

European Association of Establishments for Veterinary Education
and the **Federation of Veterinarians of Europe**
European System of Evaluation of Veterinary Training

**FINAL REPORT ON THE VISIT TO THE FACULTY OF
VETERINARY MEDICINE, IASI UNIVERSITY OF AGRICULTURAL SCIENCES
AS ACCEPTED BY ECOVE ON ITS MEETING ON APRIL 12./13. 04. 2011**

DATE OF VISIT: 22 – 26 November 2010

EXPERT GROUP (Team)

Prof. Dr. Jean-Louis Pellerin (F)

Expert visitor on training in basic sciences

Prof. Dr. Robert Karczmarczyk (PI)

Expert visitor on training in clinical sciences (teacher)

Dr. Marc Janssens (B)

Expert visitor on training in clinical sciences (practitioner)

Prof. Dr. Karl Schellander, Chair (D)

Expert visitor on training in animal production

Prof. Dr. Birgit Norrung (DK)

Expert visitor on training in food safety

Dipl-Ing Christine Große- Brinkhaus (D)

Student Member

Prof. Dr. Bernd Hoffmann (D)

EAEVE program coordinator

CONTENTS

Introduction	
1. Objectives and strategy	3
2. Organization	4
3. Finance	6
4. Curriculum	7
4.1 General aspects	7
4.2 Basic subjects and sciences	9
4.3 Animal production	9
4.4 Clinical sciences	11
4.5 Food hygiene and technology and veterinary public health	14
4.6 Electives, optional disciplines and other subjects	15
5. Teaching quality and evaluation	15
5.1 Teaching methodology	15
5.2 Examinations, Enrolment and student care	17
6. Physical facilities and equipment	18
6.1 General aspects	18
6.2 Basic subjects and sciences	19
6.3 Clinical facilities and organization	19
7. Animals and teaching materials of animal origin	23
8. Library and educational resources	25
9. Admission and enrolment	26
10. Academic and support staff	27
11. Continuing education	29
12. Postgraduate education	29
13. Research	31
Executive summary	31

INTRODUCTION

The Faculty of Veterinary Medicine (FVMI) dates back to 1961 and is one of the four Romanian faculties for veterinary medicine.

The FVMI has a turbulent history. Until 1974 it functioned as an individual unit within the Agronomic University of Iasi. It was then merged with the Faculty of Animal Husbandry and became the "Section of Veterinary Medicine". In 1986 it became the "Department of Veterinary Medicine" within the Faculty of Agriculture. The FVMI in its present form dates back to 1990 when it was structured as a faculty of its own within the University of Agricultural Sciences and Veterinary Medicine.

FVMI became a member of EAEVE in 1997 and accepted to the requirements of Directive 2005/36/EU in 2004/2005.

The FVMI was accredited resp. re-accredited by CNCSIS in 2001 resp. 2006. The present evaluation is the first one by EAEVE/FVE.

1 OBJECTIVES and STRATEGY

1.1 Findings

Objectives of the FVMI are clearly laid out in the SER. Main objective is to provide adequate, research based undergraduate veterinary training to ensure that graduates have acquired day one competences at graduation to a veterinary surgeon. The output of graduates should meet the demands of the labor market in Romania and Europe.

FVMI stresses the importance of post-graduate education, life-long learning, international cooperation and student exchange.

Mechanisms to monitor how the objectives are met by FVMI are apparently based on an "Operational Plan" approved by the FVMI and the Rector.

1.2 Comments and Suggestions

As with almost any faculty the objectives and the strategic plan to meet them are clearly outlined. The objectives are in good agreement with undergraduate veterinary education. However, the control mechanisms applied to meet the goals set are less clear and implementation of the underlying strategy is vague.

The Faculty should try to make a better distinction between the factual situation the objectives laid out and to what extent they have been reached, the future strategic measures and the control mechanisms applied.

2 ORGANIZATION

2.1 Findings

FVMI is one of the four faculties of the Iasi University of Agricultural Sciences and Veterinary Medicine "Ion Ionescu de la Brad" (UASVM).

FVMI itself is structured into 3 Departments

- a) Department VIII: Pre-clinics
- b) Department IX: Clinics
- c) Department X: Public health

The Department structure is somewhat obscure and each Department seems to encompass up to 11 individual teaching units. Taken together the following more general subjects and services are encompassed by the three departments:

- a) Department VIII – Pre-clinics
 - Cell biology, Histology, Embryology
 - Anatomy
 - Physiology and Physiopathology
 - Pathology and Forensic medicine
 - Pharmacology
 - Genetics
 - Molecular Biology
 - Veterinary Homeopathy
 - History of veterinary medicine
- b) Department IX – Clinics
 - Animal Biology
 - Parasitology
 - Semiology
 - Reproduction
 - Obstetrics
 - Internal medicine incl. general Therapeutics
 - Surgery incl. Anaesthesiology, Ophthalmology and Orthopaedics
 - Toxicology
 - Nutrition and Metabolic diseases
 - Pathology
- c) Department X – Public Health
 - Microbiology
 - Mycology
 - Immunology
 - Virology
 - Epidemiology
 - Ethology, Animal welfare
 - Hygiene

- Veterinary Public Health
- Avian and Swine Clinic

Departments are headed by a Department Head who is elected by the teaching staff of the respective department; election must be approved by the Dean and the Faculty Council.

FVMI is headed by the Dean, the Vice Dean and the Scientific Secretary.

Election of the Dean is by secret vote of the Faculty Council; the University Senate must approve.

The Vice Dean and Scientific Secretary are appointed by the Dean and approved by the Faculty Council.

The Dean chairs the Faculty Council which consists of 12 representatives of the academic staff (4 members of each department) and 5 students. Members are elected by the departmental teaching staff, students are appointed by the students association.

The Faculty Council is the major decision making body. Apart from its electoral competences major competences are curricular matters and agreement on the operational plan.

The Dean interacts with the Rector through the Faculty Council and the University Senate. He submits an Operational Plan for the next year which includes the personnel and financial budget. Decision on the Operational Plan is made by the University Senate. All handling of financial matters is through the central administration of the university.

The University Senate consists of the deans, vice deans, scientific secretaries, heads of department, teaching staff according to the size of the faculty and 8 students (totally 39 members). Three students and 11 of the other members are delegates from the FVMI.

2.2 Comments and Suggestions

FVMI is embedded into a university and has to live with the organisational structures developed. These allow for academic independence but clearly financial matters are handled on a central level only.

The structure of the Departments did not become clear during the visit. Thus, for example, pathology is represented in both Departments, VIII and IX. Why is Animal biology in the clinical department? The impression comes up that a departmental structure was imposed on FVMI without a rearrangement of individual teaching units or professorial assignments.

Apart from the suggestions made in chpt. 4.4.2 there is no further suggestion to reorganize the system as long as it works. Nevertheless FVMI might consider to streamline the structure. This would provide a better basis for cost estimates and for assignment of a defined budget to individual units to cover spending for teaching,

diagnostics and clinical services after the yearly operational plan has been accepted. The principle of subsidiary should be better implemented.

3 FINANCES

3.1 Findings

The University and consequently FVMI are primarily budgeted by the Ministry of Education, Research, Youth and Sport. The funds allocated should cover all salaries, teaching expenditure and general investments.

Allocation of funds is according to the number of students with students in (vet) medical training having a weighing factor of 2.25 while it is 1.75 for the other faculties.

Allocation of funds within the university is not based on a mathematical model. The decisions are made by the rector and must be approved by the Academic Senate, taking into account the operational plan developed by the FVMI and adopted by the University Senate (in 2009 FVMI received about 1.8 mio €).

FVMI has no financial autonomy. Special claims by departments must be approved by the Dean and are forwarded to the central administrative office.

