



Self-Evaluation Report
EAEVE revisitation
Liège, 2022



University of Liège
Faculty of Veterinary Medicine

Revisitation Self-Evaluation Report
Liège, 2022

Foreword and acknowledgments

This revisitation self-evaluation report (R-SER) was prepared in accordance with the instructions of the 2016 ESEVT SOP-Uppsala.

We warmly thank our colleagues for their contribution to the correction of the two major and nine minor deficiencies identified by the experts in 2019, with special thanks to H el ene Amory (former Vice Dean for Education) and Georges Daube (former Dean) for their important contributions to this work. These corrections and improvements were successfully made despite a challenging sanitary context. The Faculty of Veterinary Medicine is proud of the actions and measures taken, which have significantly improved its teaching and examination methods.

We hope that this report will provide an accurate and detailed basis for the re-evaluation that will be carried out in March 2022, in order to follow up on the measures implemented by the Faculty of Veterinary Medicine following the remarks of the expert team that came in 2019.

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Introduction

The Faculty of Veterinary Medicine (FMV) was founded in Brussels in 1836. After being integrated during 1969 into the University of Liège, it moved to its present location in 1993. The 6 year veterinary medicine course is organized through a Bachelor's degree program delivered by four universities (ULiège, UNamur, UCLouvain and ULB), followed by a Master's course in clinical veterinary science delivered solely by the FMV in Liège. In Belgium, there is free access to higher education, which has led to a large number of students in the past.

The government of the Wallonia-Brussels Federation is responsible for the Higher Education in the French-speaking part of Belgium. They have issued decrees to limit the number of non-resident students to 20% and, since 2016, to install competitive exams at the end of the first year of the Bachelor course to limit the number of students to 276 admitted each year to the Bachelor's second year. The latter decree in its first version from 2016 was issued for a limited period of time (for a period of 4 years) which meant that from the year 2021-2022 onwards the number of students could have potentially increased. A new decree, limiting the number of places for second year enrolments to 276 in a permanent fashion, has been released in 2021. This point, together with the slightly insufficient relative number of staff and cases, was among the two major deficiencies identified by ECOVE during the 2019 visitation. The other major deficiency detected by EAEVE was the insufficient strategy for the development and review of assessment methods, and the inability to change such assessment methods when required. Both major deficiencies were addressed in a number of actions and the FMV is confident that the EAEVE standards will be met now. During the changes implied in order to meet the EAEVE requirements, the Corona Pandemic hit Belgium and forced the FMV to respond to distance learning and students assessment, which called for further adaptations. Lectures and seminars were switched to distance learning and thanks to the support of the university's IT service, this has happened without significant delay. The FMV took this as an opportunity to develop e-learning facilities in a very short time. Further, Belgian legislation allowed us to maintain the in person clinical training during almost the entire lockdown period. In person clinical training remains the mainstay of the teaching of our future veterinarians. During the first lockdown in spring 2020, the hospital was accepting only emergencies for a short period of time before reopening and maintaining the full scale hospital activity during the rest of the corona pandemic. The university put a voluntary once-a-week PCR testing system in place and staff and students still participate with unbroken enthusiasm.

Since the last visitation, the FMV has worked on the correction of the minor and major deficiencies amid its ongoing efforts to maintain and improve all other standards. In addition to this, the FMV was faced with other new challenges during the corona crisis.

Since the last visitation, all major minor deficiencies were analyzed and rectified making us believe that the FMV is now fully compliant with all EAEVE standards.

1 Correction of Major Deficiencies

1.1 Major Deficiency 1: “5.1 and 9.2 → insufficient number of clinical cases and staff linked to the number of students, and absence of certainty that the number of students will be maintained at a level compatible with the caseload and staff”.

1.1.1 Factual information

At the moment of the last visitation, the following rules for the admission of students to the veterinary medicine curriculum were in place. Students have to pass a test on the subjects taught in the general orientation of secondary school (TOSS, for “Test d’Orientation du Secteur de la Santé”). This test aims to inform students about the competencies needed to begin their first year. It is mandatory, but only informative and non-binding. Independently of this test, all students who desire can enroll in the first year. After the first year, students have to pass a competitive exam on the subjects of the second semester of the first year. Students are then ranked based on the results of this exam. There are 276 places in the second year for the students of the first year of veterinary medicine in one of the four institutions. 20% of these places are dedicated to “non-resident” students. All students who acquired at least 45 ECTS and are high enough in the ranking are admitted to the second year. Each university provides a fixed number of places for the second year: 40 for ULB, 51 for UCLouvain, 80 for UNamur, and 105 for ULiège. Students may only sit that competitive examination twice in two consecutive years. The decree regulating the access to the veterinary curriculum was implemented in the academic year 2016-2017 and supposed to be in place until its scheduled revision in 2019-2020. At the time of the last visitation, there was no prolongation of this decree decided by the legislative forces. Then, the limitation of students to 276 was decided to be in place for an extra year until the decision was made that the limitation to 276 second-year students will be maintained until 2025-2026. The decree in French and English can be found in the **Annex I**.

The FMV maintains its effort to provide a sufficient number of clinical cases for the teaching of the students. Despite temporary closure of the small animal hospital during moving from the old to the new building and the Covid crisis in general, a rather constant number of cases in companion animals has been maintained, while there is a very slight reduction of the number of cases in equine and farm animals. With regard to the farm animal cases however, the number of animals seen is even increasing as the accounting system of the university counts a farm visit as one case, even if the farm visit handled several animals at the same time.

Number of cases per year in Companion Animals (AC), equine (EQ), exotics (CLA) and farm animals (Ruminants and Pigs (RP)):

	2016	2017	2018	2019	2020
AC	12,642	12,680	13,335	12,748	13,830 *
CLA	1,207	1,307	1,072	975	*
EQ	1,535	1,533	1,755	1,863	1,704
RP	1,221	1,204	1,017	888	723
Total	16,605	16,724	17,179	16,474	16,257

* With the moving to the new companion animal hospital, the exotic cases are now counted together in the companion animal caseload.

