



**Self-Evaluation Report**  
**EAEVE visitation**  
**Liège, 2019**

## Photos

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**University of Liège**  
**Faculty of Veterinary Medicine**

**Self-Evaluation Report**  
**EAEVE Visitation**  
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## Foreword and acknowledgments

This self-evaluation report (SER) has been prepared in accordance with the instructions of ESVT SOP-Uppsala 2016. It was sent for comments and corrections to the members of the Faculty Council prior to its monthly meeting on March 6, 2019.

It results from the collaboration and efforts of all the Faculty members, including support staff and academic staff.

We warmly thank all the contributors for their willingness to provide factual data, and specific information on education, research, veterinary hospital service and, generally speaking, on the functioning of our educational system and our faculty.

We are also grateful to the staff members who worked tirelessly to better prepare the Faculty site and organize the expert visit.

Hopefully, it will provide an accurate and useful basis for the evaluation work that will be carried out in May by the visiting expert team in Liège.

Georges Daube, Dean of the Faculty of Veterinary Medicine

Tatiana Art, SER Coordinator & Liaison Officer



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## Introduction

## Introduction

### Brief history of the Faculty

The Faculty of Veterinary Medicine (FMV) was created as an independent school in Brussels in 1836. It was integrated in the University of Liège (ULiège) in 1969 and moved to its present location in Sart Tilman, Liège, in 1993.

As a result of the separation of the French speaking and Dutch speaking communities in Belgium, the Wallonia-Brussels Federation (FWB) has been in charge of the organisation of higher education – for both university and non-university institutions – in the French speaking part of the country.

A FWB decree<sup>1</sup>, issued in 2013, reorganised the structural organisation of the higher education institutions on three levels:

- The first level recognises four types of Higher Education Institutions (EES): Universities, Higher Schools, Schools of Arts and Higher Schools for social advancement (adult education).
- The second level groups EES into geographic “Academic Poles”. Each Pole aims to promote internal cooperation, synergies, and improve the teaching quality between the EES. Collaboration between poles is also encouraged.
- The third level is the ARES (Academy for Research and Higher Education) that represents EES of the entire FWB. ARES also promote cooperation between Academic Poles and institutions.

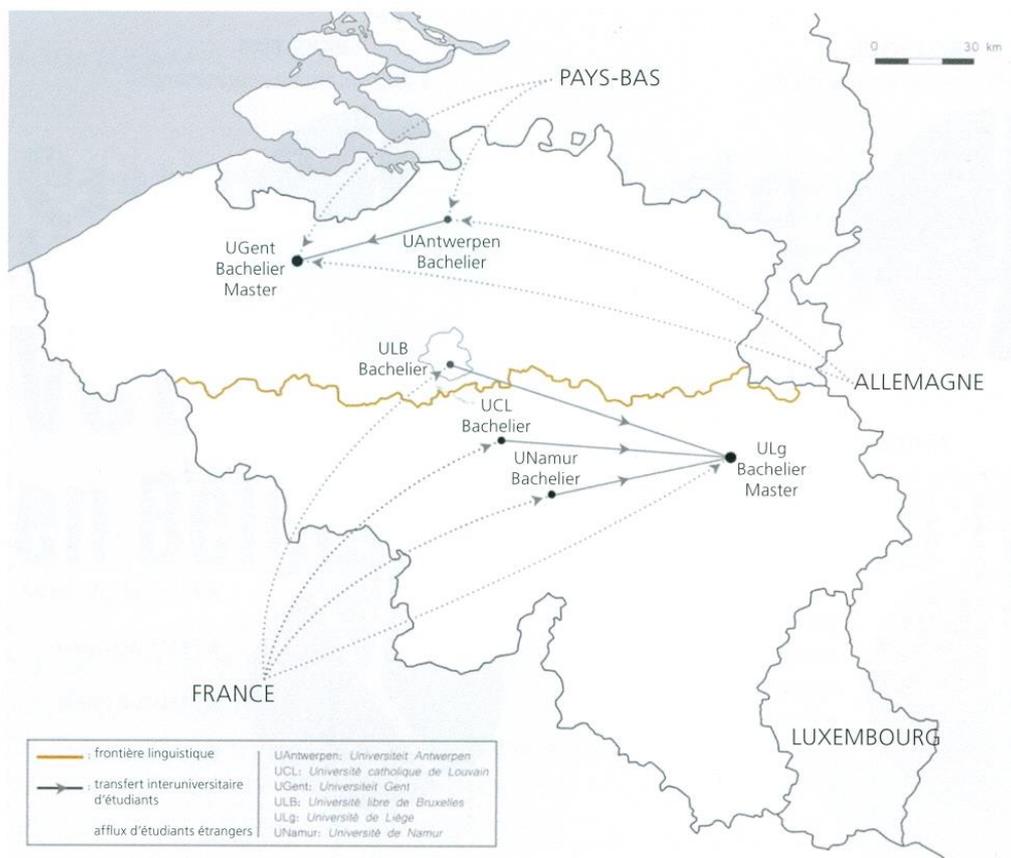


Figure 1.1.4a. Flow of veterinary medicine students in Belgium (Source: le Monde vétérinaire 2018)

<sup>1</sup> Referred in this document as « The “Paysage” Decree »

In Belgium, the veterinary medicine education programme lasts for 6 years (360 credits): the first 180 credits result in a Bachelor's degree (i.e. BAC1<sup>2</sup>, BAC2, BAC3) which is organised by four universities (ULiège, UNamur, UCLouvain and ULB). The second degree is the Master's in veterinary medicine (M1, M2, M3) consisting of 180 credits. This Master's leads to a professional degree "Doctor in veterinary medicine (DMV)" allowing you to open a veterinary practice without additional limits. It is only organised in the FMV of Liège.

Because of higher education access limits in France, a large number of French students come to study in French-speaking Belgium for various fields, including veterinary medicine. The Belgian peculiarities: (1) free access to higher education; (2) Bachelor's organised in four locations and (3) European recognition of Belgian degrees, progressively led to a plethora of students following the Master's programme organised by ULiège, with a peak of non-resident students in Liege in 2010. This plethora has seriously threatened the quality of clinical training, due to lack of staff to manage the vast cohort of students on the one hand, and also to the limited number of clinical cases in regards to the large number of students in clinics. Moreover, excessive admission of students in clinics increases the risk at the level of security and biosafety.

ULiège supported by the 3 other institutions organising Bachelor's, has repetitively pressured the FWB government to issue decrees to control this surge/excess of students. These decrees were successively appealed against and cancelled by EU courts. Currently, a decree limiting the number of non-resident students to 20% (relative to the total number of resident students admitted the year before in BAC1), is effective and, since 2016-2017, competitive exams have been put in place at the end of the first year of studies (BAC1) to limit to 276 the number of students admitted each year to the Bachelor's second year (BAC2). Nevertheless, it will take several years before the positive effects of this decision are seen.

Veterinary medicine in Higher education is based on three basic aims: advanced level teaching and training in coherence with European standards; an introduction to fundamental and applied research; service to society.

The FMV was visited by EAEVE in 2009 and was approved after corrective actions were taken to comply with two main biosecurity issues: regulatory access to the necropsy facilities and creation of a premises to isolate contagious animals.

In 2015, a major construction and renovation programme was designed, including a new building for the companion animals clinic, due to open in 2019; upgrading of most research laboratories; renovating of students practice labs; and renovating the educational and experimental farm (FEPEX).

The FMV of ULiège has progressively gained international recognition, ranking 38<sup>th</sup> in the 2018 Shanghai Ranking by subject. This relies on two key factors: 1) inclusion within a large university, and 2) clustering of the research laboratories into multidisciplinary research units (GIGA/FARAH). At present, the FMV offers 12 residency programmes in veterinary medicine (around 25 residents), and has more than 40 thematic research groups. Faculty graduates currently hold key positions in universities, industry, administration and clinical practice.

#### **Main features of the FMV:**

- National and international recognition
- Highly qualified teaching and research staff (55 EBVS and/or AVMA Diplomates)
- Modern and well-operated companion animals veterinary teaching hospital with a high case load
- Education supported by specialised services such as the FEPEX and the Food pilot Unit
- High-level research

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<sup>2</sup> It is important to note that in Liege, BAC1 mainly focuses on the basics of science, with the aim of upgrading the basic knowledge of students who come from different types of secondary education. Few courses of BAC1 are veterinary-oriented. For this reasons, the data of BAC1 (related to subjects, staff, premises and finances) are not presented in this report.

**Main developments since the last EAEVE Visitation (2009):**

The visitation of the EAEVE experts from 2009 led to the following conclusions:

**1) Two suggestions of a Category 1 deficiency:**

- ) Inadequate necropsy room
- ) Lack of adequate isolation facilities (small animals) and isolation facilities in general (large animals)

**2) Four suggestions of a Category 2 deficiency:**

- ) Lack of common adequate patient recording system
- ) Lack of steering group for the four institutions
- ) Lack of adequate teaching and training in milk, milk products and fish
- ) Lack of compliance with EU-legislation in housing animals on experimental farm

These conclusions, as well as the discussions and exchanges with the experts, resulted in the following developments:

- The creation of a "Faculty Biosecurity Unit", with the mission to reorganise of the entire faculty in order to improve biosecurity for students and teaching activities (autopsy access and labs, labs); creation of an on-line biosecurity course available to all students in vet medicine; financial support for personal protection equipment
- New isolation units for contagious small and large animals
- The creation of a steering committee gathering academic staff members from the 4 EES organising the Bachelor's programmes in veterinary sciences in the FWB (see [Annex 0.1](#) for an overview of the activities of the veterinary steering committee since 2009);
- A new educational orientation and new statutes given to FEPEX (experimental farm)
- A pilot unit for agro-food processing under BSL2 biosecurity status
- Students admission depending on the results of a competitive entrance exam at the end of the first year
- A new management system of the CVU (including a centralised computerised recording and archiving system)
- A new companion animal clinic
- The creation of the "Fundamental and Applied Research for Animals & Health" (FARAH) research centre;
- The introduction of a new curriculum (Bachelor's and Master's) in 2015-2016
- The creation of a skills lab. The skills lab includes several dogs, cats, calf, cow and horse full-size and realistic manikins, as well as numerous self-made anatomical pieces. This allows the students to have a risk-free hands-on experience in practical simulation training (currently included in the preclinical activities)

**Main challenges the FMV has to face:**

- The number one problem is the excessive number of students admitted to the Master's programme. This issue should gradually resolve with the competitive exams which have been introduced at the end of BAC1 since the academic year 2016-2017. This exam has been fixed for a period of 4 years; a risk exists that it should not be renewed by the government
- The financial restrictions imposed by the FWB and the University, restricting the renewal of retiring staff

**Version and date of the ESEVT SOP which is valid for the Visitation:** ESEVT "Uppsala" SOP May 2016



# 1. Objectives and organisation

## 1. Objectives and Organisation

### 1.1. Factual information

#### 1.1.1. Details of the Establishment, i.e. official name, address, phone number, Email and website addresses, Establishment's Head, name and degrees of the person(s) responsible for the professional, ethical, and academic affairs of the VTH, official authority overseeing the Establishment

Faculté de Médecine vétérinaire (FMV)  
 Quartier Vallée 2, Avenue de Cureghem 7A-7D  
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 Phone: +32-4-366-4112 Fax: +32-4-366-4116  
 Website: <http://www.ulg.ac.be/fmv>  
 Dean's email address: Doyen.fmv@uliege.be  
 Buildings B39, B41, B42, B43, B44, B45, B67  
 Directors of the Faculty: Prof. Dr G. DAUBE, Dean, Prof. Dr H. AMORY, Vice-Dean for Education, Prof. Dr L. GILLET, Vice-Dean for Research.

Veterinary Teaching Hospital

Administrative Director: M. P. LAMALLE

Scientific directors:

- Companion animals: Prof. Dr Annick HAMAIDE
- Horses: Prof. Dr Didier SERTEYN
- Ruminants and pigs: Prof. Dr Hugues GUYOT

The establishment (FMV) is a Faculty of the University of Liège (ULiège)

Université de Liège

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Rector: Prof. Pierre WOLPER

Supervising Ministry

Minister J.-C. MARCOURT,

Vice President of the government of Federation Wallonia-Brussels

Minister of Higher Education, Research and Media

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B-1050 Bruxelles

Phone: +32-2-801-7411

Fax: +32-2-801-7498

Website: <http://gouvernement.cfwb.be>

#### 1.1.2. Summary of the Establishment Strategic Plan with an updated SWOT analysis, the mission and the objectives

The 2016-2021 strategic plan drawn up and approved by the Faculty Council (CF) in 2016 is part of a significant evolution of the veterinary profession. It reflects the main lines of research selected (infectious diseases, sustainable development, food safety, translational veterinary medicine) as well as educational priorities (new streams, specializations, continuing education). The achievement of these objectives is strongly conditioned by the decrease in the number of Master's students and the maintenance of the staff framework at a level comparable to that of 2015-2016.

The situation was reassessed at the beginning of 2018 by the FMV and the CVU through a SWOT analysis presented below.

## **STRENGTHS**

### Overview

#### *Staff*

- Engagement, motivation, availability and passion for their profession
- Creativity, responsiveness, adaptability
- Multiple competences, multidisciplinary and recognised skills of the staff (High number of EBVS and AVMA Diplomates and / or high-level researchers)
- Involvement of assistants and students in the life and organisation of the Faculty

#### *Education*

- Quality of theoretical education
- Technical cell in Support of Multimedia Education
- Excellent biosecurity education and control system
- Pilot food processing unit
- Extra-mural activities organised as part of training in food quality and safety (collaboration with industry, certification bodies and official control authorities)
- Horizontal transfer of skills within some teaching units (UE)
- Steering committee of the 4 institutions organising the bachelors

#### *Animals*

- Teaching Farm (FEPEX) opened for practical teaching
- Availability of educational animals
- Cadavers collected on the field and brought to autopsy by the FMV

#### *Research*

- Excellence of research activities, through 2 major research units (FARAH & GIGA) with international recognition, as assessed by the last Shanghai ranking of world universities (38th position)

### University Veterinary Clinic

- Clinic: open 365 days a year, 24 hours a day, for all species
- Number and diversity of clinical cases, continuously increasing number of cases in the Veterinary Training Hospital (VTH)
- Basic and first-line cases provided by extra-mural activities in Companion animals (AC), equine (EQ) and ruminants (RP)
- Clinical database programme (SAP) for encoding and registering cases

## WEAKNESSES

### Overview

#### *Education*

- Too many hours of theoretical lessons, not enough practice, not enough self-study activities
- High workload for students and scheduling problems during the year
- Complicated exam management: too busy periods of examination
- Lack of crossover / integration + duplicates / contradictions within the UE, cycles or between cycles + inadequacy with realities of the field
- Lack of proactivity training in the curriculum (autonomy, critical thinking, implications ...)
- Not enough incentive to research
- Lack of centralisation of the information and lecture notes

#### *Internal organisation*

- No accurate task description (namely for the support staff, and junior assistants)
- Overload of work including administrative work, lack of support and scientific staff, accumulation of functions and missions with risk of demotivation or "burn-out"
- Low interaction / exchange / collaboration between teachers of basic and clinical sciences
- HR Management Deficit (no hierarchical pyramid)
- Absence of infrastructures to welcome foreign students or visitors
- Turn-over of the temporary scientific personnel is too frequent

#### *Other*

- Difficulty for the objective evaluation of teacher performance for promotions
- Mobility on the campus, poor public transport service
- Salaries fixed by scale
- Impossibility to attract teachers and researchers from other universities and consequently, trend to "inbreed" staff

### University Veterinary Clinic

- Few post-graduate education and continuous education organised for practitioners within the FMV
- The administrative procedures of the SAP clinical programme are time-consuming and complicated
- Telephone communication in general (no central line) and the clinic in particular (no optimal answering machine and sometimes no answer, no systematic multilingualism, no turnover of cases)
- Overload of work for clinicians, especially for the on-call nights and week-ends
- No well identified access signs to the clinic and no parking, especially for trucks

## OPPORTUNITIES

### Overview

#### *Organisation*

- Introduction of a competitive exam at the end of BAC1 to limit the number of students in Master's programme to 250

#### *Education & training*

- Professional support for education (IFRES)
- Creation of a skills lab

<ul style="list-style-type: none"> <li>▪ Collaborations external to the faculty (VT practitioners, UPV, Formavet, Faculty of Medicine, other institutions organising Bac VT, agro-alimentary industries, certification bodies, official control authority ...)</li> <li>▪ Use of new teaching methods and technologies</li> <li>▪ Diversification of courses according to societal demand (one health, aquaculture, sustainable development, public health)</li> <li>▪ Creation of new Master's, open to FMV students as well as students from other faculties</li> <li>▪ Organisation at the university level of free courses in pedagogy (compulsory for new teachers), in languages, in personal development, etc.</li> <li>▪ Organisation at the university level of a service for support of disabled students.</li> </ul> <p><i>Other</i></p> <ul style="list-style-type: none"> <li>▪ Proximity to the University Hospital and the GIGA</li> </ul> <p><u><i>University Veterinary Clinic</i></u></p> <ul style="list-style-type: none"> <li>▪ Construction of the new AC hospital</li> <li>▪ Continuing growth in the number of cases admitted to the CVU</li> <li>▪ Use of new information dissemination channels to improve the visibility of the FMV</li> </ul>
<h2>THREATS</h2> <hr/> <p><u><i>Overview</i></u></p> <ul style="list-style-type: none"> <li>▪ Excess of students: loss of quality of teaching with loss of recognition by OMV and loss of accreditation AEEV (disappearance of specialisation Master's)</li> <li>▪ "Décret Paysage" (see <a href="https://www.enseignement.uliege.be/cms/c_9255169/en/the-landscape-decree">https://www.enseignement.uliege.be/cms/c_9255169/en/the-landscape-decree</a>) not adapted to medical studies</li> <li>▪ University underfunding, little independence in terms of financial management</li> <li>▪ Professional surplus in some professional areas</li> <li>▪ Low valued (rewarding) image of the degree</li> </ul> <p><u><i>University Veterinary Clinic</i></u></p> <ul style="list-style-type: none"> <li>▪ Social networks sometimes very critical</li> <li>▪ Competitive private clinics</li> <li>▪ Creation of veterinary Master's outside ULiège</li> <li>▪ Economic and health constraints of the agricultural sector</li> </ul>

Figure 1.1.2. SWOT analysis

### 1.1.3. Summary of the Establishment Operating Plan with timeframe and indicators of achievement of its objectives

The operational plan of the FMV presented in the [Annex 1.1.](#) is a compilation of the objectives defined by the Decanal office (BD) following its election in 2015, the 2016-2021 strategic plan of the FMV approved by the CF in 2016 and following the FMV SWOT analysis amended in 2018. Other shorter-term objectives are set by the BD, and specific objectives are set in the various other bodies of the FMV.

### 1.1.4. Organisational chart of the Establishment

#### UNIVERSITY LEVEL



Figure 1.1.4.a. Organs of advices and decisions of the ULiège.

The Rector is the head of the FMV ULiège. She/he chairs the Board of Directors (CA). Representatives of internal and external stakeholders are members of the Board, including the representatives of the academic body, the staff and the students. The Rector is elected for a period of four years.

In the FWB, the universities have great independence in terms of management. The Rector and her/his team (Rectoral College (CR)) define and implement the institutional strategy and the action plan. They also manage the University's budget. They are supported by a permanent administration staff. The CR relies on a series of advisory structures: the "Research and Education University Council (CURE)" brings together the 11 deans with the College, the "University Commissions", one for "Education and Training" (CUEF) and the other for "Research and Valuation" (CURV) bring together the respective vice-rectors and others concerned.

## FACULTY LEVEL

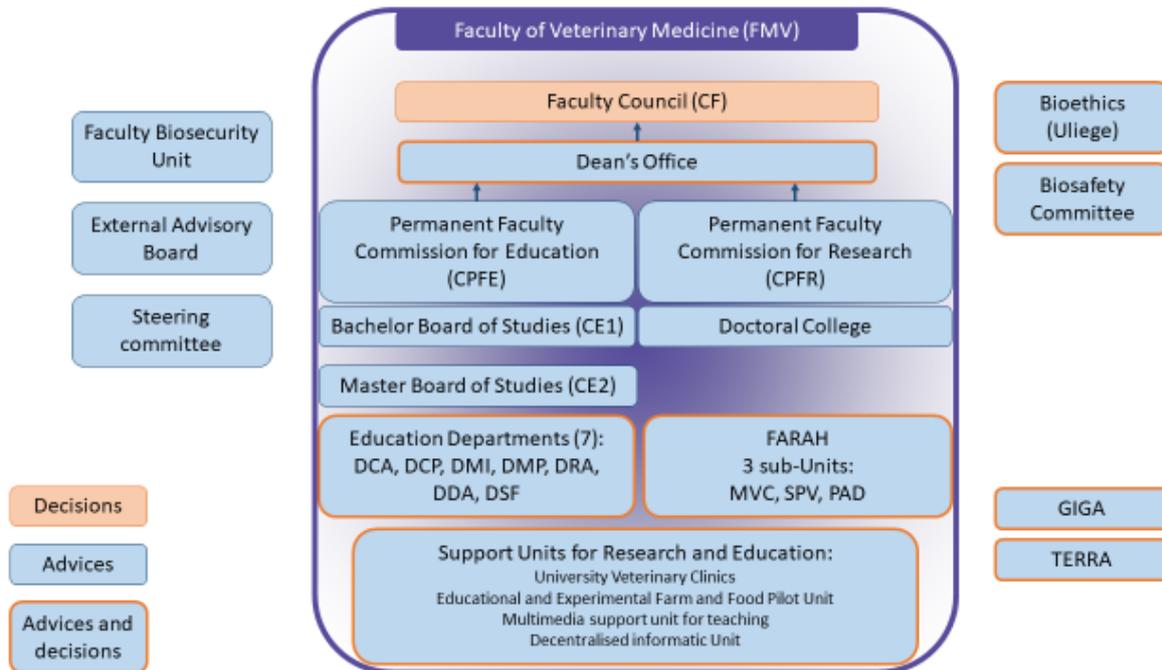


Figure 1.1.4.b. Organs of advices and decisions of the FMV.

Figure 1.1.4b. shows the organisational chart of the FMV. The main regulatory framework of the FMV are the ULiège regulations establishing the functions of the FMV as well as the structure and composition of its governing bodies. The FMV oversees the academic and administrative management of the various degrees, including the programming of academic activities, the revision of the study programmes, the issuing of academic certificates and the management of the budget. The FMV is headed by the Dean and the Dean's team who are elected by the Faculty Council (CF) for a period of four years.

The **Faculty Council (CF)**, chaired by the Dean, is the decision-making body of the faculty.

It consists of ex-officio members and elected members. 52% of the entire board are ex-officio members of the professors, Senior Research Associate and Research Directors of the FNRS, and research supervisors and FMV included; 26% of the whole council are elected members of the scientific staff; up to 20% of the entire council are student representatives; up to 2%, representatives are support staff.

It establishes the internal rules of the FMV in accordance with the regulations adopted by the CA and deals with any questions that the Dean decides to bring to the agenda. It constitutes any committee it deems useful for the proper functioning of the FMV by ensuring that the departments, study streams and / or research units are represented, according to the subjects treated by the commission.

The **Decanal Office (BD)** brings together the Dean, the Vice-Dean for Education (VDE), the Vice-Dean for Research (VDR), the Faculty Secretary, the Board Representative and the Executive Director. It meets weekly to manage the daily life of the FMV.

The **Permanent Faculty Commission for Education (CPFE)** is composed of the VDE, the Presidents of Departments, and the President of the scientific staff. It prepares all the files concerning the teaching to be submitted to the CF.

The **Permanent Faculty Commission for Research (CPFR)** is composed of the VDR, the nine elected representatives of the FARAH research centre, representatives of the FMV permanent researchers of the FNRS, of the GIGA research centre, of the FEPEX, and two representatives of the Scientific Staff. It prepares all files concerning the research to be submitted to the CF.

### 1.1.5. List of departments/units/clinics and councils/boards/committees with a very brief description of their composition/function/responsibilities

**Departments** are independent bodies in which academic, administrative and support staff are grouped based on the field of knowledge in which they work. Only non-academic personnel belonging to central (ULiège or FMV) services and are not included in a Department. Departments are responsible for delivering the educational programme of the FMV according to the FMV planning. There are seven departments, two clinical departments, i.e. the Clinical department for companion animals and equids (DCA) and the Clinical department for Production Animals (DCP) and five preclinical departments, Functional Sciences (DSF), Morphology and Pathologies (DMP), Infectious and Parasitic Diseases (DMI), Veterinary Management of Animal Resources (DRA) and Food Sciences (DDA).

Note that the clinics gathered in the CVU are divided into three poles (companion animals, AC, equine, EQ and ruminants and pigs, RP). There is a board for each pole which is headed by a president. The role of the pole is operational and consists mainly to manage the day-to-day life of the clinics.

Several structures are legally implemented in all the faculties of the university:

- Two **boards of studies** (CE), one for the **Bachelor's** graduates and the other for the **Master's**, gathers an equal number of students and teachers from each cycle to exchange and gives advice to the CF on all subjects affecting teaching and student life
- The **doctoral college** is an advisory body of the CF which proposes rules, analyses the files of the PhD students and organises the viva presentations of PhD thesis within the Faculty. It is composed of members elected by the CF among the members of the Faculty, who hold a PhD.
- The **juries** (one per cycle with a sub-jury for the first year of Bachelor's) participate in the FMV of annual student study programmes, set the rules of deliberations and organise them. They bring together all the teachers involved.

The FMV has eight structures to support and facilitate its teaching and research:

- The **University Veterinary Clinic (CVU)** includes all clinical activities carried out within the FMV. It is organised in the form of a research and teaching support unit (CARE) managed by a management board, chaired by the Rector of ULiège and composed of the Rector, the Dean, the presidents of the two clinical departments (DCA & DCP), the presidents of clinical poles, representatives of the scientific and support staff and directors of the administration of ULiège. It is headed by an administrative director and the three pole presidents, responsible respectively for AC (including exotic animals), equine and production animals.

The majority of its staff includes academic and scientific staff of the FMV, but it directly manages its support staff, who are paid by the ULiège. It can nevertheless hire additional staff dependent on its own income.

- The **Educational and Experimental Farm (FEPEX)** is also a CARE linked to the FMV and managed by a Board of Management chaired by the Dean of the FMV and composed of the Dean, several persons elected by the CF to represent the users and a representative of the financial resources administration (ARF) of ULiège. This board's role is to manage the structure and to report to the CF. Its staff is paid by ULiège.
- The **agri-food pilot unit** is a structure managed by the Department of Food Sciences (DDA) for the processing of foodstuffs into a structure under BSL2 status. It serves as a support for teaching and research.
- The **Support Unit for Multimedia Education (CAEM)** is a faculty structure that supports the development of multimedia materials for teaching.
- The **Decentralised Informatics Unit** is in charge of developing the computing network
- The **External Advisory Board (EAB, nine members, created in 2018)** is a body composed by veterinarians working in private practice, industry, administration and other professional areas. This board gives advice on all aspects of societal needs regarding student veterinary training. Also, the board helps to strengthen the ties of the FMV with the profession and society in general. For more information, see [Annex 1.2](#).
- The **Staff Welfare Committee** is chaired by the administrator of ULiège brings together the members of the staff of the FMV elected by the CF and representatives of the Human Resource Management Authority and of the Psycho-social Risks Prevention services of ULiège. Its mission is to study all the points relating to staff well-being and report to the appropriate bodies (CF, CVU, ULiège ...).

