

**European Association of Establishments for Veterinary Education**  
**European System of Evaluation of Veterinary Training**

**REPORT ON THE VISIT TO THE FACULTY OF  
VETERINARY MEDICINE OF KAYSERI, ERCIYES UNIVERSITY, TURKEY**

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## INTRODUCTION

The basic structure of the Turkish education system is very similar to that of most universities in Western Europe, except for the fact that PhD students receive a salary for a period of 4-6 years in order to complete their studies.

The Faculty of Veterinary Medicine of Erciyes University (FVMEU) in Kayseri is one of the 19 state owned Turkish veterinary faculties currently training veterinary students and producing veterinarians. In addition, the following 5 Universities have obtained permission from the Turkish Higher Education Council to open a Faculty of Veterinary Medicine, and they may have Appointed a Dean and some faculty members, but have not started a veterinary curriculum yet: University of Tekirdag (Tekirdag), Marmara University (Istanbul), Hitit University (Çorum), Bingol University (Bingol), and Aksaray University (Aksaray) (Figure n° 1). Three of these Veterinary Faculties (Bingöl, Tekirdağ and Aksaray) were officially started during the last year. The total number of Veterinary Faculties in Turkey is therefore 24.

Of all the Turkish Veterinary Faculties, only Ankara (2003-2007<sup>1</sup>) and Bursa (2004-2010<sup>1</sup>) have been approved by EAEVE. Istanbul (2003, 2008<sup>2</sup>), Elazig (2007), Kars (2008), Konya (2009, 2011), Afyon (2010) and Aydin (2011) have been visited so far. The population of Turkey is 74.7 million inhabitants. The region of Kayseri, with an area approximately twice the area of the island of Corsica, has a population 1.165.000, approximately 700.000 of which live in the City of Kayseri. Kayseri is mainly an industrial district with a considerable animal population (Table n° 1).

Animals	N°
Sheep	334.000
Goats	43.000
Cattle	189.000
Horses	652
Mules	212
Donkeys	3.900
Fish	34.000.000
Laying hens	3.403.000
Broilers	964.000
Dogs	3.000
Cats	800

**Table n° 1** – Animal population of the region of Kayseri (Turkey)

Kayseri has 4 Universities, two of which are State-funded and two which are Foundations (not for profit and non-State funded). The Erciyes University is a State University originally established in 1978 with the name of Kayseri University. The Erciyes University comprises a total of 17 faculties (Agriculture, Architecture, Arts, Aviation and Space, Communication, Dentistry, Economics, Education, Engineering, Fine Arts, Health Sciences, Law, Medicine, Pharmacy, Sciences, Theology, Veterinary Medicine) and 12 vocational schools.

The Erciyes University decided to establish a Faculty of Veterinary Medicine in 1992. The training of veterinary

students started 3 years later, when 31 students registered as freshmen, and the first batch of veterinarians graduated in the year 2000. Over the last 12 years the FVMEU has graduated 515 veterinarians and has currently 369 students enrolled in the 5-yr veterinary curriculum (see also Chapter 9). Initially a building in downtown Kayseri was made available and the FVMEU was established there until 2011 when a very spacious and imposing building hosting classrooms, offices and laboratories was completed in the main Erciyes campus and the entire Faculty moved there at the end of 2011. The construction of another set of 3 buildings was started shortly thereafter, one of which was completed in its ground floor very recently: here, clinical (and necropsy) activities started in March of 2012 with lots of enthusiasm although in a rather pioneering way.

The main purpose of the FVMEU in requesting an EAEVE visit was to have some guidance in completing and structuring its premises in the most logical and efficient way, as well as in improving the quality of its curriculum. It was clear from the beginning that a Full or even a Conditional Approval was not an expectation of the Faculty. The visit was well organized, the Team was treated very well, the hospitality was excellent and the atmosphere always very pleasant.

<sup>1</sup> First date is initial visit, second date is date of approval by ECOVE

<sup>2</sup> First date is initial visit, second date is date of the re-visit



**Figure 1** – The 19 Turkish Faculties of Veterinary Medicine offering a complete veterinary curriculum are represented in each respective region. The numerical order refers to the timely fashion in which each University established its Veterinary Faculty.

1. University of Ankara, Faculty of Veterinary Medicine, ANKARA
2. University of Fırat, Faculty of Veterinary Medicine, ELAZIĞ
3. University of Istanbul, Faculty of Veterinary Medicine, ISTANBUL
4. University of Uludağ, Faculty of Veterinary Medicine, BURSA
5. University of Selçuk, Faculty of Veterinary Medicine, KONYA
6. University, of Yuzuncu Yıl, Faculty of Veterinary Medicine, VAN
7. University of Kafkas, Faculty of Veterinary Medicine, KARS
8. University of Kocatepe, Faculty of Veterinary Medicine, AFYON
9. University of Adnan Menderes, Faculty of Veterinary Medicine, AYDIN
10. University of Kırıkkale, Faculty of Veterinary Medicine, KIRIKKALE
11. University of Erciyes, Faculty of Veterinary Medicine, KAYSERİ
12. University of Akdeniz, Faculty of Veterinary Medicine, BURDUR
13. University of Dicle, Faculty of Veterinary Medicine, DIYARBAKIR
14. University of Harran, Faculty of Veterinary Medicine, URFA
15. University of Mustafa Kemal, Faculty of Veterinary Medicine, HATAY
16. University of Ondokuz Mayıs, Faculty of Veterinary Medicine SAMSUN
17. University of Atatürk, Faculty of Veterinary Medicine ERZURUM
18. University of Cumhuriyet, Faculty of Veterinary Medicine, SIVAS
19. University of Balıkesir, Faculty of Veterinary Medicine, BALIKESİR

## 1 OBJECTIVES & STRATEGY

### 1.1 Findings

The objectives are clearly stated (although they are not divided in vision and mission) and divided in the categories of Teaching, Scientific Research, Infrastructure Development, Human Resources Management, Financing, Environmental and Social Responsibility. Although mentioned in between the lines, there is no clear statement about the importance of Continuing Education. Objectives are lumped together, are not prioritized, and apparently there is no method for their periodic review or for assessing their achievement. The most important issues are evidently those mentioned under Comments (chapter 1.2): a) completing the building of the new premises, b) establishing international collaborations by improving English proficiency of student and staff, and c) developing the concept of Veterinary Public Health.

### 1.2 Comments and Suggestions

While the above three items are important short term (a) and long term (b, c) points, it is clear that the importance of having a Mission and Vision is not fully grasped by the Faculty. MISSION refers to the task which are expected to be performed by a person or an enterprise: forming veterinarians is the most widely recognized mission of Veterinary Faculties. While the Mission is regarded as what should be done now, the VISION instead refers to the capacity of looking into the future and getting a perspective of what will be our reality in 10, 20 or 50 years, and through this being capable of anticipating the needs of the changing society from our profession, and foreseeing potential crisis or future developments of the profession of a veterinarian.

Examples of Mission of a veterinary faculty could be the following: 1) To provide proper training to undergraduate students of veterinary medicine by continuously upgrading the level of theoretical and practical teaching based on scientific evidence; 2) To produce research, innovation, and development of critical thinking in the various disciplines of veterinary sciences. 3) To fulfill the needs and expectations of the society becoming a source of "specialist knowledge" in most or all fields and the major scientific, professional and continuing education reference for veterinarians and society in the region or nationally (or perhaps even internationally). A Veterinary Faculty should act as a support to the profession through its teaching hospital and teaching farm/s; by providing diagnostic, clinical, pathological, preventive medicine, nutritional and other services; by providing professional consulting activities for private and public companies; by offering support for agricultural communities through the promotion of sustainable production systems.

As to Vision, a Veterinary Faculty should look at what long term goals could be set, such as (for Kayseri for instance) a) becoming the most important scientific, professional and continuing education reference for veterinarians and society for the whole of Turkey or perhaps for the Middle East, or b) becoming fully integrated with Western Europe and the rest of the Western World by gradually increasing the number of European College Diplomats (European Specialists) among its staff and also switching the language of all courses to English, thus becoming a fully international Veterinary School.

These two visionary concepts do not necessarily mutually exclude each other. For instance, offering undergraduate courses in English is not beyond reach in general terms. Veterinary Faculties in Europe such as Budapest in Hungary or Brno in the Czech Republic have started to offer dual courses, that is in the national language but also in English, and this has given them an international status as well as remarkably increased their financial resources. If the FVMEU considers this as a long term goal, it should start for instance to send its young staff members abroad for some extended periods of training, so that continuing education and perhaps specialisation can be coupled with English proficiency. If such a strategic decision was taken by the Faculty, then resource allocation for hiring young staff could be bound to newly hired staff being obliged to spend 2-3 years in a foreign institution where a residency program for one of the European Specialist Colleges is offered. The young staff member could therefore complete a residency program, and come back home with a title of Diplomate of a European College which would allow him/her not only to start teaching courses in English but also to become well known at home as a European Specialist, thus attracting referral cases, new clients, consultations from private and public companies etc.

The faculty must be commended on the relevant number of PhD programs, some of which are international programs (see also Chapter 12), and also for some faculty members holding a PhD degree obtained in Western Europe or in the US. However, PhDs are important for academic career, but College Diplomates are equally important for professional activities. In Western Europe, faculties where there is a diplomate of a European

College quickly become referral centers for that particular discipline. Also, College Diplomates have to undergo a re-certification procedure every 5 years, which means that their knowledge must be kept continuously updated (while holders of PhD degree have no obligation of keeping their knowledge up to date). It is worth noticing that Turkey is one of the last if not the last country in Europe for to the number of European College Diplomates, with perhaps only the Faculties of Ankara and Istanbul having 1 or 2 Diplomates in total. There are currently 23 Specialist Colleges in Europe (see [www.ebvs.org](http://www.ebvs.org)) with more than 3000 diplomates and with the countries of Central Europe having from 70 to 150 Diplomates each (and at least a few diplomates for each College). Turkey is way behind, and Kayseri does not even have one European College Diplomate. Such an important aspect of faculty strategy should not be left to the initiative of single faculty members. The Dean and the Faculty Council should have this as an important agenda item to be discussed on a regular basis to check how things are going. It may take 20 years for a Faculty such as Kayseri to acquire European Specialists for each one of the 23 Colleges. But if the FVMEU does not put this item very high in its agenda, in 20 years from now the situation will still be the same as today, while perhaps other Turkish faculties (which are now perceived as of lower quality when compared to Kayseri) may have overtaken Kayseri in this respect.

Being internationally known is clearly an important point for the FVMEU, which is commendable, but perhaps before a faculty becomes internationally known it should be concerned about being embedded into the society and being a reference for animal care and public health in its region. In the list of objectives there is no mention about the importance of providing services to its stakeholders (pet owners, farmers, drug companies, clients sending samples to the diagnostic lab, private or public enterprises needing consultancy etc), which is the first and foremost task a veterinary school should accomplish in order to become locally and nationally known.

The list of research and teaching objectives is long but is missing some important items such as:

Teaching objectives:

- Having an adequate number of students (based on market needs) depending on the number of teaching staff and on teaching facilities of the Faculty;
- Development and modernization of the equipments and other facilities to ensure a modern education and to facilitate research activities;
- Providing good quality education for veterinary students by having proper teaching spaces, research laboratories, computing tools, libraries, teaching hospital and teaching farm/s;
- Providing good quality postgraduate education and specialization through continuing education courses;
- Professional instruction of Faculty teaching staff in order to improve their teaching capacity and ability;

Research objectives:

- Study of transmissible diseases in animals;
- Surveillance of health status in animals from zoo parks and of the stray dogs community;
- Immunological studies in animal parasitic diseases;
- Innovative researches in plastic and reconstructive surgery;
- Manufacturing and testing of new veterinary products;
- Studies on the impact of pollutants, toxins and other substances on animal health and on the ecosystem;
- Metabolism of organic and inorganic nutrients;
- Quality and preservation of semen for reproduction management in domestic animals;
- Biosecurity and biosafety assurance in animal farms;
- Hazard of pollutants, additives, preservatives and drugs on human health;
- Risk and control critical points analysis in foodstuff of animal origin processing units;
- Genetic and clinical identification of hereditary disorders in farm animals;
- Anatomico-pathological and immunological changes in neoplastic and infectious diseases.

The importance of developing and making use of a strategic plan is evidently undervalued by the FVMEU. A strategic plan can be a powerful tool to set standards and achieve goals. Without the necessary a) sharing of duties and opinions, b) long brain-storming sessions and c) dedicated team working, it is virtually impossible to produce a strategic plan document which is meaningful. The FVMEU should seriously consider adopting a

drastic change in the way its strategic plan is approached. EAEVE is available should help be needed for the FVMADU to develop its strategic plan.

## **2 ORGANISATION**

### **2.1 Findings**

The Authority regulating Turkish Universities is the Turkish Council of Higher Education (YOK). The YOK selects 3 Rector candidates out of a list of six received from each University, and submits those 3 names to the President of the Turkish Republic who chooses the Rector. The Rector appoints the Dean for a 3-year term based on proposal of 3 candidates which is formulated by the entire Faculty Assembly (Full, Associate and Assistant professors). The Dean then appoints two Vice Deans as well as the Division Heads. Dean and Division Heads can be re-elected with apparently no limitation, but at least the Dean has to be included in the above list of 3 candidates. The Faculty does not seem to have much of an influx on University Policies. The Turkish Law system appears to be fairly rigid, and every change has to be accepted by the YOK.