Since the last visitation, 5 tenure track FTE positions for teaching scientists have been created. The tenure track position will allow five excellently trained post-doc staff members on temporary positions to remain permanently employed at the FMV. As they were on temporary positions beforehand, these new tenure track positions will not increase the overall number of full time equivalents. However, there are also another 12 permanent FTE positions that have been attributed to various departments involved in teaching undergraduate students.

1.1.2 Comments

With the new decree limiting permanently the number of students to 276 second-year enrolments, the decrease in the student numbers in the Master course resulting from former restrictions at enrolment, the overall stable number of cases in all three animal hospitals and the addition of 5 tenure track and 12 permanent positions for teaching, we believe that the indicators for cases and teachers per student have greatly improved. We hope for a post-Covid surge of cases and are convinced that the new small animal state-of-the-art hospital will attract further clients.

1.2 Major deficiency 2: “8.5 → Insufficiency with the strategy for the development and review of assessment methods, and the inability to change such assessment methods when required”.

1.2.1 Factual information

In the past, the assessment of the students' exams was based exclusively on a questionnaire system (EVALENS, mainly on the teaching quality, only 1 question on exam). The students could fill out the questionnaire on a voluntary basis. The results of the questionnaire were made available to the respective teacher. Teachers could then adapt their assessment methods in order to satisfy the students' demand or not. Unfortunately, until the implementation of the recent changes there was no possibility of suggesting a different examination method to teachers of potential 'problem courses'. We are well aware of the weakness of this system. Hence, a series of corrective measures were introduced.

- At the faculty board meeting on 04/09/2019 the Vice Dean for Education announced the minimal requirements for student evaluation. The document, elaborated by the so-called working group “evaluation”, determined the minimal requirements for written and oral examination. Notably, teachers will need to use the automatic evaluation system for MCQs, developed by the SMART unit (= Système Méthodologique d’Aide à la Réalisation de Tests (= Methodological system for help to tests realization)) of the IFRES (Institut de Formation et de Recherche en Enseignement Supérieur (=Institute of Training and Research in Superior Education)), including the use of the r.bis indicator as an internal quality control measure. Questions and answers can be deleted if r.bis indicates a low quality question. Negative points should be given either using the ‘correction for guessing’ or the ‘degree of certitude’ system and the implicit answers ‘all correct’ or ‘nothing correct’ shall be used. Students’ answers to open questions should be evaluated by using an optimal response scheme, which should be provided to the students after the announcement of the results. A standard evaluation scheme should also be used for oral exams, which need to be evaluated by several teachers simultaneously or consecutively and in the presence of witnesses if needed. The teachers should provide various examination modes and provide feedback for the students after the announcement of the exams. The document with its English translation can be found in **Annex II**.
- Seminars on the quality of exams were given on two occasions to the teachers (19/12/2019 & 29/01/2020). These seminars were held by Professor P. Detroz who is a member of the IFRES at the University of Liège and the head of the SMART unit. A total of 54 participants were recorded. These seminars complete the compulsory formal training in teaching methods of 40 hours that every teacher has to attend.
- Six questions related to the assessment were added in the EVALENS survey organised after each exam session. The questionnaires for the students’ evaluation of the exams can be uploaded after each exam session and for every exam. The additional standard questions that are asked to the students are the following:
 - Q1. During the academic year, I got informed correctly and comprehensively about the exam conditions.
 - Q2. During the exam, the guidelines for the exam and the questions of the exam were stated clearly.
 - Q3. The exam contained questions on the matters that were announced as important during the lectures.
 - Q4. The staff involved in the exam (examiners, invigilators, ...) were of professional and helpful attitude.
 - Q5. The exam was fair and correct, with regard to the severity of the questions and the marks given to me.
 - Q6. Feedbacks (oral, via email or posted standard reply sheets) helped me to understand the errors I could have made during the exam.

Additional questions can be added by the teachers and with approval from the vice-Dean for Education.

For each question, students can reply:

1 = no opinion,

2 = I absolutely do not agree,

3 = I rather do not agree,

4 = I agree,

5 = I absolutely agree

Calculation: $[(n \text{ answers } 2 \cdot 2) + (n \text{ answers } 3 \cdot 3) + (n \text{ answers } 4 \cdot 4) + (n \text{ answers } 5 \cdot 5)] / n \text{ total of answers}$ with 2 to 5 points = value of satisfaction, where the value of 3.5 is considered as the limit of dissatisfaction.

Based on the results of these student feedbacks, organized for all exams in the academic year 2018-2019 in the period of 15 to 22/09/2019) and together with the evaluation of the percentage of failure of the students, some particular problem courses could have been identified. Individual course results were communicated to all teachers and also announced at the faculty board meeting on 29/09/2019. Then the Vice Dean for Education met the teachers of all the 'problem courses' individually and discussed a strategy for improvement with the individual teachers (in the period of October and November 2019). These problem courses were re-evaluated in January 2020 and a clear improvement in the evaluation of these was identified. The procedure previously developed for the follow-up of EVALENS surveys (approved by the Faculty Council, 21-06-2017) has further been applied to the surveys concerning assessments. A document, describing the process comprehensively can be found in **Annex III** (in French). This procedure has become common practice and all courses are screened after every exam session. It is the role of the Vice-Dean for Education to meet with the teachers of the identified problem courses. The Vice-Dean may be accompanied by specialists for teaching skills if their support is requested.

