

European Association of Establishments for Veterinary Education

European System of Evaluation of Veterinary Training

**REPORT ON THE VISIT TO THE FACULTY OF
VETERINARY MEDICINE, BUCHAREST, ROMANIA**

on

6 – 10 June 2011

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CONTENTS

Introduction

- 1. Objectives**
 - 2. Organization**
 - 3. Finance**
 - 4. Curriculum**
 - 4.1 General Aspects**
 - 4.2 Basic Subjects and Sciences**
 - 4.3 Animal Production**
 - 4.4 Clinical Sciences**
 - 4.5 Food Safety**
 - 4.6 Professional, Elective, Optional and “Other” Subjects**
 - 5. Teaching Quality and Evaluation**
 - 5.1 Teaching Methodology**
 - 5.2 Examinations**
 - 6. Physical Facilities and Equipment**
 - 6.1 General**
 - 6.2 Clinical Facilities and Organization**
 - 7. Animals and Teaching Materials of Animal Origin**
 - 8. Library and Educational Resources**
 - 9. Admission and Enrolment**
 - 10. Academic Teaching and Support Staff**
 - 11. Continuing Education**
 - 12. Postgraduate Education**
 - 13. Research**
- Executive summary**
- Annex 1 Indicators*
- Annex 2 Listing of Category 1 Deficiencies*
- Annex 3 Student`s Report*

INTRODUCTION

The Faculty of Veterinary Medicine Bucharest (FVMB) in Romania is one of 4 state owned veterinary faculties in Romania. The others being Timisoara, Cluj Napoca (EAEVE approved) and Iasi. In addition to these a private veterinary faculty operates in Bucharest. The population of Romania is 22 million inhabitants.

The Faculty of Veterinary Medicine Bucharest (FVMB) was established in Bucharest in 1861. The campus is located in the centre of Bucharest as part of the University of Agronomic Science and Veterinary Medicine. The university comprises a total of 7 faculties (Agriculture, Horticulture, Territorial Development, Biotechnology, Management, Animal Sciences and Veterinary Medicine).

In 1999 the faculty was visited by representatives from EAEVE and after a re-visit in 2000 the faculty was approved.

Teaching and research facilities have been significantly improved with funds obtained from the EU and the Romanian Government and the good organization and the construction work in progress provided a good experience to the evaluation team.

Focus for the team was on the present SER, which has been written according to the new SOP.

The team experienced a very well organized site visit, great hospitality and an open door policy, where all requests from the team were fulfilled.

Suggestions have been made to help the FVMB make the best of its potential to fulfil the objectives.

1 OBJECTIVES & STRATEGY

Questions to be covered:

- 1) *Clear statement of objectives?* No
- 2) *Do the objectives cover the total education programme adequately?* Yes
- 3) *Is undergraduate education the primary reason for the existence and funding of the establishment?* Yes

1.1 Findings

The FVMB has done a tremendous work giving a very detailed chapter on Objectives with 8 major issues

1. The preservation of the existing legacy and the development of new objectives for the purpose of supporting the educational and research activities.
2. The development of the educational and management human resource.
3. The consolidation of the faculty's financial situation and the efficient use of the budgetary and extra-budgetary resources.
4. The re-evaluation of the curriculum and its real adjustment correlated to the Bologna Declaration, of the Education Committee of EAEVE (Directive 2005/36) and of the needs expressed by the employer
5. Increasing the quality of the academic and social lives of the students; the active promotion of the educational offer of the faculty for Bachelor studies, Master studies and continuous education
6. The improvement of the internal regulation package
7. Creating a new framework to ensure both faculty/staff input and the students' feedback.
8. The optimization of the activity and the results obtained from the scientific research
9. The implementation of the quality management system and of the education process quality evaluation system by the students

Furthermore the FVMB mentions that the fulfilment of the objectives is checked annually in a collaborative process including employees, external advisors, the Faculty and the Council. And based on this review the objectives become the Operational Plan of the faculty for the following year.

However, a true strategic, prioritized and Operational Plan as mentioned in the SER was not evident to the team.

1.2 Comment

During the meeting with senior and junior staff it became evident that the faculty does not base its day-to-day business on a strategic plan.

However, due to the inflexibility of the Romanian university system with long and bureaucratic chains of command it is very difficult to proceed with necessary structural changes. This hindrance is further complicated by an almost total lack of financial autonomy for the Faculty *per se*.

1.3 Suggestions

The objectives are overwhelmingly numerous and very ambitious.

- The FVMB should seriously consider sorting and prioritizing the objectives according to needs and with a view to current economic possibilities.
- Having done that the FVMB should consider emphasizing one or two major objectives where the faculty is the best and the leading amongst the Romanian veterinary faculties. These strongholds should be further supported and promoted so national and international companies recognize the FVMB as a serious, hard working and competent institution to cooperate with in research and teaching. This will enhance the possibilities of identifying and attracting major income from externally funded projects.
- It is suggested that the elaborate objectives are subjected to a number of simple SWOT analyses done in different groups comprising scientific staff, students and technicians.

Involving all staff groups and the students as well creates a great feeling of importance, acceptance and further on a greater responsibility for the faculty.

- Based upon this detailed work a genuine and realistic strategic plan including an action plan and a business plan may be made to the benefit of the faculty, the staff, the students and the overall performance.

2 ORGANISATION

Questions to be covered:

- 1) Brief structure and organization summary See pages 18-19 in the SER for a full organogram*
- 2) Does the Faculty have adequate influence on University policy? Yes at the same level as all other faculties in Bucharest*
- 3) Is it suitably "autonomous" i.e. does it have adequate flexibility? No, but this is due to Romanian law*
- 4) Effective structure for decision making? No, decisions are very difficult to trace in the complicated organisational structure*
- 5) Are Departments coordinated amongst themselves in terms of use of resources? Departments appear to play a minor role in the day to day running of the faculty*

2.1 Findings

The Authorities that regulate Romanian Universities are: the Ministry of Education, Research, Youth and Sport (MERIS) and National Rector's Council (NRC). The Faculty of Veterinary Medicine, Bucharest (FVMB) is one of the 7 faculties of The University of Bucharest (UASVMB) and hence fully embedded into the structure of a university. The other 6 faculties are Faculties of Agriculture, Horticulture, Territorial Development, Biotechnology, Management and Animal Sciences

Briefly the university is headed by a rector who is elected out of the group of full professors by the entire teaching staff and a quota of the technical staff and students. The rector serves a 4 year term and may be reelected once.

The Faculty of Veterinary Medicine of Bucharest (FVMB) offers a 6 year degree in Veterinary Medicine. Administratively, the structures of the FVMT are dean, vice dean, chancellor, faculty council office, faculty council, scientific secretary of the Faculty, and 3 departments. The dean is elected by the absolute majority of the votes in the Faculty Council, serves a 4-year term renewable once and is a member of the University Senate.

- the Faculty Council: has 27 members: 16 Professors, 5 Assoc. Prof, 6 Students. The 21 Prof. are elected directly by the Department members and the 6 students are elected directly by the students. The students elect a representative for each year of the course by secret ballot.

- the Faculty Council Office creates 10 commissions. The latter help resolve many questions and decisions made by these commissions and then the Council ratifies them.

- 3 Departments: Department of Preclinical Sciences, Department of Clinical Sciences, and Department of Animal Production and Public Health.

The Faculty Council Student representatives are independent and feel free and respected in any decision they take.

2.2 Comments and suggestions

The administrative setup for a veterinary faculty with a total academic staff of 100.68 FTE is huge with an administrative and support staff totaling 107.5 FTE. Please refer to the pages 18-19 for a detailed presentation of the organization of the FVMB. During our visitation it was not clear at which level(s) in the organization decisions were really made.

The administrative tasks for the various units are immense, and it was noted that for simple procedures such as buying small quantities of commodities 17 signatures from various offices are needed. For major investments and rental agreements 34 signatures are needed.

It seems that the tasks of the department heads are mostly administrative and the dean seems to have very little power in the faculty.

The team did not meet any strong departmental cohesion and hence also not any strong departmental competition. The crucial decisions are made at the level of management board, management council and university council and above.

- The level of decisions should be lowered from the governmental level, to a university level and further on reviving the departments, which are crucial for the day to day running of the business. This would liberate expensive and important power to handle the great challenges the university and the faculty faces today and in the years to come.
- More emphasis should be given at the departmental level, and financial and Human Resource power should be delegated to the dean and to the department heads immediately.
- The university should re-evaluate its administrative structure towards a more lean, modern and efficient structure with a much shorter chain of command. External aid including international experts to advise on this task would be advisable.
- Cooperation with the other 3 national veterinary faculties is important. However, for the sake of dynamics and constant modernization the team advises strongly that curriculum changes can be made at the FVMB irrespective of consensus between the 4 veterinary faculties.
- In general input from external advisors and stakeholders should be incorporated in the organisational structure.

3 FINANCES

Questions to be covered:

- 1) *Short summary of financial and budgetary structure and who controls it?* See below
- 2) *Any additional income generated?* Yes the small animal clinics generate extra income
- 3) *Is level of funding adequate?* No
- 4) *Is there a good balance between capital spends and running costs?* Yes
- 5) *Is there a good balance between research and teaching funding?* No
- 6) *How much autonomy to allocate budget?* Virtually none

3.1 Findings

The SER chapter on finances gives a brief and precise description of the very complicated and bureaucratic Romanian system of applying for, allocating, spending and accounting for money.

The overall present problem is the very severe lack of finances. As an example it was made known to the team, that all state employees had been forced to accept a considerable decrease in salaries which were initially very low anyway.

Under financially normal circumstances the budget for the fiscal year is approved and made known to the university in the springtime. Money is allocated to the university based on the number of full time equivalent students and after application to the MERYS, who applies for all Romanian universities to the Ministry of Finances. When the government has decided on the budget, money is allocated monthly from ministry of finances to the MERYS and further on to the university. The budget may be revised at any time of the year, and the university must deliver a balance sheet every 4 months.

Department heads have no financial autonomy.

In accordance with yet another law it is possible for faculties to derive extra income from external sources e.g. clinical and diagnostic work. Ninety (90) % is retained by the clinics, laboratories etc, and ten (10) % is supplied to the university as internal tax.

Revenues from research projects are taxed by the university with twenty-seven (27) % and seventy-three (73) % is retained by the project director.

Table 3.1. was incorrectly presented by the faculty and it has been revised by the faculty and included in the site visit report. The university detains 30% from the personnel expenses in research projects.

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3.2 Comments

The FVMB deems its current funding too low to properly meet its mission. This leads, amongst other factors, to low salaries, which are found to be poorly motivating for all staff groups.

The financial situation of the university and the FVMT is unstable and unsatisfactory although the clinics are financially successful hence capable of making quite an impressive revenue. This revenue is invested in new and modern equipment which successfully attracts more clients.

The increase in funds/revenues is imperative in order to:

- improve the teaching process quality
- invest in equipment necessary for research and teaching
- support the clinical services and activities.

3.3 Suggestions

- The team suggests that the financial issues are addressed with international support e.g. by establishing an advisory board for the FVMB. This advisory board should incorporate representatives from international veterinary faculties, and national stakeholders.
- The team furthermore suggests that a contract/budget for a fiscal year should be presented, discussed and approved not later than 1 March in the actual year.
- The legal basis for procurement (licitation in Romanian) and for simple issues such as acquiring common commodities needs to be simplified. When larger projects have been decided e.g. one or more of the unsuccessful bidders may bring the decision to court. And this action postpones the whole process for the duration of the court case which may be up to 2 years.

