TEEP

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TEEP

Transnational evaluation of four European Veterinary programmes

2003

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1 Background of the TEEP project

1.1 The Bologna declaration

Since 1999, any European perspective on the quality of higher education has been strongly influenced by the processes of the follow up to the Bologna Declaration of that year, signed by 29 European Ministers of Education. By signing this declaration the Ministers agreed to coordinate their policies to attain a number of objectives, which they consider to be of primary relevance in order to establish a European area of higher education and also to promote the European system of higher education worldwide. Their agreed objectives, with a target date of 2010, are:

Adoption of a system of easily readable and comparable degrees, also through the implementation of the Diploma Supplement, in order to promote European citizens' employability and the international competitiveness of the European higher education system;

Adoption of a system essentially based on two main cycles, undergraduate and graduate. Access to the second cycle shall require successful completion of first cycle studies, lasting a minimum of three years. The degree awarded after the first cycle shall also be relevant in the European labour market as an appropriate level of qualification. The second cycle should lead to an MA and/or Doctorate as in many European countries;

Establishment of a system of credits - such as in the ECTS system - as proper means of promoting maximum student mobility. Credits could also be acquired in non-higher education contexts, including lifelong learning, provided they are recognised by the universities concerned;

Promotion of mobility by overcoming obstacles to the effective exercise of free movement with particular attention to:

Students, access to study and training opportunities and related services.

Teachers, researchers and administrative staff, recognition and valorisation of periods spent in a European context researching, teaching and training, without prejudicing their statutory rights;

Promotion of European cooperation in the area of quality assurance with a view to developing comparable criteria and methodologies;

Promotion of the necessary European dimensions in higher education, particularly with regard to curricular development, inter-institutional cooperation, mobility schemes and integrated programmes of study, training and research.

The ministers made a commitment 'to attain these objectives - within the framework of our institutional competences and with full respect of the diversity of cultures, languages, national education systems and of university autonomy - to consolidate the European area of higher education' and stated further that 'To that end, we will pursue the ways of intergovernmental cooperation, together with those of non-governmental European organisations with competence on higher education. We expect Universities to respond promptly and positively and to contribute actively to the success of our endeavour.'

This general background, and the subsequent initiatives and developments between the ministerial meetings in Bologna and Prague and beyond, have provided the major motivation for the establishment of the Transnational European Evaluation Project (TEEP).

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The project is coordinated through the European Network of Quality Assurance in Higher Education (ENQA) with the participation of the SOCRATES Thematic Networks of the three disciplines history, physics and veterinary science contributing to the project. Representatives of ENQA, the chairpersons of the SOCRATES Thematic Networks, the European Commission and representatives of the relevant quality assurance agencies constitute the management group of the project.

1.2 Introduction

The Transnational European Evaluation Project (TEEP) is a pilot project with the objective of investigating the operational implications of a European transnational quality evaluation of study programmes in three subject fields, History, Physics and Veterinary Science.

Five, five and four European Universities in each of the three discipline areas respectively: Physics, History and Veterinary science participate in the evaluation. In all, fourteen programmes in ten different European countries are evaluated.

The TEEP objectives were:

To develop further a method for transnational external evaluation building on experiences such as the Tuning project and the Bachelor/Master descriptors developed through the joint quality initiative, using common criteria on the basis of an evaluation process in three different discipline fields.
Identify possible obstacles to transnational evaluation and indicate strategies that might be used to overcome them.
Contribute to more visibility, transparency and compatibility in European higher education.

Anticipated benefits of the TEEP

The probably benefits of the TEEP should include:

For European Higher Education:
A method for trans-national evaluation building on predefined criteria which are commonly agreed and which have been tested and offer a dimension of transparency and comparability of the quality of programmes across borders;
A contribution to the development of the subject on the basis of the recommendations from experts and good practices from comparable programmes in other countries;
An opportunity to share experiences with other programmes and peers and the possibility of establishing networks to assure the continuous improvement of the programme quality;

For the participating institutions:
The opportunity for the participating institutions to promote both their institution and the programme as such.
The opportunity to get feedback in order to help them improve their quality assurance culture.

Scope
The European veterinary programmes subjected to the review are:
Veterinary, Universitat Autònoma de Barcelona, Catalonia (Spain)
Veterinary, Szent István University of Budapest, Hungary
Veterinary, University of Glasgow, Scotland (UK)
Veterinary, University of Ljubljana, Slovenia

Evaluation method
The method consisted of three main elements: self-evaluation reports, site visits conducted by external expert panels and publication of reports. In other words the method corresponds to the European Council recommendation of 1998 on European cooperation in quality assurance in higher education.

Self-evaluation report

The first element in the evaluation has been a self-evaluation by the chosen study programmes carried out by the respective higher education institutions. As the transnational evaluation is a "lighter" version of evaluation, the self-evaluation report has been structured around pre-selected focal points:

Educational context

Competences and learning outcomes;

Quality assurance mechanisms.