The 3 most important administrative bodies through which the FVMEU functions are the Faculty Board (or Faculty Council), the Faculty Executive Committee (ExComm) and the Faculty Administrative Committee. The Faculty Board is formed by 11 voting members: the Dean, the 5 Division Heads, 2 representatives from full professors, 2 from associate professors and 1 from assistant professors. The Faculty Executive Committee is formed by the Dean, 2 Full professors, 2 Associate Professors, 1 Assistant professor. The Faculty Administration Committee has a very similar composition to the previous two bodies: the Dean, 3 full professors, 2 associate professors and 1 assistant professor, plus one student representative without power of vote. Other Committees may be formed directly by the Dean and help the Dean and the Faculty Board in their work. The Education Committee is the only other one (apart from the Faculty Board) in which the student representative takes part. The decision making process is governed by the Dean and the Faculty Board. The Faculty Board meets 4-6 times/year and takes all the decisions; it picks the composition of the Faculty ExComm, which meets a few (minimum 2) times/year, and puts into practice all decisions taken by the Faculty Board; the Faculty ExComm picks the composition of the Faculty Administrative Committee which deals with administrative issues. The Faculty Board is the most important committee, the one in control of the whole faculty.

The FVMEU is organized in 5 Divisions (Basic Sciences, Preclinical Sciences, Clinical Sciences, Animal Nutrition & Zootechnics, Food Hygiene & Technology). Each Division is organized in Departments formed by a number of faculty members which may be very small (3-4 in some cases). The organization of Divisions and Departments is outlined on page 14 of the SER.

The Teaching Hospital does not have any type of organization: surgery has its surgical theaters, and so should (once it will be ready) do obstetrics and gynaecology, each section "owns" the space it has been assigned. Record keeping is minimal and not computerized. Emergency service is absent, and the plan appears to be to establish it in a different building in a different part of the Campus. There is no Hospital Director. The 4 Department Chairmen of the 3 clinical disciplines are each responsible for their own sections

The student representative in the Faculty Council is elected for periods of 2 years, by all students of the 5 years and is also the representative for the Teaching and Education Committee. The student representative has no power of vote on either committee, s/he can only present issues and proposals and relate back to her/his peer students.

### **2.2 Comments**

The organization of Divisions and Departments is not conducive to collaboration and sharing resources and equipment among teachers. The way the 3 new buildings (Building A1, A2 and A3) have been built may also be a problem, as it helps fractioning people. Instead of having centralized diagnostic facilities or centralized teaching facilities, members of each department work on their own in the part of the Building assigned to them. For instance, there is a Department of Anatomy and one of Histology & Embryology; a Department of Physiology and one of Biochemistry; a Department of Zootechnics, one of Animal Nutrition and one of Farm Management and Economics; a department of Bacteriology and Immunology, one of Virology and one of Parasitology. In the

Teaching Hospital there are 2 reproduction departments, Obstetrics & Gynaecology and Reproduction & Artificial Insemination.

While not all groups across the FVMEU are fractioned and there is a good degree of collaboration in some areas, the structure of the new Buildings (A1, A2 and A3) probably does not stimulate people to collaborate and may have contributed in reinforcing the old-fashioned way of conceiving university facilities, equipment and spaces as "private property" of each single department (sometimes even property of the head of department). Although such an approach did not emerge and most faculty members seemed genuinely willing to share resources, the team did not meet any strong sense of cohesion within Divisions. The crucial decisions are made at the level of dean and above.

The organization of the Teaching Hospital should be changed. A hospital Director should be established to be responsible for organizing common, centralized services (i.e. anesthesia, diagnostic imaging, intensive care, clinical chemistry laboratory, hospitalization, reproduction etc.) and making sure they function properly. For more details on suggested changes to the Hospital see chapter 6.2.2.

The opinion of the student representative appears to be taken into consideration, he is listened to and his issues are frequently accepted. However, the fact that he is alone and does not have any voting power diminishes his role, and actually is in contradiction with the openness, transparency and the spirit of innovation which the FVMEU is priding itself with. All Western European Veterinary Faculties have 3 or more students (with power to vote on all teaching issues, including election of the Dean) on all committees. At the University of Copenhagen a student is Vice-President of the Teaching Committee, and in Italian Universities student representatives vote to elect the Rector. Admittedly, the Faculty Councils of most if not all Western European Veterinary Faculties include all staff members, not just a selection, which makes student representation a minority. Still, students are considered an important part of any faculty body, and they can vote. This is a feature of modern university systems. Turkish academicians should forward this issue to their politicians and try to change the system if they want to present themselves in the international arena.

## 2.3 Suggestions

**The Academic structure of FVMEU should be changed by increasing the minimum number of staff members/department.** If the minimum number of academics/department could be raised to 20, a department would then correspond to a division. This would lead to a Faculty composed of 4 departments (or divisions – by eliminating the departments): Basic Sciences (Anatomy, Physiology, Histology/Embriology, Biochemistry, Ethics & Vet History) Preclinical Sciences (Microbiology, Parasitology, Pharmacology, Pathology, Virology), Clinical Sciences (Surgery, Internal Medicine, Reproduction & AI, Obstetrics & Gynaecology) and Zootechnics and Food Safety (Zootechnics, Biostatistics, Genetics, Farm Management and Economics, Animal Nutrition, Food Hygiene & Technology). In particular, from a European perspective, the distinction between male reproduction (Dept of Artificial Insemination) and female reproduction (Dept of Obstetrics and Gynaecology) does not make any sense and should be changed by fusing the two departments together. This is a feature of most if not all Turkish Veterinary Schools, and it is derived from the German model which was developed around World War II. EAEVE Teams have commented on this aspect at all Turkish Veterinary Schools visited so far, with little if any results. Male and female reproduction are deeply intertwined, and it is a waste of cultural and human resources to force academicians to work on only 50% of reproduction. If one looks at the European Specialist College system, there is only one College of Animal Reproduction (ECAR). It would speak well of Erciyes University if such an academic distortion at the FVMEU could be corrected.

Having academic entities with a very small minimum number was very common in Western Europe after World War 2 and until the 1970's or shortly thereafter. Then it gradually became evident that a great deal of positive synergies were being lost due to fragmentation, and resources and equipment were not well exploited. Therefore, departments gradually grew to the point that their minimum number almost everywhere in Europe is nowadays 40 or more members. Having members of different (but related) disciplines (such as the clinical disciplines, or the basic sciences, or the pre-clinical disciplines) altogether in a single entity would force people to deal with each other, and although this might exacerbate some frictions in the beginning, in the long run it would with no doubt create a positive synergy. Emphasis needs to be made on the modern functioning of the new departmental

council the principles of democracy are respected instead of having even less people (the 4 head of departments) in charge of all the decisions.

Very often divisions and factions between disciplines are due to behavioral incompatibility between some professors, with younger faculty members often being dragged into a quarrel for which they are not responsible. Younger faculty members cannot thrive unless placed into an environment which is quiet, peaceful and tranquil. Associate and full professors have the responsibility to create such an environment, or their discipline is doomed to suffer from lack of evolution. Such a responsibility is to be shared also at the Rectorate level. Rectors should realize where potentials are not being exploited because of law constrictions, and should voice their concerns to the Central Government, as they are the only ones who can be heard by politicians.

The way Faculties are run at the Erciyes University (and presumably at all Universities in Turkey) reminds of an oligarchy, with a handful of people having control over entities which may be composed by close to or more than 100 members, and on top of that precluding students from exerting their voting power. Despite this apparent lack of democracy, at the FVMEU the decision process is transparent, honest and absolutely impeccable thanks to a wise and balanced guide by the Dean and his team. The EAEVE Team did not meet any feeling of dissatisfaction in any of the Faculty members towards the people in charge of the FVMEU and towards the way the FVMEU is run. Everybody seems to understand very clearly that this is Turkish system and there is little that can be done.

Still, in most Western European countries, Faculty Councils are composed by all members of the teaching staff (full, associate and assistant professors) plus a representation of 3-5 students as well as a few non-teaching and administrative staff. Everybody has a right to vote, including students (on teaching matters only, but they do vote for the election of the Dean and of Department Chairmen). There are obviously many Committees, but they only have an advisory function, by which issues are discussed and then forwarded to the Faculty Council where voting takes place.

**The structure of the Faculty Council should be changed to include all faculty members and a congruous student representation (3-5)**

**Within the Faculty Council, student representatives should have the power of vote**

**Within the Education Committee the number of student representatives should be increased and they should be given the power of vote**

Among the objectives of the FVMEU under Human Resource Management on page 5 there is "To increase personnel motivation" and "To increase academic and administrative staff satisfaction". Working in a fragmented environment where an oligarchy takes all decisions and most members are denied the power of vote does not provide the picture of a modern institution. And one wonders how much longer young faculty staff may continue to feel a satisfied and motivated in serving such an institution.

Although these issues are beyond reach for faculty members or even the Dean, the FVMEU has the responsibility to forward these concerns to the Rector of the Erciyes University. If the FVMEU is to be perceived internationally as a modern and open-minded institution, then the Erciyes University should wonder whether such a definition can be assumed valid for itself as well.

**The level of decisions on some teaching issues should be lowered from the governmental level, to a university level**

## **3 FINANCES**

### **3.1 Findings**

The Erciyes University current financial model is mainly dependent of Government funding allocation which is calculated based upon:

1. Number of students educated at the university;
2. The previous year's budget expenditure;

3. The plans for future development
4. Inflation rate

Allocations of the budget to faculties is made by the University Board of Directors, taking into consideration the priorities defined by the faculties and the Academic Senate. In case of lack of funds to fulfill all the needs extra funding can be granted by the Ministry of Finances and the Ministry of Development. In general terms, the impression of the team was that money is currently not a problem in Turkey, and in Kayseri in particular. The amount of funds has been increasing steadily over the last 3 years.

Tables 3.1 and 3.2 of the SER portray Revenues and Expenditures of the FVMEU in Turkish Liras (1 TL = 0.4225 € at the time of EAEVE visitation). A small part of the income is obtained from services provided by the FVMEU and from projects. These are funded by research foundations (TUBITAK, DPT, EU Projects) and by the private sector. The public funds received by the FVMEU have increased since 2009, being close to 1.5 M € in 2011, and accounting for a mean value of 4.050 € per student (based on a total population at the FVMEU of 367 students). Additionally, in 2011 the FVM received close to 20 000 € from services provided and also 388 000€ from research projects, part of which was provided for by the Erciyes University. According to the information provided, the total income for 2011 may be estimated in 1,9 M €, accounting for a mean value of 5.177€ per student.

The Dean has limited financial autonomy, as the only money he can spend is the income generated by the various services, which flows to the Dean's office and then is returned to each service based on each service's needs. Division Heads do not have any financial autonomy, and whenever a payment has to be done bills are directed to the Dean's office. Students pay a tuition fee of 464 TRY (approx.. 200€) which is fixed by the central government for each academic year and it is the same for all veterinary faculties nation-wide. The University collects tuition and uses it to support general expenses including meals, sport, social and cultural infrastructures as well as supporting students in need. The remaining is allocated between faculties based on student number and needs of the faculty. As of the current academic year 2012/2013, student fees were abolished.

The construction of the new buildings and the purchase of the equipment to refurbish them were made possible both through public funds and private sponsors. In fact, the Team was told that a large percentage of the funds for the new buildings had been obtained through University extraordinary funds and private donors with the latter being particularly important. Wealthy donors have sponsored the construction of new buildings in the University, in exchange of having their name associated with the project. A prominent building on the Vet Campus features the name of the private donor in very large characters, visible from far away.

According to the information provided it may be concluded that:

1. Teaching is supported exclusively by public funds through allocation of the Erciyes University and seems to fulfill the needs.
2. Research is supported by public funds specifically allocated for this activity.
3. Services provided (clinical activity, etc.) generate their own income, not benefiting from public funds.

At present, expenditure in clinical activities is significantly higher than the revenue (14 500 TRY/ 6241€), needing additional financial support from the Faculty budget. The construction and equipment of the new faculty have been requiring a heavy reinforcement of regular funding, largely depending on the funds made available by the authorities of Erciyes University.

### **3.2. Comments**

The total cost of each student seems to be reasonably covered by the budget received by the Faculty.

There is no regular funding for construction and equipment of the new premises, which makes it very difficult to estimate when all structures recently built will be fully functioning. As a consequence, forward planning is very difficult if not impossible.

Although the ease with which money is distributed by the Erciyes University is certainly a positive fact in itself, this should not exempt the FVMEU from calculating its own budget each year. Most if not all Deans of European Veterinary Schools have a clear idea of how expensive teaching, research and services are at their institutions. This is particularly important concerning services and teaching. With regard to services, the knowledge of their costs is vital in order to make an accurate calculation of what prices should be charged to clients. Costs due to

teaching tend to remain fairly stable throughout the years, and therefore it is easier to make forecasts. As the training of veterinary students is currently considered one of the most expensive of all the higher education courses (because of its length of study, the advanced facilities as well as teaching intensity necessary and because of the costs of maintaining animals), a Veterinary Faculty must know exactly what these costs are. The fact that money is not a problem at this time cannot be held as an excuse, as in case of a financial crisis the lack of awareness of costs may be highly detrimental to the quality of teaching.

