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Association Européenne des Etablissements d'Enseignement Vétérinaire



REPORT on the STAGE 1 VISITATION to the 'Ecole Nationale Vétérinaire d'Alfort'

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by the Visitation Team

Expert in Basic Sciences :

HORIN Petr (Chairperson), Brno, Czech Republic

Expert in Clinical Sciences (Academic) :

PEREZ ALENZA Dolores, Madrid, Spain

Expert in Clinical Sciences (Practitioner) :

DOUW Bertil, Cork, Ireland

Expert in Animal Production :

BLAHA Thomas, Hannover, Germany

Expert in Food Safety & Quality :

SMULDERS Frans, Vienna, Austria

Student Member :

CARROLL Marlon, Torino, Italy

EAEVE Coordinator :

LEKEUX Pierre, Liege, Belgium

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INTRODUCTION

The 'Ecole Nationale Vétérinaire d'Alfort' (ENVA) was first established in 1766. The Establishment has been visited by ESEVT in November 2001, revisited in February 2008 and approved by an ECOVE decision on April 2008.

Since the previous visitation, several changes have occurred in order to improve education, research and services, with a particular focus on the 'one world one health' concept. A new veterinary studies curriculum supported by new information technology (IT) has been implemented, a Teaching & Student Life Office, a Real Estate Office and a Research Office have been opened, a Biomedical Research Centre, a new Small Animal Teaching Hospital and the Camille Guérin Building (CGB) have been constructed, some buildings have been renovated, and structured collaborations have been established with local universities and educational institutions.

Although the Establishment has experienced financial difficulties in the recent past, a recent agreement with the national and regional funding bodies has proposed a real estate plan, in order to finalise the restructuration of the ENVA by 2020.

1. OBJECTIVES & STRATEGY

1.1. Findings

The ENVA is under the co-supervision of the Ministry of Agriculture and the Ministry in charge of Higher Education and Research. The main educational objectives are fixed by law and decrees, i.e. Health, hygiene, medicine, pharmacy and animal surgery; The production of animals and the livestock economy; Production and control of animal and animal derived products; The relationship between animals, humans and their environment and their impact on public health. The Establishment must take part in research in these areas.

In addition to that, the Establishment has proposed a strategy plan ('projet d'établissement') for the period 2014-2017. Staff, students, funding bodies and stakeholders were associated in the writing of it, before final approval by the Governing Board. A copy of this strategy plan has been provided to the experts. It consists of several strategies that are summarised in the SER.

For the educational aspect, a particular focus is the development of the competence approach, as recommended by the last EU directive.

For the research aspect, a particular focus is the development of collaboration within two new joint structures, i.e. the 'Agronomy, Veterinary and Forestry Sciences Institute of France' and the 'Community of Universities and Establishments (CoMUE) Université Paris-Est', which also includes the Universities of Paris-Créteil and Paris-Marne-la-Vallée.

Although the Establishment has not yet applied for a Stage Two evaluation, a quality assurance policy is being implemented and is stated to be a priority.

In order to monitor the implementation of this strategy plan, a series of project timelines and indicators have been defined on an annual basis, e.g. mandatory evaluation of teaching by students, national evaluation of research activities (HCERES).

1.2 Comment

The current strategy plan has been democratically and efficiently developed. It includes clear objectives, the operational plan to reach them and the timeframe and indicators to control its implementation.

Based on the findings, it appears that high quality and up to date veterinary education remains a priority, both at the under- and post-graduate levels.

However the strategy plan is quite recent and its complete implementation is linked to the continuation and sustainability of the financial recovery of the Establishment, which relies on both sufficient public funding to adapt the facilities and on site rationalisation to decrease the running costs.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

1.3 Suggestions

None.

2. ORGANISATION

2.1 Findings

The ENVA is not part of a university. It is an autonomous Establishment under the authority of the French Minister of Agriculture, Food-Industry and Forest and in particular it's General Directorate of Studies and Research. The Establishment is also linked to the French Minister of Higher Education and Research and to the recently created structures, i.e. the 'Agronomy, Veterinary and Forestry Sciences Institute of France' and the 'CoMUE Université Paris-Est'.

A Governing Board composed of representatives of staff, students, professional organisations and the Ministry administers ENVA.

The Head of Establishment (Director), who is currently a veterinarian, chairs the Executive Committee in order to implement the strategic decisions taken by the Governing Board.

Other committees are formally structured and meet regularly, i.e. Steering Committee, Teaching and Student Life Council, Academic Council, Departmental Councils, Technical Committee, Hygiene and Safety Committee, Ethics Committee for Animal Experimentation, Ethics Committee for Clinical Research.

The education programme is organised by three teaching departments, i.e. Department of Biological and Pharmaceutical Sciences (DSBP), Department of Carnivore and Equine Husbandry and Diseases (DEPEC) and Department of Animal Production and Public Health (DPASP).

The research activities are organised by four research units for the infectiology axis (Virology, Parasitology, Epidemiology of animal diseases and Mycology) and by four research units for the pathophysiology axis (Equine locomotor pathology and biomechanics, Bioengineering and Bioimaging of osteo-articular tissues, Developmental and reproduction biology and the Mondor Institute of Biomedical Research).

A complete organisational chart, a description of the roles of the several committees and a list of the duties of the departments/units are provided in the SER.

2.2 Comments

Although collaboration with other Establishments for higher education is essential, the Visitation Team is concerned about the potential impact of the new structures (i.e. the 'Agronomy, Veterinary and Forestry Sciences Institute of France' and the 'CoMUE Université Paris-Est') on the organisation and autonomy of the ENVA. Since the Establishment is depending on different ministers and is part of several structures, inconsistencies and a 'lasagne syndrome' should be avoided.

Currently, the new organisational chart implemented by the new Director has contributed to an efficient and (hopefully) sustainable reorganisation of the ENVA.

The three teaching departments are democratically organised and contribute efficiently to a transversal and multidisciplinary approach of the relevant education, either at the level of lectures, practicals, clinical training and e-learning.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

2.3 Suggestions

None.

3. FINANCES

3.1 Findings

The finances of the ENVA are run on an activity-based costing model. The initial budget is adopted by the Governing Board before the start of the calendar year and it is then rectified twice a year, to adjust for true income and expenditure.

Around 62% of the regular incomes come from the Ministry. It includes the public sector salaries (around $13M \notin$) and running costs (around $2,6M \notin$) year).

Other major incomes are clinical, technical and educational services (around 12M€/year) and research grants (around 2M€/year).

In addition to this recurrent funding, the Ministry (partly supported by local authorities) may provide some funding for building new facilities, for renovating the current ones and for supporting research activities.

In 2014, the Ministry provided a one-shot grant (5,5M€) for clearing accumulated debts as well as restoring and rebuild a working cash capital.

Currently, the tuition fees are around 2200€/year and are fixed by the Ministry.

3.2 Comments

The financial situation of the ENVA has recently been improved and the bankrupt has been avoided by a one shot grant of the Ministry and by the initiation of some savings and rationalisations in the operational costs.

However, the recent increase of the number of undergraduate students without proportional increase in the incomes, the recent decrease in the funding of the running costs, and the huge costs of the maintenance of the old (and sometimes historical) buildings are worrying for the financial balance of the Establishment in the future.

Taking into account the level of the salaries in France, the fact that personnel costs represent an important part of the budget, the fact that ENVA is not allowed by law to increase the tuition fees, and the amount of money requested to adapt the old buildings to modern requirements, it could happen that ENVA could no longer be able to implement the current strategy plan and to provide sufficient staff and adapted facilities for adequate veterinary education and research without additional funding, which represents a threat for the future.

However the Visitation Team was told that 45M€ have recently been officially allocated by the State and the Region for the period 2015-2020 in order to allow the completion of the investments planned in the strategic plan.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

3.3 Suggestions

None.

4. CURRICULUM 4.1. GENERAL ASPECTS 4.1.1 Findings

The veterinary curriculum in France is a national curriculum ("French national curriculum") defined by a decree of the Ministry of Agriculture of 2007. It makes part of a complex programme of veterinary education lasting at least 7 years. Two years are taught as "Preparatory classes" for the French "Grandes Ecoles" in high schools, five years of training are provided within national veterinary schools. Based on national regulations, several committees and councils are involved in the development and management of the teaching programme.

The decree-defined rules are valid for all French veterinary schools. The five years include eight semesters of core courses. Lectures must not exceed 50% of teaching time and clinical training must represent at least 30% of total teaching time in the core curriculum. The fourth year is clinical and practical, with two semesters, one for small animal and equine clinics, one for production animals and veterinary public health. The 5th year is an in-depth training and tracking year. Students can choose one of 6 different tracks: farm animals, companion animals, equidae, veterinary public health (VPH), research and industry/business. The 5th year includes the preparation of the veterinary thesis. To comply with the Bologna declaration, the curriculum has been divided into semesters, comprising each 30 ECTS. Each semester is composed of credits called LU (Lecture Units).

Within this general common framework, the contents of the semesters and courses can vary among the veterinary schools, expressing complementarity and expertise of each French veterinary school. ENVA has specifically introduced transversal and interdisciplinary LUs in the core curriculum, optional LUs between years 1 and 4 (see later) and the tracking system is also specific for this Establishment.

