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EAEVE Annex

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Table of Contents

1.1.	Area 1 Objectives, Organisation and QA Policy1			
	1.1.1.	New term of office of the Rectorate	1	
	1.1.2.	Amendment to the Austrian Universities Act	1	
	1.1.3.	Regionalisation initiative "VetmedRegio"	2	
	1.1.4.	Med-Impuls Initiative	2	
	1.1.5.	vetmeduni+: shaping the future together	3	
	1.1.6.	New professorship in Computational Medicine	4	
	1.1.7.	Covid-19 pandemic	4	
	1.1.8.	Revision of the overall teaching evaluation strategy	5	
	1.1.9.	Inter-university projects	5	
	1.1.10.	Process automation	6	
	1.1.11.	Study development	6	
	1.1.12.	Committee on Hygiene, Animal Diseases, Zoonoses and Biosecurity	1.7	
	1.1.13.	Sustainability and climate protection	7	
	1.1.14.	Digitalisation strategy and cyber security prevention	8	
	1.1.15.	Social Dimension and Diversity Strategy	8	
	1.1.16.	New homepage and intensification of internal communication	8	
	1.1.17.	Third mission	8	
1.2.	Area 2 Fi	nances	. 10	
1.4.	Area 3 Curriculum			
	1.4.1.	Increase in study places	. 11	
	1.4.2.	Covid-19 pandemic	. 11	
	1.4.3.	Redesign of anatomy teaching and examination	. 11	
	1.4.4.	Additional training in ante-mortem and post-mortem inspection of livestock and farm animals for slaughter	. 12	
	1.4.5.	Specialisation module at the Tyrol site	. 12	
	1.4.6.	Austrian Science Fund (FWF) project: self-regulated learning in medical training	. 12	
	1.4.7.	Workload measurement	. 13	
	1.4.8.	Adaptations to the admissions procedure	. 13	

	1.4.9.	Support for writing theses	14	
1.5.	Area 4 F	acilities and equipment	15	
	1.5.1.	Conversion of teaching and examination rooms	15	
	1.5.2.	New facilities for VetBiomodels	15	
	1.5.3.	New University Clinic for Small Animals	15	
	1.5.4.	University Clinic for Ruminants: Tyrol site	16	
	1.5.5.	Future-oriented development of the buildings and infrastructure	16	
	1.5.6.	VetCore	16	
	1.5.7.	Central Cell Culture Facilities	16	
	1.5.8.	Wolf Science Center	16	
	1.5.9.	VetFarm / Precision Livestock Farming Hub	17	
	1.5.10.	Modernisation of large-scale diagnostic imaging equipment	17	
	1.5.11.	Assistance for student workwear and protective clothing	17	
	1.5.12.	Online course on the Infection and Disease Control Plan	17	
1.6.	Area 5 Animal resources and teaching material of animal origin			
	1.6.1.	3D scanning and modelling of anatomical models	18	
	1.6.2.	Project: Development of an Al-supported ultrasound learning environment for students to reduce the use of horses in veterinary teaching (3 Rs: Reduce, Refine, Replace)	18	
	1.6.3.	Cooperations with Federal Ministry of Defence, TierQuarTier Vienna and Veterinary Directorates of the Austrian Regions		
	1.6.4.	Introduction of new veterinary hospital information system: VESPA (Veterinary Hospital Application)	19	
1.7.	A			
	Area 6 Lo	earning resources	20	
	Area 6 Lo 1.7.1.	earning resources Evaluation with EvaSys live as of winter semester 2020/2021		
		•	20	
	1.7.1.	Evaluation with EvaSys live as of winter semester 2020/2021	20 20	
	1.7.1. 1.7.2.	Evaluation with EvaSys live as of winter semester 2020/2021 Hybrid teaching	20 20 20	
	1.7.1. 1.7.2. 1.7.3.	Evaluation with EvaSys live as of winter semester 2020/2021 Hybrid teaching Media workshop	20 20 20 20	
	1.7.1. 1.7.2. 1.7.3. 1.7.4.	Evaluation with EvaSys live as of winter semester 2020/2021 Hybrid teaching Media workshop H5P: interactive learning formats	20 20 20 20 20	
1.8.	 1.7.1. 1.7.2. 1.7.3. 1.7.4. 1.7.5. 1.7.6. 	Evaluation with EvaSys live as of winter semester 2020/2021 Hybrid teaching Media workshop H5P: interactive learning formats New information platform for students	20 20 20 20 20 21	
1.8.	 1.7.1. 1.7.2. 1.7.3. 1.7.4. 1.7.5. 1.7.6. 	Evaluation with EvaSys live as of winter semester 2020/2021 Hybrid teaching Media workshop H5P: interactive learning formats New information platform for students State-of-the-art audience response system	20 20 20 20 20 21 22	

	1.8.3.	Initial psychological support for students through online counselling	22
1.9.	Area 8 S	tudent assessment	23
	1.9.1.	Monitoring student performance and assessment	23
1.10.	Area 9 A	cademic and support staff	24
	1.10.1.	VetDidactics	24
	1.10.2.	University and Family certification	24
	1.10.3.	Remote collaboration and leadership	24
	1.10.4.	Digital skills	24
	1.10.5.	Entrepreneurial Vetmed	24
	1.10.6.	Peer coaching for professors	25
	1.10.7.	VEmpowerment	25
	1.10.8.	Leadership performance	26
1.11.	Area 10 I	Research programmes, continuing and postgraduate education	27
	1.11.1.	Official Expert Assistant Certificate course	27
	1.11.2.	E-learning course: Ethics in veterinary medicine for training official veterinarians	27
	1.11.3.	Digital agriculture	27
	1.11.4.	DiLaAg: Digital Technologies in Agriculture PhD programme	28
	1.11.5.	Internal start-up promotion	28
	1.11.6.	Top Vet Science programme	28
	1.11.7.	Tandem PhD	29
	1.11.8.	Internal interdisciplinary PhD call: One Health 2022	29

Annex

1.1. Area 1 Objectives, Organisation and QA Policy

1.1.1. New term of office of the Rectorate

The current Rectorate took up its term of office in April 2021. <u>Rector Prof. Winter</u> is supported by the following vice-rectorate team:

- Vice Rector for Research and International Relations: <u>Prof. Otto</u> <u>Doblhoff-Dier</u>
- Vice Rector for Resources and Digitalisation: Dr. Manuela Raith
- Vice Rector for Teaching and Clinical Veterinary Medicine: <u>Prof. Jürgen</u> <u>Rehage</u>

1.1.2. Amendment to the Austrian Universities Act

A recent amendment to the Austrian Universities Act 2002 (UG) and the Higher Education Act 2005 (HG) brought innovations in university law relating to studies, organisation and staff. The planned reform came into force on 1 October 2021; some specific changes will come into force after transitional periods or in the academic year 2022/23. The vetmeduni has made the appropriate adjustments to its documents and procedures. Key changes included:

- Minimum course work for students of 16 ECTS to be completed in the first 4 semesters
- Conclusion of a learning agreement for exam-active students after 120 ECTS
- Good scientific practice is defined more bindingly
- The right of initiative and directive competence of the rectorates in curriculum design is limited to external framework conditions, such as structural and formal aspects, and explicitly does not include curriculum content.
- Limitation of terms of office for rectors to a maximum of 12 years and for senate members to a maximum of four consecutive terms of office
- The new version of UG section 109 stipulates a maximum term of employment for temporary staff of up to eight years after a maximum of two extensions or two renewals of such repeat contracts. What is new is that this period is now calculated over the entire employment phase within all Austrian universities combined. However, certain periods are not included in a multiple extension: the PraeDoc phase (= doctoral studies, maximum 4 years) or periods of work as a student assistant.
- New deadlines have been introduced to speed up the appointment process for full professorships (in Austria § 98 UG). Within one month of the close of applications, the appointment committee must review whether the applications at hand meet the application criteria. Within seven months of the close of applications, the appointments committee

must also prepare a reasoned appointment proposal with the three most suitable candidates based on expert opinions and additional statements. Appointment officers can be selected to accompany the appointment process.