Table 3.1 Revenues/receipts

Year	State (government)		FACULTY GENERATED REVENUE					TOTAL
	TO THE UNIVERSITY FROM OUTSIDE THE FACULTY (A)	DIRECTLY TO THE FACULTY	REVENUES FROM PROVIDING SERVICES			TOTAL RESEARCH	AMOUNT TO THE FACULTY FROM THE TOTAL RESEARCH	A+B+C+D+E
			Clinic activity (B)	Rent (C)	Student fee (D)		91 % from total research (E)	
2010	8 467 404, 3436 lei ¹ 2 016 048,63 €		1 125 405 lei 267 953,5 €	213 135,6 lei 50 746, 57 €	2 248 306 lei ² 503 310, 95 €	1 887 949 lei 449 511, 66 €	1 718 033, 59 lei 409 055, 61 €	13 772 284,53 lei 3 279 115,36 €
2009	8 274 000 lei ³ 1 970 000 €		1 029 782 lei 245 186 €	362 216 lei 86 241, 90 €	2 564 144 lei ⁴ 610 510,47 €	1 202 135 lei 286 222, 6 €	1 093 942,85 lei 260 462,58 €	13 324 084,85 lei 3 172 401, 15 €
2008	4 502 470,28 lei ⁵ 1 072 016, 73 €		300 000 lei 71 428,57 €	86 350 lei 20 559,52 €	2 456 300 lei ⁶ 584 833,3 €	4 368 457 lei 1 040 108, 80 €	3 975 295,87 lei 946 499 €	11 320 416,1 lei 2 695 337,16 €

FINAL REPORT AS ACCEPTED BY ECOVE

Notes to table 3.1.

¹ 851 VM students x 6 982 lei/year = 5 941 682 lei

144 VM master students x 2,5714 index x 5 197 lei/year = 761 731, 658 lei

66 budgetary PhD students x 5,1428 index x 5 197 lei/year = 1 763 990, 6856 lei

² 472 VM students x 3 400 lei/year = 1 604 800 lei

22 VM foreign students x 2 295, 72 lei/year = 50 506 lei

37 master students x 4 000 lei /year = 148 000 lei

89 PhD students x 5 000 lei/year = 445 000 lei

³ 792 VM students x 7 000 lei/year = 5 544 000 lei

71 VM master students x 2 index x 7 000 lei/year = 994 000 lei

62 budgetary PhD students x 4 index x 7 000 lei/year = 1 736 000 lei

⁴ 543 VM students x 3 400 lei/year = 1 846 200 lei

20 VM foreign students x 2 295,72 lei/year = 45 944 lei

68 master students x 4 000 lei/year = 272 000 lei

80 PhD students x 5 000 lei/year = 400 000 lei

⁵ 740 VM students x 5 708,33 lei/year = 4 224 164,2 lei

34 VM master students x 5 708,33 lei/year = 194 083, 22lei

63 budgetary PhD students with frequency x 3 024lei/year = 190 512 lei

73 budgetary PhD students without frequency x 1 200 lei/year = 86 600 lei

⁶ 687 VM students x 2 300 lei/year = 1 580 100 lei

168 VM master students x 2 300 lei/year = 386 400 lei

76 PhD students x 5 000 lei/ year = 380 000 lei

61 postgraduate students x 1 800 lei/year = 109 800 lei

The currency exchange rate lei - euro is 4,2 lei/ €

4 CURRICULUM

4.1 GENERAL ASPECTS

Questions to be covered:

1) Seems as in SER or indicate variances? Yes

2) Curriculum fixed by law or otherwise? The Romanian law establishes the general conditions of the curriculum: the number of study years and credits, both for the undergraduate and master program. In addition the curriculum is implemented by EU Directive 36/2005 and according to ARACIS standards (validated by ENQA). This deals mainly with the subjects, the size of subjects and the ratio of hours of lectures / hours of practical activities - clinics. Any change in the curriculum, according to law, Directive 36/2005 and ARACIS standards is proposed by the Methodical-didactic Committee of the faculty and it is approved by the Faculty Council and University Senate.

3) Important to verify clinical training figure in SER corresponds to supervised intensive hands-on clinical training in small groups. Note: extramural vacation work or large group demonstrations should not be included as clinical work. Clinical training conforms.

4) Curriculum balance and coverage OK? Yes.

5) Comment on practical : theory ratio Slightly below standard: R6=0,82 (ref 0,51 – 0,36).

6) Ratio of clinical work : lectures and practical work must be checked with SOP The hours of each teaching-type are given in the Table in 4.1.6.

7) Ratio of theory : practical and clinical work must be checked with SOP R7=0,58 (ref 1,88 – 2,21) which means that the hours of clinical activities are low against other activities.

8) Comment on courses integration, electives & extramural work arrangements Integration of courses is not transparent.

4.1.1 Findings

An annual update of the curriculum is made in with regard to the objectives established in EC Directive 2005/36 which regulates the basic veterinary education by stating specific requirements.

The University provides the transportation and logistics necessary for the students' visits to the scheduled units and monitors the achievement of the objectives set for each action.

The modernisation of the qualifications system and harmonisation with the European space are also performed within the programme resulting from projects co-funded from the Social European Fund through the Sectoral Operation Programme Human Resources Development 2007-2013 (see SER p.52).

While discussing and talking with student representatives several issues were mentioned. Overall most students are satisfied with the teachers, curriculum and faculty facilities. But some suggestions and comments were made. For instance, the case load of necropsies of horses and cows, and caesarian sections in cattle is poor. Students may therefore not be fully prepared to perform this after graduation. The curriculum is so busy and packed with lectures and practical work that most students feel too tired to study in the evening. They suggest shortening the curriculum, for instance leaving out unnecessary information, creating time for self study. Students are interested in "Erasmus" exchange programs but would like to go to English speaking countries. However, they can only choose between Italy and Austria.

4.1.2 Comments

On the basis of the calculated indicator R6 (=1/1.22), these activities come out relatively poor (main indicator range 0.51-0.36), however R7 = 1.71 (main indicator range 1.88-2.21) indicates a strong clinical activity.

The curriculum is “standardised”, meaning that it is the same for every student, and there is no differentiation.

On the basis of the Tables 4.3 (p.37) and 4.1 (p.39), and according to Table 4.1.2. electives are marked "OS" - and it is imperative that students choose one every year. The curriculum of the academic year 2010 - 2011 offered for each year of study one package of two electives. Students have to complete one of the two.

4.1.3 Suggestions

- Increase of subjects concerning “management” (perhaps including “self management”, professional behaviour, etc.).
- Expand practical and clinical aspects of teaching (ratios R6 & R7).
- Further improve theoretical and practical training by use of European Social Fund projects, and by improving the student exchanges, both at national level and in the European programmes (ERASMUS, SOCRATES, etc.).
- Differentiation should be considered.
- Collaborating with other countries in the Erasmus programme would be beneficial for the students. This may lead to more students visiting other faculties and possibly have a better shot at obtaining resident positions. Students want this and the faculty needs diplomats.

4.2 BASIC SUBJECTS & SCIENCES

Questions to be covered:

1) Do basic subjects form part of the internal curriculum or are they taught elsewhere? Internal curriculum.

2) How are carcasses handled for anatomy and pathology with relation to chilling/freezing, hoists, trolleys, changing facilities and disposal? Adequately.

3) Do incoming students have adequate basic knowledge? Not fully as is seen elsewhere.

4) Are items taught in basic sciences brought into relation to later courses? Yes.

5) Adequacy of hours and course materials as well as balance between practical and theoretical work? Yes.

6) Is there adequate hands-on participation by students in anatomy and pathology? Yes but the amount of material is low.

7) Are the groups too large? No.

4.2.1 Findings

At FVMB the basic subjects and sciences are integrated in the curriculum and counts for approximately 30% of total teaching hours. Many of the courses have a 1:1 relation between “Lectures” and “Other laboratory and office activities”. The FVMB holds 26 rooms dedicated to student laboratory training (Table 6.5 p 75 SER), most of which hold 20-30 places. This limits the group sizes of students, which is very good from a didactic viewpoint, allowing tight follow-up of each student. The number of re-runs of courses is however high, with some practical topics being repeated 7-9 times per year, which is very resource-demanding. The level of hands-on participation in basic sciences is very good and group sizes are adequate at FVMB.

Course materials are adequate and student safety measures are generally sufficient as are also the waste-management systems in operation.

Students at FVMB are enrolled through two channels, both based upon High-school grades. The standard channel enrolls students to governmentally financed places (55% in 2009), while the other group enters a tuition fee channel (45% in 2009). The pre-university knowledge level of the students entering FVMB is somewhat variable since there are no subject specific requirements from High-school prior to entry. Thus, students with a high-school background in humanistic sciences tend to struggle at the onset of their studies at FVMB. Accordingly, the failure-rate during the first year is significant, with 8-12 % dropping out. This selection process, however, appears necessary since there is no longer an admission exam in basic sciences (chemistry), as there was previously.

The number of graduated candidates from FVMB exceeds the number of governmentally paid student places by 18 per cent.

4.2.2 Comments

Composing the pre-clinical phase of the veterinary education poses challenges, particularly related to student motivation and “perceived veterinary relevance” of the curriculum. Moreover, there are considerable overlaps between many of the basic sciences, which must be balanced by the teaching staff. Hence, the need for tight coordination between tutors. This is challenging at FVMB due to the large number of separate subjects, altogether 16 separate subjects (with separate exams, sometimes both practical and written). The teaching staff at FVMB is however aware of this and constantly work to improve the co-ordination between subjects, both through informal contacts but also through a commission set to deal with these matters.

4.2.3 Suggestions

- It would be beneficial both for students and staff at FVMB if some of the courses in the basic sciences (or subjects) could be merged and combined in new larger courses. This would reduce the number of exams and possibly also increase the level of co-ordination between closely related subjects as well as reducing the level of curriculum overload. This could be achieved while keeping teaching responsibilities allocated to scientific positions intact.

4.3 ANIMAL PRODUCTION

Questions to be covered:

- 1) Is there a working farm where students can do practical work on animal production? No*
- 2) Is there any early exposure to handling of farm animals for city students? Yes*
- 3) Are there sufficient hours of teaching in animal production and is there a good balance between practical and theory? Yes*
- 4) Is agronomy taught and where (silage production, pasture management and use of particular feeds/plants etc.)? See below*
- 5) Is animal production teaching well integrated with related subjects i.e. herd-health management and ailments caused by poor or in-balanced nutrition? No*
- 6) Does the teaching of forensic and state veterinary medicine cover the principles of certification with regard to animal transportation? Yes*

4.3.1 Findings

The appropriate subjects appear to be taught in the curriculum for Animal Production as described in the SER. The hours of formal lecture and practical / office hours are presented in Tables 4.2 and 4.4 of the SER and are appropriate. These include the topics of Animal Production, Animal Nutrition, Rural economics, Agronomy (as part of nutrition), Animal Husbandry, Veterinary Hygiene and Animal ethology / protection, and Biotechnologies of reproduction (Table 4.4 of the SER). The applied aspects of animal breeding / genetic selection are taught as part of the subject 'Animal Husbandry'. The animal production teaching is not well integrated with related subjects i.e., herd-health management, metabolic ailments and implications of nutrition and management on fertility and health status outcomes.

There is a small farm with small numbers of animals (~20 dairy cows) attached to the FVMB. The team was only informed of the existence of this farm towards the end of the visitation, at which stage it was too late to organize a visit to the farm.

The subject of rural economics is taught in isolation from the other animal production subjects as part of the preclinical (physiology) teaching.

The team was impressed by the fact that the nutrition course taught the students on the use of the French Net Energy system and protein evaluation system (PDIE) for evaluation of ruminant diets.