The degree of "doctor in veterinary medicine" (DVM) is delivered after presentation of a thesis. The majority of students present the thesis before the end of the calendar year; the average duration of studies is 7.5 years.

The total number of hours passed by each student is 7753 h, the core curriculum is composed of 5372 h of teaching. In addition, obligatory extramural work makes part of practical teaching.

There is a multistep process of evaluating the curriculum and suggesting changes. Starting from the academic year 2014/2015, some changes in the curriculum have been implemented, reflecting experience with the new curriculum. Transversal "competency units" were created, accompanied with changes in the numbers of hours.

4.1.2 Comments

The general structure of the curriculum established by a decree as common to all French veterinary schools respects both the European higher education general standards and the EAEVE requirements. The length of the curriculum fulfils the EU directive. The general organisation of the curriculum reflects the specificities of veterinary education (e.g. tracking) as well as of the French education system with Preparatory classes (Bachelor's degree). The Masters programme as well as PhD programmes represents a standard of veterinary education.

The overall curriculum structure is balanced and structured according to years. Based on Table 4.2 in the SER, Plant Biology and Professional Ethics are not listed among subjects (0 h allocated). However, these topics are adequately covered elsewhere in the curriculum. Most of basic subjects are supposed to be taught before admission to ENVA. Taking into consideration the French system, this approach is fully acceptable. According to the teachers as well as to students, knowledge acquired during these two years is sufficient.

The tracking system reflects the structure of the profession. However, only the first four years are followed by all students. These four years were therefore evaluated according to SOPs. Whenever necessary, the structure of electives was taken into account. For example, only the four-year curriculum was used for calculating the relevant ratios. However, additional ratios comprising electives were calculated to reflect all teaching/learning activities.

Due to changes implemented the last academic year (competency units), the figures covered by the tables are related to the previous years but they will be different for the current first and partly second (transition) year. According to information obtained during the visit, these changes generally improved the figures, especially in terms of the proportion between theoretical and practical teaching and of the vertical and horizontal integration of teaching. The Visitation Team's opinion is that in general, the recently introduced changes seem to improve the curriculum and the quality of teaching. However, it is too early to evaluate them and to make conclusions.

In some areas (see below), several subjects, especially in food hygiene and public health seem to be underrepresented, as compared to other European schools.

Practical training and hands-on experience are prescribed by the curriculum as well as supervised extramural training. The extent and quality of each of them have been analysed in the corresponding sections of this ER.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.1.3 Suggestions

Several potential recommendations and suggestions based on the last years' figures have been identified by ENVA and reflected in the new version of the curriculum. Therefore, they have not been made by the Visitation Team.

The Visitation Team supports all activities leading to collecting systematically feedback on each aspect of the new curriculum and its continuous improvement. Within this framework, ENVA should better cover some subjects, following the recommendations made for specific areas.

4.2. BASIC SUBJECTS & BASIC SCIENCES

4.2.1 Findings

Basic subjects are mostly taught before admission to ENVA. Basic sciences taught at ENVA contain all EU-listed subjects except "Professional Ethics".

Practical training is a regular part of teaching in basic sciences.

There is extensive hands-on practice in anatomy. Recently, a new building with autopsy rooms was opened. There is no specific reference species; anatomy is presented according to regions. Other teaching methods (preparations, computer-assisted learning) are adequately used. In other subjects, laboratory deskwork is performed in groups of 15 students in average.

4.2.2 Comments

Although basic subjects are taught only to a limited extent, the incoming students must have adequate knowledge, taking into account the contents of Preparatory classes and the competitiveness of the admission process where the results of previous studies do play an important role. In general, the veterinary schools have an impact on the contents of these courses. However, their role in determining the quality of teaching and specific knowledge is limited.

Basic sciences cover all EU-listed subjects either under their names or their elements are taught in other subjects. All of them are adequately covered.

From the table of hours taught, it seems that the balance between lectures and practical training is still shifted to lectures in most topics. This has changed with the new version of the curriculum since 2014.

Carcass handling, biosafety and biosecurity issues have been adequately addressed in the new building of anatomy (CGB). Although necropsy rooms are on the same floor like anatomy autopsy rooms, their ways do not cross and the facility as a whole complies with biosecurity standards set for necropsy rooms. Isolation facilities for food producing animals are also located in this building but need to be improved.

Teaching in basic sciences in general is at a good level, based on an integrative approach with references to animal breeding and clinical relevance. The new organisation into competency units strongly contributed to this concept. The contents of courses are standard for a veterinary curriculum. For some historical and personal reasons, elements of physiology, pharmacology, toxicology and pharmaceutical sciences are taught in two different units. Recent developments of genetics have been properly reflected in theoretical as well as in practical teaching.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.2.3 Suggestions

None.

4.3. ANIMAL PRODUCTION

4.3.1 Findings

ENVA's teaching Animal Production is provided by the "Animal Production and Public Health Department (DPASP).

The following Competency Units are established in the Department:

- Animal Production and Rural Economics
- Animal Reproduction
- Production Animal Medicine
- Notifiable Diseases and Epidemiology

The facilities of the Department are:

- The Farm Animal Hospital (two "stables" for 20 adult cattle and 30 calves) in Alfort
- The necropsy room for large animal autopsies in the CGB in Alfort
- The Animal Production Centre Champignelles (CAPA) (130 km south of Alfort)
- The Wildlife Rehabilitation Centre in Alfort
- Ambulatory Clinical Visits (one around Alfort and one around Champignelles)

In 1975, ENVA acquired the domain of Champignelles (situated in Burgundy) which is now the field station "CAPA-Champignelles, Yonne", which is a farm for livestock keeping surrounded by 86 hectares. The following animal species are raised and kept on the farm: a flock of sheep (210 ewes), a herd of suckler cows (27 Charolais cows), 4 beehives, and 50 heads of female deer, housed on an area of 10 ha. Teaching the care and nutrition of these animals includes producing the forage for the animals on-site. The premise allows for teaching animal husbandry, agronomy (e.g. silage production, pasture management) and animal nutrition, i.e. harvesting hay and straw for all the animals; grain and hay and straw are stored in a 240m² barn. There are two buildings for a) accommodating and catering up to 33 persons (recently renovated), and b) for teaching purposes (erected in 2007).

In Champignelles, there is an autopsy room for demonstrating post-mortem examinations of food animals, and there is a separate facility to demonstrate and teaching the preparation and transformation of meat and to sell the processed meat (fresh, vacuumed or frozen) in a farm shop. The field station also uses the surrounding forest for monitoring wildlife.

These premises offer sufficient opportunities to enable ENVA to teach adequately modern farm animal medicine with a strong emphasis on large and small ruminants, which applies both to the regular curriculum (year 1st to 4th) and to the optional track "Clinical Sciences in Farm Animals" (year 5th). In contrast to that, pig and poultry medicine is only taught in lectures in Alfort and by sporadic herd and flock visits by the ambulatory clinic (both around Alfort and Champignelles).

4.3.2 Comments

Apart from the striking unbalance between bovine and small ruminant medicine on the one hand and pig and poultry medicine on the other, production animals are well represented in the overall curriculum of ENVA. Whereas the housing and maintenance of the animals in the two stables (Lagneau stable and Petit Bois stable) of the farm hospital in Alfort is more than deficient due to the completely dilapidated very old buildings, the animal husbandry in Champignelles in terms of caretaking for the animals and animal welfare is appropriate.

A major problem in both premises, however, is both the drug storage (unlocked and outdated medicines, inadequate storage of dangerous drugs) and the biosecurity procedures (see also chapter 6.1). The biosecurity shortcomings apply in Champignelles to the hardly secured two sheds for the Charolais cows and the sheep flock, the drugs storage in the main building, the access to the outdated necropsy room itself. There is a lack of extra pathway for bringing the carcasses for the necropsies, for bringing the organs with lesions gathered in slaughterhouses and for removing the remains of the necropsies. The transports are not sufficiently separated from the regular farm pathways.

Apart from these problems, ENVA's DPASP offers a strong Animal Production teaching module, which would be even stronger, if pig and poultry medicine would get more hands-on teaching that is currently provided.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.3.3 Suggestions

The following actions should be taken: 1. The drug storage needs to be immediately "fixed" and an SOP for properly storing drugs and locking up critical and sensitive medicines as well as regularly replacing outdated drugs; the central pharmacy should set-up and implement a system of a regular feedback to assure that the SOP is fully respected at any time and place 2. Urging ENVA and the Ministry to renovate or rebuild the almost "rotten" buildings for the farm hospital in Alfort, and the necropsy hall in Champignelles, and 3. Writing and implementing an SOP for the daily procedures for an efficient biosecurity and a contingency plan for a potential introduction of highly contagious pathogens either into the farm hospital in Alfort or into the premises of Champignelles is highly recommended.

4.4. CLINICAL SCIENCES

4.4.1 Findings

The clinical training is developed through the curriculum in an adequate and organised system.