1.1.3. Regionalisation initiative "VetmedRegio"

To ensure the best possible veterinary care also in remote regions, the vetmeduni has launched the "<u>VetmedRegio</u>" initiative. Additionally in cooperation with the Austrian Agency for Health and Food Safety (<u>AGES</u>), the vetmeduni has established an external site in Innsbruck. The university also signed a letter of intent with the Province of Carinthia. The aim of the Innsbruck site is to establish a competence centre for teaching and research on ruminants in the Alpine region. In this distributed model, students complete their in-depth training with veterinarians in Tyrol. The aim is to tackle the challenges of alpine agriculture in cooperation with the Province of Tyrol, the profession, and local veterinarians. Furthermore, this creates good conditions for students to make important contacts to establish them professionally in rural regions during their practical training in the ruminant sector.

The VetmedRegio strategy is based on a study on Veterinary Care in Austria commissioned jointly with the Austrian Chamber of Veterinarians (<u>ÖTK</u>) and the Austrian Ministry of Social Affairs, Health, Care and Consumer Protection (<u>BMSGPK</u>) at the Institute for Advanced Studies (<u>IHS</u>). vetmeduni has succeeded in developing a comprehensive package of measures with the Province of Tyrol within a cooperation agreement:

- Establishing the specialisation modules on Ruminant Medicine in the Alpine Region and Animal Health, Food Safety and Alpine Farming for 20 students at the Tyrol site
- Implementation of an endowed professorship (founded by the Province of Tyrol for Ruminant Medicine in the Alpine Region) as support for the regionalisation of higher education
- VetINNSights Summer School for young people interested in studying veterinary medicine in Tyrol
- Establishing a ruminant centre as a long-term goal for Tyrol strategic planning for the use of the property of the former Higher federal teaching and research institute for agriculture and nutrition as well as food and biotechnology Kematen
- For students of veterinary medicine, six places per year for the ten-week compulsory internship in food science and veterinary public health are financed by the Province of Tyrol.

VetmedRegio also focuses on networking opportunities for students and veterinarians (e.g. <u>South Tyrol meets Vienna</u>, <u>Upper Austria meets Vienna</u>). Depending on the province, joint events are arranged by the vetmeduni at which students can exchange information with practising veterinarians on site and develop contacts for internships or potential future jobs.

1.1.4. Med-Impuls Initiative

The Uni-Med-Impuls 2030 programme is intended to strengthen university-based medical research and training in Austria. The partners in this programme are all medical universities in Austria, as well as the vetmeduni. The key points of the programme for the vetmeduni are:

- Participating in the establishment of an inter-university institute: the Ignaz Semmelweis Institute. In the future, this new institute will serve as a comprehensive contact point for politics, science and research in infection biology in the context of One Health, while conducting highquality basic and clinical research.
- Focus on public health, epidemiology and infectiology: the vetmeduni's special contribution is the VetmedRegio regionalisation initiative and promoting the digitisation and personalisation of veterinary medicine.
- Extending a strengthening e-learning concept in teaching; the vetmeduni will focus on systematically expanding innovative concepts of digital teaching and learning, including virtual reality simulations in teaching.
- Promoting (interdisciplinary) research collaboration: cooperation in One Health research at the vetmeduni will be intensified to strengthen interdisciplinary research for the benefit of the general public.
- Expansion and investment in a modern research infrastructure: to strengthen interdisciplinary clinical research, the vetmeduni intends to set up a Clinical Research Lab as part of the expansion of its clinical research infrastructure on campus.
- Establishment of three new professorships in comparative crossspecies infectiology, One Health and systems genetics.

1.1.5. vetmeduni+: shaping the future together

The vetmeduni is undergoing a major process of change. In addition to the changes initiated by the global situation (including climate change, the pandemic and inflation), the organisation faces new situations due to national developments:

- **U**G Amendment: ensure the new legal, statutory framework is in place.
- New University funding: the vetmeduni must ensure that the legal framework is exactly adhered to when filling positions, otherwise there is a risk of loss of financial ressources.
- Creation of tenure track options: appointees start as assistant professors (Austrian law UG §99.5, limited temporary positions), during which time they must ensure that they can fulfil a qualification agreement. If the evaluation is positive, they are given the opportunity to obtain the permanent position of associate professor (Austrian law UG §99.6). The vetmeduni must ensure that the associate professors are integrated into the university system on an equal footing with the full professors.

- The labour market for skilled staff is increasingly competitive. Accordingly, the vetmeduni faces higher fluctuation and very high competition in key areas.
- The digitalisation of administrative processes requires clear responsibilities and organisational structures.

As a result, members of the Rectorate have decided to work on these shared challenges and opportunities for the whole organisation, its culture and communication in a major project entitled **vetmeduni+: shaping the future together** starting in autumn 2022. In a comprehensive nomination process, committees, departments, student representatives and the Rectorate identified around 100 project participants divided in specific project-groups. In autumn/winter 2022/2023, these are working out the following key points in three working groups:

- Organisation and roles
- Needs-based basic funding and procedure for internal target agreements
- Communication and culture

The results of this organisational project will be integrated into future campus re-development. Furthermore, the ongoing structural development of the campus and the vetmeduni's external sites is crucial for securing the university's teaching, service and research. For this reason, the Austrian body responsible for managing public property. the Bundesimmobiliengesellschaft, and vetmeduni entered joint discussions to coordinate the requirements for the working environment and building infrastructure of the vetmeduni Campus 2030. The findings and decisions obtained from the vetmeduni+ project are being transferred to it.

1.1.6. New professorship in Computational Medicine

As of 1 January 2022, Professor Peter M. Roth has taken over the leadership of the newly founded Institute for Computational Medicine, covering interdisciplinary aspects between computer science and veterinary medicine. Having in mind the One Health Principle, a wide range of scientific questions are addressed, starting from general aspects in digitalisation in veterinary medicine, over the application and development of modern technology for diagnostics, to improving heard monitoring and improving animal welfare. Establishing the institute enables the vetmeduni both tackling modern approaches in veterinary sciences as well as including them also in the educations. In particular, future veterinarians should not only be well trained in traditional medicine but also need to be prepared to use and adopt modern digital skills in the daily practice.

1.1.7. Covid-19 pandemic

In response to the Covid-19 pandemic, a cooperation agreement was concluded with the <u>Lower Austrian Provincial Health Agency</u> to enable up to 270 Covid-19 PCR tests per day to be performed at the vetmeduni. It was a joint effort between the Institute of Virology and the Clinic for Poultry and Fish Medicine, the latter one running an accredited (EN ISO/IEC

17025:2017) diagnostic laboratory. With this initiative the vetmeduni also supported the school tests organised by the Austrian Federal Ministry of Education, Science and Research (BMBWF). The vetmeduni offered all its staff and students working on site to maintain teaching, research and services free, a voluntary COVID-19 screening. For this purpose, an internal electronic registration and result transmission system was developed based on an existing system at the Unit for Poultry Medicine. On average, 400 tests were performed each week. In addition, an academic team led by the vetmeduni and the University of Natural Resources and Life Sciences Vienna (BOKU) established easy-to-implement serological tests to detect antibodies against SARS-CoV-2. For this academic achievement the academic team has been recognised with an award. Experts from the vetmeduni also provided public information on the risk of contracting SARS-CoV-2 in domestic animals, livestock and horses and on possible transmission of the pathogen to humans.