1.2.2 Comments

The former Vice Dean for Education together with the specialists from the University's Institute for Training and Research in Superior Education (IFRES) have developed an extensive program to improve and ensure the quality of the student exams. The establishment of minimal quality requirements for students' exams, formal training of teachers in student assessment and an accustomed procedure to evaluate, review and modify exams procedures contribute to an improved quality of students' exams. The FMV is convinced that these policies meet EAEVE standards for the review of students' assessments but are devoted to further improving the quality of teaching and assessment of students.

2 Correction of Minor Deficiencies

2.1 Minor Deficiency 1: “1.5: Insufficient formal involvement with external stakeholders at the faculty-level; need to establish timetable of twice-yearly meetings with the minutes available to staff and students”.

2.1.1 Factual information

On the recommendation of the ESEVT team, the FMV has set up a committee made up of stakeholders of the profession, the so-called external advisory board (EAB). The EAB is made up of veterinarians with diversified professional profiles: practitioners (equine, companion animals, production animals), veterinarians working in research, industry as well as in public bodies and in private companies. A pedagogical manager from the sister Faculty of Ghent is also included. The role of the EAB is to help the FMV with the development of a strategy on the training of tomorrow's veterinarians. The EAB helps in identifying the strengths, weaknesses, opportunities and threats of veterinary education. Their comments and input will lead the FMV towards changes in the study program to guarantee its adaptation to the changing market. The members of the EAB meet twice a year, meetings during which the members of the Faculty Bureau and the Pedagogical Bureau present projects for changes in program, new courses, etc. The members of the EAB then comment on these drafts, share their opinion and advice, based on their field experience.

Current composition of the External Advisory Board

- Martine ANTYS (Equine practitioner)
- Isabelle BEHAEGHEL (Sciensano, Head of the service Coordination of veterinary activities)
- Stéfan DEGALLAIX (Small animal practitioner, Administrator of Professional Veterinary Union)
- Jean-Luc GLOWACKI (President of the Regional Council of Veterinary Board)
- Jean-François HEYMANS (Federal Agency for the Safety of the Food Chain / Head of the DG Control Policy + CVO of Belgium)
- Pascal LEGLISE (Carrefour Belgium, Corporate Social Responsibility and Quality Sustainable Development Director)
- Christian MASSART (CEO of Formavet (Veterinary continuing education))
- Jimmy SAUNDERS (Professor at UGent / Fac. Diergeneeskunde)
- Grégory SCHOONBROODT (Large animal practitioner, Professional Veterinary Union)
- Yannick VANLOUBBEECK (GSK, head of preclinical research & development)
- Bernard GAUTHIER (Large animal practitioner, president of Professional Veterinary Union)

There are several faculty members who attend the meetings:

- Tatiana ART (ULiège / FMV, Dean)
- Frédéric BILLEN (ULiège / FMV, Secretary)
- Antoine CLINQUART (ULiège / FMV, Vice Dean for Education)
- Catherine DELGUSTE (ULiège / FMV, Pedagogical bureau, Master degree)

- Laurent GILLET (ULiège / FMV, Vice Dean for Research)
- Vinciane TOPPETS (ULiège / FMV, Pedagogical bureau, Bachelor degree)
- Daniel DESMECHT (ULiège / FMV, Member of the board of directors at ULiège)

Meetings of the EAB are scheduled twice a year. There were two meetings in 2019 (13/02/2019 and 14/10/2019). In 2020, because of the Covid pandemic, there was only one meeting (22/10/2020). For 2021, two meetings were planned, but the spring meeting had to be canceled again because of the Covid pandemic while the autumn meeting was held in November, 17th, 2021.

Minutes of all meetings are available through the following link (in French). https://www.fmv.uliege.be/cms/c_5353345/fr/fmv-comite-d-orientation-externe-external-advisory-board

2.1.2 Comments

The FMV is confident that the EAB in its current form complies with the demands of the ESEVT. The FMV has realized that the input from the external stakeholders is an invaluable tool for the renewal and adaptation of the educational program of future modern veterinarians.

2.1.3 Suggestions for improvement

Meetings should be scheduled well in advance and prepared by sending the presentations in advance to the members of the EAB. This will allow them to prepare the meetings and to contribute with pertinent comments and input.

2.2 Minor Deficiency 2: “2.4 → Need to clarify the allocation of funds raised through clinical income, including a greater distribution of funds to those areas responsible for raising such additional income”.

2.2.1 Factual information

In 2020, the clinical department for companion animals and horses was divided into two departments: one department for clinical sciences of companion animals and one department for clinical sciences of equids. Together with the existing department for clinical sciences of production animals, there are now three separate clinical departments, which are, independently of one another, responsible for their financial management. The funds raised through the clinical activity of one department will be returned to the clinical services of the department that raised the money. However, there is a ‘solidarity fund’ under the responsibility of the structure that is federating the three departments since their reorganization in 2020: the Permanent Faculty Commission for Clinics (CPFC). The three departments will support this fund by a yearly contribution based on their gross income. The money of this fund will be attributed, based on a decision of the CPFC, to support projects for the development of new clinical services or clinical research or to replace equipment for clinical activity.

2.2.2 Comments

The FMV is aware that there is probably no perfect solution for returning the money from more profitable areas to those which are less profitable. By separating the clinical department of companion animals and horses into two separate structures, a fundamental change for the organisation of these two departments has been made. These two departments can now focus on the productivity of their respective clinics accepting that the management of companion animal hospital and an equine hospital are responding to very different demands.

2.2.3 Suggestions for improvement

Each clinical department will now need to analyse the clinical activities that they would like to develop within their department. Strong activities with higher returns may help to support new activities that are considered essential or desirable for a modern state of the art teaching hospital.

2.3 Minor Deficiency 3: “Basic Sciences at the four Establishments delivering the Bachelor course → continuing need to ensure quality education in the Master program by a continuation of the scheme limiting the number of students within the Bachelor programs”.