<u>Practical teaching</u> is divided into 3 categories: laboratory and desk-based work (performed in groups between 12 and 30 students); non-clinical animal work and clinical training.

Clinical training is initiated during the 2nd and 3rd year with a mean of 130 h/student/year.

The 4th year is completely clinical and practical; it is divided into 2 equal semesters (small and equine practice, and production animals and veterinary public health). In this year, the proportion of practical teaching is elevated (823 h clinical training) compared with theoretical training (52 lectures and 9 seminars). During this year, half of the students spend 20 weeks in the Small animal and Equine clinics (16 weeks in SA 4 weeks in Equine) while the second half rotates in the farm animal clinic and in public health in the first semester and vice versa in the second semester.

The total volume of hours of clinical training varies depending on to the track chosen by the student at the 5th year. There are 6 tracks of specialisation: clinical science in horses, clinical sciences in farm animals, clinical sciences in small animals, veterinary public heath, research specialisation and business track. Students, who choose one of the 3 clinical tracks, have an additional clinical training in the respective species; the farm animals track (185h and a 10 to 12 week extramural work); the small animals track (996h) and the horses track (802h).

<u>The ratios students/teachers</u> for clinical teaching are in agreement with the recommendations; during the core curriculum, a clinical group includes 4 to 5 students and a clinician; while in the tracks, the group of students varies among the type of training.

Students in the 3rd year are instructed in basic clinical training, and when they are on rotation (4th year), they participate in the clinical team composed by students of different years (4 and 5th year) and take part in the clinical activities under staff supervision.

The caseload in small animal clinics and exotics is elevated. The clinics (small and equine at Alfort) are open 48 weeks per year and 46 weeks (large animals). In addition, at CIRALE the equine clinic is open all the year. Consultation hours and Emergency Service for Small Animals are well organised and the number of hours is elevated; it is operating 24h for a period of 11 months (September to July). The Small Animal Emergency Service is organised in teams, composed by students, interns and junior clinicians and reinforced by clinicians from other services and recruit emergency cases and cases without an appointment (they are non-emergencies and can be first or second opinion cases), which let the students to get hands-on with a wide type of patients.

Equine clinic in Alfort and CIRALE offers consultations and Emergency Service. An emergency team is composed to two to three students, one A5 and, depending of the type of emergency, one or two interns. Cases at CIRALE are mainly referred ones and the role of students is highly participative.

The farm clinic in Alfort receives sick animals to be euthanatized as well as healthy animals to be managed for reproduction. No Emergency Service is available for farm animals.

The Ambulatory Clinic consists in four major axes: reproductive monitoring (in 4 farms situated near Alfort); clinical services provided to 3 of these 4 farms; health monitoring in 4 to 6 farms near Alfort and ambulatory work. Students participate in the management of cases under supervision of teaching staff.

Reproduction follow-ups and Herd medicine are also performed in farms (ambulatory clinics).

No ambulatory clinics are available for equine medicine and surgery.

In addition to clinical teaching performed at the Establishment, there are obligatory extramural work and international mobility.

Obligatory extramural work is spread over the 5 years, and includes training in a dairy cow farm (1styr), in a slaughterhouse (2ndyr), a free choice placement (3rdyr), non-clinical placement (4thyr) and, clinical science in horses or in farm animals (5thyr, respective tracks). This activity, although controlled by the teachers, it is not standardized supervised through the Establishment.

International mobility is also compulsory, and students may choose from a specific placement of at least 4 weeks; undertaking one of the "institutional" placements in a foreign country; undertaking a 5th year track in a foreign country or in faculties in the United States of America to validate the small animal track; or a study period in a foreign Veterinary Faculty within a recognized exchange program.

4.4.2 Comments

Aspects of the curriculum to be considered as strength are the early clinical training even in the first years. In the 1st and 2nd year students are introduced on hygiene, nursing management with owner's. In 3rd course, they are also trained on imaging dermatology and vaccinology, which mean that when they are in 4th year, at the clinical rotation, they have had the previous contact with clinical activity, Likewise, the 20 weeks spent at the Small Animal and Equine Clinic at 4th year let the students to get a good proportion of hands-on practice in these species.

The proportion of hours of practical teaching at the end of the 4th year for small animals, equine and farm animals is balanced; however, students get higher hands-on experience on small animals compared with equine and farm animals.

Students under the clinical tracks (small animals, equine and farms) are well trained in the different specialities after the 5th year, which means that they get a broad knowledge and basic skills in veterinary medicine for all major domestic species.

Another strong feature is the elevated motivation of students, teaching and technical staff in all areas of clinical training.

Some of the old facilities have been renewed (Small Animal Hospital: CHUVA) and the CGB. The CHUVA facilities are highly adequate and well organised. However, equine and bovine facilities are very ancient.

The ratios animals/students are adequate, especially in small animals.

The clinical teaching in CHUVA is evaluated permanently; there is a systematic assessment of student's performance in clinic rotations, focused on technical skills, application of knowledge and clinical reasoning. A competence approach of learning has been implemented in some areas as internal medicine and imagine.

The elevated caseload, especially in small animals and exotics is a valuable tool of the establishment, which allowed it to assure good ratios (student/animals) and hand-on experience.

Some aspects might be considered as weakness areas follows:

There is not a complete balance between species through the curriculum, companion animals and horses being over represented compared with farm animals. Pigs and poultry are clearly under-represented.

The facilities, the caseload and the ratios student/teacher, student/animal are adequate, but highly variable between species. Despite of the huge effort of investment that the institution has made in clinical facilities, both buildings and equipment, in the equine and farm animal clinics, several problems have been detected regarding facilities and procedures. Facilities for equine and farm animals at Alfort are old fashioned and biosecurity procedures inadequate which leads to both a reduced case load and a reduced proportion of referral cases. The equine hospital is located in the old building, and radiological procedures and isolation facilities are not adequately adapted.

Regarding the farm animal clinic, an emergency service is not available. Even though the number of referred cases has increased during the last years and there is a demand to refer more cases, this number might be increased in the future if the facilities are improved and the staff is also increased.

In the small animal clinic, the proportion of referral cases ranges from 10 to 30% depending on the service, despite of the elevated proportion of international recognized specialists. The elevated caseload is managed with a large group of practitioners and interns trained by the specialists.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.4.3 Suggestions

Increase the proportion and the quality of practical teaching of farm animals, pigs and poultry is suggested.

In order to give an adequate clinical training, deficiencies in facilities and safety procedures observed in equine and farm animals detected and mentioned in this ER must be solved.

Extramural work should be supervised; a common system of supervision might be desirable.

4.5. FOOD HYGIENE & TECHNOLOGY AND VETERINARY PUBLIC HEALTH

4.5.1 Findings

The Visitation Team found the academic staff responsible for FH/VPH at ENVA to be experienced, very motivated and fully aware of the international views on the suitability of a standardized European approach to teaching FH/VPH and of the core-elements that should be included in the curriculum.

Education in FH/VPH constitutes a total number of 232.5 h (p26 of the SER), which is largely provided through 'on-site' theoretical training (lectures, seminars, self-directed learning, the latter partly 'supervised group learning' e.g. where the use of the AsaDia software (serving as a pictorial reference guide to pathological-anatomical findings relevant to meat inspection) is concerned. Practical training in meat inspection is provided in years 2 (one 'introductory' morning at the abattoir in Migennes followed by a one-week placement in an abattoir supervised by the local official veterinarian) and in year 4th (2 mornings at the Migennes abattoir). At Migennes, the inspection of only two species (beef, lamb) is demonstrated. Exposure to the slaughtering and/or processing and inspection of other food producing species (e.g. pigs, poultry) is extremely rare and highly dependent of whether the one week extramural slaughterhouse placement might also concern these animal species. Consequently, these elements are 'theoretically' addressed through the use of video and slides. Exposure to food processing technologies is not at all provided (no practicals, no excursions).The latter also applies for other food products of animal origin (milk and dairy products, fish, honey, ..).

Apart from the meat inspection teaching, there is no provision of other practical work (e.g. practicals in food microbiology and technology, food analysis), main reason being that lab facilities and dedicated technical support staff are lacking.

The teaching at Migennes is combined with afternoon visits to the Champignelles animal production facility, which is also primarily dedicated to ruminant (beef) production.

To date, the FH/PH curriculum is provided by 3 teachers. In the future it is considered to integrate the efforts of other FH/PH- related disciplines (e.g. epidemiology/PH and the teachership dealing with parasitology and food toxicology) in the Food Hygiene curriculum by instituting a 'FH competence unit'.

Although the majority of the 'content areas' (i.e. priority areas to be dealt with during teaching as formulated by the EAEVE working group on FH) are addressed, the limited curricular time assigned to FH and the limited number of teachers make it impossible to cover the full range of associated topics recommended by the working group (content standards).

The overall percentage of the FH/PH part of the Alfort curriculum is approximately 3.7 % (i.e. exclusively considering the data provided on p26 of the SER). If one also considers other PH relevant disciplines (e.g. epidemiology/PH, State Veterinary Medicine/PH) this percentage is likely to be slightly higher, i.e. approximately 4.3%.