1.1.8. Revision of the overall teaching evaluation strategy

In 2020, the overall strategy for teaching evaluation was developed. The aim was to use the evaluation results obtained to ensure ongoing, evidence-based improvement in teaching and to provide for a uniform reporting system. The basis for this is the four annual meetings of the Evaluation Circle, to which the Vice-Rector for Teaching and Clinical Veterinary Medicine, a member of staff from the staff unit for Quality Management, Evaluation and Strategic Projects two student representatives and topic-specific experts are invited to ensure the proposed measures are feasible. The Vice-Rector for Teaching and Clinical Veterinary Medicine is responsible for implementing and communicating the measures.

1.1.9. Inter-university projects

The vetmeduni is involved in several inter-university projects:

- Alumni and alumnae tracking (ATRACK), in which the career paths of university graduates are examined on the basis of register and social security data. The starting point for this was a database provided by Statistics Austria. Another focus is on in-depth, methodical observations of migration before and after the studies as well as the elaboration of regional salary differences.
- Student monitoring (STUDMON). The monitoring system (STUDMON) is used to identify characteristics that influence success, changes and duration of studies. "Fixed" (personal) characteristics such as gender, age when commencing studies, and previous school education, are taken into account. Another factor monitored is the connection between gainful employment during studies and study progress. The focus in 2020 was on ensuring the legal (including a reassessment of data protection) and contractual (including new cooperation partners, new commissioning of the IHS) basis for the participation of all partners. Towards the end of 2020, the IHS sent the first complete reports to the universities, which are currently being revised following their feedback. It is planned to reflect on the results of the project from the reports and, building on this, to develop measures taking into account the results of the student social survey, which are intended to address problem areas evident from the data.
- Exam-activity in Bachelor and Master-studies at universities: With this project the Austrian universities and the BMBWF aim to uncover central determinants for exam-inactivity of students. The vetmeduni provided data for the project, is however less affected by inactivity of

students. Main findings across all universities were that inactivity of students is a multifaceted construct with very heterogeneous causes for inactivity. This is due to the heterogeneity of the population of inactive students. Causes are for example lacking time resources due to (child)care, illness, or necessary jobs. The project concludes that only a part of inactive students can be activated through specific measures.

- The ERASMUS+ project entitled Pan-European soft skills curriculum for undergraduate veterinary education¹ (SOFTVETS) is coordinated by the University of Zagreb. Partners include the Vetmeduni, the Hannover Veterinary University Foundation, the University of Ljubljana, the University of Budapest and Vienna University of Economics and Business Administration. The aim of the project is to develop and implement teaching modules on the three competence areas of communication, entrepreneurship and digitalisation. The project achieved an excellent evaluation by the Croatian National Agency with 98 points out of a possible 100. All project results are accessible free of charge at www.softvets.eu.
- The ERASMUS+ project Internal Quality Management: Evaluating and Improving Competence-Based Higher Education (IQM-HE) dealt with the development, implementation and dissemination of a European toolkit for quality assurance in competencebased higher education). The project involved seven universities and three quality assurance agencies from six different European countries. The project was funded by the ERASMUS+ programme for Strategic Partnerships in Higher Education and was awarded as one of the five best projects in the Erasmus+ Award 2019 for Education (Strategic Partnerships category).

1.1.10. Process automation

The process management established at the vetmeduni in 2018 was deepened and expanded. One focus was on the ongoing identification, documentation and modelling of new central administration processes. In addition, existing central processes were developed to promote efficiency and resource optimisation. To further professionalise process management, a strategic process management tool with an integrated internal control system (ICS) and risk management has been procured, which is currently being implemented. Furthermore, possibilities of process automation are being evaluated and a clear definition of responsibilities and functions is being established, including a multi-person checking principle, to further ensure that a quality-assured control cycle (PDCA) is in place.

In addition, the staff unit for Quality Management, Evaluation and Strategic projects, in cooperation with Information and Knowledge Management, has developed a process portal with the aim of promoting university-wide exchange, which provides transparent access to information about the central processes at the vetmeduni. The vetmeduni process portal has been available to all staff as an information platform on VetEasy since the end of 2020.

1.1.11. Study development

The vetmeduni considers the external perspective to be a key expert resource in the development of new and existing study programmes. In addition to graduates, the university actively approaches sector-specific associations, companies, etc. to contribute with their expertise. Coherence analyses, qualitative content analyses, stakeholder surveys, alumni

¹ https://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/2018–1-HR01-KA203–047494.

surveys, focus groups and the analysis of internal key figures are all used to develop the study programmes. In the reporting period, the vetmeduni has checked the following programmes in depth:

- Master in Precision Animal Health (Developed).
- Interdisciplinary Master in Human-Animal Interactions (Re-developed)
- Bachelor in Equine Sciences (Discontinued in 2021)

1.1.12. Committee on Hygiene, Animal Diseases, Zoonoses and Biosecurity

The overarching Committee on Hygiene, Animal Diseases, Zoonoses and Biosecurity addresses relevant topics in meetings that take place every six months. This advisory body can make recommendations to the Rectorate and works on the basis of applicable law and scientific standards. The results of the committee's work include the revision of the disease plan and related procedural instructions for the veterinary clinics as well as the development of a biosecurity manual. Additional focal points were the report of the biosafety/biosecurity part of the internal audit, the development of SOPs, selecting and handling a disinfectant in the event of a disease outbreak and the establishment of a laundry cycle for the students' work clothes. Since 2022, the organisational units have been inspected regularly to ensure that cross-university hygiene and biosafety standards are met.

1.1.13. Sustainability and climate protection

To address the major issue of sustainability, the vetmeduni campus has been EMAS (EU Eco-Management and Audit Scheme) and ISO 14001:2015 certified since March 2019. Furthermore, the vetmeduni has designed a new initiative that started in 2020 and is entirely focused on the UN Sustainable Development Goals (SDGs). The vetmeduni focuses its research and teaching on the following SDGs:

- 2 (No Hunger)
- 3 (Health and Welfare)
- 15 (Life on Land)

These SDGs determine the university's communication focus for one year at a time. The regular and visible measures are planned and implemented in accordance with the development plan, the profile lines and the strategic core messages of the vetmeduni. In April 2019, the vetmeduni became a member of the Alliance of Sustainable Universities in Austria, thereby strengthening its positioning as committed to ecological and social responsibility. The vetmeduni is also a partner institution in the Austrian Alliance of Sustainable Universities and Sustainable Development Goals) which was launched in 2019. The cross-university Lectures for Future series, in which the vetmeduni is involved, was awarded second place in the Teaching and Curriculum category at the seventh Sustainability Awards in 2020. The vetmeduni Sustainability Advisory Board was founded in June 2021. This body is involved in the ecological, social and economic development of the university. An important part of the internal sustainability measures is the participation of all vetmeduni employees. Therefore "Mission GreenVet" has been founded. Part of this internal initiative is to raise awareness how easy everyone can contribute to this mission (e.g. saving energy, using public transport).

1.1.14. Digitalisation strategy and cyber security prevention

As part of the 2019–2021 performance agreement, the vetmeduni has brought together all digital initiatives in into one strategy. The resulting <u>Digitalisation Strategy</u> was incorporated into the update of the Development Plan 2030 in the priority area digitalisation. The strategic goals were strengthened with special attention to the university's positioning regarding new research fields, diversity, sustainability and the social dimension.

In order to prevent the likelihood of more ransomware attacks, Austrian universities started to begin building cybersecurity awareness. vetmeduni strengthened its activities in this area enormously.

