/podpora-vedy>).

- **system of training undergraduate and postgraduate students and staff in the field of intellectual property protection and technology transfer.**

The system of education of students and academic staff of the University in the field of intellectual property protection and technology transfer was implemented in the past period in individual study programmes of the DSP with a dominant share of individual consultations with a supervisor. Since 2020, a lecture on intellectual property protection and a lecture on technology transfer have been included in the system of doctoral education. By 2024, several dozens, mainly postgraduate students, had attended this lecture.

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:

In the period under review, the University has strived to improve the qualifications of its academic and research staff. As can be seen from the attached Tables 4.5.1 to 4.5.3, almost 25% of the total number of academic staff hold higher teaching qualifications. This number can be assessed as very good and also represents a small percentage increase compared to the 2020 assessment. In addition, there has been an increase in the number of assistant professors in the period under review, compared

to the assistant category. This means that the increase in the number of academic staff who have achieved a PhD title. The number of associate professors, in the period under review, has remained approximately constant. The numbers show that in the case of highly qualified staff (professors and associate professors), full-time staff (100%) at VETUNI dominated.

In the period under review, a number of researchers worked at VETUNI, mainly within CEITEC, but also on research projects of Grant Agency of the Czech Republic (GAČR), National Agency for Agricultural research (NAZV), or others, whose numbers and calculated numbers are expressed in the same tables. The observed decrease in the number of these staff is related to the University's efforts to involve these staff in teaching, thus moving them from the category of researchers to some category of academic staff.

The University's academic and research staff are remunerated according to the Internal Wage Regulations, which were amended in 2024. These Regulations differentiate the remuneration of the University's academic staff according to the academic degree they have obtained and, in the case of researchers, according to their experience in research projects. The Regulations also allow for salary increases for both research and academic staff from funds obtained from research projects.

A relatively high percentage of the academic and research staff of the University are foreign nationals, but most of them have Slovak citizenship and are therefore not considered foreign according to the rules of the 25+ Methodology. The percentage of "true" foreign represented 12-13 FTEs in the monitored period.

As can be seen from the presented tables, the representation of men in senior academic positions dominated, the percentage of women in the professorial staff averaged 38% of FTE and their absolute numbers partially increased with age.

The category of "Early Career Researchers" includes researchers within 8 years of completing their PhD studies. This category listed in the attached tables includes only pure researchers. If we also include academics involved in research activities in this category, it is estimated to represent approximately 10% of all university staff.

The category "Other scientific, research and development personnel" includes by definition, researchers who participate in research activities only by, for example, operating specialized equipment. This category is not represented at VETUNI; the equipment is operated by academic or research workers from other categories.

Regarding the category "Scientific, research and development staff involved in teaching activities", it should be noted that research and teaching activities at the university are closely linked. Every academic worker is involved in research activities and similarly every researcher is involved in teaching in some way.

Currently (year 2025) VETUNI is not a recipient of an HR Award. This prestigious but also binding label will be an important prerequisite for access to national and international projects, so pursuing its award is one of the sub-objectives of the University's research strategy, as described in the following sections of this self-evaluation report.

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	27.460	32.1 %	0 %	26.571	37.2 %	0 %
Associate Professor	31.525	44.5 %	2.3 %	24.033	40.26 %	4.1 %
Assistant Professor	122.439	65.8 %	1.9 %	113.566	68.57 %	2.46 %
Assistant	53.742	69.8 %	1.3 %	33.768	68.49 %	0 %
R&D Personnel ⁵	0	0 %	0 %	0	0 %	0 %
Researchers in other categories ⁶	28.376	65.00 %	2.1 %	15.587	70.69 %	1.3 %
Technical and economic staff ⁷	341.528	78.9 %	2.8 %	301.394	79.57 %	3.71 %
Early career researcher ⁸	8.15	70.6 %	4.8 %	7.50	86.7 %	2.7 %
Scientific, research and development staff involved in teaching activities	28.376	65.00 %	2.1 %	15.587	70.69 %	1.3 %
Total number of foreign nationals	43	67.3 %	30.5 %	45	68.8 %	34.8 %

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

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

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

Academic/professional position	Under 29 years [%]		30-39 years [%]		40-49 years [%]		50-59 years [%]		60-69 years [%]		70 years and over [%]	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	0.6	0.3	1.1	0.2	2.0	0.8	0.8	0.3
Associate Professor	0	0	0.2	0.2	1.7	0.8	1.1	0.5	1.4	0.9	0.3	0
Assistant Professor	0.3	0.3	9.3	6.8	7.9	5.1	2.6	1.7	1.2	0.5	0.2	0.2
Assistant	4.8	3.9	4.2	3.0	0.9	0.5	1.4	0.3	0.5	0.2	0.3	0.2
Early career researcher ⁹	1.4	0.9	2.3	2.0	0	0	0	0	0	0	0	0
R&D Personnel ¹⁰	0	0	0	0	0	0	0	0	0	0	0	0

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+.

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).

Researchers in other categories ¹¹	1.4	0.9	2.3	2.0	0.5	0.3	0.2	0	0	0	0.2	0.2
Technical and economic staff ¹²	7.1	4.7	6.5	5.3	13	10.6	14.1	11.6	7.8	5.4	3.4	2.8
Scientific, research and development staff involved in teaching activities	1.4	0.9	2.3	2.0	0.5	0.3	0.2	0	0	0	0.2	0.2

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.

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

Academic/professional position	Under 29 years [%]		30-39 years [%]		40-49 years [%]		50-59 years [%]		60-69 years [%]		70 years and over [%]	
	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Professor	0	0	0	0	0.5	0.2	1.2	0.5	1.7	0.7	1.2	0.3
Associate Professor	0	0	0	0	1.7	0.7	1.9	1.2	1.0	0.5	0.7	0
Assistant Professor	0.2	0.2	8.0	5.6	11.5	8.1	1.7	1.0	0	0	0	0
Assistant	3.0	2.4	3.6	2.4	1.0	0.5	2.4	0.7	0.2	0.2	0.5	0.2
Early career researcher ¹³	0.5	0.5	1.0	0.8	0	0	0	0	0	0	0	0
R&D personnel ¹⁴	0	0	0	0	0	0	0	0	0	0	0	0
Researchers in other categories ¹⁵	0.5	0.5	1.0	0.8	0.7	0.5	0	0	0	0	0	0
Technical and economic staff ¹⁶	6.9	5.8	6.9	5.1	14.4	11.3	14.4	11.5	9.3	7.8	2.5	1.5
Scientific, research and development staff involved in teaching activities	0.5	0.5	1.0	0.8	0.7	0.5	0	0	0	0	0	0

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

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.

¹³ See definitions in Methodology HEI2025+.

¹⁴ The category "Other scientific, research and development personnel" includes technical and professional personnel who are not directly involved in R&D&I but are indispensable for the research activity (e.g. operators of research facilities).

¹⁵ The category "Researchers not falling under other categories" includes all other staff who cannot be classified under any of the above categories (e.g. independent researcher/scientist).

¹⁶ Who participates in the management and support of R&D&I in the institution.

4.6 Academic and Research Careers

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

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

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

Maximum 300 words per point.

Self-assessment:

- **career development rules and legislation governing the recruitment and career development of domestic and foreign employees (e.g. Career Code, HR Award, OTMR policy, etc.)**

The recruitment policy is governed by the Open, Transparent and Fair Recruitment Policy (OTM-R Policy) and their subsequent career development by the University's Career Regulations.

International tenders (selection procedures) or recruitment of foreign staff are governed by the same rules as the recruitment of domestic staff (Regulations on Selection Procedures for Filling Academic and Other Staff Positions at VETUNI).

Vacant positions of academic or research staff are filled on the basis of competitive selective procedures. These are publicly announced on the University's website and other publicly accessible platforms, together with the professional requirements for candidates. The selection procedures are announced by the Dean of the Faculty and are conducted under the control of the Selection Committee.

- **the process of new employee adaptation and mentoring**

The adaptation and mentoring process for new staff takes place at the level of individual departments, and there are no formal rules for it. Mentoring of a new staff member is usually carried out by the head of the institute or clinic himself, but he may ask another experienced staff member to look after the new staff member. The new employee is also briefed by the safety engineer on the rules of occupational safety. This adaptation process usually takes several weeks.

A typical example of the career progression of an anonymised worker is:

- Employment in an "animal disease clinic" as an assistant, usually Erasmus-type mobility, internal mobility agency
- Doctoral studies - 3-5 years ending with PhD degree, limited involvement in student teaching, education supplemented by mobility to foreign sites, involvement in scientific research, IGA projects, member of ITA project teams
- Employment at the "Animal Disease Clinic" as an assistant professor (approximately 3-7 years), full involvement in teaching, member of ITA project teams
- Habilitation proceedings, building own research team (PhD students)
- Professorship

- **transparent distribution of institutional workload, attitude towards contract chaining and senior academic positions**

Institutional time is distributed at the faculty level, in accordance with the "Regulations for the Selection Procedure for Filling the Positions of Academic Staff and Other VETUNI Employees". Academic full-time positions are filled on the basis of a selection procedure announced by the Dean and published on the University's website but also on publicly available specialised platforms. The selection procedure is supervised by selection committees. The number of academic positions at individual departments depends mainly on the volume of teaching (number of disciplines guaranteed), and additional staff may be recruited as members of newly formed grant project teams.

In the area of contract chaining, the University respects the Labour Code. In this respect, 'junior' and 'senior' academic positions are distinguished.