The preparation of the self evaluation report was designed to serve three distinct aims:

to provide a framework to stimulate internal discussions on strengths and weaknesses related to the three themes that are the focal points of the evaluation. This should provide opportunities to assist the continuous improvement of the quality of the programme;

to provide comparable documentation to be used by the panel of experts, in their preparations, site visit, evaluations and reports;

to invite comments on the utility of the criteria when the framework is applied to different programmes delivered within different national contexts;

The self evaluation reports together with the information gathered during the site visits constituted the documentation for the evaluation.

The self evaluation report was prepared at each programme by a self-evaluation group under the responsibility of a chairperson. The self evaluation group was responsible for the preparation of a self evaluation report which should reflect the results of the group's work. The self-evaluation groups included at least one representative from each of the relevant stakeholders at the programme level, including management, staff actively involved in teaching, students and administrative staff.

Site visits

The self-evaluation was followed by site visits by teams of four experts. The site visits took place in January-March 2003 and lasted 1 day per institution. All site visits were structured in a similar way, in accordance with a standard programme. The site visits provided the panel with an opportunity to ask the institutions to elaborate on unclear and less substantiated sections of the self-evaluation reports. At the same time, the site visits have served to validate the information provided in the self-evaluation reports. Furthermore, the site visits allowed the experts to get a comprehensive and clear view of the programme through discussions and interviews with main stakeholders.

Each visit comprised a number of separate interviews with different groups of stakeholders, who are in one way or another engaged with the programmes under evaluation. The expert panel has interviewed students, graduates, teaching staff, management and the self-evaluation group about their perspectives.

Report

TEEP results in one report for each of the three disciplines: History, Physics and Veterinary science. For each panel a draft report is prepared and submitted to the participating programmes. The programmes provide the secretary with corrections of factual errors in the draft report and the final report is prepared in the light of the institution's response.

Since TEEP is a pilot project for trans-national evaluation that is based on predefined criteria, a report on the methodological experiences, and recommendations for future trans-national evaluations, will be prepared for the European Commission once the evaluation processes are finalised. The methodological report will published in October 2003.

Organisation of the evaluation

The criteria presented in Annex A constitutes the framework of the evaluation. An evaluation officer from the Agència per a la Qualitat del Sistema Universitari a Catalunya (AQU) is responsible for the methodological aspects of the evaluation, while a panel of international experts is responsible for the academic quality of the evaluation including the recommendations for the participating institutions presented in this report.

The members of the panel of institutional experts (the panel) are:

Chairman: Prof. Dr. Patrick Benard
Ministère de l'agriculture, de l'alimentation, de la pêche et des affaires rurales
Vice-Chairman: Prof. Dr. Professor Dr. André Parodi (Ecole Nationale Vétérinaire d'Alfort),
Dr. Francis Anthony BVMS MRCVS (Former president of Federation of Veterinarians of Europe)
Professor Dr. Jaroslav Hanák (University of Veterinary and Pharmaceutical Sciences Brno, Czec Republic)
Professor Dr. Jürgen Gropp (Institut für Tierernährung, Ernährungsschäden und Diäteik Veterinärmedizinische Fakultät Leipzig)
Professor Dr. Henriette Strom (Royal Veterinary and Agricultural University)

In each visit there was the following participation of young graduates from the faculties:
Mr. Simon Doherty BVMS MRCVS (Veterinary practitioner) (Glasgow)
Mr. Xavier de Paz (Veterinary of B&M) (Barcelona)
Ms. Katarina Sveticic (LEK International Pharmaceutical group) (Ljubljana)
Ms. Noémi Szilagyi (Veterinary of CEVA Sante Animale) (Budapest)

The Head of Institutional Evaluation Area Josep Grifoll from AQU is secretary for the Veterinary evaluation.

2 Comparative perspectives

In accordance with the three themes of the self-evaluation manual: educational context, competences and quality assurance, the first part of report will focus on the following topics:
The level of implementation of the first and second cycle.
The extent to which the programmes formulated use competences and learning outcomes, including the level of knowledge and the applicability of the Tuning-criteria
The level of implementation of quality assurances in the programmes

Degree structure and definition.

Compared with the transnational evaluations for History and Physics, in Veterinary Sciences the evaluation was carried out at a MA level. In fact, this is consequence of the present situation of a "long unique cycle" degree in this discipline. Therefore, Bachelor and Master structure (2 cycles), as it is defined in the Bologna Declaration, is not applied in this case of education.

On the other hand, it should be underlined that the actual degree has both BA and MA characteristics. The degree is clearly oriented to the labour market (bachelor), but at the same time the education of a veterinarian requires an amount of training that is evidently equivalent to a Masters. Additionally, the definition of the veterinary degree as an MA would not be precise, as the degree is not mainly oriented to research or towards specialization in one academic field.