- The **Pedagogical Unit (CP)** is an informal group composed by members of the academic and support staffs. They provide technical support to the jury and give advice to students in the following situations: creation by the students of their annual curriculum, give information about the rules of the jury, analyse the appeals by the students, play an active part in the organisation of practical work activities, work out the Pedagogical Day and analyse the EVALENS surveys.

Three faculty commissions are variations of broader commissions organised within ULiège:

- The **bioethics commission** is responsible for supporting the Faculty with animal research protocols within the FMV.
- **Biosafety Committee (CB) and Faculty Biosecurity Unit (CFB)**. Two different bodies are dedicated to the management of biological risk in the FVM: the CB, deals with biosafety in relation with contained used of pathogens and genetically modified organisms and the CFB which is in charge of biosecurity in all teaching activities where a biological risk is assessed (clinics, necropsy and dissection rooms, FEPEX and teaching microbiology labs in close collaboration with CB). The CB gathers one member of each research laboratory or animal facility with contained used of pathogens and genetically modified organisms. The meetings are annual, or, when necessary in case of urgent problem. The CFB gathers one member of each department and the logistician in biosecurity. Permanent members include: the Dean, the President of the CB, the ULiège Biosafety Officer and an occupational health doctor (an external service for prevention and protection at work). The CFB members meet at least three times a year to examine general and/or urgent biosecurity problems, to propose solutions and to evaluate the application and efficiency of implemented actions. Real estate or biosecurity-related equipment/infrastructure needs are forwarded for follow-up to the ARI and/or the BD. Since April 2012, a logistician in Biosecurity (affiliated with the SUPHT) is in charge of the day-to-day management of the CFB.

For several years now, ULiège has been encouraging research laboratories to federate into research units. The FMV laboratories have been grouped into two main research units (FARAH and GIGA) and some are also associated with the TERRA research unit:

- The research unit "**Fundamental and Applied Research for Animal & Health (FARAH)**" is the research unit including all the laboratories geographically located within the FMV. It is divided into three sections: Comparative Veterinary Medicine (MVC), Veterinary Public Health (SPV) and Sustainable Animal Production (PAD).
- The **interdisciplinary centre for biomedical research at ULiège (GIGA)** brings together researchers from different faculties of the University of Liège on bio-medical topics. Three research units from the FMV are included in the GIGA.
- The **TERRA Teaching and Research Centre (TERRA)** gathers scientists from the Faculty of Bioengineers of Gembloux (Agro-Bio Tech) involved in research related to Earth sciences and food science. Several FARAH laboratories are also members of TERRA.

#### **1.1.6. Description of how and by who the strategic plan and the organisation of the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised**

The main organisational structures of ULiège, its faculties and research units are defined by the CA of ULiège and included in the regulation establishing the academic organisation of the university (see reference document 1.1). FMV is free to put in place all the additional structures in support of its policy. The missions and the composition of these commissions are defined and voted on by the CF. It is also the CA and the CF that are called upon to evaluate each structure and make it evolve.

## 1.2. Comments

From the academic year 2020-2021, the FMV will organise, in addition to the Master's degree in veterinary medicine, a new Master's of 120 ECTS credits dedicated to "One Health - management of public and animal health" with two goals: one being infectiology and the other being the quality and safety of the food chain (both open to students other than veterinarians). This new challenge, in line with FMV's strategic plan, will allow a diversification of teaching and a reorientation of some students, but will require reorganisation within the FMV.

Management of the CVU and FEPEX, as FMV-dependent CAREs, will have to be further optimised in order to have optimal tools to support teaching and research within the FMV.

The creation in late 2018 of the EAB will help, in future, to better meet the needs of the society and the evolution of professions related to veterinary medicine. The opinions of this structure should be taken into account in all future developments of the curriculum organised by the FMV.

## 1.3. Suggestions for improvements

The FMV has changed a lot since the approval of its 2016-2021 strategic plan, but a large number of actions are still to be implemented in order to reach an optimal organisation as soon as the number of Master's students has returned to an acceptable level.

FMV needs more stability in its structure and an improvement in its human resources management procedures. The BD must take this into account before launching new major projects.



## 2. Finances

## 2. Finances

### 2.1. Factual Information

#### 2.1.1. Description of the global financial process of the Establishment

The FMV is mainly financed by an annual budget granted by ULiège to pay the staff and ensure its academic and educational activities. This budget comes from public grants awarded by FWB (these grants depend on the number of students), and from fees paid by students (see [Annex 2.1.](#)). The University Veterinary Clinic (CVU) is mainly financed by clinical revenues (see [Annex 2.2.](#)). The CVU staff is largely that of the FMV, paid directly by ULiège.

ULiège also covers all fixed costs related to documentation, water, electricity, heating, maintenance, human resources, financial and real estate resources as well as the management of student admissions and registration.

For better legibility, Tables 2.1.1., 2.1.2. and 2.1.3 globally summarise the amounts mentioned above and related to the operation of the Faculty, except amounts dedicated to research and external services (i.e. diagnosis, expertise, continuing education) which are not directly related to undergraduate education. Nevertheless, all of the FMV's income and expenditure are included in the [Annex 2.3.](#)

The educational and experimental farm (FEPEX) was directly managed until 2017 by ULiège. Since 2018, it has become a support unit for Faculty research and teaching (CARE). Its financial plan aims to achieve a balance between its income (milk, meat) and its current operating expenses, excluding staff and investments which are supported by ULiège.

Since 2001, the FMV has suffered a too large influx of students and has received additional funds in order to recruit additional teaching staff and to better ensure the running of educational activities. This budget varied from 2 million € in 2001 to 1.56 million € in 2017 (including a special grant of 438,000 € from the Minister of Higher Education from 2016). Part of this budget has since been converted into permanent staff salaries paid by the ULiège budget.

In practice, only a part of the budget allocated is independently managed by the FMV (Table 2.1.1.).

For the staff, there is the staff directly employed by the CVU and the staff recruited with the exceptional credits, which respectively represented 700,000 € and EUR 1,412,000 € in 2017.

For the operational costs, the FMV may freely dispose of the amounts generated by the CVU (2,860,000 €) and those granted by ULiège as educational credits (41,000 €), ordinary credits (364,000) and exceptional credits (150,000 €) from 2017.

- After covering cross-departmental projects, the education credits are equally shared between departments, the DCA benefiting from two times the allocated amount.
- The ordinary credit is mainly designated to cover the FMV's general needs (student transportation, animals and cadavers, food and care for educational animals, cleaning of professional clothing, meetings ...). Approximately 100,000 € (27%) of ordinary credits are allocated to departments according to the number of their permanent teachers.
- In addition, around 78,000 € of exceptional operating funds are also distributed among the departments according to the importance of their educational activities.

The total profit of the CVU's clinical activity are set aside for research, new investments or the recruitment of additional clinicians or support staff.

All profit made by the FMV are reinvested by ULiège to its investment policies.

ULiège's financial management is handled in a centralised SAP software that allows accurate monitoring and close control. High-performance interfaces allow all users to manage their own professional data. All structures are called upon to establish annual budgets which are validated by the Budget Review Commission (CEB), before being approved by the ULiège CA.

ULiège also has a social budget coming from the FWB and dedicated to student and staff policies (restaurants, housing, sports, culture...).

### **2.1.2. Degree of autonomy of the Establishment on the financial process**

The FMV has total autonomy for the allocation of its own operational budget and educational, ordinary and exceptional credits granted to it.

After deduction of the overhead costs levied by ULiège, the amounts generated by CVU, research and services are freely managed by the structures that generated them.

### **2.1.3. % of overhead to be paid to the official authority overseeing the Establishment on revenues from services and research grants**

The regulatory modality defined by the FWB, the public body that exercises supervision over the ULiège, is to claim a minimum of 15% of overhead costs on all activities financed by bodies outside the ULiège. ULiège levies this percentage of 15% on all services and research agreements except for certain public subsidies for which lower percentages are required.

### **2.1.4. Annual tuition fee for national and international students**

Students from the European Union who register at the ULiège must pay an annual registration fee of 835 € (2018-2019). Depending on their socio-economic situation, some students may benefit from an intermediate rate of 374 € or a scholarship rate of 0 €. These amounts are set by the FWB for all universities. Non-EU students are required to pay an annual tuition fee of 4,175€. Universities dependent on the FWB cannot claim higher amounts.

### **2.1.5. Estimation of the utilities and other expenditures directly paid by the official authority and not included in the expenditure tables**

The central charges (water, electricity, heating, maintenance costs) of ULiège dedicated to the FMV are given in table 2.1.1. in operational costs. These expenses are calculated on a flat-rate basis based on a cost per square meter.

### **2.1.6. List of the on-going and planned major investments for developing, improving and/or refurbishing facilities and equipment, and origin of the funding**

Major real estate investments are underway or planned for the FMV. They are, on the one hand, financed by the FWB and the Walloon Region (supervisory public authorities) and, on the other hand, supported by the ULiège and its own funds. Extraordinary public credits (800,000 € for 30 years, equivalent to 18 million € in 2014) were granted in 2014 to build a new companion animal clinic and to upgrade research facilities of the Faculty. The ULiège added the sum of 7.725 million €. In addition, an amount of 2,643 million € was also granted by ULiège for the equipment of these structures (MRI, scanner, surgery rooms, skills lab, furniture ...). The details of the real estate and movable investments made within this framework in the last three years and for future commitments is included in the [Annex 2.4](#).

### **2.1.7. Prospected expenditures and revenues for the next 3 academic years**

The Faculty's strategic plan provides for the continuation of the 2015-2016 personnel framework when student numbers are more limited. This means that in euros the Faculty's expenditure should not undergo any major changes in the next three academic years. In the same way, the revenue budget of ULiège related to the number of students will not be reduced before 2021, due to a moratorium accepted by the FWB until 2021 when a new law of funding for higher education should be implemented.

In terms of management, the Faculty's strategic plan foresees a transformation of the majority of the exceptional credits allocated in ordinary credits reserved for the staff, the executives and the operational credits for research and teaching by the 2021 deadline.

**2.1.8. Description of how and by who expenditures, investments and revenues are decided, communicated to staff, students and stakeholders, implemented, assessed and revised**

The credits attributed to ULiège by the FWB and the level of registration fees are governed by law. A moratorium on the financing of higher education is in force until 2021. These amounts are paid to ULiège, which allocates budgets to its eleven faculties according to predefined rules.

For the staff budget, ULiège establishes a multi-year budget following the directives of its CA, the strategic plans of the faculties and changes in staff salaries. Within the FMV, the general policy was defined by the strategic plan 2016-2021, established after consultation with all the bodies of the FMV and the main stakeholders, confirmed by the CF of May 4, 2016 and presented to the CA -on 14<sup>th</sup> September 2016- and, from an operational point of view, the CR of 26<sup>th</sup> June 2017. The amount of exceptional staffing credits is negotiated each year by the FMV with the Rectorate in function of the number of students. Balances between departments are discussed between the BD and the Presidents of the various departments. The framework of each department is annually discussed between the Dean, the Administrative Director and the Department Chair. The applications are then compiled and presented to the ULiège Director General for Education and Training, validated by the CR, discussed by the CURE and the CA for decision. On the basis of the decisions taken, each year, the ARH and the ARF draw up a detailed budget for the following year. Decisions concerning the staff paid directly by the CVU are taken by this structure following its internal procedures and its structures, which are the Management Board and the poles.

The operational budget of the CVU is managed by this structure according to its needs and to its internal procedures.

The amounts of educational credits, ordinary and exceptional operational credits are voted annually by ULiège's CA. The base of the distribution of educational and ordinary credits between the faculties of the University is proportionate to the subsidy granted by the FWB with a correction, for the ordinary credits, in relation to the number of doctoral theses presented and obtained, and the relative increase in the number of students.

The amount of exceptional operational credits is negotiated each year by the FMV according to the number of students. Within the FMV, the distribution of operational credits between the departments is decided once a year during a meeting conducted by the BD with the Presidents of the various departments.

Investments follow different paths depending on their purpose and amount.

The investments of the CVU are prepared by its administrative director at the request of the different poles (ruminants and pigs, equine and companion animals) and decided by its board of management before confirmation, for the higher amounts (in excess of 30,000€), by ULiège's CA.

The major property investments financed by ULiège on behalf of the FMV are solicited by the latter, after approval of its CF, from the Real Property Administration (ARI). The latter prepares a file which is submitted, for an opinion, to the Infrastructure Unit (teaching files) or the Infrastructure Mixed Commission (CIM) (files related to research or services). When the opinion is favourable, and confirmed by the CR, the file is sent for decision to ULiège's CA. Public calls to the market for large investments are then prepared and managed by the Césame unit of the ARF of the university. Once the contracts are awarded, they are executed by the ARI in close collaboration with the relevant departments of the FMV. The smallest files are prepared by the authorities of the FMV and confirmed, if necessary, by its CF.

**Table 2.1.1. Annual expenditures during the last 3 academic years (in Euros)**

Area of expenditure	2017	2016	2015	Mean
Personnel (Faculty staff)	11.997.323,47 €	11.592.390,40 €	11.024.610,42 €	11.538.108,10 €
Personnel (Contractual staff)	2.112.011,28 €	1.872.417,39 €	1.386.573,90 €	1.790.334,19 €
Operating costs (ULiège)	1.855.152,05 €	2.304.217,36 €	2.206.080,49 €	2.121.816,63 €
Operating costs (establishment)	2.966.926,75 €	2.899.247,23 €	2.643.206,36 €	2.836.460,11 €
Maintenance costs	1.246.868,89 €	1.159.831,21 €	1.152.944,58 €	1.186.548,23 €
Equipment	142.611,81 €	113.503,57 €	104.005,74 €	120.040,37 €
<b>Total expenditure</b>	<b>20.320.894,26 €</b>	<b>19.941.607,17 €</b>	<b>18.517.421,49 €</b>	<b>19.593.307,64 €</b>

**Table 2.1.2. Annual revenues (except research, prestation and donations) during the last 3 academic years (in Euros)**

Revenues source	2017	2016	2015	Mean
Public authorities	15.110.699,11 €	15.824.895,13 €	14.157.981,74 €	15.031.191,99 €
Tuition fee (standard students)	1.651.476,02 €	1.713.356,25 €	1.698.553,16 €	1.687.795,14 €
Tuition fee (full fee students)	- €	- €	- €	- €
Clinical services	4.099.047,45 €	3.783.736,94 €	3.178.733,71 €	3.687.172,70 €
Diagnostic services*	- €	- €	- €	- €
Other services	39.181,96 €	32.307,90 €	24.971,72 €	32.153,86 €
Research grants*	- €	- €	- €	- €
Continuing Education*	- €	- €	- €	- €
Donations*	- €	- €	- €	- €
Other sources*	- €	- €	- €	- €
<b>Total revenues</b>	<b>20.900.404,54 €</b>	<b>21.354.296,21 €</b>	<b>19.060.240,33 €</b>	<b>20.438.313,69 €</b>

**Table 2.1.3. Annual balance (except research, prestation and donations) between expenditures and revenues (in Euros)**

Academic year	Total expenditures	Total revenues	Balance
2015	18.517.421,49 €	19.060.240,33 €	<b>542.818,84 €</b>
2016	19.941.607,17 €	21.354.296,21 €	<b>1.412.689,04 €</b>
2017	20.320.894,26 €	20.900.404,54 €	<b>579.510,28 €</b>

## 2.2. Comments

The financial situation of the FMV is currently stable but depends largely on exceptional credits granted by the university and the Cabinet of the Minister of Higher Education. In accordance with the FMV's strategic plan, it is essential that ULiège ensures the sustainability of the staffing framework, at least at the 2015-2016 level, even after the reduction in the number of Master's students. Adequate regular operational credits must also be maintained to ensure educational activities.

After 2021, the higher education funding law of FWB will be modified, probably by integrating parameters in terms of research. The FMV should benefit from this, but efforts will nevertheless have to be made by then to further increase its scientific output.

## 2.3. Suggestions for improvement

Rather than negotiating a staffing framework with ULiège each year based on an established set of criteria, it would be more beneficial to be able to independently make strategic choices within a global financial budget defined by ULiège. In the same way, property management and equipment maintenance should be anticipated financially by ULiège in order to maintain the FMV at a sufficient quality level.

The revenues generated by CVU would increase with the new clinic inaugurated in 2019. Likewise, the new authorisation gained for the "One Health" Master's degree and a possible resumption of the organisation of Faculty training could help secure revenues and finance new policies.





### 3. Curriculum

## 3. Curriculum

### 3.1. Factual information

#### 3.1.1. Description of the educational aims and strategy in order to propose a cohesive framework and to achieve the learning outcome

The FMV is currently facing new challenges and new situations, namely:

- Increasing amount of scientific information
- High expectations from animal owners and society, particularly regarding the quality of services (need for specialisation, multi-disciplinary practice, improvement of communication quality ...)
- Use of the internet as a source of information
- Practitioners' tendency to work in association rather than individually, which has shown to improve practitioners' quality of life
- increasing public attention paid to animal suffering, well-being and respect
- Strengthening or new legislation on drugs
- Changes in the organisation of higher education in FWB ("Décret Paysage", see chapter 7)

➔ Consequently, the curriculum needs to be adapted to these societal developments and new constraints.

In order to follow up on these developments, as well as on the basis of the Day-one Competences mentioned in the 2016 ESVET SOP, the steering committee has defined the 6 main day one skills that the veterinary students must have acquired at the end of the bachelor curriculum (see [Annex 3.1.](#)).

This result which reforms training courses favours multi-disciplinary practice, integration of the subjects, case resolution and a species-oriented approach. Several courses were mixed together into more comprehensive UE that replaced the original separate courses in the training programme, with several professors collectively teaching the subject matter. In addition, new courses such as evidence-based medicine and communication, practice management from a financial and human resources point of view, etc. have been created and more group work with oral presentations and discussions - moderated by the students themselves (a teacher is present if needed) - have been developed within several UE (by instance: VETE2087-1 Transversal skills (decision making and relational) in M2). At the same time, the last year of study (M3) has been exclusively dedicated to the acquisition of clinical skills and the fulfilment of the master thesis (no more theoretical courses).

Lastly, the year was divided into three semesters (First semester, or Q1: September to January; Second semester, or Q2: February to July, and Third semester, or Q3: July to September), each one ending in assessments.

Students also have the opportunity to go abroad as part of their curriculum: either in M2 (Erasmus Programme, 60 ECTS), and/or during their M3 EPT and elective clinical rotations ([http://www.fmv.uliege.be/cms/c\\_253043/fr/mobilite](http://www.fmv.uliege.be/cms/c_253043/fr/mobilite)). Each year, approximatively 30 M3 students perform their elective clinical rotations in a veterinary faculty abroad. Their programme must be approved by a committee (international mobility committee) and a learning agreement must be signed with the host faculty. Just like the students doing their M3 elective clinical rotations at the FMV, these students are evaluated by an oral examination based on their case log by senior clinicians of the FMV.

The current programme of the whole cursus is given in the [Annex 3.2.](#) and is online at [https://www.programmes.uliege.be/cocoon/20182019/programmes/V1VETE01\\_C.html](https://www.programmes.uliege.be/cocoon/20182019/programmes/V1VETE01_C.html) (Bachelor's) and [https://www.programmes.uliege.be/cocoon/20182019/programmes/V2UVET01\\_C.html](https://www.programmes.uliege.be/cocoon/20182019/programmes/V2UVET01_C.html) (Master's). The educational commitments of each UE are also available on these websites

### 3.1.2. Description of the legal constraints imposed on curriculum by national/regional legislations and the degree of autonomy that the Establishment has to change the curriculum

As long as the EU directives are fulfilled, there are no regional or national constraints defining the veterinary curriculum in Belgium, except for the number of years of study, which is set at a minimum of six years (360 credits).

All the subjects and topics included in the 2016 ESJET SOP (and recommended by the EU) are covered.

As far as the Bachelor's degrees are concerned, a minimum of 60% of the subjects must be the same between the four universities organising the first three years of the curriculum (see [Annex 3.3.](#)). One of the tasks of the steering committee is to ensure that this common core of teaching is well respected.

### 3.1.3. Description of how curricular overlaps, redundancies, omissions and lack of consistency, transversality and/or integration of the curriculum are identified and corrected

The curricular programme has been deeply revised in 2015-2016 (CF meeting n°153 of 25/03/2015 for the BAC & minutes of the CF meeting n°154 of 29/04/2015 for the masters). Minor modifications are annually performed.

The identification of the hereabove mentioned problems (overlap, redundancies, omissions, etc.) is performed at different levels and by different groups of actors.

- 1) Students :
  - Annual online anonymous evaluation of the UE (EVALENS survey) (see 11.1.1.);
  - Regular meetings of the CEs (bachelor and master) where direct feedbacks from students is obtained;
  - Global programme surveys obtained from the students finishing the M3;
  - Specific surveys organised by the students themselves
- 2) Teachers :
  - The FMV organises a pedagogical day in January each year. It allows teachers to meet and discuss their courses, their pedagogical initiatives and the programme;
  - Specific surveys organised by the teachers themselves
  - The “Programme Committee” edits guidelines based on the 2016 strategic plan of the FMV, AEEEV accreditation process, results of the programme evaluation by the alumni and the students (surveys), results of the UE evaluations by the students (EVALENS), feedback from the students via the CE, and constraints related to the “Décret Paysage”.
  - The Departments propose annual changes to their UE in line with these guidelines
  - The CPFE, which meets monthly and mandates working groups to analyse specific problems. Annual programme changes are discussed at this level before being presented, discussed and voted in CF and endorsed by the CA.
  - Juries (issues resolution).
- 3) Stakeholders :
  - Alumni surveys are organised every year among the veterinary students who graduated respectively one and five years ago;
  - Feedback of the training supervisors of EPT;
  - Membership of one stakeholder representative in both the “alumni” and the reform of the programme committee
  - Creation of an EAB which meets once a year and discuss specific questions, such as the employers' requirements in the industry, the new subjects that should be taught, subjects that could be suspended, etc
- 4) Steering committee

All this resulted in the implementation of yearly curriculum modifications and implementation of new pedagogical methods.

Here are some examples of strategies implemented to improve the curriculum:

- 1) To avoid inconsistencies and redundancies: some courses are now given by several teachers at the same time as for instance Animals, health and society (VETE2056-1), Embryology and histology (VETE2058-1), Infectious diseases (VETE2069-1, VETE2070-1, VETE2071-1), Clinical biology (VETE2076-1), Companion animals medicine II (VETE2081-1), all the courses about FSQ.
- 2) To fill deficiencies and gaps: new courses have been created: Communication course with role play, practice management, transversal skills (VETE2087-1), and Initiation to group work (VETE2109-3);
- 3) To maintain consistency within teaching: Master's courses have been organised by species, rather than discipline since 2015-16, interactive collaborative activities have been created (by instance infectiology and veterinary parasitology), 13 weeks of M3 clinical rotations have been made optional (VETE2093-1 companion animals, VETE2094-1 equids or VETE2095-1 production animals).
- 4) Some seminars are also run by several teachers with different skills (for example, a professor from the faculty of Psychology participates in the Communication course, VETE2087-1).

### 3.1.4. Description of the core clinical exercises/practicals/seminars prior to the start of the clinical rotations

- Bachelor's degree: Immersion placement in animal environment (VETE2057-1, see details under table 3.1.4), practical animal handling, clinical examination and ancillary tests in physiology (VETE2102-1, VETE2103-1, VETE2105-1, VETE2106-1), topographic anatomy (VETE2062-1), "Knowing how to see" (VETE0015-1) and practical activities to identify horses (narrative and diagram) and to describe coats and handle poultry, rabbits, pigeons and guinea pigs (VETE2057-1)

- Master's 1: preclinical activities with clinical exam and ancillary test on live animals or dummies (semiology, VETE2060-1 and VETE2061-1), visits to the FEPEX (VETE2073-1), dissection and post-mortem sampling techniques (VETE2064-1), radio-anatomy (VETE0501-1), practical activities to learn basic surgical procedures on cadavers (VETE2068-1);

- Master's 2: case-based clinical reasoning training (clinical pathology VETE2076-1, Infectious and parasitic diseases VETE2088-C-a), learning sampling techniques in necropsy and identification of macroscopic lesions in pictures (VETE2100-1); practical activities to learn surgical procedures on cadavers.

### 3.1.5. Description of the core clinical rotations and emergency services and the direct involvement of undergraduate students in it

**Master's 1:** no clinical rotation, students can however attend some activities on a voluntary basis (nights, weekends, holidays).

**Master's 2:** internal daily morning clinical rotation for one semester (VETE2084-1, VETE2085-1, VETE2086-1): eight to fourteen students per group, 17.5 hours a week for thirteen weeks (six with companion animals, three in equine, four in ruminants and pigs). Half of the students performs the clinical rotation during a semester while the other half follows paraclinical courses: necropsy, professional knowledge courses, etc. (VETE2087-1, VETE2088-1, VETE2089-1, VETE2100-1). Students do not have clinical responsibilities. They have a maximum of practical training when it is technically possible, but the M3 students have priority. In some clinical rotations, the M3 students supervise the M2 students.

NB: during these weeks, students must attend seminars, and go to transversal services, and they have to participate in the on-call services.

Those clinical rotations include external activities that are described in Chapter 5.1.4.b

**Master's 3 (-Master's 2) Clinical rotations during holidays and exam period** (elective courses by species before 2018-2019 (i.e. VETE2096-1, VETE2097-1, VETE2098-1; has included all species since the academic year 2018-2019 (VETE3000-1): clinical rotations during summer holidays/Christmas holidays/Easter holidays/June): groups of three to twelve students, 40 to 60 hours per week, for six weeks. Students make the first contact with the owners, perform clinical examinations, and participate in ancillary tests, decisions, follow up and the treatment of the hospitalised cases. They are not on the first line but they get a lot of practical training and have to actively participate in the on-call services and in patients' care.

In 2018-2019, the time allocated to these clinical rotations was increased from 240 hours to 320 hours (while the number of weeks remains unchanged). Students cannot choose the animal species of reference for this rotation anymore.

**Master's 3:** thirteen weeks of elective clinical rotations (clinical module: VETE2084-1, VETE2085-1, or VETE2086-1) and two weeks of common clinical rotations: Imaging (VETE2092-1), Necropsy (VETE2091-1).