1.1.15. Social Dimension and Diversity Strategy

As part of the 2019–2021 performance agreement, the vetmeduni was asked to develop a <u>Social Dimension and Diversity Strategy</u>. Its strategic approaches and goals were integral to the Development Plan 2030 process. The Social Dimension and Diversity Strategy is based on an in-depth examination of the current status and intensive, future-oriented dialogue. It goes hand in hand with the Development Plan 2030, the performance agreement, the Women's Advancement Plan, the Equality Plan and the vetmeduni Code of Conduct. The strategy is aimed at students and staff, with specific measures for each group complemented by a comprehensive approach. It intends to achieve the following goals:

- Make studies more accessible, socially inclusive and diversity aware.
- Provide students and staff with the best possible personal and professional development.
- Make the vetmeduni attractive and open to the best minds.
- Integrate heterogeneity to achieve socially relevant, sustainable outcomes in research and teaching.

1.1.16. New homepage and intensification of internal communication

In the 2019–2021 performance agreement, the vetmeduni committed itself to a responsible web presence. Due to this, the project for a <u>new website</u> was launched at the beginning of 2019. After its successful completion it was continuously updated during 2021. In parallel to the new homepage, a project was also launched to intensify and professionalise internal communication. The aim is to evaluate and develop existing and new communication channels for different stakeholder groups of vetmeduni staff (e.g. administrative staff, scientific staff). This was launched in spring 2022 with the VetFutureTalks series. The common goal of this format is structured exchange and dialogue with professors and committees of the vetmeduni on current developments and events. Further activities planned include revision of the internal communication and interaction platform VetEasy, a new staff magazine and videos for applicants.

1.1.17. Third mission

The vetmeduni is increasingly required to contribute the knowledge gained from its core tasks of teaching, research and (non-)clinical services to fulfil its third mission in the economy and

society. This means actively and consciously taking responsibility for the society on whose behalf it operates. Daily clinical work in the five species-specific clinics alone represents an important, socioeconomic contribution. In addition, the vetmeduni helps to address socially relevant topics based on science. The range of activities is diverse and extends from imparting knowledge to children (e.g. the children's university and holiday activities KinderUni and Floridsdorfer Ferienspiel) and the wider community (e.g. VetmedTalk, Garden Day, Open Day, the Austrian Ornithological Center AOC, Kremesberger Tagung for farmers at the Vetfarm) to special outreach activities to inspire prospective students to study veterinary medicine (e.g. road shows, visits to trade fairs, Campus Feeling, Science Camp, VetINNSights).

1.2. Area 2 Finances

In December 2021, the vetmeduni concluded its new performance agreement with the BMBWF for the period 2022–2024. In summary, the PA 2022–2024 financial statements are 12.37% higher than the financial statements for the PA period 2019–2021 (including tuition fee rates and reference increases). However, this increase includes the earmarked projects of the Uni-Med-Impuls 2030 initiative at 4.4%, such as the establishment of three new professorships and cooperation in the new inter-university institute to be founded with the medical universities and the medical faculty of Linz. With this increase, higher targets for exam-active students can be met. However, the budget only covers a calculated cost increase of 2%. As the negotiations finished in December 2021, the vetmeduni had no chance to take the inflation, higher energy costs and increases due to wage negotiations into account. Therefore vetmeduni, together with other Austrian universities, started in 2022 an additional negotiation round with the BMBWF. End of 2022 vetmeduni accomplished to negotiate additional 25 million euro.

1.4. Area 3 Curriculum

1.4.1. Increase in study places

As a contribution to the provision of veterinary care in Austria, the number of study places was increased by 20 additional places in the academic year 2022/23. Furthermore, lateral entry in Semester 5 was established for a maximum of 40 students from other EAEVE approved or accreditated VEEs.

1.4.2. Covid-19 pandemic

The Covid-19 pandemic presented the vetmeduni with new challenges in its teaching. To prevent or minimise study delays or even drop-outs, the vetmeduni moved lectures and conversation courses to a predominantly online phase of teaching during the Covid-19 pandemic lockdowns, followed by a subsequent attendance phase with sufficient distance between participants. The teachers were intensively supported in the necessary change from face-to-face to online teaching; training courses were offered to strengthen digital teaching competences. Fortunately, the students and the teachers are very satisfied with the implementation of online teaching, which was confirmed by an Austria-wide survey of 5,000 students (via Studo platform), in which the vetmeduni's online teaching ranked first among the universities.

In order to counteract the problems associated with pure online teaching, especially for firstsemester students, the Vice Rectorate for Teaching and Clinical Veterinary Medicine commissioned a revision course for the teaching module examination, where first-semester students could ask their questions in person. The practical small-group teaching was held in person in all areas from May 2020 in order to ensure practice-oriented, quality-assured training and examination even during the pandemic. In summary, vetmeduni managed successfully, that students could move on with their studies without any time delay and with lots of practical hands on training despite the challenges of the pandemic situation.

1.4.3. Redesign of anatomy teaching and examination

Since 2017, an internationally recognised expert has been supporting teaching staff in redesigning anatomy teaching and examination. The learning outcomes are now more clinically oriented and ECTS workloads for the students were reduced. The dissecting room was fitted with special screens and a control computer that allows all screens to be controlled on demand. The control computer is equipped with diagnostic software and connected to the PACS (picture archiving and communication system) of Department 4, so that section images can be interactively demonstrated and displayed as volume models. Furthermore, a radio microphone system and loudspeakers for audio support were installed throughout the dissecting room. The newly appointed professor took up his work at the Institute of Morphology on 1st of September 2020.

1.4.4. Additional training in ante-mortem and post-mortem inspection of livestock and farm animals for slaughter

In the area of ante-mortem and post-mortem inspection, the compulsory courses in the curriculum are designed in such a way that all students can prove completion of the courses upon graduation. This additional training is based on the required contents of Training Framework Plan B for official veterinarians under the Education and Training Ordinance of the Food Safety and Consumer Protection Act (LMSVG), with theory courses (incl. videos) in anteand hands-on training in post-mortem inspection. The examination is part of the third diploma examination in a separate block. Students having passed this examination receive an additional certificate to be allowed to do ante- and post-mortem inspections (in German: "kleine SFU").

1.4.5. Specialisation module at the Tyrol site

As part of the regionalisation initiative "VetmedRegio", a contract for shared facilities was concluded with AGES in Innsbruck. The AGES site is very well equipped, including a pathology department. From the winter semester 2020/2021, it was planned that students of the specialisation module in ruminant medicine would spend one week of their clinical rotation in Innsbruck; however, this was cancelled after the first group due to the Covid-19 pandemic, as the risk was considered inappropriate in visiting farms and veterinary practices. During the pandemic, the course was continued online and the links to the regionally practising veterinarians were strengthened. Since 2022 the course is taking place again at the Innsbruck site. The core of the future clinical rotations is to foster contact with veterinarians in private practices, who provide an insight into their everyday professional life and with whom visitations are made and ruminant herds are visited. In addition, current topics (e.g. tuberculosis, the importance of alpine pastures, the return of large predators) are worked up together each week, presented by the students at the end of the week, and discussed with invited external experts. The programme is complemented by participation in post mortems of domestic and wild ruminants as well as expert lectures by staff members of our partner AGES Innsbruck. The Tyrol rotation was accepted by the students with great enthusiasm and evaluated very positively.

1.4.6. Austrian Science Fund (FWF) project: self-regulated learning in medical training

The focus on training research at the vetmeduni was significantly strengthened with an FWF project on self-regulated learning (SRL) in medical training. The project investigates the fact that (veterinary) medical students need high levels of competence in self-regulated learning, not only in academic settings, e.g. for written exams, but also in clinical practice settings, i.e. workplace learning. While there are numerous studies on SRL in academic settings, little is known about SRL in the workplace, although studies show that many (veterinary) medical students have problems, especially in the transition to workplace learning. The project pursues three goals that build on each other: (1) to develop a comprehensive SRL model for clinical practice settings, (2) to develop a quantitative diary as a survey instrument, and (3) to analyse the extent to which SRL in clinical practice settings is (a) stable or (b) situation-dependent,

and (c) changes over time. The SRL model and the SRL diary for the clinical practice setting will be developed and validated using a citizen science approach with the participation of students and teachers. A quantitative longitudinal diary study will be conducted to analyse the stability, variability, magnitude and course of change in SRL over time. The project aims to provide the scientific basis for easing the transition to SRL in clinical practice and thus to provide guidance on whether interventions should focus more on (a) different learning types, (b) contextual factors, or on (c) training depending on the stage of transition. With this project, the vetmeduni is strengthening an innovative approach to research on medical training: many medical universities focus on the science of teaching and applied research. The vetmeduni, on the other hand, focuses on the science of learning and basic research.

