

**European Association
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**Association Européenne
des Établissements d'Enseignement Vétérinaire**



FINAL REPORT on the STAGE 1 VISITATION to

**The Faculty of Veterinary Medicine,
Cluj-Napoca, Romania**

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INTRODUCTION

The Faculty of Veterinary Medicine in Cluj-Napoca (FMVCN) was established in 1962 as part of the Institute of Agronomy and later incorporated into the University of Agricultural Sciences and Veterinary Medicine (USAMV) as a distinct unit. Between 1974 and 1989, it was integrated into the Faculty of Zootechnical Sciences and Veterinary Medicine but, in 1990 it became the largest of 5 Faculties of the University.

FMVCN was accredited by the Romanian Agency for Quality Assurance in Higher Education (ARACIS) in 2009 and its accreditation was renewed in 2014. ARACIS is a full member of ENQA.

FMVCN is the only Veterinary Faculty in Romania to have achieved the highest grading in its field of study under the national classification of Universities and fields of study.

In 2005, the whole system of higher education in Romania adopted the Bologna process, which is implemented fully throughout USAMV.

At an EAEVE/FVE evaluation visit to the Faculty carried out in November 2004, a number of major deficiencies were identified and FMVCN was not approved under the scheme. A revisit was undertaken in 2007, when it was determined that all the major deficiencies had been rectified and the Faculty was added to the list of Approved Establishments.

In 2008, a veterinary course in English was introduced, followed in 2012 by a French course. Each of these has a maximum of 30 students per year.

After the original visitation in 2004 a major programme of upgrading and refurbishment of FMVCN buildings took place, which was not fully complete at the time of the revisit in 2007. Changes have also been made to the veterinary curriculum, some to comply with national and EU legislation and others, introduced by the Faculty and intended to improve the quality of veterinary teaching and, thereby, the level of competence of its graduates.

1.OBJECTIVES & STRATEGY

1.1 Findings

The objectives of FMVCN are presented in the SER as an extensive list, running to several pages and classified under a number of headings related to: teaching, scientific research, material and human resources and national and international performance. They derive from the management plan (or manifesto) under which the Dean of the Faculty is elected and are adopted by the Faculty and the University upon the Dean's appointment. They tend to be statements of intent, rather than objectives, they are not specific and they lack a timescale. The SER indicates that some of the stated objectives are long term, general aspirations and imply a policy of continuous improvement; others are more specific short or medium term objectives - and the SER indicates that some are either in the process of implementation or have already been achieved. Many of the objectives relate to infrastructure and policies indirectly associated with undergraduate teaching.

1.2 Comments

The SER does not include a clear and concise statement of objectives covering the whole education programme, nor does it confirm that the primary aim of the establishment is to provide high quality veterinary undergraduate education – though this could be inferred from the extended list of objectives.

1.3 Suggestions

The Team suggests that the Faculty should prepare and agree a concise statement of objectives – or Mission Statement – which would encapsulate the ethos and aspirations of the Faculty for the provision of high quality veterinary undergraduate education. This would constitute a long term commitment against which Faculty members could judge the suitability of the management plan which forms part of the manifesto published by each prospective Dean. Before adoption by the Faculty, detail should be added to the management plan, to distinguish between projects that are ongoing or proposed, prioritise the proposals and include a timescale for commencement and completion of each item.

2. ORGANISATION

2.1 Findings

The University of Agricultural Sciences and Veterinary Medicine is a public higher education institution funded by the Romanian Ministry of Education (MEN) and is part of the national higher education system. It has 5 Faculties: Agriculture; Horticulture; Animal Science and Biotechnology; Food Science and Technology; and Veterinary Medicine.

The University is managed by a 15 member Administrative Council, whose president is the Rector. The Rector is elected by all full-time teachers and researchers of the University and students from the Senate. The Administrative Council is responsible for implementing the management agreement entered into by the Rector and submits a strategic development plan and annual action plan for the University to the Senate.

The Senate is the main decision-making body. There are 35 senators: 26 from the full-time teaching and research staff and 9 from the student body. All staff members of the University can vote for the staff members of the Senate and all students (undergraduate and postgraduate) can vote for student members. Faculties and Departments are proportionately represented by the staff members; bachelor, master and PhD students are proportionately represented by the student members. The President of the Senate is elected by its members.

The executive functions of the University are carried out by the Administrative Council, which is chaired by the Rector and includes the Vice-Rectors, the Faculty Deans, the General Manager of Administration and the student prefect.

Faculty Councils are elected by secret ballot under the supervision of an electoral commission of the University. All teachers within the Faculty are entitled to vote for teacher members of the Council and each Department within the Faculty is proportionately represented. Students are assigned a minimum of 25% of Faculty Council seats and there is also a place for a representative of the student associations. The Dean, Vice-Deans and Departmental Directors are members of the Faculty Council *ex officio*.

Faculty representatives to the University Senate are elected by secret ballot, under the supervision of the electoral commission.

The Dean of the Faculty is selected by open competition, organised by the Rector, based on public nominations approved by the Faculty Council; Vice-Deans are appointed by the Dean and confirmed by the Faculty Council and University Senate.

The SER indicates that the Rector and the Administrative Council of USAMV are aware of the special needs of FMV related to veterinary education and provide practical support; and the Faculty is well represented in the University Administrative Council, contributing 2 of the 6 Vice-Rectors and the Director of the University Council of Doctoral Studies.

2.2 Comments

USAMV has a large and complex bureaucracy and a management hierarchy which extends downwards into Faculty and Departmental Councils - which themselves have 5 – 7 members elected from within the Department.

Membership of, and attendance at meetings of these bodies will inevitably dilute the time that veterinary staff can spend on their primary functions of teaching and research. So while it is important for teaching staff to be well represented in the organisation and management of the Faculty and the University, it is also vital that such committees meet only as often as is necessary and conduct their business in an efficient and timely manner.

2.3 Suggestions

The SER itself suggests that external veterinary authorities and veterinary professional associations should be more involved in the development of the Faculty's strategy. The team would strongly endorse this suggestion, if it can be achieved within University regulations - or the rules can be changed to allow it.

3. FINANCES

3.1 Findings

The primary source of funding of FMVCN is the State (Ministry of National Education, MEN), through the University, but FMVCN also generates some income of its own. Funding for the Faculty has greatly increased in the past 10 years and the evidence is to be seen in the modern buildings, improved learning resources, better facilities and higher salaries for staff.

The base funding for the University is allocated on the basis of student numbers, weighted for various factors. Masters students are given a coefficient of 2 and PhD students 4 (compared with bachelors students as 1); and veterinary students are costed at a factor of 2.25 (compared with a humanities student as 1).

Additional funding from MEN may be allocated, taking into account quality criteria of the University's courses, particularly higher degrees, and the role of the University in local and regional institutions.

Of the base funding received from MEN, the University withholds 20% for general expenses and 15% for salaries of central administrative and other staff. The remaining 65% is allocated by the University to the Faculties, but administered by the USAMV Accounting Department; it is used to pay salaries, travel and personal expenses, consumables, etc. of FMVCN.

The FMVCN derives income from services such as laboratory work, consultations and clinical activity. USAMV retains 30% this income; the remaining 70% is available to FMVCN.

The University retains a maximum of 15% of money received as research grants; the rest is available to the unit which has attracted the grant.

USAMV retains 30 % of the fees received from state-funded students, but only 20% of those received from students on the English and French language veterinary undergraduate courses. In each case, the remainder is available to FMVCN.

3.2 Comments

Veterinary education is very expensive to deliver and veterinary establishments can always use more money. But compared with many Faculties, Cluj-Napoca appears to be well funded; and the differential in *per capita* funding between veterinary and other students reflects the relative cost of veterinary training better than most. Both USAMV and FMVCN appear to be well-regarded – and therefore well-funded – by MEN.

3.3 Suggestions

To maintain – and hopefully improve - its present level of funding, it is obviously important for FMVCN to continue its policy of continuous improvement and development of the veterinary undergraduate course and for its staff to continue to involve themselves in the governance of the University, to an extent that is compatible with their teaching duties.

4. CURRICULUM

4.1 GENERAL ASPECTS

4.1.1 Findings

In Romania, the minimal mandatory disciplines are regulated by the Government decision HG 1477/2003. As specified in Law 1/2011, the study duration should be 6 years (non professionalising bachelor with integrated master, followed by optional PhD) with a minimum of 5500 hours and 360 ECTS credits. In 2014 a meeting of the deans harmonized the amendments to be done in answer to the EU directive 55/2013. Based on the documents and the information that could be collected, the curriculum is delivered as described in the SER. It is fully corresponding to the list of EU subjects. It is well balanced, and covers all the important animal species. The faculty takes the liberty to introduce other disciplines in addition to the ones listed in a maximum proportion of 20% (which is possible in a curriculum of 6 years). It is the case for extra training in subjects outside or more thorough study of the EU subjects, focussed on foreign languages, communication skills and some special-interest subjects (laboratory animals, oncology, mycology, embryo transfer).

Sport hours (56) are included in the curriculum together with 28 hours of Communication techniques. During each academic year, there is a period of extramural practice (generally 90 hours or 4 ECTS credits) with the exception of the 1st and 6th year, where the practice is structured differently. The extramural work is based on conventions / contracts with private practices (pets and farms) and supervised by the faculty. A student logbook was introduced in this academic year, helping the students and teachers to follow and track practical learning progress.

4.1.2 Comments

The definition of some types of teaching differs somewhat from the usual. For example, the so-called supervised practicals correspond more to an interactive small group lecture.

The value of ECTS credits seem also to differ from the usual amount of 25 hours. Depending on the type of teaching it varies from 14 – 22 hours.

Due to a minimal number of clients, especially in certain specialities (routine gastroenterology, bovine surgery, etc) the extramurals provide a good alternative for the practical and hands-on teaching of the students. The clinical rotation during the 5th and 6th years and the good clinical teaching on the patient side (including mobile clinic opportunities) allow a well structured training in the clinical topics.

Even if they still correspond to a traditional vision of teaching, the ratios of lectures to practical or supervised work, and theoretical to practical teaching are adequate in the context of this faculty. A more progressive way of teaching, especially with consequent use of self-directed learning and real supervised practicals, could make the teaching more efficient in a shorter time. This is however depending on the way under-graduates are trained in Romania, and to what extent they are used and have access to modern IT.

4.1.3 Suggestions

The scope of the general courses (communication, etc) could be extended, for instance with academic writing, literature research, good laboratory or good research practice in order to foster the training of professionalism.