FVMI may create a supplementary income by providing clinical and diagnostic services; 70% of this income is retained by the FVMI (in 2009 about 10500 €), the rest goes to the university. In case extramural funds for research are acquired, 80% are retained by FVMI (in 2009 about 348459 €), the university retains the remaining 20%.

There is no tuition but an enrolment, re-enrolment and re-examination fee. FVMI retains 70% and the money may be used to cover special teaching obligations and teaching expenditure (in 2009 about 81190 €).

3.2 Comments and Suggestions

Also in view of the present economic situation of Romania financial support of the faculty is distinctly below an acceptable level. This becomes clearly obvious from the deficits listed in chapters 4, 6, 7 and 9. The University and the responsible ministry must make a decision on the quality of veterinary education provided by the FVMI. If European standards are to be met substantial additional support must be provided, based on a long term action plan. To delegate some of the financial responsibilities to FVMI might help to overcome some of the minor but pertinent problems (see above chpt. 2.2).

4 CURRICULUM

4.1 General Aspects

The curriculum is set up according to Directive 2005/36/EC and was legally implemented in Romania by Emergency Decree 109/2007.

The curriculum spans a period of 6 years, equalling 360 credit points according to the Bologna Process; for facultative subjects extra points are given. Graduation to a veterinary surgeon after 6 years is officially acknowledged as having obtained a Master (MA) Degree. Consequently FVMI is in the process of closing down its present post-graduate 2-year education program to a MA (see also chpt. 12). Graduates are supplied with a diploma supplement in English.

All subjects listed in Directive 2005/36/EC are listed in the curriculum, including professional knowledge.

Though not directly addressed in Directive 2005/36/EC, herd health management has gained considerable importance in recent years. It is not taught as a subject of its own at the FVMI though it has to be acknowledged, that due to the nature of the subject, various disciplines are involved in its teaching.

FVMI has developed a detailed syllabus which is available as a booklet. The contents of each course are separately posted with reference to the suggested reading. FVMI has established mechanisms to continuously update the curriculum. Suggestions must be forwarded by the department or are directly proposed by the Faculty Council which decides by majority vote. The syllabus itself is developed by the responsible teachers, if found necessary a peer review of a given section of the syllabus may be performed.

The minimum and maximum hours for an independent course are 14 resp. 28 hours, resp. 56 hours per academic year and 112 hours for the entire curriculum. As indicated in the SER, Tab. 4.1, the curriculum comprises a total of 6179 hours. However, the 1200 hours allotted for self learning do not comply with the definition set by ECOVE. Hence the total number of hours is 4979. These hours comprise the 90 hours of extramural work on a farm after year 1 and 2, the 60 hours of extramural training in food industry, public health institutions or private farms after year 3 and the 150 hours of extramural training after year 4 and 5 in a private veterinary practice.

In order to graduate (to obtain the license diploma) students must submit a "Diploma Thesis" (Lucrare de Licenta) at the end of the 6th year. The topic and the academic supervisor are chosen in the 4th year, the thesis has to be finalized during a period of 6 weeks at the end of the 6th year.

Based on these figures which to some extent deviate from those given in the SER, the denominators for ratios R6, R7 and R9 are as follows:

			FVM	Denominator	
				FVM	ECOVE ¹⁾
R 6a:	LL	<u>Theoretical training</u>	<u>2177</u>	1.22	0.59
		Supervised practical training	2652		
R 6b:	LL	<u>Theoretical training</u>	<u>3061</u>	0.58	0.59
		Supervised practical training	1768		
R 7:	UL	<u>Clinical work</u>	<u>804</u>	2.29	2.12
		Laboratory and desk based work + non clinical animal work	1848		
R9:	RA	<u>Total no curriculum hours Food- hygiene/Public health</u>	<u>296</u>	20.8	6.00 – 42.26
		Total no. hours vet. curriculum	6179		

UL = upper level, LL lower level, Ra = range,

¹⁾Denominators as established in 2009

The calculation of R6a does not account for the 1200hrs self learning while the calculation of ratio R6b is based on the considering that about 1/3 of supervised practical training is equivalent to seminar like teaching.

As there is no self learning and no compulsory extramural training in veterinary inspection; there are no values for the denominators of R8 and R10.

4.1.2 Comments and Suggestions

The curriculum covers all subjects listed in Directive 2005/36/EU. However, visibility of the subject “Herd Health Management” must be increased (see also chpt. 4.3).

The curriculum is well balanced between the topics taught, lectures and supervised practical training. It is not to the disadvantage for teaching of students that part of the “supervised practical training” much more resembles a seminar like teaching than a plain practical session (see also chpt. 4.5). The request to develop a sort of a “Diploma Thesis” (Lucre de Licenta) is in support of science based teaching.

FVMI has implemented an apparently rather efficient system to adopt the curriculum and the underlying syllabus to eventually upcoming needs.

FVMI must stay with the definition for self learning as defined in the SOPs and implementation of an extramural training in veterinary inspection is suggested (see chpt.4.3).

4.2 Basic Subjects and Sciences

4.2.1 Findings

Most basic subjects and sciences mentioned in Directive 2005/36/EU are taught as independent subjects or parts of other subjects with a course on molecular biology being part of the curriculum. The majority of the teachers of the basic sciences are veterinary surgeons. This allows teaching of basic sciences according to the future need of veterinary training.

The student group-size in the seminars/practicals supervised by one teacher is 14 to 17; this must be considered a good student to teacher ratio and there is in general an adequate hands-on participation by students. In case of lack of time or shortcomings in the facilities, students perform only part of the experiment based on the provision of adequately prepared material by the teaching staff.

There is also adequate hands-on participation by students in anatomy which is taught during the first four semesters; students dissect sheep, goats, pigs and dogs, but no cats. There are also dissections on distinct parts of horse carcasses, like the front and hind limbs, but the facilities do not allow demonstration of a large animal situs.

The hours allotted to the subjects taught seem adequate. There is a good balance between practical instructions, theoretical work and the contents; they are in good agreement with the curricula other veterinary faculties. The items taught are brought in relation to later courses and there is a regular coordination in the teaching of related subjects.

Some of the units provide diagnostic services which must be considered as relevant and of high quality.

4.2.2 Comments and Suggestions

The teacher/student ratio of 1 to 14-17 should enhance student-teacher interactions and hence should provide an excellent teaching environment. Teaching basic sciences by predominantly veterinarians is a strong point of the faculty. The regular coordination in the teaching of related subjects was highly appreciated by the team

All efforts should be made to overcome the lack in teaching special aspects of large animal anatomy; also dissection of cats should become part of anatomical training. Similarly FVMI should attempt to include some practical work on cell cultures in microbiological training (see also 6.2).

4.3 Animal Production

4.3.1 Findings

Teaching of Animal Production subjects is by the staff of the Animal Science Faculty and - for Ethology and Animal Welfare - by the staff of FVMI. The total volume of hours to be attended by each student is 609; 224 hours are offered as lectures, 161 as laboratory practicals and 154 as non clinical animal work.

Teaching of Animal Production subjects starts with Agronomy and Rural Economy in the 2nd semester followed by Animal Breeding and Animal Nutrition in the 3rd and fourth semester. In the 5th semester Animal Production and Ethology and Welfare are offered. Teaching of Animal Production subjects ends in the 6th semester with Veterinary Hygiene and Environmental Protection.

The number of livestock animals kept in the premises of the faculty is very low. However, the faculty has contracts with so called “collaborating farms”, where students are taught in the respective farm environment. These farms maintain dairy and beef cattle, pigs, horses and poultry. Thus students do have direct contact with the major livestock species under farming conditions. The activity of students on these farms is split between “hands on training” and the demonstration of animal husbandry systems (including feeding technology).