2.3.1 Factual information

The decree mentioned in major deficiency 1 clearly states that the number of students who may have access to the second year of the Bachelor course is permanently limited to 276 students. The number of students enrolled in each of the four establishments delivering the Bachelor course is determined in advance and based on fixed proportions determined every year on the basis of the 1st year enrolments of the past year.

To further guarantee the collaboration among the four faculties delivering the Bachelor course and the FMVFMV a so-called Steering Group composed of the Dean of each Faculty and another representative per faculty chosen by the latter meets on a regular basis to discuss issues arising from the complexity of the study program. Like this, the steering group aims to allow optimal preparation of all bachelor students and alignment of the program among the different institutions. The organization of the competitive exam is also discussed during steering group meetings.

2.3.2 Comments

Having established the legal basis for the student number to be restricted to 276 second Bachelor year enrolments clearly balances this deficiency. In contrast to earlier decrees, this last one is not limited in time and therefore enables the FMV to clearly forecast student numbers and related teaching efforts.

2.3.3 Suggestions for improvement

The steering group will continue to meet on a regular basis in order to organise the competitive exam to the second Bachelor year. The steering group also needs to align study programs in the different institutions with the aim to perfectly prepare all Bachelor students to the Master course.

2.4 Minor Deficiency 4: “3.3 → Requirement that program learning outcomes must be clearly visible and all units of study should be aligned to these program outcomes. Achievement of the program learning outcomes must be supported by evidence”.

2.4.1 Factual information

The faculty authorities (the Dean and Vice Dean for Education) are committed to reforming the current training program in order to:

- strengthen the quality of teaching within the establishment (improve pedagogical consistency),
- better organize themselves (reduce the number of organizations involved in the decision process), and better collaborate with the professional world, and,
- adapt to evolution of the disciplines.

A repository of competencies, common to the four different institutions, was set up and approved by the FMV on October 30, 2013 (**Annex IV**). The repository defines six major competences with their essential components, the families of situations which reflect the range of contexts in which the student will implement the competence and the trajectories and levels of development.

The objective is now to analyse the different possibilities of organizing the program around the six competencies defined in the repository of competencies, to identify the learning and assessment situations which allow the implementation of the competences by the students (inventory of the existing and identification of the missing situations) and allow the development of self-evaluation practices. The learning and assessment situations are linked to the families of situations defined in the reference framework. It is the task of the working group ‘program reform’ to assure that every course is organised in order to compile to the global program learning outcomes. At the level of a single course, learning outcomes are defined by the teachers in the ‘engagements pédagogiques’¹ and the teacher should monitor that the assessment method and content guarantees for the assessment of the learning outcomes of its course.

At the end of their clinical rotations, the final year students will have to sit an oral exam in which not only theoretical knowledge but broader competencies such as communication and problem solving capacities are evaluated. The examiners are a group of two or three clinicians who ask questions around several case reports provided by the student. Strict adherence to an evaluation grid will guarantee that exams remain of comparable standards among a variety of examiners and topics.

¹ The ‘pedagogical commitment’ (Teaching unit Outline) is a written document describing a teaching unit in its main planning aspects, usually standardized under headings, written by the coordinator of the teaching unit, issued annually at the express request of the institution at the beginning of the year for the benefit of students - and possibly other potential readers. This document is available in the study program on the website of the Institution. A vade mecum is available to assist the teachers in writing the pedagogical commitments (IFRES, 2011-2012).

2.4.2 Comments

The FMV is aware that program learning outcomes must be clearly identified, that all study units need to be aligned to these program outcomes and that the achievement of the program learning outcomes must be supported by evidence. With the identification of the broad learning outcomes with the definition of the six major competencies a crucial step towards the definition of overall learning outcomes has been made. The effort to increase standardisation of the students assessment will be continued.

2.4.3 Suggestions for improvement

The working group “program reform” will now analyse in detail how the different study units may work towards the achievement of these outcomes. New course contents may be identified while redundancies and obsolete or non-essential components are identified and taken off the program.

For the improvement of the last-year students’ assessment of clinical knowledge/skills/competencies during on-site clinical rotations, we work towards the following structure:

- Multiple-choice questions for basic knowledge directly related to clinical sciences (physiology, pathophysiology, topographic anatomy, pharmacology...).
- Oral presentation of clinical cases handled by the student during his/her clinical rotations. Understanding of the case and quality of the presentation (content, medical vocabulary, oral expression...) will be assessed using an evaluation grids.
- Objective structured clinical exam (ECOS). This exam is aimed to replace the current oral exam. The cases to be solved by the students will be prepared by several teachers together and therefore will be multidisciplinary (internal medicine, soft tissue surgery, orthopaedics, clinical imaging...). Each student will have to solve 2 cases (40 minutes per case). The cases will have to be resolvable by a general practitioner (not cases at specialist level).

2.5 Minor Deficiency 5: “3.4 → Complex set of committee structures involved in evaluation, identification of content overlap, and revision of the curriculum should be streamlined (especially in ULiège)”.

2.5.1 Factual information

Currently, several internal organizations are involved in the analysis of the study program and in suggesting adaptations of the program. There is a working group ‘study program reform’ composed of several teachers. The Permanent Faculty Commission of Education (CPFE) is composed of the presidents of the departments and faculty authorities, and reflects the views of the teachers, while the board of teaching 1st and 2nd cycle (‘CE1’ and ‘CE2’ respectively), composed of teachers and students, reflects the view of the students. Further, there is the Steering Group (SG), composed of the deans and one other representative of each of the four Faculties, aiming towards coordination of the four Bachelor programs in the four institutions towards the single Master program in the FMV. The External Advisory Board reflects the view of the society and the employment market, while the ‘program committee works toward the practical implementation whenever a change of program is desired and decided by the other structures. All groups work under the guidance of the “dean team”, namely the Dean and the Vice-Dean for Education.