1.4.7. Workload measurement

In the winter semester 2019/20, students of the basic studies (Diploma Programme in Veterinary Medicine, Bachelor of Biomedicine and Biotechnology, Bachelor of Equine Sciences) and students of the Master studies in Human-Animal Interactions at the vetmeduni were again asked to individually and daily measure their workload via the Studo app in a total of 18 courses. The voluntary workload entry includes time spent on attendance, preparation and scientific research per course. The sociodemographic data of travel time, caring responsibilities and activity level were also recorded. The aim of the pilot study was to identify and quantify where the workload was exceeding figures given in the curriculum. The average participation per course was 22%. In none of the piloted courses did the workload exceed the curricular limit. Regarding the sociodemographic data, it is interesting to note that 52% of participants in the pilot study have a part-time job. This is consistent with the data from the Student Social Survey (SOLA, IHS): Students on the Diploma Programme in Veterinary Medicine face an increased individual burden due to part-time employment. As of the winter semester 2022/23, the workload questions were integrated into the regular course evaluation to enable continuous monitoring.

1.4.8. Adaptations to the admissions procedure

For the aptitude test for the Diploma Programme in Veterinary Medicine, the questions on study and career requirements were recreated with the involvement of external and internal stakeholders and were used for the first time in the 2020 aptitude test. Since 2020, the study material for the admissions procedure has been made available on the homepage in the form of Open Educational Resources in accordance with the Austrian Universities Act. Thus, all applicants have access to the required learning material and can download it.

Since 2020, organisational adjustments have been made to the application procedure and the admissions process. All aptitude test candidates receive personalised invitations with a QR code. On the day of the aptitude test, the personal QR code is used to track the presence of the applicants in accordance with General Data Protection Regulation (GDPR). To simplify the application process, a new application tool was implemented in 2021. Applicants can submit the required documents online, which has made it possible to check the documents and if

necessary, submit additional documents more efficiently and to make the application process even more transparent.

As mentioned under point 9.3.1, the possibility of lateral entry for career-change students of veterinary medicine was newly regulated with the ordinance on the admission procedure for the academic year 2022/23. Applicants who wish to continue their studies at the vetmeduni in Semester 5 or a higher semester take a new cross-disciplinary test after providing proof of 120 ECTS credits in a veterinary medicine degree programme. The cross-disciplinary test is based on the List of Subjects and Day One Competences and includes medical physics, chemistry, anatomy, histology, embryology, physiology, biochemistry, zoology and cell biology.

1.4.9. Support for writing theses

A new Vetucation® course on Learning Skills was implemented for all students at the vetmeduni as of the summer semester 2021. This course is a collection of different methods and information was designed to give students tips and links on academic writing, critical thinking, time management and lifelong learning, as a first step in supporting academic writing. Numerous links in this course lead to English-language sites, which means that international master's students who do not speak German can also take this course. Together with Human Resources, Equality and Inclusion, the continuing professional development programme for teachers was expanded to include student supervision. The seminars are sometimes aimed specifically at teachers at the vetmeduni who will be supervising Diploma/Bachelors, Masters and PhD theses.

1.5. Area 4 Facilities and equipment

1.5.1. Conversion of teaching and examination rooms

The number of examination seats in the Examination and Training Centre was adjusted to current demand. Since online teaching will continue to be an important part of teaching after the Covid-19 pandemic, a plan was developed to make the lecture halls suitable for hybrid teaching (students can choose to be on site in the lecture hall or follow the teaching via online streaming). All lecture halls were equipped with a camera and an AV bridge, which will make it possible to transmit a sound and video signal from the lecture hall to an online room. Furthermore, all eight lecture halls were equipped with power sockets in the rows of seats, with one socket every two seats, to enable students to charge their mobile devices.

1.5.2. New facilities for VetBiomodels

Plans to centralise existing decentralised laboratory animal facilities in the new VetBiomodels building were finalised in 2020. Construction is scheduled to begin in 2023,. Housing conditions are a basic prerequisite for animal welfare: They exert a major influence on animal health and the reproducibility of experiment results according to the 3R principle (Reduce, Refine, Replace). In the future, the new building will integrate laboratory animal science and enable teaching and research on laboratory animal welfare and medicine, efficiently and according to the most modern standards. In VetBiomodels, mouse models will be generated and archived and experimental laboratory animal husbandry will be conducted from 2024. In 2023, routine experimental animal breeding will be relocated to the newly renovated facility in Himberg, Lower Austria, which the vetmeduni shares with the Medical University Vienna.

1.5.3. New University Clinic for Small Animals

The new building of the University Clinic for Small Animals unites the clinical units of the small animal clinic within one site. The fundamental reorientation means a major cultural change and affects the daily work of all staff members. For this reason, a comprehensive organisational and personnel development process has been launched with the motto "We are shaping the future of our small animal clinic together" involving the whole staff of the University Clinic for Small Animals. The aim was to enable all those involved in order to actively shape the cultural change themselves. In October 2019, the vetmeduni was honoured for its innovative human resources and organisational development project on the future of the new small animal clinic in the Tools & Services category of the HR Award 2019, the most prestigious human resources award in Austria. The clinic went into full operation on 19 April 2022, which means that the central reception and the special outpatient clinics started their activities. Despite the major organisational changes, the clinic is already working very well, thanks to the enormous commitment and cohesion among colleagues and the good preparation. The new organisational processes are evaluated on an ongoing basis and any necessary adjustments are made by the working groups involved. The new collegial management structure of the clinic is composed of the nursing, administration and veterinary management, which started their joint management work on 1 April 2022.

1.5.4. University Clinic for Ruminants: Tyrol site

Entitled The Ruminant in the Alpine Region, the working group of the University Clinic for Ruminants in Innsbruck was established at the AGES site. The site includes a pathology department.

1.5.5. Future-oriented development of the buildings and infrastructure

As described above in the paragraph on the vetmeduni+ project, the buildings and infrastructure represent a major focus in the future-oriented development of the vetmeduni. In addition to the strategic considerations of the vetmeduni with the Bundesimmobiliengesellschaft, constant renovations and improvements are underway. For this purpose, construction projects were included in the building development plan (Bauleitplan), the document in which universities register real estate projects for which additional federal funding is needed. The vetmeduni is planning the construction of a ruminant centre in the west of Austria as well as the renovation of the buildings of the Research Institute of Wildlife Ecology and the Konrad Lorenz Institute of Ethology. The new VetBioModels building is currently under construction. The reconstruction of the existing buildings at the vetmeduni campus are planned as midterm goals in the Austrian building development plan.

1.5.6. VetCore

The Core Facility for Research was established in 2006 based on funding by the University Infrastructure Programme III of the Austrian government. It started its operations in Spring 2007 and is continuously updated and expanded. VetCore was created to enable

- Efficient use of large-scale instruments at the vetmeduni;
- Support of veterinary research with modern molecular methods;
- High quality analysis;
- Support for networks between clinical and basic science.

In addition to the on-going application of existing technologies, the Core Facility is also actively engaged in the development and testing of new technologies as needed. The list of equipment is <u>available here</u> VetCore also manages high-tech equipment located at vetmeduni's research institutes and clinical facilities to make them accessible to researchers. The list is <u>available here</u>. As an additional advantage of VetCore the institutes and clinics of vetmeduni are able to rent cooling capacities for a specific period. So far, the VetCore team received a lot of positive feedback for this initiative and for vetmeduni as an organisation it is a sustainable and efficient measurement to support research opportunities.