Students make the first contact with owners, perform clinical examinations, and participate in the ancillary tests, decisions, follow up and the treatment of the hospitalised cases. They are on the first line, and they get a lot of practical training, but they remain under the supervision of interns, residents and assistants.

**Master's 3:** External Practical Training (elective, VSTG0003-1) during two periods of six weeks (see 3.1.8.).

### 3.1.6. Description of the teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

**Master's 1:** Food quality and safety management (VETE2072-1): groups of thirteen-fourteen students. For some activities, the groups are divided in two. This course includes twelve hours of practical work consisting in a bovine abattoir visit, pig slaughterhouse videos, visits to preparation and cutting plants, and a visit to the experimental unit of the FMV (see [Annex 3.4.](#)).

**Master's 2:** Food sciences (VETE2089-1): groups of thirteen -fourteen students. Students have 17.5 hours of para-clinics including bovine, pig and poultry slaughterhouses with practical activities, work, and welfare awareness.

**Master's 3:** Control of the food chain (VETE2090-1): this one week duration clinic is focused on food inspection: with an inspector of the Belgian Food Inspection Agency (AFSCA) or another inspection/certification body, each student visits the primary sector and the restaurant/distribution sector individually. They can also practice performing an inspection at the FEPEX, and having a virtual visit of transformation premises. Students and people supervising these activities give their feedback at the end of the week.

### 3.1.7. Description of the selection procedures of the Electives by the students and the degree of freedom in their choice

Apart from the 520 hours of M3 clinical rotations there are no electives.

Regarding the M3 clinical module (thirteen weeks), there is a limited number of places in each option for each semester. Eight months before the start of those clinics, the students have to make a list of choices for their elective in descending order. A draw is organised and assigns the option and the semester of the module for each student. If students do not have their first choice, they get their second one. It is possible for the students to exchange their clinical rotation semester with each other. Students who are not satisfied by the assigned option, may be put on a waiting list. Because (1) approximatively 30 students find a module abroad each year and (2) some students do not obtain a sufficient amount of credits to be allowed to take the M3 clinical module the year after, a significant number of places are reopened in each option a few months after the draw. After that, to date, all students who have been put on the waiting list have had access to their first option choice.

Students are entirely free to choose where they want to do their EPT, in Belgium or abroad, in a private practice or in a university, in practice or in a research centre (see 3.1.1.).

### 3.1.8. Description of the organisation, selection procedures and supervision of the EPT

There is no procedure to select training supervisors. The only inclusion criteria is that they must have graduated at least 5 years ago.

Once a student has chosen his/her EPT, the training supervisor has to sign a contract with the FMV. She/he also receives a student evaluation sheet. This sheet ([Annex 3.5.](#)) lists the criteria taken into account by the FMV for the students' evaluation. When the EPT is over, the training supervisor sends the completed questionnaire back to the student secretariat.

In addition, students have to write an online record and an overall assessment of their placement ([Annex 3.6.](#)).

### 3.1.9. Description of the procedures used to ascertain the achievement of each core practical/clinical activity by each student

Attendance verification is systematic in activities of preclinical preparation, para-clinics, and in internal and ambulatory clinical rotations. The training supervisors' reports and the students' records allow the verification of activities in the EPT.

At the end of the VTH clinical rotations (even if performed abroad), M3 students have to present (in front of two or three senior clinicians) a file of clinical reports of thirteen challenging cases: ten of these cases have to be presented summarised in an Excel table ("case log"), and the three others have to be presented as clinical reports according to a predetermined pattern. The model of the case log and of the clinical report are common to the three options.

### 3.1.10. Description of how and by who the core curriculum is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

See 3.1.3. for the description of the procedures.

See 11.1.5 for how the core curriculum is decided.

Information is communicated to students by displaying the programmes online, by the educational commitments, and by the CE. Modifications to the Bachelor's curriculum that should be put in place based on the students and stakeholders enquiries, which are communicated to other universities in steering group meetings.

**Table 3.1.1. Curriculum hours in each academic year taken by each student**

Academic years	A	B	C	D	E	F	G	H
Year 1	309	146	50	139	0	0	0	644
Year 2	336	58	55	41	112	0	80	682
Year 3	340	53	103	68	64	0	0	628
Year 4	574	9	32	33	6	46,5	0	700,5
Year 5	403.5	46.5	50	76.5	36	262.5*	0	875
Year 6* (common)	2	9	378	0	31	60	0	480
Year 6* (electives)						760 <sup>a</sup>		1240
Total*	1964.5	321.5	668	357.5	249	369 +760	80	4009.5 +760
Year 5**	403.5	46.5	50	76.5	36	297.5 <sup>b</sup>	0	875
Year 6** (common)						380 <sup>b</sup>		
Year 6** (electives)						520 <sup>c</sup>		
Total**	1962.5	312.5	308	357.5	218	724 +520	80	4450.5 +520

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk based work, E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

\*Before academic year 2018-2019

\*\*From academic year 2018-2019

a: 520 hours of clinical rotations and 240 hours of clinical rotations during holidays and examination periods.

b: Increased clinical hours in the common core in 2018-2019, clinical hours in the common core: clinical rotations during holidays and examination periods raised to 320 hours and students can no longer choose a species for these clinical rotations.

c: Elective clinical rotations.

**Table 3.1.2. Curriculum hours in EU-listed subjects taken by each student**

The following tables only contain the courses and clinical rotations students had in common in 2017-2018. As already stated, the FMV increased the common clinical rotations hours to 320 hours from 2018-2019. This change will mainly increase the number of hours taken by all students in the section "clinical sciences".

Subjects	A	B	C	D	E	F	G	H
<b>Basic subjects</b>	<b>308</b>	<b>130</b>	<b>20</b>	<b>131</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>589</b>
Medical physics	93	51	0	26	0	0	0	170
Chemistry (inorganic and organic sections)	77	52	0	33	0	0	0	162
Animal biology, zoology and cell biology	63	3	0	66,5	0	0	0	132,5
Feed plant biology and toxic plants	10	0	0	3,5	0	0	0	13,5
Biomedical statistics	65	24	20	2	0	0	0	111
<b>Basic Sciences</b>	<b>756</b>	<b>78</b>	<b>95</b>	<b>123</b>	<b>158</b>	<b>14</b>	<b>0</b>	<b>1224</b>
Anatomy, histology and embryology	204	6	30	75	138	7	0	460
Physiology	106	20	24	0	13	0	0	163
Biochemistry	68	32	22	0	0	0	0	122
General and molecular genetics	35	10	0	0	0	0	0	45
Pharmacology, pharmacy and pharmacotherapy	19	0	2	0	0	0	0	21
Pathology	64	0	0	0	0	6	0	70
Toxicology	10	0	11	2	0	0	0	23
Parasitology	39	0	0	21	1	0	0	61
Microbiology	59	3	1	23	0	0	0	86
Immunology	40	0	0	0	0	0	0	40
Epidemiology	25	7	0	0	0	0	0	32
Professional communication	0	0	2	0	0	0	0	2
Professional ethics	2	0	1	0	0	0	0	3
Animal ethology	32	0	0	0	0	0	0	32
Animal welfare	13	0	0	0	0	1	0	14
Animal nutrition	40	0	2	2	6	0	0	50
<b>Clinical Sciences</b>	<b>624</b>	<b>19</b>	<b>80</b>	<b>68</b>	<b>8</b>	<b>291,5</b>	<b>0</b>	<b>1090,5</b>
Obstetrics, reproduction and reproductive disorders	58	0	0	0	1	20	0	79
Diagnostic pathology	77	7	7	42,5	1	16	0	150,5
Medicine and surgery including anaesthesiology	230	0	0	0	0	61	0	291
Clinical practical training in all common domestic animal species	2	0	0	0	0	21	0	23
Preventive medicine	42	6	31	0	0	7	0	86
Diagnostic imaging	29	0	6	8	0	55,5	0	98,5
State veterinary services and public health	10	4	1	0	0	0	0	15
Veterinary legislation, forensic medicine and certification	3	0	1	17,5	0	15	0	36,5
Therapy in all common domestic animal species	81	2	34	0	0	11,5	0	128,5
Propaedeutics of all common domestic animal species	92	0	0	0	6	84,5	0	182,5
<b>Animal Production</b>	<b>87</b>	<b>17</b>	<b>0</b>	<b>17</b>	<b>7</b>	<b>30,5</b>	<b>80</b>	<b>238,5</b>
Animal Production and breeding	57	17	0	11	7	11,5	40	143,5
Economics	16	0	0	2	0	3,5	0	21,5
Animal husbandry	9	0	0	2	0	4	40	55
Herd health management	5	0	0	2	0	11,5	0	18,5
<b>Food Safety and Quality</b>	<b>68</b>	<b>16,5</b>	<b>0</b>	<b>9</b>	<b>48,5</b>	<b>0</b>	<b>0</b>	<b>142</b>
Inspection and control of food and feed	17	2	0	0	15,5	0	0	34,5
Food hygiene and food microbiology	30	10,5	0	5	11	0	0	56,5
Practical work in places for slaughtering and food processing plants	0	0	0	0	12	0	0	12
Food technology including analytical chemistry	21	4	0	4	10	0	0	39
<b>Professional Knowledge</b>	<b>121,5</b>	<b>61</b>	<b>473</b>	<b>9,5</b>	<b>27,5</b>	<b>33</b>	<b>0</b>	<b>725,5</b>
Professional ethics & behaviour	16	6	4	2,5	2,5	8	0	39
Veterinary legislation	36	3	4	2	1	2	0	48
Veterinary certification and report writing	0	4	5	0	0	12	0	21
Communication skills	43	23	164	3	16	8	0	257
Practice management & business	2,5	16	32	0	8	0	0	58,5
Information literacy & data management	24	9	264	2	0	3	0	302
<b>TOTAL</b>	<b>1964,5</b>	<b>321,5</b>	<b>668</b>	<b>357,5</b>	<b>249</b>	<b>369*</b>	<b>80</b>	<b>4009,5</b>

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work, E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

\*Clinical rotations are elective: they represent 1129 hours for students, but 760 hours do not appear in this table. These hours are composed of 520 hours of clinical rotations (elective) and 240 (elective) hours of clinical rotations during holidays and exam periods. Those hours mainly consist of “clinical sciences” and “professional knowledge”. Regarding the pigs and ruminants clinic, the “animal production” and “food safety and quality” categories are also included.

From 2018-2019, clinical hours globally increased in M2 and M3. Clinical rotations during holidays and exam periods increased to 320 hours and are no longer elective.

**Table 3.1.3. Curriculum hours taken as electives by each student**

***During academic periods***

⇒ Companion animals’ clinic (524 hours). This option is chosen by around 56% of the Master’s students.

Subjects	A	B	C	D	E	F	G	H
<b>Basic Sciences</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>
Animal ethology						2		2
Animal welfare						2		2
<b>Clinical Sciences</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>460</b>	<b>0</b>	<b>460</b>
Obstetrics, reproduction and reproductive disorders						20		20
Diagnostic pathology						10		10
Medicine and surgery including anaesthesiology						318		318
Clinical practical training in all common domestic animal species						2		2
Preventive medicine						20		20
Diagnostic imaging						20		20
Therapy in all common domestic animal species						20		20
Propaedeutics of all common domestic animal species						50		50
<b>Professional Knowledge</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>60</b>
Professional ethics & behaviour						20		20
Veterinary legislation						10		10
Veterinary certification and report writing						10		10
Communication skills						20		20
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>524</b>	<b>0</b>	<b>524</b>

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk based work, E: non-clinical animal work; F: clinical animal work; G: others (specify); H: total

⇒ Equines’ clinic (520 hours). This option is chosen by around 22% of the Master’s students.

Subjects	A	B	C	D	E	F	G	H
<b>Clinical Sciences</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>503</b>	<b>0</b>	<b>503</b>
Obstetrics, reproduction and reproductive disorders						35		35
Diagnostic pathology						5		5
Medicine and surgery including anaesthesiology						240		240
Clinical practical training in all common domestic animal species						40		40
Preventive medicine						18		18
Diagnostic imaging						15		15
Therapy in all common domestic animal species						50		50
Propaedeutics of all common domestic animal species						100		100
<b>Professional Knowledge</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>17</b>
Professional ethics & behaviour						2		2
Veterinary legislation						5		5
Communication skills						10		10
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>520</b>	<b>0</b>	<b>520</b>

⇒ Ruminants and pigs' clinic (520 hours). This option is chosen by around 22% of the master students.

Subjects	A	B	C	D	E	F	G	H
<b>Basic Sciences</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>21</b>
Animal welfare						15		15
Animal nutrition						6		6
<b>Clinical Sciences</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>339,5</b>	<b>0</b>	<b>339,5</b>
Obstetrics, reproduction and reproductive disorders						37		37
Diagnostic pathology						46		46
Medicine and surgery including anaesthesiology						67		67
Clinical practical training in all common domestic animal species						71		71
Preventive medicine						25		25
Diagnostic imaging						2		2
State veterinary services and public health						14		14
Veterinary legislation, forensic medicine and certification						21		21
Therapy in all common domestic animal species						34,5		34,5
Propaedeutics of all common domestic animal species						22		22
<b>Animal Production</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91,5</b>	<b>0</b>	<b>91,5</b>
Animal Production and breeding						29,5		29,5
Economics						21		21
Animal husbandry						18		18
Herd health management						23		23
<b>Professional Knowledge</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>68</b>
Professional ethics & behaviour						17		17
Veterinary legislation						14		14
Veterinary certification and report writing						8		8
Communication skills						19		19
Practice management & business						2		2
Information literacy & data management						8		8
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>520</b>	<b>0</b>	<b>520</b>

These clinics are elective UE in the third year of the Master's programme. Students can choose the species they want to work with (see 5.1.7.).

#### ***During holidays and exam periods***

Clinical rotations during holidays and exam periods were elective and represented 240 hours until 2017-2018. They are common and represent 320 hours (with 40 to 60 hours/week) from this academic year onwards. These activities are distributed as follows: four weeks (60 hours/week) in the companion animal clinic, and two weeks (40 hours/week), in equine, ruminants and pigs' clinics and in necropsy. They consist of practical training like care and emergencies (no theoretical courses or seminars take place during this time), mainly in the clinical sciences field.

In companion animals and horses, more than 50% of the time is spent in « medicine and surgery including anaesthesiology ».

In ruminants and pigs, these hours are divided into « obstetrics, reproduction and reproductive disorders », « clinical pathology », and « clinical practical training ».

Four weeks in the companion animals' clinic, and two weeks in equine, ruminants and pigs' clinics and in necropsy.

**Table 3.1.4. Curriculum days of External Practical Training (EPT) for each student**

Subjects	Minimum duration (weeks)	Year of programme
Production animals (pre-clinical)	1	B2
Companion animals (pre-clinical)	1	B2
Others (externship M3)	12	M3

The choice of the EPT activities is free and they may consist partially or entirely in research activities.

The two weeks of pre-clinical EPT (B2) must be performed in a breeding, shelter or boarding facility hosting at least ten adult animals of a given species (50 for poultry and rabbit facilities). One week must be performed in a pet facility and one week in a production animal facility (ruminant, rabbits or poultry).

The twelve weeks of the EPT takes place during the M3 and comprised one continuous period of twelve weeks or two continuous periods of six weeks each. They are supervised either by a single supervisor for the entire period or by two training supervisors, each supervising a continuous period of six weeks. The supervisors have to be veterinary medicine graduates with at least five years' experience. The placement(s) can be performed within veterinary structures (practice, centre, clinic...) or within a faculty of veterinary medicine, public agency, or a private company.

**Table 3.1.5. Clinical rotations under academic staff supervision (excluding EPT)****Programme 2018-2019**

Types		List of clinical rotations (Disciplines/Species)	Hours	Weeks	Year of programme	
<b>Intra-mural (VTH)</b>	VETE2084-1	Equines Clinic*	70	3	M2	
	VETE2085-1	Production animals Clinic*	70	4	M2	
	VETE2086-1	Companion animals Clinic*	122,5	6	M2	
	VETE2088-1	Medical imaging	17,5	1	M2	
	VETE2100-1	Necropsy of companion animals	35	2	M2	
	VETE2091-1	Necropsy of companion animals	20	1	M3	
<b>Ambulatory clinics</b>	VETE2092-1	Medical imaging of companion animals	40	1	M3	
	VETE3000-1	Clinics during holidays and exams including autopsy (6 weeks) M3: AC, EQ & RP **	320	6	M3	
	VETE2085-1	Ambulatory clinic of production animals	17,5	1	M2	
	<b>FSQ &amp; VPH</b>	VETE2089-1	Paraclinic in food products science	35	2	M2
		VETE2090-1	Control of the food chain	40	1	M3
	<b>Electives</b>		Clinical Modules (13 weeks) M3:			
VETE2093-1		Companion animals (including 62h ambulatory clinics)	524	13	M3	
VETE2094-1		Equines (including 4h ambulatory clinics)	520	13	M3	
	VETE2095-1	Production animals (including 160h ambulatory clinics)	520	13	M3	
<b>Other (specify)</b>		/				

\* Pool all clinical disciplines (internal medicine, surgery, anaesthesiology, reproduction, intensive care, etc.).

\*\* Elective until 2017-2018, including all species from 2018-2019.

**Table 3.1.6. Optional courses proposed to students (not compulsory)**

Some courses cannot be taken up in the curriculum but can be attended freely by students (see [Annex 3.7.](#)).

These courses may not replace any other course in the curriculum and students may therefore only attend them in addition to their curriculum.

Animal breeding and production follow up activities are offered to students at the experimental farm: gestation follow-up, calf follow-up, lambing, feeding and care of small farm animals, follow-up of animals at the farm (see [Annex 3.8.](#)).

### 3.2. Comments

The FMV is aware of the excessive number of theoretical hours students have to attend. Therefore, the FMV created a new work group for the modification of the curriculum (reform of the programme committee) in 2017-2018. This group is composed of teachers, students and external stakeholders. The reform that will be submitted has to take into account four objectives that were validated during the CF meeting of 19<sup>th</sup> December 2018. The objectives are: (1) to ensure the acquisition and retention of essential concepts, (2) to stimulate the desire to learn with a critical thinking, (3) to develop self-learning skills, and (4) to develop relational and communication skills. The means to achieve these objectives were discussed during the pedagogical day of 31<sup>st</sup> January 2019.

Moreover, the FMV agrees students spend too few hours in clinical and practical activities and that teaching of soft skills should be reinforced. The excess of students largely accounts for that situation. Collaborations with several animal protection societies and foundations, and external farms visits have been set up to allow students to practice basic skills.

The FMV will continue to promote integrated courses and encourage students to play an active role in their training.

A new companion animal clinic is under construction and will be ready by April 2019. A skills lab is also under construction to help students developing practical skills before practising on live animals. The FMV also sets up regular and official collaborations with the FEPEX for production animals and small farm animal education.

Up to now, the advice of the stakeholders have been poorly taken into account regarding the annual changes of the programme. The recent creation of the EAB will help to correct this weakness.

### 3.3. Suggestions of improvement

The gradual reduction of the number of students should improve the situation and allow to use more interactive teaching methods, and promote practical and hands-on activities. Priorities will be given to improve in the UE based on integrated, critical and scientific approaches, soft skills, interfaculty and inter-university collaborations, continuous and formative evaluations and a better balance between the different means of evaluation (oral, written, continuous, and formative).

To compensate for the lack of visits to rabbit and poultry farms, the FMV will create a virtual visits for students in collaboration with the Veterinary School of Toulouse in France





## **4. Facilities and equipment**

## 4. Facilities and equipment

### 4.1. Factual information

#### 4.1.1. Description of the location and organisation of the facilities used for the veterinary curriculum

The FMV is located on the Sart Tilman site, on the south side of a wooded area of 750 ha belonging to ULiège. Seven of the eleven faculties that make up the university are located on the same site. One faculty, i.e. Agronomy, is located in Gembloux, 60 km away from Liege. The last three faculties and the central administration of ULiège are located in the centre of Liège (15 km from Sart Tilman site). Public buses ensure the connection between the centre of Liège and the Sart Tilman site. Parking for students is also available around the buildings of the FMV.

The FMV by itself occupies a total area of approximately 50 000 m<sup>2</sup> (maps available onsite). Very recently, a new companion animal clinic was built, leading to a significant increase in the capacity of animal reception and to the improvement of the teaching facilities for the AC clinical skills.

A farm (FEPEX) is also available for teaching all subjects related to animal production. It is located at less than 500 m from the main building of the Faculty.

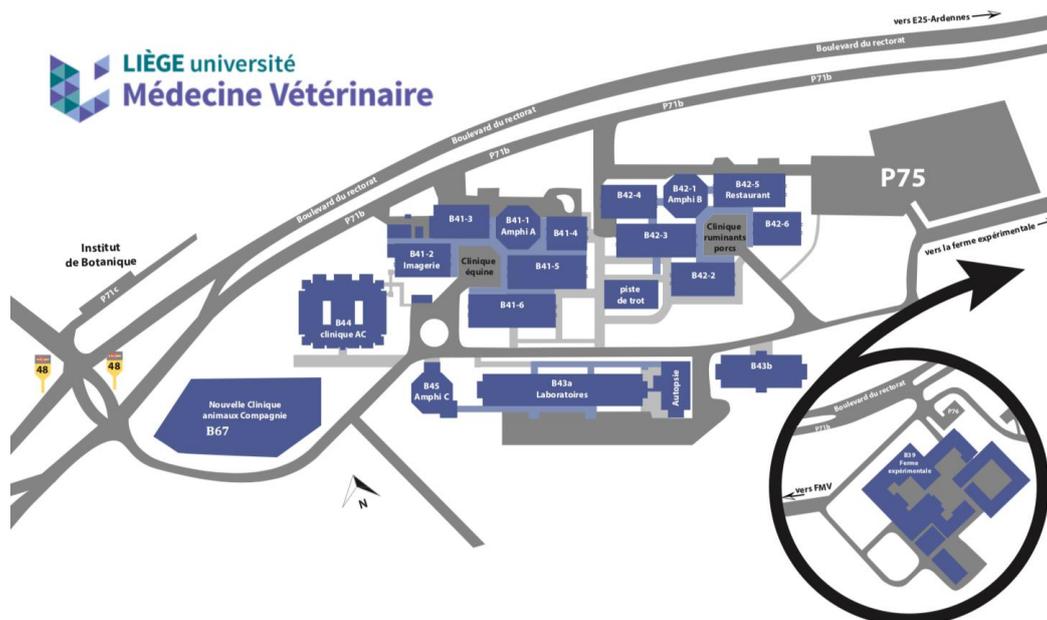
A letter and a number designate each building (B39, B40, B41, B42, B43a, B43b, B44, B67). More details about the FMV campus are given in the map below.

In the near future, other new premises will be built, namely a building connecting the B43a and B43b buildings, which will allow students going to the necropsy room to have a locker room, and which will significantly increase the space available for research and diagnostic laboratories (see [Annex 4.1](#) for an external view of the building). The Bureau Architecture Engineering SA (BAEV) made the building renderings and the maps (available onsite).

The relocation of the small animal clinic has freed up space in building B44 that will be transformed into research laboratories (1<sup>st</sup> floor) in the future. Four teaching laboratories will also be created at the ground level, where practical activities related to microbiology (bacteriology, virology, parasitology and food microbiology) will take place.

Access to premises is indicated by coloured floor lines: green - free access, no restriction; yellow - some restrictions, with regard to biosecurity (wearing specific protective equipment, etc.); red - explicit authorisation of the supervisors is required (e.g. access to the surgery room).

The necropsy clinic anteroom is housed in a temporary cabin, but the new facility should be available in a near future.



**4.1.2. Description of the premises for :**-) lecturing (3 568 m<sup>2</sup>).

	Building	Room	m <sup>2</sup>	Places	Notes/Equipment
Auditorium (FMV)	B41	Amphi A	167,5	160	sound + work + podcast + PRM access
	B42	Amphi B	193	160	sound + work + podcast + PRM access
	B43	Amphi D	158,7	140	PRM access
	B45	Amphi C	189	200	sound + podcast + PRM access
	B45	Salle polyvalente	245	80	PRM access
Auditorium (Non FMV)	B7a	300	251	300	sound + podcast + PC + PRM access
	B7a	303	251	300	sound + podcast + PC + PRM access
	B7a	500	398	500	sound + podcast + PC + PRM access
	B4	304	320	295	sound + podcast + PRM access
	B4	604	620	585	sound + podcast + PRM access
	B31	De Méan	407	400	sound + podcast + PRM access
	B31	Durkheim	302	250	sound + podcast + PRM access
Total	12		3502,2	3370	

All amphitheatres are equipped with an internet connection (Wi-Fi) and a data projector. The premises outside the FMV are 3 km away. Students must travel by their own car or by bus.

-) group work (773 m<sup>2</sup>)

Building	Number of rooms	Surface (m <sup>2</sup> )	Places	Equipment
B39, B41, B42, & B43	18	Total: 713 (between 23 & 93 m <sup>2</sup> with average 40)	Total: 415 (between 10 & 50 with average 22)	Wi-Fi + Projector

Details of these premises are given in the [Annex 4.2](#).

-) practical work (all the surfaces are dedicated to practical work, mainly for bachelor students, but also for the preclinical training of master students)

	Building	Room	m <sup>2</sup>	Places	Notes/Equipment
Practice rooms	B41	-1/12	79,8	30	Basic surgery/obstetrical procedures
	B41	-1/14	79,8	30	Basic surgery/obstetrical procedures
	B41	-1/26	51,0	30	Basic surgery/obstetrical procedures
	B41	-1/28	51,0	30	Basic surgery/obstetrical procedures
	B41	0/54	30,3	15	Reading room radiology
	B41	1/65a	157,0	60	Histology, embryology & anatomo-pathology (1 Microscope + 1 PC per seat) + 6 TV screens
	B42	0/12	30,0	16	Physiology
	B43	2/18	90,9	50	Bacteriology
	B43	2/68	90,9	60	Histology& parasitology (60 microscopes)
	B43	-1/23b	84,6	28	Virology (laminar flow cabinet+ inverted microscopes) and microbiology and food chemistry
Computer rooms	B41	-1/34b	51,8	20	1 PC per seat
	B41	1/82	59,4	16	1 PC per seat
	B42	1/50	232,6	74	1 PC per seat
	B43	3/45	46,2	40	20 PC
	B43	-1/27	45,0	40	1 PC per seat
Laboratories	B43	3/77	45,3	12	Parasitology (5 microscopes)
Anatomy rooms	B43	1/7	90,6	30	Osteology room
	B43	1/74	90,6	50	Dissection room
	B43	1/76	44,7	40	Preparation room
	B43	1/68	90,6	50	Dissection room
	B43	1/13	75,1	20	Exhibition hall
Didactic rooms	B67	0/47a	25	16	Didactic consultations
	B67	0/47b	25	16	Didactic consultations
	B67	0/25b	16	4	Debriefing room (standing places)
	B67	061	30	14	Round room#
	B67	081	30	14	Round room#
Total	26		1743,2	823	

#: both rooms will be equipped with a real-time viewing system of the operating procedures

#### 4.1.3. Description of the premises for housing:

-) *healthy animals (for practical work in bachelor and preclinical training in master, on the site of the FMV)*

Species	Number of animals	Number of rooms	Surface (m <sup>2</sup> )	Notes
Dogs	25-32	8	93	Kennel B44, F -1
Equine	12	12	208	B42, F 0
Pigs	35 - 45	7	212	B42, F 0

→ Details are given in the [Annex 4.3](#).