The subject pathological anatomy (ie gross pathology / necropsy) is part of the Department of Animal Production and Public Health.

The subject 'ethology' is taught as part of physiology within the basic science area of the Faculty.

Animal handling is taught as part of 'Semiology and clinical laboratory' in the third year.

4.3.2 Comments

The apparently very small size of the faculty farm is a limitation for the teaching of Animal Production subjects in addition to the farm animal clinical subjects and herd health / preventive medicine. A larger faculty run farm would allow the demonstration of optimal management systems of production and ensure that students are aware of the requirements of optimal management / production systems. However in the FVMB the requirements of practical teaching of the Animal Production subjects are generally met by the various contracts with commercial farm enterprises.

A minor criticism of the animal production subjects is that they are mostly taught in the first and second years with a small amount in the third year. There is therefore a certain disconnect between these subjects and the practical application of the material in herd health / preventive veterinary medicine in farm animal species.

Rural economics as a subject is never really appreciated by veterinary students, and to teach it in an isolated fashion in the early curriculum must be very difficult.

Unfortunately the industry in Romania appears to use the less appropriate ME system for evaluation of ruminant feedstuffs. This must mean that students will be confused between ME and NE systems when it comes to formulating ruminant diets in practice.

The visitation team were not convinced by the bureaucratic arguments as to why pathological anatomy should be within a Department of Animal Production and Public Health.

Ethology as a subject should be an integral component of Animal Welfare and Protection, where it should lead into applied ethology and animal welfare / practical assessment of animal welfare status. This in turn should be an integral part of any teaching programme in herd health / preventive veterinary medicine. There was no evidence for this at the FVMB.

Animal handling (known as semiology at FVMB) would benefit from being integrated with the animal production subjects.

4.3.3 Suggestions

- Rural economics should be taught in an integrated manner with the other animal production subjects and the students should be taught to understand the implications of changing management / feedings systems / herd health programmes on the economic implications for production animals.
- Practical aspects of nutrition are certainly taught too early in the curriculum and would benefit from integration with preventive veterinary medicine / herd health in the clinical years of the curriculum.
- The Faculty should prioritise provision of a laboratory capable of analyses of feedstuffs from a nutritional perspective. This should then become an integral part of herd health / preventive veterinary medicine. This is because nutritional inadequacies are a major contributor to metabolic diseases in farmed animal species (when managed in intensive animal production systems).
- There is a major job of work to be done on the validation and implementation of the NE system of feed analysis by the ruminant feedstuffs industry in Romania. Ideally some validation would form the subject of appropriate research in this area for ruminant feedstuffs available in Romania and then a switch by the industry to adopt this system for evaluation of ruminant diets / animal feed requirements. There is a great opportunity to undertake this project in collaboration with the ruminant feedstuffs industry in Romania.
- There is a need for a more flexible approach to the curriculum to allow for vertical integration of subjects where appropriate (e.g. all animal production disciplines with preventive veterinary medicine / herd health). Each of genetics, applied ethology / animal welfare, animal nutrition, animal management, and fertility at a herd level should become the key pillars of what is understood and taught as herd health / preventive veterinary medicine for the farmed animal species.
- There should also be integration of animal production subjects with the reproduction discipline. This is especially important for farm animal species where animal production (nutrition, genetics and environment) is a major factor affecting fertility.
- Pathological anatomy would be more appropriately aligned to either anatomy or veterinary microbiology subjects within the structural arrangements of the Faculty.

- Integrate the teaching of ethology with applied ethology / animal welfare and protection so that this subject becomes one of the key pillars of herd health / preventive veterinary medicine.
- Integrate the teaching of Animal handling with that of animal production so that it becomes part of the students understanding of ‘animal sense’, or animal needs. When carrying out EMS relevant to the early years of study the students should get exposed to animal handling in addition to understanding the practical nutritional, husbandry and breeding needs of production animal agriculture.
- The practicalities / logistics /merits of having an appropriate farm owned by the faculty as a key teaching and research resource should be evaluated compared with providing this on a contract basis with commercial farms.

4.4 CLINICAL SCIENCES

Questions to be covered:

- 1) *Does the establishment operate an emergency veterinary service in which students participate and is the latter compulsory or voluntary?* Yes, it is compulsory.
- 2) *Does the establishment operate a mobile clinic and how do students participate in the activities?* Yes, the mobile clinic started on May, 2011.
- 3) *Are students covered by liability insurance during extramural work?* No.
- 4) *Are allocated hours adequate and in balance with the curriculum?* Yes.
- 5) *Are disciplines integrated and well coordinated? Is there a satisfactory balance between species?* No not fully, a better coordination of animal production and herd health / preventive veterinary medicine should be a priority.
- 6) *Is each student getting adequate hands-on clinical teaching?* Yes
- 7) *Brief comment on adequacy of facilities, environment, organization, caseload, necropsy case load, staff and support staff?* Clinical facilities are generally adequate and of a high standard, clinical and other environments suitable for a veterinary faculty. Except for necropsies and exotic animals (clinical patients), these aspects are adequate. (see also the relevant denominators, e.g., R5).
- 8) *Are adequate opportunities offered for each student to handle parturitions, dystocias, displaced abomasums, traumatic reticulitis, milk fever, acetoaemia?* As is the nature of these conditions they are unpredictable, but students generally participate in the clinical work available including these.
- 9) *Would all students be able to perform themselves an ovario-hysterectomy on a cat?* No.

4.4.1 Findings

There is an emergency veterinary service for companion animals (triage). Since the intra mural case load of large animals (including horses) is very low (0.19 for one day) there is no intra mural emergency service for large animals. Non-conventional therapies is an optional discipline offered to the students who wish to learn about specific elements about this type of therapies (acupuncture, homeopathy, etc). It is offered to the 4th year students, including (according to their wish on a free enrolment basis) maximum 10% of the academic year’s structure. One could argue whether this is appropriate for a scientifically based education. Isolation units and medium (but intensive critical) care units are available for companion animals. Isolation facilities for dogs and cats are adequate, and are almost exclusively used for stray dogs suspected of infectious disease (e.g. rabies).

No isolation for larger animals is available as such, but can easily be provided for in a separate building given the situation should arise. However the number of hospitalized large animal patients is low as much of the clinical training is done extramurally by teachers of the faculty. The number of ISI publications of the academic staff working in clinical sciences is low (n=24 for the entire faculty in

2010). There are no officially recognized European diplomats of the several specialist colleges. There is only a small faculty farm as mentioned elsewhere.

Description in the SER is limited to Tables in pages 31-45.

Clinical training for large animals is mainly performed by extramural teaching by farm visits and mobile clinics to rural areas. The team experienced a perfect mix of teaching with faculty teachers and a local practitioner performing clinical examination of cows and tuberculin testing. Clearly showing the students how and why the testing was done and with extensive student involvement.

The faculty has contracts with farms, which provide facilities. In addition, the students visit mobile clinics in the rural areas and the view of the visiting committee is that these give excellent clinical training.

The daily [intramural](#) caseload is around 26,8 on average in small animals and 0,19 in large animals including horses.

For large animals, only mobile radiodiagnostics are possible. This is performed outside, within city surroundings.

Diagnostic procedures and treatment are almost always performed in an outpatient situation. Taking in stationary patients is unusual.

The facilities to house and treat stationary patients are poor (except for horses).

The ambulatory clinic is only offered by a private practitioner and limited to companion animals. When a large animal problem/emergency is reported by phone, the professor of the ruminant/swine clinic assembles a team of faculty vets and students, prepares the necessary equipment into a minivan, and the team is leaving to solve the case.

The denominator $R6 = 0.82$ (main indicator range 0.51-0.36) is slightly out of range.

The majority of the teaching in clinical sciences is provided by the Department of Clinical Pathology, Diagnostics and Clinics, comprising sections of Surgery clinic, Internal medicine clinic, Infectious diseases clinic, Parasitic diseases clinic and Obstetrics & Gynaecology clinic. Teaching takes place in the building of Clinical Sciences and the Veterinary Hospital. The Faculty owns a small herd of 20 cows; to what extent they are used for teaching and, where and how they are housed could not be verified during the visit. Extramural activity is performed in: mostly private farms, private practices, veterinary clinics, slaughterhouses, processing units, laboratories and veterinary administrative structures. The framework for performing the extramural practical activity stages is established through the Ministry of Education Order and the Practical Activity Portfolio. The fourth year students are directly involved in clinical activity. They also ensure a permanent service in the clinics for each clinical subject. The fifth year students in addition to the clinical training activity inside the faculty, participate, in a modular system, once a week, in solving veterinary clinical cases in vaccinations, tuberculosis testing, biological sampling, gestation diagnosis etc.

Clinical activity of the sixth year students is organised within clinics, in the faculty (Pet clinic, Bird clinic, Swine clinic, Ruminant clinic, Equine Clinic.)

In addition to the core course, undergraduates can elect to follow other clinical courses.

Intensive 'hands on' clinical training, provided in groups of 8-10, has been structured into the core course. Students are closely involved with cases presented, although professional control remains with the staff clinician. A list of practical objectives that each student must achieve has been established, and students may be exposed to further techniques through elective studies.

The main part of the undergraduate training is dedicated to acquiring knowledge of different pathologies, symptoms and clinical methods that allow a diagnosis to be made by attendance in the clinics. Special attention is given to adjunctive investigations (e.g. radiology, ultrasound, electrocardiography and laboratory tests). Students also have to acquire knowledge of general and local anaesthesia techniques, reproduction & obstetrics, and the main surgical techniques for treating different diseases of domestic animals.

The ratio of core intramural clinical training to theoretical and practical training is 1:4,18 (952:3982).

The team was happy to see the vivid activity in the small animal clinic, where 40-50 patients were treated daily during the visit. The clinics are open 8.00 to 16.00. Students are closely involved in the clinical activities by rotation in groups of 15. The fourth year students record the data, the anamnesis, set the clinical parameters, then the fifth and sixth year students do the first clinical examination under supervision of a clinical staff member. They follow the case through the whole clinical stay, participating in special examinations (imaging, blood sampling etc.), and they can also watch and participate in surgery. The students are also involved in the after hour duties. One veterinarian with 4 students are on duty from 16.00 to next morning. Students have a room with beds for rest. The facilities are above the average in the clinics. (Colour doppler ultrasound, digital X-ray, laparoscopy and arthroscopy instrumentation, complete haematology and blood chemistry lab line, etc.). The isolation facilities are available for small animals only.

The Faculty has a motivated clinical teaching staff with numerous national and less international contacts. At present, there is no European Diplomate within the teaching staff of the Faculty. A number of practitioners also participate in teaching activities under the direction of the Faculty academic staff.

Several agreements with the public veterinary service and private farms assure opportunities for off-site practical work.

The mobile clinic for small animals is run by a private practitioner, based on an agreement with the Faculty. Students participate in the work on a regular basis. They are waiting for emergency calls at the private clinic in groups of 2-3. One of them goes with the vet to see the case, after the on site first aid the animal is transported to the Faculty clinic. The emergency vet takes records about the students' activity and evaluates them regarding theoretical knowledge, practical abilities and enthusiasm. The students' participation in the work of the mobile clinic is voluntary, but absence causes a negative judgement.

Mobile clinic for large animals is by call of the owner or the field vet to the Faculty. The competent vet at the Faculty compiles a team of vet(s) and students, and they go to the site by the minivan of the Faculty with all the necessary instrumentation. The Faculty has a horse trailer that can be pulled by the minivan.

The ratio of students graduating:clinical caseload in pets is about 1:54,3 (183:9948) and for livestock is around 1: 0,22 (183 :40).