The opportunity of a progressive shift from an hours-based curriculum to a more modular system (integrated and/or block-courses) could make the teaching and learning more efficient.

Some priorities in the learning objectives could be re-evaluated in response to the evolution of the profession and the veterinary market (outcome orientation of the curriculum). This would correspond to a shift from mainly learning objectives to outcome/competencies-based teaching.

The organization and the management of the extramurals should be carefully monitored by the faculty, and regular contacts should happen with the directors of the private clinics or practices under contract, in order to guarantee that the teaching is in line with the academic teaching.

4.2 BASIC SUBJECTS & SCIENCES

4.2.1 Findings

According to the SER 2014 the basic knowledge of candidates for admission to studies of FMVCN is highly variable. A small proportion (about 24%) are from schools that provide basic biological science knowledge. Others have poor additional training in biology and chemistry: thus an entry examination in biology, based on the relevant manual, announced the year before, was introduced.

Basic Subjects and Basic Sciences mentioned in the EU Directive, taught as independent modules or parts of other subjects, form the core curriculum which covers all the important areas of basic veterinary education. With a total of 266 hours of basic subjects and 1170 hours of basic sciences it forms one quarter (25.95%) of total curriculum hours and it seems to be adequately covered. In the majority of this part of the curriculum subjects, the amount of laboratory and desk work has significantly increased and the hours of formal lectures have decreased compared with the EAEVE Report, November 2004. 140 hours of theoretical training in Basic Subjects is balanced with 126 hours of practical training. A similar situation exists within Basic Sciences with 532 hours of lectures and 434 hours of laboratory and desk-based work. The majority of non-clinical animal work is covered by Anatomy (168) and smaller proportion by Microbiology (14).

All Basic Subjects & Sciences are taught either in one or two modules, except Comparative Anatomy (4 modules). The curriculum hours in EU-listed (Basic) Subjects taught to veterinary students are shown in SER Table B page 38.

Biochemistry of the molecular metabolism within Basic subjects and Cytopathology and Haematology within Basic Sciences are offered to students as electives or optionals from EU-listed subjects (SER Table C page 39). Once a subject is selected, it becomes compulsory with their corresponding ECTS's. Molecular medicine is offered to be taken as a free-elective or facultative (SER Table D page 40). It provides supplementary credits added to 360 ECTS.

In general the number of hours allocated to basic subjects has been decreased comparing to the last EAEVE 2004 Report. Also, there are 22 hours of Practice (intra & extramural) within the Basic Sciences.

Access to animal material for teaching purposes within basic subjects is supported by the Faculty's own clinics together with a number of local veterinarians. Efforts have been made in recent years, thus the material used in practical anatomical training has been increased from several sources - particularly in the year 2013-2014. Also, some Basic Science departments are in close collaboration with Faculty clinics, offering their laboratory teaching facilities for students.

Students are introduced to safety measures while working with animals and in laboratories. The Faculty staff hold introductory lesson on specific topics related to bio-safety, general safety and precaution measures or labour safety rules at the beginning of each semester.

4.2.2. Comments

The core curriculum comprises the major basic subjects and sciences of basic veterinary education and is acceptable for veterinary undergraduate students.

From the SER 2014 it is possible to find out many both directions (mutual) supports in teaching activities between Basic Subjects and Sciences and other core curriculum subjects. In each academic year Practice (intra & extramural) is included, thus within the Basic sciences 22 hours are devoted to the beginnings of student practical skills.

The overall calculations of total hours in Basic Subjects and Sciences have shown a reduction in theoretical lectures in comparison to the last SER 2004 with beneficial effects towards Laboratory and desk-based work. However, the teaching methodology and the facilities in many disciplines remain still very traditional: e.g. the definition and proper use of self-directed learning as teaching and learning instrument.

It is obvious that the basic subjects and sciences are taught to provide the direct link for the majority of clinical subjects. For example, general veterinary therapeutics, which is also incorporated to some extent in the clinical subjects. This is also confirmed by electives offered by the basic disciplines, which link the basic disciplines and the clinics in specific areas (e.g. cytopathology and haematology and relevant clinical subjects).

It should be noted that the majority of teachers develop their own course materials to accompany the teaching. This has been formed as initiative to model the subject to the needs of the curriculum and integrate the topics well, using it as a bridge between basic literature in Romanian language and foreign language literature.

The number of the support staff at the basic science departments is generally low and, in many occasions, teaching staff have to carry out work of technicians.

4.2.3 Suggestions

The proportion of theoretical and practical classes, in majority of basic subjects, seems appropriate, but practical trainings should move from traditional approach by using more effective methods. It would be appropriate to analyse the possibilities to add self-directed learning as additional factor for student oriented activities within basic subjects and sciences.

A strategy for continuous assessment of educational policy should be discussed at the level of whole faculty teaching and student staff.

Although there is clear evidence that the students in Anatomy at the Department I are exposed to sufficient animal material (carcasses, fresh and processed organs and tissues), still a certain amount is formalin-fixed and flushed prior to use. The team strongly suggest ceasing the use of formalin in anatomy practical training.

Concerning the setting up of new service laboratories, more attention should be put towards analysis of their current working profiles. Profiles of related laboratories (microbiology-infectious diseases laboratories, biochemistry- physiology-pathophysiology and clinical laboratories) can be better carried out. Thus the teaching of basic subjects will be closer to clinical ones, e.g. integration of teaching microbiology, immunology and infectious diseases is highly encouraged.

The mycology laboratory should be separated from the bacteriology working environment.

The number of the support staff at the basic science departments should be increased.

4.3 ANIMAL PRODUCTION

4.3.1 Findings

The list of farm facilities available for teaching is extensive. This has been developed to meet the requirement for increased opportunities and caseload with increased student numbers. The farms visited by the team reflected commercial practice and were thus appropriate environments for relevant learning.

Students live at Cojocna teaching farm for one week during the first year of study to obtain guided experience of zootechnical aspects.

Animal welfare is taught in a course with a specific identity and includes practical welfare assessment visits. The Faculty have developed a manual of bio-safety and implementation of bio-security and quality management (QM), but it is not clear how this relates to teaching and clinical activity.

It is not clear where the ownership of the teaching of herd health planning as a clinical discipline lies in the current discipline-based faculty structure. Infectious disease investigation is covered in several areas depending whether it is of bacterial/viral or parasitic origin, but management of non-infectious disease and improvement of the animal environment to reduce risk factors for disease on a whole herd/flock basis seems to be covered in several places.

4.3.2 Comments

Some arrangements for on-farm access to teaching material seemed to be based on personal relationships between staff and alumni. To assure the long term viability of these arrangements, contractual agreements should be entered into.

Attention to detail and personal responsibility of both students and staff for animal welfare needs to be emphasised as some aspects at Cojocna teaching farm did not meet EU requirements. Farm performance should reflect best practice in the EU and be a shared responsibility of all faculty staff led by the farm director.

Animal welfare is a vital responsibility of the veterinary surgeon. Principles need to be taught but the practice of assurance of animal welfare needs to be adopted in all clinical situations.

Much emphasis was placed on plastic boot covers but students wore home clothes and short white coats on the farm not covering trousers, suggesting the lack of an integrated approach to bio-security and bio-safety.

Herd health planning, integrating all aspects of zootechnical and disease prevention, is a key role of a vet in all production animal species. It was suggested this approach was taken in some external farms with collaboration between staff from different disciplines. Clarification of ownership of this area within the curriculum is required.

4.3.3 Suggestions

To assure the long term viability of farm and clinical case access arrangements, contractual agreements should be entered into.

Integrating welfare considerations into all zootechnical and clinical activity is strongly suggested. This may best be done by a week in the 6th year where students produce a whole farm assessment and health plan under the supervision of staff.

We recommend that animal husbandry methods at Cojocna teaching farm are developed to exemplify best practice. Examples would be the use of cattle bedding with low bacterial growth potential such as sand; and environmental enrichment for pigs.

Biosecurity practice needs to address all likely disease transmission routes. Total coverall boiler suits or waterproof clothing and disinfection points should be standard use on all farm facilities.

4.4 CLINICAL SCIENCES

4.4.1 Findings

4.4.1.1 Clinical sciences curriculum

The time allotted for training in clinical sciences (2650 mandatory hours) accounts for 47.9% of the 5534 hours of the FMVCN curriculum. This is in accordance with EAEVE guidelines that request an allotment of clinical science teaching time of at least 40% of the entire curriculum. Mandatory clinical curriculum hours (2650 hours) correspond to 51.39% of the total allocated hours for mandatory EU subjects (5156 hours).

Of the 2650 mandatory clinical hours, 518 are allocated in the 3rd year, 714 in the 4th, 672 in the 5th and 496 in the 6th. An additional 250 intra- and extra-mural practice hours are spread between the years.

All together, the topics are covered 49% (1038/2650 hours) via frontal lectures, 66% (174/2650 hours) via laboratory and desk-based work, 5% (135/2650 hours) via non clinical animal work, 40% (1052/2650 hours) via clinical training and 1% (250/2650 hours) by way of intramural and extramural practice.

Practical activity (intra and extra mural) occurs usually during holiday periods. Up to 2012 this kind of activity was not regulated and only as from 2012-2013 a “specific extramural practice procedure” has been developed. Practice supervisors are selected to follow students` extramural activity. Procedures have been developed in order to verify the work of the students (hands-on) and what has been acquired in terms of practical skills (personal practice log).

Moreover, clinical science subjects can be chosen by the students as electives (optional or facultative). 5 subjects, corresponding to a total amount of 210 hours, are offered as optional (elective) courses. Two more subjects (42 + 42 hours) are offered as facultative extra-ECTS free electives.

The course of instruction in the basic sciences (pre- and para-clinical subjects) is carried out by the teachers of the Department III (paraclinical sciences) and Department IV (clinical sciences).

The concept of a “minimal practical skills logbook” has been recently adopted in order to verify how a student in his academic course or during extramural activities has managed to accumulate a minimum of practical skills to perform a minimal set of veterinary procedures. The “minimal practical skills logbook” is compulsory for all students in order to prove the fulfilment of all day-one practical skills.

4.4.1.2 Clinical rotation

Clinical rotation is concentrated at the 5th (336 hours) and 6th years (260 hours). Before entering clinical rotation students should have already taken the basic courses. The initial approach is discipline-oriented and then continued on a species-oriented approach.

In the 5th year, the clinical rotation is discipline-oriented and is carried out mainly at the different clinics (about 15 students/group). Field visits to food animal farms are organized within the clinical rotation (see mobile clinic).