In the case of assistants, assistant professors or staff funded by national grant agency projects, it is possible to chain contracts, but these may be for a maximum of three years each time, or for the length of the project in question. This rule is based on the annex to the collective agreement between the University and the trade unions.

For senior academic positions (associate professor, professor), an employee may have a maximum of three fixed-term contracts, with the total length of the fixed-term contract not exceeding three years. After this period, the employer must offer a permanent contract or terminate the employment.

- **rules for filling senior positions in the context of R&D&I**

The management positions of academic staff are filled for academic functionaries according to the procedures set out in the legal regulations and internal regulations of the University and the faculties, and for other academic staff on the basis of a selection procedure.

The rules for filling the positions of academic and other VETUNI staff are laid down in the "Rules of the selection procedure for filling the positions of academic and other VETUNI staff".

- **rules and system of support for sabbaticals**

Academic teaching staff have the possibility to take sabbatical leave, this leave is linked to the preparation of the habilitation or professorial procedure. The teaching workload, the scientific and research activities and their follow-up at the University, the workload of the individual institutes and clinics and the responsibility of the staff for the activities at the institutes and clinics mean that this sabbatical leave option has not yet been used.

- **measures for the return of workers after a stay in an external workplace incl. Foreign assignment, and the return of workers after maternity/parental leave or other career breaks (e.g. caring for family members)**

Above all, the University of Veterinary Sciences Brno offers its workers social stability, a pleasant working environment and a range of motivational factors that are attractive to returning workers. It is also important for young mothers that the university offers childcare in a nursery with which the university has a contractual relationship. In addition, there are some medical specializations on the university campus (endocrinology, dentist, gynecology, general medicine, psychological counselling...). The fact that this motivation is effective is evidenced by the fact that the return rate of staff from maternity leave is approximately 95%.

4.7 Gender equality measures

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

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

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

Maximum 300 words per point.

Self-assessment:

- **gender equality system in recruitment and career development**

The University's gender equality system is enshrined in the document "University Gender Equality Plan". Gender equity in recruitment and career development includes:

- maintaining the gender composition of recruitment committees
- maintaining gender fair approaches in work activities at the University
- setting career development for staff
- maintaining a gender-responsive approach in the composition of habilitation and professorship committees
- setting salary conditions for staff, including gender fairness in staff remuneration

- **legislation and documents regulating gender equality (e.g. Gender Equality Plan, Action Plans, strategic documents for equality, including links to overarching strategies, etc.)**

In 2023, the University of Veterinary Sciences Brno approved the Gender Equality Plan at the University in accordance with the European Union's gender equality goal, which provides a framework for further development of gender equity at the University of Veterinary Sciences Brno ([Gender equality plan – VETUNI](#)).

The legal regulation of gender correctness at the University is addressed by a separate internal norm of the University regulating the conditions for the development of gender correctness at the University (Rector's Directive No. ZS 4/2023 Gender Equality). The Directive sets out the rules for the development of gender equality at the Veterinary University of Brno and determines the most important areas for ensuring gender correctness at the University, as well as the processes for ensuring and the procedures for evaluating gender correctness at the University. In order to assess the implementation of gender correctness at the University, the University management, the faculty management and the University Gender Correctness Coordinator and the University Gender Correctness Committee carry out monitoring of gender correctness at the University. In doing so, it uses information, data and data from individual activities at the University, or obtains targeted input from individual University managers, faculties and other units relating to gender correctness at the University.

An assessment of gender correctness at the University is carried out once a year in the form of a separate Report on Gender Equality at the University. Other related legislation in this area is the Rector's Directive on Social Security and the Code of Ethics.

- **filling senior positions (including gender balance in senior positions, see Table 4.7.1) and nominations to expert bodies**

Gender fairness in the University's governance processes includes maintaining gender fairness in the processes of staff representation in the University's self-governing bodies, in the decisions of the self-governing bodies, maintaining gender fairness in the processes of staff representation in the University's governing bodies, in the decisions of the University's governing bodies and in the staffing of the University's advisory committees.

In 2023, gender correctness was checked in the processes of setting up personnel representation in the self-governing bodies of the University, in the implementation of decisions of the self-governing bodies of the University, in the processes of setting up personnel representation in the management structure of the University and in the implementation of decisions of the governing bodies of the University. The monitoring of gender representation in the bodies and advisory committees in the University's governance structure shows the representation of both gender groups. Similar principles and rules apply to nominations to the University's expert bodies (e.g. the Rector's expert committee etc.).

- **evaluation and remuneration**

The evaluation of the setting of pay conditions for employees including gender fairness in the form of an internal norm at the University and the maintenance of a gender fair approach in the pay of employees in relation to gender groups at the University is carried out once a year in the form of a Report on Gender Equality at the University.

A partial assessment of the individual indicators (year 2023) shows that pay conditions are set in accordance with gender fairness. There is a lower level of pay for academic staff in the female gender group, but this is almost identical to the lower level of range and quality of activities found in the female gender group (by the HAP system).

- **measures to reconcile family and working life of researchers (flexible working hours, flexible forms of work, maternity/parental leave management, facilitating child/dependent care, age management in relation to gender)**

Reconciling work with parenthood and caring for family members highlights support for postgraduates in pregnancy and parenthood in the form of individual study plans that allow for the relaxation of their studies or the use of home or distance learning. These options are used quite

frequently by researchers, and especially by DSP students, if the operational or organizational conditions of their studies allow it. In particular, these options are used by expectant mothers or, for example, parents returning from parental leave. Other opportunities offered by the University are also used, for example, support for the placement of children of University employees in a nursery school with a contractual relationship with the University, or support for the placement of children of University employees in a first-level school, again with a contractual relationship with the University.

Flexible working hours are also used. According to the existing rules on setting flexible working hours of the University, each employee has a fixed part of working time between 9:00 -13:00, the remaining period can be adjusted according to his/her needs without needing explicit approval of the supervisor. These arrangements are sufficient for most employees, including mothers with young children, to balance work and family care responsibilities. In cases where the flexible working time does not give the worker a sufficient degree of freedom, it can be further adjusted in agreement with the head of the workplace. A further option is the use of home office working, which can be used by any academic staff member in accordance with the relevant Rector's directive, in agreement with the Head of Department.

- **measures to eliminate negative behavior in the workplace, such as mobbing or sexual harassment**

Social safety, including measures against gender-based violence and harassment at the University, is addressed in a separate internal standard, as well as the presence of an ombudsman for social safety at the University, and counselling for students and staff on social safety at the University. (The social safety centre - VETUNI). However, these mechanisms have not yet been used within the university.

4.7.1 Gender balance in management positions

Senior staff	2020		2024	
	Men	Women	Men	Women
Rector	1	0	1	0
Vice-Chancellor	3	0	2	1
Dean ¹⁷	1	1	1	1
Academic Senate	15	15	12	9
Scientific/Artistic/Academic Council	41	7	41	6
Quaestor	1	0	1	0
Board of Directors	11	2	11	1

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:

The University attaches great importance to the mobility of research and academic staff, as evidenced by the number of supported mobility programmes and funding opportunities for staff and student trips abroad. Strategically, this effort is planned in the University's basic documents such as the "Strategic Plan" and organizationally it is secured and controlled by the relevant directives of the Rector (e.g. the directive on foreign travel). The mobility of academic and research staff of the University is practically organized and ensured by the Department for Science, Research and International Relations.

Funding for mobility is mainly provided by the veterinary service provided at the University's clinics or by the economic activities of the institutes, but the more common way of funding mobility of academics is to use the resources of grant agencies. The Erasmus+ programme also offers some opportunities, but only for a relatively short period of time. The University places particular emphasis on the mobility of early career researchers, especially DSP students. The obligation to complete at least a one-month internship abroad is even stipulated as one of the obligations of PhD students in the study regulations.

Others, both academic and research staff, are motivated to undertake various types of mobility to improve their qualifications mainly through the academic staff appraisal system (HAP) where the requirement to undertake mobility contributes quite significantly to the positive evaluation of each staff member. The requirement to undertake a sufficient number and level of mobilities is but is also included in the criteria for academic or researcher vacancies.

Year	Academic staff	Doctoral Students
2020	0	0
2021	0	0
2022	3	7
2023	9	27
2024	6	22

These figures show a decline in mobility during the covid pandemic, but an increase in mobility to standard levels afterwards.

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

Longer-term mobilities of more than three months are provided to a lesser extent at VETUNI. It is difficult for academic staff to leave the workplace for such a long period of time, mainly due to the high teaching load but also due to the operation of the institutes or clinics. In the period under review, therefore,

two mobility trips of this magnitude took place.

- MVDr. Barbora Červená Ph.D. – Sydney School of Veterinary Science, Faculty of Science, University of Sydney
- MVDr. David Najt, Ph.D. – University of Veterinary Medicine and Pharmacy in Košice, Department of animal nutrition and husbandry

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:

VETUNI researchers have several options for acquiring expensive instruments and equipment. One of them is obtaining investment funding from grant funds. However, this way has recently been severely restricted by national agencies. Another option is to acquire these units through non-public funds raised primarily by veterinary activities. However, there are greater opportunities in the form of funding from the European Structural Funds. For example, the vast majority of the CEITEC project has been financed from these funds. In the period under review, a significant source of investment funds was the MPO Programme, under which, for example, a new doctoral programme was established „Veterinary Virology" and was provided with a number of costly investment units such as a benchtop ultracentrifuge, digital PCR equipment, flow cytometer, and other instruments. Another option for investment funding is from the LCDRO. The VETUNI research teams can also purchase instrumentation from the allocated funds of the Internal Creative Agency projects.