4.4.2 Comments

There is a significant lack of large animal patients for intramural teaching. Extra mural teaching may to a degree compensate for shortcomings in intra mural case loads. **This constitutes a Category I (major deficiency) deficiency.**

Although we understand that obtaining diplomats of the several colleges is relatively expensive, this would lead to improved international connections and collaborations, not only clinically but also scientifically.

A faculty farm is needed to teach students how to ideally and properly house animals.

Isolation facilities are limited for large animals and fully available for dogs and cats. The number of hours and proportion of curricular time allocated to the clinical subjects are adequate and in line with veterinary courses elsewhere in Europe.

There is no evidence of any deficiency in the didactic teaching in clinical areas (i.e. lecture courses). This is also the case in the clinical disciplines, even though the proportion of work of a practical nature is higher than the average for the course.

The ratio of core clinical work:other types of work is good compared to the recommended ratio of 1:4, although the fact that many students will also take clinical electives will further improve their 'individual' ratio.

The quality of the experience of students in the clinics is good, with evidence of high quality veterinary practice demonstrated by the staff and with good feedback from undergraduate and post graduate sources regarding the level of clinical training.

Training in the small animal area is in general satisfactory. Development of the hospital and caseload will improve student clinical training. For example, full-day participation, case responsibility and verified student 'log-books' could be introduced. The number of hospitalized animals is very low.

The in house caseload regarding farm animals is not satisfactory.

Students should be integrated into the working of the clinics in a structured and comprehensive way. This would aid clinicians, and guarantee a minimum level of clinical exposure for every student.

Ultimately the quality and quantity of the clinical experience of students is limited by the caseload. As regards companion animals, there is a reasonable exposure to canine and feline matters. However, the numbers of horses and exotic cases is limited.

In terms of single animal work, the in house clinical teaching on bovines is very inadequate, and currently the Faculty does not provide case material; students are rarely exposed to common problems such as acetoaemia, traumatic reticulitis, lameness, displaced abomasums and milk fever. However, several agreements with the public veterinary service and private farms assure good opportunities for extramural practical work but the provision of adequate live bovine case material in the hospital for teaching is a potential weakness. The situation is similar as regards other production species. Attempts to increase the caseload are being made through good working relationships with local practitioners.

However, the Faculty needs to ensure 'in house' coverage of the full range of disciplines and species. As outlined in Section 6.2, a clear focus and attribution of responsibility for an integrated programme of farm animal health, supported by a proactive mobile clinic, is needed to improve teaching in this

farm animal area. The Faculty should also seek to make wider use of material to which it does have access, such as using cattle awaiting slaughter for reproductive procedures and examination.

4.4.3 Suggestions

- The intramural case load for large animals should be increased. We understand the difficulties for an urban faculty, but possibly animals with specific diseases could be bought and housed at the faculty in order for them to be used in intra mural teaching.
- Possibly, the university could obtain an appropriate faculty farm (with more than 20 cows) nearby Bucharest.
- We would strongly encourage the academic clinical staff to publish more in ISI journals and write as much as possible in English. This may result in better and more international collaborations.
- The training programme covering production animal veterinary activity should be improved to provide students with the basic skills and knowledge of farm animal medicine, surgery and management of health and productivity of all the major species
- The need to have a focal point for farm animal work, and to improve the caseload in these species, has been mentioned.
- The proportion of intramural work in the curriculum, and the level of Faculty oversight of extramural work, should be increased so that each student receives an acceptable and validated level of structured clinical training in all major species and disciplines.
- The Faculty should continue to physically and organisationally integrate clinical activities along species-based lines
- Establish a clear focal point for production animal clinical and health work, including a fully functional and active mobile clinic dealing with both single animal work and proactive herd-health management programmes.
- Suggestion concerns the need to increase the farm animal and horse exposure, including more single animal work on cattle.
- Provision of a dedicated local of production animal work, primarily as a ‘base’ for the Mobile Clinic.
- The isolation facilities for small and large animals should be improved especially with respect to biosecurity. However, with the low number of hospitalised patients there is not a great need for expanded facilities.
- The Faculty and University should seek to develop the level of specialisation through supporting and encouraging clinical staff seeking to gain European Veterinary Specialist status.

4.5 FOOD HYGIENE & TECHNOLOGY AND VETERINARY PUBLIC HEALTH

Questions to be covered:

- 1) Briefly comment on structure of practical training i.e. practicals, slaughterhouse, processing plants etc. See below*
- 2) How is food hygiene course linked to animal production, pathology, pharmacology & toxicology incl. residues and withdrawal times and parasitology? See below*
- 3) Is training mostly internal on-site or external? Both*
- 4) How is inspection experience in milk, cheese, fish, meat, poultry offered? See below*
- 5) Do all students have training in the slaughterhouse? Yes*

4.5.1 Findings

The Bucharest Food Hygiene curriculum has been designed by and is based on the efforts of a limited number of Faculty Staff, who operate with great zeal. It remains rather unclear, however, if and to what extent attempts have been (or are currently being) made to integrate the educational efforts of associated VPH disciplines (e.g. herd health management as related to public health risks, animal husbandry and production systems, epidemiology etc.) and to follow a team approach.

Based on the analysis of the Vice Dean, the proportion of the entire veterinary curriculum dedicated to Food Hygiene is estimated to amount to approximately 7 %. In view of the EAEVE recommendations (stipulating that at least 12 to 15% of the total time available should address FH/VPH) this is inadequate. The latter seriously complicates the task of the Bucharest Food Hygiene staff to secure that all elements deemed important by the recently issued EAEVE guidelines are indeed included (which is not the case for e.g. microbial identification and typing, basic genotypic and phenotypic characteristics of microorganisms, starter and protective cultures, pro-/prebiotics and competitive exclusion, biogenic amines, natural food toxins, antibiotic resistance transfer), are provided BOTH in theory and through practical exercises or provided in enough detail (not the case for e.g. commodity specific food microbiology, prevention and control of biological and chemical hazards, investigations on outbreaks of food-borne diseases, and risk-based veterinary decisions).

The team stresses the importance of taking corrective measures to remedy this situation. Whereas the visitation team is aware that the Faculty provides more extensive ('specialist') training in the Food Hygiene and Technology area, these efforts are targeted at future graduates in Food 'Engineering' and not at veterinarians. Furthermore, the team was informed that, currently, up to 60% of the graduates are employed in the Food Control area. In view of both the afore-mentioned minimum 'temporal' standards of EAEVE and the career perspectives of the Bucharest graduates, the Faculty seems well-advised to reconsider the weighing of this important curricular element and to ensure that more teaching potential (time/spatial arrangements/staff) is made available and that efforts specifically aim at VETERINARY undergraduates.

The curriculum includes theoretical and practical on-site training and, generally, seems to cover at least the major components as suggested by the most recent guidelines (as available on the EAEVE website). A textbook dealing with the essential Food Hygiene issues (in Romanian, recent edition 2009) is available for students, as well as a special booklet on Risk Management of foods, following the HACCP approach. The Staff is to be complimented for having recognised the timeliness of reserving significant time for teaching the latter component and making suitable documentation available.

The team observed that practical training in Food Microbiology is currently not offered to veterinary students. In view of the relevance of food microbiology for veterinary control tasks (i.e. from sampling to interpretation of results of microbiological analyses of various foods of animal origin such as red and poultry meat and meat products, milk and dairy, and fish), the team stresses that this must be corrected to concur with the minimum standards.

The team was impressed with the exposure offered to veterinary students to veterinary food control tasks (especially meat inspection) in industrial practice. All veterinary graduates from Bucharest have been confronted with meat inspection practice in EU-approved enterprises, their internships are supervised by expert ‘official veterinarians’, and include all essential control tasks from ante- to post mortem inspection, further processing, packaging and transport, to the associated legislative aspects and documentation. Particularly noteworthy is these extramural internships involve a total of 6 weeks (2 weeks annually, provided consecutively during the 4th, 5th and 6th year and covering ruminants, pig and poultry slaughtering and processing, and occasionally also including horse and lamb). The Bucharest Staff has, through their excellent contacts with the Veterinary Services and commercial enterprises in the region, managed to secure that 1st day skills in this aspect of Food Hygiene/VPH are provided to the graduate in an exemplary way, for which they must be complimented.

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4.5.2 Comments and Suggestions

It is suggested to:

- Increase the time available for the FH/VPH area.
- To support efforts to streamline the FH/VPH educational approach, e.g. by forming a interdisciplinary working group, carefully identifying where training can be coordinated following a stable to table approach, and thus stressing FH/VPH elements as soon in the curriculum as deemed meaningful.
- To include more on-site training elements (particularly relating to Food Microbiology practicals) ensuring both that all components listed by EAEVE are sufficiently covered and that enough Staff is involved in delivering FH/VPH elements in such in a ‘longitudinal fashion’.

4.6 ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS

Question to be covered:

1) List available electives

Vegetal biology
History of veterinary medicine
Pet Husbandry
Cell pathology
Functional explorations
Dermatology
Mycotoxicology
Veterinary radiotherapy
Exotic pathology
Biotechnologies in reproduction
Pet breeding
Taxidermy
European bodies and community law
Laboratory animals and pathology
Non-conventional therapies

4.6.1 Findings

The number of elective subjects is limited to the above mentioned.

Not every elective is offered every year. The curriculum of the academic year 2010 - 2011 offered for each year of study one package of two electives. Students had to complete one of the two.

The subject non-conventional therapies is teaching alternative modalities of therapy which is not evidence based.

4.6.2 Comments

Teaching of explicitly non-evidence based material is conflicting with academic education and teaching.

4.6.3 Suggestions

- The number of elective subjects should be expanded
- The subject non-conventional therapies should be omitted, or given in such a way that students become more aware of, and critical about, unsubstantiated therapeutic modalities.

5 TEACHING QUALITY & EVALUATION

5.1 TEACHING METHODOLOGY

Questions to be covered:

- 1) *Brief summary of teaching methodology used* See below.
- 2) *Are specific learning objectives set for subject and courses?* Yes.
- 3) *Do students work from teachers' scripts or textbooks or other information technology form?* Both.
- 4) *Is problem-oriented teaching used?* Yes.
- 5) *How are courses and teaching evaluated?* Electronically by students, anonymously.
- 6) *Is teaching mostly theoretical or has practical application a higher rang of importance?* Depends on year, first three years more theoretically oriented , last three years more practically focused.
- 7) *How much real-life clinical exposure opportunity is offered i.e. hands-on work, 24-hour duty, acute cases, case responsibility, caser follow-up, interaction with clients, practice management etc.?* Enough, see comments above and below.

5.1.1 Findings

The students are most of the time split up in small groups. The same courses have to be given, sometimes up to nine or ten times. All subjects syllabi (information on the courses) is feely available on the walls of the departments. The teachers skills are being assessed by the students via an electronically evaluations. This is being done (partly) anonymously (after logging in with a number). The teachers have the possibility to follow courses on didactics and pedagogical skills. These are given by external and sometimes international specialists. Students all have a mentor who could help them with (social) problems. The students compete on a yearly basis for the governmental funded places. According to the students, some teachers are old fashioned in their teaching skills but also teach very old methods. They have made this clear in meetings and evaluations but this did not change afterwards. Most teachers are easily accessible, students are very positive on this aspect especially that they can call for extra help.

At FVMB significant resources are allocated to teaching. Generally, the quality and level of teaching is high. The balance between practical work and theoretical tutoring is good and the availability of course materials is adequate in the basic sciences but the number of necropsies of farm animals is inadequate, with only a few cases per year.