-) *healthy animals (for practical work in the Bachelor's, preclinical training and clinical training in the Master's on the site of the teaching farm)*

Historically (35 years ago), the farm (FEPEX) was used as a research centre to study farm animals (mainly dairy and beef cattle, as well as pigs). In the meantime, other research centres have been set up in the farm buildings to perform scientific studies on fishes, cats, dogs, alpacas, chickens, rabbits, insects and bees.

More recently, the farm has been opened to students, especially to learn all subjects related to animal production, food quality control, and well-being. Pedagogic cows and sheep are housed in the farm. During the summer time, they are released to pasture.

Species	Number of animals	Number of rooms	Surface (m <sup>2</sup> )	Notes
Dairy cattle	99	1	906	B39 - 0/80
Beef cattle	41	2	792	B39 – 0/60
Cows (didactic)	12	1	476	B39, 0/40
Sheep (didactic)	12	2	60	B39, F 0
Chickens	120*	1	76	B39 – 0/164
Rabbits	30*	1	124 (with other animals)	B39 – 0/100
Pigeons	30*	--	10	B39
Guinea pigs	30*	1	124 (with other animals)	B39 – 0/100

\*The number of animals housed in these premises may vary with the period of the year and the teaching activities.

-) *hospitalised animals*

Species	Number of animals	Number of rooms	Surface (m <sup>2</sup> )	Notes
Dogs and cats	41	9	200	B67, F 0
Equines	31	27	482	B41, F 0*
Ruminants	10	4	200	B42, F 0
Calves and small ruminants	12	2	62	B42, F 0
Exotic animals	4	1	12	B67, F 0
Birds	6	1	12	B67, F 0
Reptiles	6	1	12	B67, F 0

\*Including 24 (adult) horse boxes, 2 foaling stalls, 1 intensive care stall (padded) and 4 pony/foal stalls.

→ Details are given in the [Annex 4.3](#).

-) *isolated animals*

Species	Number of animals	Number of rooms	Surface (m <sup>2</sup> )	Notes
Dogs and cats	4	1	37	B67, F 0
Equines/bovines c14*	2	2	30	B41, F 0
Equines c13**	6	6	90	
Ruminants c13**	4	4	58	B42, F 0

Four classes of biological risks are defined for patient management in the clinics: class 1 = non-infectious disease; class 2 = infectious disease with a low or non-existent risk of transmission; class 3 = infectious disease with a moderate risk of transmission (e.g. viral respiratory disease in horses or leptospirosis in dogs); class 4 = infectious disease with a significant risk of transmission (e.g. strangles in horses or parvovirus in dogs). Cattle suffering from very contagious diseases are, when possible, not moved from their farm and are treated by the ambulatory clinics.

→ Details are given in the [Annex 4.3](#).

#### 4.1.4. Description of the premises for:

-) clinical activities (see equipment in point 4.1.7)

Activities	Species	Number of rooms	Surface (m <sup>2</sup> )	Location
Consultations	Equine	1	124	B41 – 0/109a
	Bovine	1	163	B42 – 0/23
	AC	15	200	B67, F 0
Surgery	Equine	2	124	B41 – 0/101 & 103b
	Bovine	4	104	B42 - 0/18a, 21 & 24ab. B39 - 0/32
	AC	5	150	B67 – 0/147b, 147a, 144, 84a & 84b
Dentistry	Equine	1	30	B41 – 0/92
	AC	1	12	B67 – 0/103
Ophthalmology	Equine	1	30	B41 – 0/92
	AC	1	16	B67 – 0/22
Surgeons Asepsis	Equine	1	15	B41 – 0/106a
	Bovine	1	15	B42 – 0/22
	AC	1	20	B67 – 0/145
Sterilisation	Equine	2	23	B41 – 0/106a & 106b
	AC	1	53	B67 – 0/128
Intensive care	AC	2	67	B67 – 0/130 & 110
Treatment room	Equine	1	124	B41 – 0/109a
	Bovine	1	163	B42 – 0/23
	AC	3	30	B67 - 0/23, 48a & 48b
Chemotherapy	AC	1	16	B67 – 0/122a
Physiotherapy	AC	1	25	B67 – 0/7
Preparation rooms	AC	1	70	B67 – 0/105
Recovery rooms	Equine	4	60	B41 – 0/86a, 86b, 88a & 88b
	AC	1	15	B67 – 0/125
Covered riding arena	Equine	1	250	B42
Forge	Equine	1	30	B41 – 0/109b
Sport medicine centre	Equine & AC	1	60	B42 – 0/28b

→ Details are given in the [Annex 4.4](#).

## -) diagnostic services including necropsy

	Room	Surface	EQ	BV	AC	
<b>IMAGING</b>	Ultrasound	B41/2/0/12a	20,6	X	X	
		B67/0/113	20			X
		B67/0/134c	16			X
	Angiography	B67/0/143	25			X
	CT Scan	B67/0/152	58,7	X		X
	X rays	B41/2/0/28	61,7	X	X	
		B67/0/134b	16			X
		B67/0/114	24			X
	MRI	Container	15	X		
		B67/0/112	50			X
	Reading rooms	B67/0/132	19			X
B67/0/134a		25,0			X	
B41/2/0/14b		19,2	X	X		
<b>Total</b>		<b>14</b>	<b>380,2</b>	<b>5</b>	<b>3</b>	<b>10</b>
<b>Other Clinical Diagnosis</b>	Endoscopy	B41/4/0/53	30,3	X		
		B42/2/0/14	30,3	X		
		B67/0/83	30			X
	Echo-cardiography	B41/4/0/61	46,0	X		
		B67/0/25a	16			X
	Obstetrics	B41/4/0/63	46,0	X		
		B67/0/24b	16			X
	Treadmill	B42/2/0/28b	59,5	X		X
	Dermatology	B67/0/24a	16			X
	Neurology/urodynamics	B67/0/85	16			X
	Blood sampling & bank	B67/0/42a	12			X
	Necropsy room	B43a/4/1/36a	179,6	X	X	X
	Pathology	B43a/3/2/27	45,3	X	X	X
		B43a/3/2/51a	12,5	X	X	X
		B43a/3/2/51b	9,1	X	X	X
		B43a/3/2/53	45,3	X	X	X
	Parasitology	B43a/1/2/3	45,3	X	X	X
	Clinical pathology	B42/6/1/95	42,7		X	
		B41/6/0/95	30,5	X		
		B42/6/0/95	42,7		X	
B67/0/41a		20,0			X	
B67/0/41b		20,0			X	
Microscopy	B67/0/21	20,0			X	
<b>Total</b>		<b>23</b>	<b>831,1</b>	<b>12</b>	<b>8</b>	<b>16</b>

## -) FSQ &amp; VPH

Agreements exist with several slaughterhouses (cattle, pigs and chickens) near to Liège to provide training facilities to students. The details of these activities are given in Chapter 3.

-) slaughterhouse for cattle, Droixhe (15 km from the FMV): 400 to 500 animals / week

-) slaughterhouse for pigs, Aubel (46 km from the FMV): +/- 12,000 pigs / week

-) slaughterhouse for chicken, Maasmechelen (+/- 65 km from the FMV): 1,000,000 chickens / week

The students have also access to two meat cutting facilities (beef and pork) located at Droixhe (15 km from the FMV).

Practical activities also include hygiene controls of the different catering facilities of the university in one instance, and herd examination at the teaching farm in another instance.

Lastly, an experimental unit for meat processing is available at the FMV and is used for both teaching and research activities.

## -) others

A skills lab is currently under construction; the official inauguration should take place in September 2019. To ensure safety regarding the use of drugs, several decentralised stockrooms have been set in the FMV in accordance with the current legislation.

**4.1.5. Description of the premises for:**

## -) study and self-learning

Students may work in the libraries of the FMV as well as of the other faculties of ULiège. At the FMV, two sites are available: at the B41 (1/80) and B42 (1/105) with an area of 150 m<sup>2</sup>.

During the exam preparation period, students have also access to the auditoriums of the FMV (Amphi A, B and C, polyvalent room), which remain open for them.

## -) catering

There is a restaurant on the site of the FMV with an area of 445 m<sup>2</sup> and 380 places. Prices for students and staff are minimal since they are subsidised by the social budget of ULiège. Other restaurants and cafeterias are also available for students, in other places of the ULiège campus.

## -) locker rooms

Two changing rooms (one for men and one for women) are available in the new clinic (B67) (30 m<sup>2</sup> each).

For the other clinics, lockers are available at the entry of auditoriums A&B, of the necropsy room and the anatomy rooms.

An anteroom for students who attend the necropsy room will soon be available in the future building connecting B43a and B43b.

## -) accommodation for on call students

A total of 42 rooms are available in the FMV. Six of them, with multiple beds, are intended for the on call undergraduate students; the others are dedicated to the interns. These rooms are located near (or within) each clinic. Kitchenettes (n=10) and showers (n=20) are also provided.

## -) leisure

There is a large recreation room for students (255 m<sup>2</sup>); 21 small rooms to rest and eat (about 15 m<sup>2</sup>) are available, namely for the students in the clinics.

Benches and tables have recently been installed on the lawns.

A multisport centre and a swimming pool are located near the FMV (500 m). Fees for affiliation are very low for both students and ULiège staff (See [Annex 4.5.](#)).

## -) others

Detailed maps at the entry of each building give information on the evacuation strategy, of the position of fire extinguishers, defibrillators, emergency exits.

Sustainable development, waste management and respect of the environment are managed at the university level.

A secure room is available to allow students and staff to park their bicycles.

**4.1.6. Description of the vehicles used for:**

## -) students transportation

Vehicles	Number	Places
Ford Transit	3	9
Mercedes Vito	1	9
Volkswagen Caddy	1	5
Opel Combo	1	5

## -) ambulatory clinics

Vehicle	Number	Places
Volkswagen Crafter (equipped with a laboratory)	1	7

## -) live animals transportation

Vehicle	Number	Places
Toyota Land Cruiser + bovines trailer & pigs trailer	1	5

## -) cadavers transportation

Vehicle	Number	Places
Volvo: refrigerated truck	1	
Telescopic tractor*	1	

\* Serving only on the site of the Faculty: dead horses and cattle from the clinics are transported in a perfectly sealed container that is systematically cleaned and disinfected after use.

**4.1.7. Description of the equipment used for**

## -) teaching purposes

Theoretical teaching and seminar:

See the equipment description in point 4.1.2, table related to practical work. In summary, the whole FMV site has Wi-Fi internet connection, the amphitheatres are equipped with data projectors and sound material, most of them offer the opportunity to record the lectures for podcast; the majority of the seminar rooms are equipped with projectors, some of them with a computer. In the AC clinic, surgical rooms are equipped with intra-operative cameras, allowing students to view the surgical procedure in real time in the rounds rooms.

Laboratory

Most of the laboratories are equipped with the basic material required to perform practical works: microscopes, centrifuges, incubators, laminar flow hood with, when required (virology practicals, e.g.), biosafety compliance (See practical work in 4.1.2.).

## -) clinical services

The clinics are well equipped with standard equipment for routine examination and surgery, as commonly performed in general practice, along with state-of-the-art imaging, laparoscopy, arthroscopy, and endoscopy equipment. This equipment is routinely used for teaching as the students participate to all surgical and diagnostic procedures. Only specialised equipment mainly used in clinics and for clinical education is given in this table. The equipment exclusively used for research purpose is not listed.

Area	Service	Basic Equipment	Specialised equipment
Small animals	Internal medicine	V	Endoscopy, treadmill, material for physiotherapy (swimming pool), EMG.
	Surgery	V	Coelioscopy, arthroscopy, C-arm, diode laser, operating microscope, material for osteosynthesis and ophthalmology, dentistry, urodynamics
	Exotic animals	V	Exotic animals monitoring, pulse oximetry, respiratory and heart rate, temperature. 1 anaesthesia machine
Bovine	Internal medicine	V	Cow lifting net, EPOC + endoscopy
	Surgery	V	Hydraulic tilt table right/left standing surgical equipment, vertical cattle crush
	Ambulatory	V	Mobile vertical cattle crush WOPA SA0051, portable ultrasound, microscope, eko milk scan, EPOC
Equine	Internal medicine	V	Echocardiography, electrocardiography, gastroscopy, video endoscope, dynamic endoscope, electrical teeth grater, horse dummy for sperm collection, material for farrier, treadmill
	Surgery	V	Hydraulic tables, arthroscopy, shockwave therapy, electrochemotherapy material, laparoscopic set up, material for osteosynthesis and ophthalmology
Transversal services	Anaesthesiology	V	8 mobile and 7 wall mounted anaesthesia workstations (for small animals) + 3 anaesthesia machines for equine & bovine. 22 standards monitoring (ECG, blood pressure, capnography, ...). Multiple administration of anaesthetic (syringe driver, infusion pumps, ...)
	Diagnostic imaging	V	X-Ray apparatus (3), portable X-ray generator, potter-bucky diaphragm (2), ultrasound scans (10), angiography, MRI (equine standing 0.27T), MRI (companion animals 1.5T), sliding gantry CT scan (64 slices) for companion animals and standing horses.

#### 4.1.8. Description of the strategy and programme for maintaining and upgrading the current facilities and equipment and/or acquiring new ones.

**Premises.** One member of the technical staff is entirely devoted to the continuous control of the FMV facilities. When problems are detected, it is submitted to the ARI who asks an external company to solve the identified problems and who also pays for it. Works involving consequent expenses are subject to public submission. The university is fully responsible for real estate costs related to teaching and partially for those related to research.

**Equipment.** The equipment necessary for teaching at the FMV is partly paid by ULiège and partly paid by the clinical activity. Every year teaching grants are allotted to the departments to buy some teaching material; the members of the departments freely decide what to buy (see Chapter 2 for details).

On the other hand, the CVU re-invests part of its benefit in new equipment. For expensive investments, the university can pre-finance the purchase (MRI, CT scan).

Since 2017-2018, FEPEX has been a support structure for the FMV and must follow the same rules.

#### 4.1.9. Description of how and by who changes in facilities, equipment and biosecurity procedures are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The procedures referring to financial aspects are described in Chapter 2. Only the internal management procedures at the FMV level are described here (see also point 4.1.8).

**Premises.** The real estate needs are stated by the users (staff and students) or by the BD. After approval by the university, the latter assigns a working group to develop a project which, according to its objective, is discussed in CPFE and / or CPFR and then validated (or not) by the CF. Implementation is the responsibility of the ARI in consultation with a user group designated by the BD. All staff members and students are informed via a specific point on the agenda of each CF.

**Material and operating cost.** Besides real estate investments, the university has a centralised budget for teaching equipment (classroom equipment, computing, eLearning) and decentralised budgets to finance specific needs of faculties (e.g. Personal protective Equipment). The BD and the departments decide on the attribution of the educational budget of the FMV. Specific budgets are also available for research equipment (FNRS, special university funds for research, external research agreements) and are allocated according to specific procedures. Within the CVU, the equipment needs are listed by the clinical services, discussed in the concerned pole(s) then decided by the CVU management board.

For FEPEX, self-financed equipment is decided by a specific management board. As of 2017-2018, the management board has to inform the FMV when there is a need for equipment whose value exceeds its capacity of self-financing, to possibly relay the request to the university via the CEB.

## 4.2. Comments

The FMV is located on a nice wooded hill, but at a distance of 15 km from the city centre, leading to rather low supply in first-line cases in companion animals. Moreover, this also induces some challenges related to campus accessibility. There is limited availability to students housing on the Sart Tilman site. Most students must travel by bus (time-consuming), by car (pollution, traffic jams, parking problems), or by bike (up to now, difficult because of hill climbing and a lack of bike roads).

The FMV's auditoriums are too small to accommodate our Master's students (because of an excess of students). Therefore, some courses must be given elsewhere on the campus.

The FMV's premises are 40 years old and as a consequence ULiège and the ARI are facing major problems in terms of their day-to-day maintenance and time-related deterioration. New premises for the companion animal clinic have just been inaugurated but the upgrading of the premises dedicated to the horses and ruminants, as well as to practical works and research have fallen behind and their overall funding is not assured.

FEPEX's new management approach, i.e. self-financing on its operating costs, while supporting the teaching of livestock medicine for the FMV, does not guarantee real estate investments of renewal agricultural equipment.

### 4.3. Suggestions of improvement

A multi-year plan for the rehabilitation of the FMV's premises should be quickly put in place. The FMV and the ARI should implement more proactive and efficient day-to-day maintenance of buildings and surroundings within a reasonable period.

Biosafety in teaching labs involving the manipulation of pathogenic microorganisms or parasites should be improved. The planned development of a dedicated area in the FMV should be implemented (project in B44).

The redeployment of FEPEX as a support for teaching and research should be a priority for the university; this should involve investments in its infrastructure and equipment.



## **5. Animal resources and teaching material of animal origin**

## 5. Animal resources and teaching material of animal origin

### 5.1. Factual information

#### 5.1.1. Description of the global strategy of the Establishment about the use of animals and material of animal origin for the acquisition by each student of Day One Competences

The Faculty has developed an educational programme aiming at offering optimal hands-on pre-clinical and clinical training to the students.

Considering (1) the recommendation of the European directive on the protection of animals (2010/63 / EU) with the 3Rs rule (replacement, reduction and refinement), and (2) the general tendency of the population to pay attention to respect welfare of animals, preclinical work on cadavers, anatomical pieces and mannequin's (technical laboratory) have been increasingly favoured during the last years.

Moreover, considering the high number of students in the Master's classes, pre-clinical trainings performed on "educational animals", on cadavers, and at the teaching farm are now organised. To increase the number of patients presented at the clinics, the clinical services are now available 365 days a year. Lastly, ambulatory clinics have been organised for all species, and agreement with external facilities such as animal shelters, "animal sanctuaries" and "social clinics" have been signed.

Therefore, the high number of patients treated in the VTH and during ambulatory activities is sufficient to meet training needs for companion animals, including exotic animals, and horses.

The context is rather different for cattle and totally different for pigs and poultry. For cattle, and in order to have a sufficient number of cases, some of the animals are transported from the farms around Liège to the VTH by the FMV itself. The teaching farm provides additional first-line cases (about 160 cattle are held at the teaching farm, including Holstein cattle and Belgian blue cattle and about 80 calves are born every single year).

Ambulatory clinics allow students to see first-line cases and to visit ruminant farms and pig farms (currently no longer allowed because of the African Swine Fever outbreak). For poultry farms, only virtual tours are offered to students.

Last but not least, the students must perform a twelve-week external practical training (EPT).

#### I: Preclinical activities

-) ON LIVE ANIMALS

The FMV has so-called "educational animals" exclusively devoted to pre-clinical training. For each species, an academic is responsible and monitors the use and the welfare of these animals. (See details in 5.1.10) Moreover, all hands-on activities performed on these animals must be approved by the Ethic Committee of the university. Lastly, the animals and facilities are controlled quarterly by a devoted "Animal Welfare Advisor".

Horses: ten, academic in charge Tania Art

Dogs: 25, academic in charge Stefan Deleuze

Cows: twelve, academic in charge Ludovic Martinelle

Sheep: twelve, academic in charge Stefan Deleuze

Farmyard animals: guinea pigs, rabbits, pigeons, poultry, academic in charge Jean-François Cabaraux

Pigs: 40-80 (depending on piglets), academic in charge Martine Laitat

Preclinical training starts in BAC2 and BAC3. Practical works in physiology are in great part conducted on educational animals; some activities are organised at the farm on a voluntary basis. Students of BAC1, BAC2 and BAC3 may participate in feeding and breeding of different farmyard animals (sheep, poultry, guinea pigs, rabbits, calves).

A 15-day externship in an animal-related infrastructure is compulsory in BAC2 (*Stage d'Immersion en Milieu Animalier*, SIMA).

M1 and M2 students are trained using educational animals, to acquire clinical skills such as animal restraint, general physical examination and system specific examination in all species (respiratory system, cardiovascular system, digestive system, orthopaedics, transrectal palpation, reproduction, neurology, biosecurity ...).

Recently, the FMV received a grant from the university to create a skills lab. The official inauguration of this laboratory is scheduled to take place in September 2019.

-) ON CADAVERS

**Anatomy** (VETE0464-1, VETE0465-1, VETE0002-2)

**Pre-clinical activities.** Anatomic pieces such as equine and cattle heads, legs, uteri (VETE2091-1) are used to teach dentistry, hoofing, palpation... Dog cadavers are used to train basic surgical skills such as sutures and basic surgical procedures. This academic year, certain pre-clinical activities have already started in the skills lab, despite still being in construction.

## II: Clinical activities

All animals admitted at the VTH are used for teaching. Practical activities are performed primarily by M3 students, although M2 students also perform consultations, general examinations, attend during complementary examinations or therapeutic procedures and monitor and administer treatments to patients (and this even more during “exam and holiday clinics” after the June exams).

In order to maximize the number of cases presented to the VTH, clinical activities are maintained 365 days a year, 24h a day resulting in a steady increase in the number of animals admitted to (companion animals, horses and cattle) clinics from 15,578 cases in 2015 to 16,684 cases in 2017 (see CVU report).

To offer the possibility for M2 and M3 students to practice, several activities are organised at the experimental farm, and in ambulatory clinics: for horses at the *Ferme des Amis des Chevaux et des Bovins du Marais* (VETE2084-1; VETE2094-1); for livestock (cattle, small ruminants VETE2085-1, VETE2095-1); for companion animals: in sanctuaries and shelters (Fondation Prince Laurent and four Societies for Animal protection (SPA) (Cointes, Saint-Trond, Verviers and Charleroi; VETE2093-1).

**Necropsy.** All animals arriving at the necropsy are dissected by M3 and M2 students.

**Slaughterhouse inspection.** (VETE2089-1) The FMV collaborates with external slaughterhouses to perform expertise activities, supervised by official inspectors and trained teachers whom are paid by the university.

**5.1.2. Description of the specific strategy of the Establishment in order to ensure that each student receives the relevant core clinical training before graduation, e.g. numbers of patients examined/treated by each student, balance between species, balance between clinical disciplines, balance between first opinion and referral cases, balance between acute and chronic cases, balance between consultations (one-day clinic) and hospitalisations, balance between individual medicine and population medicine**

- ⇒ The clinical activities increase in number of hours and in practical activities during the study.
  - In M1, there are no clinical activities in the official programme. This is compensated by a well-developed programme of preclinical training. Students of M1 students are nevertheless authorised to attend clinical activities voluntarily
  - Students in M2 have morning clinical activities and preclinical cadavers wetlabs
  - Students in M3 don't have any more theoretical courses and spend an entire year in clinics and external practical training. Clinical activities are tracked by species, except for diagnosis imaging and necropsy. However, last year, the programme was adapted according to the AEEEV recommendations. Therefore clinical activities during the exams period and holidays are no longer tracked by species.
- ⇒ Number of patients examined and treated. Table 5.1.3 gives the number of animals in each species. The total case-load between animals admitted at the VTH and those seen in ambulatory clinics is sufficient for adequate clinical training of students.
- ⇒ The balance between species is related to the number of weeks of rotation spent in the different clinics which is distributed as follows
  - *Companion animals (including exotic animals)*  
In M2: six weeks  
In M3: four weeks (holidays and examination) +thirteen weeks or 0 (optional)
  - *Horses*  
In M2: three weeks  
In M3: one week (holidays and examination) +thirteen weeks or 0 (optional)

- *Production animals*  
M2: four weeks (three weeks for ruminants + one week for pigs)  
M3: one week (holidays and examination) + thirteen weeks or 0 (optional)
  - *Necropsy : all species*  
M2: two weeks  
M3: one week
  - *Imaging : all species*  
M2: one week  
M3: one week
- ⇒ Balance between clinical disciplines.  
All disciplines are covered in each clinic and students change regularly from one discipline to the other (table 3.1.3)  
At the end of their clinical rotation in M3, students are asked to prepare a case-log with one to three cases described in depth as well as ten to fifteen cases from different disciplines, which they have personally seen and treated. They are orally evaluated on their knowledge regarding these cases, for at least half an hour, by no less than two academics with different competencies.
- ⇒ The balance between first opinion and referral cases is different depending on the species
- ⇒ The referred cases represent 80% of the companion animals, 90% of the horses and 100% of the ruminants.  
Ambulatory clinics and teaching activities at the experimental farm (on a total of 160 cows) have been set up to increase the number of first line and general consultations in all species. These activities are organised as recommended by the experts of the AEEEV after the 2009 visit (see CVU report). When adding the activities of VTH and ambulatory clinics, the percentage of first line cases increases: 38% for AC and 50% for ruminants.
- ⇒ Balance between acute and chronic cases  
In companion animals, 72% of the patients are admitted during the day for basic or specialised consultation. Twelve percent of the patients are admitted in emergency during the day and 16% during the night.  
In horses, 65% of the subjects come for one-day consultations, 35 % for emergency, from which 26% during the night.  
In ruminants, there are 24% of emergencies, from which 15% during the night.  
The number of emergencies admitted to the VTH is rather high, giving our students the opportunity to manage acute problems in all species.
- ⇒ The balance between one-day consultations and hospitalisation is different depending on the species : one-day consultations represent the main activity in companion animals (77% vs 23% ; with a ratio of 82% vs 18% for the NAC) ; while in horses and production animals the trends is to have more hospitalisation than consultations (for horses and ruminants, one-day consultations represent 47% and 33% respectively)
- ⇒ Balance between individual and population medicine  
This balance is around 50%-50% in production animals (when summarising the internal and external activities) and 1%-99% in pigs and poultry.

### 5.1.3. Description of the organisation and management of the teaching farm and the involvement of students in its running

Students may be involved in on-farm activities right from the BAC but this is currently done on a voluntary basis. Some animal judging, physiology and nutrition practical works are organised in BAC.

M3 students enrolled in the large animal track as their primary area of interest have to spend a whole week on the farm to participate in animal care, pregnancy monitoring, milk production and calving supervision. In the pig farm, they participate in animal care of the 7-week batch system: oestrus detection, artificial insemination, monitoring of births, etc.

Master's students also visit the educational farm in the context of herd management training and control the food chain (see [Annex 3.8.](#)).

A new project of managing the teaching farm as an actual “Student Run farm” is underway, under the supervision of a team of teachers and academics.

#### **5.1.4. Description of the organisation and management of the VTH and ambulatory clinics**

##### **5.1.4.a VTH**

The hospital is open for emergencies and intensive care all year long, 24 hours a day. Appointments are scheduled between 8:00 am and 5:00 pm on weekdays. Clients may call the clinic by phone, with a separate number per pole.