Significant instrumentation units acquired from various grant projects are shared between research groups according to their research needs. In this case, the research group pays only the overheads for the operation of the equipment. In the case of CEITEC, there is a shared molecular microbiology laboratory (core facility) for which the same rules on sharing of expensive research infrastructure apply. The largest items purchased in the period under review included digital PCR equipment, benchtop ultra-centrifuge, real-time PCR cyclers, medium pressure chromatography (FPLC) equipment, atomic absorption spectrometry, sequencing equipment, anaerobic box, diagnostic

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.

ultrasound, pipetting and isolation robotic equipment, NMR machine, electron microscope, flow cytometer, mobile X-ray, fluorescence microscope or operating table.

The sharing of these equipment units is usually carried out either by the mechanism already described or by the inclusion of teams with more important equipment units in the project teams of the grant projects. Statistics on the sharing of this equipment are not carried out.

The University hosts a large research infrastructure project - CEITEC (Central European Institute of Technology), which was established in cooperation with other partners - Masaryk University, University of Technology, Research Institute of Veterinary Medicine, Mendel University and Institute of Physics of Materials of the AVČR.

The CEITEC VETUNI Research Centre was established as an additional department of the University. Its funding was implemented in 2011-2015 through a start-up grant funded by the European Structural Funds. The start-up grant provided funding for the scientific staff of the centre as well as covered the material costs of the scientific part of the project. Currently, CEITEC VETUNI consists of 2 research groups and its funding is realized through a matching share of LCDRO funds generated by the publication output of CEITEC staff as well as by grant projects of project staff.

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

Costs/expenses in thous. CZK/EUR/year	2020	2021	2022	2023	2024	Total value of assets ²⁰
Costs/expenses related to the acquisition of small, fixed assets for R&D&I	1915/73.6	1364/52.4	2113/81.2	1478/56.8	1165/44.8	8035/309
Cost of repairs and maintenance of equipment	659/25.3	919/35.3	891/34.2	752/28.9	2033/78.1	5254/202
Acquisition of tangible (DH) and intangible (DN) assets for R&D&I (investments)						
Of which software	0	0	0	0	0	0
Of which other intangible fixed assets	0	0	0	0	0	0
Of which land, buildings and structures	0	0	0	0	0	0
Other intangible fixed assets (machinery, apparatus, equipment, etc.	0	123/4.7	1740/66.9	0	0	1863/71.6
Total infrastructure spending in years ²¹	2574/99	2406/92.5	4744/182.4	2230/85.7	3198/123	15152/582.7

²⁰ Enter the sum of the row.

²¹ Enter the sum of the column.

FINANCES

4.10 Budget and structure of financial resources

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

As complementary data, the university will provide an overview of prestigious research projects obtained during the period of 2020–2024 (ERC²², MSCA²³, HHMI²⁴, HFSP²⁵, NSF²⁶, Horizon Europe²⁷, NIH²⁸, Wellcome Trust²⁹, EDF³⁰, OP JAK³¹, OP TAK³², NPO³³, GA ČR³⁴, TA ČR³⁵ etc.). Include information on the amount of funding received and whether the HEI were principal investigator or co-investigator in Tables 4.10.3, 4.10.4 and 4.10.5.³⁶

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

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

Self-assessment:

The distribution of the University's budget to its individual units is carried out in accordance with the "University Budget Rules". The budget shares of the University's units depend on the volume of teaching of all taught disciplines (master's, bachelor's, doctoral), on the volume of funds received for research projects and, finally, on the funds for the long-term conceptual development of the organization (LCDRO). The LCDRO funds are then distributed in a merit-based manner in relation to the quantity and quality of publication and application outputs. A significant part of the University's income is generated by the service activities of the University's individual clinics (veterinary

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.

services). However, these funds are intended only indirectly to support the University's science and research; after deduction of overheads, they are reinvested in the operations of the clinics that received them.

The University does not have any non-public funds in the form of donations, licenses or profits from spin-offs, so only funds raised through contract research can be considered non-public funds, but these are not very predictable.

The income covering the University's research activities comes mainly from grant agencies and LCDRO funds, 70% of which are earmarked for applied research projects. From the prestigious national grant agencies, VETUNI has been successful in competitions of the Czech Science Foundation (GAČR). These are basic research projects. In the period under review, the University was awarded 5 projects in which it was the principal investigator and 4 projects in which it was a co-investigator of this prestigious agency.

Another important national agency is the Technological Agency of the Czech Republic (TAČR), in which the University was awarded 3 applied research projects. A similarly applied results-oriented agency is the agency of the Ministry of Industry and Trade (MPO). In this agency VETUNI obtained 2 projects as an additional participant in the reporting period.

The TAČR and MPO projects are focused exclusively on obtaining results of an applied nature and are usually solved in cooperation with enterprises of the commercial sphere, which commercialize the obtained results. In the case of VETUNI, however, these projects are currently still in progress or have recently been completed and commercialization has therefore not yet taken place.

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
FVM	33 936/1 338	100	0	0
FVHE	41 935/1 654	100	0	0
CEITEC	4 316/170,2	100	0	0
Rectorate	10 388/409.7	100	0	0
Total	90575/3571.9	100	0	0

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	27	33	30	33	28	30
Applied Research	73	67	70	67	72	70
Experimental development and innovation	0	0	0	0	0	0
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	
Adalbert-Raps-Stiftung	Standard project	Analysis of relationship between air cavities and Weissella viridescens in meat products and possibilities of air cavities elimination	80/3.1	0/0	0/0	0/0	0/0	
Visegrad Fund	Standard project	Sustainable Beekeeping in the Visegrad Group	0/0	0/0	0/0	632/24.9	0/0	
Total			80/3.1	0/0	0/0	632/24.9	0/0	
In the role of another participant								
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)					
			2020	2021	2022	2023	2024	
MGVP-USFWS	Standard project	Evaluation of parasitic infections involved in mortalities of mountain gorillas of Virunga Massif using advanced genomic	633/25.3	0/0	0/0	0/0	0/0	
Norwegian Biodiversity Info. Centre Taxonomy	Standard project	Bird lice in Norway	0/0	0/0	98/3.9	0/0	0/0	
Total			633/25.3	0/0	98/3.9	0/0	0/0	

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 Grant Agency	Standard projects	New physiological functions of pro-apoptotic cysteine proteases in endochondral ossification	2491/98.3	2491/98.3	0/0	0/0	0/0	

National Agricultural Research Agency	Standard projects	Weight loss of meat after cooking: effect of fresh meat characteristics, equipment used and cooking parameters	2094/ 82.6	1694/ 66.8	0/0	0/0	0/0
National Agricultural Research Agency	Standard projects	Authentication of honey by pollen grain analysis	4012/ 158.3	3940/ 155.4	0/0	0/0	0/0
National Agricultural Research Agency	Standard projects	Extension of the spectrum of medicinal products in aquaculture in the Czech Republic and monitoring of their residues in fish meat	0/0	1445/ 57	1589/ 62.7	1589/ 62.7	1517/ 59.8
National Agricultural Research Agency	Standard projects	Effect of the degree of cold chain breach during collection and transport of officially collected samples on their microbial profile	0/0	3540/ 139.7	3534/ 139.4	3161/ 124.7	0/0
National Agricultural Research Agency	Standard projects	Possibilities of determination of pure muscle proteins by direct method	0/0	1970/ 77.7	2429/ 95.8	1808/ 71.3	0/0
National Agricultural Research Agency	Standard projects	Multiplexed detection of probiotic bacteria and yeast DNA in dietary supplements using xMAP technology and qPCR	0/0	0/0	3000/ 118.3	3884/ 153.2	0/0
National Agricultural Research Agency	Standard projects	Multiplex detection and identification of genes responsible for antimicrobial resistance and toxin production for important bacterial agents in food	0/0	0/0	2807/ 110.7	3208/ 126.6	0/0
National Agricultural Research Agency	Standard projects	Conditions of food delivery by courier services with regard to the growth of sporogenic bacteria	0/0	0/0	0/0	2786/ 109.9	2786/ 109.9
Ministry of Education, Youth and Sports	Standard projects	Ticks and tick-borne pathogens: new risks in the context of ongoing environmental changes	0/0	0/0	0/0	1473/ 58.1	3723/ 146.9
Grant Agency of the Czech Republic	Standard projects	Multi-resistant high-risk Escherichia coli lines: a story of successful chromosome-plasmid interplay	3463/ 136.6	0/0	0/0	0/0	0/0
Grant Agency of the Czech Republic	Standard projects	Microbial ecology, intestinal immunity and vector competence in Ixodes ricinus and Amblyomma americanum	3122/ 123.2	3230/ 127.4	0/0	0/0	0/0
National Agricultural Research Agency	Standard projects	Monitoring of helminths in beef cattle and analysis of anthelmintic resistance and genetic diversity	3758/ 148.2	3718/ 146.7	3172/ 125.1	0/0	0/0
Agency for Health Research of the Czech Republic	Standard projects	Carbapenem- and colistin-resistant Enterobacteriaceae: the one health concept in the evaluation of human and non-human sources of risk mechanisms for antimicrobial resistance	3062/ 120.8	2916/ 115	0/0	0/0	0/0
Agency for Health Research of the Czech Republic	Standard projects	Whole genome sequencing and metagenomics as tools to understand the routes of transmission of antibiotic-resistant bacteria from hospitals to the environment	1405/ 55.4	3156/ 124.5	3156/ 124.5	3486/ 137.5	0/0