4.3.2 Comments and Suggestions

There is a sufficient number of hours in teaching animal production subjects and there is a good balance between theoretical and practical lectures. However, apart from teaching nutrition in theory and practice, teaching of Herd Health Management as a subject of its own has a very low visibility within the animal production and other clinical subjects. No computer assisted herd health management programs were available. Pet nutrition and clinical nutrition seem to be heavily underrepresented. FVMI seems to be aware of some of these deficits with plans to arrange for some changes.

Nevertheless, this situation is considered a category 2 deficiency pertaining as long as the teaching in Herd Health Management and of pet and clinical nutrition has not been properly implemented.

The dairy farm in Dancu has the advantage that animals are tied up, providing a good possibility for students to work with cows in close contact. However, the farm does not meet the standards of an up to date milk production unit and, as with the other farms visited by students, there are no adequate facilities where students can change and wash or where special instructions could be given, e.g. on instruments. FVMI should try to improve this situation irrespectively of the fact that the university is building a permanent training centre for practical exercise with a capacity to house up to 60 cattle.

The teaching of the applied animal production should be better linked with the training in food safety disciplines, since production factors strongly influence product quality.

During the training in Animal Production students should be exposed as early as possible to day by day management techniques and handling of the major livestock species.

4.4 Clinical Sciences

Clinical sciences encompass lectures, seminars, animal based practical instructions and hands on clinical training.

To provide a basis for this type of education any establishment depends on the availability of propaedeutical animals and the provision of an acceptable patient load covering a wide spectrum of diseases.

In addition up to date teaching relies on the availability of adequate instruments for diagnosis and treatment and the respective array of veterinary drugs.

4.4.1 Findings

4.4.1.1 General

The total number of hours allotted for teaching of clinical sciences is 1869 with an acceptable distribution between lectures (784 hrs), seminars (28 hrs), laboratory (286 hrs), non clinical animal work (158 hrs) and clinical work (613 hrs). Also the distribution of hours between the various clinical subjects is in balance.

In general in seminars and practical instructions 15-16 students form one group. For hands on clinical training a rotation system has been introduced consisting of 3-student subgroups of about 5 students each who are assigned to the various clinical sections, e.g. the vaccination centre, for a defined period of time (e.g. morning, afternoon, whole day).

Such a system may be highly effective in teaching students. However, students will only benefit if there is a sufficient number of clinical cases and animals. Yet, exposure of students to clinical education on live animals and patients presents a basic problem at FVMI as is indicated below.

4.4.1.2 Hands on Clinical Training

Student involvement starts at the Triage where patients enter the Faculty. Triage is a reception area where the identification of the owner and the animal is recorded and where a post graduate student, instructing two year-4 students, decides to which clinical section the patient shall be directed.

The team did not find any evidence based protocols on the decision making process, e.g. preliminary diagnosis and resulting assignment to a given clinical section that would treat the case. Apparently the new patient recording system was not jet linked with the Triage (see chpt. 6.3.3).

During the evening, at night and at weekends patients are taken in via the emergency service. The emergency service is permanently staffed with a veterinarian and some students.

As indicated above, the allocated hours for hand on clinical training are in balance with the curriculum. However, due to the in general low caseload it must be doubted whether these hours are used in an efficient way. This accounts for the Triage and

emergency service but also for many other situations. Thus, for example, the “vaccination station” performed only 19 vaccinations during a 5-week period. This means that many of the 2 students who have to take the obligatory daily shift from 08.00 until 18.00 most likely have never seen a vaccination.

Concerning large animals only 1 patient was presented at the animal hospital, section infectious diseases, during the 5 weeks preceding the visit.

In the clinic for reproduction there were only few consultations or hospitalisations of large animals during the last 11 months. Thus the exposure of students to reproductive disorders like dystocia, caesarean sections or normal parturitions is not acceptably low. This situation is not compensated by activities of the mobile clinic (see below). The team was also informed that Caesarean sections in cattle are performed in a recumbent and not – as is standard today – in a standing position. As claimed by FVMI this is at least in part due to the fact that cases for caesarean interventions are brought in at a poor general status with most of the animals already in a recumbent position.

Similarly in internal medicine students are not exposed to abomasum problems, reticulitis, acetonaemia and milk fever.

In the same period 255 small animals were presented at the veterinary hospital according to the data of Triage. However, also a caseload of 50 small animals per week must be considered very low in view of the fact that clinical education is organised in 8 groups of 15 students, each with subgroups of 3 students. Some groups of students are at risk to have no hands on clinical exposure, even when patients are submitted to the clinic at the same time.

FVMI does not yet operate a functioning mobile clinic. There is a Dacia 1.5 DCi station wagon for visiting farms outside Iasi with a capacity is 7 + 1 persons without baggage or 4 + 1 persons with baggage. This car is not stocked with the necessary equipment or drugs to operate a mobile clinic. Incoming calls for outside veterinary assistance arrive at the Triage, the emergency service or in a clinic and the operator on duty decides - after a short anamnestic analysis - which clinic will be involved. It is then decided at the clinic what kind of drugs might be needed and should be taken along and an *ad hoc* emergency kit is used to perform the visit. In a period of 3 weeks the mobile clinic visited 2 clients (in the past 8 months the car made 11.000 km).

Thus these activities do not compensate for the lack of large animal patients presented at the animal hospital.¹⁾

All clinical units seem to operate on their own. There are no clear guidelines about the assignment of patients. Thus a case of enteritis could be treated in the clinic of internal medicine or in the clinic of infectious diseases, depending on the non evidence based judgement in triage.

¹⁾ That statements made in the SER, page 59, chapter 7.1.8.1 that a relatively large number of patients had been seen outside the faculty is not correct as it refers to the total animal population seen on the occasion of the visits.

Every clinic runs its own hospitalisation unit and no unit conforms with the standards that can be expected to be maintained in a university veterinary clinic.

4.4.1.3 Necropsy

The necropsy unit has an agreement with a farm that provides them with porcine and poultry carcasses two times a week. This situation results in a good caseload for swine (40/month) and poultry (50/month). The caseload for other species, however, is critically low (per year: 8 horses, 6 sheep, 4 rabbits, 81 dogs, 25 cats). This situation provides also a risk; if the agreement with the farm would suddenly come to an end for one reason or another, the caseload of the necropsy unit will drop dramatically.

4.4.2 Comments and Suggestions

Clinical teaching: The hours allotted for teaching clinical sciences and their distribution between the various clinical subjects seems to be in balance.

However, clinical training – in particular small group “hands on clinical training” – though in theory based on an excellent schedule – is all but satisfactory, particularly in respect to the very low number of food animal and equine patients.

This situation can only be resolved if the Veterinary Hospital becomes more attractive for patient and if better use is made of the mobile clinic which will only function properly if there is a veterinarian who is responsible for the daily functioning of the clinic and if the car is permanently stocked with all the equipment and medicines necessary to provide immediate on call services. To resolve this situation will be a lengthy process and in order to improve student exposure to clinical cases FVMI might even consider to temporarily abandon the small group hands on clinical training and to introduce patient presentation and treatment to larger groups of students. This should also allow to systematically acquire patient material.

Supporting measures to achieve this might be a reorganisation of the clinical structures in combination with changes in the underlying operational pathways. Thus the involvement of microbiology and parasitology could be reduced to a paraclinical role, providing a strong diagnostic and advisory platform.

Implementation of clinical teaching and hence of the curriculum would also benefit from a better integration of the clinical disciplines and of the clinical sections established.

In conclusion: Patient orientated clinical teaching is anything but satisfactory resulting in a category 1 deficiency.

Necropsy: FVMI is encouraged to secure the supply with pigs and poultry and to take measures to increase the number of other carcasses submitted to a necropsy (see also chpt. 6.2.2).