Students register their activity and the observed clinical cases in their clinical register books. At the end of the rotation, students are requested to pass an assessment test in each different discipline attended.

In the 6th year, the clinical rotation is more species-oriented. The activity is characterized by clinical work in groups of different consistency. The SER1 details the composition of the groups according to the type of activity.

Depending on animal species, the activity is carried out in a different way. In fact, companion animal medicine (pets and exotics) is mainly concentrated at the faculty’s premises (emergency hospital and at clinics), whereas farm animal medicine is mainly concentrated in different premises owned by the FMVCN (Cojocna teaching farm) or premises having a contract of collaboration with the faculty. For this purpose, the faculty owns a number of vehicles that are used to transport students to farms and that are included in the concept of “mobile clinic”. In case of necessity, the faculty has a contract with a car rental company.

All together, it can be said that both scheduled didactic activities and on-call service are carried out within the concept of the “mobile clinic”.

Practical work is offered also in State Institutions offering veterinary services to the public and/or in private practices/clinics with the veterinarians.

In respect to equine clinical activity, the local situation (mostly working horses of low value) does not allow the owners to afford transportation to the clinic and therefore the activity is mainly in the field.

Students in the 5th and 6th years have to attend the Emergency Hospital (EH); this is not included in the clinical rotation.

4.4.1.3 Case load and sources of animal and teaching material

Students are involved in clinical activities mainly during the 2 semesters (28 weeks). However, clinical consultation is offered throughout the year between 8:00 and 20:00, whereas during night and week end consultations are provided by the 24/7 Emergency Hospital.

Upon request of the owners/practitioners, animals can be transported to the clinics by faculty's vehicles (two trailers for large animals-2 places each + 1 properly equipped veterinary ambulance for small animals). As already mentioned, horse owners and cattle owners are not inclined to send animals to the faculty and prefer have their animals treated at their farms. Besides farms having contracts with the faculty, occasional case load derives from friendly relations with practitioners, with teachers or in some cases also with students. The clinical case-load is registered both in clinic-books and in an intranet-linked database.

During the visit the team noticed that the intranet database was not completely updated and some discrepancies were noticed between the data reported in the database and in the books. All together, the registration in the database seems to be sometimes quite superficial: records are not complete and sometimes not detailed.

General speaking, only one intranet-linked terminal is present in each clinic. At the emergency hospital the only terminal is at Reception, and no other terminals are present either in the examination rooms or the hospitalization units. This seems to be a problem that hampers the registration of the patients, especially at the time of their first registration and their forwarding to other clinics.

The intranet database is not open to the students, who need to ask a teacher to get access to information.

All together the intranet database seems not to have a high level of satisfaction from many assistants.

In respect to in-patients, at the time of the visit only few patients were hospitalized at the faculty, and only two dogs (one in a post-operative cage in the surgical clinic and one in the hospitalization unit of the emergency hospital), and two exotic animals (one snake and one chameleon) in the exotic examination room. Three more dogs - the property of the faculty - were in the hospitalization unit of the emergency hospital.

In respect to large animals, two horses and six cattle, all the property of the faculty, were present for didactical activity. No real large animal patients were present at the faculty at the time of the visit.

4.4.1.4. Mobile clinic

The concept of the "mobile clinic" at the FMVCN includes both scheduled didactic activities and the on-call service. In this sense, the mobile clinic system includes visits of the students to farms during the first years as well as clinical activity outside the faculty during the clinical rotation and the on-call service.

The mobile clinic guarantees a non-stop emergency service directly on-farm upon request of single farmers but mainly with "large" farms with whom the FMVCN has signed contracts of collaboration. A list of farms and economical agents that are in contractual relationship with clinics of FMVCN was presented to the team during the visit. The mobile clinic also serves as the equine clinic that perform field visits.

Vehicles with different capacities are used for the mobile clinic activity. One of them is vet-type equipped in order to allow clinical and surgical procedures. In case of necessity other vehicles can also be rented.

Moreover, FMVCN owns some vehicles used as mobile laboratories from other institutes (e.g., parasitology) for on-site interventions.

Records of external visits made by the mobile clinic is demonstrated by a "registry sheet for external visits" located at Reception of the emergency hospital. During the visit the team noticed that the "registry sheet for external visits" was not completely written out. However, a detail of the mobile clinic activity in the period October-November 2014 was presented to the team during the visit.

4.4.1.5 Facilities

The clinical consultation rooms, as well as the hospitalization premises, are mainly located in buildings VI and VII, whereas the emergency hospital is located in building VI. All clinics are provided with consultation rooms both for small and large animals. All together the rooms are adequate to examine animals and suitable for teaching, according to the number of students enrolled.

According to the SER, regular hospitalization units can accommodate 15 cattle, 6 horses, 30 small ruminants, 30 pigs, 25 dogs and 15 cats. Isolation facilities can accommodate 2 large animals, 3 small animals and 10 other exotic animals. A discrepancy was found during the visit in respect of the capacity to hospitalise dogs, which seems lower. In fact, besides the limited capacity of the infectious disease clinic (that moreover seems to hospitalise principally during teaching semesters) only 4 dogs can be hospitalized at the emergency hospital, that – according to the internal organization – should be the structure in charge of the hospitalization. Some cages are indeed present in one of the two surgical clinics, for post-operative intensive care. The hospitalization unit comprises two rooms, one for dogs (four cages) and one for cats.

All together, the equipment of the hospitalization unit is at the limit of sufficiency. Moreover, there is no adequate provision – or room - for hospitalizing patients in critical care. The hospitalization unit is not provided with external pens for dogs, considered by the team as necessary - especially in the case of long term hospitalization of resident animals.

The radiology clinic lacks equipment for executing adequate state-of-the-art radiological investigation in horses; only leg x-ray images seem to be possible. **This is considered by the team as a major deficiency, representing a lack of adequate equipment to enable up-to-date training in radiological diagnostics.**

In the parasitology clinic, refrigerators obstruct the safe movement of potentially uneasy large animals.

The necropsy room is adequate and structured in order to satisfy the requirements for biosecurity. However the area served by the hoist is limited to the internal room and does not allow adequate delivery of large heavy animals from the outside.

In addition to the above mentioned clinical and hospitalization units, the FMVCN carries out didactic clinical activity at different farms that have stipulated contracts of collaboration. Among these the SER1 indicates the:

- Hoja farm: 3 km from the campus - only sheep – mainly animal production subjects,
- Cojocna teaching and experimental farm: 35 km from Cluj Napoca – cattle, swine, fowl and horses - in this farm intramural practical stages for the student of the first year are organized,
- Jucu farm: 25 km from Cluj Napoca – private/university partnership – dairy and horses. Students have free access to this facility,
- Rece village: 40 km from Cluj Napoca – biobase for health farm (cattle sheep and horses) – animal used for non clinical practical work.

4.4.1.6 Emergency service

Emergency assistance is provided 24/7 by the Emergency Hospital. On demand, the emergency services receive support from the various clinics.

Theoretically, all animals referred to the faculty should be admitted to the clinical consultancies via a first triage at the emergency hospital. Here all animals are recorded both in a book and in the intranet database located at the reception of the emergency hospital. According to the triage, animals can be completely examined and treated at the emergency hospital or can be forwarded to the different clinics or the infectious diseases building (especially for patients without a good vaccination status). At the emergency hospital there is a room for first examination, a room for critical care and another room for dermatological examination. All animal species should follow this procedural flow but, in practice, large animals are conducted directly to individual clinics, as the emergency hospital is not supplied with large animal facilities.

The emergency hospital is also responsible for the hospitalization of companion animals, regardless whether they are retained at the emergency hospital, are forwarded to individual clinics or are operated on. The hospitalization service is provided with a room for cats and a room for dogs, the latter with 4 cages. The Emergency Hospital is not included in the clinical rotations.

4.4.2 Comments

4.4.2.1 Clinical sciences curriculum

It was not clear to the team why dermatology, as a sub-specialization, is considered worthy of being presented in a single mandatory course of 56 hours at the 5th year. Actually, other sub-specializations of the same importance level are treated as electives (orthopedics, cardiology, oncology, mycology, pathology of new pet species, plastic surgery). It is the opinion of the team that, for example, a course on “Veterinary Emergency and Critical Care” would also be worthy of being considered as mandatory course, also in respect to the importance that veterinary emergency and critical care in general has been gaining in the companion animal medicine.

The introduction of a course on “Veterinary Emergency and Critical Care” might also raise the level of patient care at the emergency hospital, and act as a showcase for the Faculty’s competence in companion animal care. Moreover, “Veterinary Emergency and Critical Care” might be considered to be included in the clinical rotation. However, dermatology, as distinct and specialized course could be added to the list of the electives, keeping the core course as model for transversal and integrated teaching.

Although a sort of species-oriented medicine is already present at the FMVCN, the SER suggests that it is the intention of the faculty to further stress this concept by planning species-oriented clinics to start in fourth or fifth year of study - and devoting the last year to optional tracks. This is emphasized also by a “new strategy” regarding clinical teaching in order to create teams of specialists/teachers and facilities dedicated to species-oriented training. In this aspect, the Faculty has nominated clinical coordinators for different species with the duty of developing dedicated teams/specialists.

However, the team noticed that in respect to the clinical activity, the real situation does not show an established species-oriented organization yet. In fact, in the majority of the clinics’ veterinarians still deal transversally with all animal species. Only in the gynecological clinic was more species-oriented practice noted.

Great emphasis is given to extramural activity and the good relationship with practitioners and other institution all over Romania. However, it should be taken into consideration that extramural clinical training and exposure to patient-driven clinical services outside the faculty are, albeit encouraged, only to be considered supplementary to the intramural clinical instruction provided by the Faculty, with equal consideration to teaching hospital (stationary) clinics or ambulatory (mobile) clinical services, which should remain the core of the intramural clinical instruction.

4.4.2.2 Clinical rotation

Clinical rotation seems to be well structured. However, a more species-addressed organization of the clinics might be helpful in emphasizing a species-oriented approach, not only at the level of the didactic activities but also at the level of the different services provided to the public.

The activity at the emergency hospital is not included in the clinical rotation. This should be reconsidered.