Grant Agency of the Czech Republic	Standard projects	Characterization of selected natural immunity genes in domestic and feral cats	0/0	1715/ 67.7	1609/ 63.5	1603/ 63.2	0/0
Grant Agency of the Czech Republic	Standard projects	Comparative ecology and epidemiological significance of the tick <i>Ixodes inopinatus</i> , a newly recognized vector pathogens in Central Europe	0/0	4175/ 164.7	4174/ 164.7	4281/ 168.9	0/0
Total			23407 /923.4	33990 /1340. 9	25470 /1004. 7	27279 /1076. 1	8026/ 316.6
In the role of another participant							
Provider / Investor	Programme/Grant Scheme	Project name	Support (in thousands CZK/EUR)				
			2020	2021	2022	2023	2024
Grant Agency of the Czech Republic	Standard projects	Epidemiology and pathology of gastrointestinal helminthiasis in critically endangered mountain gorillas	924/3 6.5	0/0	0/0	0/0	0/0
Agency for Health Research of the Czech Republic	Standard projects	Functionalized nanofibers in the prevention of scar hernia	769/3 0.3	0/0	0/0	0/0	0/0
Ministry of Industry and Trade	Standard projects	Research on recombinant protein for immunoprophylaxis of pigs against circovirus disease	500/1 9.7	0/0	0/0	0/0	0/0
Ministry of Industry and Trade	Standard projects	Research on the immunoprophylaxis of equine leptospirosis	500/1 9.7	0/0	0/0	0/0	0/0
Grant Agency of the Czech Republic	Standard projects	Physiological properties and functions of dentin-related stem cells with a focus on the in vivo context	0/0	1074/ 42.3	1084/ 42.7	1171/ 46.2	0/0
National Agricultural Research Agency	Standard projects	Impact of the level of livestock management and disease prevention, including biosecurity, on the reduction of antimicrobial consumption and the spread of antimicrobial resistance	0/0	965/3 8.1	965/3 8.1	965/3 8.1	0/0
National Agricultural Research Agency	Standard projects	Measures to reduce the consumption and rational use of antibiotics in broiler fattening in the Czech Republic	0/0	0/0	983/3 8.8	983/3 8.8	983/3 8.8
Technology Agency of the Czech Republic	Standard projects	Development of a rabbit plague vaccine based on recombinant technologies	0/0	0/0	0/0	1125/ 44.3	2531/ 99.8
Technology Agency of the Czech Republic	Standard projects	Development of an antimethanogenic feed supplement to mitigate the environmental impact of livestock farming of livestock	0/0	0/0	0/0	1007/ 39.7	1133/ 44.7
National Agricultural Research Agency	Standard projects	New viral diseases in common carp farms-diagnosis and prevention	1002/ 39.5	723/2 8.5	0/0	0/0	0/0
National Agricultural Research Agency	Standard projects	Effect of food reformulation on shelf-life and physicochemical properties of products	736/2 9	799/3 1.5	799/3 1.5	644/2 5.4	0/0
National Agricultural	Standard projects	Rapid, comprehensive and multiplex methods for simultaneous detection of foodborne pathogens in food of animal and plant origin	1012/ 39.9	1000/ 39.4	775/3 0.6	0/0	0/0

Research Agency							
Ministry of the Interior	Standard projects	Multiplexed xMAP technology for comprehensive detection of pathogens relevant for the protection of human and animal health	671/2 6.5	0/0	0/0	0/0	0/0
National Agency for Agricultural Research /VVV	Standard projects	Methods for the detection of foreign enzymes in honey using multidimensional approaches	0/0	0/0	0/0	0/0	0/0
National Agency for Agricultural Research/VV V	Standard projects	New insights into the lactose content of dairy products in the context of lactose intolerant consumers	52/2.1	0/0	0/0	0/0	0/0
Technology Agency of the Czech Republic	Standard projects	Conservation of amphibian biodiversity in the context of new infectious disease invasions	636/2 5.1	865/3 4.1	697/2 7.5	0/0	0/0
Grant Agency of the Czech Republic	Standard projects	Mycobacteria in bats and their role in health and disease	0/0	1449/ 57.2	1449/ 57.2	1449/ 57.2	0/0
National Agency for Agricultural Research	Standard projects	Globalisation, modern technology and climate change as sources of new opportunities and threats to the breeding management of salmonids	0/0	573/2 2.6	581/2 2.9	578/2 2.8	582/2 3
National Agency for Agricultural Research	Standard projects	Options for influencing the occurrence of inhibitory substances in milk as an effective tool to promote animal health and improving food quality and safety	0/0	600/2 3.7	600/2 3.7	600/2 3.7	600/2 3.7
National Agency for Agricultural Research /VVV	Standard projects	Technological defects and their occurrence in slaughterhouse slaughtering	0/0	12/0.5	0/0	0/0	0/0
National Agency for Agricultural Research	Standard projects	New methods for the classification of JUT of pigs	0/0	0/0	800/3 1.5	800/3 1.5	800/3 1.5
National Agency for Agricultural Research	Standard projects	Verification of the possibility of demonstrating the use of protective cultures in the production of food of animal origin	0/0	0/0	0/0	1340/ 52.9	1400/ 55.2
National Agency for Agricultural Research	Standard projects	A comprehensive laboratory strategy for the identification of insect species for human consumption and production of processable animal protein, authenticity of food based on it	0/0	0/0	0/0	387/1 5.2	387/1 5.3
Ministry of Education, Sports and Youth	Standard projects	National Sustainability Programme II - "CEITEC 2020"	1634/ 64.4	0/0	0/0	0/0	0/0
National Agency for Agricultural Research	Standard projects	The spread of ticks and tick-borne diseases: new and neglected risks to domestic and farm animals and humans	1061/ 41.9	1222/ 48.2	0/0	0/0	0/0

National Agency for Agricultural Research	Standard projects	Solving the problem of bacterial, protozoan and viral zoonotic agents in small ruminant farms	660/2 6	660/2 6	630/2 4.9	540/2 1.3	0/0
National Agency for Agricultural Research	Standard projects	African swine fever in the Czech Republic: a study of molecular epizootology and biological properties of domestic virus isolates	980/3 8.7	980/3 8.7	0/0	0/0	0/0
National Agency for Agricultural Research	Standard projects	Manipulation of the gut microbiota composition of monogastrics as a way to suppress E.coli infections and reduce antimicrobial consumption	1207/ 47.6	1115/ 44	1035/ 40.8	0/0	0/0
Agency for Health Research of the Czech Republic	Standard projects	Pathways of spread, evolution, adaptation and significance of antibiotic resistance: application of whole genome sequencing	378/1 4.9	1540/ 60.7	1527/ 60.2	1435/ 56.6	0/0
Grant Agency of the Czech Republic	Standard projects	Horizontal gene transfer in the chicken gut microbiome: detection and prediction of antibiotic resistance and microbiome	0/0	0/0	1923/ 75.9	2216/ 87.4	1598/ 63
Total			12722 /501.8	13577 /535.5	13848 /546.3	15240 /601.1	10014 /395

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
SurGal Clinic Ltd. Brno	The anti-adhesive effect of Hyalobarrier Gel/Endo and 4 DryField PH in operations on the reproductive organs in ewes	0/0	447/1 7.6	0/0	0/0	0/0
UK in Prague, 1st Medical Faculty	Verification of the effect of nanofibrous materials in combination with antibiotics and/or antioxidants on healing of acute wounds (non-infected) and infected wounds	0/0	393/1 5.5	0/0	0/0	0/0
ProBionic, Ltd., Kuřim	Determination of meat quality parameters in chickens	0/0	0/0	176/6. 9	0/0	0/0
Total		0/0	840/3 3.1	176/6. 9	0/0	0/0
In the role of another participant						
Provider / Investor	Project name	Support (in thousands CZK/EUR)				
		2020	2021	2022	2023	2024
Total						

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

4.11 Rules for the use of institutional support for the LCDRO

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

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

Self-assessment:

LCDRO funds have been distributed through a new mechanism from 2019, when a new strategy for their distribution to the university units (faculties, CEITEC) was developed. This strategy reflects an increased emphasis on quality, bibliometric performance indicators (Q1-Q4), but also takes into account funds generated by contract research, applied research, patents, and other outputs of creative activity. Part of these LCDRO funds are available to the University components (deans) as an incentive to reward researchers for publication and other activities.

Another important new mechanism for sharing these funds within the faculties was the establishment of a new internal creative agency (ITA VETUNI), whose projects are funded by LCDRO. This mechanism for the distribution of LCDRO funds also takes into account the newly defined focus of the University's scientific research and allows it to be flexibly adapted to the changing priorities of funders or professional practice. These priority directions are set out in the ITA VETUNI competition announcement for each year.

The first year of the ITA competition took place in 2019. Each year, approximately 13-14 research projects are funded through this mechanism. The topics addressed by these projects are at the discretion of the proposers but should fit within the framework of the priority themes defined and approved by the University's Scientific Council.

In 2024, a total of 24,491,000 CZK (942,000 E) was allocated to ITA projects and based on the comparison of meeting the quantitative parameters, these funds were then distributed to FVM (8,900k CZK, 342,000 E), FVHE (11,915,000 CZK, 458,000 E) and CEITEC (3,668,000 CZK, 141,000 E). Based on the ITA call for proposals, the funds were distributed as follows: FVM - 6 projects, FVHE - 6 projects, CEITEC - 2 projects.