Out-of-hour services are ensured by assistants, residents, interns, and M2 and M3 students in companion animals; by assistants, residents, interns and M2- M3 students in horses; by interns and M3 students in production animals.

#### **Specialised consultations in AC**

- Anaesthesiology
- Cardiology
- General surgery
- Endoscopic surgery
- Oncology (surgery)
- Orthopaedic surgery
- Thoracic surgery
- Behaviour
- Dentistry
- Dermatology
- Gastroenterology
- Medicine
- Neurology
- Nutrition
- Theriogenology
- Exotic
- Oncology (chemotherapy)
- Ophthalmology
- Rhino-laryngo-pneumology
- Intensive care/hospitalisation/emergency
- Uro-nephrology

#### **Specialised consultations in horses**

- Internal medicine (cardiology/pneumology/dermatology/urology/oncology/neurology/digestive)
- Reproduction (pathology/ insemination/sperm collection)
- Sports medicine
- Ophthalmology
- Surgery
- Musculoskeletal system
- Intensive Care
- Foal care

#### **Specialised consultations in production animals**

- Day clinic for referral of ruminant medical and surgical pathology cases
- Hospitalisation of ruminants and intensive care
- Referral ambulatory clinic and field laboratory
- Herd health and production management
- Reproduction and mastitis
- Lameness

#### **Specialised service in diagnostic imaging**

- Radiological examination
- Ultrasound examination
- Fluoroscopy examination
- Scan examination
- Reading for practitioners
- Equine standing MRI examination

## Necropsy

**Companion animals:** Every day, each M3 student is responsible for at least one necropsy. Production and companion animals are all autopsied by students during their clinical rotation, under the supervision of academic pathologists (among which one is Diplome of ECVCP). Students are also in charge to write a report after discussion with the supervisor.

**Exotic animals** are necropsied by students during their clinical rotation in companion animal clinics (VETE 2086-1).

**Wildlife animals** are autopsied at the FMV, by students belonging to a student association bringing together those who are particularly interested in wildlife (YABOUMBA) and supervised by a professor specialising in this subject. A permanent centre for Wildlife Health Surveillance Network was created by the Walloon Region and is based in the Faculty. Part of the autopsies take place in the field: M3 students doing their internship in this centre participate to these activities.

The students who are involved in necropsy of **marine mammals** are members of an association of students particularly interested in marine animals (CETOCLUB). This activity is under the supervision of Diplome of the ECZM. Autopsies take place either at FMV or in the field, either when autopsies are done abroad or when it is impossible to transport the cadaver to Liège.

### 5.1.4.b Ambulatory Clinics

**Ruminants.** Different types of external activities are organised. The ambulatory clinic responds to a demand of farmers and/or field vets to come and examine individual cases in the farm. The Faculty has a special vehicle equipped with a laboratory and the basic material (endoscope, EPOC, US ...) to perform special procedures directly on the field. This represents around 500 animals examined each year (encoded in SAP). Field visits are organised with a practitioner, which represents around 2500 cases per year. Cases are recorded day by day in an Excel file. The students must present these cases in a log-book listing the diagnoses, treatment, prognoses, etc. are debriefed and discussed at the end of the week with an academic of the ruminants clinic.

Secondly, farm visits are organised to provide advice and guidance for livestock management. Around 200 farms are visited each year. Likewise, five herds of small ruminants (300 heads each) are seen each year to assist in pregnancy diagnosis and hoof trimming (representing around 1500 animals/year). Lastly, M3 students are involved in the care and management of the teaching farm dairy and meat cattle.

The ambulatory clinics and the visits of pigs, poultry and rabbits farms are increasingly difficult to perform due to the too high number of students and reinforcement of biosecurity regulations. The situation is even more complicated with the recent outbreak of the African Swine Fever in wild boar in the south of Belgium. Therefore, projects for virtual farm visits are underway and collaborations with other European faculties are being set up. Visit to small family farms will be carried out. A project to create a breeding farm (pigeons and rabbits) has been implemented.

**Horses.** M2 and M3 students are involved in the basic care (vaccination, wound care, basic surgery, deworming, dentistry, dermatologic problems, respiratory troubles, locomotor ...) of horses gathered into a sanctuary for abused animals. This represents about 300 horses a year. There was no official recording system for these activities, but this has recently been corrected. However, because of this, external activities for horses are not displayed in the tables.

**Companion animals.** Two kinds of activities take place during the external activities in AC. Firstly, students perform different basic surgeries (mainly neutering and spaying) in animal shelters (four different sites) on dogs and cats. This represents an estimated 600 surgeries/year. Secondly, they take part in consultations and surgeries in a clinic reserved to low-income people (Fondation Prince Laurent). This activity represents around 2,250 first-line cases/year. These activities are recorded in an Excel file, not in SAP.

### 5.1.5. Description of how the cadavers and material of animal origin for training in anatomy and pathology are obtained, stored and destroyed

**Anatomy** (VETE0464-1, VETE0465-1, VETE0002-2)

Live animals are bought and euthanized (ponies and calves); in order to minimize the amount of animals, some pieces are recovered from the necropsy activity (biosecurity rules are strictly respected: pieces are from animals free of any contagious disease, generally euthanized because of accident or colic for example).

Formaldehyde fixation is no longer authorized, resulting in an accelerated turn-over of cadavers and pieces.

Feline and canine cadavers are recovered after euthanasia from animal sanctuaries (see table 5.1.1).

**Pre-clinical activities.** Anatomic pieces such as horses' head, horses' and cattle legs, cow's uteri (VETE2091-1) are bought at the slaughterhouse or recovered at necropsy. Dogs and cats are recovered in animal sanctuaries after euthanasia.

This academic year, some pre-clinical activities have already started in the skills lab, although this is still under construction.

**Necropsy.** Cadavers of companion animals are provided by practitioners and by companion animals clinics. To ensure a sufficient amount of large animals (including horses, ponies, donkeys and livestock animals), the FMV has a truck collecting cadavers throughout Wallonia.

All animals and anatomic pieces are stored in freezers. At the end of the practical work, they are stored at 4° C and are transported (every day) by a company that proceeds to the cremation according to the legislation in force.

#### **5.1.6. Description of the group size for the different types of clinical training (both intra-murally and extra-murally)**

The total number of students for a given year is divided according to the number of weeks of clinical and paraclinical rotations (26 weeks in M2), which currently results in groups of eleven to thirteen students per group in M2.

In M3, the number of students may vary from two to eight students per group (depending on the species chosen for optional clinics). These students are distributed throughout the different internal clinical activities (e.g. cardiology, anaesthesiology, nursing ...), or in the ambulatory clinics (limited to 8 students because of transport constraints). When necessary, two vehicles may be used.

For FSQ, the group size is twelve to fourteen students per group in M1; in M2, ten to twelve, five to six and ten to twelve students per group for cattle, pig and poultry abattoir, respectively, and one student per teacher (official inspector) in M3.

#### **5.1.7. Description of the hands-on involvement of students in clinical procedures in the different species, i.e. clinical examination, diagnostic tests, blood sampling, treatment, nursing and critical care, anaesthesia, routine surgery, euthanasia, necropsy, report writing, client communication, biosecurity procedures, .. (both intra-murally and extra-murally)**

All students have a course on the biosecurity procedures in BAC3. The same online document is available the four institutions organising Bachelor's education (in September 2019 for the ULB). They have to revise the clinic specific procedures the week before practical activities (clinics, teaching labs, slaughterhouse, etc.).

In M1, regular practical training through pre-clinical activities, focused on the clinical examination of the different organ systems (e.g. reproductive/digestive/respiratory/nervous/locomotor ...)

In M2: Simple tasks under the supervision of M3 students or interns or assistants: animal restraint, history taking, clinical examination, basic nursing skills (e.g. Treatment administration, feeding ...).

They perform necropsy in various species.

Real practical activities begin with the « on-call, exam and holidays clinics » (VETE2096-1, VETE2097-1, VETE2098-1) which are accessible after the end of the Q2 exam period.

M3: Daily routine practical activities including: general examination, diagnostic imaging acquisition, collection of biological samples, treatment administration, wound care, assessment of pain and anaesthesia, assistant surgeon, intensive care, euthanasia and necropsy. On some non-infectious cases, some basic procedures are performed just after euthanasia – with owner's consent – (tracheostomy, carotid ligation, cerebrospinal fluid aspiration, trans-tracheal lavage, bronchoalveolar lavage, catheterisation, urine sampling, intra-articular injections, troncular anaesthesia...)

Formal contact with the owners and the referral vets as well as telephone follow-ups are carried out by interns or academic staff rather than by the student. They are nevertheless present when the report is orally transmitted to the owner (and prepare the written report in SAP). In M2, they have an activity on "veterinary communication skills", which is conducted with actors playing the role of the owner (1 week).

#### **5.1.8. Description of the procedures used to allow the students to spend extended periods in discussion, thinking and reading to deepen their understanding of the case and its management**

For the students in the Master's programme M2 and M3, every morning, there is a clinical round with the interns, residents and academic discussing all hospitalised cases, treatment, evolution, etc.

M2 students have four weeks of case studies (clinical pathology / radiology / infectious diseases) during which they discuss clinical cases (selected by the assistants). They first analyse the cases on their own and then have a debriefing with the academic staff.

In the same year, they work in groups of five to six students to present a case in the course of pharmacology. They receive a clinical case for which they must create a therapeutic plan taking various factors (age, use, legislation on drugs, costs ...) into account, which they must present and discuss with the clinic assistants. (two weeks /year)

In M3, 56 hours are devoted to self-learning "integration of skills" (VETE2099-1) to develop their insight into their clinical cases and write a case log.

Several practical seminars are regularly organised on clinical subjects (on the basis of the cases admitted in clinic or in consultation) during the clinical activities

#### **5.1.9. Description of the patient record system and how it is used to efficiently support the teaching, research, and service programmes of the Establishment**

The university uses SAP software for supplies and financial management. The software was adapted to the specific needs of the clinic, allowing for patient registration, recording of clinical information, complementary examinations, clinical reports, patient accounting, drug tracking, necropsy reports and statistics of the clinical activities.

A specific "student" access has been created for the M2 and M3 students. This allows them to consult all the clinical cases via different ways of research: by discipline, by species, by date, by person in charge... On the other hand, they are able (and expected) to encode the history and clinical examination in the consultation and operating rooms. Whenever a student completes case information in the computer, his/her name is associated with it, allowing for traceability of cases seen and managed by each student.

Basic surgeries performed in the SPA (companion animals), and part of the animals seen during ambulatory clinics (horses and cows) are listed in an Excel sheet, not in SAP.

#### **5.1.10. Description of the procedures developed to ensure the welfare of animals used for educational and research activities**

The environment of experimental and educational animals is subject to a quarterly control performed by the well-being manager of the FMV (Prof. Marc Vandenheede) in accordance with the legislation in force.

Animals for teaching purposes (horses, dogs, pigs, and cattle herds from the farm) are also regularly monitored, both for teaching activities for which they are used and for their living conditions.

Any experimental protocol must be submitted and approved by the university ethics commission, with experiments only carried out only by recognised experimentalists and technicians holding a FELASA diploma (animal worker (category A FELASA), technician (category B FELASA), experienced master (category C FELASA)

#### **5.1.11. Description of how and by who the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised**

The number of animals for preclinical activities is communicated by the responsible of the UE to the CPFE, and the funds are given consequently. The number of animals available for the pre-clinical training is nevertheless limited because of financial restrictions, facilities constraints and availability of support staff.

The number and variety of cases are totally dependent on the cases admitted to the VHT.

**Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training**

Species		2017	2016	2015	Mean
Cattle					
	Whole animals	24	24	24	24
	limbs	72	96	128	99
Pigs		0*	4	4	3
Companion animals					
	Dogs	64	88	96	83
	Cats	16	16	0	11
Equine					
	Whole animals	16	16	16	16
	Heads	8	8	8	8
	limbs	96	96	96	96
Rabbits		4	4	4	4

\*These dissections have been replaced by demonstrations

**Table 5.1.1.bis Cadavers and material of animal origin used for preclinical training**

Species		2017	2016	2015	Mean
Cattle					
	Legs*	624	624	624	624
	Uterus**	392	392	392	392
Companion animals					
	Dogs***	198	198	198	198
Equine					
	Whole animals#	33	32	30	31
	Heads****	45	45	45	45
	Legs*	66	64	60	96

\* basic learning of farriery, foot trimming and care of feet

\*\* simulation of rectal palpation of the reproductive system

\*\*\* to learn several basic surgical methods (suture, sterilisation, ...)

\*\*\*\* basic learning of dentistry

#: non-infectious cadavers, just before necropsy, M3 students, to learn basic surgical and sampling procedures

**Table 5.1.2. Healthy live animals used for pre-clinical training**

Species	2017	2016	2015	Mean
Cattle	12	12	12	12
Small ruminants	12	0	0	4
Pigs	3	3	3	3
Companion animals	10	10	10	10
Equine	10	10	10	10
Poultry & rabbits	100	100	100	100
Guinea pigs	15	15	15	15
Others (specify)	10	10	10	10

**Table 5.1.3. Number of patients\* seen intra-murally**

Species	2017	2016	2015	Mean
Cattle	540	613	520	558
Small ruminants	66	68	59	64
Pigs	#	#	#	#
Companion animals	9794	9458	8627	9293
Equine	1533	1535	1467	1512
Backyard poultry and backyard rabbits	122	113	89	108
Pigeons	28	46	45	40
Pet birds	296	348	293	312
Reptiles	162	101	136	133
Exotic mammals pets (rabbits, rodents, ferrets, ...)	687	638	707	677
Camel	14	7	16	12
Roe deer	0	0	1	0.3
Deer	0	2	0	1

\* Each patient is officially recorded in the electronic patient record system of the FMV and is individually examined/treated by at least one student under the supervision of at least one staff member. Each living animal is counted as one single patient, even if it has been examined/treated by several departments/units/clinics.

# For biosecurity reasons, pigs are not transported to the clinics. They are examined during the extramural activities.

Companion animals: dogs & cats

Birds: part of them are exotic

**Table 5.1.4. Number of patients\* seen extra-murally**

Species	2017	2016	2015	Mean
<b>CATTLE</b>				
ambulatory cl 1 <sup>1</sup>	3650	2192	1870	2571
ambulatory cl 2 <sup>2</sup>	2997	2483	3133	2871
Teaching farm	250	250	250	250
Small ruminants	-	-	-	-
Pigs <sup>3</sup>	1560	1560	1560	1560
Companion animals	2846	3184	2991	3007
SPA <sup>4</sup>	561	596	545	
Fondation Prince Laurent <sup>5</sup>	2285	2588	2446	
Equine <sup>6</sup>	352	330	330	337
Poultry & rabbits <sup>7</sup>	-	-	-	-
Exotic animals	-	-	-	-
Others (specify)	-	-	-	-

\* Each patient is officially recorded and is individually examined/treated by at least one student under the supervision of at least one staff member. Each living animal affected by one specific clinical episode is counted as one single patient.

<sup>1</sup> ambulatory clinic under academic supervision, encoded in SAP

<sup>2</sup> ambulatory clinic with a practitioner, case-log on excel, debriefed and discussed with an academic at the end of the week

<sup>3</sup> M2 (26 visits) and M3 (78 visits) students; activity no longer allowed, since September 2018, because of the African Swine Fever outbreak

<sup>4</sup> ambulatory clinics with a practitioner, case-log on Excel, debriefed and discussed one day on two with an academic

<sup>5</sup> ambulatory clinics under academic supervision, encoded in Excel

<sup>6</sup> ambulatory clinics under academic supervision, no patient record up to now, completed from February

<sup>7</sup> Difficulties in organising visits since the 2014 outbreak of New Castle Disease

M2 and/or M3 students are involved in these external activities.

**Table 5.1.5. Percentage (%) of first opinion patients used for clinical training**

Species	2017	2016	2015	Mean
Cattle	50			50
Small ruminants	-			-
Pigs	95	95	95	95
Companion animals	38			38
Equine	10			10
Poultry & rabbits	-			-
Exotic animals	-			-
Others (specify)	-			-

**Table 5.1.6. Cadavers used in necropsy (see Annex 5.1. for detailed list)**

Species	2017	2016	2015	Mean
<b>Companion animals</b>				
Cattle	977	950	1025	984
Small ruminants	235	162	143	180
Pigs	48	29	52	43
Companion animals	575	422	426	474
Equine	235	235	236	235
<b>Exotic animals</b>				
Pigeons	25	30	25	27
Pet birds	32	33	29	31
Reptiles	15	31	24	23
Ferrets	5	4	3	4
Pet rabbits and pet rodents	37	41	22	33
<b>Poultry and meat production rabbits</b>				
Backyard and production poultry	48	74	35	52
Backyard and production rabbits	10	30	18	19
<b>Wildlife animals</b>				
Wild boars	25	27	22	25
Roe deer	31	55	44	43
Stag	38	45	46	43
Badgers	80	180	132	131
Hares	8	10	14	11
Foxes	47	44	31	41
Racoons	66	41	35	47
Wild Birds	15	18	12	15
Beavers	32	13	6	17
<b>Marine mammals</b>				
Seals	35	24	24	28
Porpoises	33	54	30	39
Other cetaceans	3	3	5	4
<b>Miscellaneous</b>				
Alpaca	4	3	7	5
Fallow deer	3	0	0	1
Reindeer	0	1	2	1

**Table 5.1.7. Number of visits in herds/flocks/units for training in Animal Production and Herd Health Management**

Species	2017	2016	2015	Mean
Cattle*	74	98	146	106
Small ruminants**	5	5	7	6
Pigs	104	104	104	104
Poultry	-	-	-	-
Rabbits	-	-	-	-
Others (specify)	-	-	-	-

\*around 30 animals per visit

\*\*around 250 animals per visit

**Table 5.1.8. Number of visits in slaughterhouses and related premises for training in FSQ**

Species	2017	2016	2015	Mean
Ruminant's slaughterhouses*	66	66	66	66
Pig's slaughterhouses**	26	26	26	26
Poultry slaughterhouses***	26	26	26	26
Related premises****	900	900	900	900
Others (specify)*****	4	4	4	4

\* Slaughterhouse of Liège (15 km from FMV) with 500 slaughtered cattle per week (30/hour)

\*\* Slaughterhouse of Aubel (44 km from FMV) with 12.000 slaughtered pigs per week (300/hour)

\*\*\* Slaughterhouse of Maasmechelen (56 km from FMV) with 1,000,000 slaughtered poultry per week (20,000/hour)

\*\*\*\* Premises for the animal production, distribution or consumption of food

\*\*\*\*\* Virtual visits of processing plants

## 5.2. Comments

In general, our biggest problem is related to the amount of students, which we hope will be improved soon. (See Chapter 7- student admission and progression)

Preclinical activities are well-developed because of this excess of student numbers, but we aim to maintain these activities even after the problem has been resolved.

The creation of the skills lab should help to learn basic preclinical procedures.

The geographical situation (out of the city) of the FMV favours the number of horses and cattle admitted at the clinics, but is less favourable for the first-line case number for companion animals.

## 5.3. Suggestions for improvement

The competitive exam at the end of BAC1 must be maintained to gradually solve the problem of the excessive student numbers.

In order to have a sufficiently high proportion of first-line cases, it is important to continue with the ambulatory clinics for companion animals and to develop the ambulatory clinics for horses.

The preclinical and clinical activities at the teaching farm should be improved and intensified.

Virtual visits for pig, poultry and rabbit farms should be offered to all students.

A redeployment of the resources allocated to the teaching farm should be necessary in order to develop it as a central training and teaching structure in the curriculum.



## 6. Learning resources

## 6. Learning resources

### 6.1. Factual information

#### 6.1.1. Description of the main library of the FMV:

The Life Sciences Library (BSV) has two physical locations: the main entity located into the University Hospital (CHU) and the other one, in the FMV at a distance of 500 meters from the CHU. This unit, located at the FMV and devoted to veterinary medicine, is what is referred to in this chapter under the title of the BSV/MV library.

The Life Sciences Library contains the library and documentation services for medicine, veterinary medicine, psychology and biology (botany and zoology). A portion of the BSV collection (all recent veterinary books) continue to be accessed at the BSV/MV Library, allowing users to access reference works (all periodicals in paper form are accessed at the CHU location), to get help from library staff, and to access materials for specific training activities with regard to research, scientific information and medical information.

Moreover each unit has a room with specialised books related to the disciplines of the service.

- **Staff (FTE) and qualifications**

BSV Library has 14.2 FTE employees (without students): 9 FTE (librarians) + 3 FTE (scientists) + 1 FTE (secretaries) + 1 FTE (staff for late openings) + 0.2 FTE (support staff from FMV) (see [Annex 6.1.](#)).

- **Opening hours and days**

The BSV is open from Monday to Saturday, from 8:30 a.m. to 9 p.m. except on Saturday and least crowded periods (two weeks in July, one week in September and one week in January, after the exams). During Christmas holidays, the BSV is open from Monday to Saturday.

The BSV/MV is open from Monday to Friday, in the morning (from 9 a.m. to 12:30 p.m.) and also Wednesday afternoon (from 12.30 p.m. to 5 p.m.). It is open only in the morning during exam period. It is closed in July and the first two weeks of August (see [Annex 6.1.](#)).

- **Annual budget**

The annual budget for all the libraries of ULiège (ULiège Library) is 4,578,000 € (2018), excluding staff salary and building maintenance. The majority of this BSV budget is used to subscribe to biomedical periodicals ( $\pm$  75%). The specific 2018 budget for BSV is presented below.

	ULiège Library 2018	CHU 2018	Expected revenues 2018
BSV	434,355 €	258,535 €	25,000 €

In 2017, the BSV/MV Library was opened during 1023 hours. The expenditure in 2017 for the purchase of veterinary paper books was for 7,316 €.

The students who allow the opening of the BSV/MV Library are paid by the FMV (2017: 200.5 working hours) and a university account (2017: 510.5 working hours).

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

	Seats	Computer space seats	Group study rooms	Net usable floor space
BSV	290	16	6	3,830 m <sup>2</sup>
BSV/MV	6	/	/	60 m <sup>2</sup>

A large number of other study and group work rooms are available at the FMV.

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

	Computers	Network outlets	Wi-Fi	Electrical outlets
BSV	16	31	Yes	32
BSV/MV		16	Yes	10

The BSV Library is equipped with 31 workstations for users connected to the internet and 32 seats with electrical outlets that allow laptops to be plugged in.

- **Number of veterinary books and periodicals**

All veterinary books (sufficiently recent to be of scientific interest) are available for consultation and loan, at the BSV/MV Library. In February 2019: n = 2,484.

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

We can consider that we have access to  $\pm 2\,300$  titles directly related to the discipline.

BSV Library subscribes, thanks to its annual budget, to 145 journals (123 of them are available electronically). These titles are among the leading periodicals delivering scholarly articles on veterinary medicine.

About 1,250 eJournals, whose content is likely to interest faculty members (academics, researchers and students), are available via consortium negotiated and paid by central accounts (ULiège Library).

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

The BSV Library gives access to a total of 84,000 periodicals and more than 500,000 eBooks.

### 6.1.2. Description of the subsidiary libraries

See above.

### 6.1.3. Description of the IT facilities and of the e-learning platform

The UDI is the IT facility of the FMV and is composed of three ETP support staff. This unit takes actions concerning FMV hardware, manages internet connections and helps staff with any issues about internet connection (Wi-Fi and VPN).

Some lectures are podcasted: three lecture theatres are equipped with cameras and microphones the teachers may use to record their lessons. Then, they can upload them for students to watch them online.

Teachers have to upload the course materials on e-Campus, the website that centralises all the material dedicated to education. On e-Campus, students can then download lessons, take tests, have access to educational contents (links to a platform with a bank of digitalised histological or histopathological slices (Cytomine) for example, see 6.1.5.), etc. The CAEM helps teachers for any issues concerning e-Campus.

Students can also use the FMV computers in the computer rooms. These computers may be used to search information in resources as Scopus and PubMed via the library interface. Such information is also available to students and staff at home via the VPN (see 6.1.5.). 60 computers are available to students in the microscopy room. They are used to look at annotate histological sections. This interface can also be used at home.

### 6.1.4. Description of the available electronic information and e-learning courses, and their role in supporting student learning and teaching in the core curriculum

Podcasted lectures are available during the academic year to students. This helps students that were absent to follow the lessons. Since the creation of the steering committee, common courses have been created with the other universities and are also available online: VETE2059-1, VETE0036-4, VETE0036-5, and VETE2087-1.

Other electronic materials are also available on e-Campus: image bank (histology and anatomopathology), virtual visits, tests, clinical cases, practical work preparation such as videos or exercises, etc. Online DICOM reader is available to train the students to radiography interpretation. Students also have access to Lify, an online sharing platform for medical imaging.

A tool was developed by the SMART to help teachers to assess open-ended questions exams: SQORE (see <http://smart.uliege.be/nos-solutions/evaluation-des-etudiants/questions-ouvertes/sqore/>).

### 6.1.5. Description of the accessibility for staff and students to electronic learning resources both on and off campus

Access to information (search and retrieval of online documents) is handled by the general service of ULiège Library network (<https://lib.uliege.be>) and by (i) the presence in the BSV/MV reading room of 28 computers connected to internet allowing access to bibliographic databases and other e-resources in health sciences and three computers especially designated for bibliographic research, (ii) general access via WIFI in all University buildings, and (iii) access to the university Intranet from any computer at any location, thanks to a VPN (*Virtual Private Network*).

### 6.1.6. Description of how the procedures for access to and use of learning resources are taught to students

Mandatory courses in veterinary medicine make students aware of information literacy and available resources, such as books, periodicals, and databases

- Introduction to information literacy (VETE2104-1) (Bachelor's in veterinary medicine) : 4h Th, 6h Pr -> theoretical and practical training is to optimise adequate scientific information search, making the most of different resources and tools available in libraries and on the web
- Critical appraisal of scientific literature (VETE2109-1) (Bachelor's in veterinary medicine) : 4h Th, 4h Pr -> theoretical and practical training is to help students read scientific information in a critical way and be prepared for the evidence-based medicine approach, which will be developed in the Master's
- Information literacy and evidence-based veterinary medicine (DOCU0445) (specialised Master's in veterinary sciences : clinical internship & specialised Master's in specialised veterinary medicine) : 10h Th, 2h Pr -> The course aims to (i) render postgraduate Master's students autonomous in their information search (literacy research methodology, selection of relevant data, and critical appraisal) and (ii) enable them to master scientific communication principles
- Information literacy (evidence-based medicine approach) and scientific research publishing (VDOC0049) (doctoral training in veterinary sciences) : 14h Th, 2h Pr -> the end purpose of the doctoral training is the acquisition of specialist knowledge and skills that are required in veterinary medical research

### 6.1.7. Description of how and by who the learning resources (books, periodicals, databases, e-learning, new technologies, ..) provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

Several means are put in place to communicate about the learning resources (books, periodicals, databases) provided by the FMV:

1. Mandatory courses in veterinary medicine make students aware of information literacy and available resources, such as books, periodicals, and databases
2. The ULiège Library discovery tool (Primo, as known as Collections ULiège), the interface to access library resources and services through a single access and management point for users, combining the circulation and catalogue functions of an integrated library system.