The steering committee has defined the level of development of the six major competencies of the reference framework at the end of the Bachelor course. The organization of the training program around these competencies will require:

- a definition of the resources (knowledge and skills) necessary for the implementation of the competencies in the learning and assessment situations that will have been identified,
- a definition of the modalities of assessment of the competency and of the associated resources, and
- a clarification of the organization and assessment of the study unit.

The objectives of the working group 'program reform' are to propose a reform that:

- ensures the acquisition and retention of essential notions
- stimulates the desire to learn with a critical mind
- develops self-learning skills,
- develops students' interpersonal and communication skills
- The 'program reform' working group suggest the following framework:
- Overall reduction of planned activity hours
- Reduction of lectures in favour of clinical activities, contact with animals, simulation.
- Spread the work for the final year thesis over several years
- Distribution of the theoretical courses of the Master's degree in common core and options
- Implementation of active teaching methods (simulation, role-playing, case studies, etc.): developing students' self-regulation of learning and collaborative learning
- Possible introduction of an "initiation to scientific research" option
- Possible introduction of an end-of-bachelor degree test in collaboration with other institutions.

2.5.2 Comments

The 'dean team' is very aware of the complexity and inertia in any decision on the study program and is highly motivated to further improve the process. At first sight, the concurrent existence of different interest groups looks confusing. However, we believe that these groups provide input from all sides and that suggestions from external stakeholders and students are an essential step in the process of an amended study program.

2.5.3 Suggestions for improvement

Additional human resources could be allocated to the pedagogical bureau and WG study program reform to develop proposals for program reform according to a recognised methodology and in interaction with the advisory bodies (CPFE, CE1/CE2, EAB, General Services (SG)).

2.6 Minor Deficiency 6: “3.6 and 3.7 → Need to formalise the clinical skills obtained during EPT in comparison to clinical skills obtained during the core intramural training”.

2.6.1 Factual information

All final year students will do a 12-weeks rotation period in one of the three departments, where they can choose to rotate either in the companion animal clinic, in the equine clinic or in clinic for ruminants and pigs and a 12-weeks EPT, where they can chose to spend the whole period in one single animal hospital or two periods of 6 weeks in two different places. The content of the EPT is defined in the pedagogical commitment of the course VSTG0003-1 “extramural practical training” under the guidance of Professor Marc Vandenheede, who is the responsible academic staff member. At the end of this EPT, the trainee is able to:

- synthesize the data collected during the anamnesis,
- note the relevant clinical signs and establish a differential diagnosis,
- build a personal reflection on the different cases approached,
- master basic practical gestures (restraint, auscultation, ...),
- demonstrate technical skills during surgical operations,
- correctly use the available equipment (medical imaging, laboratory, etc.),
- listen to the practitioner, the staff and the client,
- communicate with ease,
- demonstrate initiatives showing interest in the work carried out,
- work as locum vet,
- bring together the qualities to be taken as a collaborator.

The EPT training completes the training of the clinical rotation, where the students can choose to rotate in clinics of either companion animals, horses or farm animals. This intramural clinical training aims to reinforce the bases and the acquired knowledge in each discipline. This reinforcement is made possible by repeated practical and technical applications of the theoretical content by stimulating the student to a more reflective approach to his or her activity. Exchanges with supervisors and additional bibliographic research relating to the cases encountered deepen the knowledge in specific fields. This strengthening of the bases, such as learning clinical reasoning, can be used by the student in other species. This project pursues the objective of training as a general veterinarian, with the aim of obtaining a common diploma that does not prevent access to any subsequent specialization.

2.6.2 Comments

Both intramural and extramural training combined expose the student to a broad variety of situation families in which they may acquire knowledge and competencies carving the future veterinarian.

2.6.3 Suggestions for improvement

As the new decree guarantees a limited number of students in the future, the ongoing reform plan may evaluate the option of a shortened EPT period. Although the EPT is considered for a balanced training of the students, a shortened period may allow for a longer intra-mural training period. The intramural training by definition enables higher quality standards for training and student assessment.

2.7 Minor Deficiency 7: “3.10 → Need to introduce a mandatory EPT logbook (either paper or online). Fulfilment of the logbook must also be checked after EPT”.

2.7.1 Factual information

The LogBook is a journal of activities that accompanies the student during the three years of Master studies. The logbook serves for the recording of clinical cases managed by the student and, at the same time, for the recording of clinical skills. The role of the Validator, who can be a teacher or a clinician, is to confirm that the student has participated in clinical cases and that he has acquired clinical skills. The system is completely IT-based and the interface between student and validator is a specific and unique QR-code. The image below shows an example on how the tool looks like on the smartphone of the student (on the left) and on the smartphone of the validator. In this example, the student correctly performed the physical restraint of a dog for taking a blood sample (skill AC3.02.01) and created the corresponding QR code. The validator scans the code, identifies him or herself on the app, confirms the identity of the student and the skills acquired and then validates with one click.



Clinical skills

The list of clinical skills that the student needs to acquire during preclinical activities and clinical rotations are determined by the teachers of the different courses and rotations. The list of all clinical skills that need to be validated can be found in the **Annex V**. There are 6 skills in the first year of the Master course and 63 in its second year. These skills have to be validated by all students. In the third year of the Master course, the students choose their clinical rotation to be either in companion animal clinic, in equine clinic or in production animal clinic, where they have to validate 63, 44 or 38 clinical skills, respectively.

The student attending a specific activity will open the Logbook app on its smartphone and create a QR code for one or several clinical skills to be validated. The procedures can be found in detail in the **Annexes VI, VII, VIII**. The following table indicates the number of skills to be validated and the number of skills actually validated per student in second year Master during the first quadrimester of the year 2019-2020.