The lack of financial independence of the FVMEU is considered a negative factor. Faculties should be able to count on a budget (set by Universities) which should be based on a per capita cost depending on the number of faculty members and technicians present, and on the number of students, plus some correcting factors depending on local situations, administrative capacity of Deans and quality of services provided. Within a University, Faculties should compete with each other for extraordinary funding to buy new equipments or research tools or to build a new facility, as this stimulates managers, teachers and researchers to improve themselves thus raising the quality of teaching, research and services provided. The fact that money can be given based on the urgency of the situation does not stimulate administrators to plan their activities, as the only thing that is necessary is to demonstrate to University bureaucrats that the need to receive money is urgent. Failure to stimulate people to plan ahead prevents them from developing a vision for the future. Visionary leaders are fundamental for a University to establish itself as a centre of excellence and be internationally known. Vision is often an innate quality, but can undoubtedly be stimulated by the need to plan ahead, as such need will force managers to ask themselves what the future is going to be like, and how they can cope with a new situation.

Rectors have the responsibility to help their Deans, Division and Departmental Heads to grow as visionary leaders and good administrators. One good way of doing this is to give them a budget at the beginning of the year and test their ability to make the best use of it. On the other hand, Division and Department Heads should be able to count on the income they produce with their services, as this would be an excellent stimulus to increase their income by improving their services. Similarly to Deans, Division and Department Heads should be tested for their ability as administrators and forward planning capacity. The income generated by a service should stay within the Department/Division which is providing the service, except for whichever tax the Faculty/University is imposing.

Administrative capacities and vision, or good leadership, should be stimulated in all leaders, starting from the level of Departmental Heads up. Departmental and Division Heads should constitute a pool of leaders from which a Dean is eventually selected. Deans constitute a pool of leaders from which a Rector is eventually selected. If good leadership is not stimulated beginning from Departmental Heads, sooner or later the University will be guided by a Rector who is not a good and visionary leader. Furthermore, administrative capacities are an important asset for a leader as otherwise a leader will depend on bureaucrats to run the budget, which can be highly detrimental to any institution as bureaucrats are known to often lack vision. These abilities are build year after year by increasing the responsibilities

### **3.3 Suggestions**

**The FVMEU is encouraged to secure with the Erciyes University and government authorities the financial support** necessary to have the whole faculty fully functioning within the shortest possible length of time.

**The Erciyes University should consider changing its rules of procedure in order to start allocating an annual sum of money to each Faculty using pre-determined criteria.** Funding should be allocated to the Dean's office to cover teaching expenses, and to Division Heads to allow them to cover basic costs due to their services. Faculty and Division budgets should allow to pay for functioning costs (heat, electricity, telephone, internet connection) as well as allowing Deans and Division Heads to pay for costs due to travel, public relations etc.

**At the end of each year Deans and Division Heads should produce a financial report for the previous year and a budget for the following year, keeping into account potential income and expenses due to services as well as maintenance of equipment.** Both the financial report and the budget should be discussed at the Division/Faculty level and approved by the Division/Faculty Council.

**The FVMEU should establish an Internal Advisory Board** to carefully revise costs of services (e.g. clinical services, diagnostic laboratories, pathology, food analysis etc.) and help establish modern, market oriented calculation of relevant prices for services rendered.

**A Regional Advisory Board for the FVMEU should be established**, incorporating representatives from national stakeholders (the University itself, local veterinary chamber, pet owners, pharmaceutical companies, food companies, state veterinary officers etc.). Such a body would be a tremendous help in establishing the FVMEU as a key reference centre for all needs related to the veterinary profession in the Kayseri Region. The Faculty could then learn better how to quickly orient its activities to fulfil the expectations of the society at large. This advisory board could also incorporate international representatives such as academicians of foreign universities, members of international research institutions, former Deans or Rectors or administrators with a particular vision. Advisory bodies are used by most Western Universities, and the most successful academic institutions are often the ones who make use of international advisory bodies.

## 4. CURRICULUM

### 4.1 GENERAL ASPECTS

#### 4.1.1 Findings

There is no national curriculum for veterinary training, which is left at the discretion of the faculties. However, some national regulations related to minimal requirements are set by the Higher Education Council (length and outcome of veterinary education, as well as some compulsory subjects), after considering proposal of the Association of the Veterinary Deans (Inter-University Council of Veterinary Education Science) which are in line with the EAVE requirements. Almost all subjects listed in Directive 2005/36/EC are in the curriculum. Field veterinary medicine, preventive medicine, agronomy, and some professional knowledge (practice management, Veterinary certification, career planning) are not taught as a subject of its own. They are, however, covered in other subjects. Further to the professional subjects there are also mandatory subjects established by law, such as: Atatürk's Principles and History of the Turkish Revolution, Turkish literature, Science and Philosophy and English as a foreign language. The Faculty's Executive Committee is responsible for curricular changes within the established frame. A final decision concerning curricular adjustments is obtained by consensus of the Heads of Departments. The approved curriculum is then submitted to the University Senate which makes the final decision.

The Faculty's Executive Committee has established the present curriculum since the Faculty started functioning, in 1995. The total number of hours of the curriculum indicated is 4192. Theoretical training is exclusively based on formal lectures and occasional seminars depending on the teacher's initiative. The mean ratio of theoretical versus supervised practical training is 1.7/1.

The first four years of the course (eight semesters) are organized in a regular timetable, with the activities taking from 26 hours per week in the first and second year to 32 in the fourth year. The fifth year is organized in a different way: there are no formal lectures and instead groups of four students rotate weekly following 16 different programs. Each program accounts for 20 hours and is combination of two disciplines. In these rotations called "INTERNSHIPS", the students follow the laboratory activities, frequently with the help of the postgraduate students in each discipline. It is during this internship that students have the first opportunity for hands-on training in clinics, which is generally supervised by research assistants. Self directed learning is not regularly considered in the curriculum.

There is no indication that a tracking system exists.

Extramural work is obligatory and includes one month of activity during the summer vacation between the 4<sup>th</sup> year and 5<sup>th</sup> years. It may include working in farms, Food Hygiene/Public Health and in commercial or government organizations (private or governmental farms). Extramural work is regularly supervised by the Extramural Work Committee. The corresponding hours are not listed on Table 4.1 of the SER and are presumably not included in the total number of 4192 curricular hours. Students have confirmed that through their own initiative they have

worked in the summer with local veterinarians. In order to graduate, students must complete the 5 years of the curriculum and pass all the examinations.

#### 4.1.2 Comments and Suggestions

The Curriculum in general seems to cover the EU-listed subjects. The number of practicals in some subjects is clearly insufficient, particularly in clinical subjects (see further on in this chapter). The student's involvement in the internship is variable depending of the department and sometimes of the teacher. In some cases, this is the first opportunity to come in contact with practical situations and be involved in research activities. In other situations, students appear to have little if any opportunity to perform any practical activities or sometimes just do it in a theoretical way (equivalent to a tutorial).

The new curriculum included major requirements from Directive 2005/36/EC and EAEVE Standard Operating Procedures. **There is, however, still an imbalance between theoretical and practical/clinical teaching (Ratio 6), that needs to be corrected.** Self directed learning should also be introduced. Also, **the amount of clinical work in the curriculum (Ratio 7) is deemed as insufficient.**

The SER stated that the attendance of lectures and practical teaching has to be at least 80 % of the hours. Due to the examination system and the lack of lecture free examination periods, this is very difficult to achieve.

The curriculum could largely benefit from the introduction of the problem based learning, especially with small groups of students in practical training

Same basic and methodologic issues should also be addressed on a faculty (not only a departmental) level. For instance, a certain percentage of teaching in a foreign language would be advisable. Also, the question of "tracking" (devoting a part of the curriculum (normally around 10%) to training students in a specific species or field (i.e. public health) of the veterinary profession) should also be considered, especially in order to take advantage of the specialisation that has to be implemented in the clinics and in the postgraduate clinical training.

## 4.2 BASIC SUBJECTS & BASIC SCIENCES

### 4.2.1 Findings

Basic subjects are taught in the curriculum of the Veterinary School and take 96 hours per student (excluding professional English). Basic sciences take 1280 hours of the curriculum (30,5%). The mean ratio of theoretical versus practical is approximately 1/1, varying from 1/1,3 in Anatomy to 1/0,4 in Pharmacology & Pharmacy. Two disciplines present a ratio of 1/2, Topographic Anatomy and Immunology, which is commendable. However, certain subjects are shown in the curriculum as independent such as Microbiology and Virology, or Parasitology, Entomology, Protozoology and Helminthology, making it difficult to evaluate the degree of interaction among them and within the Basic Science context.

The FVMEU is well equipped in terms of laboratory space. Each course is divided in two groups of generally 35 students each. The laboratories are good enough to accommodate these numbers, with enough places to sit comfortably and good quality microscopes for each student. Students always wear lab coats in practicals.

In Anatomy, the total class is divided in groups of five. A collection of skeletons of various species and isolated bones is available for students. The Team did not see how the dissection lectures are organized as the preparation room was unfinished. We were told that the students come in contact with two fresh cadavers of each species per semester and that the cadavers are preserved by various methods (formalin, refrigerated or frozen). There is a large refrigerator with sliding shelves, good enough to keep various cadavers of dogs and cats at +4°C. Limitations of the use of the anatomy dissection room will be mentioned further on (Chapter 6). Protection of the students in Anatomy Practical Lectures is only done with lab coats and gloves.

For Virology and Genetics there are no practical lectures in the program. In Pathology, at present, the practical teaching does not include necropsies, and, as far as the Team could understand, no necropsies are regularly performed, although there is a discipline called Necropsies with 32 hours of practical teaching. We were also told that there is no historical or even current register of work performed at the pathology laboratory. The Team was shown the new space for the Department of Pathology that was allocated in one of the new buildings under completion, totally separated from the Histology Laboratory.

#### 4.2.2 Comments

With a few exceptions, practicals in Basic Sciences seem to work regularly with motivated teachers and well equipped laboratories. The number of animals dissected in Anatomy is clearly insufficient considering that each class has seven groups working simultaneously.

The lack of necropsies done on a regular basis for the whole course is not acceptable, and the lack of post mortem room with reasonable working conditions is also not acceptable. Subjects such as Virology and Genetics should have practical lectures.

The separation between the new Pathology premises and the Histology Laboratory makes little sense, as histology is a fundamental aspect of pathology, and a pathology laboratory will be making intensive use of histological techniques.

#### 4.2.3 Suggestions

**The amount of practical teaching in Basic Sciences should be increased**, as this will be the best way to consolidate theoretical knowledge. The possibility of introducing practical examination should be considered.

**The FVMEU should, as soon as possible, find a space to perform necropsies on a regular basis. Also, the Pathology Department has to develop a register system for the material received for diagnosis and teaching**, with an additional goal of creating revenues for the FVMEU. The Pathology diagnostic service may represent an income and an opportunity for funding more research projects. **The situation in pathology should be considered as a major deficiency.**

**Laboratories that use common equipment and techniques should be established together such as Histology and Pathology.** Also, Virology could provide practical lectures within the timetable of Microbiology, and Genetics could provide practical lectures within the timetable of Animal Production.

### 4.3 ANIMAL PRODUCTION

#### 4.3.1 Findings

Kayseri University has an experimental farm (Erutam Farm) where dairy cattle, sheep, and laying hens are present. Furthermore the Faculty has some contractual arrangements with dairy, beef cattle, horses and poultry farms for training of students.

The main disciplines of animal production are taught. Animal nutrition, animal husbandry and poultry diseases comprise both theoretical and practical training, while livestock economics, animal welfare, and rural economics are given only as theoretical lectures. Students are taught how to formulate rations for production animals by using a software based on the “ Nutritional requirements of production animals”, edited by the National Research Council (NRC) in USA. Aspects related to animal welfare, legislation, bio-safety and bio-security are also taught. Students perform analysis of feed in the labs of the department.

No introductory veterinary medicine course has been established for 1<sup>st</sup> year students to provide experience in handling and working around farm animals. No pig production information are given to the students. Several elective courses on animal production are offered to the students.

#### 4.3.2 Comments

The curriculum contains sufficient hours of teaching in animal production and the balance between theory and practice is satisfactory for animal nutrition, while the practical training in animal husbandry is not sufficient. The experimental farm of the University is not adequate for the training of students, particularly because of its total inadequacy regarding the safety rules and basic requirements for animal husbandry. A modern Veterinary Faculty should have access to a modern and updated farm located not too far from the University. This opportunity is not used as it should be.

The teaching materials, textbooks, slides, digital supports, are adequate

### 4.3.3 Suggestions

An introductory veterinary medicine course should be established for 1<sup>st</sup> year students to provide experience in handling and working around farm animals. Practical work in animal husbandry must be increased and based on good and appropriate tools. A complete reconstruction of the experimental farm is needed (see chapter 7). The elective courses must be better explained, even in the title, to avoid misunderstanding, and to drive students in their own choice

The animal production sector should build bridges with other disciplines, such as clinics, pathology, etc, to let the students understand that animal production is essential in preventing pathologies and keep animal healthy, and not only to sustain milk or beef or wool production. Also, the basic principles of EU legislation regarding animal production and animal welfare should be taught to the students as Turkey aims to become part of Europe

**In line with many of the other courses on the veterinary programme, the number of lectures should be reduced by at least 10%.** This would release time for some revision periods for the students at the end of each semester. **This should be considered as a major deficiency**

**Students should be trained on herd health management** including calculation and critical assessment of productive and reproductive indices. In Europe, this topic is taught in some Veterinary Schools by teachers in Animal Husbandry, while in some other Vet Schools it is taught by teachers in Animal Reproduction. EAEVE does not require that a specific discipline covers it, but it does require that students are trained in herd health management. **The lack of theoretical and practical teaching on herd health management should be considered as a major deficiency**

Students would also benefit from the use of problem based learning (PBL) teaching, at least during the last 2-3 years.