Beside the traditional print materials, the discovery tool gives also access to tens of thousands of scholarly e-journals (subscriptions and Open Access journals) and tens of thousands of scientific e-books regularly imported from the vendor platforms (most of them from Springer and Elsevier).

Additionally, Collections ULiège interface also harvests and indexes all records archived in ORBi (<https://orbi.uliege.be> – the Open Bibliography and Repository of the University), MatheO (<https://matheo.uliege.be> – repository for graduate dissertations of the University), and DONum (<https://donum.uliege.be> – repository of our digitized heritage materials). All in all, we give access through the library catalogue to more than 63,000 green open access materials produced within the university.

3. Different ways to communicate are used to inform users about new acquisitions (information screen at the entrance of the BSV, Facebook, email mailing with list of new acquisitions (books)...) and others important information.

The BSV is administered by a steering committee (which includes an academic representative of the Faculty) which meets on average twice a year. One of the missions of these steering committee is to make proposals about the library acquisitions and the scientific activities of the BSV.

Alumni can retain access for payment of a small contribution (25 €/ year). This access is free for training supervisors.

## 6.2. Comments

The physical attendance of the BSV and the BSV/MV library is constantly decreasing in relation to electronic access to documentary resources. Moreover, students have very little free time to go to the library.

The BSV library is not free to define its budget which is adapted from year to year according to the number of students, teachers or researchers in the different faculties. Moreover, the universities are prisoners of the consortia of publishers who unilaterally increase their prices; publication in open-access journals is encouraged to combat these practices.

## 6.3. Suggestions for improvement

The state-of-the-art electronic infrastructures for consulting the documentary resources available at ULiège call for a review of the library profession towards support and the setting up of co-working premises.





## **7. Student admission, progression and welfare**

## 7. Student admission, progression and welfare

### 7.1. Factual information

#### 7.1.1. Description of how the educational programme proposed by the Establishment is advertised to prospective students

Students may visit the FMV's website: <http://www.fmv.uliege.be>, as well as the study programmes' website: <https://www.programmes.uliege.be/cocoon/20182019/en/recherche.html> to find necessary information.

Written documentation (ABC) about the FMV is updated every year by the FMV: <https://www.ulg.ac.be/books/abc/fmv/files/assets/basic-html/page-1.html>.

ULiège also organises open days:

([https://www.enseignement.uliege.be/cms/c\\_9115894/en/portes-ouvertes-et-rendez-vous-du-futur-etudiant](https://www.enseignement.uliege.be/cms/c_9115894/en/portes-ouvertes-et-rendez-vous-du-futur-etudiant)), information sessions about the studies ([https://www.enseignement.uliege.be/cms/c\\_10304044/en/seance-d-information-sur-les-etudes](https://www.enseignement.uliege.be/cms/c_10304044/en/seance-d-information-sur-les-etudes)), and guidance activities ([https://www.enseignement.uliege.be/cms/c\\_10302219/en/activite-d-orientation-un-an-pour-choisir](https://www.enseignement.uliege.be/cms/c_10302219/en/activite-d-orientation-un-an-pour-choisir)).

Moreover, secondary school students may attend to university courses during “open courses” days. They can then get an idea of how subjects are addressed and how lessons are given ([https://www.enseignement.uliege.be/cms/c\\_10304135/en/cours-ouverts-un-jour-avec-un-etudiant-quelles-sections-explorer](https://www.enseignement.uliege.be/cms/c_10304135/en/cours-ouverts-un-jour-avec-un-etudiant-quelles-sections-explorer)).

Students and teachers from the FMV participate in information sessions in secondary schools, in events where students can ask questions about the studies and the opportunities, in agricultural fairs, and in veterinarian events (Vétérinexpo).

#### 7.1.2. Description of the admission procedures for standard students:

##### → Selection criteria

Students have to have a certificate of higher secondary education in order to register for veterinary medicine curriculum. They also have to give a medical certificate of aptitude in order to register for the first year.

Before their registration, 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 their competencies compared to the background needed to begin their first year. It is mandatory, but informative and non-binding. There are two sessions: one in July and another in September.

An additional filter is imposed to students living outside of Belgium (named “non-resident”). These students are drawn (early September) and the number of vacant places is 20% of the total number of resident students registered for the first time the preceding year.

After the first year, students have to pass a competitive examination about the subjects of the second semester of the year. Students are then ranked based on their results. There are 276 places in the second year for all the students registered in the first year of veterinary medicine in FWB. 20% of these places are dedicated to “non-resident” students. All students that acquired at least 45 ECTS and that are high enough in the rank are admitted in second year. Each university can deliver a fixed number of certificates: 40 for ULB, 51 for UCL, 80 for UNamur, and 105 for ULiège. Students may only sit that competitive examination twice in two consecutive years at most.

##### → Policy for disabled and ill students

ULiège set up a unit (QVE) specifically intended to students with particular status: pregnant students, disabled students, crippling illnesses, psychic troubles, learning difficulties ... (ESH). It is possible for them to have a reasonable arrangement to allow them to carry on their studies: personalised coaching (institutional support, faculty relays), educational and logistical arrangements. For more detailed information, see [https://www.enseignement.uliege.be/cms/c\\_9122731/en/with-disabilities](https://www.enseignement.uliege.be/cms/c_9122731/en/with-disabilities).

Students have access to a medical service supported by ULiège, if needed.

The FMV has designed teachers and administrative staff to be support people to help students in difficulty.

→ Composition and training of the selection committee

There is not any selection committee in the FMV at the beginning of the course. An admission commission is in place at ULiège for students wishing to be admitted during studies.

ULiège draw non-resident students under the control of a bailiff

The jury gathering all the teachers of the first Bachelor's programme carries out the final selection at the end of the first year of the Bachelor's.

→ Appeal process

The jury is sovereign. The appeal procedure is described in the rules of studies and exams ([https://www.enseignement.uliege.be/upload/docs/application/pdf/2018-05/reglement\\_general\\_des\\_etudes\\_et\\_des\\_examens\\_2018-2019\\_.pdf](https://www.enseignement.uliege.be/upload/docs/application/pdf/2018-05/reglement_general_des_etudes_et_des_examens_2018-2019_.pdf) pages 34 to 38).

→ Advertisement of the criteria and transparency of the procedures

The institutional regulations and procedures (admission, registration, draw, etc.) are freely accessible on the website of ULiège, see [https://www.enseignement.uliege.be/cms/c\\_9780514/en/enrol](https://www.enseignement.uliege.be/cms/c_9780514/en/enrol).

The rules specific to the jury of the FMV are available on the website [http://www.fmv.uliege.be/cms/c\\_3601973/fr/pae-cursus](http://www.fmv.uliege.be/cms/c_3601973/fr/pae-cursus).

The rules specific to each UE are indicated in the educational commitments, freely available on the website (for example, the companion animal physiology I pedagogical commitments:

<https://www.programmes.uliege.be/cocoon/20182019/en/cours/VETE2102-1.html>).

### 7.1.3. Description of the admission procedures for full fee students

The FMV does not have any full fee-paying students.

### 7.1.4. Description of how the Establishment adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements

Before the academic year 2003-2004, no system was in place in order to limit the number of students wishing to enrol in the Bachelor's course. To face an even larger number of students, an entrance exam limiting the number of registration in the first year of the Bachelor's was introduced in 2003-2004. However, the number of non-resident candidates was much larger than the number of the resident ones. The entrance exam was then cancelled and a system limiting the number of non-resident students that can register in the first year of Bachelor's was introduced. In 2006-2007, the number of non-resident students that could register was 30% of the number of resident students registered for the first time in the first year of Bachelor's the previous year. This system stayed in place until 2015-2016, when the "Paysage" decree was implemented. The limit then decreased to 20%. To limit the continuously increasing number of students who registered, a competitive examination was introduced in 2016-2017 after the first year of the Bachelor's programme besides the non-resident students decree. The aim was to have a maximum of graduating students of 250. This selection system will stay in place until 2019-2020 when its efficiency will be measured to fix ulterior rules.

In parallel with the measures that aimed at adapting the number of students, and considering the time taken to take effect, the FMV considered it necessary, within the available resources, to increase its capacity:

1. Larger surface (see Chapter 4): new clinic, new rooms for practical works, intensive use of the FEPEX, skills lab.
2. Increase of staff by an allocation of exceptional budget (see Chapter 9).
3. Increase of the number of internal and external animals and the creation of a skills lab (see Chapter 6).

### 7.1.5. Description of:

→ The progression criteria and procedures for all students

The validation of a UE is at 10/20 unless the jury decides otherwise. Students graduate when they have acquired all ECTS of a cycle (180 for each cycle in FMV, see [https://www.enseignement.uliege.be/cms/c\\_9255169/en/the-landscape-decree](https://www.enseignement.uliege.be/cms/c_9255169/en/the-landscape-decree)). Students that do not acquire enough ECTS in their annual programme during several years may not register at ULiège anymore because they are no longer fundable by the FWB (see [https://www.enseignement.uliege.be/cms/c\\_9976384/en/financabilite](https://www.enseignement.uliege.be/cms/c_9976384/en/financabilite)).

→ The remediation and support for students who do not perform adequately

ULiège provides students with a number of services and activities to help them succeed: how to adapt their working method and their time management, how to prepare for exams, etc. (see [https://www.enseignement.uliege.be/cms/c\\_9107147/en/services-and-activities-for-successful-studies](https://www.enseignement.uliege.be/cms/c_9107147/en/services-and-activities-for-successful-studies)).

First year Bachelor's students in difficulty may be offered remediation and/or relief. In other cases, relief is possible by special decision of the jury.

→ The rate and main causes of attrition

The rate of attrition is given in the [Annex 7.1](#).

Main causes of attrition that FMV is aware of are failures and/or the end of the funding capacity by FWB.

→ The exclusion and appeal procedures

The academic sanctions that can be pronounced against a student are set out in the General Study and Exam Regulations (RGEE, see [https://www.enseignement.uliege.be/cms/c\\_9382926/en/regulations](https://www.enseignement.uliege.be/cms/c_9382926/en/regulations)). It stipulates that "Non-compliance with the University Charter of Values or any regulatory provision may, if the severity of the allegations so justifies, lead to a disciplinary procedure being launched".

There are other cases where the University (or the Rector) can refuse a registration: application of the decree "non-residents", non-fundable students or having been the object of an exclusion measure in another institution, for example. The appropriate procedures and remedies are explained in the RGEE.

Appeal procedures are also described in the RGEE.

→ The advertisement to students and transparency of these criteria/procedures

The RGEE is freely accessible on ULiège website.

A specific email address ([paysage@uliege.be](mailto:paysage@uliege.be)) is available to students who wish to find out about their fundability. They also have the opportunity to view their results on a secure personal website.

#### **7.1.6. Description of the services available for students (i.e. registration, teaching administration, mentoring and tutoring, careers advice, listening and counselling, assistance in case of illness, impairment and disability, clubs and organisations, ..)**

ULiège centrally manages registrations and admissions according to procedures available on its website. Structures specific to FMV come in support (the Faculty Admission Commission, the secretary for students and the CP).

Given the large number of students, tutoring and mentoring, previously practiced between Master's students, has been abandoned for many years. ULiège set up a personalised mentoring system for certain categories of students: sports students, artists, entrepreneurs and disabled students. At the clinics level, a support person is designated in each centre to receive and advise students in difficulty.

A short mindfulness course is proposed on a voluntary base to the students (see [Annex 3.7](#)).

The educational unit may receive students to advise them in their study orientations; if psychological problems are detected, students are sent back to the Students' Quality of Life (QVE) service.

Many information activities are organised for future students before registration to inform them about studies (see 7.1.1.) but also about job opportunities. Throughout the curriculum, courses and activities are organised to present students with career opportunities. Thus, in the first year of the Bachelor's programme, the UE "animal, health and society" presents many facets of the profession and opens the eyes of students on other possibilities than those of practice.

In third year of Bachelor's, first year of the Master's and third year of the Master's, meetings with the profession are organised in the form of seminars and / or roundtables. A professional development platform (ULiège Career Centre) is available to graduated students to help them to begin their professional life. Graduates can also benefit from practical information and coaching (see [https://www.uliege.be/cms/c\\_9131736/en/professional-development](https://www.uliege.be/cms/c_9131736/en/professional-development)).

Public financing, affordable fees, and the possibility of allocating study grants characterise this teaching and support social diversity in the student population.

Several services, bodies and procedures are in place to support the students and allow them to express the various difficulties they may encounter during their course. They propose possible solutions. At the level of the FMV: the CP, the student secretary, the CEs, the EVALENS surveys and the surveys organised by the CP or by the students.

At the level of ULiège: the QVE service and the ESH status (see above), the Study Guidance Service ([https://www.uliege.be/cms/c\\_9125785/en/study-guidance-service](https://www.uliege.be/cms/c_9125785/en/study-guidance-service)), the Social and Financial aid ([https://www.enseignement.uliege.be/cms/c\\_9113349/en/social-and-financial-aid](https://www.enseignement.uliege.be/cms/c_9113349/en/social-and-financial-aid)) and the University Orientation Service [https://www.uliege.be/cms/c\\_9156925/en/university-orientation-service](https://www.uliege.be/cms/c_9156925/en/university-orientation-service).

Students have set up a series of structures that organise social, cultural or scientific activities: "Société générale des étudiants en médecine vétérinaire" (SGEMV), "Cercle liégeois des étudiants vétérinaires" (CLV), "Office des cours", musical groups, photo clubs, céto clubs, AVEF junior, YABOUMBA, etc. All these groups are managed by the students themselves and can have, upon reservation, use of the FMV's premises for their activities.

ULiège and the FMV provide students with structures (wooded campus, sports centre (RCAE), rooms "l'Office des cours" and "salle polyvalente") or events (Unifestival, Uliègissime, organic breakfast, bike day, university theatre, open house and garden party, VT challenge) allowing them to flourish and meet.

#### **7.1.7. Prospected number of new students admitted by the Establishment for the next 3 academic years**

Any student is allowed to register for the first year of the Bachelor's, except for non-resident students and non-fundable students. The maximum number of students is fixed at 276 at the end of the first year of the Bachelor's, all institutions combined. Based on admissions during the last four years, we can hope for a stabilisation of the number of enrolments in the first year to about 900 students for all institutions.

With the continuation of the competitive exam at the end of the first year of the Bachelor's programme (in place until 2019-2020), we can hope for a stabilisation of the number of students enrolled in the Bachelor's at ULiège (570 in 2017-2018, 670 in 2016-2017 and 740 in 2015-2016) and a gradual decrease in Master's students. [Annex 7.2.](#) shows the projected evolution of the number of students in the hypothesis of maintaining the current rules of selection and with an estimate of the future success rates.

In the "Paysage" decree, setting the rules for the whole FWB, the choice is left to the students, within certain limits, to choose their annual study programme. The results of the first three years of application of this decree seem to show that this results in an extension of the time spent in the curriculum.

This is independent of the will of the FMV but it keeps students longer in an already very crowded curriculum.

#### **7.1.8. Description of how and by who the admission procedures, the admission criteria, the number of admitted students and the services to students are decided, communicated to staff, students and stakeholders, implemented, assessed and revised**

The FWB decides the rules. In 2019, a statistical study will have to be established with the other three institutions organising the Bachelor's and it will have to be presented to the political leaders of higher education. In this evaluation, the effectiveness of the system put in place will have to be evaluated. On this basis, the FWB parliament will vote on the new rules on admission to veterinarian medicine studies from 2020-2021.

The rules are communicated via the means described in 7.1.1.

**Table 7.1.1. Number of new veterinary students admitted by the Establishment**

Type of students	2017-2018	2016-2017	2015-2016	Mean
<b>Bachelor's</b>				
Standard students*	175	202	215	197.33
<b>Master's</b>				
Standard students	195	168	154	172.33
<b>Total</b>	<b>370</b>	<b>370</b>	<b>369</b>	<b>369.67</b>

\* The line includes all new students enrolled in the FMV, this includes students who have already started at ULiège in another faculty and who are arriving in the first year of the Bachelor's as well as students from another university who arrive in the second or third year of the Bachelor's.

**Table 7.1.2. Number of veterinary undergraduate students registered at the Establishment**

Year of programme	2017-2018	2016-2017	2015-2016	Mean
<b>Bachelor's</b>				
First year*	271	259	304	278
Second year	119	136	205	153.33
Third year**	112	191	179	160.67
<b>Total bachelor's</b>	<b>502</b>	<b>586</b>	<b>688</b>	<b>592</b>
<b>Master's :</b>				
First year	455	402	356	40,33
Second year	288	287	326	300.33
Third year	303	305	252	286.67
<b>Total Master's</b>	<b>1046</b>	<b>994</b>	<b>934</b>	<b>991.33</b>
<b>TOTAL</b>	<b>1548</b>	<b>1580</b>	<b>1622</b>	<b>1583.33</b>

\* Actual numbers of registered students. These numbers are weighted for the calculation of the indicators: 50 ECTS are dispensed by the Faculty of Sciences for this year of studies, the students taken into account for the calculation of the indicators thus represent 10/60<sup>th</sup> of this population.

The number of Bachelor's students of the other institutions is 1129 and the total number for the FWB is 1631 in 2017-2018.

**Table 7.1.3. Number of veterinary students graduating annually**

Type of students	2017-2018	2016-2017	2015-2016	Mean
Standard students	291	297	244	277.33

**Table 7.1.4. Average duration of veterinary studies (2017-2018)**

<b>Bachelor's</b>	
<b>Duration</b>	<b>% of the students who graduated on 2017-2018</b>
+ 0	23%
+ 1 year	23%
+ 2 years	25%
+ 3 years or more	29%
<b>Master's</b>	
<b>Duration</b>	<b>% of the students who graduated on AY*</b>
+ 0	73%
+ 1 year	21%
+ 2 years	5%
+ 3 years or more	1%

More information about duration of veterinary studies and graduation rate can be found in the [Annexes 7.1.](#), [7.3.](#), [7.4.](#) and [7.5.](#)

**Table 7.1.5. Number of postgraduate students registered at the Establishment**

<b>Programmes</b>	<b>2017-2018</b>	<b>2016-2017</b>	<b>2015-2016</b>	<b>Mean</b>
Interns	26	26	25	25.66
Specialised interns	8	5	6	6.33
Residents	24	21	19	21.33
PhD students	141	138	149	142.67

## 7.2. Comments

The major problem of the FMV is its lack of power over the procedure to limit the large number of students who have been admitted to Master's for almost twenty years. The current limitation has been obtained after a hard fight led jointly by its staff and its students (demonstrations, press releases, threats of strikes, etc.). Since the start of the competitive examination in 2016-2017, the university has put in place measures to better train the many students registered in the curriculum while waiting for a reduction of their numbers.

The plethora of students over the past several years has put an increasing pressure on teachers and support staff, making them less available for interpersonal relationships with students.

Students in the Master's years are under a lot of stress: excessive number of theoretical hours, heavy workload, lack of recognition of work done, etc. These problems are well highlighted by surveys concerning the welfare of students within the FMV.

## 7.3. Suggestions for improvement

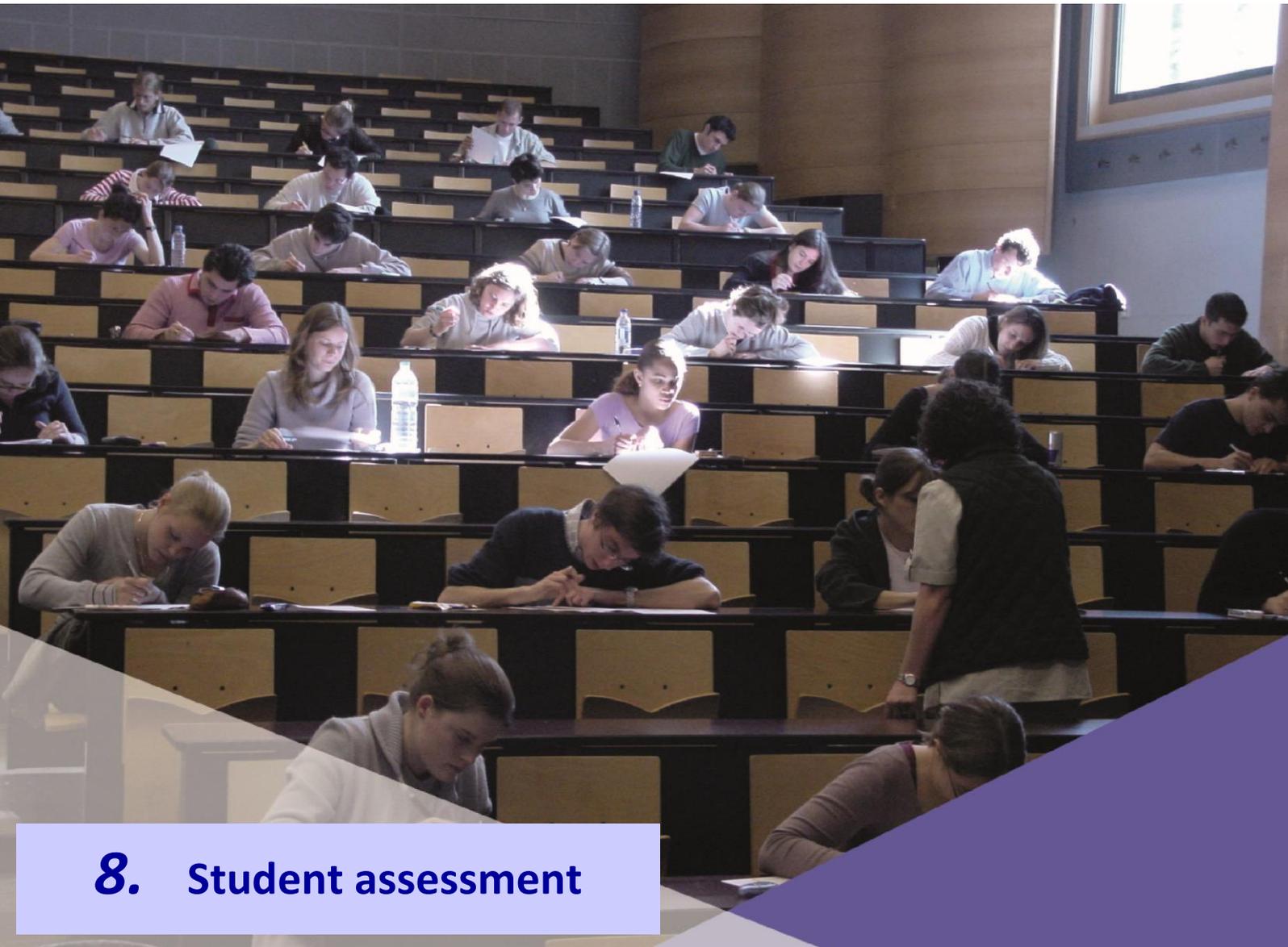
The FMV has to work for the maintenance, or even reinforcement, of the competitive examination limiting the number of students in the Master's within the FMV after 2019-2020.

The FMV has to put in place a strategy to reduce failure rates during the curriculum. To do so, the teaching must be adapted according to the surveys carried out among graduates and students.

Restoring a mentorship between students of different years or setting up tutoring by teachers are options to examine once the number of students will have decreased in the Master's programme.

A decrease in theoretical courses and an increase of interactions in small or medium groups with supervisor would play a role in improving welfare of students.





## 8. Student assessment

## 8. Student assessment

### 8.1. Factual information

#### 8.1.1. Description of the global student's assessment strategy of the Establishment

The governmental decree of 2004 has been revised and completed, in 2013, by a new decree introducing a programme-approach more in line with the international standards (called in French "Décret Paysage").

The complete curriculum is divided into three blocks of Bachelor's cycle (BAC1, BAC2 & BAC3) and three blocks of Master's cycle (M1, M2 & M3). Each block include a given number of UE which may be given by one or several professors. In this last case, one professor is designated as coordinator, who organises the courses, examination and participates to the corresponding jury.

Each student follows an annual individual programme (corresponding generally to one block) of at least 60 ECTS -and at the maximum 75 ECTS- approved by the jury. Each individual programme should have coherence in terms of pre-requisites. The student accumulates ECTS along the years, a minimum of 10/20 is required to succeed. The student is deliberated each year for the courses followed. When she/he has obtained all the credits of the cycle programme, she/he is deliberated to obtain the diploma and a grade according to the mean of the results.

It may happen that some students are not allowed to continue their studies (no more fundable), if they do not acquire enough ECTS (less than 75% of the annual programme) within a given timeframe (see 7.1.5.).

The way in which students are assessed is specific to each UE and is described in the teaching commitments of each course, available to the students on the FMV website. Due to the large number of students, the majority of UE evaluate students on the basis of written examinations, including in most of the cases a mix of multiple choice exams and open-ended questions. Nevertheless, some examinations (at least one UE per block and per session) consist of oral examinations, while some UE (often related to clinical activities) are subjected to continuous evaluation throughout the year.

#### 8.1.2. Description of the specific methodologies for assessing:

The curriculum has 80 UE organised yearly, with two exam periods each, leading to 160 evaluations organised each year. Each exam can be oral, written, both, or the UE can be assessed by continuous evaluation throughout the year. The course VETE2068-1 assesses also students with an open-book examination for the evidence-based medicine part. This promotes the search of relevant information instead of rote learning.

Master's thesis is assessed by both written and oral exam.

##### → Theoretical knowledge:

87% of the 116 theoretical UE's exams are written exams, 9% oral exams, and 4% include both an oral and a written evaluation.

##### → Pre-clinical practical skills:

14 UE's exams are related to the pre-clinical practical skills. 57% of them are written exams, 29% oral exams, and 14% include both an oral and a written evaluation.

##### → Clinical practical skills:

28 UE's exams are related to the clinical practical skills and soft skills. 14% of them are written exams, 14% oral exams, and 21% both oral and written exams. Seven of these fourteen UE (50%) are assessed only by continuous evaluation, these are the clinics and the External Practical Training (EPT).

#### 8.1.3. Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as prescribed in the ESEVT Day One Competences

Table showing the number of UE in which each Day One Competences are taught and evaluated and their position in the curriculum. For a table that include the title of the competences, see [Annex 8.1](#).