4.5.2 Comments

In the following section, the evaluation team has considered exclusively the student exposure to Food Hygiene (FH), Technology and Veterinary Public Health (VPH) during the first 4 years of the

curriculum (representing the 'general qualification' part of the education provided). The team is well aware that more targeted 'track' training in FH/VPH is provided in the final 5th year in collaboration with the Vet School at Lyon. In this context it should be pointed out that over the past 5 years, only one student per year (i.e. 0.7 % of the final year's student population) has chosen this track.

Modern (veterinary) food control involves identifying and characterizing the biological, and physical/chemical hazards associated with the production of food of animal origin and estimating the risks for public health associated with primary production and processing. This dictates that all these risks need to be systematically addressed from 'stable to table'. Hence, an integrated approach involving all related veterinary disciplines and covering all foods of animal origin (raw materials as well as processed foods) must be followed. The Visitation Team was informed that ENVA's initiative to create 'competence units' will also involve creating a FH/VPH expert group, that will identify competent teaching staff from various units to develop such an approach.

The Visitation Team observed that at ENVA, the teachership for the FH/PH part of the curriculum is significantly understaffed, and that neither technical personnel nor laboratory facilities are available to include many of the curricular elements that the Visitation Team deems essential. The latter relates particularly to food microbiological and technology practicals and to suitably addressing the FH problems of important food producing species (e.g. pigs, poultry). The Visitation Team believes that the time currently assigned to FH/PH is insufficient to include these necessary elements.

The most important practical on meat inspection (one week extramurally) takes place at a point in the curriculum (year 2^{nd}) when the student has hardly any knowledge of specific, disease related pathology to make such a practical very meaningful. Moreover, it appears that there is no method to monitor the suitability of a particular extramural host site and the quality of the local supervisor.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.5.3 Suggestions

It is recommended that the time made available for FH/VPH is significantly increased. In this context the guidelines of an EAEVE working group are referred to.

Moreover, the Visitation Team believes that additional academic and technical staff should be employed to allow for the desired upscaling. To support the strive for combining the present senior expertise and securing sufficient juniority, the Visitation Team suggests to employ a young food scientist (preferably a Diplomate of the ECVPH).

The Visitation Team strongly supports the setting-up of a working group to be chaired by a FH/PH senior teacher and to be composed of representatives from the relevant veterinary disciplines (see above), whose major task should be to identify current flaws in the FH/VPH curricular content and to develop an efficient approach to eliminate these, along the lines suggested by the Visitation Team.

4.6. ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS 4.6.1 Findings

During the 5th year of the veterinary curriculum, the students may choose one of the 6 different tracks. Previously the track election, all students have to complete compulsory clinical training

during the 4th year, which is completely clinical and practical, including small, equine and production animals.

Six tracks are available at the Establishment:

.-Clinical Science in Farm Animals Track comprises a total of 955 h of theoretical and supervised practical teaching, including 185 h of clinical training.

.-Clinical Science in Small Animals Track provides the students with a total of 1427 h including 996 h of clinical training.

.-Clinical Sciences in Horses Track provides a total of 1402 h of teaching, including 802 h of clinical training. This track is co-organised between three of the 4 French Veterinary Schools.

.-Veterinary Public Health Track, which is studied at the National Veterinary Services School (Ecole Nationale des Services Vétérinaires, ENSV, Lyon). After this track, students will become Veterinary Public Health Inspectors (Inspecteurs de la Santé Publique Vétérinaire, ISPV).

.-Research Track, which consists in a Master 2 and might be continued in order to complete a PhD.

.-Business Track consisting in a Master of Sciences in management. The diploma is awarded by ESSEC Business School at Cergy-Pontoise.

4.6.2 Comments

The core programme is solid and the track system let the students who choose the clinical tracks to be trained enough to be adapted for the different species: farms animals, equine or small animals. Students who chose any of these 3 tracks are well prepared due to the high proportion of practical and clinical training.

Even though the majority of students choose the small animal track, the Establishment can afford the large proportion of students due to the adequacy of facilities and staff.

Students who chose the other 3 tracks are also clinically trained during the 4th year with a sufficient clinical training period through the different disciplines. However, the proportion of students in the different tracks is not homogeneous, most of students choose the small animal track (approximately 60%), while equine and farm animals tracks are chosen by the 8% and the 24% respectively. During the last 2 academic courses, none of the students had chosen the industry track, and a small proportion of them have chosen research track (9%).

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

4.6.3 Suggestions

Students might be motivated and oriented at Alfort in the 3 sectors: veterinary public health, industry/business and research. Especially in research, the Establishment might take advantage of their own research facilities and resources as well as those of other associated research centres, in order to increase the number of students who choose the research track.

Likewise, students might be oriented to the veterinary public health track, by increasing the clinical teaching of food hygiene and animal production as has been suggested elsewhere in this report.

5. TEACHING QUALITY & EVALUATION 5.1. TEACHING METHODOLOGY

5.1.1 Findings

There is a change of curriculum in progress.

The first strategy developed to improve teaching quality is the modernisation of the initial training of veterinarians using today's technologies and methods. Nearly all courses rely on using the digital education platform, EVE, which allows students the access to various learning tools.

During the first years, Amphitheatre teaching is the primary approach; it should be noted that for this teaching method the presence of students is compulsory.

The new teaching approach uses problem-based learning and "flipped classes", which are already used by some teachers.

For each course a list of learning objectives are formulated on the assigned page of the digital educational platform (EVE).

A well-documented syllabus is provided to each student for every course in the study programme. Most syllabi or course sheets contain a reference list with related basic or veterinary textbooks. For most courses, course hands-outs are regularly updated. EVE is extensively used for distributing free learning material to the students. Nearly all courses use EVE (rehanging from creating folders for pdf files, to developing more advanced online learning activities). The library contains textbooks available to the students.

The new teaching approach uses problem-based learning and "flipped classes". Up to 60% of the final theses are research based.

The two major methods to improve teaching quality are teacher training programmes and teaching evaluation.

Two training programmes are proposed to teachers:

-) The Ministry of Agriculture offers teachers five weeks of training on teaching methods. Upon his/her arrival at the ENVA, each new teacher is strongly encouraged to join this training session.

-) The ENVA participates in the IDEA+ CoMUE Paris-Est's programme, which offers teachers training sessions about new pedagogic approaches or methods to teaching during the year.

Teaching evaluation is digitized and integrated into EVE, in the form of surveys, which students must answer at the end of the semester. The surveys are processed, presented and discussed in the Academic Council and the Teaching and Student Life Council. The surveys are sent to the teachers, whom are asked to prepare a document explaining how they are going to implement their knowledge. The evaluation results are published on the EVE website.

During the first four years, amphitheatre lectures must not exceed 50% of teaching time and clinical training must represent at least 30% of total teaching time in the core curriculum; the fourth year has to be essentially clinical and practical.

From the first year onwards, students are introduced to clinical work. The programme focuses on hygiene and nursing of the small animals during hospitalization (year one). The second year students have their first contact with the owners, by working at the reception desk of the animal hospital.

In the third year, students start clinical rotations, and in the fourth year students participate fully in the clinical team and take part in all aspects of clinical activity.

During this initial training, students must undertake compulsory extramural periods, including a placement abroad called "international mobility". Students must write a report after each placement.

During the 4th year (and the 5th years when following one of the "clinical" tracks) a very high proportion of practical work and clinical training is performed.

The system of clinic rotations, in small groups, allows close contact between students and the academic staff and in such a way the progress of each student can be monitored.

Each student is provided with a list of skills they should acquire during the week of practical work. At the end of the week they are supposed to be able to perform correctly, and independently, one of the skills randomly chosen from the list.

5.1.2 Comments

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

5.1.3 Suggestions

None.

5.2. EXAMINATIONS

5.2.1 Findings

Over a year, the validation tests are carried out between one to three times, depending on the results. The dates of exam sessions are adopted by the Governing board, after consultation of the Academic Council and the Teaching and Student Life council. Students are informed of these dates by the Teaching and Student Life Office.

For the "end of semester" or "compensatory session", the jury consists of teachers who taught the discipline, and a teacher not involved in the LU.

The evaluation is based on the above assessments organised during the semester. If the score is greater than or equal to 12/20, the LU is automatically validated. Otherwise, the student is called to sit a compensatory examination session (end of semester session), generally made up of an oral exam. The LU is considered validated if score is equal to or exceeding 10/20, otherwise the student is invited to a further compensatory session held in September, before the beginning of the new academic year.

Repeaters and students "in accumulation" are monitored by a special commission. They are subject to a "repetition contract". Students "in accumulation" can proceed to the next year, but must follow the mandatory courses and exams of the LUs that they failed to validate previously, in addition to courses of the current year.

Students who have not passed in the year following a repetition can be excluded from the School, except in the case of medical indications.

Every exam is based on specific learning objectives formulated for each subject in the course. With the new curriculum the load of the exams has increased. Practical exams represent a regular part of the examination system in clinical as well as in other subjects throughout the curriculum.

5.2.2 Comments

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

5.2.3 Suggestions None.

5.3. STUDENT WELFARE

5.3.1 Findings

There is a big focus on physical safety within the Establishment, but the procedures are not fully implemented in all sectors of the school. There is big effort put in to have all lectures and other study material available electronically, while more effort is put into promoting distance learning activities online.