4.5 Food Hygiene and Technology and Veterinary Public Health

4.5.1 Findings

The area of food hygiene and public health is covered by three different courses entitled “Food hygiene and technology” (FHT), “Inspection and control of food products of animal origin” (ICFAO) and “Food safety”. The courses on FHT and ICFAO are given in two semesters with 28 hrs of lectures and 28 hrs of seminars/practicals in each semester. FHT takes place in the 4th year of the curriculum and ICFAO in the 5th year of the curriculum. The course in “Food safety” taken place in the 1st semester of the 6th year and encompasses 28 hrs of lecture and 14 hrs of seminar/practical.

In FHT and technology the lectures in the first semester cover hygiene and technology of meat including transport of food animals, slaughtering, meat microbiology, meat preservation, general principles of HACCP etc. Milk hygiene and technology are covered in the 2nd semester of this course together with products like eggs and honey. The seminars/practicals are held in groups of approximately 15 students and consist typically of 1 hr theory and 1 hr with exercises and interactions between students and teacher. Included in the practicals are visits of larger groups (45 students) to slaughterhouses (poultry and swine/cattle) and a meat-processing facility.

In the course ICTAO general aspects of food inspection and control are being taught. Organoleptic and chemical analyses of meat and meat products are being performed in practicals which also include a visit and 6 hrs of practical training in meat inspection at a collaborating slaughterhouse. Prevention and control of foodborne hazards including foodborne zoonoses are being covered in the lectures.

The course food safety covers subjects like the national legislation and organization as well as EU-legislation and the requirements for an “Official Veterinarian”. Laboratory work in food microbiology (on Salmonella, E. coli; Clostridium, Listeria, Campylobacter etc.) is performed in the practical course of microbiology (2nd year).

4.5.2 Comments and Suggestions

Based on the present curriculum all students should gain a sufficient knowledge in food hygiene and technology together with insight in traditional inspection and control of food. Especially through the seminars/practicals where students are divided in groups of 15, the learning possibilities are very sufficient. Students are also taken to different slaughterhouses and processing industries to gain insight into “real life”.

Aspects of microbiological food safety including methods for quantification of for example *E.coli* and detection of pathogenic microorganisms like Salmonella and others are covered in seminars/practicals during instructions in microbiology; this requires a strong interaction of the respective teaching staff to secure that food safety aspects are properly observed.

For both, lectures and practicals, it is recommended to better focus on the concept of risk analyses (risk assessment, risk management and risk communication) and to cover all aspects of risk assessment (hazard identification, hazard characterization,

exposure assessment and risk characterization) through examples and explaining the difference between HACCP and risk assessment.

Taking into account the relatively small amount of six hours where students are trained in practical meat inspection in a slaughterhouse it is suggested that practical meat inspection is also trained at the faculty, for example by buying carcasses, unless a compulsory extramural training in a slaughterhouse can be organized

4.6 Electives, Optional Disciplines and other Subjects

4.6.1 Findings

Students must at least take 2 electives per year, they can take up to 4, but they have to pay if they want to enlist for additional electives. Electives offered in basic subjects are foreign languages (English, French, Spanish or German), the number offered in other area is as follows: basic sciences, 6 ; clinical sciences, 8; animal production, 1; professional competence, 2 (Table 4.3 Page 19, SER). These subjects are taught generally in 28 hrs (14 h lectures and 14 h practical work).

In addition a number of facultative courses (optional subjects) is offered.

4.6.2 Comments and Suggestions

The electives offered and students have to choose from are – except from basic subjects – complimentary to the core curriculum. The team did not get the impression that electives substitute for topics to be taught in the core curriculum.

The teaching of foreign languages as electives was highly appreciated.

5 TEACHING QUALITY & EVALUATION

5.1 Teaching Methodology

5.1.1 Findings

The team encountered a good teaching atmosphere. The staff was empathic about teaching and did not really complain about the need to exceed the official teaching load by several hours (there is a monetary compensation for teaching extra hours which primarily benefits the assistants and lecturers). There are good relations and possibilities for interactions between students and teachers.

Non clinical teaching in general is by conventional methods with all the necessary technical equipment being available. As most of the teaching is in small groups (up to 15 students) there is a close and good contact between students and instructor. As stated above, there is a strong amalgamation between seminar type sessions and practical training. This situation should support evidence based teaching and learning. The request to submit a sort of a “Diploma Thesis” (Lucare de Licenta) and to pass a respective oral examination at the end of year 6 fosters research based learn-

ing as students must present their own results in light of the international scientific literature.

For all classes textbooks in Romanian language, often written by the respective teacher, are available and are made known to the students. There is an ample stock of these books at the library (see also chpt.8). Some teachers provide their presentations on the FVM-homepage or on a disc, which seems quite feasible as virtually all students possess their own computer. E-learning is not yet provided and there were apparently no attempts to establish such a system. However, FVMI is trying to establish 3D visualized teaching for certain segments of the curriculum. A respective classroom and booth for interactive teaching are available with some first material on neurophysiology.

Students are readily provided with material for self studies; during examination periods the computer room of the University library is open around the clock.

For practical training on large animals (horses, cattle) the facilities in anatomy and necropsy are inadequate and hence is the training of students in this special area.

Teaching in propaedeutics and clinical teaching/training are hampered by the extremely low patient load which does not allow for a small group hands on clinical training and a patient based problem orientated teaching (see also chpt. 4.4). There are only few animals for propaedeutical instructions.

Success of teaching is monitored by short explorative examinations during the ongoing semester and by the final examinations posted for each course at the end of each semester (see also chpt. 5.2).

Teachers are regularly evaluated by students at the end of each semester using a standardized questionnaire. In case of problems the respective person is informed by the Dean and asked to improve; however, there seem to be no other consequences. Students report about good responses of teachers to their evaluation.

5.1.2 Comments and Suggestions

Except for clinical training and the training for certain segments of anatomy and necropsy the teaching environment must be classified as satisfactory to highly satisfactory. Teaching is evidence as well as research based. FVMI is encouraged to continue develop 3D teaching.

Improvement of clinical teaching and training and the above mentioned segments of anatomy and necropsy is strongly suggested in order to rectify the category 1 and 2 deficiencies suggested in chpt. 4.4 and 6.2.2.

5.2 Examinations, Enrolment and Student Care

5.2.1 Findings

Assessment of students is based on 3 pillars: attendance of courses (supervised practical training) with a maximum of 14 points achievable, colloquia during the courses with an average grade obtainable between 1 and 10 and the semester end exam with a grade obtainable between 1 and 10. The final mark or number of points obtainable results from the addition of 20% from the points obtained for attendance, 20% of the grade obtained for courses and 60% of the grade obtained for the semester end exam; these percentages may vary slightly depending on the course. A mark of 5 has to be obtained in order to pass.

Students fail if they miss more than 20% of a practical course or a seminar. Missed courses, however, may be taken by joining other groups. Depending on the situation these courses may also be re-offered on weekends or at the end of the semester. There is no compulsory attendance for lectures.

The “colloquia” performed during the semester are 3 to 5 short tests in oral or written form (15 to 20 min with additional preparation time for the students). For the final examinations two periods of 3 to 4 weeks each are scheduled. The exam itself is divided into two parts: a practical one in the morning and written one in the afternoon. The written examination takes 2 hours and is characterized by multiple choice questions (mainly) and essay type questions.

The examination rules and guideline are provided by the university. If students fail the final examination, they can repeat it one week later. An examination can be repeated three times. For a fourth or fifth examination students have to pay 11€ to get again admitted. There are no external examiners.

The students have to reach 67% of the credit points of each year in order to be able to continue in the next year. All information about the credit points and the examination rules are provided as guideline to the students.

Students entering FVMI must show a medical certificate that they are “fit” for the 6-year veterinary curriculum. There is a compulsory medical examination every year and students should adhere to the national vaccination program. None such services are offered by FVMI or the University. However, at all risk-bearing situations the proper safety instructions are given.