4.4.2.3 Case load and sources of animal and teaching material

The intranet database recording system is not adequately structured to enable a punctual and precise updating of the information. These seems to be due both to the software itself (low grade of satisfaction from many assistants) and to the limited number of terminals in the different clinics. As an example, the fact that at the emergency hospital the only terminal is at the reception prevents updating of the clinical information concomitantly with clinical examination. So staff need to remember all the clinical information they obtain during the clinical examination and, only after having taken a decision (e.g. treatment or forwarding to other clinics) can they go to Reception and update the record in the database. Moreover, when they move to Reception they may meet students, owners, colleagues etc. and be distracted by other events that may prevent adequate recording of the information.

A similar situation has been noticed in the internal medicine clinic where, for example, no terminal is present in the large animal examination room; staff must take note of what they obtained from the clinical investigation and only later transfer them in the terminal located in the small animal examination room (hoping that there is nobody else already using the computer).

So the team considers the intranet database not completely adequate for keeping the clinical information in an adequate and reliable way.

The clinical case load of companion animals presented to the students at the faculty seems to be sufficient for adequate hands-on activity; however, a higher number of hospitalized animals would enable students to experience the clinical course of a disease and practice the management of a hospitalized patient. In this

sense the team consider an improvement of the hospitalization unit (both at the level of the structures and the organization) very useful and important.

In respect to cattle and horses, the number of hospitalized animals at the faculty is very low and - as during the visit of the team - sometime no patients at all are present. This lack is compensated by the clinical cases that students have the possibility of experience during the activity of the mobile clinic. But the case load presented in the context of the mobile clinic seems to adequately guarantee sufficient hands-on practice to the students. However, it is opinion of the team that the shortage of in-patients does not allow the students to follow the clinical courses of a disease and to directly participate in the management of diseased large animals. As an example discussed during the visit, students have the possibility of seeing diarrhoeic calves on farm but not to follow and manage infusion therapy. Moreover, the shortage of large animal patients indirectly limits the possibility of following dead animals through pathology (as mentioned in the SER, material for post mortem examination also derives by patient died in the clinics).

General speaking, the indicators (ratios in respect to number of students graduating annually) confirm the need to increase the number of animals of all species seen at the faculty, especially of the hospitalized animals.

4.4.2.4 Mobile clinic

The mobile clinic consists of both scheduled didactic activities in the field (including visits to farms during the first years) and the on-call service (including emergency services). In general the activity seems to be quite well structured and established in a flexible and effective way. Teachers of the different clinical disciplines (included parasitological clinic and infectious disease clinic) have - mainly on an individual basis - good contacts with farms and practitioners that request their collaboration. When a consultancy is requested, the different teachers verify the availability of a vehicle and organize the external visit. The mobile clinics contribute the majority of clinical cases in cattle and horses.

The "registry sheet for external visits" located at the reception of the emergency hospital should be written out immediately after coming back, in order to have it constantly updated and accurately recorded.

4.4.2.5 Facilities

The emergency hospital (see below) and the hospitalization unit should be considered for improvement.

In particular the hospitalization unit should be considered for increasing the number of cages and hospitalized patients capacity, as well as for the establishment of an extra room for critical patients.

External pens should be provided for resident dogs.

In the necropsy room the area served by the hoist should be extended to the exterior, in order to allow access for large heavy animal carcasses from the outside. An improvement of the doorway may also be necessary.

4.4.2.6 Emergency service

As the emergency service is responsible for the first opinion on animals submitted to the faculty it gives the first impression to the clients about the quality of the service. Overall, the emergency hospital is adequate, but consideration should be given to patient flow - from triage at Reception to redirecting patients to the specific clinics. In this context, the presence of two different surgical clinics prompts the team to suggest consideration of the need for two clinics, as against separating their functions.

The shortage of terminals accessing the intranet database in the examination rooms of the emergency hospital is a limiting factor that should be considered for the improvement of the daily activities.

The emergency hospital is responsible also for hospitalization of the patients at the faculty. This is because all other clinics are closed during the night and at the weekend. This centralized system is considered by the team as judicious, but both the facilities and the equipment should be improved. The capacity for hospitalizing dogs and cats is very limited. Only 4 cages for dogs are available, and considering the fact that three cages are occupied by dogs of property of the faculty, the real capacity at the moment is of only one dog.

An extra room for hospitalizing companion animals in critical care (different from the critical care room at the emergency hospital) should be considered to be added to the hospitalization unit rooms.

In respect to the dogs of property of the faculty, these cannot be kept continuously in cages, but should be better housed in a pen, with an external paddock. The fact that these dogs are taken for a walk by the students is not sufficient for an adequate welfare condition.

It is opinion of the team that the activity of the students at the emergency Hospital might be included in the clinical rotation.

4.4.3 Suggestions

4.4.3.1 Clinical sciences curriculum

It is the opinion of the team that a course on “Veterinary Emergency and Critical Care” should be considered as a mandatory course, given the importance that veterinary emergency and critical care in general has acquired in companion animal medicine.

The team also suggests intensifying the establishment of the species-oriented concept all over the clinics.

4.4.3.2 Clinical rotation

It is opinion of the team that the rotation might be improved in the sense of a more species-oriented organization and that the activity at the emergency hospital should be considered to be included in the rotation system.

4.4.3.3 Case load (case-mix, skill-mix)

The team considers the intranet database not completely adequate for keeping the clinical information in an accessible and reliable way. New software, more modern and user-friendly (open to the students) should be considered as well as an increase of the number of the terminals in the different examination rooms (e.g. emergency room, hospitalization unit, internal medicine and so on).

The team considers the number of hospitalized animals not completely adequate for enabling the students to follow the clinical course of a disease and to manage the relative treatment. Efforts are necessary to favour hospitalization of animals. An improvement of the hospitalization rooms (included the presence of a critical care room), and a better management of the hospitalization unit might be helpful in increasing the number of companion animals that could be hospitalized.

In respect to large animals a more incisive action on the farmers and on the practitioners, together with extra favourable prices or above average services (e.g., operation not possible on the field or other highly specialized diagnostic procedures) might be helpful to convince owners to send animals to the clinics for treatment. A more evident species-oriented organization of the clinics and the presence of specialists in large animal medicine (horse and cattle) might also be useful in attracting cases.

The faculty might take into consideration the possibility of buying low-value diseased large animals: these might be treated by the students and according to the course, subsequently be examined pathologically or slaughtered.

4.4.3.4 Mobile clinic

The team considers the “registry sheet for external visits” an important tool to keep the record of the mobile clinic activity updated and traceable. It might be useful to write out the register immediately on return to the faculty from field activity.

4.4.3.5 Facilities

The team considers it important to improve the emergency hospital. Different distribution of the space of the emergency hospital (it is not clear why an examination room for dermatology is allocated at the emergency hospital), an increase in the hospitalization capacity (possibly with an extra room for critical care patients), the provision of external runs for resident dogs and improved equipment in the wards should all be considered.

The radiological clinic should be provided with X-Ray equipment for adequate state-of-the-art radiological investigation in horses, cattle and larger companion animals.

In the necropsy room an improvement of the hoist system and of the doorway should be undertaken.

4.4.3.6 Emergency service

The team considers the revision of the procedures for redirecting of patients from the emergency hospital to the other clinics as an important tool to improve the management of the patients admitted to the faculty.

The opportunity of maintaining two different surgical clinics should be reconsidered under the aspect of the services provided to the patients and the teaching, more than a departmental division of the clinical work or leadership considerations.

4.5 FOOD HYGEINE

4.5.1 Findings

Coverage of food hygiene/public health (including basic studies on food production and meat quality) is integrated within the veterinary science curriculum. The core subjects are taught in years 4 and 5 and Veterinary Public Health in year 6. There is obligatory Extramural Work in the 3rd year for Laboratories, food processing units, and during the 4th to 6th year for Food Inspection units, abattoir.

The Veterinary Public Health (VPH) course runs in the 11th semester with a ratio of 1:2, lecture vs. practical training on defined topic of relevance for VPH like management system and food safety information through the RASFF (Rapid Alert System for Food and Feed) or alimentary zoonoses basic knowledge and their control. The practical training is based on GHP, GMP, HACCP plan, and risk analysis in food establishments as well as office for hygiene and veterinary public health where veterinarians, state inspectors present practical aspects.

The structure of lecture and practical training shows a ratio is 1:1 in Food Hygiene (1 and 2), and 1:2 in Inspection and Control of Animal Foods and Products (1 and 2).

The structure of Extramural Work is all practical with a load of 20+30 hours for the subjects Laboratories, food processing units, and Food Inspection units, abattoir, respectively.

Practical training of Food Hygiene 1 and 2, and of Inspection and Control 1 and 2 are carried out in laboratories at FVMCN for chemistry and microbiological food safety of meat, meat products, animal fats, milk, milk products, eggs and honey, as well as meat processing units, experimental teaching farms for milking process, abattoirs for cattle, swine, sheep and poultry inspection.

Students learn techniques of ante-mortem and post-mortem inspection in slaughtering establishments (cattle, swine, sheep and poultry) abattoir, decisions marking of carcasses, including assessing compliance with GHP (Good Health Practices) and GMP (Good Manufacturing Practices).

The practical training groups are based on 12-15 students, but it is subdivided into team's work of 3-4 students for lab work and in the slaughter house they take different roles in the inspection based on the slaughter species and kind of control.

A full list of the approved abattoir facilities and foodstuff processing units is provided in the SER. During the visit 2 slaughterhouses were visited close to Cluj, cattle and pigs lara slaughterhouse (50 km from Cluj) and poultry slaughterhouse "Puiul Regal" (Gilau 10 km from Cluj). Students are trained following inspection protocols and they perform 4 visits to cattle and pigs (4 hours each) and 2 to the poultry one (4 hours each).

4.5.2 Comments

There is well-balanced lecture/practical training in the subjects (1:1 or 1:2), although in practical training information is needed about laboratory training in comparison with field practical training.

The curriculum covers the subjects and aspects of Food Hygiene & Technology and Veterinary Public Health. The area of Food hygiene & Technology is clearly stated in the SER and the relationship with Veterinary Public Health. Other subjects such as epidemiology of human and animal diseases could be also included in this chapter. This is important to evaluate the overall load of this chapter with other Core Topics.

The overall load of hours for lectures of this section is 154 hours, non clinical animal work 168 and extramural work (as stated) 100 hours, with a total number of hours of 422. It represent in 13.15% of the total curriculum.

The abattoirs visited by the team reflected commercial practice and were thus appropriate environments for relevant learning.

4.5.3 Suggestions

To ensure that students' training fulfils the first-day skills in public health and mainly in slaughterhouse meat inspection it would be convenient to include 2 to 3 weeks of training integrated in the rotation training activities of the curriculum.