For the students there are 492 furnished rooms with Wi-Fi available on campus, with a canteen and childcare.

Some of these rooms are reserved for exchange students and interns.

Beside the education in the Establishment, students are also sent to different collaborations with outside bodies to ensure get adequate hands-on experience.

The student's assessment is done on a continuous way, incorporating both evaluation during the years and final exams. For repeaters there is a special commission who monitors their progress.

Student's evaluation is done by digitalised surveys and the feedback is discussed in the "Teaching and Student Life Council". The evaluation results are presented to teachers and also published online on the EVE website.

A student doctor and psychologist are available, and the school will support students with familial, financial and/or psychological problems.

Also a new Tutor system has been developed and a new curriculum has started in 2014.

5.3.2 Comments

The new tutor system is working satisfactory and students are experiencing the new curriculum. The access to online material and learning activities is good.

Student insurance is regulated by the school, both onsite and for excursions and extra-mural work.

There seems to be a continuous assessment of the student's progress during the course and a special commission is following and advising repeaters.

The teaching is evaluated by students throughout the course and discussed in the "Teaching and Student Life Office".

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

5.3.3 Suggestions

Regarding the students' safety, biosecurity measures (see 6.1) should be implemented immediately in all departments and are these extended and implemented to all the external "bodies" where students go as well.

6. PHYSICAL FACILITIES & EQUIPMENT 6.1 GENERAL ASPECTS

6.1.1 Findings

ENVA owns three campuses: 1) the main site (founded in 1766) with 29 buildings on 11.9 hectares in Maisons-Alfort (housing also: ANSES headquarters; the SHEVA, a horse riding centre; IFIP, the French Pork Institute), 2) the Production Animal Centre for farm animals CAPA-Champignelles (acquired in 1975), which is a farm with 86 surrounding hectares, and 3) the Centre for Imaging and Research in Equine Locomotor Disorders (CIRALE) in Goustrainville (10 horses in stalls with access to 5 paddocks on 7 ha) equipped with all modern imaging equipments.

6.1.2 Comments

The quality of the buildings in Maisons-Alfort is varying from historic, but out-dated and hardly usable for teaching veterinary medicine in an adequate way up to completely new buildings such as the "CGB" hosting an outstanding and up-to-date necropsy and anatomy facility, which also will host the "Biopôle", i.e. the laboratories and offices for the Department of Biological and Pharmacological Sciences.

These premises provide sufficient lecture rooms, laboratories, dissection halls and clinics (place for hospitalising cattle), isolation facilities and stables for housing healthy horses and livestock as well as laboratory animal facilities. However, the historic buildings need urgently a targeted renovation. But despite the urgent need to improve the living conditions of the animals (including the need to improve the poor biosecurity in these old buildings), and the working conditions for the teachers and support staff in the old animal housing buildings in Alfort, the case load for the students, and thus, the hands-on teaching at ENVA is remarkably good.

Whereas the teaching building in Champignelles (erected in 2007) is an excellent teaching facility for teaching the basics of agriculture and production animal medicine as well as for even meetings up to 300 participants, the necropsy hall in Champignelles is completely out-dated and the access to this premise through the two incompletely fenced-in farm buildings (cattle and sheep) of Champignelles poses a serious risk to biosecurity.

The Visitation Team has recognised in mainly the older premises of ENVA that the fire safety equipment in several departments has not been serviced in recent years. There is also a striking variation in the quality of the health and safety measures (biohazard warnings, eye washes, laboratory showers, sluices, the storage of chemicals etc.) in old facilities compared to the new buildings.

There are an appropriate number of vehicles (cars, vans and buses) to move the students between the three campuses of ENVA, which guarantees that the teaching capacities of ENVA's three campuses are fully used in an adequate way.

Though the CHUVA has immaculate drug keeping practices, in all other drug pharmacies in the Establishment and the outside farm in Champignelles drugs are not stored according to regulations and out-dated drugs are everywhere to be found. Dangerous drugs are NOT safely stored and easy accessible for everyone. This poses a SEVERE health and safety risk for staff, students, patients and the general public. This very unsafe situation should be rectified immediately.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are not met because of inadequate drugs' storage and biosecurity procedures in farm animals and equine facilities.

6.1.3 Suggestions

Whereas the deficiencies in the drug storage (production animals and horses) and in the biosecurity level of the older facilities can be fixed immediately and without greater financial investments (improve the daily management and write and implement appropriate SOP's along with corresponding checking measures), the severe problems due to too old buildings need to be addressed by long-term planning and a very close cooperation with the Ministry responsible for the financial support of ENVA.

6.2. CLINICAL FACILITIES & ORGANISATION 6.2.1 Findings

The Establishment is located in the same place of its foundation (1766) in the town of Maisons-Alfort, and comprises 29 buildings in an approximately 57000 m² of total space. Some of these buildings and the ground of the school are listed in the National Historical Monuments. In addition, the Veterinary School possess the domain of Champignelles, Burgundy (CAPA), for farm animals and the Centre for Imaging and Research in Equine Locomotor Disorders (CIRALE) at Goustranville, Normandy. Likewise, three buildings have been recently opened: The Centre of Biomedical Research (CRBM) (2008), the CHUVA (2009) and the CGB which has been partially opened at the time of visitation.

The Establishment also hosts the French Agency for Food, Environmental and Occupational Health & Safety (ANSES), a horse riding centre (SHEVA), the French pork institute (IFIP), and the startups Alforme (physiotherapy and rehabilitation centre for animals) and Cellvax (biotechnology company).

A plan for the renovation and redesign of the site has been developed. The project, which covers the period 2014-2020, is based on three main axes: the research centre backed by the CRBM; the creation of two clinical teaching centres for large animals (cattle, sheep and horses) and a centre for the general educational activities and administration ("Agora").

In the current facilities, teaching, research and clinical activities are integrated and coordinated by different Departments. Clinical activities are organised by species, mainly small animals (including exotics), farm animals (bovine, small ruminants) and equine.

The majority of practical and supervised work for small and exotic animal medicine and surgery is performed in the Hospital (CHUVA). Reproduction consultations (CERCA) and Physiotherapy, Rehabilitation (UMES) are performed in two different buildings close to the Hospital.

The field station of Burgundy (CAPA) covers 86 ha of agriculture land and includes a sheep farm, a herd of suckle cows, 4 beehives, a deer farm, a place to prepare meat and a farm-shop, which is certified to allow the preparation of beef, lamb, goat meat, pork and deer meat. Also there is ample student accommodation used during the weeks that students are there.

At Alfort campus there is housing available of propaedeutic teaching horses and for the teaching of caesarean-section procedures in healthy sheep.

The CIRALE owns 10 healthy horses (5-19 years of age) used for the teaching of locomotor pathology and diagnostic imaging. The centre has 2 barns with a total of 12 large and comfortable stalls used to house client's horses when present for diagnostic imaging or consultation.

The places available for hospitalisation and animal accommodation are listed in table 6.1 are adequate for most species, but insufficient for bovines and lacking for swine and poultry.

For Laboratory Animals, and according to French law; some of the animals used for teaching purposes are housed with laboratory animals. Rodents and rabbits are housed in the CRBM. Animals are housed according to the recommendations of the European directives; dogs are housed in a collective pen kennel, and had opportunity of hide in doghouses.

A Veterinary Biomedical Platform (BioPôleAlfort) is already built, and it will be operative in June of the present year. This facility will provide diagnostic and analytical technologies and expertise in the fields of infectious diseases, pathology, hæmatology, cytology, nutrition, etc.; and pharmaceutical technologies. Platform will give support to clinical diagnosis and clinical trials and in the training of veterinary students and residents in pathology.

Anaesthesia is a centralized service (small animals and equine), and it is performed by two senior clinicians who supervise junior clinicians specialised either in small animals or equine or large animals. Diagnostic imaging is organised into small animal and equine services. The CHUVA has the equipment to adequately perform all of radiological and ultrasonic examinations and a CT scan. Radiological equipment in equine clinics at Alfort is old-fashioned and safety procedures must be revised. The CIRALE is considered a world leader of horse medical imaging, including equipment for thermography, MRI of horse standing and lying, digital radiography and high definition ultrasound. There is a central pharmacy in the companion animal hospital, and for other species, pharmacy services are decentralised to each clinical area.

Health and safety measures for practical work and the laboratories are described in SER and seems to be adequate; however, the serious risks for health and safety in other areas (equine and farm premises) are already described in chapter 6.1.

Different types of waste are collected separately and eliminated properly, especially in CHUVA. The medical waste is packaged in specific boxes (sharps) and transferred to water-tight containers, emptied and incinerated. This type of waste only remains on site for less than 48hr. Chemical waste is collected in specific containers of three categories: toxic, mutagenic and explosive, which are stored in a-bunker and collected once a year by a company specialised in the treatment of chemical waste. Infectious waste is inactivated by autoclave treatment and disposed of as medical waste disposal procedure.