## 4.4 CLINICAL SCIENCES

### 4.4.1 Findings

The number of hours allocated to clinical sciences appears to be very low: while the curriculum shows a lot of practical hours for these disciplines, only few of these hours are actually spent for practical training due to lack of animals and facilities.

There appears to be little if any cooperation between the different clinical departments. This is particularly relevant when looking at the new facilities: the buildings in construction which were shown to the Team featured a complete separation among the clinical departments leading to a duplication (in some cases to a triplication) of equipment, resources, space and personnel.

The Team could not exactly figure out the balance between clinical activity in the different species, although it seems that the new clinical facilities will allow only adequate practical teaching on small animals. There is a very small case load on the main species and these cases are mostly depending of the interest and initiative of the teachers. There is no possibility for most students to practice any type of surgery prior to graduation. Most if not all students are not exposed to practical training in horses. Practical teaching on large animals is done in farms but without a regular basis and often without adequate provision of professional equipment.

There are very few animals available to allow the student to have hands-on experience and learn basic handling and examinations earlier in the curriculum. As a result, clinical activity with animal is performed on an irregular basis and groups of students are too large for any practical activity to be performed by all. Just observing a teacher does not meet the needs of Day-1 skills.

The new facilities for clinical teaching have not been developed keeping in mind the concept of providing common services (anesthesia, diagnostic imaging, clinical chemistry lab, intensive care, hospitalization etc.) but rather according to a fairly old model of keeping the 3 classical clinics (internal medicine, surgery and reproduction) strictly divided. Such an organization reflects a lack of concern about modern clinical teaching.

Very few if any support staff were present during the visit of the clinical premises, and the Team was told that the tasks of the support staff are normally performed by undergraduate and postgraduate students as well as by some faculty members.

#### 4.4.2 Comments

The amount of practical activity with animals is insufficient.

The low level of collaboration between clinical departments is limiting opportunities in the use of new equipment leading to a waste of resources and skills. Also, despite very good farms in contact with the university there is a lack of exploitation of cases and record for student teaching.

Students are not covered by liability insurance during extramural and intramural (obligatory and voluntary) activities.

#### 4.4.3 Suggestions

The curriculum needs to be organized with the aim to training modern veterinary professionals rather than to focussing around the teaching of a number of disciplines not connected to each other. **Clinical teaching needs to rely on availability of teaching animals as well as on a wide range of clinical cases being presented on a regular basis.**

**The Faculty should contract a number of private veterinarians as adjunct teachers** as this would allow all student to have a chance to perform spay/neuter surgeries of pets, clinical examination of horses and cattle, and regular herd health visit including reproduction management. The concept of Day-1 skills needs to be introduced.

**Collaborations with private farms should be expanded and better exploited also for veterinary public health** teaching as private enterprises offer a unique possibility to have a wide range of disciplines being taught in a modern way.

**A mobile clinic and a system to allow student to have experience within an emergency, 24 hr/day, 7 days/week type service is mandatory.**

**The hospital should be fully organized** (see also Chapter 6). At present, the Hospital does not have a clear structure. A system with a Head of the Hospital (preferably but not necessarily a person who does not belong to any of the departments working in the hospital), a financial- administrative office, and different services, should be developed. It might be organized, as an example, in 2-3 main services: small animal service, large animal service, mobile clinic, and common services such as diagnostic imaging service, clinical pathology service, pharmacy, hospitalization etc..

#### Potential major deficiencies:

**1) Lack of a functional mobile clinic for farm animals or lack of specific contractual arrangements to compensate.**

**2) Lack of clinical hands-on training in all animal species (companion animals, equines or farm animals) due to low case load**

**3) Groups too large (in excess of 5-6 students) for adequate hands-on clinical training of each student.**

**4) No adequate programme offered for farm access, usually resulting from lack of cooperation with local private practitioners.**

**5) Lack of a 24 hour emergency service 7 days per week, in clinics for companion animals and equine (see also Chapter 6.2.3)**

**6) Severe deficiencies in the application of the principles and EU standards of animal welfare in the clinics, farms and slaughterhouses.**

**7) Incompleteness of or inadequate accessibility and maintenance of clinical records.**

**8) Absence of a plan to ensure that all necessary Day-1 skills are being acquired by the time students graduate.**

#### **4.5 FOOD HYGIENE & TECHNOLOGY AND VETERINARY PUBLIC HEALTH**

##### **4.5.1 Findings**

The Division of Food Hygiene and Technology has one Department of Food Hygiene and Technology. This department consists from two subdepartments - Food Hygiene & Technology and Veterinary Public Health. New premises and equipment for food hygiene were being worked upon at the time of the EAEVE visit, but not available when the EAEVE Team arrived. No laboratory (chemistry, physics, microbiology) are available for practical training. The Department of Food Hygiene and Technology has only 4 academic staff and guarantees teaching on four subjects of food hygiene (Food hygiene and control, Veterinary public health, Milk hygiene and technology, Meat hygiene and technology). These subjects are taught in the 8<sup>th</sup> semester for a total of 176 teaching hours (88 hours theoretical and 88 hours practical training). In the SER there is no information about linking to other subjects (such animal production, pathology etc.). The co-operation between departments is very low.

The technology of milk and meat products is included in three subjects (Food hygiene and control, Milk hygiene and technology, Meat hygiene and technology). For practical training of milk products the department uses a Milk Products and Technology unit. This facility is part of the Erciyes University but does not belong to the FVMEU. The teachers of the Department of Food Hygiene and Technology organize here their practical training, however this facility is used also for other purposes outside the Faculty. The students do there some basic technological procedures (pasteurisation of milk, production of kefir or some soft cheese) including some basic chemical testing of milk. These practices are done under the supervision of the teachers of the department.

There is no obligatory extramural training in the field of food hygiene. Food hygiene training is also organized during the Internship at the 5<sup>th</sup> year which consists from 12 hours of theoretical and 8 hours of practical training. Students spend time at the teacher's office discussing some important topics; the practical training consists of repeating some basic technology at the Milk products and technological unit (student visit only once this facilities).

Concerning other aspects of VPH, in particular zoonoses, toxicological and chemical residue and microbial resistance, these issues are briefly presented in theoretic classes and apparently there is no integration with other subjects such as microbiology, virology, parasitology, toxicology, pharmacology, ecology and animal production.

Considering the 20 hours of practical teaching during the Internship, the total number of teaching hours in the field of Food Hygiene is 196 (176 + 20). Of these, 96 hours are of practical and 100 hours are theoretical teaching. The SER features a different figure (224 teaching hours) which according to the information obtained from the food hygiene staff is probably overestimated. The ratio between total number of curriculum hours (4192) and total number of hours of food hygiene (196) is only 4,7%. This ratio is well below the suggested ratio (12%).

##### **4.5.2 Comments**

- The ratio of Food Hygiene and Veterinary public health is very low (4,7%)
- The department guarantees 4 subjects with 4 academic staff. Many topics from each subject overlap (e.g. microbiological testing, basic chemical analysis, infectious diseases ect.) .
- There is not any available laboratory (chemical, microbiological) for practical training for the students in the field of food hygiene (at the moment when EAEVE team was present).
- The department has no cooperation with official veterinarians at the slaughterhouses and food processing plants
- There is no farms with pigs available and students do not do any pig inspection at the slaughterhouses

- The practical training at the slaughterhouse is inadequate as many professional acts are not performed properly or overlooked by the teachers (lack of protective boots, using the same protective clothes worn at the slaughterhouse to enter the meat processing plant, lack of respect for not crossing clean and unclean parts in the food processing plant)
- The number of inspected animals is insufficient
- There is no agreement between the Faculty and slaughterhouse/s so it is not possible to plan in advance which species to be slaughtered will be seen and also the number of the slaughtered animals.
- The present number of teaching hours in SER is overestimated. In reality students do not spend enough hours in practical training or at the slaughterhouses unlike what is mentioned in SER or based on what teachers say.
- During the internship the students only repeated knowledge and some investigations done in previous year.
- The overall exam in the field of Food Hygiene is only theoretical and it deals only with topics from meat inspection.

#### 4.5.3 Suggestions

- The number of teaching hours in the field of food hygiene has to be increased (should be no less than 12% of total number of teaching hours).
- More practical training should be introduced; especially in meat inspection. The meat inspection of all available species (cattle, poultry, sheep, goats) in defined numbers should be guaranteed.
- The faculty should reorganise the size of departments. For an important topic such as Food Hygiene a department with 4 academic staff is too small to ensure high-quality education and research
- The content (topics) of subjects ensured by the department overlap. Many topics are repeated from other disciplines (microbiology, infectious diseases) and also in the subjects (disciplines) covered by this department (microbiological testing, basic chemical analysis etc.). The content of these subjects (especially lectures) should be reorganised and reduced.
- During internship the students should be trained to solve for example case study instead of having to memorize concepts in order to pass a test.
- Slaughterhouse veterinarians should be contracted by the Faculty, as this would allow the FVMEU to require their formal involvement in practical training of its students. This would prevent situations such as a group of students being at the slaughterhouse without the presence of official veterinarians. Having a formal task as adjunct teacher of the FVMEU might stimulate official veterinarians to be more collaborative.
- Obligatory extramural practical training at the slaughterhouses (approximately 2 weeks) during vacations should be introduced for 4th or 5th year students .
- A clear plan on how to structure the new premise for food hygiene should be made, as this would enable EAEVE to assess its quality thus preventing future errors in this respect. The fact that currently students do not have any laboratory for practical training at the faculty is perceived as a problem.
- The participation of the students especially in practicals at the slaughterhouses is not recorded. The staff should keep records about presence of the students, number of hours spent by each student and number and species of inspected animals.
- The Internship should be reorganised: during this time students should receive new information and be enabled to learn new professional techniques of investigations and not only repeat what they have already done previously
- A practical exam in meat inspection should be introduced .
- Day-1 skills in Food Hygiene should be established, and the FVMEU should make sure that all students acquire these skills prior to graduation.

**Unless the situation in the field of food hygiene is resolved, there is an indication for a Major Deficiency due to lack of practical hours at the slaughterhouses including inspecting all animal species (except for pigs), controlling welfare and checking identification of slaughtered animals. Also, obligatory extramural praxis at the slaughterhouses should be included in the curriculum.**

#### 4.6 ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS

#### 4.6.1 Findings

Every semester, 1-2 hours/week are filled in the timetable with Elective Subjects. There is a very long list of 105 Electives on pages 25-29 of the SER which includes subjects that should be considered as fundamental such as: Dissection and Exenteration of Domestic Animals, Mycology, Parasitic Zoonoses, Basic concepts in Pharmacology, Basic concepts in Toxicology, Contraception in dogs and cats, Pig production, Ultrasonography use in gynaecology, etc. Most of these subjects included in the list are actually never taught, as their availability is dependent on the number of students registering (minimum 10).

#### 4.6.2 Comments

The list of electives is too long. This leads to fragmentation of request from students, which is one potential cause why many electives are actually never implemented. Also, some subjects indicated as Electives are difficult to accept as such, because they include basic topics of high importance in the Veterinary Medicine Curriculum.

#### 4.6.3 Suggestions

**The list of electives should be reconsidered and reduced.** Elective topics cannot be labelled “Basic definition and concepts in..” when dealing with important disciplines such as biochemistry, pharmacology or toxicology. Also, while some topics clearly fit well within the Elective list (i.e. Regulation of Body Temperature, Bee diseases, Oral and Jaw Surgery) most electives under Clinical Sciences and Animal Production deal with topics which should be included in the normal curriculum, such as Veterinary Oncology I and II, Clinical Pharmacology, Clinical Toxicology, Pig Diseases, Ultrasonography, Clinical Oncology and many others. **This should be considered as a major deficiency**

Optional subjects might be an excellent opportunity to stimulate collaboration of Faculty with practitioners, professional associations and state veterinary services, involving professionals and experts both in teaching and training. On the other hand, access to optional disciplines might be a good opportunity to develop continuing education among veterinarians in the Kayseri area.

## 5. TEACHING QUALITY & EVALUATION

### 5.1 TEACHING METHODOLOGY

#### 5.1.1 Findings

Coordination and implementation of the curriculum is under the responsibility of the Executive Committee of the Faculty. Despite the presence of a relevant number of “practical courses” on the curriculum and also on practical demonstrations to be made by the different departments, many of these are actually not offered to the student either because of lack of time or because there is no animal material. Teaching methods are deeply based on theoretical lectures. It is not interesting for teachers to give practical teaching as the salary is closely related to the number of theoretical teaching offered. A correct balance between practical and theoretical teaching is present on paper, but in reality the curriculum is quite unbalanced and theoretical teaching is by far and large the most important form of teaching.

Practical teaching is done by research assistant, PhD students or junior lecturers. PhD students who want to become part of the teaching staff have to take a special exam on the subject they want to teach as well as courses on pedagogy, on assessing and evaluating learning by students and also on psychology.

Learning objectives are not well defined. Students use teacher notes to learn as well as notebooks provided by the library or directly pick up from the internet. There is no evaluation of the course either by the students or by the peers. There is no indication of discipline/s where Day-1 skills are to be acquired and there is no way to monitor whether or not students acquired them. Lectures and practicals are compulsory, but students are allowed to miss 30% of the lectures and still be allowed to take the exam. Depending on the case, a teacher may decide to allow a student to miss up to 50% of the theoretical lectures (i.e. for health reasons etc.).