4.6 ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS

4.6.1 Findings

In the first year 56 hours are devoted to the study of foreign languages, it being possible to choose one of English, French or German language. As from the second year, 42 hours are devoted to electives/optional courses, by selecting from a list including courses in basic subjects, basic sciences, clinical sciences or animal production. The full list is detailed in the SER. At the beginning of each academic year, students choose one subject from a list of 2-3 subjects offered. Some other subjects are offered as facultative extra-ECTS free electives.

4.6.2 Comments

There is no tracking and the number of elective courses could be increased and distributed better among the disciplines. Also the allocation of some courses (pathology of laboratory animals at the 2nd year) does not seem to be appropriate.

The scarcity of electives is particularly evident in clinical sciences (e.g., food animals, horses, apparatus specialties) and in basic sciences. A course on "Veterinary emergency and critical care" is considered by the team as particularly necessary.

Elective clinical rotations might be established and students should be accredited for these (ECTS credits).

The SER (p. 95) indicates the presence of teachers with experience in different specialties and subspecialties that perhaps might enlarge the offer of electives.

4.6.3 Suggestions

In optional courses, more practically oriented courses might be offered, especially in clinical, pathological and food hygiene matters. The clinical electives might be supported in the clinics and at the emergency hospital with clinical cases especially in large animals.

5.1 TEACHING AND LEARNING – FACTUAL

5.1.1 Findings

Teachers are responsible for teaching as well as for assessment of students. Course coordinators complete the course description form containing learning outcomes, course content, teaching methods and assessment methods.

The contents of the course description form are discussed in the Departments, with the person responsible for education, in particular. After approval by the Faculty Council and their signing by the department Director, Dean and Rector, the course description forms are uploaded to the Faculty's Internet platform - accessible to students.

Depending on the specific subjects, each teacher determines an appropriate teaching strategy, from demonstrations, dissections (anatomy), histological examination, case studies and problem solving (laboratory subjects), computer simulations (e.g. pharmacology, physiology, nutrition) and direct clinical assessment (clinical sciences) or necropsy. Teachers try not only to transmit information to be stored, but use methods that develop thinking skills and training for future veterinarians. Using problem-based learning (PBL) students learn domain knowledge but also thinking strategies. The teacher facilitates learning by guiding and monitoring the learning process.

Most teachers have published books that are given to students. Most materials are available in hard copy or as material that can be bought at the specialized kiosk inside the University or they can be borrowed from the library. In addition, for each course, teachers post a syllabus/course outline or the entire course contents as presentations (PowerPoint or PDF) on the intranet platform.

The current trend, used especially by young teachers, is to use the teaching model/ information provided by the international reference books for each subject/clinic speciality. National regulations require the authorship of 2 – 4 books (according to the teaching position expected) for the selection procedure for academic teaching positions.

Most of the material taught or used as course support or indicated books are uploaded onto the University Intranet platform. There is also the possibility of posting on the dedicated site (example: students from the French and English language section began to use a simple site created in Google that facilitates sharing of materials and direct communication with teachers).

It is stated in the SER that from their first day after graduation the learning objectives of the curriculum aim at giving a solid theoretical and practical knowledge enabling the graduates to successfully practice as veterinary surgeons. The strategy followed the theoretical lectures, practical demonstrations and practical sessions in small groups using laboratories, dissection and necropsy rooms, reinforced with practical hands-on training with intra- and extramural fieldwork.

Evidences of training for day-one skills are recorded by several ways: practice notebooks (clinical activity and the practical activity, with implementation of the "minimal practical skills-personal notebook"), responses of practicing veterinarians and stakeholders the Faculty collaborates and by the Commission for Evaluation and Quality Assurance at the Faculty level. Indirect evidence of learning is also collected from the graduate students by the anonymous answers to questionnaires.

Assessment of teachers was implemented in 2008 within the Quality Assessment system of the Faculty and it is managed at the University (Quality Assurance Department), Faculty (Committee for Quality Assurance) and Department level (officer responsible for quality assurance). Teachers have 3 procedures or steps of evaluation: self-assessment of teachers on teaching and research activities; student evaluation of teachers and curriculum (last year of studies); and peer evaluation. Emphasis is given to the student's evaluation, that is performed individually after each session (May and October), by anonymous questionnaires in two aspects students perceived the quality of courses, and (strengths, weaknesses and opportunities for improvement of teaching in FVM). With the exception of two academic courses, the ratings are good or excellent. Teacher assessments are evaluated by the Dean, together with the department directors to identify those aspects of teaching that could use improvement and the quality of teaching for each subject. There is no reference to potential punishments but there is a system for reward of teaching excellence.

5.1.2 Comments

From a review of the materials and examination scripts presented, the teaching methodology appears to be clear and adapted to the characteristics of the FVMCN. Teaching methodology is managed at different levels, from Department to University bodies with specific objectives for each subject, and the teaching strategies adapted to the need of the subjects.

The new methodologies of teaching – either oriented to cases or research based - are used more by the young teachers. Their advantages need to be disseminated and implemented more widely.

The resources for teaching and learning are wide and actual (internet and intranet platform) combined with more conventional hands-on for veterinary training. The use of "minimal practical skills-personal notebook" to track mainly the training for day-one skills is being tested and it looks like a useful tool.

The teachers' assessment procedure is adequate and recently implemented. So far the process is very satisfactory but the measures undertaken to correct the deviations or improvement of teaching quality of the subjects and the Veterinary Degree as a whole have not yet been tested.

5.1.3 Suggestions

Regarding teaching and practical training and although proportion of theoretical and practical classes seems appropriate, practical trainings should move from traditional approach to more time effective methods based on effectiveness and updated information.

New methodologies of teaching (case or research based oriented) should be encouraged and applied by all the teachers and all lines (Romanian, French and English). Specific and practical seminars on didactic methods may be a useful tool to be attended by the professors as a strategy to implement this methodology.

It would be appropriate to analyse the possibilities to add self-directed learning as an additional factor for student oriented activities within basic subjects and sciences.

Animal welfare, biosecurity as well as public health concepts should be considered in all the subjects and properly supervised by the teachers within the subjects.

There should be continued support for and development of web-based and other IT platforms to support teaching and learning, particularly given the split site structure of the Faculty. Open WIFI access may help to increase the connection options available to the students - not linked to the computer rooms only.

The "Minimal practical skills-personal notebook" should be tracked and reviewed along the years to evaluate the usefulness of it.

Regarding the teachers' assessment procedure, since it was implemented in the last two academic years, the role the students play in tracking and improving the quality of the academic activities of the FMVCN should be explained to them.

5.2 EXAMINATIONS

5.2.1 Findings

The University has 3 periods for the final examination of the students (set at the beginning of each academic year by the Senate), and the main or regular ones are in winter and summer after 14 weeks of teaching. Each period of regular exams has 3-4 weeks and 1-2 for retakes (depending on season, calendar and academic year). The examination period in autumn is concentrated in September and looks like an exceptional period that will be discontinued in the attempt to clear the last month of September of examinations. The use of external examiners is not standard procedure for FMVCN because only teachers who taught the subject can establish the grades. In case of subjects taught by external collaborators/associate professors (approved by the Faculty Council and Senate), they are fully responsible for the evaluation. There are some curricular subjects taught by professors from other universities or other faculties from USAMVCN and the evaluation is their full responsibility.

Students have three regular sessions and a number of retake sessions during the semester. For each subject, the maximum number of examination is twice free of charge (during periods of assessment established for normal and retakes sessions) and then, if the student does not pass the exam, he will have at his disposal another two presentations for an extra fee.

There are two forms of theoretical examination - oral and written papers. In written form, there are two variants - multiple choice or classic reproduction of topics. The faculty encourages the oral examination of students. Evaluation of all practical/clinical skills is done directly, face-to-face, through demonstration and oral dialogue. In some subjects, student assessment is continuous, without a final exam in regular sessions. In most of the subjects on which the assessment is made by the final examination, there is also continuous assessment with a certain weight in the final grade.

The minimum number of credits to be achieved by the student in order to progress to the next study year is $\{(Yx60) - 24\}$ compared to the year that their enrolled in. (Y - Nr of the study year). Inability to accumulate the minimum number of credits leads to repetition of the year corresponding to the number of credits accumulated up to that point, with the recognition of evaluations in subjects that were already passed. Currently there is no requirement that students sit and pass examinations in basic and foundation subjects before being allowed to continue to later disciplines. There was an older rule of a requirement of progress of exams by year (and more than two years of a not passed examination/subject was not allowed); this approach was abandoned at the request of the student associations.

5.2.2 Comments

The examination system is clearly stated and defined for the final examination, although the autumn period (September) is under redefinition facing changes in the near future.

It is not well defined that the model of evaluation is fully adapted to EEES. It should be clarified the continuous evaluation system followed, if any, and the impact on the results of the students.

The rule of progressing by year exams has been removed, but the minimum number of credits to be achieved by the student in order to progress to the next study year appears to be an adequate system.

5.2.3 Suggestions

Regarding the examination or assessment system a redefinition of the academic year probably will lead to a better balanced period of final examinations but, for that, major changes should be carried out at University Level, changing the 14 to 15 teaching weeks. More time will be allocated for student's preparation for exams and probably will have a positive impact on student's records and satisfaction.

Students as well as teachers seem to be satisfied with the assessment model. Preclinical should be based on written exams and clinical on structured practical.

Although external examiners are not a common procedure in Romanian Universities, it will be a quality and objective measurement that may help in the process of modernisation of the FMVCN.

Teachers should be careful with the publication of the results of examinations and assessments taking into account the rules and laws that protect the publication of personal data.

Rather than use a minimum number of credits to be achieved by the student in order to progress to the next study year, it might be more convenient to prepare a list of subjects which, if not passed, would preclude progress to the next year.

6.1 PHYSICAL FACILITIES – FACTUAL

6.1.1 Findings

The Faculty of Veterinary Medicine of Cluj-Napoca (FMVCN) is based in a complex of buildings located within the central campus of USAMVCN, including lecture rooms, clinics, laboratories, hospital and the emergency unit. This is close to the city centre but in a well maintained and tranquil wooded area giving the campus a relaxed feeling.

Much of the teaching is undertaken in small groups of 15 students and all rooms observed have sufficient capacity for this teaching model. Larger rooms are available for whole class lectures.

A comprehensive range of vehicles is available to transport students to external farms and partner veterinary practices.

6.1.2 Comments

The main campus site is well maintained and the staff has justified pride in the heritage of the University. The accommodation for students on Cojocna teaching farm is more basic but functional. The farm facilities at Cojocna have great potential.