All courses have specified learning objectives and relevant materials and hand-outs are available prior to onset of courses, as are also teachers' scripts and notes. This will further be improved with the implementation of the e-learning system. Much of the teaching also in the pre-clinical subjects is related to real-life veterinary problems. Laboratory notes are copied by staff and handed out, while lecture notes are copied (on site) at affordable prices by the students.

Student access to library services and computers (internet) is good.

Biosafety and chemical hazard measures related to student and staff security during teaching is well looked after, although in some instances basic protective equipment such as eye-washers and eye-protection (goggles) is missing.

Lecture theaters; at FVMB there is only one lecture hall (Room 108, building 16, top floor) of sufficient size (180 seats) to house a complete set of veterinary students per year (approx. 200 studs.), while there are 5 lecture rooms with 100 places. However, since the student attendance to lectures is relatively low (around 50%), the lecture halls seem to serve the needs.

Clinical teaching is described to be performed in the study years 3 to 6, and – during this period – increasingly “hands-on” and in smaller groups (Table 4.1.2. p.40/41, text 4.1.3. p47/48).

5.1.2 Comments

By creating small groups, which is sometimes very good especially for clinical training, an enormous load on the teachers is applied. Especially the younger staff has probably too little time for research since they have to give many courses repeatedly.

5.1.3 Suggestions

- Possibly some more theoretical parts of the curriculum could be dealt with in larger groups or on paper. The purpose of this is to decrease the load on the staff in order for them to spend more time on research (preferable to be published in ISI journals).

5.2 EXAMINATIONS

Questions to be covered:

- 1) *How often are students examined and when?* See below
- 2) *Are there external examiners?* No
- 3) *How many times can a student retake?* 5 times
- 4) *Are examination structured or piecemeal?* They contain various elements, e.g. MCQ, essay questions, practicals and oral exams
- 5) *Is the examination system effective and does it require students to have to sit and pass examinations in basic subjects and foundation subjects before continuing on to the later disciplines?* See below

5.2.1 Findings

Examinations are conducted using subject specific methodologies. However these are not elaborated in the SER. There are no external examiners / observers used in the examination process, the only external participation is by practitioners supervising EMS, this is not what is understood by external examiners. Students are examined at the end of each semester within each subject area. The examination system is that a minimum number of credits in order to proceed to the next level must be attained. The number of credits varies by year of study depending on the breakdown of the subject material. However in order to graduate the students must complete all the essential elements of the programme. The setting of examination papers is conducted by the professors in charge of the courses. They are then peer-reviewed by peers within the department. The average duration of study is 7.8 years, which for a 6-year programme is somewhat long.

The general exams are two times in the year and there is an extra third round during the summer for re-exams. The extra mural activities are graded by the extra mural veterinarian in combination with a faculty liaison.

There are no external examiners / observers used in the examination process, the only external participation is by practitioners supervising EMS. No data were presented in chapter 5 on the progression rates/ success rates in examinations. Progression rules are also unclear by what was presented in the SER.

Number of retakes = 5 (SER p 57).

5.2.2 Comments

According to the students, some examinations are not representative for the subject. Questions such as “describe everything you know about...” are considered by the students as less practical and representative. When it concerns oral examinations, the students feel that some teachers might be subjective. Usually, according to the students, a group of 5 students is evaluated at the same time. In this way, the students cannot be evaluated using the same questions which makes this examination subjective. As the professor’s assistant is present as a second examiner, this is likely a less objective approach to the conduct of an examination.

5.2.3 Suggestions

- We would suggest testing the students individually during the oral examinations instead of in a group. Also, a professor's assistant may not be considered as an objective second examiner. Students' evaluations should be taken seriously and exams should be representative for the subject's courses.

6 PHYSICAL FACILITIES & EQUIPMENT

6.1 GENERAL ASPECTS

Questions to be covered:

1) Brief description of facilities with observations on age, suitability etc. See below

2) Adequacy of lecture rooms, laboratory and dissection/necropsy halls? Sufficient number of large lecture halls. Many smaller rooms

3) Vehicle availability to transfer students from site to site or to external establishments? Large busses, minibusses, vans all in good condition and of good quality

4) Health and safety items i.e. biohazard warnings, fire extinguishers, eye washes, sluices, chemicals, medicines and dangerous drugs storage? See below

5) Adequate facilities for training in food hygiene, carcass handling, access to slaughterhouse, the provision of laboratories for microbiology, toxicology, organoleptics and residue work? See section on Food Hygiene

6) Comment on suitability of site in terms of size, area, local animal caseload, access, transport etc. and availability of suitable equipment for teaching and research? See below

6.1.1 Findings

Overall, the buildings were clean and easily accessible, but the proximity of most buildings is filled with rocks and ruins, and sometimes even garbage bags. The lecture halls were large enough, but a few seats were broken. The laboratories were also clean but most of them lacked sufficient safety regulations and facilities. For instance: eye showers, body showers and emergency protocols were not present in all laboratories, for instance the biochemistry lab. Supposedly, all students have their own white coats for both the anatomy and pathology buildings. They are washed in these buildings. But, as we noticed, several students walk outside the anatomy building wearing the same white coats as inside the anatomy rooms, and went to a park for a break still wearing them.

The faculty / university owns two small farms, one with ~ 20 dairy cows and another with ducks. The team was not invited to visit any of the farms and was made aware of their existence too late to visit them. Arrangements are made (on a contract basis) with various farm units to get access to more farm animals outside the faculty.

The case-load of farm animals at the FVMB campus is inadequate to serve clinical teaching needs, - this constitutes a **Category I (major deficiency) deficiency** (see p 19) - particularly concerning whole animal autopsies, which cannot easily be covered by extramural training.

FVMB is centrally located in Bucharest easily accessed by public transport. The campus contains several buildings, some of which are in need of rehabilitation and up-grading. At FVMB three buildings are under construction; small animal clinic (hospital), a biobase (laboratories) and a fodder-store.

The current buildings contain a very large number of specific practical teaching rooms (n=26 minimum) each capable of holding 20-30 students which imply much replication of practical classes.

Vehicles for transport of students to extra-mural teaching are available.

There are no specific laboratory facilities for food hygiene teaching of veterinarians.

The Faculty only owns a small farm (~20 dairy cows) that is of limited value for teaching purposes; this farm was not visited by any team member, however. In compensation, for the insufficient farm, arrangements are made (on a contract basis) with various private farm units to get access.

The faculty premises are centrally located which facilitates easy access by students and staff. It is noted that a number of buildings are under construction. These include the small animal hospital, bio-base, and a fodder store. Pathological anatomy facilities are undergoing capital repair.

There are adequate lecture rooms of suitable size.

There is a very large number of adequate, specific practical teaching rooms (n=26 minimum) each capable of holding 20-30 students.

Laboratory facilities for food hygiene teaching are located externally and the training is done as EMS at slaughter houses.

In some labs, there are no fire extinguishers, no showers over exits, no eye showers. Instructions concerning how to act in case of emergency seem insufficient.

In some cases, measures for disinfection were inadequate or absent.

The PCR lab is not in a closed surroundings.

6.1.2 Comments

When the students leave the anatomy building wearing their white coats potentially transfection of agents could take place. Especially, when they are worn during a break while drinking or eating this could happen.

The new buildings will contribute positively also in developing a more compact campus. Some of the current buildings are probably difficult and costly to up-grade to meet modern standards for laboratory activities, due to technical inadequacy (ventilation, air-flow control, cable corridors, room size limitations etc.).

The lack of an appropriate modern faculty farm is a limitation for the teaching of Animal Production subjects in addition to the farm animal clinical subjects and herd health / preventive medicine. A modern faculty run farm would allow a more effective demonstration of optimal management systems of production and ensure that students are aware of the requirements of optimal management / production systems. However, in the FVMB, the requirements of practical teaching of the Animal Production subjects are generally met by the various contracts with commercial farm enterprises.

6.1.3 Suggestions

Although the team has observed that the staff is well aware of issues related to bio-safety and chemical hazards, there is however some room for improvement in areas such as;

- Access control. Certain laboratory areas should have access control (pathogens, genetically modified organisms etc.). Undergraduate students are normally excluded from such areas. Master- or PhD-students with specific tasks in the laboratories are granted access.
- Bio-hazard (or other) warning signs must be installed, as well as SOPs for emergencies or accidents / spills with pathogens or chemicals.
- Up-grade of in-lab personal protection, (eye-washers, goggles, first-aid kits) and fume hoods.
- Some of the otherwise very nice outdoor areas of the campus would benefit from cleaning up (removal of garbage) and surface up-grade (asphalt or concrete), this gives a nicer and better impression and helps with creating a pleasant and peaceful atmosphere and work environment.
- Generally, all surfaces both outdoors and inside that could be subject to biological or chemical contamination should be easily cleaned and allow efficient disinfection. This is particularly important in rooms likely to house animals with infectious diseases.
- Stronger legislations and rules concerning bio-security and also bio-safety are strongly advised. The proximity of the buildings might be cleaned and kept in order.
- The practicalities / logistics /merits of having a more substantial farm, with all the major species represented, owned by the faculty as a key teaching and research resource should be evaluated relative to providing this on a contract basis with commercial farms.
- To support biosecurity measures in all departments it is strongly advised that the faculty identifies one senior staff member in each department and make him/her responsible for the implementation and control of correct biosecurity measures.
- It should be considered whether it would be more efficient to have larger, shared practical teaching rooms that would allow less replication of practical classes.
- The PCR lab should be in closed surroundings.
- There is a need for a food hygiene teaching lab at the faculty to complement the excellent teaching that occurs at the slaughter houses.
- The faculty is advised to explore possibilities for developing larger shared student laboratories to reduce, to some extent, the replication of classes.

6.2 CLINICAL FACILITIES & ORGANISATION

Questions to be covered:

- 1) *Make brief overview of facilities indicating departmental responsibilities* See below
- 2) *Are there diagnostic laboratory facilities and do they carry out external work?* Yes
- 3) *Comment on clinical facilities and organization of clinical services.* See below
- 4) *Is there a 24h emergency care service, adequate hospitalization/treatment isolation facilities and/or mobile clinic?* Detailed below
- 5) *Are there possibilities for additional animal materials from stables, farms, kennels, game reserves etc?* Yes

6.2.1 Findings

The clinic for small animals is adequately equipped. There is also a mobile clinic for companion animals. However, this is owned and managed by an external veterinarian and cannot be considered to be a full part of the faculty. It is however well equipped and refers the most severe cases directly to the clinic. The medium care unit is situated in a different building as the small animal clinic. Animals are being transported through whatever weather from one building to another, also after being operated

on. The cages in this medium care unit were all directly situated on the floor. Considering the pharmacy: owners have to buy medications, including the injections, themselves and bring them to a vet. However, this is not an unusual practice in some faculties. During intra-abdominal surgery one door from an operation theatre was opened during our visit in order for us to look inside. Unfortunately, we were not wearing any protection and could thereby potentially introduce agents in the operation room. We also encountered one single cow being used for animal handling teaching. This cow was diseased with an abscess.

The clinics are open 08:00 — 16:00 on weekdays all year round for both 1st opinion and referral cases, with a ratio 60 to 40% respectively. There is an emergency service for small animals and for equine patients and production animals. Large animal emergencies can be reported to a phone number. During the day emergencies are answered and resolved by faculty vets using the clinics' facilities, either by going on the field. In the remaining hours and days, emergency situations are answered by the competent professor, who makes the steps as described in chapter 4.3. A 24-hour care service is provided for all hospitalised patients. The daily caseload is around 26,8 on average in small animals and 0,19 in large animals including horses.