Students study regularly from notes and power points provided by the professors. They also use scientific books written in Turkish or translated from foreign languages. Only rarely they use books written in English, mainly due to the price of the books and a common language problem. There is a 4-week obligatory extramural work during the summer between the fourth and fifth year, which may be accomplished in different clinics, official institutions, factories, slaughter house, etc. The student's choice is submitted to the Extramural Work Committee for approval. There is no system to register student's accomplishments in clinical and practical training. Also, there is no list of skills to be gained during such period, or a way to monitor the performance of veterinarians acting as supervisor during those 2 weeks. With regard to the progression in the course, students cannot register for more than 40 hours of lectures per week, and no overlapping of lectures is allowed. Therefore, provided that the "No overlap" rule is respected, in theory a student can be registered in disciplines from more than one year at the same time.

Assessment of the quality of teaching at the FVMEU is done through evaluating student questionnaires, staff surveys, success levels in lectures, graduation level criteria's etc. There is no external evaluator. Based on interviews of the students and some faculty members, it seems that only a small proportion of these questionnaires are actually filled out and handed in by the students. There is no formal procedure for the handling of results, although some teachers may give a verbal feedback to the students on the first day of the following term. The role of students in the evaluation process appears to be negligible and to be having, so far, no consequences. Results from the evaluation through faculty administration were not readily available to the Team. The faculty plans to collect the results for long term statistical analysis. Intradepartmental evaluation was not documented Likewise, good teaching is not officially rewarded.

Problem based learning is not commonly used. This is actually mentioned in the SER as a concept, but the Team had no indication that this is actually being implemented or developed at the FVMEU. Also, there is little if any participation of undergraduate students in research projects. Similarly, there is little if any interactive computer-assisted learning (the Team was informed that some interactive tools were being prepared for the students, but we had no opportunity to see examples of that).

With regard to student safety, protection in anatomy practicals does not include wellington boots or aprons. Protection during pathology practicals could not be appreciated as necropsies are not taking place. Safety measures against aggression are taken in small animal consultations. Rabies is a concern but no rabies vaccine has been introduced for the students or teachers.

### 5.1.2 Comments

Students are upset of the lack of practical teaching and this is also pointed out by the veterinarians graduated from the school. This is not acceptable for a modern veterinary program. Also, the fact that clinical or practical skills are not evaluated does not offer the student the opportunity to learn about them.

The lack of evaluation of courses is a weakness that leads to absence of evolution in the curriculum and in the teaching methods

### 5.1.3 Suggestions

**Practical teaching should be developed further and increased to constitute at least 40% of every discipline from the first year onwards.** In many European Veterinary Schools some part of the curriculum are actually done during practical teaching only, and students then use their self-study time to go back and review the theoretical aspects of those topics not dealt with during a formal lecture. The fact that the level of salary depends on the amount of practical teaching does not seem to be a national feature as it does not appear on EAEVE evaluations of other Turkish Veterinary School. If this is a feature of Kayseri University the Rector should find the way to eliminate such distortion by i.e. introducing a quota of salary for practical teaching, and/or establishing that a minimum part of salary has to come from practical teaching and/or paying practical teaching more than theoretical teaching so that the former can be considered more attractive from teachers. **The insufficient amount of practical teaching should be considered as a major deficiency**

**The concept of Day-1 skills (the list of minimum skills that a veterinarian should have acquired on the day of graduation) should be introduced.** A logbook listing of day-1 skills featuring all professional aspects of veterinary teaching (clinical skills for all domestic animal species, public health skills, food inspection skills etc.)

should be used in clinical teaching. The logbook should include all the Day-1 skills listed in the 2005 EU Directive. Each student should have a personal logbook, and for each activity there should be the signature of the faculty member in charge of teaching that skill and the date in which the skill was acquired. The logbook should also feature the countersignature of the Director of the Degree Course or the Dean. A list of these skills is also available on the EAEVE SOP. **This should be considered as a major deficiency**

**A regular evaluation of each by the student should be adopted to improve teaching methods.** A system to force all students to fill out and hand in all teaching quality assessment questionnaires should be introduced (such as including this as an obligation before students sit for the exam) as otherwise the assessment of quality of teaching cannot be regarded as effective. **This should be considered as a major deficiency**

**The interdisciplinary aspect of learning objectives should be supported** by joined teaching of participating departments. Also, Problem-Based Learning should be introduced.

**A reward system for best teachers should be introduced**

## 5.2 EXAMINATIONS

### 5.2.1 Findings

There is no central examination policy for the veterinary school, as each department prepares and runs its own examinations. There is no separate time set aside for revision. External examiners are not used at any stage of the curriculum. For each semester of 16 weeks there is a mid-term exam and then a final exam with a repeat exam (termed a “make-up exam”). Students who fail the final exam can repeat the exam after taking a summer school. There are no special periods for midterm exams (without teaching) during the year for examinations. For the final exams there is a period of three weeks. There is no interval between the end of lectures and the beginning of the exams.

The type of assessments used are written (either MCQ or short answer) or oral/clinical. The scoring system is the same used in all Turkish Universities and goes from AA (100% correct) to FF (10%), with the minimum passing score being CC. If the score obtained in the midterm exam is insufficient (< 40% of correct answers) this has to be compensated with high score in the final exam (> 60% of correct answers).

Students who fail any of the “make-up exams” are allowed to continue on the veterinary course and attempt to pass the final exam in the following year. However, if they fail again they cannot enter the subsequent year and have to leave the school and attempt to pass during a subsequent year. There appears to be no limit as to how many times a student can attempt an individual exam, although there is a financial penalty which increases year after year. This situation appears to be imposed on the Faculty by national rules allowing failed students multiple chances of resitting an exam

There are no practical examinations in any subject along the entire course. A blocking system has been recently introduced in some disciplines (e.g. pathology) allowing to stop students from advancing in their career if they have not passed certain exams. Staff often set time aside after each exam to go through the questions with the students

### 5.2.2 Comments

The examination system appeared to be effective in the context of setting questions that covered the relevant courses and were, at least in the papers the Team had access to, reasonably testing of a student’s knowledge

There appeared to be little evidence of a formative approach for any of the examiners

There was little if any evidence of a problem based approach within the curriculum and certainly no evidence of assessment of such skills.

### 5.2.3 Suggestions

A system involving external examiners would be difficult to introduce across the whole Faculty, but nevertheless experienced clinicians could be introduced to act as external examiners during the final round of examinations, in order to assess the students knowledge and experience of “Day-1 Skills”

Students should be allowed sufficient time for revision before the final exams at the end of a semester. This time would be most easily achieved by a reduction in the number of lectures

Exam sessions should not coincide with lecturing time, as this pushes students not to attend classes and increases their workload remarkably. Lecture free periods should be established for students to take their exams, as this would give them sufficient time to prepare without affecting class attendance leading to a more relaxed learning environment that encourages self directed learning.

In an effort to reduce the number of examinations, joint exams could be introduced. For example the following exams are normally combined in the majority of European Veterinary Schools: animal husbandry and nutrition; virology and bacteriology; obstetrics-gynaecology and artificial insemination. This would also have the beneficial effect of facilitating the merging of some departments.

## 6 PHYSICAL FACILITIES & EQUIPMENT

### 6.1 GENERAL ASPECTS

The FVMEU is composed of 4 buildings: a 4-storey administrative building (page 45 of the SER), and a set of three 3-storey buildings (A1, A2 and A3) with teaching facilities. Another large and conspicuous (due to its very modern architecture) building hosts a very modern, state of the art biotechnology laboratory for cutting edge research which is, however, not used for teaching. The Library is placed in a separate building and serves the entire Kayseri Campus. Also the Cafeteria is placed in a different building on campus, as well as a building with a very large lecture hall (the largest one serving the entire Kayseri Campus), and a recreational building with a Gym. On the corner of the Campus there is a small building with a pleasant, well-built 3-star hotel where the Team was hosted during the week. All the buildings are within walking distance from each other.

#### 6.1.1 Findings

The administrative building hosts the Dean's office and administrative offices, some teaching and research laboratories, lecture halls and a student's canteen. This buildings is almost complete, lectures halls are well designed, well lighted and all (except for one, the largest lecture theatre which is not finished yet) fully functioning and provided with powerpoint projection. Some laboratories have just been finished and are not furnished yet. In the laboratories, the tiles on floors and walls are placed with large joints in between them, and the corners between floor and wall are at 90° angle instead of rounded, which means that complete cleaning and sterilization is not possible.

#### 6.1.2 Comments

The administrative building is well made and imposing. However, the rooms due to host teaching/research laboratories seem to have been designed to be offices rather than labs because of the way tiles are placed making complete cleaning and sterilization very hard to achieve. In one of these to-be laboratories a heater has been placed on the wall at a height of approximately 2.0 meters.

Because of the fact that most laboratory space was still not finished, the team could not assess any further whether or not the premises of this building were suitably designed for research and/or teaching. The necropsy room does not comply with modern standards of equipment and hygiene. Large animal necropsies are virtually impossible to perform.

#### 6.1.3 Suggestions

**The Anatomy teaching laboratory should be adjusted and be fully functioning**, replacing the slippery floor and providing direct sewage for the tables.

**A new necropsy room should be built**, taking into consideration various aspects that may be critical for the future usage of this room: space available, doors large enough to allow the passage of cadavers of large species, cranes and rails in the ceiling, to allow for the handling of heavy weights, number and quality of dissection tables, enough for small groups of students (one at least for large animals), non-slippery floor, good drainage from the

tables into the sewage system and for the liquids on the ground, good illumination, refrigerators and freezers large enough to accommodate large animals, etc. **This should be considered as a major deficiency**

**The concept of biosafety in teaching and research labs should be fully implemented.** Equipment for safety within the laboratories should be included in all teaching and research laboratories. For the place not already finished, it is highly requested to modify the floor adapting corners and joints to meet minimal requirements for hygiene and biosafety. **This should be considered as a major deficiency**

## 6.2 CLINICAL FACILITIES & ORGANISATION

### 6.2.1 Finding

Buildings A1, A2 and A3, due to host clinical and pathology facilities, were under construction at the time of the EAEVE visitation. The ground floor of building A2 is finished and furnished and is currently hosting some clinical facilities with a limited number of small rooms including one for clinical exam, one for diagnostic imaging, one for preparation of surgeons and patients, one for surgery, one for hospitalisation and one with a very basic clinical chemistry laboratory (haematological analysis and staining of smears). The Team was not given a complete list of all equipment used in the clinical chemistry laboratory or in the clinics in general. However, available clinical equipment looks very simple and not very modern. There is no advanced diagnostic imaging equipment (CT-scan, MRI etc.) A falcon and two dogs were being hospitalised, the cages did not have any clinical record of these patients. Right next to the surgical area there is a slightly larger room with an outside entrance, which is currently used as an exam room for large animals: the floor of this exam room is paved with tiles which have a potential to become very slippery when wet. There is no attention to common safety measures (no red warning light outside of the Radiology room, oxygen tanks were free standing in the surgery area, no eye showers etc.). There are no rooms equipped with beds and toilet/shower for veterinarian/s and student/s on night duty.

Similarly to the laboratories of the main building, floors and walls of all rooms of A2 building dedicated to examination, surgery and hospitalisation are covered with marble-looking tiles assembled with large joints between them, which makes cleaning and sterilization difficult. No water exit is present on the floor. The hospitalization room is very small with just with a few cages. There is no toilet in the reception area for clients, which means that pet owners would be obliged to go through the entire hospital area if they need to go to the restroom. The surgical preparation room is separated from the surgery room by an automatic door that seems not to be very efficient. The room to be used for large animal examination is not really reachable from outside because of the work in progress, so no large animal cases are currently being seen at the FVMEU; also, even if the room is spacious enough to maintain a cow or even a horse, there is not enough place around an animal tied to the wall for performing a clinical exam safely with students; the floor is unsuitable for a large animal, as it is a bit slippery for hooves and may become even more slippery if wet. Proper air recycling and waste management systems are not in place.

Buildings A1 and A3 (still in an embryonic stage of development) looked pretty similar to A2 in their design. These 3 (A1, A2 and A3) buildings are meant to host internal medicine, surgery, reproduction and pathology. Their entrances are separated (so as to allow separate reception areas) but there are connections at the level of both first and second floor, where very large rooms are expected to be used as offices and laboratories. The amount of space on the ground floor is such that it would allow a minimal level of clinical activities, and very little if any interaction between clinicians of different areas. Based on discussion with faculty members of the clinical disciplines, these 3 buildings were thought and are being developed as completely separate entities and no sharing of space and equipment (3 separate receptions, clinical exam settings, diagnostic imaging and hospitalisation areas; 2 separate surgical areas and anesthesia services etc.). There is no hospital Director or no central administration for the VTH. Clinical records started being kept on paper as of March 2012 and in a very simple way, collecting only signalment, main clinical signs, diagnosis, name of the clinician who saw the patient.

There are no facilities for isolation of patients with contagious diseases. There is no separate reception and clinical area for dogs and cats. There is no 24h Emergency Service for any animal species, as well as no 24-hour Intensive Care Unit for hospitalised patients. There is no plan to establish an equine clinic or a large animal mobile clinic. The lack of pre-requisites (space, equipment and logistics) for a 24-hr emergency service within the 3 buildings A1, A2 and A3 was justified during the discussion with faculty members from the FVMEU with the idea that such an emergency service would subsequently be established in a different building. Also, there is no

cooperation of the clinical chemistry laboratory with other departments of the FVMEU and no external work is being done for outside clients.