Examples of projects:

- One Health Concept, molecular epidemiology of antibiotic resistance in bacteria isolated from wild birds and poultry
- Behavioural genes in relation to domestication in the family Equidae
- Effect of azithromycin on cardiac morphology, cardiac function and microbiome in rabbit and rat
- Diversity and management of parasitic infections in game farms
- Effect of selected factors on animal welfare

In 2023, a total of 23,604,000 crowns (907,000 E) was allocated to ITA projects, and based on a comparison of meeting quantitative parameters, these funds were then distributed to FVM (8,712,000 crowns), FVHE (12,169,000 crowns) and CEITEC (2,723,000 crowns). On the basis of the ITA call for proposals, these funds were distributed as follows: FVM - 5 projects, FVHE - 6 projects, CEITEC - 2 projects.

Examples of projects:

- Whole genome sequencing of the snow leopard (*Panthera uncia*)
- Alternative antiviral and antibacterial agents in the therapy of infections in the dog and cat
- Osteoid formation and demonstration in physiological and pathological osteoproduction
- Epizootology of antibiotic-resistant bacteria - from molecular genetic characterization of genes to environmental dissemination vectors
- Genetic diversity analysis of neutral and immune markers in the Przewalski's horse

In 2022, a total of 23,611,000 CZK (908,000 E) was allocated to ITA projects and based on the comparison of meeting the quantitative parameters, these funds were then distributed to FVM (8,453,000 CZK), FVHE (12,300,000 CZK) and CEITEC (2,773,000 CZK). On the basis of the ITA call for proposals, these funds were distributed as follows: FVM - 6 projects, FVHE - 6 projects, CEITEC - 2 projects.

Examples of projects:

- Evaluation of selected immunological parameters in peripheral blood, effusions and fluid obtained by bronchoalveolar lavage in horses
- Genetic susceptibility to sarcoid in horses
- Autophagy and chondrogenesis: research on caspases and osteoarthritis
- Intra-population genetic structure of hosts and vectors in terms of the spread of pathogens
- Zoological medicine: health issues in game, bats, amphibians and fish

In 2021, a total of 22,567,000 crowns (867,000 E) was allocated to ITA projects, and based on a comparison of meeting quantitative parameters, these funds were then distributed to FVM (8,263,000 crowns), FVHE (11,675,000 crowns) and CEITEC (2,629,000 crowns). On the basis of the ITA call for proposals, these funds were distributed as follows: FVM - 5 projects, FVHE - 6 projects, CEITEC - 2 projects.

Examples of projects:

- Comparative genomics of genes encoding natural immunity receptors TLRs in the family Equidae
- Diagnosis and treatment of selected diseases and emergencies in companion animals in the perspective of current trends in veterinary medicine.
- Effect of antibiotics and non-steroidal antiphlogistic drugs on the digestive tract and immune system of the rabbit
- Effect of nanoparticles incorporated into active and biodegradable films and packaging on their functional and technological properties
- Dynamic changes in biotopes - from radioisotope load to animal migration, to the spread of diseases.

In 2020, a total of 27,292,000 crowns (1049,000 E) was allocated to ITA projects and based on a comparison of the fulfilment of quantitative parameters, these funds were then distributed to FVM (12,000,000 crowns), FVHE (12,899,000 crowns) and CEITEC (2,393,000 crowns). On the basis of the ITA call for proposals, these funds were distributed as follows: FVM - 4 projects, FVHE - 6 projects, CEITEC - 1 project.

Examples of projects:

- Genetic diversity in major histocompatibility complex (MHC) and NK cell receptor (NKR) genes in model equine populations

- Diseases of wildlife: from pathogenic microorganism genes to hosts and interactions with humans
- Evaluation of the health and functional properties of edible food packaging
- Molecular diagnosis of the causative agents of selected infections in farm and domestic animals
- Morphological and physiological correlations in relation to the function and clinical aspects of the female mammalian reproductive tract
- Stressors affecting the health of wildlife, game and fish

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:

Cooperation at national level

- Project: Measures to reduce the consumption and rational use of antibiotics in broiler fattening in the Czech Republic -**
Cooperation with the Research Institute of Veterinary Medicine.
 Project outputs: Kit for determination of minimum inhibitory concentrations of monitored antibiotics for *Escherichia coli* (functional sample), Certified methodology Multiresidue analysis of antimicrobial substances based on LC-(HR)MS, Functional sample: probiotic preparation for complex protection of poultry against pathogenic *E. coli* strains, Certified methodology: active monitoring of severe *E. coli* clones in parent breeding, hatcheries and commercial breeding of meat poultry.
- Project: Mycobacteria in bats and their role in health and disease**
Cooperation with Mendel University in Brno. The aim of the project was to sample bats in several locations and subsequently detect mycobacteria. The project also aimed to confirm or refute the role of bats as a source of mycobacteria for humans.
 Outputs: publications, workshop
- Project: Detection of RD114 endogenous retrovirus**
Cooperation with Bioveta Ivanovice a.s. The aim of the project (contract research) was to develop a protocol for detecting RD114 in batches of vaccines intended for cats and dogs in the Bioveta Ivanovice a. s. portfolio.
 Outcome: protocol for RD114 detection
- Project: Physiological properties and functions of stem cells related to dentition with a focus on the in vivo context**
 The project was implemented within the framework of long-term cooperation between VETUNI and the Institute of Animal Physiology and Genetics of the Academy of Sciences of the Czech Republic. International cooperation was sponsored by the main investigator of the project, whose core workplace is King's College London. The co-investigators were tied to VETUNI and also to the Faculty of Medicine of MUNI. A number of core students and beginning scientists

were involved in the solution, and supporting their career development was part of the project's objectives.
 Outputs: publications

5. Project: **Verifying the authenticity of honey using pollen grain analysis.**

Cooperation: Beekeeping Research Institute, s.r.o., University of Chemical Technology in Prague

The result of the project is a certified methodology for melissopalynological analysis of honey. The methodology includes steps for preparing honey samples, processing honey samples for semi-automatic scanning and a pollen grain evaluation system. The output of the analysis is the pollen profile of the analyzed honey in absolute values and percentages of all detected taxa and percentages of pylodary taxa.

Users of the results: State Veterinary Report, State Agricultural and Food Inspection Authority, Laboratory for Food Investigation VETUNI-FVHE.

International cooperation

1. Project: **Sustainable Beekeeping in the Visegrad Group**

Cooperation with the University of Chemical Technology in Prague and the Research Institute of Apiculture, Uniwersytet Rolniczy im. Hugona Kollataja w Krakowie, Univerzita veterinárskeho lekárstva a farmácie v Košiciach, Semmelweis University; Outputs: Kick-off meeting (event, Brno), Honey analysis and GIS development (product), Student knowledge dissemination (event, Brno, Budapest, Košice, Krakow), Beekeepers dissemination activity (event, Máslovice, Budapest, Košice, Krakow/Podlesice)

2. Project: **Evaluation of parasitic infections involved in mortalities of mountain gorillas of Virunga Massif using advanced genomic.**

Cooperation with Gorilla Doctors (U.S. Fish & Wildlife Service, USA) and Masaryk University

The Virunga Massif Mountain gorilla population has been periodically monitored since the early 1970s. The authors examined fecal samples collected during the Virunga 2015–2016 surveys in monitored and unmonitored gorilla groups and quantified strongylid and tapeworm infections. The results suggest that the Virunga Mountain gorilla population may be partially regulated by strongylid nematodes at higher gorilla densities.

Outputs: publications

3. Project: **Characterization of selected natural immunity genes in domestic and feral cats.**

Cooperation with the Research Institute of Wildlife Ecology, Department of Intergative Biology and Evolution, Vetmeduni Vienna.

In this project the authors use an ecological-comparative approach to study the evolution of innate immunity in domesticated and wild felids. To do this, they characterize specific regions in the genome that are part of the innate immune system but are closely related to the specific (adaptive) immune response and ensure communication between the two systems.

Outputs: publications

STUDIES

4.13 Doctoral studies

The HEI will briefly describe the organisation of the doctoral studies (if there are any doctoral study programmes³⁷). HEI will comment on:

- Structure and organization of studies.
- A system of cooperation between PhD students and their supervisors.
- Basic statistics (including drop-out rate, student workload, etc.).
- Information on promotion and recruitment schemes.
- Cooperation within doctoral studies (e.g., Czech Academy of Sciences, application sphere, building open study programmes for foreign nationals and creating international networks of study programmes, "joint degree", "cotutelle", etc.).
- Student care system (e.g. counselling, wellbeing care, career guidance).
- A system for tracking the future careers of graduates³⁸.
- Other relevant data, such as the existence of a doctoral school, basic soft skills courses, etc. at the discretion of the HEI.

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

Maximum 300 words per point.

Self-assessment:

- **study structure and organization**

Doctoral studies at VETUNI are organized at individual faculties of the university and are four years long. In the evaluation period 2020-2024, a total of 20 doctoral courses were accredited at both faculties. Most of them (12 in total) were also accredited for teaching in the English programme. The number of students that the University can admit for full-time study is based on the benchmark numbers set by the Ministry of Education and Science. There is no limit on the number of students in the English degree programme. Students are admitted to full-time study or to the combined form if they are also employees of other organizations.