FVMI provides a dormitory for up to 500 students. All students have access to a wide variety of sport activities.

25% of the students receive a scholarship. 85 €/month receive those students with a general average grade greater than 9.5 (out of 10 as the maximum grade) and 65 €/month those students with a general average grade between 8.00 and 9.5.

Students with social problems get special support. The top students of each year are offered an 8 day summer excursion to Greece.

Students are represented on the Faculty council and the Council Board and nomination is through the Student Association.

5.2.2 Comments and Suggestions

FVMI might consider that the mere presence of a student in a practical class or seminar should not contribute to the final mark obtainable in order to pass a semester. The team did not become aware of the fact that results of exams are evaluated retrospectively in order to secure a certain standard and to maintain the same degree of difficulties across subjects.

6 PHYSICAL FACILITIES and EQUIPMENT

6.1 General Aspects

6.1.2 Findings

The campus of the FVMI is located at the north-east part of Iasi, close to the periphery of the city (approximately 2 Km). Hence it should be relatively easy accessible by in town people and by people coming from outside with horse/cow trailers. It forms a unit of its own but is also interrelated with other faculties of the University.

FVMI is in the process of building, renovation and reconstruction with much of the inside renovations having been accomplished. Presently, among others, new premises for animal hospitalisation and a parking lot are being planned resp. are under construction.

There are two newly equipped lecture halls housing a whole semester. There are plenty of rooms for seminars and practicals, most of them equipped with beamers and other up to date equipment.

Also the clinical facilities offer ample space for examinations and treatment. However, the installation and equipment available are often far from being sufficient. At present there are virtually no facilities to hospitalize companion animals, the pavilion available for hospitalization of large animals does not meet the requirements of an animal hospital (see chpt. 6.2.2).

When visiting the facilities the team noticed that FVMI is rather successfully trying to safeguard hygienic and safety standards. However, in some areas proper disinfectant solutions and other protective measures, like for example eye douches, are missing. In general cloth towels were provided instead of disposable towels.

6.1.2 Comments and Suggestions.

FVMI is strongly advised to improve accessibility for trailers, to provide special areas for unloading of horses and cattle and for parking the trailers. The respective areas and routes must be posted.

Further actions should be taken to safeguard hygienic and safety measures (for further comments see below).

6.2 Basic Subjects and Sciences

6.2.1 Findings

The classrooms used for laboratory courses fit the number of students and are generally well maintained with only few of them needing some renovation.

Though not all rooms for laboratory courses seemed to be equipped with modern projection facilities, the team did not become aware of a lack of beamers and computers, e.g. for power point presentations.

As far as observed most (research) laboratories lack modern equipment (physiology, microbiology), in particular in respect to molecular biology.

6.2.2 Comments and Conclusions

Some of the instruments observed, also in student laboratories, were at the limit of acceptability, also in respect to student safety. Thus for safety reasons the many glass pipettes seen should gradually be replaced by modern pipetting systems using disposable tips.

There is a strong suggestion to improve this situation.

FVMI should develop a structural plan and priority list to replace old equipment and to develop modern laboratories allowing molecular and gene-technological work. For these reasons it is suggested to develop a central molecular biology platform which should be accessible to all staff members involved in research making use of these techniques.

6.3 Clinical Facilities and Organization

6.3.1 Findings

General: Companion animal patients enter the clinical services through the Triage (see chpt. 4.1.2). It did not become clear how large animal patients are directed to the responsible clinical unit. However, it has to be assumed that the decisions are made on the first contact with the clinical services.

On October 11th 2010 an electronic registration system for patients was installed. By the time of the visit this system had been in operation for approximately 5 weeks and 256 different patients had been registered; 99% of these were pet animals.

In general the number and type of equipment available is insufficient to meet the broad requirements of up to date diagnostic and treatment procedures and veterinary teaching. The existing equipment seems also to be used inefficiently and is localized in different places not connected with the service to be provided.

There seems to be no adequate management concerning the acquisition, storage and use of drugs. No specific records, also on the use of drugs, could be shown; many drugs apparently in use had passed the expiry date. The team was also informed that due to organizational/monetary problems in some cases urgent drugs

must be purchased personally by staff members. Only the vaccination center has a refrigerator to store medicines, in all other clinical sections drugs are kept under uncontrolled circumstances, a central pharmacy was missing.

There was no central diagnostic laboratory providing a quick and efficient all round service but some “diagnostic locations” were found here and there.

Large animal section: In the large animal section even the basic equipment is absent. Thus, for example, there is no surgery table for horses but the horse must be cast on a mattress type bedding. Apart from this ancient way to cast a horse, due to the lack of proper restraint materials/equipment and inhalation anesthesia, every surgery on horses becomes a risk for the staff, students and the horse itself. During surgery monitoring of physiological parameters is impossible due to a lack of the most basic monitoring equipment.

A recovery unit is present but it is impossible to transport a large animal from the surgery unit to the recovery box in a safe way because there is no lifting or crane system. The patient would have to be hauled on an improper cart and thrown off in the recovery room.

The floor of the large animal section is inadequate. Rubber tiles are not fixated and cleaning or disinfecting of the floor is difficult if not impossible.

There is a distinct lack of modern equipment, for example for endoscopy.

Hospitalization of large animals is scattered through the clinical facilities. Surgery and reproduction, internal medicine, and infectious disease have their own stables. None of these stables meet the standards of a modern clinic. Floors are broken, walls are porous and cannot be disinfected, horses have no hayracks, lifting systems to transport animals that are not able to walk are not present.

However, as the team was informed and as is indicated above, all facilities for hospitalization of large animals are in reconstruction. Thus this situation should improve within a reasonable length of time.

FVMI can not provide transport of large animals to the clinical facilities.

Small animal section: Also in the small animal section only the basic equipment is present. There is a simple unit for inhalation anesthesia whilst two high tech vaporizers are not used because their original machine is broken. A simple pulsoxymeter is the only monitoring equipment present for small animal anesthesia

Basic dental equipment and basic material for osteosynthesis is present, but it seems to be the property of an individual veterinarian who tries to offer a good service despite the lack of material in the clinics.

FVMI clinical sections have no intensive care units and recovery of small animal patients from anesthesia is on plain (cold) floors in cages that are difficult to clean and to disinfect.

There are no central hospitalization facilities for small animals and the few places available are scattered across the animal hospital. Every clinic has its own premises and no unit meets the standards. The structure of the buildings prohibits cleaning, disinfection and protection of high risk patients.

Isolation facilities: The only isolation facilities belong to the clinical section of infectious diseases. These facilities are designed for all species and immediate access is from inside the building. Within the isolation unit there is no adequate segmentation of the stables. No special equipment to maintain the necessary hygienic standards was observed when visiting the facilities.

Necropsy: The necropsy room fits necropsies of small animals, including small ruminants and pigs, but not large animals. Necropsies would have to be done on the floor and no crane system to handle large animals is installed.

There were insufficient cooling facilities and a workbench was found in the room where pig carcasses had been stored.

Student access does not meet hygiene requirement and students observed in the necropsy room did not wear the appropriate protectives.

6.2.2 Comments and Suggestions

Facilities: Surgery facilities for horses are far from being appropriate. Facilities must be equipped with a surgery unit to comfortably bring a horse in a recumbent position, to restrain the horse and to safely transport it to the recovery room, e.g. by installing a lifting system. Similarly stanchions/equipment must be provided to allow a safe rectal examination of a horse and to perform a caesarean section in a standing cow.

In order to operate a teaching veterinary hospital inhalation anaesthesia for horses must be provided including the respective apparatus for monitoring physiological parameters (e.g. blood gases, EKG). In the small animal surgery unit the instruments for inhalation anaesthesia and the respective monitoring equipment must be brought up to date.