The Faculty offers clinical services in:

Dermatology, ophthalmology, stomatology, and ultrasound although these are not organized in special consultations run regularly according to a schedule.

The clinical laboratory offers services for the practitioners as well.

The Faculty has good relationships with practitioners. About 40% of all the cases are referrals. The Faculty would like to maintain a balance between referral and primary cases to support basic training as well as specialist activities.

The fees for clinical services are high compared to the average income in Romania.

There is no other outside practice whose organisation is comparable to that of the Faculty clinics in the area in terms of facilities, equipment and expertise.

The clinical records of animals are in written and electronic form. The details are on paper, and a summary of these is later taken into computer. Clinical history, diagnostic investigations, diagnosis and therapies are kept in a common software for each specific operative unit.

There are two operation theatres in the companion animal clinic, and an additional two in gynaecology & obstetrics.

The operation theatres for large animals are just adequate. The equipment is old and in moderate condition.

6.2.2 Comments

By placing the cages on the floor students and support staff have to bend over too much. This is not good for their backs and does not facilitate easy visible access to the animals. Considering EU law, it is not allowed to sell certain medical products, for instance most injection fluids, to owners. Thereby, some pharmaceutical products were expired. Also, never should people without proper protection be allowed in an operation theatre or even near an open door of such a room. The faculty should act as a role-model and teach students proper antiseptics.

The transport of patients from one building to another is deemed inadequate (winter time, rain etc. e.g., in postoperative patients).

Active and comprehensive clinical services are essential to a veterinary Faculty and its teaching.

Regarding equipment, the clinics are provided with the latest diagnostic technologies.

Organizing the facilities in the most logical and functional way and refurbishing the isolation facilities would be important.

Production animal work needs to be developed to close an evident gap in the teaching and other activity concerning farm animals. From one side, there needs to be much greater and more structured Faculty involvement and student exposure to single animal procedures, which principally implies work with cattle. But there is also an urgent need to deliver comprehensive integrated teaching in the area of animal production and herd health.

The Faculty should seek to build on the current clinical activity to develop the quality of professional services; for instance;

- extending the open consultation hours of the clinics and increasing the level of hospitalisation;
- develop centralised clinical services of a high level - anaesthesia/intensive care, diagnostic imaging service, central pharmacy, diagnostics laboratory;
- Aim to increase and extend specialisation.

Students should be integrated into the working of the clinics in a structured and comprehensive way. This would aid clinicians, and guarantee a minimum level of clinical exposure for every student.

6.2.3 Suggestions

- In the new clinic (under construction) a facility for critical and emergency care as well as for medium care could be built. Preferably, close to the operation theatres.
- The cages in the current care unit might be placed higher in order to facilitate easy animal handling and supervision.
- EU laws should also be respected when considering the purchase of drugs. Injections should be available for the staff and afterwards paid by the owners. This is especially important in a teaching environment since the faculty must act as a role-model for students.
- It might be better not to use diseased animals for animals handling education.
- Establish a clear focal point for production animal clinical and health work, including a fully functional and active mobile clinic dealing with both single animal work and proactive herd-health management programmes.
- The need for an University Farm is evident. A university farm should play a primary role in clinical teaching, animal handling and in propaedeutics. The use of sick animals in teaching “animal handling” and propaedeutics is not acceptable.
- X-rays for large animals should be solved within the department of radiology.

- The small animal hospital should be placed in the building 16 (there is a lot of space for that) to avoid transport of dogs and cats between the clinics and hospital building.
- The isolation facilities for large animals should be improved.
- The awareness of contemporary animal welfare could be improved upon.
- The opening hours of the clinics could be extended to increase the clinical caseload and the opportunities for and continuity of student training.
- The Faculty and University should seek to develop the level of specialisation through:
 - Supporting and encouraging clinical staff seeking to gain European Veterinary Specialist status and support their participation in international congresses financed by the Faculty.
 - Improving clinical services and seeking to add new competencies

7 ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

Questions to be covered:

- 1) *What sources are available which provide access to animal material?* See below
- 2) *Is there a working farm where students can do practical work in the animal production subjects?* Two small farms are available (~20 cows and ducks).
- 3) *Ratios students graduating : clinical caseload pets / livestock / necropsies* Ratios are presented below.
- 4) *Adequate fresh chilled or prepared material for anatomy?* For some species only
- 5) *Adequate necropsy material and is it balanced?* No, adequate for small animals, poultry, but not for farm animal species, see below.
- 6) *Are adequate clinical materials available to enable staff to maintain or develop their skills and is there a reasonable balance between small animal and large animal cases?* Yes for small animal, but not in faculty for farm animals.
- 7) *Are the students given adequate exposure to slaughtering of various species as well as to materials for supporting food hygiene training?* Yes in slaughter houses, but would benefit from laboratory and associated introduction to practical aspects in the faculty.

7.1 Findings

Arrangements are made (on a contract basis) with various farm units to get additional animal access.

For animal handling teaching in the third year (semiology) – there are a small number of faculty animals - 3 horses, 5 sheep, 1 goat and 1 cow (variable animals that are brought in from the small University farm).

Ambulatory clinic – there is a lack of records to document the case-load by the [large animal ambulatory clinic](#).

For practical anatomy training, viscera come from the slaughterhouse and farms and pet cadavers come from the clinics. A number of birds are also examined during practical anatomy training. Skeletons and bones of the main domestic species, horses and cattle limbs and a number of usual anatomical models are available.

For necropsy and pathological anatomy teaching, only small animals, piglets and poultry are available. Necropsies of cows are done on the farms, by the local vet / professors. On demand the staff of the Ruminant clinic can be reached, but students are rarely participating in cattle dissections. The number of necropsies on large mammals (production animals) is very limited.

A staff member from the local, national veterinary laboratory confirmed that necropsies on cows or horses are never done at their laboratory. In rare events they do necropsies on individual farms, but students generally don't participate.

Ratios on animals available are as follows:

R11 no. students graduating annually / no. of food producing animals seen at the faculty = denominator 0.28, this should be 2.47-1.73 - this is inadequate. However, it may be compensated by the very adequate R12.

R12 no. students graduating annually / no. of food producing animals seen outside faculty = denominator 27.9, should be 2.56 – 1.02. Some of the practical / clinical training on the farms / rural clinics is very good and likely compensates for the low figure in R11. They have lots of animal cases on these external farms and this compensates for the inadequate ratio for R11.

R13 no. students graduating annually / no. of herd health visits = denominator 0.02, should be 0.2 – 0.09 - this is inadequate.

R14 no students graduating annually / no. of equine cases = denominator 0.16, should be 1.78-0.92 - this is inadequate.

R15 no students graduating annually / no. of poultry / rabbit cases = denominator 0.49, should be 0.58-0.37 - this is adequate.

R16 no students graduating annually / no. of companion animals seen at faculty = denominator 44.2, should be 48.74-37.94 - this is adequate.

R17 no students graduating annually / no. of poultry (flocks) / rabbit (production units) = denominator 0.005, should be 0.07 – 0.02 - this is inadequate.

R18 no students graduating annually / no. of necropsies (food producing animals and equines) = denominator 0.36, should be 0.75-0.46 - this is marginally below the lower limit.

R19 no students graduating annually / no. of necropsies (poultry / rabbits) = denominator 1.55, should be 0.26-0.12 - this is way above that required.

R20 no students graduating annually / no. of necropsies (companion animals) = denominator 0.82, should be 1.26 – 0.89 - this is marginally below the lower limit.

7.2 Comments

As remarked there are concerns about the availability and use of animal material in anatomy, with a lack of dissection work on large animals by students. Systematic post mortem diagnostic investigation of all animals that are hospitalised and die at the clinics would provide more teaching material with good links to the clinical aspects. There is in general a sufficient caseload for teaching companion animal clinical work, although more would still be welcome. The number of hospitalized animals is low. The team was told that owners prefer to take their animals home right after treatment, and then bring the animals for daily post operative treatment. Extending the opening hours of the clinics, and building up links with referring veterinarians would also help increase the level and diversity of caseload.

The production animal caseload and component of the teaching needs attention to ensure there is systematic exposure of all students to clinical and herd health work in these species. The overall figures for large animal caseload at the university hospital are unsatisfactory. Despite the fact that relevant, large animal clinical facilities are available at the university hospital.

The number of necropsies on large mammals (production animals) is very limited. **This constitutes a Category I deficiency (major deficiency).**

The number of documented herd health visits is lower than that required. This also is reflected in the lack of integration of animal production subjects as the basis for herd health / preventive medicine (see chapter 4 and comments on animal production and herd health teaching).

Some of the large animals (horses, sheep, dogs and cow) that were seen in the faculty and available for animal handling teaching were not managed with optimal husbandry. E.g. a grey horse was in poor body condition, sheep and goats were kept indoors all year round in housing conditions.

While the animals available in the faculty for teaching of animal handling appears very limited, there are very good individual animal based teaching opportunities that occur in the rural clinics used by the faculty. The one such clinic that was observed during the visitation provided students with excellent hands on teaching with the students in the clinical years.

7.3 Suggestions

A full species orientation to clinical activities would help to clarify where responsibility for farm animal work lies. Other measures such as offering free transport for production animal cases might raise the caseload for farm animals.

- The Faculty should concentrate on expanding the mobile clinic activity to ensure that all students get appropriate clinical teaching on farm animal species (Cattle, pigs, sheep and equines).
- There should be greater provision and use of mammalian animal material in anatomy (especially dogs, that are easily available through the clinics and local shelters) particularly for dissection, but also for live anatomy.

Likewise there is a lack of availability of ruminants for both anatomy dissection and necropsy teaching in the faculty.

- An increase in necropsies in both ruminants and equines is required.

Routine animal handling teaching of farm animals is really not appropriate on the small numbers of animals kept by the faculty for this purpose.

- Ideally the faculty should own an appropriate farm to have healthy animals available for this purpose. Alternatively appropriate arrangements are needed with agreed contracts with external farms or expand the existing farms owned by the University. This is required for all farm animal species and equines.
- There is a specific need to increase the case load in equines as the ratios in equine cases do not meet the specified requirements.

8 LIBRARY & EDUCATIONAL RESOURCES

Questions to be covered:

- 1) *Brief overview of library facilities* Good
- 2) *Number of journals subscribed to and on-line services?*
- 3) *Exchanges with other university libraries?* Yes
- 4) *Central library indexing?* Yes
- 5) *Departmental libraries, accessible easily to students?* Only rudimentary departmental libraries
- 6) *Are journals, periodicals, standard texts sufficient?* Yes
- 7) *Is the balance teaching : research acceptable?* Yes
- 8) *Are the opening hours student-friendly and are there adequate staff?* Yes
- 9) *Do students use the library well and are they trained to use it?* Yes
- 10) *Do students really have access to departmental libraries?* Only rudimentary departmental libraries

8.1 Findings

The library is centrally located and partly renovated in a very functional way with large studying rooms with an ample supply of on-line computers of modern standard. It is adequately equipped and open for both staff and students.

There is exchange with other libraries concerning books and journals. The books are mostly not organized on subject. Of the most important books for students 30-50 copies of each volume is available.

There is access to a sufficient range of international, peer reviewed journals either online (most journals) or paper copies.

Students may borrow books for 1 month and can extend this time with one month each time. There are sufficient numbers of printers, scanners and copy machines. Students do not pay for xerox copies. The number of seats is 68 (for 1358 students). In time of exams the opening hours are extended to 19.30h. Not all books are protected electronically against theft. Now, books are being stolen.

The staff is very well educated and ready to serve students and staff on a professional level with a very energetic chief librarian.