More buildings (B, C D) should be built in the future but nothing could be seen at the time of the visitation.

### 6.2.2 Comments

In buildings A1, A2 and A3, the space on the ground level is not enough for proper clinical activities, and even considering that some space will have to be shared and resources will have to be in common, still some parts of the clinical activities (i.e. small animal surgery) may have to be moved on the first floor by reducing the amount of space dedicated to offices.

These premises appear to have been developed not for student teaching but rather for providing day-care of small animal patients. Therefore, there is a lack of some important security features (changing rooms, lockers, X-ray security) and some of the room are not built to allow correct hygienic and safe handling of veterinary medical situations. Also, facilities for organizing a 24-hr emergency service have not been considered (i.e. there are no rooms for personnel on night duty – both veterinarian and students). Transforming these 3 building into a modern veterinary teaching hospital will require a deep reorganization of spaces in order for resources to be shared and services to client to be provided commonly.

With regard to the clinical space the ground floor of building A2, this on seems not to have been designed keeping in mind the need and requirements of a Veterinary Hospital, but rather as a regular apartment building. There is no logical sequence of rooms leading patients from the clinical exam area to the diagnostic imaging area and then onto the surgery and/or hospitalization areas. There is no separation between sterile and non-sterile environments, rooms are too small to allow proper teaching, the tiles covering floors and walls are not designed for proper cleaning and sterilization, there is no room that can be properly used for intensive care, and the hospitalization area is too small. Clinical equipment is clearly not sufficient and appears not to be used enough to allow correct clinical teaching. A few instruments seem not to be in use.

Because of the design of the 3 buildings, there is no way a European level veterinary teaching hospital could ever be established at Kayseri University. Also, because of the lack of planning for isolation facilities, 24-hr service, intensive care unit, large animal hospital etc, there is no way buildings A1, A2 and A3 will ever allow for an adequate clinical teaching for veterinary students with an appropriate case load. A deep restructuring of these 3 building will be necessary in order for the FVMEU to establish and maintain a veterinary teaching hospital of a standard sufficient to receive EAEVE approval.

The Team did not see evidence of any substantial amount of collaboration among departments in clinical teaching on a regular basis. The way buildings A1, A2 and A3 have been designed is certainly not conducive to a type of collaborative and interdisciplinary teaching.

### 6.2.3 Suggestions

There is an urgent need for a deep reorganization of the three buildings A1, A2 and A3 with the goal of a) sharing resources, b) establishing common services by having clinicians collaborate strictly with each other, and c) increasing the amount of space available for clinical teaching without separation of disciplines. Proper hospital organization was a serious concern for the Team. A veterinary teaching hospital cannot work properly unless all the veterinary and lay personnel collaborate under a common functional structure within a single administration and have as their scope to provide clinical services to clients while at the same time using the caseload for teaching purposes.

**The VTH should be fully reorganized.** This structure must have a Director (Head of hospital) who is in charge of the financial and administrative issues of the hospital. The Director could be one of the professors from the Faculty although ideally (to avoid conflicts of interest) such a role should be assigned to someone from outside the Faculty. The Hospital should be organized in services to be provided within as well as outside the VTH.

#### Service within the VTH:

- a small animal service
- a large animal service

- central support services such as surgery, anesthesia, diagnostic imaging, clinical chemistry laboratory, histopathology laboratory, pharmacy, hospitalization, 24-hr emergency service for small and large animals etc.

Services outside the VTH:

- a mobile clinic (which normally includes offering both clinical services to single animals as well as herd health management consultation services to dairy farmer on how to properly run their farms of increasing size) etc.

For instance, there should be a single surgery unit to be used both by general as well as reproductive surgeons. Such a unit might require to use four or five rooms of the ground level of building A1 for instance, depending of the number of surgeries to be provided every days. This unit could be served by a single sterilisation unit and by enough rooms for preparation of the patients and the surgeons. The entire surgery section should be located in a part of the VTH forbidden to the public (therefore, there should be restrooms for clients next to the waiting area). If necessary, the surgery unit and all the support rooms could also be located in the first floor, provided anesthetized animals may be transported with an elevator. On the ground floor there should be an examination unit for general purposes connected with the waiting room for clients, provided with at list 4 exam rooms and a lab located nearby. Perhaps such a section could be placed in building A2, and could be open on a 24:24, 7/7 basis, thus forming the basis for an emergency service.

**The space allocated for hospitalization should be increased and provided with separate premises for dogs, cats and wild/exotic animals.** There should be a number of rooms for specialist services (i.e. a room for ophthalmology, one for neurology, one for dentistry, one for reproduction, one for surgery etc.). There should be also enough space to host a diagnostic imaging section and a pharmacy. All the rooms of the VTH should be equipped with a computerized system to allow for a proper recording of every patient, online following of cases and searching the database for research purposes. Support staff is fundamental for a proper running of VTH operations. An isolation unit must be available with a separate entrance from outside and provided with a space to sterilize the veterinarian/technician upon entering and leaving the environment, as well as with proper air recycling and waste management systems

**A separate clinical facility should be built for equine and large animals,** with adequate equipment and considering safety for students and animals. Such a clinic should be established close enough to the small animal clinic so that some facilities and equipment could be shared by the two clinics (clinical chemistry laboratory, mobile ultrasonography units, some surgical equipment, room and services for veterinarian and students on night duty, etc.). An isolation facility for large animal is also necessary with same features as above.

**Standard safety and biosecurity regulations should be implemented and strictly followed by all users of the small and large animal clinics.** These regulations should be clearly written and properly posted safety in each room and onto or around any safety equipment in the clinics

**An emergency service must be established within the VTH for both the small and large animal clinics.** The idea to establish the 24-hr service in a separate building makes absolutely no sense: equipment and facilities would have to be doubled, time would be lost in moving patients back and forth, and during the day it would be difficult to keep people monitoring the animals in a place far away from where all activities are going on. Nobody likes to be away from the main hospital just to be watching a dog with a saline infusion. Obviously one may say that technicians or students can be easily forced or “commanded” to man the Emergency Service. However, the importance of motivation must not be underestimated, as when people are highly motivated they end up in providing a high quality service, and high quality services are the key to excellence.

**The number of technical staff working for the hospital should be increased.** At present, most of the technical work is done by postgraduate and teaching staff. This is a poor use of human resources, a waste of time for teaching and research staff who obviously end in being less productive. This technical staff should be under the direction of the new Hospital structure suggested, and not under the different departments.

**The FVMEU should provide the Teaching Hospital with advanced diagnostic imaging equipment** (modern ultrasonographic units, CT-Scan, MRI, Radiotherapy etc.).



## 7 ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

### 7.1 Findings

For anatomical teaching a limited number of cadavers has historically been used including (as stated by the SER on page 50) only 2 donkeys as large animals, 2 ewes, 2 goats and 2 dogs. A small number of organs and some plastic phantoms are being provided for practical teaching (brains, hearts, kidneys and livers). The anatomical museum features a dozen or so skeletons (at least one for each domestic species) and a few other items such as a set of teeth. Preservation in formaldehyde is currently performed, and ventilation of environments where preserved carcasses are being kept is not optimal. There is little if any use of animals in physiology practical teaching.

Although staff members in pathology appear to be active in performing autopsies, the use of animals in pathology has not been recorded throughout the years. As a result, there are no figures as to number of necropsies over time, and Table 7.2 on page 51 of the SER was left blank. Facilities for performing large animal necropsy are supposed to be established in one section of one of the new large animal clinical buildings. Despite the SER citing an increasing success in obtaining carcasses from the Faculty clinics and from local practitioners, the Team could not find evidence of any relevant use of animals in practical teaching in pathology.

A University farm (Erutam Farm) is available for the FVMEU to be used for practical teaching in animal production and in clinical disciplines. This Farm hosts a total of approximately 180 bovine heads including Holstein and Holstein crosses as well as local dairy breeds, and a poultry barn where a good number of egg-laying hens are kept in cages. The farm is poorly run, facilities are old and in poor conditions, animals are not kept in a clean environment and with little if any attention to welfare conditions; record keeping for dairy cows is minimal and only on paper. Students are taken to this farm, although this does not seem to happen on a regular basis nor does it seem to be a requirement for all 4<sup>th</sup> and/or 5<sup>th</sup> year students. Students' involvement in sheep production is probably adequate, although no student could be seen working with sheep when the Team visited the Farm. There is no interdisciplinary approach to teaching in the Farm: students are taken there by one teacher at a time (e.g. animal production, parasitology, internal medicine, reproduction etc.), and often with little if any involvement of the veterinarian working at the Farm (see over).

There is no regularly scheduled practical activity on feed analysis and evaluation, on pet nutrition or on horse nutrition, as well as no practice on animal behaviour or animal genetics. Practical work in the animal production subjects at the Erutam Farm cannot be done properly because of poor maintenance, equipment and design. The Team was told that the Erciyes University is considering financing a restructuring plan for the Farm. However, the plan was not available for consultation by the Team

For Food Hygiene/Public Health, the FVMEU has a Milk Product and Technology unit which is used for practical training of milk products (see also Chapt. 4.5.1). The students do there some basic technological procedures (pasteurisation of milk, production of kefir or some soft cheese) including some basic chemical testing of milk. These practices are done under supervision of the teachers of the department.

Students have access to some slaughterhouses (although there is no agreement between the Faculty and any slaughterhouse) and some meat processing plants. Meat inspection is organized at the slaughterhouses. Students are expected to spend 16 hours at slaughterhouses (doing control of welfare, ante and post mortem inspection) and should visit at least 4 different slaughterhouses, but in reality this is rarely achieved. Cattle, sheep and goat are the only species addressed in meat inspection practices. Pig, rabbits and honey inspection and processing are not covered for various reasons, from religious grounds to eating habits. The total number of pigs in Turkey is very low (only about 1500 heads) and it is therefore difficult to guarantee such kind of practical teaching for veterinary medical students. Egg inspection is addressed both at lectures and laboratory practices. Poultry and fish and fish products inspection are briefly addressed in lectures but do not have practices.

In Turkey both the ritual slaughter and normal slaughter with stunning are performed. The food hygiene expert visited one slaughterhouse (Sahin). Here, ritual slaughter is used for beef and sheep but the hygienic conditions are insufficient. During the visit of the EAEVE expert there was no official veterinarian, and animals were not inspected either ante or post mortem. In fact, at this facility there is no place on the slaughtering line for post-

mortem inspection. There is no welfare control, no identity control is performed and post mortem inspection during the visit of the EAEVE expert was made only on one piece of intestine, two pieces of lungs and two heads for four students. The teacher did not make any identity check of carcasses and organs. There was no training of HACCP protocols at this slaughterhouse.

In meat processing students can only observe the technological process under supervision of teachers. Also, there is no obligatory extramural training in the field of food hygiene. Food hygiene training is also organized during the Internship at the 5<sup>th</sup> year when students are divided in small groups (approximately 4-6 students) and review at the teacher's office topics of practical importance; the practical training consists of repeating some basic technology at the Milk products and technological unit (student visit only once this facilities).

For clinical disciplines, students can take advantage of the University Farm Erutam but not all students will have an opportunity to go there. Teachers will normally call the Farm management and ask if they can go with some students, rather than going there following a regular schedule. There is a veterinarian working on the farm who takes care of the daily routine of supervising animal care and nutrition as well as performing artificial inseminations, pregnancy diagnosis etc. Heat detection is very basic. Staff members of the FVMEU are called whenever there is an emergency or a complicated case on a ruminant. No use is made of computerized herd health management, reproductive indices are not used nor calculated.

The FVMEU has an agreement with a large dairy farm of the Saray Holding, about one hour drive outside of Kayseri. This is a modern, well managed and properly run operation (the largest or one of the largest in the country) with several thousands heads of Holstein cows divided in paddocks according to their reproductive status and production level, well fed with modern silage systems and milked in a fully automated milking parlor. Students spend there 4 weeks during the summer of their 5<sup>th</sup> year in small groups (5-7 students) working with the local veterinarian (who works full time for the Farm). This Farm has also a milk processing plant where cheese products are made and sold, although veterinary students do not do any food hygiene training here.

The FVMEU does not operate a 24-hr emergency veterinary service for small animals or equines. Also, there is no mobile clinic. There is no vehicle for the transportation of sick animals and no mobile clinic for any species. Sometimes the teachers are called for consultation (horses). However, there is no scheduled series of visits to private farms and, when a teacher goes on a farm visit students may go along but are not obliged to (although in principle their attendance is expected and it often occurs). These consultations are not recorded, come up rather irregularly and with a low frequency. Equine colic surgery is not performed in the Kayseri area, and even the number of equine castrations done by FVMEU clinicians was perceived to be so small that few if any student have an opportunity to attend or even see a horse castration prior to graduation. There is no practical training on porcine or rabbits.

In the Small Animal Clinic recording of clinical cases started to be done on paper in early 2012: the caseload for small animal and wild birds is still insufficient to allow adequate hands-on clinical training, although a rising trend was evident during the course of the year. The record system is handmade and very basic, so following cases up is very difficult. Each new visit, even for a follow-up case is considered as a new case which makes it difficult to backtrack a case. There is no small animal emergency service, and hospitalization is minimal. Few if any students have an opportunity to spay/neuter a cat or a dog. This could probably be done by establishing a formal agreement with the local shelter.