	Companion animals	Horses	Production animals
Number of students who did not fulfill the logbook	11	11	13
Number of skills to be validated	12	22	22
Mean number of skills actually validated per student	11.64	19.72	13.24
Mean percentage of skill validated	89.55	89.63	60.17

The table also gives the percentage of validation per skill. This becomes clearer when having a look at the next figure where for every skill the percentage of students who validated this particular skill can be seen.



It becomes clear from this table that certain skills are validated by all students, some activities are validated by few students. The average percentage of validation is 89.5%, 89.63% and 60.17% for skills in companion animals, equine and production animals, respectively.

Clinical cases

The same principle applies also for the recording of clinical cases. A student who is actively involved in the clinical management of a case can create a QR code and ask validation of the case from the supervising staff in the clinics. The concept of a clinical case is well defined and may include a patient seen in the hospital or during a farm visit or even a diagnostic necropsy case. In order to be validated the case must be followed from the beginning with taking the history, doing a clinical examination, performing and understanding ancillary examinations, treatment and the conclusion. The IT-format of the logbook allows for analysis of the clinical activity of the students and determination of the ratio of validation for each skill.

Before the start of the EPT, supervisor and student need to sign a contract fixing the EPT modalities (**Annex IX**). This contract, which also includes workplace safety requirements, will be sent to the secretary before the start of the EPT. After the EPT, the supervisor (s) will have to complete a student evaluation form which will be used to establish the grade for the EPT. This will be calculated from a numerical score and the answers to the questionnaire relating to learning outcomes (**Annex IX**).

The students have to keep a record of their cases in the form of an Excel table (**Annex X**). The first page with the general data needs to be printed and then signed by the EPT supervisor, while the whole logbook in Excel format needs to be sent to the students' secretary. Students are also asked to provide feedback on their EPT by completing the survey (annex XI). The participation in this survey is mandatory and grades are only given to students, who provided the Excel format logbook and the feedback in time.

The Book of clinical cases seen during the EPT is an Excel file listing the clinical cases followed by the student during his EPT under the supervision of his or her EPT supervisor.

For each of his or her EPT period, the student will download the Excel table available on eCampus, VETE000-4 Master Log Book, Part 3 (book of clinical cases seen during EPT) and will complete it when he or she actively participates in the monitoring or treatment of cases under the supervision of his EPT supervisor. At the end of his EPT period, the student will send the computer version of this file by following the instructions given in this same section of eCampus.

2.7.2 Comments

The electronic logbook rapidly became an invaluable tool of everyday teaching. Equally appreciated by teachers and students, the logbook has now become the instrument for keeping records of cases for the students, preparing their oral exams, analysing the number and variety of cases offered to the student.

2.7.3 Suggestions for improvement

In the future it will be desirable to perform a more comprehensive analysis of the competences and cases seen by the students. The same principle is now used for the evaluation of the non-elective rotations, where the device includes options for student assessment as well.

2.8 Minor Deficiency 8: “6.2 and 6.3 → Need to upgrade the library based at the FMV (the BSV) to provide a greater number of text books, longer opening hours and an increase in study places”.

2.8.1 Factual information

Since the last visitation, the organisation of the library service has been totally revised. Today, the Library of Life Sciences (BSV) of the University of Liège has one single location: at the “Centre Hospitalier Universitaire”, while the decentralised site of it, at the Faculty of Veterinary Medicine, has been closed. The Library of Life Sciences contains the library and documentation services for medicine, veterinary medicine, psychology, botany and zoology. The BSV collection and all recent veterinary books are continuously acquired by the BSV, allowing users to access reference works (periodicals in paper form), to get help from library staff, and to access materials for specific training activities with regard to research, scientific and medical information.

The library space located at the Faculty of Veterinary Medicine [ULiège Library | Health - veterinary section (ULL Health | Vet)] has for only vocation to propose, close to the places of teaching and clinic, (i) the printed editions of interest in veterinary medicine (> 2005) and (ii) a support of proximity for the search for information.

The combination of (i) the spaces on the same floor, which constitute a learning space available from 9 am to 6 pm every day Monday to Friday, including study rooms and the computer room offering access to 75 computers), (ii) the ever-growing collection of books and journals available digitally, (iii) the various document supply services, offer to students access to all information that meets their learning needs.

In addition, within a 10-minute walk, students can take advantage of other work spaces available in the ULL Health Library, which is located in the University Hospital (CHU). All multidisciplinary paper works in the field of health, other than veterinary medicine, are available in this library.

With the pandemic and the lockdown, the use of digital collections has been further accentuated. All the services related to the supply of documents (present at ULiège in paper version or to be ordered from another institution) are henceforth proposed free of charge, and this for all members of the institution, even from the first year of Bachelor degree. In addition, tools, training and tutorials have been developed to help users to develop their capacity to use efficiently all the services and tools (bibliographic databases...) available to them.

Every second month, an e-mail is sent to all members of the Faculty, including students, to announce new book acquisitions and to highlight electronic acquisitions and new services. The new books are also highlighted on social media (Facebook).

- **Staff (FTE) and qualifications**

ULL Health employs 12.4 FTE employees: 8.4 FTE (librarians) + 2 FTE (disciplinary scientists: 1 veterinarian and 1 biologist, both with a PhD in veterinary sciences) + 1 FTE (secretaries) + 1 FTE (staff for late openings). In addition, ten students work for ULL Health.

- **Opening hours and days**

The veterinary learning space is accessible from 9 am to 6 pm from Monday to Friday.

Users have access to veterinary printed documents 22 hours per week, when the library is open. The opening hours have been chosen to be adequate with practical and theoretical courses (specially clinical courses).