In conclusion: Facilities including equipment in the equine and small animal section are insufficient resulting in a category 1 deficiency.

Apart from the immediate need to improve anaesthesia a long term plan based on priorities should be developed in order to bring the clinical equipment on an up to date status. Meanwhile a more practical and useful allocation of the available equipment should be set up (see below).

Hospitalization facilities for large and small animals should be less scattered across FVMI which might even consider to establish one central hospitalisation facility for small animals and one for large animals, each of them equipped with appropriate isolation facilities. The ongoing reconstruction should account for this recommendation.

Regardless of a possible rearrangement boxes for horses should be according to EU legislation. Floors and walls should be easy to clean and disinfect. This especially accounts for the floor in the equine surgery section. Cages for intensive care of small animals must be provided and post surgery recovery areas must meet the standards of good veterinary practice (bedding, heating etc.).

In conclusion: Hospitalization facilities for large and small animals are unacceptable resulting in a category 1 deficiency

The isolation facility consists of a series of boxes and stalls belonging to the Clinic for Infectious Diseases. They are neither arranged in a way to avoid cross-contaminations nor were any special measures taken to avoid those. Access is from inside the building which is of a particular problem if large animals should be brought in.

Necropsy facilities should be adopted to allow a “lege artis” necropsy of large animals. Adequate cooling facilities must be provided and the workbench must be removed from the area where carcasses are stored. Student entrance and exit and the provision of protectives must be organized in a way that student safety and the necessary hygienic standard are maintained.

In conclusion: Isolation and necropsy facilities are inadequate resulting in a category 1 deficiency.

There is certainly no easy solution to solve this problem and the faculty should seek for the respective advice.

Organisational matters The handling of drugs is not in accordance with good veterinary practice and European law. FVMI is urged to solve this problem, by whatever means, e.g. by the installation of a central pharmacy with a responsible staff member assigned to it.

In conclusion: The handling of drugs is not accordance with good veterinary practice and European legislation resulting in a category 1 deficiency.

Also the use of the ample clinical space and of the little equipment available could be organised in a much more efficient way. In view of the shortage on finances duplication of equipment should be avoided as much as possible. For example there is a Pie Medical Aquila echograph in both internal medicine and reproduction. Alternatively one echograph in diagnostic imaging would be sufficient whilst the money could be spent for other necessary equipment that is absent now, e.g. equipment for endoscopic examinations. During the visit a defective blood analysis machine (MS95) was spotted in the clinic for internal medicine whilst a brand new one (MS45) not being in use was spotted in the physiology laboratory.

Also client management should be improved in order to make a visit as effective and as easy as possible for the animal and its owner. As indicated above the Triage at present more or less functions as a reception/entrance area where a patient is registered and where – based on some sort of anamnestic evaluation – directions are given to which clinical section a patient/owner should proceed. These functions might well be taken care of by a trained technical assistant and the system should be organised in a way that the first contact of a patient with a veterinarian is the starting point of clinical examinations and treatment. This would require some reorganisation and to establish a “poli-clinical” unit with well equipped examination rooms for small animals. This would be more profitable for both parties.

Client management could further be improved by providing transport of large animal patients to the clinical facilities. The acquisition of an appropriate trailer should be part of the long term plan.

Supporting measures to increase clinical efficiency might be a reorganisation of the clinical structures in combination with changes in the underlying operational pathways. Thus the involvement of microbiology and parasitology could be reduced to a paraclinical role providing a strong diagnostic and advisory platform (see also chpt. 4.4.2). Such a reduction of clinical units would allow to establish a Teaching Hospital with clearly defined responsibilities.

7 ANIMALS and TEACHING MATERIALS OF ANIMAL ORIGIN

7.1 Findings

The number of cadavers and preserved pieces used for anatomical dissections in general seems satisfactory though it is at the lower level of acceptability concerning dogs; cat cadavers so far were not available for dissections..

The availability of farm animals for teaching Animal Production kept on the premises of FVMI is low. However, as teaching is performed on cooperative farms well stocked with food animals, the availability of animals for teaching purposes can be considered good.

There is a small and insufficient number of animals provided for didactic purposes, e.g. the teaching of propedeutics.

Concerning the clinical case load and consequently the number of animal patients available for teaching, the denominators for the respective ratios are as follows:

			Denominator		
			FVM	ECOVE ¹⁾	
R 11:	LL	no. of students <u>graduating annually</u>	$\frac{129}{139}$	1.08	2.03
		no. of food-producing animals seen at the Faculty			
R 12:	LL	no. of students <u>graduating annually</u>	does not yet apply as Mobile Clinic only	8.94	
		no. of individual food-animal consultations outside the Faculty	started to operate in 2010		
R 14:	LL	no. of students <u>graduating annually</u>	$\frac{129}{49}$	0.38	2.29
		no. of equine cases			

R 16:	LL	no. of students <u>graduating annually</u>	<u>129</u>	15.5	51.34
		no. of companion animals seen at Faculty	1998		

UL = upper level, LL lower level, Ra = range,
¹⁾Denominators as established in 2009

In view of the denominators delineated by ECOVE the above denominators established for FVMI clearly demonstrate that the case load in food animal patients and equines is clearly below an acceptable level.

The denominator established for Ratio R 16 is 15.5 and hence also distinctly below the current denominator of 51.34 as established by ECOVE.

The necropsy unit has around 1000 cases per year. More than 80% are pigs and poultry coming from one farm with which the FVMI has made an agreement. The denominators established for Ratios R 18 and 19 are well above the denominator established by ECOVE (see below). However, as is indicated by a denominator of 0.85 for R20 which is distinctly below the denominator of 1.73 as established by ECOVE, there is a lack of companion animals submitted to necropsy.

		Denominator			
		FVM	FVM	ECOVE ¹⁾	
R 18:	LL	no. of students <u>graduating annually</u>	<u>129</u>	3.56	0.96
		no. necropsies food producing animals + equines	460		
R 19:	LL	no. of students <u>graduating annually</u>	<u>129</u>	2.71	0.40
		no. necropsies poultry/rabbits	350		
R 20:	LL	no. of students <u>graduating annually</u>	<u>129</u>	0.85	1.73
		no. necropsies companion animals	111		

UL = upper level, LL lower level, Ra = range
¹⁾Denominators as established in 2009

7.2 Comments and Suggestions

With the exception of Animal Production teaching material of animal origin in general is below or just at the level of acceptability

Thus there is a strong suggestion to include more cadavers of dogs and particularly of cats in anatomical dissections.

Concerning necropsy and the supply of food animals, FVMI strongly relies on the support (pigs, poultry) from one farm. In order to secure the system FVMI should try to get similar arrangements with other suppliers. The case load for large ruminants, horses and in particular companion animals, should be increased.

In conclusion: The case load for large ruminants, horses and particular companion animals in necropsy is borderline, resulting in a category 2 deficiency.

Concerning teaching animals used for propaedeutical instructions there is only a poor stock with animal housed under in part inadequate conditions.

In conclusion: There is a poor stock of teaching animals housed under in part inadequate conditions resulting in a category 2 deficiency.

FVMI is encouraged to work on this problem by creating a proper environment meeting European standards for housing an adequate number of teaching animals.

Clearly the number and types of food animal patients and equines presented at the Animal Hospital is absolutely insufficient. This is not compensated by seeing patients with the mobile clinic.

In conclusion: The case load – in particular in food animals and horses – is insufficient resulting in a category 1 deficiency.

Also the number and type of companion animal patients seen at the Animal Hospital is at the lower level of acceptability. This statement also accounts for the fact that a considerable percentage of the incoming patients are feral animals presented for castration. FVMI is urged to develop a higher and more differentiated patient load.