The standards required of partner organisations are not described. Quality control of partners in a disseminated teaching model is vital and the infrastructure, biosecurity and health and safety expectations and an audit process needs to be put in place.

6.1.3 Suggestions

Cojocna teaching farm should be developed as a site to show best practice in zootechnical and herd health. Clear standards for partner organisation need to be developed. These need not be above normal standards for the industry in Romania but give an audit trail for future developments.

6.2 CLINICAL FACILITIES & ORGANISATION

6.2.1 Findings

The facilities used for the clinics are located mainly in the area of building VI (A, B, C) and VII. Other facilities and classrooms are located in near-by buildings. Three main groups of facilities can be distinguished: the Emergency hospital (and Outpatient clinic), the Clinics with the consultation rooms (Reproduction, Surgery I (so called Propaedeutics) and Surgery II, Internal medicine, Radiology, Parasitology, Infectious diseases, Breeding and pathology of new pet species, Dermatology) and the Hospitalisation premises (main hospital, annexes, infectious diseases and isolation).

The quality of the facilities is satisfactory. Some of them have been refurbished very recently. The equipment is adequate and up-to-date, with the exception of radiology. There is neither portable equine radiological equipment, nor adequate fixed equipment. The X-ray equipment for small animals has a low output. At the time of the visitation, a CT was under construction.

Clinical diagnostic work is done in many different laboratories. Most Departments have their own laboratory, located in the Clinics or in the Emergency hospital, or even in the Life Science Centre. The whole scope of analyses needed for diagnostic and teaching is covered. Only a little external work is carried out.

The number of hospitalisation places mentioned in the SER is accurate for large animals (cattle 15, Horses 6, small ruminants 30, pigs 30). Due to the organisation system of the emergency and 24-hours service, and the directives for the triage of the patients in the Emergency clinic (mandatory up-to-date vaccinations for rabies and canine / feline diseases), only 4 dogs and 5 cats can be hospitalized over many days. Some other places are available in the clinics, mainly as intensive care facilities.

A new building for Nutrition and Pathology of Large animals institute is planned and will include clinics and hospitals, sport medicine / equestrian club, equine reproduction, nutrition, necropsy, quarantine and isolation and a human-animal interaction centre. The existing hospital for LA in the campus will be transformed in clinics / hospital for small animals, in extension to the existing facilities.

The whole hospital and clinics organisation is based on an obligate triage in the so-called Emergency hospital. After registration of the personal and clinical data of the patient and the owner (large and small animals), the patients are dispatched through the clinics. The case management program (IT) is satisfactory for routine clinical work, but is not up-to-date and not accessible from all the workplaces in the clinics.

6.2.2 Comments

In the opinion of the team, the radiological equipment does not meet the standards as defined in the SOP, particularly for the equine radiology. This is considered as a major deficiency.

The rationale for the organisation of the clinics and the definition of the activities of the clinical “specialities” is not clear and does not appear to be strictly based on professional or teaching considerations (see for instance the two surgical departments, or the important role of the dermatology, in regard to other disciplines that should be developed in a veterinary faculty (cardiology, oncology, ophthalmology, etc)).

The degree of specialisation and list of services should be enhanced in order to bring more patients to the hospital (case mix and skill mix for the teachers and the students) and more cases for the clinical teaching.

The department of infectious diseases / isolation allows a quick handling of potentially infectious patients, and reduces the risk of spreading contagious diseases. The rules of collaboration with the clinical staff and the coordination of teaching are not clearly defined.

The organisation of the Emergency service is good, and the students are involved in the daily and night clinical work. However, coordination between the Emergency hospital and the clinics for the overnight care of patients is not clearly defined. Moreover, there are presently only few hospitalisation boxes for dogs, that don't need intensive care.

6.2.3 Suggestions

The development of clinical specialisation (able to handle referred cases on a higher level) should be addressed on a faculty level. This should be coordinated with the establishment of residencies and internships (rotations of the assistants and clinical PhD).

The patients / clients paths through the Emergency hospital and later through the clinics should be more clearly established, and based on the needs of the patients. The organisation of the Hospital should follow this principle, and be under the lead of an overall hospital director, rather than every clinic.

There is a need to shift towards a centralized case record system, with electronic register control included in a larger network and adequate case management system.

7. ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

7.1 Findings

A broad range of sources are used to obtain teaching material (Didactic and Experimental farms of USAMV, internal biobase of faculty, consultation/hospital cases received inside of faculty, private veterinary clinics, animal shelters, kennels, farms, stud farms, zoos, slaughterhouses, hunting reserves, aquariums, fish farms, reptile collections, experimental biobase of other institutions). However, the number of cadavers and cases is relatively low, being just adequate compared to the indicative ratios currently required.

Six cattle are housed at the main campus for initial classes on palpation of the reproductive tract.

Access to partner farms to gain experience in commercial environment is good but the need for transport and thus the practical issues of access limits access to on-farm emergency ambulatory work.

Ruminant necropsy numbers appear to be declining and the underlying cause and plans to halt this decline need to be determined. Equine cases have increased but how these are managed to ensure all students see a complete equine post-mortem needs to be improved.

Clinical case numbers appear to be adequate. Effort has been made to form alliances with organisations with higher quality farms and horses than the general to allow the full range of case work up to be followed. A wide range of diagnostic support is available.

7.2 Comments

There is a broad species cover. Students appear to be satisfied that they get hands on practical experience. Many of the comparisons made by the students were to non-EAEVE approved establishments and the faculty need to be aware and monitor future caseload against suggested ratios and develop service provision to comfortably exceed these to maintain accreditation in the future.

Poor design of doorways and short tracks for hoists in the necropsy suite make movement of carcasses more difficult than it needs to be. This may limit the ease of large animal necropsy. Alumni and stakeholders are generally impressed with the faculty and clinical provision.

Diagnostic support is offered by the departments of physiology, zootechnic, pathophysiology and infectious disease. This appears to represent duplication of equipment.

7.3 Suggestions

An advertising / communication plan to increase clinical caseload should be considered. Increasing the value of animals referred could allow more complicated investigations to be undertaken.

Improvements to the carcass handling facilities by extending the hoist track and increasing the width and height of doorways may encourage further clinical cases and necropsies to be performed.

Depending on the examinations and procedures that are carried out the welfare of animals in the Biobase needs to be carefully monitored. Use of the greater number of animals at Cojocna or Jucu or rotation of animals from Cojocna or Jucu into the Biobase for short periods of time needs to be considered.

Consideration should be given to which department provides diagnostic support for clinical activity and this could be consolidated under one leadership whilst still allowing access to all for research and teaching purposes.

8 LIBRARY & EDUCATIONAL RESOURCES

8.1 Findings

8.1.1 Main library:

The main library is a university-organized unit carrying out educational-, service- and scientific tasks. It is not specific to veterinary training, but is a common facility for all faculties at the university. The library consists of the main library and 67 satellite libraries located at different units and departments of the university (which are managed by the main library). The satellite libraries in FMVCN mainly consist of display cases with the lecture books, timetables and course descriptions, as well as teacher copies of standard textbooks and are not easily accessible to students.

The university offers guided tours for new users, and students receive a free library card, so they can gain access to the library without paying a fee. The opening hours are from 8 am to 8 pm on weekdays during semesters, and this is extended to 10 pm on weekdays as well as opening on Saturdays during exam sessions.

There are currently 10 full time staff members, who are all professional librarians with academic degrees. There is central library indexing, and the library has exchange agreements with 160 other university libraries.

8.1.2 Library facilities and courses:

The library is equipped with access to online and print media, learning facilities and computers.

The library has access to online resources and databases as follows:

- Online resources and databases: ScienceDirect, springer link, Wiley online library, PROQUEST academic research library, Cambridge journals online, Thomson ISI – Web of science.
The library has online and print media in the form of journals/periodicals (hard copy and electronic) and textbooks (hard copy and online access), as follows:

- 907 hard copy journals and periodicals (2013)
- 8000 full access electronic journals (2013)
- Sponsored access to a number of over 30 books and textbooks that are the gold standard in veterinary medicine.
- 10127 textbooks for veterinary medicine (2013).

The collection of hard copy veterinary textbooks comprises international reference veterinary textbooks and the textbooks and laboratory manuals produced by the teachers for the different courses offered at the faculty. The collection of international textbooks is fairly small, and consists of books of varied publication dates and various editions. The library acquires copies of the teacher-produced textbooks for every course equivalent to 20% of students in a class, and laboratory manuals equivalent to 33% of a class.

There is a reading room with 98 seats and 19 computers with internet connection. There are also 20 reading seats with free access to the international veterinary textbooks. There are photocopying and printing options available for students and teachers. The library is one of the few places at the campus where there is a wifi-internet connection.

The library offers library-training courses to new students at the beginning of each academic year. The library does not offer additional courses to students.

8.1.3 Student utilisation of library facilities:

Students can borrow the teacher-produced textbooks and laboratory manuals from the loan department, and remotely access the 30 on-line catalogue library books by connecting with internet servers outside the library. They can read hard copies of veterinary textbooks at 20 reading places in the library. These texts are not available for borrowing outside the library, but the students are allowed to take photocopies of sections of the international textbooks. The electronic journals are accessible with computers connected to the university IP-internet address. There is no remote access to electronic journals for students from outside the university campus.

8.2 Comments

The hard copies and online access to international veterinary textbooks does not seem sufficiently up to date, and insufficient regarding the amount of textbooks for a faculty the size of FMVCN.

The relatively few reading spaces with access to the textbooks and hard copies of journals and periodicals, is partly offset by the fact that the university provides remote access to 30 international textbooks via the internet.

The lack of remote access to electronic journals and lack of courses on how to perform literature research via online databases is a disadvantage, which does not encourage a high level of academic skills with the individual student.

The silent study reading room is regarded as a good environment, which facilitates self-learning among the students. But the reading places available are not sufficient for the number of students at the faculty and there is a lack of group workspaces either in the library or at other places on campus.

However, the completion and commissioning of a new building housing state-of-the art library facilities and catering facilities for students and staff is imminent.

8.3 Suggestions

The team gained the impression that the Faculty has not felt pressure to provide up-to-date library and IT facilities because teaching methods have been traditional and students have had access to course textbooks written by teaching staff. But the introduction of more modern, IT-based learning patterns requires that students and staff have better access via wi-fi both to a Faculty intranet and to modern, IT-friendly library facilities. The team urges the Faculty to use the opportunity presented by the opening of the new library to encourage and promote the introduction of e-learning, especially by junior teaching staff.