Going through parts of the library it was clear that a wide range of modern, latest edition, non-Romanian textbooks were available.

8.2 Comments

When books are organized and sorted on subject you could find additional interesting books besides the one you initially were looking for. There are currently not enough places for all students to study. However, they can easily do this elsewhere, e.g. in the high standard dorms provided for the students.

8.3 Suggestions

- It might be beneficial to organize books by subject thereby inspiring students to look in closely related textbooks.

9 ADMISSION & ENROLMENT

Questions to be covered:

- 1) *Is a selection procedure in operation and is it legal?* Yes
- 2) *Is there a “numerous clauses” and what are the criteria used?* Yes, decided by the government
- 3) *What is the link between budget and the number of students?* Intense
- 4) *Does the intake take account of the national need for veterinarians?* Not clearly
- 5) *Does the admission procedure result in students who have the aptitude, knowledge base and motivation for veterinary studies?* See below
- 6) *Does the admission procedure take into account the limitations of the resources available?* No
- 7) *Is there a high drop-out rate and what are the reasons?* Depends on the class. Average study time is 7.8 years
- 8) *Does the admission process result in access inequalities?* No

9.1 Findings

Student admission is covered by the regulation on the organization and management of the admission contest in accordance with legal provisions and of the University Senate. The access to the studies in Veterinary Medicine specialization is conditioned by the finalization of all the previous compulsory courses (pre-university), high school and a baccalaureate diploma. The admission is organized based on the number of places subsidized from the national budget and on tuition-fee paying places.

Candidates are enrolled, in descending order of average, those whose results fit within the number of places that are made available through the competition, starting by occupying the first places financed from the state budget, followed by those "with tuition fee".

Annually, the faculty-university proposes/requests the Ministry of Education and Culture to finance a number of budget places and proposes the tutoring number of places that might be offered "with tuition fee".

The number of places financed from the budget is proposed to the ministry based on the data supplied by the professional bodies, by the employers of veterinarians (administration, livestock farms, processors, other branches of economy) and considering the faculty's facilities and human resource available in order to provide educational services.

The student admission is regulated by instructions issued by the University of Agronomic Sciences and Veterinary Medicine Bucharest, complying with the requirements of the university Charta, the selection process, by applying the formula above; if candidates have equal scores, the classification shall be carried out based on the average obtained in mathematics, and, if equality maintains still, the native language average is considered.

The Faculty proposes the number of enrolling students taking into account the facilities and staff numbers. The proposed number has to be approved by the University Senate. Finally the MERYS approves the proposals from the Faculties taking into account the actual veterinarian needs in the different regions of Romania. Usually the Ministry approves the numbers proposed by the Faculty. In 2009/10, 162 of the new students were accepted according to the standard procedure, and 130 following “tuition free” admission. See Table 9.2 SER page 125 for further information.

There is a low drop-out rate. The reasons for interrupting the studies include: failing in exams, failing to achieve the mandatory attendance rate of practical courses, incomplete practical training session, long term illness, maternity leave as well as financial reasons.

There does not seem to be a list of required high school subjects in order to be able to start at the faculty. This results in some of the first year students lacking the necessary scientific basis to study basic sciences. According to the students this creates problems, also among the students since the level of experience is different. Based on the high school grades students can get a governmental tuition fee. Students continue to compete annually for this during all study years. It is unclear what the effects of this competition are.

Details of the admission and enrolment can be found on pages 124-129 of the SER.

An admission exam was omitted 2001. Since, candidates are enrolled on the basis of their previous grades. In the years 2005 till 2009 35-55% of the students were enrolled according to the “standard procedure”, 65-45% “with tuition fee”. Also in subsequent years, students are competing for the budget financed places, based on their results of study during the previous year.

The numbers of students are deemed adequate. There exists a complicated mixture of tuition and non-tuition paying students.

9.2 Comments

There is not an aptitude test to entry in the Veterinary Medicine course and, as a result, it is impossible to make a proper student selection. Also, it appears that the Faculty not only receives its yearly funding through the Ministry based on number of students enrolled, but also the salaries of all University teachers in Romania are based on the number of students enrolled. This creates a situation which may seriously affect the quality of teaching, as no limit can be posed to admission.

9.3 Suggestions

- As have been suggested to other Romanian veterinary faculties it is of utmost importance to separate financial criteria and number of students. The monthly salary of professors should not depend on the number of students enrolled. The faculty should lobby for the Romanian Government to change such a system together with other Veterinary Faculties or other Universities of Romania. Effective lobbying may be provided for by the Federation of Veterinarians of Europe www.fve.org. FVE national Romanian representatives should be contacted and asked for advice.
- The Faculty should enrol a higher number of international students, through admission processes or through international mobility programmes.
- Although respecting the admission number, the Faculty should have the possibility to establish its own admission criteria, such as aptitude test, or the type of subjects studied previously.

10 ACADEMIC & SUPPORT STAFF

Questions to be covered:

- 1) *Ratio of teaching staff : students is?* 1:12.94
- 2) *Ratio of teaching staff to support staff is?* 1:1.06
- 3) *How and by whom are all staff appointments and staffing levels decided?* See below
- 4) *Percentage of staff who are veterinarians?* 88 %
- 5) *Comment on staff ratios in relation to the SOP.* See below
- 6) *Comment on staff shortage or mis-proportion* See below
- 7) *Can staff move within the establishment?* See below
- 8) *Are posts which fall vacant automatically filled or must they be fought for?* See below
- 9) *Are certain staff able to be flexibly deployed i.e. for clinical services etc.?* See below
- 10) *Does the establishment encourage staff to acquire additional skills and training?* See below
- 11) *How free is the establishment to decide staffing levels and benefits?* See below

10.1 Findings

Ratios

The total academic staff comprises 100.68 FTE (teaching staff plus research staff, SER p.132).

R1 No. of total academic FTE in Vet training / No Undergrad students = denominator 12.94, should be 8.85 – 10.42. This suggests somewhat inadequate numbers of academic staff.

R2 No. FTE total faculty / No Undergrad students = denominator 6.26, should be 8.75 – 12.54. This is better than the indicator. This means that there is a high proportion of support staff relative to equivalent vet schools elsewhere.

R3 No. of Veterinary surgeon FTE in Vet training / No Undergrad students = denominator 14.87, should be 10.62-12.62. This problem is linked to R1 in that there are overall insufficient academic FTE available in the faculty for the student numbers.

R4 No. of VS FTE in Vet training / No of students graduating annually = denominator 2.16, should be 4.91-7.21. This ratio is better than the indicator, but doesn't make sense given R1 to 3 above.

R5 No. of total academic staff FTE in Vet training / No of total support staff in veterinary training = denominator 1.06, should be 0.53 – 2.20. This indicator is within the range, but is relatively high given that overall teaching FTE / student numbers are low (R1 and R3). This supports the fact that there may be too high a ratio of support staff given the lower numbers of academic staff available.

The mechanism for staffing appointments and staffing levels is as follows. A proposal for a new appointment or replacement appointment is proposed by the Department. This goes to the Faculty Council for discussion and a decision to recommend the position to the University Senate. The University Senate then validates the position. However at the moment there is a complete embargo on any appointments, and filling of all positions is blocked. At the moment there are 3 critical professorial positions vacant (2 clinical and 1 in basic sciences) that cannot be filled.

Staff can move within the establishment, however but only to open positions that are advertised and being filled. In this case existing staff would have to apply and compete for the position by the same mechanism as external candidates as an open competition.

There is sufficient flexibility to re-deploy staff for specific functions / demands within the clinical area, but is not so flexible in other areas.

The support staff are very committed for extremely low pay and many have to resort to working a second job in order to earn sufficient funds to survive. They do not have clear career prospectives for promotion from their existing positions. There is no provision of continuing education for support staff, other than when new expensive equipment is purchased when on site training is provided. There is a union for the support staff, but it does not negotiate on behalf of the support staff to gain improvements within the faculty. The union is merely the mechanism for providing support staff representation onto the faculty committees.

There are opportunities for younger academic staff members (≤ 35 years) to access funds for further specialist training. This should be used to encourage younger staff to attain European specialist diplomas. For older staff at the junior academic grades there are limited possibilities to access such funds. These staff members need to seek the alternative options of obtaining diplomat certification in their respective specialisms, and there by achieve the necessary international benchmarking to achieve recognition, promotion and allow the faculty to develop its own recognition as a recognised training site for specialist residency programmes.

10.2 Comments

The number of staff at the Faculty is above 80 which is generally regarded as the minimum “critical mass” for a free-standing veterinary school (Annex Ia).

It was generally noted that the more junior academic staff have opportunities for both research and teaching. However the actual time spent on small group teaching limits the time that can be invested in research activities and training of PhD candidates.

Forty (40%) of time to be available for research is considered the ‘norm’ in Romania, but to achieve this there needs to be an awareness of the time required for teaching preparation at a University level and then efforts are needed to spend less time in student contact with repetitive small group teaching activities.

The indicating denominators show a relatively poor ratio for teachers to students, and a satisfactory ratio for academic teaching staff to support staff.

The practice of teaching the basic science material in small groups is good for student teaching, but is very demanding on staff time. This then leaves insufficient time for staff to dedicate to research activities.

The young scientific staff (PhD students) seem to have relatively poor career prospectives within the Faculty.

It is somewhat disconcerting that there are no research staff in the faculty (particularly as posts funded externally). This suggests that research outputs may be somewhat lower than what might be expected, this can then have a negative impact on staff specialisms and expertise. Given the low levels of academic staff overall relative to student numbers, this must make it difficult to have sufficient time and resources to commit to research. Also it is suggested in the SER that many staff resort to other veterinary work in external practices and elsewhere. This too would have a negative impact on research time and probably contributes to there being a poor environment in the faculty for research.

The lack of promotional opportunities for support staff is a weakness in terms of maintaining motivation and productivity.

10.3 Suggestions

The faculty needs to develop a sovereign strategy and mechanism to improve the ratio between teaching staff and students. This strategy should be developed with respect to but independent from Romanian law.

A strategy to get staff recognized as specialist diplomats of the various European (EBVS) Colleges for specialization is important for the continued growth, expansion and internationalisation of the FVMB. Likewise it is important to develop the specialist residency training programmes and international recognition of the Romanian academic staff. In conjunction with publications in English language peer reviewed journals should be heavily prioritized above Romanian journals.

For support staff a transparent promotional system to aspire to higher pay levels as a reward for attaining high output would be desirable to maintain productivity, motivation and job satisfaction.

11 CONTINUING EDUCATION

Questions to be covered:

- 1) Is Continuing Professional Education (CPE) in the objectives? Yes*
- 2) Is a CPE programme in place? Yes*
- 3) Who is the CPE programme aimed at (practitioners, state veterinarians, specialists, production animal/herd health veterinarians, small animal veterinarians)? All aspects of the profession*
- 4) How is the CPE structured? See below*

11.1 Findings

The continuous education of veterinary surgeons is regulated by law. Continuous education of veterinary surgeons is achieved through a variety of means (participation at congresses, conferences, seminars, presenting papers in these scientific events, publishing books, textbooks, specialised treatises, completing post-graduate courses, etc.). The Faculty cooperates with several professional organizations and competent authorities in the design, implementation, and quality control of continuing education (CE) programmes. Four seminars are organized each year for veterinarians in 44 districts, that means 176 seminars generally consisting of 2-3 lectures in different subjects organized and carried out exclusively by the academic staff of the Faculty. The staff members also participate as speakers in the annual congress of the AMVAC, and in conferences organized by companies.

The Faculty is also offering postgraduate education.

It was clear from talking to the support staff that continuing education is not an option for this group.