Clinical activity is well organised and distributed into 3 areas: small animals, farm and equine. Consultation hours and emergency services for the different clinics are listed in the SER (tables 7.1.5.1)

In small animals, different disciplines are attended as behaviour, cardiology, dermatology, exotics, internal medicine, neurology, neurosurgery, nutrition ophthalmology, orthopaedics, physiotherapy, reproduction, surgery and vaccinology. Consultations are attended from Monday to Friday. Also, an *emergency service* is working 24 h per day, 7 days per week for 11 months (from September to July), available for dogs, cats and exotic animals. This service is managed by 4 to 6 students, 2 interns and 2 junior clinicians, allocated to this service throughout the week, and reinforced by clinicians from other services if needed. The equipment available is adequate to fulfil the requirements (blood analysis, radiography, ultrasonography and surgical rooms). When hospitalisation is needed, the service collaborates with the intensive care or hospitalisation services, both located at the same floor within the hospital. The emergency service recruits emergencies as well as first or second opinion cases (non real emergencies).

In equine clinic there are disciplines well established: surgery, medicine, ophthalmology, dermatology, anaesthesia and orthopaedics. The equine clinic receives outpatients on a daily basis, which are examined by an intern, helped by a student and supervised by a senior clinician.

Emergencies represent the 16% of the caseload of Equine Hospital. An emergency team is composed to 2 to 3 students, one A5 and, depending of the type of emergency, 1 or 2 interns. For the 8 weeks period when no A4 students are on clinics, or during the spring, the nights and weekends are organised differently. Students and interns are on emergency call once a week and part of each weekend. The entire equine clinic and its equipment are available for emergency work-up and an experienced clinician is always present for each of the cases admitted. The CIRALE does not receive emergencies.

In farm animals there are two types of specialisation: bovine and small ruminants. Most of the animals that are hospitalised in the Establishment are euthanatized and necropsied. In addition, some animals are brought to the school by their owners, which are hospitalised in the stable for healthy animals situated in the Lagneau building and animals that are managed for reproduction and C-section. Ambulatory clinic is operation during the day only for farm animal clinics. Reproductive monitoring and clinical services are performed on 1410 animals in 4 farms situated near Alfort (less than 100 km). Also, health monitoring of 240-350 (up to 400) animals from 3 or 4 farms situated near the Establishment and ambulatory work are organised through an agreement between the Establishment and 3 or 4 (according to the year) farm animal veterinary practices.

The Establishment has other formal agreements with a group of pig producers (CIRHyo), a group of poultry farmers (CAFO), veterinary practices (in Pont-Audemer, Vouziers, Le Chesne) and with a group of veterinarians involved in continuing education (GTV89).

For all species, a software denominated CLOVIS is used as clients and patients database. This is used for all billing, pharmacy dispensing, appointments, sales and to record clinical and diagnostic laboratory information. A separate digital image storage system (Pacs) is used for radiographs and ultrasounds in CHUVA.

6.2.2 Comments

Facilities for housing healthy horses and livestock offer acceptable housing considering animal wellbeing, even if they are old buildings that are sometimes difficult to maintain. The facilities have been upgraded, but the wall-coating in some stalls needs to be improved and actions needs to be taken against pigeons in the building.

The premises and case load for clinical work and student training in the hospital for small animals and exotics are very good; however, the premises for farm animals and equine hospitals are very out-dated and form a serious risk for biosecurity, and the case load has not increased enough, despite a demand from veterinarians (referrals).

Facilities to let the sufficient hands-on clinical teaching of poultry and pigs are insufficient.

The Small Animal Hospital (CHUVA), inaugurated in 2009 is a very well equipped facility, with organised structures or services, leading to a highly specialised system of clinical training for undergraduate and postgraduate students, as well as for clinical researches.

The Biopôle platform is an entity with advantages such as: the facilities, the well-trained and expert team, an integrated offer for clinical and preclinical trials and a translational approach (due to the connections with CRBM and CHUVA). Anaesthesia seem to be deficient in staff, however, the service is organised with a large number of trained practitioners and interns. Imaging service in CHUVA is well equipped and efficiently organised. Radiological equipment in equine clinics at Alfort is old-fashioned and safety procedures must be revised. Pharmacy is not centralised for the farm animals and equine facilities.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

6.2.3 Suggestions

Facilities for equine and farm animals should be adapted and SOP implemented as it has been stated in ER.

Emergency clinic for farm animals is not available and should be instituted.

Arrangements with local food processing units must be achieved to organise visits to these centres.

The Visitation Team has noticed that there is NO standards set for the minimal required clinical activities that a student has to perform or to witness. Furthermore there is no adequate controls and follow-up of the extra-mural education (6weeks during the 4th year) received by the students. We recommend to set these standards, control the students' activities and get close collaboration and feedback from the participating practitioners.

7. ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

7.1 Findings

Animal material for teaching anatomy: Whole animals are commercially acquired; limbs of horses and eyes of pigs are collected from slaughterhouses. Chicken anatomy has been taught in the first semester since 2014 (instead of prior to chicken autopsies in previous years). Preservation of animal materials is done by embalming cadavers with a special method using zinc chloride; vessels are injected with coloured latex (small animals) or plaster (large animals). Cadavers are stored at either $+4^{\circ}C$ (short term) or $-20^{\circ}C$ (long term).

Animal material for teaching pathology: Small animals are autopsied by the Pathology Department of ENVA – cadavers come from the Alfort Veterinary Teaching Hospital and from surrounding private small animal clinics. Food animals are autopsied by the Pathology Department and by the Large Animal Clinical Department of ENVA, but also in the autopsy room of CAPA-Champignelles. Horses are autopsied by the Pathology Department of ENVA and in the autopsy room of ANSES in Goustrainville.

The clinical teaching at ENVA (small animals, horses including teaching at CIRALE, and food animals including teaching at CAPA) is based on a sufficient number of cases and animals. Farm animals (only cattle and sheep) are mostly hospitalised (supplied by livestock merchants) and after the end of the hospitalisation period euthanized (since they cannot be relocated into their herd of origin). There is an increase of referred cases, which resulted in an improvement of the quality of the clinical cases.

Ambulatory clinical teaching is done around Alfort (four farms with 1410 animals mainly for reproductive monitoring and three to four farms for health monitoring), and around the Champignelles Centre. All these ambulatory activities are under the supervision of teachers.

For other farm services and outside teaching, ENVA has a formal agreement with a group of pig producers (CIRHyo), a group of poultry farmers (CAFO), with veterinary practices (in Pont-Audemer, Vouziers and Le Chesne) as well as with a group of veterinarians involved in continuous education (GTV89).

7.2 Comments

The animals and the teaching materials of animal origin used in all three sites of ENVA and in the outside teaching facilities (slaughterhouse and farms and veterinary practices) as described in the SER seem to be sufficient and support a modern veterinary curriculum fulfilling the criteria of the SOP. However, the farm animal teaching is unbalanced in so far that pig and poultry medicine is only taught in theory and demonstrated to the students via ambulatory clinical visits in either the vicinity of Alfort or in the area around Champignelles.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

7.3 Suggestions

The farm animal hospital in Alfort needs urgent renovation or completely new buildings. Additionally, there should be some kind of hands-on teaching also in pig and poultry medicine.

8. LIBRARY & EDUCATIONAL RESOURCES

8.1 Findings

The ENVA library is one of the world's richest in veterinary medicine. It owns 180.000 volumes, many of them with an historical value. The library also provides 2300 periodicals, some of them being also available on-line (around 2000 e-journals in total, 300 ones devoted specifically to veterinary sciences).

The total area of the library is 800 m2 with about 100 reader places available. The library is open five days a week, from 9 to 18H. It is closed three weeks in August. It employs one librarian (full-time), one library technician (full-time) and one technical assistant (part-time: 80%). Four educational departments have also a library, which may be available for students.

The ENVA library collaborates with other libraries at the regional, national and international levels (e.g. Bibliothèque Inter-Universitaire de Santé de Paris, INRA, INSERM, other veterinary Establishments). It is also involved in a national programme of digitisation e.g. for ancient veterinary books.

Training for bibliographic search and IT use is taught during the first year of the curriculum (4h). A digital education platform (EVE), which uses the Learning Management System Moodle, has been recently developed. It gives students access to various learning tools on a regular basis. Nearly all courses use EVE, at least by creating folders for pdf files, and more and more teachers are developing more advanced online learning activities, with the support of the IT unit.

A Moodle training and e-learning platform (AlForPro) has also been launched recently for continuing education.

Wi-Fi is available in quite all rooms of the Establishment.

A professional librarian has been recruited recently. She started implementing changes in the traditional system.

8.2 Comments

Both staff and student appreciate the services provided by the library and other educational resources. The team supports changes introduced by the new librarian. The e-learning platform is more and more used in order to efficiently support the lectures and practicals.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

8.3 Suggestions

It is strongly suggested to increase the number of e-books available for students and to make the VPN available for all students, in order to allow them to access the e-journals and intranet databases from abroad.

9. ADMISSION & ENROLMENT

9.1 Findings

The total number of undergraduate students at the time of SER writing was 614.