In conclusion: The number and the type of companion animals seen at the Animal Hospital is at the lower level of acceptability resulting in a category 2 deficiency.

8 LIBRARY and EDUCATIONAL RESOURCES

8.1 Findings

There is a central library for the University of Agricultural Science and Veterinary Medicine which is close to the faculty (5 min walk). The library is new and modern as described in the SER, page 63 to 67. It provides ample reading/working area with a separate area designed for foreign textbooks/journals, most of them in English. The opening hours are from 8.00 to 20.00hrs (Monday to Friday), students can visit the media room up to 24.00hrs.

The library offers an introduction to their online database and indexing as a course and a hand-out. Exchange service between the library and other libraries in Ruma-

nia as well as with libraries of other European countries are offered. All students can use the online system (OPAC) of the library from home via internet. In the whole area of the library wireless lane (hot spots) is available.

In general there is a good supply of standard textbooks in Rumanian language and about 30 copies of text books meeting the needs of the basic courses are provided. Veterinary students did not complain about a shortage of textbook copies.

The number of actual issues of international journals displayed on the shelves is low. However, the library provides free internet access to all relevant data bases, like pub med, allowing students and staff to deal with the international literature. In those cases where only the abstract can be assessed, the library has means to provide the whole text of a paper. The system was highly appreciated by students and staff.

There is one departmental library with a good stock of English text books and a small number of international journals. There are 4 normal and 4 computers working places and students have access from 8.00h to 18.00hrs.

8.2 Comments and Suggestions

The library provides a good back up system for students and staff for learning, teaching and research. As there is no situation which could not be improved it is suggested to increase the stock of international/English veterinary/animal science text books and journals.

Similarly a special course for search of scientific literature in the internet (PubMed, ISI web of science) should be offered and arrangements could be made that users have an immediate access to the full text of a paper on a broader basis.

The OPAC system might also be a good starting point to further develop a “virtual campus”.

9. ADMISSION and ENROLMENT

9.1 Findings

The number of students admitted is based on the teaching capacity of FVMI as established by the Faculty Council. There is no underlying mathematical model, rather a good guess, and the proposal of the Faculty Council needs approval of the University Senate. The average number of students admitted in the past 5 years was 161. As indicated in the SER, page 76, this figure also accounts for the need of veterinary labour force in the area of Moldavia.

Admission of students is regulated by an ordinance of the Ministry of Education and only high school graduates with a baccalaureate diploma may apply.

Admission to FVMI is solely based on the grades obtained during high-school education; the result obtained in the final examination (baccalaureate diploma) counts for 25%, the general average grade obtained counts with 75%. Admission is strictly

based on the descending order of the final grade calculated and the minimum average accepted for admission is 5.

The average number of students graduating annually for the past 4 years was 129 with the biggest drop out rate occurring after year 1.

FVMI participates in the Erasmus exchange program and also accepts some foreign students, decision is apparently made on a case by case basis.

9.2 Comments and Suggestions

Admission of students is based on a national regulation and the selection procedure applied by FVMI is based on the grades obtained at high school and the final high school diploma (bacalaureat). As shown by the drop out rate and the average number of students graduating, the system yields acceptable results.

10 ACADEMIC AND SUPPORT STAFF

As indicated in the SER, page 78, Tab. 10.1, in theory FVMI encompasses a total of 53.5 FTE with 4 staff members not being veterinarians.

Based on these data the denominator calculated for Ratio R 1 (no total academic FTE in veterinary training/no undergraduate students) is 18.1 and distinctly above the upper level calculated by ECOVE which is 9.11.

However, as indicated in the SER, page 83, and as the team was informed during the visit, a substantial number of teaching positions is not occupied, reducing the teaching capacity by around 35%. Thus the factual denominator for R 1 is even worse than indicated above.

With a regular weekly teaching obligation (hours /week) of 11 hrs for professors, 13 hrs for readers, 15 hrs for lecturers and 16 hrs for assistants the official teaching load must be considered high. Due to the shortage in teaching staff and the rule that seminar and practical groups may encompass a maximum of 15 students, virtually all teachers must exceed the official teaching obligation to implement the curriculum. Most of the seminars and practical classes must be repeated 8 times and some teachers have to teach 30 hours per week.

Consequently all PhD students are also involved in teaching.

In spite of the fact that open positions are posted on a national level, virtually all members of the present teaching staff have developed their career *in loco*. Recruitment is from the PhD graduates following their application; they have to pass a written test, give an oral lecture and must have published.

All assistant and lecturer positions are permanent. Promotion is regulated by rules of the Ministry of Education. Thus In order to be promoted from a lecturer to a reader the candidate must have published 2 papers in the international literature, 1 book as single author and one as co-author; the person must have acquired a grant and

some further papers should be on the list of publications. Students are not involved in these processes.

With 0.57 the denominator for R 5 is just below the range established so far for Ratio R 5 (0.57 – 2.11), no total FTE academic staff in veterinary training/no total FTE support staff in veterinary training. The visit confirmed that administration is well covered but that there is a distinct lack in animal care takers and other technical staff involved in animal handling. Technical staff is not offered continuation courses, they are regularly informed about safety measures.

10.2 Comments and Suggestions

There is a distinct lack of teaching capacity (FTEs) at the FVMI and without the great enthusiasm and engagement of the present teaching staff (professors, readers, lecturers, assistants) it would not have been possible to implement veterinary training according to the curriculum established.

However, on the long run these extra efforts to maintain teaching will go at the expense of other important obligations, like research. Also the present enthusiasm and engagement might slowly fade away. Thus eventually FVMI might neither meet its educational goal nor its goal concerning university based research. The latter aspect must particularly be stressed, as due to the EAEVE/FVE requirements veterinary education must be research based.

FVMI is aware of these shortcomings but it has no means to correct the situation; reorganization of some seminars would not be more than a drop on a hot plate. Thus the university and the government might decide what type of veterinary education will fit their needs. However, in order to meet and secure European standards in veterinary education there is no way out but to assign additional teaching staff to FVMI. A first step could be to fill up the presently vacant positions. FVMI together with the University are strongly urged to develop an operational plan to solve this problem.

There is also a shortage of technical staff. In particular if the clinical services are to be improved with more animals coming in, more animal care takers and other respective personnel will be necessary. These people carry a high responsibility; for example they should be able to prepare animals for all types of intervention, they must be able to take care of instruments and they must care for the animal well being which is far more than just cleaning and disinfecting stables and boxes.

The Faculty is strongly urged to consider this situation. Other than hiring new personal some preliminary measures to cope with this situation might for example be to turn some administrative staff positions into animal care takers.

In conclusion: The number of teaching and support staff is unacceptably low resulting in a category 1 deficiency.

The academic staff of FVMI so far had solely been recruited from the cohort of own doctorate (PhD) students. Though such a system might work perfectly well there is the inherent danger that it is difficult for new ideas to get a firm footing. FVMI should

therefore consider to bring in new people and ideas by posting all types of academic positions on a national and possibly also international level.

As stated above, to get promoted requires – among other things - the writing of at least 2 books. It is of course part of the academic obligations to write text-books, however, the acknowledgement of scientific merits rather depends on the publication in the international, peer reviewed literature and the resulting bibliographic data than the writing of a book. FVMI should consider to develop new parameters for the promotion system. The team was pleased to note that a new law of education will provide new rules and parameters for promotion according to internationally accepted criteria.

11 CONTINUING EDUCATION

11.1 Findings

The Rumanian National System of Continuous Education aims at maintaining the veterinary surgeons at an acceptable level of competence.

The continuous education provided by FVMI is organized in cooperation with the General Association of Veterinary Surgeons of Romania and the Board of Veterinary Surgeons from Eastern Romania.

In 2009 FVMI had organized 13 courses with 10519 participants. At the time of the visit 8 courses with 6663 participants had been organized in 2010.