Day One Competences per bloc							
# competence	B1	B2	B3	M1	M2	M3	Total
1.1	1	3	1	6	4	4	<b>19</b>
1.2	0	0	1	4	1	2	<b>8</b>
1.3	0	0	1	2	3	3	<b>9</b>
1.4	3	4	4	7	7	8	<b>33</b>
1.5	0	0	0	6	4	6	<b>16</b>
1.6	0	1	1	1	3	3	<b>9</b>
1.7	1	3	1	3	8	5	<b>21</b>
1.8	1	1	3	5	2	4	<b>16</b>
1.9	0	0	0	5	2	1	<b>8</b>
1.10	0	3	0	4	1	2	<b>10</b>
1.11	2	2	3	1	4	6	<b>18</b>
1.12	1	2	2	3	5	4	<b>17</b>
1.13	1	1	2	0	1	3	<b>8</b>
1.14	2	2	1	0	0	1	<b>6</b>
1.15	0	3	2	8	6	6	<b>25</b>
1.16	0	2	2	2	3	7	<b>16</b>
1.17	0	0	0	5	6	6	<b>17</b>
1.18	0	0	0	6	10	5	<b>21</b>
1.19	0	0	0	2	4	6	<b>12</b>
1.20	0	3	0	4	4	2	<b>13</b>
1.21	0	1	3	7	8	6	<b>25</b>
1.22	0	2	3	7	6	3	<b>21</b>
1.23	0	3	2	3	9	6	<b>23</b>
1.24	0	0	0	4	7	3	<b>14</b>
1.25	0	0	1	4	3	2	<b>10</b>
1.26	0	0	1	3	5	3	<b>12</b>
1.27	0	0	1	2	0	0	<b>3</b>
1.28	0	4	5	6	7	7	<b>29</b>
1.29	0	0	0	1	3	5	<b>9</b>
1.30	0	0	0	1	3	6	<b>10</b>
1.31	0	0	0	1	4	6	<b>11</b>
1.32	0	0	0	2	4	6	<b>12</b>
1.33	0	0	1	5	3	2	<b>11</b>
1.34	0	0	0	0	1	0	<b>1</b>
1.35	0	0	0	1	2	2	<b>5</b>
1.36	0	3	1	4	4	1	<b>13</b>

#### 8.1.4. Description of the processes for:

⇒ *ensuring the advertising and transparency of the assessment criteria/procedures*

The rules for the evaluations are determined at three different levels: by (1) the « Décret Paysage » at the level of the FWB, (2) the examination rules of the University of Liège (<https://www.enseignement.uliege.be/upload/docs/application/pdf>) and (3) the jury rules of the FMV.

Rules governing the assessments of each UE are described and available online in open access in the educational commitments.

Recently, a digitalised correction system of short open-ended questions has been proposed by the SMART.

⇒ *awarding grades, including explicit requirements for barrier assessments*

The rules governing the grades delivered by the FMV and the condition to sit an exam are taken up in the jury regulations and in the general regulations of studies and examinations of ULiège.

Briefly, when the student has a score lower than 10/20, he fails, 10 or 11/20, he has "succeeded", 12 or 13/20, "satisfactory"; 14 or 15/20, "distinction"; 16 and 17, "high distinction" and 18 or more: "highest distinction"

⇒ *providing to students a feedback post-assessment and a guidance for requested improvement*

The answers to the exam questions and the feedback to the students are generally published on e-Campus (this procedure is the personal choice of the teacher but is applied by the majority of them). Multiple-choice questions can be (depending on the teacher's agreement) communicated to the student by a personal feedback via the SMART unit of ULiège. Furthermore, each UE's coordinator is required by the ULiège to organise at least one exam copies consultation for the students, after each exam session. During this consultation, the students meet the teachers, see (and if they want, obtain a copy) their written examinations and receive individual advice. The dates of the exam consultation sessions are published at least one week in advance (rules of the ULiège).

Some teachers agree to run mock examinations.

In the first year of the Bachelor's, students may have a lighter year with a special programme (with annual programme of around 30 ECTS). In BAC1, systematic remediation and support courses are set up online and in face-to-face, to allow the students to test and acquire pre-requisites.

⇒ *appealing*

Rules governing appeal procedures are taken up in the jury regulations and in the general regulations of studies and examinations of ULiège. Briefly, if a student believes that there has been an irregularity during his/her studies or examinations, he/she is first encouraged to meet the professor or the president of the jury. If he/she has not obtained satisfaction, he/she lodges an appeal (within 8 days for irregularities during the year, within 15 days for irregularities noted after receiving the results of examination) with the Dean (Vice-dean if the Dean is concerned). If not yet obtained satisfaction, he/she may lodge his/her appeal with the Rector within 15 days of receipt of the FMV response.

#### **8.1.5. Description of how and by who the student's assessment strategy is decided, communicated to staff, students and stakeholders, implemented, assessed and revised**

For each UE, the teacher(s) decide(s) annually how the students will be assessed, taking into account the previous year student's results and received feedbacks (CE, EVALENS) and/or on implemented changes in the teaching methods. The assessment criteria must be available on the FMV website in open access (educational commitments; section "Assessment methods and criteria") before the beginning of the academic year for each UE:

[https://www.programmes.uliege.be/cocoon/20182019/recherche.html?active=fo&source=formation&fo\\_fac=V](https://www.programmes.uliege.be/cocoon/20182019/recherche.html?active=fo&source=formation&fo_fac=V)

The rules for the jury of each cycle are updated annually and are available on line on the FMV website in limited access (only students and faculty staff): [http://www.fmv.uliege.be/cms/c\\_253089/fr/accueil-etudiant-a-la-faculte](http://www.fmv.uliege.be/cms/c_253089/fr/accueil-etudiant-a-la-faculte).

## **8.2. Comments**

The primary objective of the « Décret paysage » was to stimulate the students and give them the opportunity to manage their curriculum by themselves and to further individualise their programme of study. We note over time that this decree has rather led to an extension of the duration of studies and to strategies of success, contrary to active pedagogy and responsible behaviour of the students.

Unfortunately, because of the high number of enrolled students, namely in the Master's, the use of written examinations is now generalised, and few UE are assessed through oral examinations.

For the same reasons, examination schedules are busy although they are made by a partnership between the administration, the students and the teachers (bi-annual meeting).

Moreover, a platform enabling anonymous exchange of oral examination dates between students has been set up, which allows for fair exchanges opportunities between students and enable most of students to be satisfied with their schedules.

### 8.3. Suggestions for improvement

Once again, the plethora of students has caused wider problems, leading to an examination system for large cohort of students (written, MCQ exams) which is not the best way to help students to learn and memorise. Education and evaluation should be organised in such a way as to minimise the development of short term memory and to focus as much as possible on general skills and knowledge. The FMV should use formative continuous examination, with regular feedback, to better prepare students for certificate evaluation.





## 9. Academic and support staff

## 9. Academic and support staff

### 9.1. Factual information

#### 9.1.1. Description of the global strategy in order to ensure that all requested competences for the veterinary programme are covered and that staff are properly qualified and prepared for their roles

Table 8.1.3. shows that all the **competences** prescribed by the EAEVE and all the subjects listed in the Directive are included in the veterinary curriculum. The reform of the programme committee and the CEs ensure the coverage of all the skills and competences using results from alumni surveys to feed their work. Whether skills need to be maintained or even reinforced is analysed at the time of succession following retirement of the academic in charge.

Regarding the **qualifications** of the involved academic staff, more than 75% have a permanent position and around 90% of them are veterinarians (the others are biochemists, biologists, engineers, psychologists, doctors in human medicine). Moreover, 42% of the permanent staff members are EBVS Diplomates (54 out of 128 in 2017-2018), and a large number of them are members of different national as well as international expert agencies. The academic staff also has an active participation in research activities as indicated in Chapter 10.

Minimum access conditions for **appointment in the permanent staff**: on top of the legal requirement of a doctoral thesis (PhD), applicants are required to hold the title of European or American specialist if College exists for that specialty. In addition a long-term stay abroad is required by ULiège prior to a permanent appointment.

As regards **good teaching practices**, all staff members involved in teaching must complete training modules or can be accompanied in their projects by the *Institut de Formation et de Recherche en Enseignement Supérieur* (IFRES) - <http://www.ifres.ulg.ac.be/portail/>. They also have the option to go further with the Specialisation Master's in Pedagogy of Higher Education:

<https://www.programmes.uliege.be/cocoon/20182019/formations/bref/Y3PEDA01.html>.

Staff must be familiar with **biosecurity** rules that have been published in a reference issue and can be accessed via the website: <https://www.fmv-biosecurite.ulg.ac.be/>. Staff members are also invited to attend the annual biosecurity day that is organised in the Faculty. Punctual checks of all biosecurity systems are carried out on a regular basis.

**Continuing education** (via Colleges, congresses, seminars, etc.) is strongly encouraged and facilitated when possible. Continuing education for veterinarians performing veterinary acts is validated by the National Veterinary Council as for any other practitioner. Academic and teaching staff also have access to various trainings and self-development programmes organised by the ULiège (see <https://www.ulg.ac.be/books/formations-professionnelles/2017-2018/>).

**Welfare at work** is managed by the staff welfare committee (see 1.1.5.).

#### 9.1.2. Description of the formal programme for the selection, recruitment and training to teach and assess students (including continuing education) of the academic staff

*Professors*: Tenured teachers are civil servants. A vacant position and its description are published in the *Moniteur Belge (Belgian Official Journal)* and broadly announced via other Faculties, European Colleges and professional networks of researchers (eg, Euraxess). The selection is through a competitive process between candidates. Applicants present a teaching project along with their research and academic merits. The CF appoints a selection committee made up of external members who are **experts in the discipline**. The CA of the university approves the vote of the CF, makes the final decision and recommends ratification of the nomination by the Ministry. The first career step is the rank of *Chargé de cours*. Except in special cases, the appointment is provisional (four to five years), with the possibility of confirmation after an evaluation procedure. Through promotions, the *Chargé de cours* can become *Professeur*, and then *Professeur ordinaire* (See 9.1.4).

*Associate Professors*: These are former Assistant Professors who have been promoted to the permanent position within the scientific staff (*Premier Assistant*). After four years, and a positive evaluation of their teaching, research and community services, that track may lead to a second promotion to the rank of *Chef de travaux*.

These permanent positions are limited to very few fields which have been identified in the Strategic Plan of the Faculty, and were opened by a decision of the CA of the University.

*Assistant Professors:* The FMV recruits temporary assistants for twice renewable two-year terms. Their time is equally shared between teaching duties and research in preparation for their doctoral thesis. The assistant positions are permanent, but individuals may normally be appointed for a maximum of six years (they are therefore counted as permanent in Table 9.1.1). Good academic records are a prerequisite to enter the assistant professor track.

*Associate Teachers:* These *Collaborateurs pédagogiques* are practitioners hired under annually renewable part-time contracts to supervise students during specific teaching activities. They were recruited because of the excess of student numbers, under exceptional credits allocated on an annual basis by the ULiège CA.

A new status (*Attaché d'enseignement*) is currently under discussion at the level of the ULiège CA in order to make some of these positions permanent.

*Clinical Associate Teachers:* They are clinicians under contracts. They are funded by the income of the University Veterinary Clinic (CVU). Some are permanent while others have temporary positions. The positions directly dependent of the CVU are proposed by its poles and decided annually by its Management Board according to the available financial means. Clinical Associated Teachers have a specific status within ULiège, specific scales depending on their qualification, namely PhD and/or a specialist college and an evaluation by their clinical pole.

*Interns and Specialised Interns:* Interns are recruited among recent graduates of ULiège or other institutions approved or accredited by EAEVE. The first selection is made on the basis of the applications sent by the candidates. The final choice is based on an interview with senior clinicians. The specialised interns have completed a one-year rotating internship (internal or external) and are selected by the senior staff of the concerned branch. They are recruited annually with a salary corresponding to 20% or 40% of a full-time Assistant Professor for Interns and Specialised Interns, respectively. They are co-financed by the CVU revenues.

### **9.1.3. Description of the formal programme for the selection, recruitment and training to perform their specific duties (including continuing education) of the support staff**

Support Staff is composed of civil servants and hired agents. Both status are ruled by specific laws (see [https://www.ulg.ac.be/cms/c\\_4585651/en/reglements-de-travail](https://www.ulg.ac.be/cms/c_4585651/en/reglements-de-travail))

*For a permanent position, a recruitment examination is required in any case.* Exams are regularly held to match the needs of the FMV in the most general functions (e.g. accountants, administrative assistants, etc.). Targeted examinations are also organised when needed (e.g. recruitment of grooms). These procedures of selection are led by commissions appointed by the CA. Experts of the FMV are included every time when it is needed, especially for targeted recruitments.

*For non-budgeted positions:* these are replacement or reinforcement positions, for which the FMV recruits with the collaboration of the ARH. These positions can be supplied by internal mobility. Voluntary departures and retirements are often compensated by temporary recruitments, which is why the number of temporary FTEs in Table 9.1.3. increases.

Each year, the staff is offered the right and the duty to participate in a wide range of training courses (see <https://www.ulg.ac.be/books/formations-professionnelles/2017-2018/>).

Moreover, anyone involved in animal experimentation must follow a training according to their level of involvement: “ouvrier animalier” (catégorie A FELASA), “technicien animalier” (catégorie B FELASA), “maître d’expérience” (catégorie C FELASA).

#### **9.1.4. Description of the formal programme for the appraisal, development, promotion criteria and procedures, supporting and mentoring of both academic and support staff**

*Academic staff:* every two years, the university CA opens a number of promotion positions to the rank of *Professeur* and *Professeur ordinaire*.

Most *Chargés de cours* suitable to apply for the position of *Professeur* obtain the promotion. The number of *Professeur ordinaire* positions is much more limited and is awarded on a competitive basis, based on the evaluation of teaching, research and services to the community. The procedure is available on the intranet page of the Academic Affairs Department:

[https://www.ulg.ac.be/upload/docs/application/pdf/2018-06/criteres\\_et\\_procedure\\_de\\_promotion\\_dans\\_le\\_corps\\_enseignant2.pdf](https://www.ulg.ac.be/upload/docs/application/pdf/2018-06/criteres_et_procedure_de_promotion_dans_le_corps_enseignant2.pdf).

There is no continuous evaluation process of the academic staff, yet their teaching is evaluated each year by students through the EVALENS survey (see 9.1.6).

Scientific productions are gathered in the central information system Orbi; standardised curriculum vitae will soon be managed in the information system currently under development Urbi. These tools are gradually made mandatory for evaluations.

*Associate Teachers and Clinical Associate Teachers:* Most of them voluntarily followed pedagogical training and training oriented towards the taught subject. From 2019 on, a minimum training dedicated to teaching and student assessment will be organised annually by IFRES, for all associated teachers.

*Support staff:* a continuous evaluation is organised every other year by the line manager. Positions for promotion are also opened every two years by the CA. The number of positions is limited and granted by competition.

#### **9.1.5. Description of the formal rules governing outside work, including consultation and private practice, by staff working at the Establishment**

Teachers can devote two half days a week for private activities, with the agreement of the university CA. This principle is governed by regulations, available on the intranet page of the Academic Affairs Department:

[https://www.ulg.ac.be/upload/docs/application/pdf/2008-07/principes\\_generaux\\_14\\_475-ca-14.11.2007.pdf](https://www.ulg.ac.be/upload/docs/application/pdf/2008-07/principes_generaux_14_475-ca-14.11.2007.pdf)

In any case, members of the permanent staff are not allowed to hold a private practice (and therefore have a business registered in their name).

#### **9.1.6. Description of the formal programme of the Establishment for the assessment of teachers by students and its outcome**

EVALENS is an anonymous survey that students are asked to answer in February and June. It is available online, via MyULiege. It is not compulsory yet students are highly encouraged to participate.

The individual results are communicated to each teacher, as well as to the Dean and VDE. They are part of the documents taken into account in the evaluation for permanent appointment and promotions. When problems are identified, the VDE has an interview with the teacher concerned to find possible solutions. The VDE monitors progresses the following year.

In addition, a CE of the Bachelor's and a CE of the Master's, including students and supervisors, meet regularly. Any problem identified by the CE is analysed with the person / body concerned, in order to remedy it.

Individual surveys are informally organised by some teachers to evaluate aspects of their courses or practical work.

### 9.1.7. Prospected number of FTE academic and support staff of the veterinary programme for the next 3 academic years

Until 2021, by a general decision of the CA, only two out of three of the retiring Professors and members of support staff are supposed to be replaced. However, the FMV obtained from the CR a measure to retain -in the near future- as many academic and support staff members as in 2015-2016. To do so, the major part of the exceptional credits are going to be transformed into permanent scientific positions. A multi-year transformation plan will be worked out current 2019 by the BD and the departments. A draft is presented in Table 9.1.5. The projections of the staff for the next three years can be consulted in [Annex 9.1](#).

As for the Clinical Associate Teachers, a slight increase is expected in the coming years. Its size will depend on the financial resources released by the CVU.

### 9.1.8. Description of how and by who the strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The FMV has a strategic plan, approved by the university's authorities (CURE<sup>3</sup> and CA).

The framework and budgets for the staff of ULiège are defined once a year, in December, for the following calendar year, by the university CA.

The CA decides:

- on the basis of the Dean's negotiations with the Rector and the General Director for Education and Training
- on the basis of the conclusions of CURE discussion on issues of balance between faculties

In the FMV, the Dean works in cooperation with the BD, the department presidents and the research units to define an implementation compatible with the FMV strategic plan, the teaching workload and the productivity in research. The suggestions are then discussed in the CPFE / CPFR Joint Committee to prepare the version that will be approved by a vote in the CF. FMV suggestions are submitted to the CA for a decision.

#### Tables

Table 9.1.1. shows the academic staff attached to the FMV of ULiège. The Faculty also relies on Professors and assistant Professors from other ULiège Faculties for specific subjects: physics, chemistry, and biology (Faculty of Sciences), right (Faculty of Law), radiation protection (Faculty of Medicine). They are not included in Table 9.1.1. (see [Annex 9.2](#). for the list of UE implying teachers from other faculties).

**Table 9.1.1. Academic staff of the veterinary programme**

Type of contract (FTE)	2017-2018	2016-2017	2015-2016	Mean
<b>Permanent</b>				
Professors	41	42	43	42
Associate Professors	16	13	13	14
Assistant Professors	56	58	57	57
Associate Teachers	7	7	7	7
Clinical Associate Teachers	5.8	4.8	4.8	5.13
<b>Subtotal</b>	<b>125.8</b>	<b>124.8</b>	<b>124.8</b>	<b>125.13</b>

<sup>3</sup> Commission Universitaire à la Recherche et à l'Enseignement

Temporary				
Associate Teachers	19.33	20.2	17.81	19.11
Clinical Associate Teachers	8.8	5.06	5.06	6.31
Interns, Specialised Interns	8	8	1	5.67
<b>Sb-total</b>	<b>36.13</b>	<b>33.26</b>	<b>23.87</b>	<b>31.09</b>
<b>Total (FTE)</b>	<b>161.93</b>	<b>158.06</b>	<b>148.67</b>	<b>156.22</b>

**Table 9.1.2. Percentage (%) of veterinarians in academic staff**

Type of contract (%)	2017-2018	2016-2017	2015-2016	Mean
Permanent	90%	90%	90%	90%
Temporary	94%	90%	97%	96%

**Table 9.1.3. Support staff of the veterinary programme**

Table 9.1.3. shows support staff (in FTE) whether they have a permanent position (budgeted posts) or a temporary contract. The institution provides central support services to the FMV: ARH, ARF, etc. They represent 432.24 FTEs for the whole institution for 2017-2018, among which 11.93% are reputed to be dedicated to the support of the FMV duties. These FTEs are referred to in table 9.1.3. as “ULiège central support staff”.

Type of contract	2017-2018	2016-2017	2015-2016	Mean
ULiège central support staff	34	33.6	34.3	33.97
FMV Permanent	83.9	89.5	87.3	86.90
FMV Temporary	25.3	16.4	13.5	18.40
<b>Total (FTE)</b>	<b>143.2</b>	<b>139.5</b>	<b>135.1</b>	<b>139.27</b>

**Table 9.1.4. Research staff of the Establishment**

Type of contract	2017-2018	2016-2017	2015-2016	Mean
Permanent *	8	7	6	7.00
Temporary**	29.3	37.1	40.2	35.53
Support staff**	16	16.6	17.2	16.60
<b>Total (FTE)</b>	<b>53.3</b>	<b>60.7</b>	<b>63.4</b>	<b>59.13</b>

\* The permanent academic staff also conduct research activities.

\*\* Does not include GIGA staff, managed in another structure by ULiège. The GIGA is ULiège’s interdisciplinary research institute in the biomedical sciences.

## 9.2. Comments

The implementation of the FMV’s strategic plan should help to stabilise competent staff within the FMV. To meet the adequacy of the number of teachers, the FMV has to reduce the number of students.

The university provides very good training and evaluation tools. We must continue to promote them within the FMV. In this context, a project for the ongoing evaluation of scientific staff is currently being planned.

The number of support staff assigned to the FMV by ULiège is very small in certain areas, which forces the scientific staff and students to perform certain tasks by substitution.

### 9.3. Suggestions for improvement

Job description sheets and more precise specifications should be defined for each person working within the university, in order to generate more serenity and to facilitate evaluations.

An objective assessment of the needs in terms of support staff should be conducted within the university in order to highlight the deficits and to be able to remedy them, taking into account the financial constraints.

A centralised system of activities and training should be set up by the university for scientific collaborators, clinicians and support staff, similar to what exists for the academic staff.



## 10. Research programmes, continuing and postgraduate education

## 10. Research programmes, continuing and postgraduate education

### 10.1. Factual information

#### 10.1.1. Description of how the research activities of the Establishment and the implication of most academic staff in it contribute to research-based undergraduate veterinary education

The FMV aims at being an establishment of excellence in veterinary research and education. It has an international prestige based on its research activities in different fields of the fundamental as well as the veterinary applied sciences. Its activities result in an excellent position of the FMV in international rankings (Shanghai, QS). All the members of the academic staff are involved in research programmes and most of them are at the head of scientific laboratories. Only scientists with a PhD can enter the permanent staff. Further, regular involvement in research programmes and publications in international peer-reviewed journals is mandatory to get a promotion. Consequently, the teaching staff is aware of the importance of having strong scientific bases in both the theoretical and the practical education programmes.

The FMV has appointed a Vice-Dean for Research (VDR). He is responsible for all research-related matters. Under his leadership, a platform bringing together all FMV researchers has been created. This centre, named FARAH (for Fundamental and Applied Research for Animal & Health), aims to promote research meetings, interdisciplinarity and the pooling of equipment between the various labs of the Faculty. The FARAH researchers are grouped into three thematic units: Comparative Veterinary Medicine, Veterinary Public Health and Sustainable Animal Production. The number of publications of the staff of the FMV is provided in the [Annex 10.1](#). Similarly, the names of the members of the scientific staff together with their H-index are to be found in [Annex 10.2](#).

Every year, a whole conference day is organised to allow the PhD students to present their research work either orally or through posters. Simultaneously, state-of-the-art presentations by senior scientists are also proposed. All the undergraduate students are warmly invited to attend these conferences. For this purpose, classes are suspended on the day of the meeting.

Some of the academic staff of the FMV is affiliated to the GIGA research centre, which is an interdisciplinary research institute in biomedical sciences of the University of Liège. Located within the University Hospital on the Sart Tilman campus, GIGA counts more than 600 scientists specializing in the development of health solutions for the benefit of patients. GIGA scientists include physicians, pharmacists, veterinarians, psychologists, molecular and cellular biologists, chemists, physicists, mathematicians and engineers.

#### 10.1.2. Description of how the postgraduate clinical trainings of the Establishment contribute to undergraduate veterinary education and how potential conflicts in relation to case management between post- and undergraduate students are avoided

The FMV offers numerous EBVS residency and internships programmes. Residents and interns are involved in clinical education and supervision of the undergraduate students at the VTH. Tasks and responsibilities are well defined to avoid conflicts. The undergraduate students are involved in the first-line approach: history, general examination, proposition of complementary tests, performing basic complementary tests and/or therapeutic (medical or surgical) procedures under a veterinary supervision, preparing the written report to the referring veterinarian. Interns and residents act as veterinarians: checking and supervision of the students' tasks, final decision on the work-up and performing the more advanced complementary tests and/or therapeutic (medical or surgical) procedures under direct supervision of a EBVS specialist as well as final communication with owner and referring veterinarian. Interns complete this part of the job for first-line cases, and help residents in performing their job for specialised cases. Residents and interns continuously teach the students throughout the case management in addition to the senior.

#### 10.1.3. Description of how undergraduate students

→ Are made aware of the importance of evidence-based medicine, scientific research and lifelong learning.

The involvement of the teaching staff in research makes the concept of evidence-based medicine a leitmotiv throughout the entire curriculum.

In BAC1, the students have a multidisciplinary course developing different facets of the veterinary medicine and research and explaining how research has contributed to the scientific bases of our current knowledge. (VETE2056-1). They also receive courses on the scientific reasoning, including the way the scientific results are reported (VETE0432-4).

In BAC2, students learn how to collect scientific information in bibliographical databases.

In BAC3, they are taught to remain critical in front of the collected information.

In M1, they receive a course on evidence-based medicine. In the same year, they are asked to read several papers related to pharmacology and to analyse them using an evidence-based medicine approach.

In M2, they have several para-clinic activities during which they are asked to find papers on a dedicated subject in the literature and to read them critically, to summarise the information they found and to orally present the results of their work to the other students and the teaching staff.

In M3, they must orally present a case-log report based on their clinical work and personal research. Last but not the least, they have to write and orally present a Master's thesis of 20 pages.

→ Are initiated to bibliographic search, scientific methods and research techniques, and writing of scientific papers

As stated before, in the Bachelor's, the students have to follow introductory courses in bibliographic research (VETE2104-1 and VETE2109-1). This knowledge is further used in the context of various personal and group works based on the literature.

During their last year of study, they carry out a Master's thesis (graduation thesis), which can be a bibliographical work, a collection of clinical cases or the realization of a genuine scientific experiment.

→ Are offered to participate to research programmes on a non-compulsory basis

The students may participate to research programmes, but on a voluntary basis. Some of them are consequently integrated in a laboratory or a team either to perform their M3 practice training, to make their own research with the final aim to write an experimental « graduation thesis », or sometimes to discover the scientific research world.

#### **10.1.4. Description of how the continuing education programmes provided by the Establishment are matched to the needs of the profession and the community**

Since the 1st January 2013, a CEP points-based system has been set up in Belgium to make postgraduate training courses mandatory and traceable for each practitioner. This system is organised and checked by OMV. A total of 60 CEP points must be collected over a period of three years for any OMV registered veterinarian. For one hour of CEP, one point is acquired. There are coefficients that multiply the points actually received. CEP based on practical activities multiplies the number of points obtained by three by the participant. A successful answer to a post-training questionnaire multiplies the number of points by two. If the required number of CEP points is not reached, the OMV may implement sanctions.

In the French speaking part of Walloon Region of Belgium, the continuous education for the veterinary practitioners is ensured by external structures, mainly by FORMAVET ([www.formavet.be](http://www.formavet.be)). The lecturers of the FMV are regularly involved in conferences cycles organised by this non-profit organisation. 60~70% of the trainers in FORMAVET CEP are lecturers from the FMV, 30% of the members of the Board of Directors of FORMAVET are members of the FMV, and a professor from the FMV is the President of the Board of Directors of FORMAVET.