A competitive national entrance exam after two years of study after obtaining the Baccalaureate (high school diploma) is organised by the Ministry of Agriculture. The examination is open to all students with the necessary prerequisites and the selection process is neither regional nor specific for a French veterinary school.

The admission of a student into one of the four schools is determined by his/her admission ranking and choice, and it is determined before the examination.

The school does not have its own admission committee, but it takes part in the final decision whether students are accepted or not.

Each year, a total of 548 students are recruited for the four schools. The number of students admitted by competitive examination is set annually by the Ministry of Agriculture. An applicant cannot apply more than 2 times.

Five types of admission exams are possible in France offered to different types of students with different backgrounds and histories.

9.2 Comments

The procedure of selecting and admitting new students is a long-term process and it is highly selective. Admission to a veterinary school is considered as a prestigious achievement, due also to a relatively low numerus clausus.

The fact that the procedure of admission is not organised by the schools gives the process more objectivity. Although the Establishment does not a too strong influence of the entire process, it is satisfied with the level and motivation of the students admitted.

According to the Establishment, the number of graduates coming to the labour market is too low. However, there is no direct link between the numerus clausus and allocation of the budget. A recent increase of numerus clausus has not been followed by additional budgeting.

The general level of veterinary students at ENVA is rather high. The dropout rate is rare and due mostly to health or family issues.

International students are admitted individually based on their specific situation.

The compulsory international exposure of students (set up at the national) is a useful requirement beneficial for all students. It seems that the level of language skills has improved significantly in French schools, although there is still an important individual variation.

Taking together, the French admission system to veterinary schools is highly selective and seems to be efficient.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

9.3 Suggestions

The Establishment is encouraged to negotiate with the competent authorities' implementation of a system of budgeting that would permanently reflect changes in numerus clausus.

10. ACADEMIC TEACHING & SUPPORT STAFF

10.1 Findings

The number of academic teaching positions seems to be sufficient for the present number of students, however, the number of support staff, especially nursing and caretaking staff in the clinics, is regarded as insufficient by the administration of ENVA. For the near future, a shortage of academic teachers and an even greater lack of support staff are foreseen, since the Ministry has increased the number (20 per year from 2013) that have to be accepted by ENVA, so that until the year 2018 approximately 140 students per year have to be accepted by the Establishment. The total increase after 5 years will be of 100 students. This increase and the fact that there is a development towards more practical demonstrations for smaller groups will be offered (which is demanding more teaching staff than offering lectures to bigger groups) means that the present academic teaching and support staff of approximately 310 FTE (200 paid by the state, 110 paid by ENVA) will not be able to provide the same high quality teaching and research work by ENVA as today.

As for the relative shortage of support staff (e.g. animal caretaking), support staff may be moved within the Establishment, however, only if the skills fit the needs, which is not too often the case.

Calls for applications for academic staff are only published in France, which may lead to missing opportunities of filling vacant positions with highly competent academics from all over Europe.

Major permanent problems for recruiting enough appropriately qualified staff are a) that the salaries per comparable positions are the same for all four veterinary schools in France, but the living expenses in Paris are much higher than in Lyon, Nantes and Toulouse, which is a disadvantage for ENVA, and b) Paris offers lots of positions, which are often better paid for by other entities (even other Ministries throughout the Paris area are competing with higher salaries) c) the legal regulations do not allow the Establishment to increase the numbers of FTEs and to offer full-time positions, even if it could cover these costs from its income.

10.2 Comments

1. All ratios are within the range. It means that the structure of staffing at ENVA is similar to other European Establishments and in these terms there is no substantial deficiency.

2. The strong point is that an HR department has been established and that at the level of ENVA as well as partly at the organisational units level, the decision making process and the administration are currently more professional and more complex.

3. Strong points in the HR are the multi-year plan and the system of appointing new academics. Priorities in recruiting European Diplomates are in line with the current trend in veterinary teaching hospitals and Establishments.

4. Limitations and weaknesses: As usual in many countries, the grids are imposed by the Ministry of Finances. Based on the ratios however, this is not a big limitation. Low salaries in general and the maximum (70%) working time for employees and technicians represent a much bigger limitation for the HR policies at different levels.

5. There is no periodic evaluation of the support staff, and the decision making process for non-teaching staff has not been completed and implemented yet.

6. Based on discussion with staff, it seems that the communication of this department with other departments could be better and more comfortable.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

10.3 Suggestions

ENVA should raise awareness in the Ministry of Agriculture that there may be a shortage of the number of academic and support staff in the years to come. The Visitation Team strongly recommends to make sure (= to discuss the issue with the Ministry) that the changing number of

first year students that ENVA has to accept in the years to come corresponds with the appropriate number of academic teachers and support staff.

ENVA is strongly advised to implement a periodic evaluation for not only academic, but also for support staff.

ENVA should advertise academic positions not only in France, but also in appropriate international media.

Efficiency and communication skills of most of administrative departments could be improved (although progresses have been made recently).

11. CONTINUING EDUCATION

11.1 Findings

Continuing Education is in the objectives of the ENVA and is organised by the school itself for practitioners and veterinary employees. A separate office has been created to manage administration, finance, organisation and certification of the courses offered. Courses are offered in skill trainings and official degree programmes. Also a collaboration project has been started which is partnered by the Royal veterinary College of London.

Also an online training and e-learning platform has been launched in 2013 (AlForPro).

11.2 Comments

It is not clear from the SER in how far collaboration with other Veterinary Faculties and the Pharmaceutical and/or Veterinary Industry is going to enhance the continuing education offered. There is a legal requirement for continuing education, but most of courses seem to be offered outside the school's framework. Lack of support from the CE-office and the fact that revenues generated out of CE-courses cannot be used within the own department, greatly demotivates the teachers of this Establishment.

A wide range of courses is being offered and/or developed for the e-learning platform and this should be extended with current online course material from the veterinary curriculum. Most sectors of the ENVA are participating in providing CE courses. There is a competition with other courses offered by teachers from other veterinary and non-veterinary institutions.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

11.3 Suggestions

The courses offered seem to be geared mostly to practising veterinarians, perhaps more courses can be offered for veterinary employees in private and/or public sector. Also the income generated out of the CE-courses should be mostly allocated to the teachers of these courses and their departments. Support from the CE-office should be enhanced to support the clinicians in their efforts.

The subjects offered in the CE-courses between the 4 veterinary schools in France should be made available on the new e-learning platform, in order to exchange knowledge and this should also be made available to undergraduate students.

The excellent wildlife rehabilitation experience and other specific knowledge should be better promoted to show in what field the Establishment excels other institutions.

12. POSTGRADUATE EDUCATION

12.1 Findings

Veterinary specialisation in France includes two categories:

- A national category, which is denominated DESV system (Specialised Veterinary Diplomas in Veterinary Sciences). This system consists in a 3-year programme co-organised by National Organizing Committees and participating the 4 Veterinary Schools. After an exam, a French National Diploma is obtained.

- The European category, with the residency programmes of the European Colleges.

Nowadays, two French Diplomas are currently offered at the Establishment, in Small Animal Internal medicine and Behaviour.

Regarding the number of residents working at the Establishment, it is elevated, considering that 40 clinicians are diplomats of National, American or European Veterinary Specialisation, 35 of them European or American Diplomats.

Several residency programmes have been approved by the corresponding European colleges, especially in small animals and equine. In addition, 4 new residency programmes have been approved and were recently opened: anaesthesia, zoological medicine, ophthalmology (joined with a DESV) and

Cardiology. A total of 10 residents were trained during the period (2013-14) in different specialities listed in table 12.1 of the SER. Also, 7 residents in pathology are trained and two residents in orthopaedics (CIRALE).

There is a established internship training in the Establishment and a total of 31 interns were trained in the period 2013-14, 20 in small animals, 8 in equine and 3 in farm animal. Interns rotate through different disciplines (internal medicine, surgery, imaging, anaesthesia), which let them to acquire an adequate training in the corresponding species.

According to SER, 20 PhD students are enrolled in the different programmes. The duration of the PhD is 3 years. Research in the Establishment is focused on two axes: animal infectious and zoonotic disease; and muscular locomotor and reproduction biology and medicine.

12.2 Comments

The number of residents and residency programmes in the Establishment are elevated.

The number of interns in the different species is unbalanced: in the small animal clinic are adequate, but in farm animals (only 3). Interns are well trained and motivated. They collaborate in clinical teaching for undergraduate students and let the Establishment to maintain the large caseload. However, the social situation of this category of staff is not satisfactory.

The financial support of PhD students is sometimes difficult to achieve.

The research in clinical areas not covered by the two research axes has to be founded by other mechanisms (private companies).

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

12.3 Suggestions

None.

13. RESEARCH

13.1 Findings

The Establishment is performing research in several fields of veterinary sciences, including animal and human public health. It supervises 8 major joint research units with a total of 131 permanent scientists, in collaboration with other institutions. Several teams participate to European and other international projects.

The research themes represent two main axes, each of them organised into 4 research units. The first research axis is focused on animal infectious and zoonotic diseases, the second one focuses on muscular and reproduction biology and medicine. Besides these two major activities, research in other fields is also conducted. 80-90 publications per year in life science journals (all IF>0.5) represent the scientific output.