9 ADMISSION & ENROLMENT

9.1 Findings

According to the National Law of Education in Romania, only high school graduates with a promoted baccalaureate may apply for higher education. Faculty Teaching Council proposals for the maximum number of students who can be trained in the Faculty are voted on by the USAMVCN Senate and every five years the Romanian Agency for Quality Assurance in Higher Education sets the maximum number of students that can be admitted annually. For the Romanian language line of study it is 235 (180 reached in 2014) and for each English and French language line it is 30. Romanian language students are government-funded students determined by the University, according to the proposal of the Faculty and total places awarded by the Ministry of Education.

After 2013 a special examination for student selection procedures was introduced. It consisted of 85% Baccalaureate grade and 15% human biology examination grade. Foreign languages students have the same 85% share of Baccalaureates grade plus 10% motivation letter/essay on veterinary profession and volunteering work in veterinary medicine or related activities. The majority of students (61%) admitted to FMVCN are from theoretical high schools ("Natural Sciences" with significant proportion from "Mathematics"). There are some other circumstances under which extra students may be admitted such as transfer from other veterinary faculties, winners of national or international scientific competitions (selected by the Ministry), disadvantaged candidates on dedicated places. The Faculty is aware of highly variable basic knowledge of admitting students and steps have been taken by the introduction of biology entering exam. Examination also in chemistry is planned for future admissions. The necessity for further modifications will be kept under review.

9.2 Comments

It is stated that relatively high drop-out rates and more than six years of studies in individual cases are limiting factors in optimal determination of admitted student number. Also it seems that the intake of new students is not strictly linked with the effective national need of veterinarian and collaboration at the national level with other veterinary faculties in the country would be welcomed.

Because of highly variable basic knowledge of candidates an entrance exam has been added to ensure a basic knowledge of biology. Chemistry has been considered as the next additional condition for entering.

For now only ¾ currently enrolled students out of the maximum possible number have been enrolled in order to increase the quality of teaching-learning activities.

The withdrawal rate at the Faculty after the first year is now lower (about 15%) than in the previous years. It includes mainly the students who fail to register for the second year because they have chosen another study (e.g. human medicine) or find the study programme too demanding. But in the perspective of the outcome orientation of the teaching of the veterinary curriculum it should be questioned at the level of the Faculty or University, or even Ministry, whether some basic subjects, e.g. anatomy or chemistry, are suitable to select students with good basic knowledge or to contribute to the training of good professionals according to the EAEVE recommendations. Regardless of the selection process there will be a need to monitor the outcome over the next years.

Changes have been made in the criteria in order to decrease the high percentage (approx. 10%) of students who fail to progress to the next academic year. Now, for 60 % students the average duration of studies is 6 years, or when calculating the total number of graduated students (including those with more than six years) the percentage is around 70.

9.3 Suggestions

Concerning the admission and enrolment, Faculty orientation to increase the quality of teaching-learning activities should be put in correlation to their tendency to reduce the number of enrolled students, national need of veterinarians, teacher/student ratio and financial resources.

The team suggest that a group should be formed to analyse the preconditions for student enrolment. Introduction of intensive preliminary training in deficient areas of knowledge would be welcomed. These should be mentioned in the curriculum as elective ECTS for students who voluntarily enrol. The possible introduction of motivation admission letter/essay for Romanian study line should be discussed.

Results of changes in selection process should be monitored regularly in order to make admission procedure more effective. More efforts should be put towards Education Ministry to show that study in veterinary medicine requires a higher education entrance qualification.

For students with social or other disadvantages additional supports before entry should be performed.

In order to improve student progress through their studies, the Faculty should provide a better tutorial system allowing students to seek guidance and advice during their studies. The system for identifying students having academic or other difficulties may need to be better developed. Alongside carrying out academic commitments, it also should provide an opportunity to master communication, presentation, organisational and life skills that help a student to build a satisfying and fulfilling life and career.

10 ACADEMIC TEACHING & SUPPORT STAFF

10.1 Findings

The academic staffing ratio appears to be adequate. The technical support staff ratio is slightly low but this shortcoming appears to be compensated for by use of undergraduate and postgraduate students for preparation of materials.

The staff are a mix of age and experience and youth and enthusiasm.

The postgraduate clinical programs described lead to internal PhD qualifications which are a requirement for progression to a permanent academic position.

There is currently one member of staff with European specialist status.

10.2 Comments

It is not clear what the past and current recruitment policy is regarding University teaching staff and those teaching students in partner organisations. The use of continuing professional development courses run by the faculty to support external veterinarians and encourage them to be involved in a network of qualified teachers should be considered.

As research gains importance for the Faculty a revised promotion system may need to be initiated to ensure clinically active staff are promoted with due consideration to this activity whilst basic science staff have more expectation for research. Managing time and work patterns in clinics to give periods of research time may allow excellence in clinical research to be also developed. Caseload to provide clinical research material may determine if this is possible.

It is possible that future expectations will be that there is a European recognised specialist in each discipline and European College of Veterinary Specialisation recognised residency programs in some areas of Faculty activity. A plan needs to be implemented to develop staff able to be recognised and deliver these programmes over the next 10 years.

10.3 Suggestions

Aim for one member of staff to be enrolled in a European specialist residency for each clinical area taught / department so each area has exposure to the ethos of such training. To accelerate the process external residencies for more senior staff in other recognised training centres should be funded by the University.

Review promotion criteria and, if needed, discuss with central government the needs to recognise clinical as well as teaching and research activity in promotion within the Veterinary field.

11 CONTINUING EDUCATION

11.1 Findings

Continuing education is stated as an educational objective of the FMVCN. It is organized as a National Program and is performed under the auspices of the professional organisations of Romania in the framework of four annual and mandatory seminars.

FMVCN provides each year several subjects / topics for the seminars. They are mainly delivered by the academic staff, mostly specialists in different clinical and para-clinical subjects. As they are published at the beginning of the year in the Veterinary Medical journal, the practitioners can easily participate to these meetings.

The Faculty is also offering different continuing education opportunities to practitioners inside the FMVCN. These courses and seminars are more based on practical demonstrations, which make them attractive (more than 200 vets participating in the last 2 years).

11.2 Comments

The SER does not mention what happens with funds collected through CE, except that about 30% is retained by the university. The implication of teachers seems to happen more on a personal than an institutional basis. However, the teaching activities in the scope of CE can be taken into account for the evaluation of the activities and competencies of the staff (mandatory yearly assessment of the teachers) .

11.3 Suggestions

The CE activities of the staff could be included in a more active “public relations” and “fund raising” policy of the faculty and / or the departments. This could include first lecturing experiences for PhD and residents / specialists, particularly in the clinical disciplines, in order to enhance the network and referral basis of the clinics.

12. POSTGRADUATE EDUCATION

12.1 Findings

Since 2012 FMVCN runs structured internship training programs, in particular in Veterinary Medicine and Intensive Care at the Emergency Hospital of the faculty. Interns, whose numbers are approved by the FMVCN, receive a scholarship and are awarded at the end of their internship with a certificate of both the FMVCN and the College of Veterinarians of Romania (CMVR).

FMVCN run several 4-years long PhD programs than can be organized into full time and part time form: full time position are granted whereas part time not.

22 position of PhD-students were allocated in 2014, half of them full time. The number of PhD-students has been increasing along the last years: according to SER, all together there are 112 PhD students, distributed in 13 major fields under the guidance of 30 doctoral supervisors. The research progress of each PhD student is evaluated yearly. Previous to the final Thesis presentation, two papers have to be published in or accepted by peer-reviewed journals. PhD diploma is a prerequisite for careers in higher education and research. Three postdoctoral programs are active at the FMVCN.

Until now, FMVCN has no standard residency program approved by any of the European colleges affiliated to EBVS as well as no other kind of residency programs approved at a national level. However, three teachers are included in alternative residency programs abroad (ECEIM residency in Vienna; ECVS residency in the Koret school; ECVS residency in Milano)

Only one professor is an EBVS diplomate - of the European College of Zoological Medicine (Wildlife Population Health).

12.2 Comments

Whereas PhD activity seems to be quite well established at the FMVCN, the scant number of EBVS diplomates should be considered as a weakness to be dealt with.

SER emphasizes the fact that the faculty is aware of this, and after having developed structured internship program (see above) is willing of supporting a residency program (ECZM) supervised by the only European diplomate present at the faculty. Apart from an ECZM residency, no other standard residencies can be organized at the faculty, and the only possibilities to increase the number of residents (and therefore in the future of diplomates) is to support alternative residencies abroad.

Regardless of the three already established alternative residencies (as well as potential future alternative residencies) , it does seem that there are still some pockets of resistance in the Faculty in considering this kind of postgraduate education as an added value for the future of the Faculty. A large proportion of the younger staff sees the college system as an opportunity for their career but they do not feel supported adequately by the faculty. The problem seems to be the high didactic (lectures and practical training) and eventually clinical load with which they are charged; this overload would prevent the sustainability of their

absence during the period they have to spend abroad (by their college supervisor) in order to satisfy the residency requirements. Moreover it seems that individuals need to take the initiative themselves to find a potential supervisor for a residency programme.

The opportunities presented by such programmes perhaps need to be explained, so that they are understood at all levels of the academic body and therefore properly supported and financed - from the search of international contacts, through the organization of residency programmes and the necessary replacement of activities during residents' absence.

12.3 Suggestions

There is an obvious need to increase EBVS-linked residency training programs. USAMVCN and/or FMVCN should devote a budget to fund alternative residency programs. These programs can be organized together with diplomates of other European countries that can act as primary supervisors of alternative programs.

The faculty should support the organization of alternative residency programs in particular by helping candidates to get in touch with international contacts (potential residency supervisors), by finding the way to compensate the absence of the residents during their stay abroad and eventually by helping the residents from a financial point of view.

The establishment of residency program will in the future enable the faculty to enrol Romanian diplomates and develop local standard residency programmes.

The presence of residents and/or diplomates should be considered an added value for the faculty that moreover will be helpful in increasing the quality of the developing species-oriented teaching at the faculty

13 RESEARCH

13.1. Findings

Taking into consideration the previous suggestions given by the EAEVE experts, the Faculty increased the international presence and visibility by supporting and developing research activities, international cooperation and publications. As stated, volume and findings of the FMVCN research have improved significantly, reaching in recent years an average of one ISI Web of Science paper/teacher/year.