1.5.7. Central Cell Culture Facilities

The vetmeduni is currently setting up a central cell culture facility to enable researchers from the campus to book and use professional, up-to-date cell culture equipment.

1.5.8. Wolf Science Center

The Core Facility Wolf Science Center offers researchers on campus and scientists worldwide the unique opportunity to study the mental and social abilities of wolves and dogs who were raised under comparable conditions. The Wolf Science Center was founded by researchers

as an independent research centre in 2008, was taken over by vetmeduni and has now become a Core Facility of the vetmeduni since 2021.

1.5.9. VetFarm / Precision Livestock Farming Hub

vetmeduni recognised the emergence of Precision Livestock Farming (PLF) technologies and new challenges related to digitalisation in modern livestock farming. Digitalisation in animal monitoring was named as one of the key action areas impacting all three missions, i.e. research, education, and knowledge transfer at the vetmeduni. Against a backdrop of digitalisation and emergence of new technologies, the vetmeduni is fortifying its infrastructure for research and teaching through new investments. These include the establishment of a new research group called the Precision Livestock Farming Hub (PLF Hub) in June 2019 within the Department/University Clinic for Farm Animals and Veterinary Public Health, investment in sensor and video technology and hardware/software.

1.5.10. Modernisation of large-scale diagnostic imaging equipment

As part of the modernisation of the infrastructure at the Diagnostic Imaging Unit, an equine Xray machine was procured, as was a new computer tomography scanner. In addition to these two large units, an opportunity arose at the end of December 2020 to replace the large ultrasound units. A new linear accelerator for oncology was put into operation in 2022. In addition to this major project, the tendering process for a new magnetic resonance imaging device and a standing CT at the Equine Clinic is planned for the next few years.

1.5.11. Assistance for student workwear and protective clothing

The vetmeduni, together with the Hochschüler:innenschaft der vetmeduni (HVU, the student union), has launched an initiative to launder potentially infectious workwear and protective clothing as an aid to students and as a contribution to raising awareness for biosecurity. A plan for laundering the students' protective clothing was developed for practical trainings and for clinical trainings. The purchase of overalls for working in the clinical area was supported by the Rectorate and implemented promptly by the HVU. Protective clothing from potentially infectious areas is laundered on site at the vetmeduni, organised by the HVU in cooperation with the respective students.

1.5.12. Online course on the Infection and Disease Control Plan

In the course Clinical Outpatient Clinic I, students have their first contact with animal patients. To raise awareness of responsible behaviour, not least regarding epidemiology and infectiology, the vetmeduni's current Infection and Disease Control Plan is presented during this course on Vetucation®. The central messages of the plan are communicated to the students, as the first people who might notice a suspected disease. Furthermore, students are encouraged to study the vetmeduni's Infection and Disease Control Plan closely. Finally, there is a self-assessment to check whether the objectives of the plan have been internalised. Only those students who have completed this course and answered the questions correctly can pass the course and move on to practical training in the university clinics.

1.6. Area 5 Animal resources and teaching material of animal origin

1.6.1. 3D scanning and modelling of anatomical models

3D models allow students a high degree of virtual interaction. The office of E-Learning and New Media has therefore initiated a pilot project in cooperation with individual professors of the Institute of Morphology, which performs geodetic imaging using photogrammetry. Using this method, anatomical objects can be scanned realistically and represented virtually with geometric precision. A workflow for the creation, editing, archiving and publication of the 3D models is currently being developed.

1.6.2. Project: Development of an Al-supported ultrasound learning environment for students to reduce the use of horses in veterinary teaching (3 Rs: Reduce, Refine, Replace)

Training in real clinical scenarios is essential in veterinary education. Particularly when it comes to more complex techniques such as ultrasound diagnostics, practising on live animals has not yet become an integral part of student training. With more than 200 students per year, the need for horses on which to practise the ultrasound technique is correspondingly high, not least because of the high intensity of training necessary to consolidate the technique. This is contrasted with ethical questions about the justification of distress situations that are detrimental to animal welfare. For this reason, sufficient training on live animals is only possible to a very limited extent. According to the 3R rule, the use of live animals in teaching should be kept to a minimum. Thus, there is a growing need to develop realistic training alternatives. Sometimes no strategies are available for implementing realistic training alternatives for dynamic imaging diagnostics, such as ultrasound. An artificial intelligence (AI) based ultrasound learning environment that helps students to identify healthy organs with an ultrasound probe dummy on the model and provides information about the physiological location of various structures is intended to make this possible for the first time. The present project starts with a multicentre survey of the current demand for exercise horses used to train students and the share of ultrasound training therein. A prospective needs assessment will identify conceivable integration scenarios in teaching and training. Furthermore, we are working on the technology for an ultrasound of the horse's thoracic and abdominal organs with simultaneous relative spatial position tracking of the ultrasound probe, subsequent data synchronisation, image annotation and translation to a real and virtual horse model. When implemented, the new learning environment should contribute to a significant reduction of the need for practice horses in veterinary teaching not only for undergraduates, but also in postgraduate training modules, e.g. ultrasound-assisted regional anaesthesia or biopsy. Especially in early clinical training, the aim is to completely replace practice animals. The current project is a cooperation project between LMU Munich and vetmeduni and financed by Forster-Steinberg-Stiftung.

1.6.3. Cooperations with Federal Ministry of Defence, TierQuarTier Vienna and Veterinary Directorates of the Austrian Regions

In summer 2022, vetmeduni and the Federal Ministry of Defence signed a <u>cooperation</u> <u>agreement</u>. By interlinking courses, excursions and events, young people are recruited for veterinary medicine and the Ministry of Defence, and possible career paths are opened up for graduates in the Austrian Armed Forces. Further on vetmeduni students have the unique opportunity to take part in various workshops organized by the Austrian Armed Forces.

The cooperation with <u>TierQuarTier Vienna</u> was terminated with effect from the summer semester 2022. The end of this cooperation does not entail any restriction in clinical teaching due to the high number of patients at the new small animal hospital.

A lot of cooperations are also taken place between vetmeduni and the veterinary directorates of the different Austrian regions (e.g. Upper Austria, Lower Austria).

1.6.4. Introduction of new veterinary hospital information system: VESPA (Veterinary Hospital Application)

The vetmeduni is currently in the process of introducing a new veterinary hospital information system. The background to this was the information from the current provider that the system would no longer be subject to further technical and content-related development. The project was awarded to GP.Software GmbH with the product VETERA Plus. VETERA is a specialist software for veterinary hospitals and practices. The software is already used in the university animal hospital in Zurich, in the clinics of the veterinary faculties of the University of Leipzig and Ludwig Maximilian University in Munich and in the clinics of the veterinary institute of the Georg August University in Göttingen.

1.7. Area 6 Learning resources

1.7.1. Evaluation with EvaSys live as of winter semester 2020/2021

As the evaluation tool in VetmedOnline, the university's academic life cycle management system, is not supported anymore, the vetmeduni switched to evasys©. The system was successfully implemented, trained and tested as a pilot in the biomedicine and biotechnology bachelor's degree programme. The Evaluation Circle (see 9.1.8) created and released a new set of questions, which have been implemented in the following evaluations. As a major improvement for the process, the questionnaire can now be sent automatically to all participants immediately after completing the respective course, leading to higher response rates. Since the winter semester 2020/2021, all courses have been evaluated with this software.