The quality of the trainers and training is evaluated by the participants, as well as on the basis of a set of specifications established by the OMV. The certification of the organisers (FORMAVET is certified ISO 9001) is also a guarantee of quality and reliability.

In addition, a representative of the FMV is present in the board of the OMV to assess the quality of the CEP and of the organisers, as well as the feedback of the participants. Statistics on the activities of FORMAVET for the years 2016, 2017 and 2018 are available in the [Annex 10.3](#).

The FMV also organises certificates (usually over a period of several weekends) (see Table 10.1.4). Each clinicians subgroup (companion animals, equines, ruminants) organises once a year a training for referring veterinarians on a given thematic. Additionally, a full biosecurity day (Biosafety Day) is organised each year and open to faculty members and practitioners. Finally, the students organise conferences on various topics during the evening, after a systematic evaluation of the subject and the speaker by the VDE (see [Annex 10.4.](#)).

#### 10.1.5 Prospected number of students registered at post-graduate programmes for the next 3 academic years

Different postgraduate education programmes are proposed by the FMV.

These include (1) the PhD, (2) internship and residency, but also (3) several complementary Master's, organised during one year, or more (see table 10.1.3).

While the number of PhD students and interns/residents remains rather stable, the number of students registered in post-graduate Master's should increase according to the fact that new Master's programmes will be available from September 2020.

#### 10.1.6. Description of how and by who research, continuing and postgraduate education programmes organised by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised

**Research.** Each academic freely manages his/her research according to the principle of « academic freedom » to decide the orientation and subject of his/her research. The only constraints are to respect animal welfare, in accordance with the advice of the ethics committee, and to obtain the necessary funding.

**Post-graduate education (internships and residencies):** the number of available positions is decided by the CF. Nevertheless, the CVU may independently decide to employ additional interns and residents from its own funds. Moreover, the selection of the candidates is performed by a group of professors and associated teachers in each of the clinics.

**Continuing education:** the FMV has decided to partner with FORMAVET. CEP subjects are decided by mutual agreement between practitioner associations and the FMV.

**Table 10.1.1. Number of students registered at postgraduate clinical training**

Training	2017-2018	2016-2017	2015-2016	Mean
<b>Interns</b>				
Companion animals	12	12	12	12
Equine	8	7	7	7.33
Production animals	4	5	4	4.33
Exotic animals	2	2	2	2
<b>Total</b>	<b>26</b>	<b>26</b>	<b>25</b>	<b>25.66</b>
<b>Specialised interns</b>				
Companion animals	7	4	5	5.33
Medical imaging	1	1	1	1
<b>Total</b>	<b>8</b>	<b>5</b>	<b>6</b>	<b>6.33</b>
<b>Residents</b>				
ECVS	5	4	3	4
ECVAA	4	4	2	3.33
ECEIM	1	1	2	1.33

ECVDI	3	3	2	2.67
ECAR	1	0	0	0.33
ECVIM	3	3	4	3.33
ECZM	2	2	2	2
ECVO	1	1	1	1
ECBHM	1	1	2	1.33
ECVPH	3	1	0	1
ECPV	0	1	1	0.67
<b>Total</b>	<b>24</b>	<b>21</b>	<b>19</b>	<b>21.33</b>

**Table 10.1.2. Number of students registered at postgraduate research training**

Degrees:	2017-2018	2016-2017	2015-2016	Mean
PhD	141	138	149	142.67

**Table 10.1.3. Number of students registered at other postgraduate programmes (including any external/distance learning courses)**

Courses:	2017-2018	2016-2017	2015-2016	Mean
Specialised master in plant and animal resource management in tropical environment	-	1	16	5.67
Specialised veterinary medicine	9	37	44	30
The integrated management of health risks in the Global South	12	15	-	9
Veterinary sciences : clinical internship	26	-	-	8.67

**Table 10.1.4. Number of attendees to continuing education courses provided by the Establishment**

Courses:	2017-2018	2016-2017	2015-2016	Mean
Oriented veterinary internship	5	5	6	5.33
Controlling the food chain	-	3	11	4.67
Laboratory Animal Science certification for Scientists responsible for directing animal experiments	56	60	56	57.33
Equine dentistry	-	12	-	4
Food safety	2	-	-	0.67

**Table 10.1.5 List of the major funded research programmes in the Establishment which were on-going during the last full academic year prior the Visitation (2017-2018)**

Funds	Number of projects	Total budget (€)	2017-2018 budget (€)	Projects' duration	Projects' first year
<b>Private</b>	<b>2</b>	<b>2,460,609.79</b>	<b>99,879.72</b>		
FARAH (PAD)	1	2,360,609.79	64,674.24	3 years	2014
FARAH (SPV)	1	100,000.00	35,205.48	2 years	2016
<b>European</b>	<b>8</b>	<b>4,751,551.74</b>	<b>721,406.43</b>		
FARAH (PAD)	1	415,361.00	103,769.18	4 years	2015
FARAH (SPV)	4	456,940.74	106,840.85	8 months - 4 years	2013-2018
GIGA	3	3,879,250.00	510,796.41	5 years	2013-2017
<b>National</b>	<b>12</b>	<b>2,637,312.69</b>	<b>441.954.48</b>		
FARAH (SPV)	11	2,137,312.69	420.060.14	1 year - 5 years	2012-2017
GIGA	1	500,000.00	21.894.34	69 months	2012
<b>Regional</b>	<b>77</b>	<b>23,283,337.74</b>	<b>4,813,917.34</b>		
FARAH (MVC)	4	1,518,984.88	350,683.34	3 years - 5 years	2015-2018
FARAH (PAD)	18	5,680,759.52	1,055,404.04	5 months - 12 years	2007-2018
FARAH (SPV)	32	9,442,235.14	1,596,485.32	2 months - 14 years	2005-2018
GIGA	23	6,641,358.20	1,811,344.65	1 year - 4 years	2015-2018
<b>ULiège</b>	<b>25</b>	<b>2,381,223.00</b>	<b>714,715.81</b>		
FARAH (MVC)	2	30,000.00	15,000.00	2 years	2016
FARAH (PAD)	1	15,000.00	7,500.00	2 years	2016
FARAH (SPV)	11	573,435.00	206,922.44	2 years - 4 years	2015-2016
GIGA	11	1,762,788.00	485,293.38	2 years - 4 years	2015-2017
<b>Overall total</b>	<b>124</b>	<b>35,514,034.96</b>	<b>6,791,873.78</b>		

## 10.2. Comments

The number of research groups working at FARAH or GIGA, the total number of publications, the number of PhD students are positive markers of the good health and the dynamism of research, which is one of the major assets of the FMV.

Nevertheless, during the last 10 years, the budgets available for research have been declining in Belgium, and it is becoming increasingly difficult to obtain research agreements namely in the field of applied veterinary medicine. As a result, clinical research has become more and more difficult to implement.

Undergraduate students are encouraged to participate to research activities, but several factors clearly hinder their enthusiasm. Basically, most of students want to study veterinary medicine to care for animals and are not primarily interested in a research career. In addition, probably because of the courses, the laboratories and clinical activities are consuming most of their time, they consider that they do not have enough time to be initiated to research. Finally, the PhD thesis is increasingly difficult to valorise in the labour market.

Contrarily, the demand for internships and residencies is enormous and although the number of positions offered by the FMV is high, a large number of candidates do not qualify to specialise.

Continuing education for practitioners and professional is mainly provided by external associations, namely because FMV is fully engaged in the undergraduate training of too many Master's students and is unable to spend a significant time to organise and develop that activity itself.

Distance learning is being progressively developed but the current number of MOOCs proposed by the Faculty still remains too low.

### 10.3. Suggestions for improvement

Obviously, limiting the number of students entering the Master's is of paramount importance for all activities developed by the FMV. Indeed, once the excessive number of students decreases, the academic staff will have more time to supervise the undergraduate students and initiate these students to research. Additionally, the senior researchers would become more available for the postgraduate training organisation. An integration of FORMAVET into the FMV could be considered in the future.

Nowadays, and once again because there is a need for an assistant to manage the high number of students, the young assistants immediately start to teach the undergraduate students. However, ideally, they should be systematically released from their teaching duties in their first year of employment, in order to enable them to train properly and to follow several introductions to science, bibliographic research and data processing. In addition, the links created within FARAH should be further intensified, as well as the meetings between young doctoral students (seminars, interdisciplinary projects) to prevent them from becoming discouraged and from abandoning their current thesis.

Collaboration between clinicians and fundamental researchers should also be intensified, since it is the diversity of these specialties that make the wealth of the FMV.





## 11. Outcome Assessment and Quality Assurance

## 11. Outcome Assessment and Quality Assurance

### 11.1. Factual information

#### 11.1.1. Description of the global strategy of the FMV for outcome assessment and Quality Assurance (QA)

The SMAQ is in charge of the quality management at the university level: general procedures, quality culture, support in the accreditation and certification processes, etc. See the website [https://www.uliege.be/cms/c\\_9252870/en/quality-management-and-accompaniment-department-smaq](https://www.uliege.be/cms/c_9252870/en/quality-management-and-accompaniment-department-smaq) for more information.

**Safety, welfare at work and biosecurity** are regularly monitored, namely through visits to places of work and audits, carried out by internal bodies within the Faculty (CFB, Welfare Commission), by institutional bodies (Hygiene and Health Protection at Work, SUPHT - [https://www.uliege.be/cms/c\\_9145323/en/hygiene-and-health-protection-at-work-supht](https://www.uliege.be/cms/c_9145323/en/hygiene-and-health-protection-at-work-supht)) or by the external service for Prevention and Protection at Work (SPMT-ARISTA), by ScienSano as Biosafety Expert for the Walloon Region or private companies.

The CFB is particularly concerned by aspects related to education and clinical activities; it has an advice service and submits its recommendations to the FMV. It can also request corrective actions from other university services if necessary. The BC is involved in the biosafety related to contained use (thus mainly research) and is associated with CFB regarding biosafety in teaching microbiology labs (e.g. bacteriology and virology). The President of the CB is a permanent invited member of CFB.

SUPHT and the CFB ensure the implementation of biosecurity SOPs. One-shot surveys are also conducted on specific safety issues. The CFB has also a mission of continuous training of the faculty staff. For this purpose, it organises the Biosecurity Day annually giving CEP points to the participants. All biosecurity information can be found on the FMV biosecurity website: <https://www.fmv-biosecurite.ulg.ac.be/generale/?langue=en>, as well in the Biosecurity Manual. The previous version of the biosecurity SOP produced by the ad hoc Faculty Biosecurity Unit is available ([http://www2.fmv.ulg.ac.be/actualites/Biosecurity\\_Manual\\_Final\\_6Jan10.pdf](http://www2.fmv.ulg.ac.be/actualites/Biosecurity_Manual_Final_6Jan10.pdf)). However, the updated version of the biosecurity SOP produced by the ad hoc Faculty Biosecurity Unit will be available at the beginning of April 2019. The updated version of the biosecurity SOP was already translated by the ad hoc Faculty Biosecurity Unit in a free website for all stakeholders (<https://www.fmv-biosecurite.ulg.ac.be/?langue=en>).

#### Teaching (see also Chapter 3)

The curriculum is reviewed and adapted from year to year, based on feedback from students and teachers, but also considering the opinions of external stakeholders such as alumni. In parallel, a committee is considering in-depth structural reform of the curriculum (reform of the programme committee). The annual pedagogical day provides feedback from the teachers for improvement of the teaching and explores new teaching methods.

Students are encouraged to communicate regularly throughout their studies. Specific structures are set up for this purpose, the CE (CE1 for Bachelor's and CE2 for Master's). The missions and how the CE works can be consulted online at [http://www.fmv.uliege.be/cms/c\\_253078/fr/conseils-des-etudes](http://www.fmv.uliege.be/cms/c_253078/fr/conseils-des-etudes).

A follow-up is carried out by the CF, which can decide to investigate and/or to set up corrective measures.

Students' opinions are also solicited for each UE, via the online EVALENS online survey that happens twice a year. The VDE is responsible for analysing the results, using synthesis and comparative tools. For the UE which get a low score and/or negative and recurrent comments, the VDE meets with the course leaders to explore areas for improvement. On this basis, actions are put in place during the next year and the next EVALENS survey allows to evaluate their effects.

An example of table that teachers receive is given in the [Annex 11.1](#).

The [Annex 11.2](#), is given to teachers to help them for the interpretation of the table and results they receive.

Students may also be asked for their evaluations in the form of individual initiatives by teachers. This approach can be done with the support of the SMART cell of ULiège (<http://smart.uliege.be/>).

Other surveys are carried out at the end of Master's 3, then one year and five years after graduation. All these surveys are anonymous, in paper format for Master's 3, online for the other two. These surveys cover a wide field of questions.

These data also provide a basis for the working groups "programme" involved in the curriculum modifications.

The teaching staff is consulted through discussions during the CF meetings and during the pedagogical day, which is organised annually.

The steering group is the inter-institutional think-tank where the gaps and inconsistencies of the various Bachelor's programmes organised in the FWB are reported and analysed. This analysis may give rise to corrections.

The complete diagram of the decision making process for programme changes can be found in the [Annex 11.3](#).

Continuous improvement procedures for the other processes implemented by FMV and ULiège are described in the previous chapters.

#### **11.1.2. Description of the form by which the strategy, policy and procedures are made formal and are publicly available**

All information on biosecurity can be found on the website dedicated to biosecurity at the FMV: <https://www.fmv-biosecurite.ulg.ac.be/generale/?langue=en>, as well in the Biosecurity Manual (see 11.1.1.).

The results of the alumni surveys are communicated in the CF and during the pedagogical days. The results of the EVALENS surveys are available on the intranet for each teacher. They remain confidential. Changes concerning the curriculum are communicated during the CF meetings. Curricular changes and teaching modalities are posted on the FMV's public website.

#### **11.1.3 Description of the regular publication of up to date, impartial and objective information, both quantitative and qualitative, about the educational programmes and awards the Establishment is offering**

The curriculum as well as all information related to the course(s) organised in the FMV are available on the following website: <https://www.programmes.uliege.be/cocoon/20182019/en/formations/bref/V1VETE01.html>. This information is updated annually.

The various prizes and grants awarded by the FMV are listed on the website [http://www.fmv.uliege.be/cms/c\\_253041/fr/bourses-et-prix](http://www.fmv.uliege.be/cms/c_253041/fr/bourses-et-prix).

#### **11.1.4. Description of the QA processes not yet described in the other 10 Standards**

The BD meets weekly to analyse needs and find solutions. More strategically, it follows the operational objectives set by the FMV (see [Annex 1.1](#).) and ensures their implementation. An annual management review from the BD actions has been in place since 2019. It aims to take stock of progress, to redirect objectives and to define the corrective and preventive measures to be implemented, if necessary with the validation of the CF or other instances of the ULiège or the FMV.

#### **11.1.5. Description of how and by who the QA strategy of the Establishment is decided, communicated to staff, students and stakeholders, implemented, assessed and revised**

Collected information regarding the curriculum is analysed and points of attention are noted by different bodies: the EVALENS working group, the alumni working group, the education cell (CP), the CE, the EAB, etc. Two reform of the programme committees (one for the Bachelor's and one for the Master's) produce a report including guidelines for programme modification proposals. This report is discussed during the CPFE meetings with the department chairs. The proposals are then analysed by the CP to evaluate the feasibility and possible implementation of the proposals. A communication is done during the CF meeting where further consultations can take place. The final proposals are analysed by the CPFE and then submitted to the CF. The CF decides on the validation or not of these action plans which, in case of a positive vote, will be submitted to the CA. If approved, the changes can be implemented. The full diagram of these decisions can be found in the [Annex 11.3](#).

## 11.2. Comments

Currently, the stakeholders are not sufficiently involved in the decisions and do not receive enough feedback on the surveys carried out, the decisions taken and the actions put in place. An EAB has been set up to rectify the situation.

There is a lack of written procedures for certain tasks or written records for certain actions related to education improvement.

The goal of ISO9001 certification, defined three years ago, has been postponed due to lack of staff resources but will be resumed in post-plethora.

## 11.3. Suggestions of improvement

Better centralisation of the information available is necessary to consolidate the quality assurance system.

A position of quality manager should be formalised and stabilised within the FMV.

Stakeholders should be more involved and the FMV should give them more feedback as well.

Feedback and comments from the EPT supervisors (practitioners) should be more considered in order to improve the programme.

Improvement could be obtained through (1) the creation of a permanent FMV work group to carry out an annual summary of the reports of the EPT supervisors, alumni surveys and meetings of the EAB; (2) a regular feedback on alumni surveys to the profession via professional channels of communication (Veterinaria) as well as on the changes implemented in programmes.

A survey on workplace safety should be systematised annually. A permanent feedback system is to be put in place to improve security of the persons within the FMV. In the near future, the ULiège will promote the creation of an “experience feedback cell” which would facilitate this survey.

Although BAC3 students have a course for Biosecurity (identical in the four institutions), they should have specific reminders (with verification of knowledge) before being admitted to the different clinics. Similarly, biosecurity training specific to support staff would be useful, although some members of this category of staff participate each year in Biosecurity Day.



## 12. ESEVT Indicators

## 12. ESEVT Indicators

### 12.1. Factual information

	Calculated Indicators from raw data	Establishment	Median	Minimal	Balance3
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.116	0.16	0.13	-0.010
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0.537	0.87	0.59	-0.053
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0.502	0.94	0.57	-0.064
I4	n° of hours of practical (non-clinical) training	606.500	905.67	595.00	11.500
I5	n° of hours of clinical training	609.000*	932.92	670.00	-61.000
I6	n° of hours of FSQ & VPH training	157.000	287.00	174.40	-17.400
I7	n° of hours of extra-mural practical training in FSQ & VPH	31.000	68.00	28.80	2.200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	33.508	70.48	42.01	-8.501
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	2.243	2.69	0.46	1.779
I10	n° of equine patients seen intra-murally / n° of students graduating annually	5.451	5.05	1.30	4.153
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	4.581	3.35	1.55	3.035
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	10.843	6.80	0.22	10.619
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	26.148	15.95	6.29	19.853
I14	n° of equine patients seen extra-murally / n° of students graduating annually	1.216	2.11	0.60	0.621
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0.489	1.33	0.55	-0.058
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.000	0.12	0.04	-0.045
I17	n° of companion animal necropsies / n° of students graduating annually	1.710	2.07	1.40	0.310
I18	n° of ruminant and pig necropsies / n° of students graduating annually	4.352	2.32	0.97	3.382
I19	n° of equine necropsies / n° of students graduating annually	0.849	0.30	0.09	0.756
I20	n° of rabbit, rodent, bird and exotic animal necropsies / n° of students graduating annually	0.686	2.05	0.69	-0.006
I21	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.195	0.20	0.06	0.132
I22	n° of PhD graduating annually / n° of students graduating annually	0.065	0.15	0.09	-0.023

\* The 240 hours of clinical training during the holidays are included since they are mandatory from 2018-2019. Moreover, these hours increase to 320 h from 2018-2019 (see 3.1.5.), making the clinical training hours increase to 689 hours.

## 12.2. Comments

The under-supervision by the academic staff is linked to the large number of students admitted to the Master's degree. Indicators I1 and I2 are expected to improve significantly in the coming years to exceed the minimum recommended values.

Support staff working within the FMV is insufficient to perform animal care tasks and support administrative and teaching activities. This is the result of the willingness of the ULiège to reduce this category of personnel.

The number of compulsory clinical hours for all students is insufficient compared to the indicative values of the EAEVE. This is mainly due to the choice made by the FMV to make the final year clinics optional. The basic clinical approaches are given in all species but are only studied in one of the three clinics. The new organisation of clinical activities during the holidays is improving this indicator from 2018-2019.

The number of teaching hours devoted to FSQ & VPH is low. This results from the fact that the Master's programme is too busy and does not allow more time for these disciplines.

The low ratio for companion animal patients seen internally can be explained by the large number of students currently on the Master's but is offset by a large number of first-line cases seen externally.

The low ratio for ruminant herd visits is linked to the large number of Master's students. The new Professor of Theriogenology and the mobilisation of the FEPEX herds should solve this problem in parallel with the decrease in the number of students.

The low number of visits of herds of pigs, poultry and rabbit is linked to the difficulty of visits of this type of breeding for reasons of biosecurity. This lack is already compensated, for the pigs, by visits of a mini-breeding within the FMV and an experimental breeding of the Walloon Region in Gembloux and, for poultry and rabbits by virtual visits on supports multimedia. A collaboration project with our colleagues from the National Veterinary School of Toulouse is underway to improve these teaching aids and the accommodation of a pigeon breeding and a slaughterhouse within the FEPEX is planned.

## 12.3. Suggestions for improvement

It is essential to maintain a competition limiting the number of students accessing the master's degree in veterinary medicine. Proactive steps in this direction will have to be conducted during the academic year 2019-2020.

Teaching staff should be kept to a minimum at the level of the academic year 2015-2016. Guarantees must be obtained in this sense from the authorities of the University.

ULiège and the FMV should do a thorough analysis of the needs of support staff within the FMV to strengthen the framework that was needed.

As far as possible, the number of teaching hours dedicated to FSQ & VPH should be increased as part of the future reform when the number of Master's students is no longer excessive.

Practical activities concerning the industrial breeding of poultry and rabbits should be more numerous.





## Glossary

## Glossary

Acronym	French name	English Name	Defined in point
AC	Animaux de Compagnie	Companion animals	-
AFSCA	Agence Fédérale pour la Sécurité de la Chaîne Alimentaire	Federal Agency for the Safety of the Food Chain	3.1.6.
ARES	Académie de Recherche et d'Enseignement Supérieur	Research and Higher Education Academy	Introduction
ARF	Administration des Ressources Financières	Financial Resources Administration	-
ARH	Administration des Ressources Humaines	Human Resources Administration	-
ARI	Administration des Ressources Immobilières	Real Estate Resources Administration	-
BD	Bureau décanal	Decanal Office	1.1.4.
BSV	Bibliothèque des Sciences de la Vie	Life Sciences Library	6.1.1.
CA	Conseil d'Administration	Board of Directors	1.1.4.
CAEM	Cellule d'Appui à l'Enseignement basé sur le Multimédia	Support Unit for Multimedia-based Education	1.1.5.
CARE	Cellule d'Appui à la Recherche et à l'Enseignement	Support Unit for Research and Education	1.1.5.
CB	Commission de biosécurité	Biosafety Committee	1.1.5.
CE	Conseil des Études	Board of Studies	1.1.5.
CEB	Comité d'Examen du Budget	Budget Review Commission	2.1.1.
CEP	Programme de formation continuée	Continuing Education Programme	10.1.4.
CF	Conseil de Faculté	Faculty Council	1.1.4.
CFB	Comité de Biosécurité de la Faculté de Médecine Vétérinaire	Faculty Biosecurity Unit	1.1.5.
CHU	Centre Hospitalier Universitaire	University Hospital Center	-
CIM	Commission Mixte de l'Infrastructure	Infrastructure Mixed Commission	2.1.8.
CP	Cellule pédagogique	Pedagogical unit	1.1.5.
CPFE	Commission Permanente Facultaire à l'Enseignement	Permanent Faculty Commission for Education	1.1.4.
CPFR	Commission Permanente Facultaire à la Recherche	Permanent Faculty Commission for Research	1.1.4.
CR	Collège Rectoral	Rectoral College	1.1.4.
CUEF	Conseil Universitaire à l'Enseignement et à la Formation	University Commission for Education and Training	1.1.4.
CURE	Conseil Universitaire à la Recherche et à l'Enseignement	Research and Education University Council	1.1.4.
CURV	Conseil Universitaire à la Recherche et à la Valorisation	University Commission for Research and Valuation	1.1.4.
CVU	Clinique Vétérinaire Universitaire	Veterinary Teaching Hospital (VTH)	1.1.5.
DCA	Département clinique des animaux de compagnie	Clinical department for companion animals	1.1.5.
DCP	Département clinique des animaux de production	Clinical department for animal production	1.1.5.
DDA	Département des denrées alimentaires	Food sciences department	1.1.5.
DMI	Département des maladies infectieuses et parasitaires	Infectious and parasitic diseases department	1.1.5.
DMP	Département de morphologie et Pathologies	Morphology and pathologies department	1.1.5.

DRA	Département des ressources animales	Management of animal resources department	1.1.5.
DSF	Département des sciences fonctionnelles	Functional sciences department	1.1.5.
EAB	Comité d'Orientation Externe	External Advisory Board	1.1.5.
ECTS	Crédit	European Credits Transfer System	-
EES	Établissements d'Enseignement Supérieur	Higher Education Institutions	Introduction
EQ	Équidés	Equines	-
ESH	Étudiants en Situation de Handicap	Students with Disabilities	7.1.2.
EVALENS	Système d'Évaluation de l'Enseignement	Education assessment system	11.1.1.
FARAH		Fundamental and Applied Research for Animals and Health	1.1.5.
FEPEX	Ferme Pédagogique et Expérimentale	Educational and Experimental Farm	1.1.5.
FMV	Faculté de Médecine Vétérinaire	Faculty of Veterinary Medicine	-
FWB	Fédération Wallonie-Bruxelles	Wallonia-Brussels Federation	Introduction
GIGA	Institut de Recherche interdisciplinaire en sciences biomédicales	Interdisciplinary research institute in the biomedical sciences	1.1.5.
IFRES	Institut de Formation et de Recherche en Enseignement Supérieur	Training and Research Institute in Higher Education	9.1.1.
OMV	Ordre des Médecins Vétérinaires	Professional Association of Veterinarians	-
QVE	Qualité de Vie des Étudiants	Students' Quality of Life	7.1.2.
RGEE	Règlement Général des Études et des Examens	General Regulation of Studies and Examinations	-
RP	Ruminants et Porcs	Ruminants and Pigs	-
SMART	Système Méthodologique d'Aide à la Réalisation de Tests	Methodological System of Assisting Tests	-
SPA	Société Protectrice des Animaux	Society for Animal Protection	-
SUPHT	Service Universitaire de Protection et d'Hygiène au Travail	University Service for Protection and Hygiene at Work	11.1.1.
TOSS	Test d'Orientation en Sciences de la Santé	Orientation Test in Health Sciences	7.1.2.
UCL	Université Catholique de Louvain		-
UDI	Unité Décentralisée d'Informatique	Decentralised Unit of Computing	6.1.3.
UE	Unité d'Enseignement	Teaching Unit	-
ULB	Université Libre de Bruxelles		-
UNamur	Université de Namur		-
UPV	Union Professionnelle Vétérinaire	Professional Veterinary Union	-
VDE	Vice-Doyenne à l'Enseignement	Vice-Dean for Education	1.1.4.
VDR	Vice-Doyen à la Recherche	Vice-Dean for Research	1.1.4.
VTH	Clinique Vétérinaire Universitaire (CVU)	Veterinary Teaching Hospital	1.1.5.