The topics offered covered highly relevant matters of animal health and therapy.

11.2 Comments and suggestions

FVMI is highly active in providing continuous education. Though not compulsory, there is a high interest of the veterinary profession in continuous education.

So far primarily clinical topics had been addressed. In order to widen the spectrum and to cover another important area it is suggested to also include veterinary public health matters.

FVMI might try to make use of its influence to make continuous education compulsory in Romania.

12 POSTGRADUATE EDUCATION

12.1 Professional track

12.1.2 Findings, comments and suggestions

A national system of professional specialization in cooperation with the professional associations providing the title of a veterinary specialist in a defined area has apparently not been established in Romania.

Also no specialization on the European level (Diplomat of a European College of Veterinary Specialization) has so far occurred. Clearly the basis for such an educational program is missing at the FVMI.

However, in order to meet upcoming needs FVMI should seek ways to enter the track of veterinary specialization. This would certainly be a long term program and might get achieved by – for example – having own postgraduate students trained to a European Diplomat in a foreign establishment acknowledged for this type of training.

12.2 Academic track

12.2.1 Findings

The academic track is clearly research orientated and distinctly separate from the professional track.

From 2008 until 2010 FVMI had offered “Master studies” which lasted for 1.5 years and were, according to the SER, page 92, chapter 12.2.1, a mixture of academic and professional postgraduate education. This system has been abandoned and the respective specialization will be integrated in year 6 of the regular curriculum which will end by granting the title of a MA to the graduates.

Since 2008 UASVM has established a PhD-program with the organizational responsibility at the Department of Doctoral Studies. The Department obtained structural support through the European project “POS-DRU”; application was on a competitive level.

Students have to pass an entrance examination, duration of the program is 4 years for full time students and 6 years for part time students; only full time students are supported by a scholarship.

At the time of the visit 48 full-time students under the supervision of FVMI were enrolled in the PhD-program. These students have an official teaching load of 6 hrs per week during years 2 and 3. The expectation is that the research performed results in at least one paper published in an international journal.

There are also 6 postdocs on the staff of FVM.

12.2.2 Comments and suggestions

FVMI is on a good way to further strengthen the academic track of postgraduate education. In order to further foster research FVMI should try to improve international cooperation. FVMI must watch out that the large teaching load does not have a detrimental effect on research which is indispensable from postgraduate scientific training.

13 RESEARCH

13. Findings

FVMI considers research as an important issue and virtually all academic staff is involved in some type of research project. To perform research requires the acquisition of external grants to cover expenditure and cost of personnel, usually of a PhD-student. However, communication with the International scientific community seems to be on a rather low level as the number of publications in ISI journals for the last 5 years is limited to 9 papers with most of the publications (about 95%) published in the Iasi University Academic Journal.

The team learned that because of the financial crisis in Romania state funds for the research were dramatically lowered for the period 2007-2013.

13.2 Comments and suggestions

The importance FVMI is giving to research is highly appreciated. However, FVMI is encouraged to better join the international scientific community by seeking for more publications in the peer reviewed international literature. The lack of adequate equipment in some units might be compensated by developing co-operations within the FVMI as well as on the national and international level. Arrangements could also be made that some of the PhD students accomplish some of their work in other laboratories in Europe and abroad.

EXECUTIVE SUMMARY

The Faculty of Veterinary Medicine of the Iasi University of Agricultural Sciences and Veterinary Medicine (FVMI) has a turbulent history. It consolidated in its present form in 1990 and obviously the faculty has progressed well in the past 20 years. Concerning the facilities a renovation program had been started and also some new buildings have been or will be constructed.

FVMI adapted its curriculum to Directive 2005/36/EC in 2007 and all staff and students have been found to be highly motivated for teaching and learning. Its is due to the empathy and enthusiasm of the academic staff that in spite of the dramatic lack of FTE's teaching of students could be maintained on a high level across the subjects to be taught, except for some parts of the clinical training.

However, empathy and enthusiasm are not enough to cope with some of the rather severe Problems FVMI is confronted with.

These problems primarily relate to the situation in the clinical sections. Apart from an not acceptably low patient load also the situation of the clinical facilities and respective organization gives rise to concern.

Clinical teaching – in particular small group “hands on clinical training” – though in theory based on excellent schedule – is anything but satisfactory, particularly in respect to the very low number of food animals and equine patients. Several suggestions are made in chpt. 4.4.2 to improve this situation.

In conclusion: Patient orientated clinical teaching is anything but satisfactory resulting in a category 1 deficiency.

Surgery facilities for horses are far from being appropriate. Facilities must be equipped with a surgery unit to comfortably bring a horse in a recumbent position, to restrain the horse and to safely transport it to the recovery room. Similarly facilities must be provided to safely perform rectal examinations of a horse and to perform a caesarean section in a standing cow.

In order to operate a veterinary teaching hospital inhalation anaesthesia for horses must be provided including the respective apparatus for monitoring physiological parameters. In small animal surgery the instruments for inhalation anaesthesia and respective monitoring equipment must be brought up to date.

In conclusion: Facilities including equipment in the equine and small animal section are insufficient resulting in a category 1 deficiency.

Hospitalization facilities for large and small animal must be brought up to an acceptable level. Boxes for horses should be according to EU legislation. Floors and walls should be easy to clean and disinfect. Cages for intensive care of small animals must be provided and post surgery recovery areas must meet the standards of good veterinary practice (see also chpt. 6.2.2).

In conclusion: Hospitalization facilities for large and small animals are unacceptable resulting in a category 1 deficiency.

The isolation facilities consist of a series of boxes and stalls. Access is from inside the building, the stalls are not arranged in a way to avoid cross contaminations, nor were any special measures taken to avoid those. Necropsy facilities should be adopted to allow “lege artis” necropsies of large animals.

In conclusion: Isolation and necropsy facilities are inadequate resulting a category 1 deficiency.

Clearly the number and type of food animal patients and equines presented at the animal hospital is insufficient. This is not compensated by seeing patients by the mobile clinic.

In conclusion: The case load - in particular food animals and horses – is insufficient resulting in a category 1 deficiency.

There is no central pharmacy and the handling of drugs – as observed – was highly problematic.

In conclusion: The handling of drugs is not in accordance with good veterinary practice and European legislation resulting in a category 1 deficiency.

There is a distinct lack of teaching capacity at the FVMI and without great enthusiasm and engagement of the present teaching staff it would not have been possible to implement veterinary training according to the curriculum as established. It will not be possible for FVMI to permanently compensate this situation by drastically exceeding the regular teaching load. These extra efforts to maintain teaching will also go at the expense of other important obligations like research. FVMI is aware of these shortcomings but it has no means to correct the situation. This falls within the responsibility of the university and the government and they must decide what type of veterinary education will fit their needs. However, in order to meet and secure European standard in veterinary education there is no way out but to assign additionally teaching staff to FVMI (see also 10.2). There is also a distinct lack of technical staff.

In conclusion: The number of teaching and support staff is unacceptably low resulting in a category 1 deficiency.

Though not relevant to achieve a status “Approved” category 2 deficiencies should also to be considered seriously by the establishment visited. To classify a deficiency as category 1 or 2 is often a borderline decision and if not rectified a category 2 deficiency could easily become a category 1 deficiency at the next regular visit.

In case of FVMI attention should be given to the following category 2 deficiencies:

Chpt. 4.3.2

Herd Health Management as a subject of its own as well as of pet animal- and clinical- nutrition must be properly implemented

Chpt. 7.2

The case load for necropsies of large ruminants, horses and particular of companion animals is borderline.

There is a poor stock of teaching animals housed under in part inadequate conditions.

The number and type of companion animal patients seen at the animal hospital is at the lower level of acceptability.

ECOVE decision: NON APPROVAL

See also Annex I and II.