Doctoral studies at VETUNI are governed by the Unified Regulations for Doctoral Studies, which define the duties and rights of students and set out the procedural matters of the studies. The study is based on a credit system to guarantee the objectivity of student evaluation in each year of study. In the first year, each student receives theoretical training in "soft skills" disciplines, such as **ethics of scientific work or a course in working with laboratory animals**. In later years, more emphasis is placed on students' independent creative activity in their chosen field. In these upper years, students also take examinations in at least three disciplines set out in the curriculum. An important part of the doctoral studies is the obligation to complete at least a one-month internship at a foreign institution and the obligation to submit a certain number of first-authored publications in journals with impact factor. The study is concluded with the defense of the dissertation and the state rigorosum examination, which take place in front of a committee approved by the dean of the faculty. Successful graduates are then awarded the degree of Ph.D.

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.

- **system of cooperation between PhD students and supervisors**

Supervisors are selected from among associate professors or professors, or other distinguished experts, but the latter must be approved by the scientific council of the relevant faculty.

The content of the student's studies is described in the student's study plan, which is drawn up by the student in collaboration with the supervisor. In the course of the study, the student's interaction with the supervisor then takes place through consultations and most often by planning experimental activities. The supervisor is also significantly involved in the selection and provision of a compulsory internship of at least 1 month for each of the PhD students.

An example of such a genuine student-supervisor interaction can be seen in the following story:

- Student Zuzana applied for admission to the PhD program based on the announced topic "Identification and genetic analysis of important viral pathogens of fish and aquatic environment" in the spring of 2019. The topic was announced by the Department of Infectious Diseases and Microbiology.
- In collaboration with the supervisor, she then developed a curriculum for the entire period of study - 4 years.
- At the end of 2019, as a result of the emerging covid pandemic, the individual study plan was revised in collaboration with the supervisor, laboratory attendance was adjusted and the work was more focused on in silico analysis, bioinformatics procedures, which allowed a greater proportion of work from home.
- In 2022, a project was submitted that allowed the student to have a 1-month internship at the Federal University of Minas Gerais in Brazil.
- On an ongoing basis, the student Zuzana passed all the prescribed courses and exams.
- As of early 2023, the student was completing the laboratory portion of the project and began writing her dissertation in collaboration with her advisor.
- The dissertation defense and the state rigorous examination took place in December 2024.

- **basic statistics (incl. drop-out rate, student teaching load, etc.)**

In the assessment period 2020-2024, a total of 196 students from both faculties applied for the DSP, and 150 students actually started their studies. Due to the demanding nature of this type of study, a total of 97 students dropped out of the programme in the period under review. 132 of them successfully completed it.

Year	Applied for studies	enrolled	graduated	failed
2020	42	33	24	15
2021	39	28	21	23
2022	31	25	22	17
2023	41	31	36	19
2024	43	33	29	23

The basic obligations of doctoral students are defined in their individual study plans. One of the duties is teaching students of other study programmes. The teaching load of DSP students is usually around 2 practical sessions per week during one semester. However, the amount of teaching is quite variable and, in some cases, may be higher by agreement with the student.

- **information on promotion and recruitment schemes**

Doctoral topics are announced at individual departments by the Doctoral Boards according to the needs of individual research groups and are published in the faculty deans' offices. The topics are also announced in line with the research projects being carried out at the University, as well as in line with the suggestions coming from the application sector. Sometimes, however, topics from students are also taken into account if they are in the context of the research activities of the institutes or clinics.

The promotion of specific topics among students is carried out in the context of teaching, by addressing students by mail, by information leaflets posted at faculties and in other ways.

- **cooperation within doctoral studies (e.g. CAS, application sphere, building open study programmes for foreign nationals and creating international networks of study programmes, "joint degree", "cotutelle", etc.)**

Cooperation in the field of doctoral studies at VETUNI is quite common, especially with the application sphere, but also with research institutes and other universities, including foreign ones.

Examples of interesting DSP student collaborations include:

- Rabbit welfare association fund - non-profit organization
- Bioveta a.s. - biotechnology company
- Limara plus - manufacturing company
- Vetcardia - foreign veterinary cardiac clinic
- College of Veterinary Medicine, Kansas State university - university department
- Research Institute of Veterinary Medicine
- Institute of Animal Physiology and Genetics of the AV ČR
- Mendel University - various workplaces
- Masaryk University - various workplaces

- **student care system (e.g. counselling, wellbeing care, career guidance)**

Doctoral students may use the counselling services of the dean's office staff for problems with the organization of their studies, or psychological counselling in the case of personal problems and the associated Centre for Social Security. In addition, a Welcome Centre was established during the reporting period to improve the onboarding of new students and a Centre for Study and Career Counselling for all categories of students. During the period under review, these centers were visited mainly by students of Master's or bachelor's programmes, but not by students of PhD programmes.

- **graduate career tracking system**

The University of Veterinary Medicine Brno maintains contact with most graduates through professional organizations and employer institutions. A large proportion of veterinary medicine graduates work in private veterinary practice and are organized in the Chamber of Veterinary Surgeons of the Czech Republic, with which VETUNI cooperates in solving a number of veterinary education issues, selected veterinarians participate in the implementation of internships in private veterinary practice for students of the University. Graduates also maintain contacts with the University at regular social events. The best of the graduates become external teachers or advisors to the University. Over the last five years, the University has registered its DSP graduates at workplaces such as the State Veterinary Administration, the Research Institute of Veterinary Medicine, the State Agricultural and Food Inspection, the Academy of Sciences of the Czech Republic, as well as in private companies such as SEVARON or TEKRO.

The five best-placed graduates of the DSP studies from the last five years include:

MVDr. Petra Černá, Ph.D. MRCVS AFHEA

is a current resident in small animal internal medicine (ACVIM) at Colorado State University, USA. Dr. Černá is a graduate of the University of Veterinary Medicine Brno, Czech Republic, and she received her Ph.D. in 2023. She completed her internship at VetsNowReferralHospital, Glasgow, UK and an internship specializing in small animal internal medicine at the Royal (Dick) School of Veterinary Studies, University of Edinburgh, UK.

Mgr. Kateřina Zukalová, Ph.D.

Institute of Vertebrate Biology, Czech Academy of Sciences - Ph.D. in 2023, now a postdoctoral fellow with research focus on bat reproduction and bat pathogens.

Mgr. Martina Pečová, Ph.D.

She obtained Ph.D. in 2024. Now working at the State Agricultural and Food Inspection

MVDr. Nikola Hodkovicová, Ph.D.

She obtained Ph.D. in 2021, currently working at the Research Institute of Veterinary Medicine

MVDr. Hana Čaloudová, Ph.D.

Ph.D. obtained in 2021, currently she works at the Regional Veterinary Administration of the State Veterinary Administration for the South Moravian Region

Other successful graduates of doctoral studies at the Veterinary University in Brno (although outside the period under review) include:

- MVDr. Pavel Bělobrádek, Ph.D. - Chairman, now Vice-Chairman of the KDU ČR
- MVDr. Jana Kozáková, Ph.D. - Director of the KVS SVS for the South Moravian Region
- MVDr. Kateřina Březinová, Ph.D. - Director of the City Council in Prague SVS Prague

- **other relevant data such as the existence of a doctoral school, basic soft skills courses, etc. at the discretion of the university.**

It is currently involved in a project aimed at improving the quality of doctoral studies. The main objective of this project is to create a doctoral school at VETUNI. This school will bring together all doctoral programmes of the university, will be led by a director or a vice-rector and will focus on improving the well-being of students, increasing their cooperation at the university, organizing training courses and lectures and working towards further harmonization and standardization of doctoral studies. As part of the solution of the mentioned project, we also plan to implement in 2025 a better-defined status of doctoral students but also additional criteria for supervisors of these students. We also plan to use the soft-skills courses offered by other Czech universities within the framework of the project and to contribute to it with our own courses such as "Methods of work in research" or "Biostatistics in science and research".

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:

Research support at the University shows a very positive trend and the panel recommends strengthening even further the role of the Research and Development department superheaded by the vice-rector. The panel also recommends moving forward with establishing the CEITEC unit as a University Research Institute. The panel also recommends increasing, if possible, the research support via the two internal agencies, especially the creative agency.

In the period under review, VETUNI continued to support research activities at the university through two internal grant agencies. In particular, the ITA agency has newly introduced the possibility of using funds for the acquisition of investments. Both agencies represent an interesting source of research funds for specific categories, especially young workers.

The CEITEC research unit has undergone significant changes since the last evaluation due to the loosening of the central structure of CEITEC. The separate CEITEC VETUNI unit continues its activities. It currently comprises two research groups with a stable budget. The budget of CEITEC VETUNI is mainly made up of income from research projects, partly from the University budget and partly from the ITA.

Although the University is handling maternity leave during PhD studies very flexible and the individual supervisors and teams are very supportive, the panel would like to recommend stronger established support for students that need to combine parenthood with their PhD studies.

To further facilitate studying while fulfilling maternal responsibilities, the university allows flexible working hours, variable working hours.

In the area of supporting pro-family policy, the University actively supports the reconciliation of family and professional life of academic and non-academic staff with young children. One of the activities is the adjustment of existing working hours or the conclusion of new employment contracts for other types of part-time work within the framework of projects and grants, to the extent that these employees can simultaneously provide quality care for their children and continue to maintain and develop the expertise they have already acquired. In the area of caring for elderly ill members of staff, their parents, the University enables this either by providing unpaid leave, for a parent wholly dependent on care, or by reducing hours. The University has a contract with a selected pre-school for dedicated capacity for children (grandchildren) of staff or children of students, who are also reimbursed for part of their tuition fees.

Employees can also take advantage of the care of a general practitioner, specialists (dental, gynaecological, pulmonary and endocrinological outpatient clinics) on the university campus.

One recommendation to consider in the next 10-year strategic plan is an international or US accreditation for the medical program, like AVMA.