For undergraduate students, according to their interest, there are at least four main pathways to get involved in the research activities at the Faculty and these are:

- the research project for the completion of their diploma work;
- research activities within the framework of student's research circle/debating group affiliated to disciplines or departments;
- research activities in the frame of a research grant funded by national/European authorities and conducted by teachers; symposium, workshops and trainings.
- participation to small individual projects granted by private companies.

Faculty regulations, supervisors, interdisciplinary encouragement, additional subjects in Faculty Curriculum like Biomedical statistics and Scientific documentation, techniques and documentation methods and USAMV's website guide are the main parameters for student research activity in diploma work. Under the supervision of a teacher, the student can set-up his own research project which usually ends with a presentation and publication of a paper.

Students are encouraged to participate in the USAMVCN Student's Symposium, international scientific events organised by student's organisations such as The International Veterinary Students' Association Symposium, and national and international scientific events such as The International Congress AM-VAC/RoSAVA which is an important event for veterinarians in Romania.

Students are able to acquire good practical research experience by participation in a Faculty complex project granted by Ministry of Research, National or European Scientific authorities. It is a good prerequisite for a future research career and it allows the teachers to make a good selection of their PhD students. There are 13 major fields of doctoral studies under the guidance of 30 doctoral supervisors organised at Doctoral School of Veterinary Medicine. These are scientific PhD programmes centred on learning through research with purpose to develop competent human resources in research and innovation.

Faculty has established collaboration with private companies in order to support individual research projects for young scientist.

Students are also encouraged to participate in specialised workshops organised at the Faculty in order to get students in contact with specialists in the field.

The requirements regarding Research as they are laid down in Annex Ia of the SOP are met.

13.2 Comments

Student research activities within the Faculty generally are divided between basic sciences and applied veterinary fields. The level of students' involvement in diploma work, active participations in scientific groups, co-author work in papers for scientific journals and symposia is highly commendable. By involvement of companies in financing the research activities of students, the Faculty has offered a good opportunity to ambitious students to be recognised and selected by companies as their future employees.

Significant development of the research infrastructure in recent years, together with active student involvement in research work, proves that the Faculty has implemented a veterinary curriculum with clear connections to scientific research. However, access to these facilities appeared to vary between disciplines. A good example is the excellent opportunities for research activities, both to teachers and students, offered in the Life Science Centre.

13.3 Suggestions

A collaborative approach to opportunities for student research should be strongly supported by the FMVCN authorities and offered for the students.

Generally, it is evident that FMVCN has clear ideas in expanding opportunities for student participation in research activities. The Life Sciences Centre should be followed as a positive example for providing a stimulating environment for student involvement in relevant research.

EXECUTIVE SUMMARY

The University of Agricultural Sciences and Veterinary Medicine of Cluj-Napoca occupies a scenic, hilly and wooded site in an urban area not far from the centre of the city; the Faculty of Veterinary Medicine of Cluj-Napoca (FMVCN) is located within this campus.

FMVCN was established in 1962. It was first evaluated by EAEVE/FVE in 2004, when a number of major deficiencies were identified; it was added to the list of Approved Establishments following a revisit in 2007, when it was determined that the deficiencies had been rectified.

The SER for the present visitation was delivered on time before the visit and was found by the Team to be accurate and comprehensive. On their arrival in Cluj, the Team were made very welcome by the Rector of the University, the Dean of the Faculty and the Liaison Officer and every facility was provided to enable them to evaluate the Faculty and come to informed conclusions about its strengths and weaknesses and, in particular, its compliance with the requirements of EU Directive 2005/36 and the current Manual of Standard Operating Procedures for Evaluation.

FMVCN evidently took the outcome of the last evaluation very much to heart and has undertaken a major programme of improvement, both in its facilities and curriculum. But some of the pre-clinical facilities - and the teaching methodology in many disciplines - remain very traditional. Neither self-directed learning nor the widespread use of IT as a teaching tool is evident at present; the Team urge FMVCN to take full advantage of the imminent opening of the new state-of-the-art library facilities to achieve a step change in the delivery of teaching and opportunities for self-directed learning. It was noticeable that teaching methodology in the English and French courses – often undertaken by more junior academic staff – was more innovative. Across the Faculty, the adoption of a more modular curricular model could help to make teaching and learning more efficient and effective. This is a matter which could profitably be considered by the various Departmental and Faculty Councils.

Food Hygiene and Veterinary Public Health seem to be well-taught, taking advantage of good extra-mural facilities; husbandry, zootechnology and food safety show good integration, but a shift is required from traditional veterinary preventive medicine to a more integrated and extended concept of teaching herd health in all species.

The Team urge the Faculty to consider carefully the appropriate qualifications of teaching staff necessary to ensure that it continues to satisfy the evolving standards of EAEVE in the next 10 years. Rather than concentrating on the PhD, the Faculty should consider the principle of Residencies, leading to European Diploma status. In the clinical disciplines, this would also have the benefit of attracting clients – and especially referral cases – to the teaching hospital, thereby influencing the quality of teaching and learning for the students.

The Team looked in detail at the way extra-mural teaching is organised and considered that its concept and management are adequate, in view of the high proportion of clinical teaching which is achieved in this way. The *Life Sciences Centre* offers excellent opportunities for research and internationalisation, and for research and teaching in the Faculty. But, to assure the future of the Faculty and maintain a high quality of teaching, it is necessary for the Faculty to ensure good balance between teaching, research and clinical work in setting the criteria for promotion of staff.

The Team considers that serious consideration should be given to the organisation of the Emergency Hospital, intensive care, the outpatient service, 24-hour service and night duty for in-patients. This needs to focus on management of clients/patients, the paths of patients through the buildings/facilities and the later distribution of cases to the clinics and specialised services. This is the first contact clients have with the hospital and its facilities and it influences the future development of the clinics, the teachers and the case load. Factors to be considered include the definition of procedures for the management of cases, using up-to-date IT (including student access to the database); the establishment of species-oriented hospital organisation; and the definition and implementation of intensive care/post op care and centralised services (anaesthesiology, radiology and central laboratories).

Considering the situation in Radiology, the Team's opinion is that the radiological equipment does not meet the minimal standards defined by EAEVE, especially for equine radiology. We therefore recommend that this is considered as a major deficiency.

ANNEX 1 INDICATORS (RATIOS)

				GUIDELINES
R1:	$\frac{\text{n}^\circ. \text{ undergraduate veterinary students}}{\text{n}^\circ. \text{ total academic FTE in veterinary training}}$	=	$\frac{1049}{159.5}$	= 6.58 <8.381
				GUIDELINES
R2:	$\frac{\text{n}^\circ. \text{ undergraduate students}}{\text{n}^\circ. \text{ FTE total Faculty}}$	=	$\frac{1200}{159.5}$	= 7.52 <9.377
				GUIDELINES
R3:	$\frac{\text{n}^\circ. \text{ undergraduate veterinary students}}{\text{n}^\circ. \text{ VS FTE in veterinary training}}$	=	$\frac{1049}{136.35}$	= 7.69 <11.057
				GUIDELINES
R4:	$\frac{\text{n}^\circ. \text{ of students graduating annually}}{\text{n}^\circ. \text{ VS FTE in veterinary training}}$	=	$\frac{102}{159.5}$	= 0.64 <2.070
				GUIDELINES
R5:	$\frac{\text{n}^\circ. \text{ total FTE support staff in veterinary training}}{\text{n}^\circ. \text{ total FTE academic staff in veterinary training}}$	=	$\frac{66.5}{159.5}$	= 0.42* 0.505-1.907
				GUIDELINES
R6:	$\frac{\text{Supervised practical training}}{\text{theoretical training}}$	=	$\frac{2986}{2170}$	= 1.38* <0.602
				GUIDELINES
R7:	$\frac{\text{Laboratory \& non clinical animal work}}{\text{Clinical work}}$	=	$\frac{1442}{1052}$	= 1.37 <1.809
				GUIDELINES
R8:	$\frac{\text{Teaching load}}{\text{Self directed learning}}$	=		= N/A 2.59-46.60

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				GUIDELINES
R9:	Total n° hours vet curriculum	=	$\frac{5534}{422}$	= 13.1 8.86-31.77
	Total n° hours FH/VPH			
				GUIDELINES
R10:	Hours obligatory extramural work in veterinary inspection	=	$\frac{50}{422}$	= 0.12 0.074-0.556
	Total n° hours FH/VPH			
				GUIDELINES
R11:	n° of food-producing animals seen at the Faculty	=	$\frac{184}{102}$	= 1.80 >0.758
	n° of students graduating annually			
				GUIDELINES
R12:	n° of individual food-animals consultations outside the Faculty	=	$\frac{1802}{102}$	= 17.7 >8.325
	n° of students graduating annually			
				GUIDELINES
R13:	n° of herd health visits	=	$\frac{121}{102}$	= 1.19 >0.326
	n° of students graduating annually			
				GUIDELINES
R14:	n° of equine cases	=	$\frac{258}{102}$	= 2.53* >2.700
	n° of students graduating annually			
				GUIDELINES
R15:	n° of poultry/rabbit cases	=	$\frac{91.6}{102}$	= 0.90 >0.407
	n° of students graduating annually			
				GUIDELINES
R16:	n° of companion animals seen at Faculty	=	$\frac{4968}{102}$	= 48.7 >48.06
	n° of students graduating annually			
				GUIDELINES
R17:	Poultry (flocks)/rabbits (production units) seen	=	$\frac{4.67}{102}$	= 0.05 >0.035
	n° of students graduating annually			
				GUIDELINES
R18:	n° necropsies food producing animals + equines	=	$\frac{268}{102}$	= 2.63 >1.036
	No. of students graduating annually			

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					GUIDELINES	
R19:	No. of poultry/rabbits	=	$\frac{288}{102}$	=	2.82	>0.601
	No. of students graduating annually					
<hr/>						
					GUIDELINES	
R20:	Necropsies companion animals	=	$\frac{400}{102}$	=	3.92	>1.589
	No. of students graduating annually					
<hr/>						

NB Indicators marked * are out of range, but not considered limiting by the Team.

ANNEX 2 DECISION OF ECOVE

The Committee concluded that the following major deficiency had been found:

1. Lack of adequate equipment to enable up-to-date training in radiological diagnostics

The Committee notes the visitation team`s comments with respect to biosecurity and encourages the faculty to continue to develop and implement biosecurity through all its subjects and facilities.

The Faculty of Veterinary Medicine Cluj-Napoca is classified after Stage 1 evaluation as holding the status of: **CONDITIONAL APPROVAL.**