The ULL Health is accessible on a broad range of hours, from 8.30am to 9pm Mon-Fri and 9am to 6pm on Saturday.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
ULL Health Vet	09:30 13:00	09:30 13:00	09:30 17:30	09:30 13:00	09:30 13:00	/	/
ULL Health	08:30 21:00	08:30 21:00	08:30 21:00	08:30 21:00	08:30 21:00	09:00 18:00	/

- **Annual budget**

The annual budget for ULiège Library is 4,525,650 € (2021), excluding staff salary and building maintenance. From this annual and global budget, 1,465,962€ is allocated to the health section to buy specific health resources (biomedical/veterinary journals, printed textbooks, database).

The details of the specific 2021 budget for ULL Health are presented below.

	ULiège Library 2021	Allocation CHU 2021	From ULiège Library central budget (consortia)	total
ULL Health	437,991 €	298,006 €	729,965 €	1,465,962 €

- **Facilities: location in the campus, global space, number of rooms, number of seats**

The learning space is located within the faculty. It is accessible to PRM.

ULL Health is located less than 10 minutes walk from the FMVFMV, within the University Hospital (CHU).

	Seats	Computer	Collaborative learning rooms	Power sockets	Net usable floor space
ULL Health Vet	6	1	/		61 m ²
Printed books space	10	/	5	42	161 m ²
Learning space	80	75	/	75*2	176 m ²
Computer space	388	16	6		3,830 m ²
ULL Health	6	1	/		61 m ²

- **Equipment: number of computers, number of electrical connections for portable PC available software's for bibliographical search**

The learning space is, like all ULiège buildings, equipped with free WIFI and offers 42 power outlets.

For computers: see table above

The VPN allows any member of the University to access remotely the documentary resources and online tools, 24/24, 7/7, regardless of their IP address.

- **Number of veterinary books and journals**

All veterinary printed textbooks (with scientific relevance, evaluated in particular according to the date of publication, mainly > 2005) are available for open consultation and loan, at the ULL Health | Vet (December 2021, n = 2,689).

A special attention is also given to documents (mainly books) provided by teachers as part of their courses.

In addition, at the ULL Health, >11350 relevant printed textbooks (on medicine and *on* general sciences such as biology, chemistry, physiology...) are also available on open consultation. ULL offers multiple services to facilitate the access to any documents for all users, services such as booking and transfer to another library (including the ULL Health | Vet), loan extension via the online account, numerisation of book's chapter, etc.

Almost all journals are available online. Only 8 are still only available in their printed version (due to publisher choice).

- **Number of veterinary e-books and e-periodicals**

We have access to more than 3700 ebooks, directly related to the discipline. Out of the 320 journal titles indexed in the veterinary subject area of the Scopus® database, 71 are in open access and an ULiège institutional subscription has been taken for 197 titles (84% of the leading international veterinary journals).

- **Number of other (e)books and (e)periodicals**

Outside the specific veterinary journals, members of the University of Liège also have access to about 1,250 eJournals, whose content [medicine, agriculture, food sciences...] are also interesting for the FMV's members.

Finally, ULL is giving access to a total of 84,000 e-journals and more than 500,000 ebooks, all disciplines.

2.8.2 Comments

The corona pandemic underlined the importance of online services. The offer of electronic books and journals was further improved during the pandemic. Working spaces for groups and individuals are frequently used.

2.8.3 Suggestions for improvement

The possibility of an extension of the opening hours with a digital access control is analysed.

2.9 Minor Deficiency 9: “8.6, 8.8 and 8.9: Inadequate level of program learning outcomes covering professional knowledge, skills, competences and attributes, including allowing the school to certify the students’ achievements of the learning objectives”.

2.9.1 Factual information

Since the last visitation, special courses focusing on professional knowledge and communication have been identified in the program. The Paraclinical Module of Transversal Competences (decisional and relational) focusses on the development of soft skills. It consists of three courses:

- Veterinary management of Animal Resources

This learning activity aims to guide learners through the sound management of livestock production, taking into account animal and human welfare, environmental challenges and constraints, and drawing on economics, genetics, ethics, ecology and animal welfare science. The topics covered relate to domestic livestock, sport and companion animals, and wild animals in captivity. The human being is the caregiver (veterinarian or other), the farmer or breeder, the customer or consumer of the products resulting from the use of the animal. The environment is social, economic and natural.

- Building a shared decision in veterinary consultation (**Annexes XII and XIII**)

This learning activity will raise awareness of the importance of the quality of the professional relationship in veterinary consultation. It is part of the development of competency 5 of the FMV repository of competencies "building a professional relationship".

The activity will focus on the relationship between veterinarians and pet owners, and is based on an adaptation of the "Calgary-Cambridge" model, the prism model of veterinary consultation.

The activity is mainly based on small group reflections and role plays (simulated consultations), followed by debriefing.

- Veterinary professional management

The activity aims to support the learner in anticipating the beginning of his/her professional career. The aims are to envisage the professional future (considering the diversity of outlets and modes of veterinary practice as well as the dynamics of possible evolutions), to learn the basic principles of the management of a veterinary medical practice, to discuss opportunities outside or in addition to a veterinary medical practice and to draw up a draft business plan, including a SWOT analysis.

2.9.2 Comments

The repository of competencies as defined in point 2.4 and **Annex 4** determines the learning outcomes. The courses described here have been designed specifically to meet these learning outcomes and the successful completion of these courses will guarantee that learning outcomes have been met.

2.9.3 Suggestions for improvement

Further improvements are scheduled for the study program reform. In any case matching of courses on learning outcomes will be analysed for every single course.