Recently, we have deepened our cooperation with veterinary universities in the United States, and we have recently signed another bilateral agreement with KSU, which includes cooperation in the scientific field and student exchange. On the basis of this agreement, several students have already been sent to KSA for one-month internships as part of their doctoral studies. Due to the fact that the

university has been preparing mainly for international accreditation under EAEVE in recent years, the AVMA accreditation has been postponed for the time being after the European accreditation. In 2023, the University received a visit from Dr. Andy Maccabe, the head of the American Association of Veterinary Medical Colleges (AAVMC) regarding the possibility of AVMA accreditation.

The panel supports the strategy to establish a comprehensive new policy and procedure for career growth for faculty and researchers as a part of the new strategy plan of the university valid from 2021. The panel also recommends to assess possibilities for an HR Award.

In the period since the last evaluation of the University, the University's Career Code has been developed and approved. A new gender equality policy has also been drawn up and recruitment rules have been fixed. These are still partial steps but will gradually lead to HR Awardee.

The panel recommends to continue to invest into professional development of the R&D staff to be able to assist even more in preparing and managing international or cross-border projects that often come with an extreme administrative load.

The staff of the department participated in a number of courses focused on the administration of foreign grant projects (see Chapter 4.2.). The Department has developed internal procedures and documentation for the submission of such projects. However, the fact remains that this potential of the R&D staff remains unused, with little interest in submitting foreign projects.

The panel recommends to continuously assess the applied system of evaluation of faculty and research staff of the university, and to ensure that scientometric parameters are not overweighed while creativity and originality of research is neglected.

Since 2019, the University has had an evaluation system for academic and research staff. In addition, we have introduced a method for the distribution of LCDRO funds. In both cases, staff are evaluated on scientometric parameters, which we try to supplement with other indicators, for example, by evaluating publications not according to their IF value, but their AIS quartile, which better evaluates the importance of the publication for the scientific community; we also value the results of applied research, such as certified methodologies, functional samples, or funds obtained through contract research.

The university should think of a standardized mechanism how a researcher can apply for capital investments that would allow replacement, major repair, or purchase of expensive instruments.

The acquisition of investments was made possible through an in-house creative agency. However, this option has not been used so far, due to the recent opportunities to acquire investments from OP JAK programmes. From these funds, investment units worth tens of millions of crowns have been acquired.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 4

Document name	No. criteria	Location (link in HTML)
Code of Ethics	4.4.	Ethic code.pdf
ZS1/2018 Protection and processing of personal data	4.4.	GDPR Information on UVPS Processing and Protection of Personal Data

Career Regulations	4.6.	ZS 7 2022 Career Code VETUNI EN.pdf
Gender balance	4.7.	Gender equality plan – VETUNI
University Strategic Plan	4.4.	STRATEGIC PLAN VETUNI EN.pdf
Evaluation according to Methodology 17+	4.3.	Evaluation report VFU Brno 2020.pdf
CEITEC evaluation	4.3.	CEITEC evaluation 2018
Admission Procedure Regulations	4.6	170588 52 Výběrové-VFU-2-R cz-en.pdf

MODULE 5 - STRATEGY AND POLICIES

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

The HEI will briefly describe its mission and vision with emphasis on R&D&I in general and its R&D&I capacities in the implemented R&D&I fields³⁹ (Tables 5.1.1 and 5.1.2). In particular, the HEI's vision covers the following five-year period and must relate to the strategic objectives of the Provider, the National Policy on Research, Development, and Innovation of the Czech Republic 2021+, the Gender Equality Strategy 2021-2030, and other higher national and supranational strategic documents in the field of R&D&I (Table 5.1.3). The HEI shall complement the description with active references to its Strategic plan for the teaching, scholarly, scientific, research, development, artistic, and other creative activities of the higher education institution (regarding the results and recommendations from the previous evaluation period, if the evaluated HEI participated in it). The HEI shall describe how the vision and mission were implemented during the period of 2020–2024.

Maximum 2000 words.

Self-assessment:

VETUNI is a research university focusing on theoretical and applied research in the fields of veterinary medicine, veterinary hygiene and ecology, animal protection and welfare, food safety and quality, and veterinary aspects of gastronomy. Academic staff are thus important authors of professional and scientific publications, monographs, university textbooks, patents and other creative outputs. Scientific research is the dominant and most prestigious activity of the academic staff, enabling them not only to realise their creative ambitions but also to involve undergraduate and postgraduate students in these activities, thus linking the creative and teaching environment of the University.

VETUNI is aware of its uniqueness as the only university in the Czech Republic in the field of veterinary medicine and veterinary hygiene and ecology and is also aware of its responsibility to develop scientific, research and innovation activities in these areas.

The University's vision is to implement excellent research activities comparable at the European and international research level, supported and funded by national and international grant projects, creating appropriate conditions for the implementation of such demanding research and achieving unique outputs. The University's ambition is to become a sought-after and reliable innovative partner for the application sphere, i.e. commercial and academic entities in the field of veterinary practice, agricultural production, and other related industries.

In order to achieve these goals in the coming period, VETUNI is ready to invest a considerable amount of resources and funds in the field of science, research and innovation and to move VETUNI to a qualitatively higher level of increasing importance in the European area.

The University aims to pursue these research ambitions in line with the ethical principles of scientific research, the principles of inclusion, gender balance and the Open Science policy.

With these principles and vision, the University fulfils not only the strategic objectives of the provider but also, in a broader sense, the National Policy on Research, Development and Innovation of the Czech Republic 2021+.

The evaluation period was interwoven with the University's efforts to fulfil these principles in all aspects of research and teaching activities.

The University has successfully achieved the vision set out at the beginning of the evaluation period, especially in the area of internationalisation of its activities. The mobility of their doctoral students has increased significantly. studies at partner institutions abroad in Western European countries. The

³⁹ For so-called R&D&I capacities, see Definition of Terms in Methodology HEI2025+.

University invests a large amount of funds from various sources in these mobilities. The number of students on the English degree programme is continuously increasing, which is an indication of the University's good reputation with foreign institutions, and these students are also involved in research activities and mobilities. There is also increasing interest in foreign students undertaking internships at clinics and other departments of the University. In 2023, the University successfully passed the international evaluation organized by EAEVE and received the prestigious international accreditation for veterinary education, which ranks it among the best veterinary universities in Europe. By combining historical traditions, research facilities, advanced technologies and expertise, there is a real chance to fulfil these visions and place the University among the most prominent in the sphere of science, research and innovation.

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		Zvolte položku.	20
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences	1	Basic research	
	1.5 Earth and related environmental sciences	2	Basic research	
	1.6 Biological sciences	17	Basic research	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	8
	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	8	Basic research	
3. Medical and Health Sciences	3.1 Basic medicine	2	Basic research	3
	3.2 Clinical medicine	1	Basic research	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	2	Balanced basic and applied research	69
	4.2 Animal and Dairy science	4	Balanced basic and applied research	
	4.3 Veterinary science	62	Balanced basic and applied research	
	4.4 Other agricultural sciences	1	Balanced basic and applied research	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	0

	5.2 Economics and Business		Zvolte položku.	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	0
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts		Zvolte položku.	
Total		100 %	-	100 %

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

Field of Research	FORD	FORD share [%]	Predominant type of research	Total share of field of reaserch [%]
1. Natural Sciences	1.1 Mathematics		Zvolte položku.	20
	1.2 Computer and information sciences		Zvolte položku.	
	1.3 Physical sciences		Zvolte položku.	
	1.4 Chemical sciences	1	Basic research	
	1.5 Earth and related environmental sciences	2	Basic research	
	1.6 Biological sciences	17	Basic research	
	1.7 Other natural sciences		Zvolte položku.	
2. Engineering and Technology	2.1 Civil engineering		Zvolte položku.	8
	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	8	Basic research	
3. Medical and Health Sciences	3.1 Basic medicine	2	Basic research	3
	3.2 Clinical medicine	1	Basic research	
	3.3 Health sciences		Zvolte položku.	
4. Agricultural and veterinary sciences	4.1 Agriculture, Forestry, and Fisheries	2	Balanced basic and applied research	69
	4.2 Animal and Dairy science	4	Balanced basic and applied research	

	4.3 Veterinary science	62	Balanced basic and applied research	
	4.4 Other agricultural sciences	1	Balanced basic and applied research	
5. Social Sciences	5.1 Psychology and cognitive sciences		Zvolte položku.	0
	5.2 Economics and Business		Zvolte položku.	
	5.3 Education		Zvolte položku.	
	5.4 Sociology		Zvolte položku.	
	5.5 Law		Zvolte položku.	
	5.6 Political science		Zvolte položku.	
	5.7 Social and economic geography		Zvolte položku.	
	5.8 Media and communications		Zvolte položku.	
	5.9 Other social sciences		Zvolte položku.	
6. Humanities and the Arts	6.1 History and Archaeology		Zvolte položku.	0
	6.2 Languages and Literature		Zvolte položku.	
	6.3 Philosophy, Ethics and Religion		Zvolte položku.	
	6.4 Arts (arts, history of arts, performing arts, music)		Zvolte položku.	
	6.5 Other Humanities and the Arts		Zvolte položku.	
Total		100 %	-	100 %

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

Strategic document	Follow-up
Action plan for the development of human resources for research, development and innovation and gender equality in research, development and innovation in the Czech republic for 2018 - 2020	Follow-up to Chapter 4.7. A "Gender Equality Plan" has been developed and applied from 2024.
Action Plan for International Cooperation of the Czech Republic in Research and Development and Internationalization of the Research and Development Environment in the Czech Republic	Relationship to internationalization in the field of teaching and research, connection to the "University Strategic Plan".