There are no records for large animals or equine and the student can avoid to handle cases of either species if they are not interested in. There is no recording of necropsy case load, and the Team was told that only very few necropsies are performed on a yearly basis across species. There is no equine medicine & surgery case load, the only cases that student could see are outside cases, only on demand and depending of the teacher and the private farms (20 cases a year in one farm).

There would be the opportunity to make an intensive use of the university Erutam farm as well as set up agreements with some private farms present in the Kayseri area, but this has not been done yet.

The lack of utilization of external animal material that are available limits the case load. There may be interesting opportunities for establishing agreements with private farms with very good standards of equipment and practice. There are no riding clubs, no dog and/or cat fancy clubs or exotic animal clubs organized by students.

There are no European College Diplomats among the FVMEU clinical or non-clinical teaching staff.

## 7.2 Comments

There is little if any availability of live animals or cadavers to study anatomy, which makes practical teaching in anatomy insufficient. The number of necropsies of equines and companion animals is well below standards.

Practical training in Food Hygiene is inadequate. Students are not given adequate exposure to slaughtering of various species as well as to materials for supporting food hygiene training

There is no adequate clinical material available to enable staff to maintain and improve their clinical skills, particularly in large animals. There is an imbalance between small animal and large animal cases because large animal caseload is very limited, and the few cases seen at the FVMEU premises are not recorded.

The case load for small animals and (to a lesser degree) for bovines has increased in the last 3 years, but it seems that adequate opportunities are not offered to students to handle the common surgical and medical procedures like general health examination or small animal neutering. Also, it is very difficult for students to be properly trained in equine and exotic animal medicine, as the case load of horses/exotics is anecdotic. The lack of hospitalization facilities, isolation facilities, as well as emergency service for animals at the Hospital means that students are not properly trained in some fundamental aspects of the veterinary profession (hospitalization, isolation and emergency medicine). The record system for small animals is not computerized and not suitable for modern teaching as well as for clinical research, as it is not possible to follow easily the diagnostics and treatments of the same case over time.

The extramural training done at the Saray Farm provides a good opportunity for students to practice large animal work. However, the absence of a list of Day-1 skills during the veterinary curriculum means that students while at the Saray farm do not concentrate on some specific skills trying to acquire them, but rather focus on generic aspects of large animal clinical practice (see also Chapter 5.1.1). Also, the veterinarian working at the Saray farm is not a member of the teaching staff of the FVMEU, and as such he is not accountable to the Faculty for his training of the students – i.e. he is generically responsible for their training but is not committed to having them learn a pre-determined set of skills.

There is no practical training on porcine and rabbit.

## 7.3 Suggestions

**A larger amount of fresh chilled and/or prepared material should be available for practical teaching in anatomy.** Formaldehyde should not be used for cadaver or organ preservation. **This should be considered as a major deficiency**

**The amount of practical teaching in physiology and other basic disciplines should be increased. This should be considered as a major deficiency.** Students should have the possibility to interact more with live animals. This could be done by the FVMEU also by stimulating and helping students to establish on-campus animal activities such as a riding club or a dog and/or cat fancy club or an exotic animal club. Such clubs are normally run by students and staff and are often an excellent facility for the safe teaching of animal anatomy, physiology and husbandry, where students get to do a lot of practical experience on handling animals.

**There number of necropsies of both large (particularly horses) and small animals should be increased.** Efforts should be made to obtain such material from different sources such as local farms and the veterinary practitioners in or near Kayseri. **This should be considered as a major deficiency** as already addressed on chapter 4.2.3.

**Students should be given more opportunities for practical training in food inspection** by attending a higher number of slaughterhouses of various species as well as by being provided with more material for supporting food hygiene training. **This should be considered as a major deficiency**

**It is essential to initiate a mobile clinic service for farm animals.** This would have to be developed in cooperation with local practitioners and would need further investment in vehicles capable of towing portable crushes and animals. **This should be considered as a major deficiency**

**The case load in small animals should be increased.** A computerized record-keeping system for the small animal clinic should be established through which clinical records could be backtracked and searches could be done using keywords. **This should be considered as a major deficiency**

**Students should have the possibility to perform some basic surgical techniques in small and large animals prior to graduation, such as spay-neuter in dogs and/or cats or castration in stallions. This should be considered as a major deficiency.** For small animals this could be done by establishing a formal agreement with the local shelter, where students could practice spay-neuter surgeries.

**Efforts should be made to a) reduce the size of groups of students visiting farms or doing practical activities and b) involve them in more hands-on practical work such as animal handling/feeding/milking etc. This should be considered as a major deficiency**

**The case load in food animals and equines should be increased. This should be considered as a major deficiency.** This could be done by establishing agreements or regular contracts with private large animal farms from the Kayseri area so that students could be taken to such external structures under the supervision of a teacher. This will provide adequate support for practical teaching in bovine herd health management and in equine practice.

**The Hospital should be provided with adequate instrumentation** to enable up-to-date training in diagnostics and treatments. **This should be considered as a major deficiency**

**Extramural training should be controlled by the FVMEU.** Members of the teaching staff should be in charge of extramural training, or a practitioner should be hired as a contract professor and his salary be subjected to his teaching performance, which should also be evaluated by the FVMEU and the students. It should be underlined that clinical extramural training cannot entirely be used as substitute for adequate intramural training. **This should be considered as a major deficiency**

**Practical teaching in poultry and particularly rabbit medicine and husbandry should be increased.**

## **8 LIBRARY & EDUCATIONAL RESOURCES**

### **8.1 Findings**

The FVMEU has no Library of its own in its current facilities, although a large hall of the main building is supposed to be transformed into a Veterinary Library. Presently, students and teachers of the Veterinary School use the University of Erciyes Central Library, Kadir HAS Central Library (KHCL), which is located in the centre of campus with an easy access for all faculties. The books and journals of the previously existing Library are now property of the University Library. The KHCL building has an area of 10.400 m<sup>2</sup> and capacity for 650 persons at a time. It is opened from 08:00 to 22:00 on week days, from 09:00 to 13:00 on Saturdays and it is closed on Sundays.

In the KHCL, collections (book Journals etc.) are catalogued with the Library of Congress (LC) system and students and researchers use it in an open shelf system. The books of Veterinary Medicine are shelved according to the above mentioned classification system. Students and teachers have access to bibliographic information through the KUTUPHANE Database. Each student has a password and can access the database remotely. The KUTUPHANE Database gives access to 42 international databases, including:

1. 86 000 published books

2. 85 000 e-books
3. 45 000 journals
4. 2 million thesis
5. 5000 dissertation prints

On the first floor of the library there is a large number (approx. 100) of PCs with internet network for the use of academic personal and students. Wireless internet services are also provided. The FVMEU has a computer room with 20 computers used in practical lectures but access of students to this room is somewhat restricted.

## 8.2 Comments

The fact that there is no Library in the FVM is largely overcome by the excellence of the Central University Library: the easy access to books through the KUTUPHANE Database seems to solve all problems of acquisition or loans. However, restrictions to the access of the computer room in the Vet School prevents students from taking full advantage of the KUTUPHANE Database. Few teachers post their power point presentations from lectures online.

## 8.3 Suggestions

**A freely available computer room with a large enough number of PCs should be established within the FVMEU** in order to improve access of all students to the study material available in the KUTUPHANE Database. All students should be properly trained on how to use the most common search engines when looking for papers and journals online.

**All teachers should place their presentation online.** Students should not have to ask teachers for making their powerpoint presentations available. Teachers should also be helped in learning how to do it, as lack of adequate knowledge of internet may thwart efforts of proactive staff members in providing students with class material.

# 9 ADMISSION & ENROLMENT

## 9.1 Findings

Admission to higher education is made through a two stage nationwide student selection procedure applied to high school graduates. Candidates are admitted to higher education institutions on the basis of their success in the examination and their high school grade-point averages. There is no selection criteria for Turkish Veterinary Schools which is based on professional knowledge. The candidates have the possibility to order their choices by preference, but allocation depends on the grades obtained in the national exam. The FVMEU at Kayseri is rarely a first choice.

The Faculty determines the capacity of student intake and the Dean informs the University about the decision. The number of students is confirmed by the University Senate and proposed to the Turkish Council of Higher Education (YOK). The YOK has the power to accept, alter or reject the proposal. Over the last few years the FVMEU has admitted about 70 students per year. Turkish university students can take as long as they want to finish their studies; however, after a certain number of years have elapsed from initial registration the amount of tuition fees increases.

The ratio of male to female students is about 4.5:1 (317:70). The low numbers of women enrolled does not reflect limitations of any kind. There is a tendency to increase the number of females in the future as demonstrated by the proportion of female students starting the course which has increased significantly in recent years. Students with financial difficulties can apply for state grants.

The SER does not feature any information on the drop-out rate other than stating that it is considered normal. It appears that a recent law allows students to study for as many years as they want, thus eliminating the 9-year limitation which was valid until 2012. No figures were provided to the EAEVE team about number of students taking more than 5 or 6 years to complete their veterinary curriculum. Annually, the FVMEU graduates between 50 – 60 students. Currently, 11 foreign students are studying at the FVMEU: 2 from EU countries and 9 from non-EU countries. The Erasmus program has started recently and only few students have benefited from it. The number of students capable of speaking English in a fluent manner at the FVMEU was very low.

In the SER there is no information about the University credit system, although the Team was informed that the ECTS system is implemented.

## 9.2 Comments

Current student's intake at FVMEU is not too high according to present staff number (see also Chapter 10). The system of admission of students to the faculty is done centrally and based on grades and preferences of the students. The Faculty should be allowed to participate in the selection and admission of students. Alternatively, the Faculty should propose some specific criteria to be applied in the selection of student's admission. Progression within the course seems to be well established, as no student can accumulate more disciplines that he/she can actually follow.

The level of English proficiency was in general low compared to most Veterinary Schools in Southern Europe.

## 9.3 Suggestions

**The FVMEU should propose to the University specific criteria to be applied in the selection of admitted students.** The Rector of Erciyes University should voice this concern to the Central Government, as high school grade point average has been recognized to be insufficient as a selection criteria for the Veterinary School in many European countries.

**The students should be motivated to terminate their study in 5 year or maximum in 6 year**

**The opportunities for studying abroad through Erasmus should be increased.**

**There should be more emphasis on English proficiency**, perhaps by a) including knowledge of English language among the criteria for selection for admission to the Veterinary School, and b) by giving incentives to those teachers who are fluent in English and could give their course entirely in English.

# 10 ACADEMIC TEACHING & SUPPORT STAFF

## 10.1 Findings

The FVMEU is organised into 20 departments. There are 44 FTE teaching staff and 13 FTE research staff involved in academic tasks, summing up a total of 57 FTE. All the 57 posts are budgeted and are allocated to the departments by the Rector, on the basis of departmental needs. It was not clear to the Team what was the real percentage of time dedicated by research staff to practical class teaching; therefore, the number of FTE attributed to teaching and research should probably be corrected. Most if not all academic staff members are veterinarians.

The ratio between the numbers of teaching staff to the number of students is either 1/6.4 if all 57 FTE staff members are considered or 1:8.3 if just the 44 FTE academic staff are considered. Ratios R2 and R3 cannot be calculated as it is not clear what is the exact percentage of VS staff or what is the percentage of staff exclusively used in veterinary training.

R4 (total no.VS FTE in veterinary training: no. students graduating annually) is 0.96 or 1.25 depending on whether the number of FTE in veterinary training is considered 57 or 44. Both values are acceptable.

The total number of support staff is 14. Four of them are responsible for the care of animals and work in the clinics, 6 are involved with preparation of practical and clinical training and the rest of them are involved in administration. The R5 value (No. total FTE academic staff in veterinary training:No. total FTE support staff in veterinary training) is 0.32. or 0.24 depending on the number of FTE in veterinary training is considered 57 or 44. This value is too low.

The Dean of the Faculty suggests the number of staff and administrative personnel required to the University Rectorate. The University has to ask permission from the YOK to submit the proposal to the Ministry of Finance who annually announces the quotas approved.

The Faculty has to comply with Turkish law and University rules in relation to staff mobility and the filling of vacant posts. Professor positions are advertised in nationwide newspapers and the selection of candidates is performed by a 5-member jury integrated by professors of the scientific area from other faculties.

Career advancement is based on publications: an assistant professor can apply for a position of full professor after having served the Faculty for 5 years, during which period s/he has to publish at least three papers on peer-reviewed journals.

## 10.2 Comments

The criteria to allocate staff in the departments are not very clear. The low number of support staff negatively affects research and teaching activities.

## 10.3 Suggestions

**Departmental reorganisation is urgent.** The number of departments should be reduced and related departments should merge in order to allow for integrated teaching and critical mass research.

Support staff must be reinforced in areas of great need of clinical and laboratory practical class preparation. **Although particularly crucial for the Veterinary Teaching Hospital, the number of support staff should be increased for the whole vet school. This should be considered as a major deficiency.**

# 11 CONTINUING EDUCATION

## 11.1 Findings

Continuing Professional Education (CPE) is offered by the Faculty during the year, although it is not included as a formal objective (see Chapter 1.1 of the SER, page 4). There is no formal or standardized CPE programme in place, but only a small number of short courses to be given on request. Also, based on the information provided to the Team there does not appear to be a defined target group of veterinarians for each programme. The available courses are designed by individual Departments without a cooperation or coordination with other Departments of the FVMEU. There appears not to be any income generated by CPE initiatives to be used by the Faculty. At the moment there is no formal requirement for veterinarians in Turkey to follow any CPE scheme. Apparently, a wider choice of CPE courses is offered by other veterinary Faculties or locally veterinary chambers in Turkey. Also, it is possible to attend courses or seminars offered by pharmaceutical companies.