All students can participate in the research activities. Learning units related to research activities representing approximately 10-15 h per semester are offered to students. The "research curriculum" also provides information on post-graduate programmes for students.

Approximately 8-10% of recently graduated students pursued as Master students within the doctoral track. Post-graduate students are currently represented by 20-25 PhD fellows and 8-10 Master students under the supervision of the Establishment's academic staff members.

Around 60% of undergraduate diploma theses are directly related to experimental research (60/96 in 2013).

13.2 Comments

The modern One Health concept underlies the Establishment's research activities. An overall concept and research priorities have been well defined by ENVA. It seems that these activities are well coordinated and less fragmented than in many other European veterinary teaching Establishments. As traditional in France, collaboration with several research institutions is well established and research is collaborative.

Students are informed and motivated to join research activities. If they want they even may take benefit of the tracking system to get more involved. With an important proportion of theses based on research, ENVA is an example of good practice in interconnecting research and teaching.

Although clinical and contractual research in other areas than in the two axes is also conducted, it is a lesser part of the whole research activity.

In the Visitation Team's opinion, the requirements regarding this chapter as they are laid down in Annex I of the SOP are met.

13.3 Suggestions

Based on the performance of the small animal clinics and its high caseload, ENVA could perhaps think of a third axe of research that could further develop specific aspects of clinical research.

EXECUTIVE SUMMARY

The 'Ecole Nationale Vétérinaire d'Alfort' (ENVA), which was first established in 1766, has been visited by EAEVE in November 2001, re-visited in February 2008 and approved by an ECOVE decision on April 2008.

The SER was well written, complete and provided on time to the Visitation Team. Since the Establishment is in a transition period for adapting its curriculum and facilities, additional information was provided on site.

The Visitation was well prepared, well organised and carried out in a cordial and professional atmosphere. The liaison officer was easily and efficiently available when requested. The programme of the Visitation was easily adapted when requested by the Visitation Team who had full access to the information, facilities and individuals they asked for.

The Visitation Team has identified areas worthy of praise, e.g.:

- -) staff & students proud of their Establishment
- -) availability of a real strategic plan supported by most of the staff and students
- -) commitment to improve the teaching, services and research
- -) integration of teaching, services and research activities
- -) high case load specially in pets
- -) hands-on clinical training of undergraduate students.

The Visitation Team has also identified several potential deficiencies, e.g.:

-) insufficient efficiency and communication skills of most of administrative departments (although recently improved)

-) lack of freedom to use to incomes from services and continuing education

-) inadequate drugs' storage and biosecurity procedures in farm animals and equine facilities (it is the opinion of the Visitation Team that this issue could affect the health and safety of staff, students and patients and that it should be addressed immediately)

-) inadequate clinical training in the pig and poultry sector

-) lack of standards and control measures of most EMS

-) lack of 24H emergency services in farm animals

-) inadequate coverage in Food Safety and VPH, specially in the pig, poultry and fish sector

-) lack of practical training in food technology and food microbiology

-) lack of e-books and lack of VPN for all students (to access the intranet from outside of the Establishment).

The potential Major Deficiency suggested by the Visitation Team is: inadequate drugs' storage and biosecurity procedures in farm animals and equine facilities.

Therefore the Visitation Team recommends to ECOVE the status of Conditional Approval for the ENVA.

Annex 1: Indicators (ratios)

						GUIDELINES
R1:	nº of undergraduate veterinary students	=	614	=	5	<8.381
	nº of total FTE academic staff in veterinary training		122.6			
						GUIDELINES
R2:	nº of undergraduate students	=	634	=	5.17	<9.377
	nº of total FTE academic staff		122.6			
						GUIDELINES
R3:	nº of undergraduate veterinary students	=	614	=	5.13	<11.057
	nº of FTE veterinarians in veterinary training		119.6			
D 4	nº of students graduating annually		114.8		0.07	GUIDELINES
K4:	nº of FTE veterinarians in	_ = _	119.6	_ =	0.96	<2.070
	veterinary training					
						GUIDELINES
R5:	nº of total FTE support staff in veterinary training	=	202.1	=	1.65	0.505-1.907
	n° of total FTE academic staff in		122.6			
	vetermary training					
						GUIDELINES
R6a:	supervised practical training	=	1950	=	0.57	>0.602
	Theoretical training		3421			
DCh			0171			GUIDELINES
KOD:	supervised practical training	=	21/1	=	0.58	>0.602
	Theoretical training		3735			
						GUIDELINES
R6c:	supervised practical training	=	2999	=	0.79	>0.602
	Theoretical training		3779			
						GUIDELINES
R6d:	supervised practical training	=	2785	_	0 72	<u>\0 602</u>
	Theoretical training		3814	_	0.73	20.002
	meoreacai training		5017			

						GUIDFLINFS
R6f:	supervised practical training	=	317080	=	0.76	>0.602
	Theoretical training	_	420026			
						GUIDELINES
D7 2	Laboratory & non clinical animal work	_	929	_	1 0 1	~1.900
N/d:	Clinical work		1967		1.01	<1.009
R7b:	Laboratory & non clinical animal work	=	1019	=	0.88	<1.809
	Clinical work	_	1152		0.00	
						GUIDELINES
R7c:	Laboratory & non clinical animal work	=	1036	=	0.52	<1.809
	Clinical work	_	1963	_		
						GUIDELINES
R7d:	Laboratory & non clinical animal work	=	1016	=	0.57	<1 809
	Clinical work	_	1769		0.57	
						GUIDELINES
R7f:	Laboratory & non clinical animal work	=	139286	=	0.69	<1.809
	Clinical work	_	200718		010 9	
			(254			GUIDELINES
R8a:	teaching load	=	6254	=	2.80	2.59-46.60
	Self-directed learning		2229			
						GUIDELINES
R8b:	teaching load	=	7945	=	3.28	2.59-46.60
	Self-directed learning	_	2419			
						GUIDELINES
DO	teaching load		8430			
K8C:	Self-directed learning	= _	2573	_ =	3.27	2.39-40.00
						GUIDELINES
DOd.	teaching load	_	8406	_	2 27	2 50 46 60
KOU:	Self-directed learning		2490	_ =	3.3/	2.39-40.00
						GUIDELINES

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DOf.	teaching load	_	941395	_	2 20	2 50 46 60
KOI:	Self-directed learning	_ =	286033	_ =	3.29	2.39-40.00
						GUIDELINES
R9a.	total n° hours in the vet curriculum	_	6254	=	22	8 86-31 77
it yui	n° hours in FH/VPH		283			0.00 01.77
						GUIDELINES
R9e:	total n° hours in the vet curriculum	=	8034	=	3.89	8.86-31.77
	n° hours in FH/VPH		2063			
						GUIDELINES
DOC	total n° hours in the vet curriculum		719728		20.0	0.06.21.77
К91:	n° hours in FH/VPH	_ =	34326	_ =	20.9	8.80-31.77
						GUIDELINES
R10:	n° of hours obligatory extramural work in veterinary inspection	=	43	=	0.15	0.074-0.556
	n° hours in FH/VPH		283			
						GUIDELINES
R11:	nº of food-producing animals seen at the Establishment	=	445	=	3.87	>0.758
	nº of students		114.8	_	0107	
	graduating annually					
	nº of individual food-animals		1955			GOIDELINES
R12:	consultations outside the Faculty	_ = _		_ =	17.03	>8.325
	nº. of students graduating annually		114.8			
	B					GUIDELINES
D12.	nº of herd health visits		42		0.26	× 0.22C
K13:	nº of students		114.8	_ =	0.36	>0.326
	graduating annually					
	nº of equipo casos		1369			GUIDELINES
R14:	in of equine cases	=	1500	=	11.9	>2.700
	nº of students		114.8	_		
	graduating annually					
	no of a /		014			GUIDELINES
R15:	nº of poultry/rabbit cases	=	914	=	7.96	>0.407
-	nº of students		114.8	_		• •
	graduating annually					CHIDEI INES
	nº of companion animals seen at the		32888			GOLDELINES

R16:	Establishment nº of students graduating annually	_ = _	114.8	=	286.5	>48.06
R17:	n° of poultry flocks/rabbits production units visits nº. of students graduating annually	_ = _	10	=	0.09	GUIDELINES
R18:	nºof necropsies of food producing animals + equines nº of students graduating annually	_ = _	510 114.8	=	4.44	GUIDELINES
R19:	n° of necropsies of poultry/rabbits n° of students graduating annually	_ = _	71	=	0.62	GUIDELINES
R20:	n° of necropsies of companion animals n° of students graduating annually	_ = _	291 114.8	=	2.53	GUIDELINES

e: FS & VPH track (n=1)

f: cumulative weighted curriculum

Annex 2: Decision of ECOVE

The Committee concluded that the following Major Deficiency has been identified:

-) inadequate drugs' storage and biosecurity procedures in farm animals and equine facilities.

The 'Ecole Nationale Vétérinaire d'Alfort' is classified after Stage 1 Evaluation as holding the status of: **CONDITIONAL APPROVAL**.