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:

VETUNI's R&D&I objectives and subsequent strategies will focus on the following several key areas:

- modernizing doctoral studies
- strengthening and further development of CEITEC VETUNI
- further development of the Internal Creative Agency (ITA VETUNI)
- increasing the number and quality of scientific publications
- increasing the quantity of innovation results and the transfer of technology and knowledge into practice
- Emphasis on HAP as an incentive system

In the area of **maintaining and further strengthening the international character of research activities** at VETUNI, the university's priority ambition is to engage in the international research environment.

To achieve this goal, the university plans to focus more on the education of doctoral students. In 2025 the university will establish a **Doctoral School** for DSP students. This school will provide an umbrella and bring together all doctoral degree programmes at the university. It will develop further education opportunities for DSP students, ensure the maintenance of professional standards of study, onboarding of newly admitted students and evaluate the work of the disciplinary councils.

The University is also currently working on adjusting the standards for supervisors of doctoral students and on a new system of financial remuneration for students.

Research internships of DSP students and young academics at foreign research institutions will still be supported. The experience gained in this way, but especially the contacts established, will represent an important impetus in the further scientific career of these staff. The University supports its staff in establishing all types of international cooperation and actively seeks opportunities for prospective cooperation with foreign institutions through the Department of Science, Research and International Relations. Evidence of these efforts is the number of agreements recently concluded with institutes in Europe or the United States of America. In the area of strengthening the international character of research activities, the University plans to further develop the scientific environment and inspire researchers **by inviting prominent foreign scientists and experts**. Also, the popularisation of scientific activities among students of all study programmes and study years is already being used to build their relationship with scientific profiling.

To maintain the international character of research activities, the University would like to admit more students from foreign universities for doctoral studies. These young scientists will represent potential partners for further international cooperation when they return to their home countries.

Maintaining the international character of research activities also requires active presentation of results at international conferences and meetings. These international activities are and will be not only supported at VETUNI but also taken into account by the system of quality assessment of academic staff. Participation in conferences for young researchers is supported by an internal mobility agency.

An important testimony to the level of scientific research at VETUNI is the participation in the CEITEC consortium. **Maintaining and further developing CEITEC VETUNI** beyond the sustainability period in 2020 is therefore naturally another priority objective of VETUNI in the field of R&D&I.

The strategy for maintaining CEITEC VETUNI as one of the components of the university is financial and administrative support from the university in order to stabilize the research teams. The strengthening of CEITEC research teams will be further prioritised by recruiting and stabilising researchers with substantial international experience and therefore with a sufficiently broad view of the international research field. Support will also be devoted to stimulating the collaboration of research teams within CEITEC, creating links with other excellent research institutes at home and abroad, as well as the development of a shared CEITEC laboratory to increase the efficiency of the use of CEITEC instrumentation.

The third key objective of the University in the area of R&D&I will be **to increase the number of scientific publications** in scientific journals ranked in the relevant fields in the first two quartiles (Q1 and Q2) and **to strive for the introduction of innovation results and the transfer of technology and knowledge into practice**. The strategy in this area will be to financially reward author teams publishing in such ranked journals and authors of non-bibliometric outputs. A further step in this area will be to intensify training of students and academics in knowledge and technology transfer.

The University will support the acquisition of contracted research projects. VETUNI staff is only partially successful in obtaining such projects. The University aims to improve this situation by joining the Mapavin.cz platform, which connects the offered capacities of research organisations with the requirements of the applied sphere. University staff focusing on this type of results will be financially motivated and stimulated to seek further projects in this category.

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

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

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

Maximum 2000 words.

Self-assessment:

The research strategy, quality research and innovative environment at VETUNI in the current period is supported by a number of incentive tools:

- Development of new grant schemes.
- A proven LCDRO funding allocation scheme
- Evaluation of research performance of research groups and individuals
- Optimisation of the portfolio of electronic information resources through the
- CzechELib project
- Strengthening CEITEC VETUNI as an independent research unit within VETUNI
- representing excellent research at the University.

Two important institutional instruments for the implementation of the outlined strategy have already been set up in 2019. These are the launch of a new type of internal grant agency focused on scientific research and a new way of dividing LCDRO funds within the university unit, which are fully operational from 2020.

Thus, basic and applied research at VETUNI is stimulated by two internal grant agencies with different target groups of applicants.

- **The internal grant agency VETUNI**, whose activities are covered by specific research funds, is intended primarily for students of doctoral or master's studies and its primary objective is to promote students' interest in scientific activities. The internal grant agency has a long tradition at VETUNI and is a stepping stone for budding researchers into the world of scientific, especially basic research.
- **The internal creative agency VETUNI** was newly established in 2019 and its activities are covered by LCDRO funds. The target group of this new agency is all academic and research staff of the University. The reason for its establishment is to stimulate research programs in the field of mainly basic research in order to obtain scientific data to facilitate subsequent application in national or international grant competitions. ITA VETUNI has thus become a much-needed catalyst for the University's research activities.

As of 2019, **funds earmarked for the long-term conceptual development of a research organisation** are distributed among the university units by a new mechanism taking into account both the established priorities of university research and the quantitative and qualitative parameters of the research, development and innovation activities of these units. These parameters are based on the parameters taken into account by the Methodology 17+ but also by the internal evaluation system for academic staff and are evaluated annually or modified depending on changing the University's R&D&I priorities. The purpose of this systemic measure, in addition to taking into account strategic priorities of the university also support the sustainability of CEITEC VETUNI, but the measure is also a mechanism to compensate for the temporary disadvantage of some departments or, on the contrary, support research teams working on new promising topics with the potential to be applied in standard national or international grant agencies.

The evaluation of the research performance of research groups and individuals in relation to the evaluation of research organisations according to Methodology 17+ is carried out annually. The evaluated parameters of the scientific performance are linked to the "evaluation of academic staff" of the University and allow to continuously monitor its development. The evaluation of scientific teams and individuals subsequently has an impact on the allocation of projects of the Internal Creative Agency.

A sufficiently broad portfolio of electronic information resources (EIR) must be counted among the University's institutional tools for implementing the research strategy. In addition to acquiring titles of scientific journals from its own resources, the University also benefits from the shared purchase of electronic information resources through the system project "**CzechELib**" of the National Technical Library. As of 2020, 12 electronic disciplinary and multidisciplinary databases of electronic information resources are available to researchers at VETUNI. A wide range of EIR complemented by some analytical tools is a prerequisite for the successful development of scientific and innovative activities.

Among other support tools for guiding the scientific strategy, the University emphasizes **strengthening the support activities of the Science and Research Department** in the submission of research projects and their ongoing administration.

In addition, electronic administration of grant projects through the GAP software has been introduced from 2020, which will provide project investigators with further facilitation of administrative processes and control of project solutions.

In the area of R&D&I evaluation, the University participated in the international evaluation within CEITEC during the period under review. Two similar evaluations took place during the period under evaluation. The most recent evaluation so far took place on 29-30 October 2018 and was attended by 23 experts from across Europe.

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
Internal grant schemes	Internal grant agency Internal creative agency	Implemented	2019

Mobility programmes	Internal Mobility Agency DSP mobility programme	Implemented	2021
Evaluation of research teams	Evaluated by HAP and other internal mechanisms	Implemented	2021

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:

Stay focused on internationalization, increase the number of international collaborative projects, but also build on national strength in the many fields that are covered ONLY by UVPS within the country.

The number of international projects at the university is its weak point and the number of projects has not increased since the last evaluation. However, in the area of internationalization of the University's activities, we have significantly increased the number of students sent to work abroad. This, we hope, will be reflected in the University's international credit in the near future. The increase in the number of international students admitted for study will also play a role in this regard.

We have also managed to increase the percentage of research projects in which the university is the main proposer compared to the situation at the last evaluation. While in 2019 it was 30% of the projects under investigation, in 2024 it was more than 50% of the projects under investigation. In this way, the University has consolidated its role as an important player in the field of agricultural and veterinary sciences.

One of the major tasks will probably be the transformation of the CEITEC unit into a University Research Institute and as already mentioned in module 3 the legal framework and policies addressing joint affiliations and mutual grants between the faculties and the research groups in the new centre need to be addressed.

In 2020, after some disbanding of the central CEITEC unit, VETUNI joined the renewed CEITEC consortium and maintained its CEITEC VETUNI unit similar to the other partners in the original project. CEITEC VETUNI became a unit of the university at a similar level to the faculties and fulfilling the role of a university research institute. Since the last evaluation, the percentage of staff with exclusive affiliation to this unit and who do not share a full-time faculty position has increased. However, this does not apply to staff with a higher academic rank (mainly professor), where their involvement in faculty activities is desirable from the point of view of the accreditation process. The number of projects submitted and acquired by CEITEC staff has also increased. The possibility of joint CEITEC projects with faculties is also being used, but sporadically.

The university has very ambitious plans for the next evaluation period. The panel recommends continuous assessment and timely data-driven adjustment and correction when necessary.

The University carries out periodic evaluation of the publication and applied results of faculties and research teams. This data is then used primarily in the allocation of LCDRO funds, especially within the ITA.

A LIST OF SUPPORTING DOCUMENTS/LINKS FOR MODULE 5

Document name	No. criteria	Location (link in HTML)
University Strategic Plan	5.3.	STRATEGIC PLAN VETUNI EN.pdf