11.2 Comments

There is a need among practising veterinary surgeons to organize more specialised seminars (e.g., small animal anaesthesia, large animal anaesthesia, clinical and interventional ultrasound, equine endoscopy, equine limb surgery, therapeutically approach to colics, ruminant abomasum surgery, etc.).

Working in consultation with practitioner associations, the Faculty should aim to establish a clear and structured concept for CE, for instance consisting of consecutive blocks covering all major disciplines of veterinary science.

There is a need from the clinical supporting staff to have some kind of continuing education, helping them to be more professional and more competent in supporting academic staff in teaching.

11.3 Suggestions

- In collaboration with the veterinary associations, the Faculty should seek to develop its continuing professional education activities. This could add to the income of the Faculty.
- Participation in international congresses with presentation of research results should be encouraged.
- Less focus on the national meetings and congresses.
- A strategy for introducing European Diplomate specialization at the FVMB should be developed.

12 POSTGRADUATE EDUCATION

Questions to be covered:

- 1) *Outline the types and structure of post graduate research training* See below.
- 2) *How many interns and residents are enrolled?* None.
- 3) *Does a Masters or PhD programme exist and what structured training is given?* Masters and PhD-programmes exist.
- 4) *Are there minimum publication requirements for postgraduates?* Yes, but Romanian is preferred (with translation into English).

12.1 Findings

FVMB operates three lines of postgraduate training:

1. Master program (2 yrs., state funded)
 - a. Food and Animal origin hygiene and public health (open)
 - b. Laboratory diagnosis (open)
 - c. Veterinary clinic and pharmacy (only open for DVMs)
2. School of Post-graduate Veterinary Medicine (specialist training, 2 yrs., private funding, obligatory Graduation paper)
3. School of Doctoral Studies (PhD-program, 4 yrs., with some mandatory subjects, e.g. management of research projects, must present 2 or 3 reports).

To increase the attractiveness of the School of Post-graduate Veterinary Medicine education, FVMB has recently split this into modules which can be undertaken separately, to allow participants complete the elements at different times.

The PhD-program is currently suffering since funds for research are scarcely available.

There are both formal masters courses (taught) and PhD (Doctoral) opportunities run within the faculty. The masters programme is largely state funded and has good numbers of student places. There is also a programme of “Clinical Speciality training” across a range of disciplines.

There are currently no European Diplomats at the faculty, this means that the Faculty cannot be a training site for residency programmes in these specialities. The team is however aware that there are a few initiatives to ensure that some younger staff will attain specialist European dipolmats.

Despite the reasonably high numbers of PhDs (Table 12.2), there is a very low publication rate in peer reviewed scientific journals (see chapter 13.1). This leads to questions regarding the quality and international recognition of the PhD training at the establishment.

12.2 Comments

Romanian legislation does not recognize intern or resident programmes in veterinary schools (SER p. 141). The Faculty is strongly urged to press for changing this situation. The participation of FVMB graduates in European diplomat programmes for veterinary specialisation would strengthen and add to the internationalisation of disciplines within the FVMB.

12.3 Suggestions

- The FVMB is encouraged to further strengthen its efforts in establishing European diplomats and consider re-allocation of funds from their current programs to support this development. Young faculty members and PhD students should be stimulated and helped to go abroad, to

participate in a residency program in a European University under the provision that their return to the Faculty in Bucharest is guaranteed at the end of the residency.

- Presently there are no minimum requirements in respect to publishing in international journals within the Doctorate (PhD) programs offered by the Faculty. The Faculty might consider changing this situation by requesting at least one paper published in English, in international, peer reviewed journals to be included in the doctoral thesis.

13 RESEARCH

Questions to be covered:

- 1) *Briefly outline the research commitment and concepts* See below.
- 2) *Is there sufficient use of existing research to introduce undergraduates to the concepts?* Yes.
- 3) *Is the research effort cohesive or fragmented?* rather fragmented.
- 4) *Is there a clear research strategy within the establishment?* No.

13.1 Findings

At the FVMB, research is conducted within departments, based on interdisciplinary teams. Thematic lines of research within the departments are modulated by the fundamental and applied research interests suggested by the national research platform. Based on research competences recognition in certain areas (by published scientific papers and participation in international scientific meetings), university research teams are involved in partnerships or national and international consortia (European platform FP6, FP7). The research strategy is based on development goals proposed within the departments and on finding new goals following the international research interests.

Basically, there are three types of research are performed

1. Contract research: the competition for this type of research is organized by the Ministry, through specific structures, in which the interdisciplinary teams of the faculty (see above) are involved. Another way to establish this type of research is by partnerships with other national research institutes having similar interests
2. Research planned for students implies two aspects: research for undergraduate final projects (the disciplines propose research topics which fit in planned or running research projects) and research for scientific sessions (students are involved in the research teams of the disciplines, participating in the achievement of objectives and even in scientific papers writing).
3. Research planned for PhD students, which is done as doctoral theses, research objectives being targeted by coordinating professors in order to solve a series of research objectives undertaken by the faculty or to create new research targets for the modulation of faculty research objectives in the future.

Generally, research conducted by students in the undergraduate final project consists of small-scale preliminary studies which may create the premises of a larger study. Later, in the doctoral program, young scientists study by further research and they become members of the research teams within the departments.

The FVMB research performed by groups of teaching staff and students, is performed with budget funding, obtained after the competitions organised by the institutions that finance the domains, namely CNCSIS and PNCDI.

Each student, in order to take his licence exam, for the second part of the exam, must elaborate a *Licence Paper* in which, starting from the premises represented by the knowledge status in a field, makes personal investigations in order to meet or confirm certain data of the proposed topic, to which purpose he describes the topic, method, materials used, he presents the results, discusses them and formulates conclusions.

The number of ISI publications of the academic staff working in clinical sciences is low (n=24 for the entire faculty in 2010).

13.2 Comments

Research is the only basis for teaching of evidence based (veterinary) medicine.

The low number of ISI publications may form a hazard for future international cooperation.

Publishing in the Romanian language limits the use of the research output to those who master this language.

13.3 Suggestions

- The FVMB should aim at a more internationally oriented research program (international collaboration).
- Scientific output, including doctoral studies/theses, should preferably be performed in the English language, preferably published in peer reviewed international scientific journals.
- A long-term visionary research policy should be considered. This can be achieved by appointing a research committee with the task of identifying lines of research in which the Faculty can focus its research. Interdisciplinary research groups with sufficient “critical mass” to become and/or stay internationally competitive would be a way to improve research.

EXECUTIVE SUMMARY

The team was received in a friendly and professional atmosphere.

The SER was well prepared, and the team noticed a high degree of agreement between the text and the actual findings. The Faculty answered all questions and provided all the necessary material to perform an evaluation of the veterinary education.

Urgent and serious consideration should be given to increasing the budget assignment from the University to the Faculty to cover a fuller and more rational staffing scenario (R1 and R3) now being alleviated by training in the field with both faculty and private practitioners. And the financial system in general should be updated to improve an efficient running of the faculty and reducing bureaucracy considerably.

More fresh carcasses should be used at the anatomy practicals and the amount of pathologic specimens for large animal pathology should be increased considerably (R18). By engaging with the city authorities and e.g. making business agreements on using stray dogs (traffic accidents e.g.) for pathology the students would benefit from an increased number of companion animal pathology cases (R20). These issues are important and should be considered promptly.

A small number of teaching mares should be purchased and kept at the Farm to train senior students in equine rectal palpation. The faculty should make provisions that pelvic organs as well as equine legs can be retrieved from the slaughterhouse so that wet labs can be organised for students to practice recognition of ovarian and uterine structures as well as local anaesthesia and infiltration in case of equine lameness (R14).

Food Science and technology, and food hygiene/inspection and control of foodstuffs teaching is performed at a high level and the team appreciates the program.

An overall system should be put in place to ensure and facilitate agreements on students' participating in clinical activities with private practitioners and to facilitate interdepartmental organization of the agreements with farmers.

Student intake should be adapted to the primarily local needs of the community for veterinarians.

To support the leadership potential and the overall management of the faculty a working group including external experts should be considered with the aim of planning changes to take full advantage of the potential in the faculty.

Vacant positions at the professorial level should be filled.

The number of horses (R14) and cows (R11) for clinical examination should be improved even taking into consideration the relatively low number of large animals presently available for the faculty. This imminent issue should be addressed by a fast working group including external experts. However, the team noticed excellent extramural teaching with very active student involvement in rural cattle practice. These professional practice visits could be incorporated into a bigger scheme thereby using the same animals for herd health training for older students ((R13) or by visiting some of the very big EU-supported and newly established farms (currently being established) that the team visited (R13).

The team found evidence of category I deficiencies – that is major deficiencies as also evidences by Ratios R11, R14 and some other ratios (R1, R3, R13, R17, R18 and R20) being at the low end at the time of evaluation.

Likewise the access to poultry flocks (R17) should be improved considerably, although this is compensated with a very high load of relevant pathology material from poultry flocks.

Introduction of publication activity in English as a prerequisite of gaining a PhD degree is highly recommended.

In conclusion the team found some very good teaching conditions in many areas, very good student conditions and excellent high profile research laboratories. In other areas the faculty is at the lower end of the ratios although these are in many cases compensated by other relevant acceptable ratios.

Annex 1 Indicators

Ratio	Numerator/Denominator raw	1/Denominator	Established range of denominators	Notes
R1	100.68/1303	1/12.94	8.85-10.42	Slightly out of range
R2	208.18/1303	1/6.26	8.75/12.54	Better than indicator. Large support staff
R3	87.58/1303	1/14.88	10.62-12.62	Slightly out of range; linked to R1
R4	87.58/178	1/2.03	4.91-7.21	Better than indicator. Probably due to variations in no of graduations
R5	100.68/107.50	1/1.07	0.53-2.20	Within range; high ratio of support staff.
R6	2116/2582	1/1.22	0.51-0.36	Better than indicator.
R7	952/1630	1/1.71	1.88-2.21	Better than indicator
R8	0/4934		0.51-7.87	The faculty does not calculate uncoordinated or unsupervised activities.
R9	312/4934	1/15.81	6.00-42.26	Within range.
R10	312/120	1/0.39	0.05 – 0.82	Within range
R11	178/50.3	1/0.28	2.47-1.73	Out of range. Inadequate.
R12	178/4979	1/28	0.51-7.87	Much better than indicator, compensating for the inadequate R11.
R13	178/14	1/0.08	0.20-0.09	Within range, but low.
R14	178/28.6	1/0.16	1.78-0.92	Out of range. Inadequate, but there are

FINAL REPORT AS ACCEPTED BY ECOVE

				no horses around Bucharest.
R15	178/88	1/0.49	0.58-0.37	Within range.
R16	178/7874	1/44.2	48.74-37.94	Within range.
R17	178/1	0	0.09	Inadequate
R18	178/65	1/0.37	0.75-0.46	Slightly out of range.
R19	178/276	1/1.55	0.26-0.12	Way above range, compensating partly for R18.
R20	178/146	1/0.82	1.26-0.89	Marginally out of range.

Annex 2 Listing of Category 1 Deficiencies (*now called Major Deficiencies*)

- 1. Insufficient case load of large animals (including horses)**
- 2. Insufficient necropsy case load of cattle, pigs and horses.**
- 3. Severe deficiencies in the application of the principles and EU standards of animal welfare.**
- 4. Inadequate activity and governance of mobile clinic for large animals.**
- 5. Inadequate isolation facility for large animals.**

Annex 3 Student`s Report

The student`s findings have been discussed fully by the team and they are incorporated in the full report.

ECOVE DECISION: NON-APPROVAL