3 ESEVT Indicators

3.1 Factual information (Updated data based on the last three academic years)

Name of the Establishment:		ULiège, Faculty of Veterinary Medicine			
Date of the form filling:		01-12-21			
Calculated Indicators from raw data		FMV values (2018-2019 and 2020-2021)	Median values¹	Minimal values²	Balance³
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.128	0.15	0.13	0.002
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0.494	0.84	0.63	-0.136
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0.545	0.88	0.54	0.005
I4	n° of hours of practical (non-clinical) training	606.5	953.5	700.59	-94.090
I5	n° of hours of clinical training	692.0	941.58	704.80	-12.80
I6	n° of hours of FSQ & VPH training	157.0	293.50	191.80	-34.800
I7	n° of hours of extra-mural practical training in FSQ & VPH	31.0	75.00	31.80	-0.800
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	35.94	62.31	43.58	-7.641
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	1.38	2.49	0.89	0.488
I10	n° of equine patients seen intra-murally / n° of students graduating annually	4.778	4.16	1.53	3.248
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	3.42	3.11	1.16	2.259
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	7.39	5.06	0.43	6.956

I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	11.65	16.26	8.85	2.804
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0.738	1.80	0.62	0.118
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0.66	1.29	0.54	0.116
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.0	0.11	0.04	-0.045
I17	n° of companion animal necropsies / n° of students graduating annually	2.23	2.11	1.40	0.834
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2.91	1.36	0.90	2.007
I19	n° of equine necropsies / n° of students graduating annually	0.70	0.18	0.10	0.599
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	0.12	2.65	0.88	-0.756
I21 *	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.17	0.27	0.06	0.112
I22 *	n° of PhD graduating annually / n° of students graduating annually	0.03	0.15	0.07	-0.040

¹ Median values defined by data from FMVs with Accreditation/Approval status in May 2019.

² Recommended minimal values calculated as the 20th percentile of data from FMVs with Accreditation/Approval status in May 2019.

³ A negative balance indicates that the Indicator is below the recommended minimal value.

* Indicators used only for statistical purpose.

I16: replaced by video visit, as no commercial poultry farms accepts student visitors.

3.2 Comments

Some of the indicators are still below the median and minimal values, as this is the case for the indicators that are based on the number of students graduating. Indeed, the effects of limiting student admissions are only now coming to full fruition. Although the academic year 2021- 2022 is the first year that is graduating under the beneficial effects of the student number limitation, there are still students enrolled from previous years that contribute to the number of students graduating. As we can see from the number of students in the lower classes, the number of students expected to graduate will decrease every year until it will become constant in approximately 3 to 4 years.

The number of companion animal cases seen intramurally per number of students graduating is slightly below the minimal values of approved schools. Although we were able to maintain the hospital activity during the Covid pandemic, we still feel that there was a slight reduction of cases during this period (year 2019-2020 not included in the table, but year 2020-2021 included).

The constant low number of students that is expected from this year on will contribute to higher indicators in the future.

It should be further emphasized that students do 520 hours of elective clinical activity. As the animal species can be chosen by the student and therefore this is defined as elective activity, it does not count in the indicator table, however, every single student is doing an extra 520 hours of supervised clinical activity.

3.3 Suggestions for improvement

The study program reform that is planned for the coming years will induce fundamental changes in the course program. The aim is to modernise the whole Master course program and to increase the clinical and the practical non clinical hours. In the past, we had to adapt the program to the uncontrolled number of students by offering a reduced number of clinical and practical non clinical hours to all students. Now that the number of students is under control, the program will be adapted towards more practical and clinical teaching.

4 Impact of the Corona pandemic on the teaching at the FMV

Like so many other countries, Belgium was hit unexpectedly by the corona pandemic. On 18/03/2020 there was a nationwide lockdown. This emergency situation required extremely quick action. At this point, all teaching activities underwent a fundamental change. All students were initially sent home and all lectures, seminars and practicals were given at distance. For this purpose, the university acquired licenses for 'Lifesize', 'Camtasia' and Cisco software programs' and the university's teaching platform 'eCampus' was updated with modules for video teaching, streaming and podcasts. All teachers had the opportunity to get online teaching in podcast format to get acquainted with this new format of teaching and the mastering of these software programs. Despite the rush of these implementations, no theoretical teaching had to be canceled. The clinical activity was reduced to emergency cases and no students were admitted to the clinics in this first lockdown period. In order to replace their clinical activity, small group video classes were held by the clinicians who were not on duty for the emergencies. Overall, most teachers felt that this was a very exciting teaching experience and although these video classes do not replace clinical activity, this type of video classes opened entirely new prospects for most teachers to the advantages of online teaching. It was generally felt that cases, either seen in the clinics, or 'fake cases' invented by the teachers, discovered during these classes could be seen in much more detail. Students were very interactive and appreciated the special 'live-distance' contact with the teachers (and with the other students). The first nation-wide lockdown was eased from 04/05/2020 on, and this was the date when final year students returned to the clinics. From then on, and because veterinary activity was considered as an essential activity, students returned and remained in clinical activity. Overall, only 7 weeks of clinical training was lost due to the corona pandemic. The fifth-year students were not immediately allowed to return to the clinics, however, practical activity, like e.g. the Skill Lab practicals were expanded, students were taught in smaller groups and teachers were hired during extra-hours in order to allow sufficient repetition for the number of students. This is also true for the 1st Master course and for the Bachelor courses, where practicals were given at distance during the first lock-down. In September catch-up courses were given to them, at least for those activities that rely on real hands-on work. The exam period in June 2020 was almost entirely held at distance, and although students had to sign a statement that they are respecting strict guidelines to ensure strict non-cheating policy, the results of the exams may indicate that these guidelines were probably not respected by all students.

From October 2020 on, new restrictions were progressively implemented and a nation-wide lockdown was in place from 02/11 to 13/12/2020. Clinical activity was maintained without restriction and students participated in the clinical activity as usual. Most theoretical teaching was given at distance, apart from first year students who were able to attend lectures in person under specific restrictions.