1.7.2. Hybrid teaching

A plan for continuing hybrid teaching even after the pandemic was drawn up and implemented in a pilot phase with Semesters 1 and 3 of the Diploma Programme in Veterinary Medicine in the winter semester 2021/2022. The hybrid teaching plan is intended to provide optimal learning and teaching experiences for students and teachers, while promoting digital transformation and the social dimension at the vetmeduni and making theoretical knowledge available online to a larger number of students – especially students at the external sites.

1.7.3. Media workshop

In 2021, the media workshop was expanded to include a new workspace that allows teachers to hold courses online and produce high-quality teaching videos. The workspace is equipped with high-quality media technology. Using a green screen installed in the room, lecturers can present in front of virtual backgrounds (lecture halls, campus areas). A specially adapted video workflow ensures automated and very rapid optimisation, publication and archiving of the videos produced and ensures smooth access for students via the learning platform.

1.7.4. H5P: interactive learning formats

The future technology H5P gives teachers extensive options for creating interactive learning content. Via an information campaign in the form of instructions, tutorials and training sessions, teachers were made aware of this issue. Furthermore, a workflow was developed that enables the rapid provision of interactive learning content including performance assessment via the vetmeduni learning platform.

1.7.5. New information platform for students

On 11 March 2021, the new information platform for students in Vetucation \mathbb{R}^2 went online. This information platform provides students with all the relevant information for every aspect related to their studies organised by topic. Information is prepared in the teaching languages at the vetmeduni (German and English). All existing necessary information for first-semester students has been included in the information platform. In addition, since 2021 all informative

² <u>https://vetucation.vetmeduni.ac.at/</u> information platform for students.

events for students organised by the Vice Rectorate for Teaching and Clinical Veterinary Medicine as well as the first-semester welcome ceremony have been streamed and recorded. The videos are made available via the password-protected information platform for students.

1.7.6. State-of-the-art audience response system

Since its launch in 2020, Poll Everywhere, the new audience response system used by vetmeduni, has been very well received by students and teachers. So far, more than 2,000 questions have been created, to which students have given more than 180,000 answers. Due to the high usage figures and the positive feedback from teachers and students, the licensing of Poll Everywhere was extended so that Poll Everywhere can be used in all studies at the vetmeduni.

1.8. Area 7 Student admission, progression and welfare

1.8.1. Inclusion of students with special needs

For students with special needs, new intranet³ and internet presences⁴ as well as regular consultation hours were set up. Special software has been implemented on the Vetucation® learning platform, especially for people with visual impairments: ReadSpeaker is a text-to-speech extension. Users can have all texts read aloud and highlighted in colour or download them as audio files.

1.8.2. Support and funding for studies

The vetmeduni offers scholarships or awards and provides job opportunities as student assistants. As everywhere in everyday life, the Covid-19 pandemic brought major changes and restrictions for students. In order to help students with major financial problems caused by Covid-19, in 2020 the vetmeduni student union (HVU), in cooperation with the Rectorate, launched the Covid-19 Hardship Fund for students of vetmeduni. This was financed in equal parts by the Rectorate and the HVU budget and is administered by the HVU. The fund aimed to help students whose expenses were much higher than their income and who have no reserves left. In 2020, eight students benefitted from the Covid-19 Hardship Fund. The Covid-19 Hardship Fund was discontinued in 2021.

1.8.3. Initial psychological support for students through online counselling

In cooperation with the HVU, psychological support via Instahelp online counselling for studyrelated and private issues was established. Students can access this service easily to address issues such as exam anxiety, pressure to perform, social stress and much more. Especially during the pandemic, this opportunity was seen as a great and valuable source of support and will therefore be continued.

³ The Vetucation[®] information platform has a section on health at university including advisory services for students and teaching staff can find the equivalent contact person in the services section of VetEasy.
⁴ https://www.vetmeduni.ac.at/de/universitaet/campus/barrierefreiheit/.

1.9. Area 8 Student assessment

1.9.1. Monitoring student performance and assessment

Ensuring that students could continue their studies and increasing the number of exam-active students were the focus in the years under review. Exam-active studies are monitored in CampusOnline. Data from this software is regularly collected and compared with the corresponding figures from the previous year. In accordance with university financing, bachelor's, master's and diploma studies are considered to be exam-active if at least 16 ECTS credits have been achieved or courses of at least 8 semester hours passed in the academic year. Each study programme is considered individually. Performance from several study programmes is not added together.

These key data serve as a basis for teaching organisation and semester planning, as well as for monitoring progress in relation to budget indicators. This allows for flexible and long-term planning of teaching and examinations, which ultimately benefits the students. The indicators confirm the path taken by the vetmeduni.

1.10. Area 9 Academic and support staff

1.10.1. VetDidactics

In terms of the quality development of university didactics, the further expansion of teaching competence has been promoted since 2021. The university didactic certification program VetDidactics increases the importance of teaching and allows the self-image and role of all employees involved in teaching to be further professionalized. The program is continuously quality-assured by interim and overall evaluations after completion. The results flow into the further development of the program content and the program structure. The evaluation in 2022 resulted in the recommendation for continuation as well as numerous suggestions for improvement and additions for the in-depth acquisition of didactic skills and their practical application. Based on the feedback and taking into account the EAEVE guidelines, the course program will be revised and a new course planned to start in the winter semester 2023/2024.

1.10.2. University and Family certification

The vetmeduni has been certified in the Austrian Career and Family audit since 2010 and in the University and Family audit since 2011. Regular participation in the University and Family audit ensures that questions and areas for action regarding the compatibility of university and family life are addressed in a structured and externally monitored process. The audit thus supports both the strategic anchoring and the ongoing development of measures to promote this compatibility. After re-auditing in 2021, the award and certificate presentation took place in March 2022 as part of a family-friendly employers' event.

1.10.3. Remote collaboration and leadership

In 2020, Covid-19 made a significant impact, so the content of the internal training programme for employees focused on virtual leadership and virtual collaboration. New workshops on the challenges of remote working and resilience in crisis situations were offered to support the staff in dealing with the flexible and uncertain conditions. Extensive information on working from home (working hours, work organisation, applications and tools, data protection, health and occupational medicine) was also made available on VetEasy and continuously updated.

1.10.4. Digital skills

To develop staff digital skills, the training programme was extended in the reporting year. In addition to more training on the information systems used internally, this included cyber security, data security in remote working and dealing with IT security risks due to increased digital collaboration.

1.10.5. Entrepreneurial Vetmed

in 2019, the Entrepreneurial Vetmed initiative was launched based on the concept of the Entrepreneurial University. As part of this initiative, the English-language Entrepreneurial Basics training for junior and lateral managers was designed and implemented in the form of a series of workshops. External experts not only impart entrepreneurial know-how in

workshops, but also guide the participating scientists to develop their own research ideas or projects in an entrepreneurial way. Entrepreneurial Basics covers the following topics in four modules:

- Impact and Dissemination
- Commercial Assessment
- Commercial Exploitation
- Intellectual Property

1.10.6. Peer coaching for professors

A special peer coaching format for professors was developed and implemented. A group of seven professors took the opportunity to work on current and relevant professional problems and to reflect on the "how" of their own (leadership) actions with the involvement of their colleagues and two experienced trainers.

1.10.7. VEmpowerment

In order to encourage women to develop in their academic careers, to strengthen their qualities as future leaders and to support them in balancing their professional and individual life situations, the vetmeduni initiated the VEmpowerment programme. The aim of the programme is to encourage women to develop their potential using the cascade model. Core components of VEmpowerment include continuing professional development and support services to promote the continuity of research and career paths alongside caring responsibilities.