## 11.2 Comments

CPE is important to improve the veterinary profession and maintain professionalism of veterinarians. Design of and offering CPE will give the FVMEU the opportunity to keep updated and in contact with the profession in clinical practice as well as other aspects of the profession. The level of CPE has to reach a certain standard and its offer should be in agreement with the demand of veterinarians. The profession will benefit from a system with a certain amount of mandatory Continuing Professional Education.

## 11.3 Suggestions

**The FVMEU should increase its offer of CPE courses for veterinarians.** Such courses should be designed having a clear idea of what are the needs of the profession in the companion animal, food animal and public health fields. Veterinary Chambers as well as veterinary associations should be contacted and the FVMEU should meet regularly with these and other veterinary bodies in Turkey to discuss how CPE could be better organised in the Kayseri area in order for veterinarians to take the most advantage of.

**The FVMEU should liaise with the leading FVMs in Turkey and take a leading role in discussing options for offering standardized Continuing Professional Education modules in Turkey.** Different modules could be designed for companion or food animal veterinarians, or for professionals working in the public health sector. Such a project can create income, establish and improve relationships with the profession in clinical practice as well as in other aspects. When a FVM becomes a regular provider of CPE its teachers become to be recognized as a reference in each specific field, which can be a big help in increasing caseloads in many if not all disciplines. Options for making CPE a requirement for Turkish veterinarians should also be discussed by the FVMEU during meetings of the Turkish Veterinary Deans by exploring how this can be approached with the politicians. CPE is

gradually becoming mandatory in more and more European countries. The trend is moving from Northern to Southern Europe, and it is likely to reach Mediterranean and Middle Eastern countries soon. The FVMEU could be a pioneer in this respect in his country.

## 12 POSTGRADUATE EDUCATION

### 12.1 Findings

Residency programs are not part of the formal training structure of the FVMEU. The FVMEU postgraduate education offer for veterinarians includes MS (duration of 2-3 years) and PhD (duration of 4-6 years) programs.

PhD students have to take courses on several subjects, including courses to learn how to teach at the Faculty of Education, which then formally enable them to do collaborative teaching at the undergraduate level. The “teaching” part of the PhD program lasts two years and at the end students have to pass a “comprehensive examination”. During these first 2 years PhD students have a relevant teaching load, which takes time away from their research. The majority of PhD students at the FVMEU have a DVM degree, but very few of them have a minimal research background prior to becoming graduate students, such as having been research assistants at the FVMEU. The best PhD students receive a fellowship from the Erciyes University, which also provides funds for research purposes.

After this initial period with fairly heavy teaching, PhD students have to work on their own thesis for at least 2-4 years. Each PhD student has a supervisor, and one supervisor can follow a maximum of 3 students. Annually, approximately 5 students graduate from the PhD program and 20 students graduate from the master’s program.

At the end of the study period, PhD students will submit their thesis to a national committee, composed of academics from different Turkish faculties. PhD thesis must feature a short summary in English but are presented in Turkish. The majority of PhD candidates will normally find a job outside of the University.

### 12.2 Comments

The fact that almost all the Departments of the FVMEU offer PhD and MS programs is very positive. Likewise, the limit for each professor to supervise a maximum of 3 students is commendable as it helps to keep the supervising activity at a high level.

The availability of funds for the research program of each PhD student is a good tool to support graduate students. On the other hand, students must be trained to find money to support research activity. The lack of residency programs is a weak point of the faculty.

### 12.3. Suggestions

**European specialization in all EBVS listed disciplines should be promoted** by offering part-time professorships or visitorships to (European or American) College Diplomats. Having these people at the FVMEU for some time will help faculty and graduate students get in touch with such an important part of the veterinary profession in Europe as well as a) discuss and set up collaborative studies, b) establish contacts for the FVMEU to send its PhD students and young faculty members to do a residency program at some foreign institutions.

**The FVMEU should develop a strategy to stimulate younger teachers and graduate students to obtain a College Diploma thus becoming European Veterinary Specialist.** This should be done by creating incentives for sending people out as well as by keeping Diplomats on as staff once they have obtained their European College Diploma

**All PhD students should be obliged to write their thesis in English, and the PhD examining committee should include, at least, a qualified member coming from foreign universities.** This would be an important requisite for the FVMEU to demonstrate its will to really give a boost to the process of internationalization,

**PhD students should be encouraged to publish on peer-reviewed journals the results of their research and to include, at least, one published paper in the thesis.** Also, monthly meetings of PhD students should

be organized in order to exchange impressions as well as pass on information from more advanced students to students who are at the beginning of their PhD program.

## 13 RESEARCH

### 13.1 Findings

This chapter is also very short and superficial (only 2 pages). Research areas and projects are decided by the individual Departments of the FVMEU. There is little if any co-operation and coordination between Departments in research work and publication.

With some exceptions, undergraduate students are not exposed to the research. Only postgraduate students are involved in research. The faculty has an internal grant system. Academic staff and PhD students prepare grant proposals which are evaluated by external experts. Allocation of funds is done based on such independent assessment using almost exclusively university funding. It appears that some faculty members are involved in international projects. A brand new and very well equipped molecular biology center called Genome and Stem Cell Center is located right in front of the main building of the FVMEU. Such center has been built to attract investors and researchers, and seems to be adequately staffed and equipped, although still in its infancy. Faculty members at the FVMEU have a big chance to cooperate with this new institution for their research, although the degree of involvement of the Faculty with such center was not clear at the time of the visit.

Capacity of producing good research and attracting external funds is not an important factor in the recruitment process; positions are mostly gained on political grounds or based on specific requests put forward by members of the teaching staff.

There is no formal requirement for Ph.D. students to have published scientific papers in ISI journals, while they have to perform a number of other activities including teaching (preparing and doing practicals for the students). There is nearly no support staff in most departments and when support staff is present, there is never enough time for them to be involved in research.

### 13.2 Comments

The FVMEU seems to be only mildly committed to research and does not appear to have a research strategy. Its research production is quite fragmented and not well organized. The system of funding should be more transparent. Also, excellence in research does not appear to be motivated.

There are on occasion possibilities for PhD students to spend some of their time abroad doing research in international institutions, but these opportunities are often not exploited. PhD students should be more dedicated to their research program and not have practical teaching as a main focus for the first 2 years of their program.

### 13.3 Suggestions

**The faculty should design a strategic plan for developing** research on certain topics on which all departments could cooperate.

**Having an established international cooperation on research project/s should be considered an important criteria** both for evaluating the career of a PhD students with regard to awarding the degree, as well as for hiring faculty members.

**The faculty should try to get more projects in cooperation with international institutions** thus attracting fundings from outside the Erciyes University and outside of Turkey.

**PhD students should be motivated to spend some time on some faculties abroad.** Also, they should not be "misused" for teaching as a support staff .

**Excellence in research should be appreciated and properly rewarded,** even with financial prizes.

## EXECUTIVE SUMMARY

The Faculty of Veterinary Medicine of Erciyes University (FVMEU) is a very young veterinary teaching establishment. Its course started in 1992 at a downtown facility, and then classes were moved in 2011 to a new building on campus hosting classrooms, offices and some laboratories. The construction of another set of 3 buildings was started shortly thereafter, one of which was completed in its ground floor very recently: here, clinical activities started in March of 2012 in a rather pioneering way. The main purpose of the FVMEU in requesting an EAEVE visit was to have some guidance in completing and structuring its premises and curriculum in the most logical and efficient way.

With its economy still quite dependent on agriculture, the Kayseri region has a relevant population of farmers and farm animals (mostly small and large ruminants), an increasing population of companion animals and a relevant number of fish farming enterprises.

The FVMEU has a high number of departments (20), with an average small number of staff/dept and some dept which are almost duplications (i.e. Anatomy vs Histology, Virology vs Immunology, Andrology vs Gynaecology). This leads to quite a fragmentation of activities, which is reflected i.e. in the structure of the Veterinary Hospital (with the complete division of the 3 clinics – internal medicine, surgery and reproduction – among each other) or in the lack of strategy for research. **The Academic structure of FVMEU should be changed by increasing the minimum number of staff members/department.** The FVMEU does not have clearly defined vision and mission. Its most important issues at the moment are a) completing the building of the new premises, b) establishing international collaborations by improving English proficiency of student and staff, and c) developing the concept of Veterinary Public Health. The Faculty Board has evidently been so busy over the last decade in organizing teaching that they have not invested enough time in trying to ask themselves who they are and where they want to be in the next decades (see chapter 1.2 of this report). **The FVMEU should seriously consider adopting a drastic change in the way its strategic plan is approached.**

Financial resources are available basically on demand. The Faculty does not have a budget, the only finances being available to the Dean are those derived from the provision of services. Although positive in general terms, such situation is not helping the Dean and division Heads to improve their skills as administrators and leaders. **The Rector of Erciyes University (EU) should realize what a negative impact such set of national rules is having on the growth potential of EU as well as of other Universities in Turkey.**

At the FVMEU the veterinary curriculum has adapted to Directive 2005/36/EC and is divided in first 4 years of lectures and the 5<sup>th</sup> year of practice. Teachers are highly skilled and very motivated, with many of them who have trained for relevant periods of time abroad. However, empathy and enthusiasm are not enough to solve some of the rather severe problems observed in the veterinary curriculum at FVMEU: theory dominates over practice particularly in basic sciences, and practice with live and dead animals as well as in public health is seriously at fault. These problems primarily relate to the number of animals available for practical teaching, particularly with regard to the clinical sections but also in necropsy. Practical training seems to be all but satisfactory, particularly in respect to the very low number of small animal and equine patients.

The following suggestions are made in chpt. 4.2.3, 4.3.3, 4.4.3 to improve this situation:

**Unless the situation of the necropsy hall and necropsy case load is resolved, there is an indication for a potential category-1 deficiency.**

**Unless the situation of clinical training is fully resolved through a) increased the case-load and exposure to clinical patients across all species, and b) reduction of number of students/groups and increased hands-on activity by the students, there is an indication of a potential category-1 deficiency.**

**Unless the lack of theoretical and practical teaching on herd health management is resolved, there is an indication for a potential category-1 deficiency**

Teaching quality is in general of a high standard. Although students are in general well trained (students acknowledge the effort of teachers and have a very good relationship with them) their study load is very high and is totally concentrated during the semester, which includes also exam sessions. Exams should be transferred to the lecture free periods so that students have sufficient time to prepare and are relieved from an inappropriate workload.

One critical aspect related to teaching is the fact that students can carry on with their studies year after year having failed the exams in the previous year, which becomes a burden for those good students who successfully take all exams each year. **Unless this situation is resolved, there is an indication for a potential category-1 deficiency.**

In some departments there is a biohazard risk for students as chemicals and hazardous materials are not properly stored in safety cabinets, and eye washes are not present in all laboratories where hazardous material is used. Also the necropsy room is perceived as a potential source of problems due to its hygienic conditions. **These three issues constitute a significant biohazard risk which, unless fully resolved, is indicated as a potential category-1 deficiency.**

The experimental animal unit must be improved with regard to standards of animal welfare and hygiene. **Unless this unit is improved, there is an indication of a potential category-1 deficiency.**

The Veterinary Teaching Hospital was a source of real concern for the Team due its lack of organization, fragmentation of services, the use of a discipline-orientated rather than species orientated system, the lack of an emergency clinic as well as of a mobile clinic and isolation facilities. **Unless this situation is resolved and the Hospital is fully reorganized by establishing a) common services, b) species-oriented clinical activities, c) isolation facilities, d) an emergency service for large and small animals within the hospital building, e) a fully active mobile clinic, and f) a Hospital Director with appropriate power and responsibilities, there is an indication of a potential category-1 deficiency.**

The fact that there is basically no practical teaching on pigs is also a serious concern. **Unless this situation is resolved there is an indication of a potential category-1 deficiency.**

Support staff must be reinforced in areas of great need of clinical and laboratory practical classes preparation. Although particularly crucial for the Veterinary Teaching hospital, the number of support staff should be increased for the whole vet school. **Unless resolved, this issue constitutes a potential category-1 deficiency.**

#### **ECOVE DECISION: NON-APPROVAL**

##### **Major deficiencies identified:**

- 1.) Insufficient access to clinical cases for all students in large animals;**
- 2.) Insufficient access to clinical cases for all students in companion animals;**
- 3.) Incompleteness of or inadequate accessibility and maintenance of clinic and pathological records;**
- 4.) Lack of a functional mobile clinic for farm animals or lack of specific contractual arrangements to compensate;**
- 5.) Lack of adequate instrumentation to enable up-to-date-training in diagnostic and treatment;**
- 6.) Inadequate teaching and hands-on work in meat hygiene and meat inspection in slaughter house;**
- 7.) Lack of adequate facilities to perform necropsies;**
- 8.) Lack of a 24 hour emergency service, 7 days per week, at least in clinics for companion animals;**
- 9.) Lack of hospitalization facilities for small companion animals, equines and farm animals;**
- 10) Lack of isolation facilities for animals being handled in the establishment for small and large animals.**