- The first major initiative in VEmpowerment is the women's advancement programme VetWoman. The 18-month programme started in February 2020 with ten participants and includes 360° feedback, regular individual and group coaching, events on leadership skills, exchange and networking with experts, strategic career planning and training on academic appointment procedures. The aim of the VetWoman programme is to make participants more appointable and thus to increase the proportion of women in the highest academic positions. Career development outside the Vetmeduni is also promoted, including a workshop entitled Fit for Appointments.
- Another initiative within VEmpowerment is the twelve-month women's career development programme VetTalents, which started in November 2020 with six participants. The aim is to work out the next steps or alternative career paths and thus increase the proportion of women in the highest academic positions. To this end, the programme includes regular group-based coaching formats, leadership skills training, workshops on strategic career planning and academic appointment procedures, as well as exchange and networking with experts. Career development outside the vetmeduni is also promoted, including a workshop entitled Fit for Appointments (incl. in other institutions).
- Research Mentoring: The Research Mentoring Programme is a strategic instrument for promoting careers at the vetmeduni. Sharing and developing knowledge and experience is the focus of this programme. Within the programme, scientists with outstanding potential are offered a focused opportunity to expand their professional and personal competencies through knowledge exchange and support with mentors. This creates new communication channels, trust and networking opportunities. 17 mentees (including assistant professors and

postdocs with the option of a career position) were connected with their mentors online at the kick-off event in autumn 2022. The pairs were matched according to the mentees' research interests. The programme includes a networking meeting; a workshop on knowledge transfer, leadership, research funding, financing, team building and diversity, with professional trainers and speakers; ongoing opportunities for exchange, meetings and feedback discussions.

1.10.8. Leadership performance

A specific continuing professional development programme was launched in 2021 for managers in central administration to develop a common understanding of leadership strengths, further interdepartmental cooperation and improve leadership performance.

1.11. Area 10 Research programmes, continuing and postgraduate education

1.11.1. Official Expert Assistant Certificate course

In accordance with the Food Safety and Consumer Protection Act, official expert assistants may be called upon to support official veterinarians in ante-mortem and post-mortem inspections and hygiene inspections of slaughterhouses and establishments that handle game. In their work, they are subject to the professional supervision and instructions of an official veterinarian.

The vetmeduni developed a plan for the theoretical training of official veterinary assistants, which was presented to the provincial veterinary directors in November 2021. Subsequently, on behalf of the Austrian Ministry of Social Affairs, Health, Care and Consumer Protection, the curriculum for the certificate course was planned in detail and it was implemented. The contents of the certificate course are based on the legal provisions of Training Framework Plan A under the Education and Training Ordinance of the Food Safety and Consumer Protection Act (LMSVG) (Annex 3a).

The certificate course, which started for the first time in early October 2022, is aimed at people with a relevant vocational qualification or graduates of relevant higher technical and industrial training institutions or higher agricultural and forestry training institutions.

1.11.2. E-learning course: Ethics in veterinary medicine for training official veterinarians

The online course entitled VEthics E-Portfolio: Ethics in Veterinary Medicine developed by the Messerli Institute, is already used in several study programmes at the vetmeduni as supplementary learning content, was made available on our learning platform Vetucation[®] for training official veterinarians in Baden-Württemberg at the request of the Staff Office of the German Federal State Animal Protection Officer of the Ministry of Food, Rural Areas and Consumer Protection in Baden-Württemberg. The cooperation agreement with the Ministry, which was concluded for one year in 2021, will be extended in 2022 due to the extraordinarily positive response from the participants in Baden-Württemberg.

1.11.3. Digital agriculture

The potential for digitalisation in farm animal monitoring continues to be a research focus at the vetmeduni. Together with the Vienna University of Technology (TU Wien) and the University of Natural Resources and Life Sciences Vienna (BOKU), in response to the Austrian Ministry of Education, Science and Research (BMBWF) call for projects on Digital and Social Transformation in Higher Education, a cooperation project on Digital Agriculture was submitted and approved. The aim of the project is to establish a future-oriented research infrastructure at the VetFarm of the vetmeduni and the experimental farm Groß-Enzersdorf of the BOKU. In the course of the project, a digital twin is to be created that can contribute to innovative (veterinary) research and teaching. During the reporting period, use cases were defined at BOKU and vetmeduni and the vetmeduni deal with the influence of global warming on cattle health, in particular on ruminant behaviour and on the yield and quality of grassland herds. Another use case of heat and cold stress in calves is currently in preparation. The data

collected in the sub-projects at the VetFarm and in commercial cooperating farms are recorded in the central project database (Influx-DB), for the most part automatically, and made available to the cooperation partners.

1.11.4. DiLaAg: Digital Technologies in Agriculture PhD programme

The University of Natural Resources and Life Sciences Vienna (BOKU), the Vienna University of Technology (TU Wien) and vetmeduni provide joint training of early career scientists in the new PhD programme DiLaAg: Digital Technologies in Agriculture, which was officially launched on 1 November 2019. The project is funded by the Forum Morgen Private Foundation and the Province of Lower Austria.

The sub-project carried out at vetmeduni deals with sensor-based monitoring of pasture management for dairy cows. During the reporting period, a prototype for the simple and non-invasive attachment of an acceleration sensor to the hind leg of dairy cows was developed and tested in practice. A device for testing the surface condition of cubicles with different bedding materials in a commercial dairy farm was developed and evaluated. In the 2021 grazing season, some of the dairy cows at the VetFarm were equipped with various sensor systems and the influence of temporary grazing on their time budget, chewing activity and stress load was recorded. The environmental and animal data generated in the project were stored in a newly created central database at the VetFarm and are available for follow-up projects. A separate homepage has already been set up for the programme.

1.11.5. Internal start-up promotion

Within the profile lines, funding for early career researchers is available under scientific evaluation (profile line board review). The target is, after two years of university funding, to secure third-party funding. This enables early career researchers to implement their own ideas in projects. Within this funding line, the Networking Seed Grant has been offered since 2020. A pair of postdocs from different internal structures submits a joint project. In 2021, four start-up projects were awarded, one of which is a Networking Seed Grant. In 2022, two more start-up projects were approved by the end of June. In 2022, a thematic call on SDG 2: No Hunger was launched as part of the vetmeduni sustainability initiative. This will be the first of four calls in the coming years that will focus on SDGs 2, 3 and 15. Project applications need to be submitted by two researchers from different internal structures.

1.11.6. Top Vet Science programme

In the internal funding programme Top Vet Science, which was announced for the first time in 2020, the appointed jury selected a winning proposal in 2021. The programme is designed to enable outstanding early career researchers to implement a project that combines excellent basic research and veterinary applications. A postdoc and a PhD student work in each of the two areas, resulting in a team of four researchers to implement the project.

The submitted projects were evaluated in cooperation with the Vienna Science, Research and Technology Fund (WWTF) in a transparent, competitive procedure with international peer review. At the first jury meeting in spring five projects were selected and invited to a hearing.

Based on the hearing, the jury ranked the projects and recommended the top project for funding by the vetmeduni.

The research project entitled "Glycoengineered Recombinant Proteins as Vaccine Candidates against Haemochus contortus, the Barber's Pole Worm of Sheep" links the Institute of Parasitology with the University Clinic of Ruminant Medicine. The project team started its work on 1 October 2021 for a period of 4 years. The junior researchers will be supported in all matters by two mentors and the international project advisory board, which will also ensure quality assurance.

1.11.7. Tandem PhD

The Tandem PhD funding programme was integrated into the <u>Top Vet Science</u> programme.

1.11.8. Internal interdisciplinary PhD call: One Health 2022

The aim of this call is to establish an internal doctoral college in the field of One Health. In this interdisciplinary programme financed by the vetmeduni, PhD students will be supervised by two supervisors from two different internal organizations. The aim is to have teams of supervisors consisting of at least one experienced supervisor (with a habilitation or equal qualification) and preferably one junior Principal Investigator. An external jury evaluated the submitted applications and ranked them.

Funding is provided for in total 15 PhD positions for 3.5 years at 75% employment and a material costs of €12,000 per year and project. The projects are scheduled to start from 1 August 2023.