All these aspects lead us to question whether this new European frame is suitable for professional-oriented degrees, such as veterinarians or medical doctors, that take longer to acquire in comparison with other disciplines with degrees oriented towards the labour market, at least, not without some changes in the legal framework in relation to those degrees and professional areas.

Moreover, the evaluation shows that is not easy to formulate a shorter or intermediate degree without affecting the whole structure of Veterinary Science education.

In general the programmes are built following a pyramidal model with two major blocks. The first academic years are devoted to the principles of scientific knowledge and the basic topics of veterinary medicine, while towards the end of the course clinical subjects and professional practices are covered. This low presence of professional-oriented subjects in the first part of the curriculum makes it difficult to establish a previous degree (labour market oriented) at the end of the third year, (for instance),although there is an example of a Faculty with a circular model where the professional skills are introduced earlier, but in order to introduce two levels (Bachelor/Master) some redefinition of professional skills in both degrees will definitely be required.

In any case, it is obvious that nowadays Veterinary Science is organized to train Veterinarians. In this sense, departments considered how it would be possible to modernize the current veterinary degree, as they consider the degree to constitute the cornerstone of their educational system. In this sense, for the moment, degree contents, subjects, clinical training, or even the length in years (two faculties are working to add a 6th year to the programme) are the main concern. Therein lies a secondary interest, in considering "intermediate degrees" (bachelors), which is probably not the case in other academic fields where a bachelors degree is seen as the base of the education.

A second important point for consideration about the current degree is the necessity to modernise the EU directives in order to adapt them to the new educational profiles and professional demands. In this respect, it would be interesting to reflect on how Food Hygiene and food technology are developed in the Veterinary Sciences degrees, considering the professional responsibilities of veterinarians in this matter, but also in connection with the existence of other disciplines such as agricultural engineers or specialists in food technology.

Competences and learning outcomes

Veterinary Sciences have only participated as a synergy group in the project TUNING focusing on establishing descriptors in some disciplines at European level. It was therefore not possible to fully develop the project. Although the veterinary profession is guided by a European Directive of 1978, it must be pointed out that the evaluation counted with a document "The Veterinarian Profiles for the Future" drafted by the VET2020 group according to the TUNING rules on how to define competences and skills and facing the future needs of the profession.

TEEP criteria established that evaluated programmes are expected to have formulated both specific and generic competences at programme and course level. The competences should be communicated to staff and students to set up the expected achievements of the education process. Teaching and learning methods as well as assessment methods should support the development of planned skills.

Moreover, for Veterinarians it should be reminded that the concept of skill also signifies what the profession should be expecting of its new graduates in their first week in practice after matriculation. This is very interesting because it determines "short term" skills, and is a source of useful information for employees and society.

In practice, due to those requirements (EU directives, national regulations and other European developments) evaluated faculties have defined their programmes in order to deliver all subject related competences through compulsory subjects. The situation is evident when compulsory courses represent,

in all cases, more than 80% of the programmes (in two cases practically 100% of the curricula). Despite this high percentage of compulsory education, it was recommended that there be some subjects connected with new labour market demands; in parallel, information to students on new professional fields should be improved because it represents interesting opportunities in terms of jobs.

The area of generic competences is less developed. As a relatively new area, it needs strengthening. At present, Faculties have defined a set of generic skills for veterinary training, but, a second step recommends a greater reflection of the appropriate balance of knowledge and learning outcomes with regard of competences, on knowing how to act and how to be a Vet.

If teaching and learning methods broadly enable the achievement of subject related competences, it is important to notice that there are shortfalls in the introduction of project-oriented education or working methods based on clinical cases reports. Those teaching procedures are needed to facilitate the acquisition of some generic skills and aptitudes. On the other hand, in the face of a context of ongoing change that requires life-long learning and the capacity to permanently update knowledge, in several cases it was observed that the amount of time devoted to attend lectures in classrooms (very high) suggested that self-learning development is not, for the moment, a priority, although it was declared important for institutions.

Finally, on assessment methods, it should be underlined that these are organized to monitor the acquisition of subject-related competences, while the appraisal of the achievement of some generic competences is much less developed. Mainly, this situation is due to the fact that significant resources are required. However, a greater use of multiple assessment strategies would also make it possible to obtain indicators in different circumstances.

At present, this lack of assessment methodology is partly made up by getting feedback from companies where students do their placements and from the labour market. Although in some cases the organization of this feedback (especially for graduates and employees) requires greater formalization.

Quality assurance

Formal quality assurance constitutes a new development in the evaluated faculties. But it is important to mention that the professional dimension of the degree, jointly with the existence of a European directive, traditionally encouraged the implementation of some quality control measures. Moreover, at European level, one of the most valued actions is developed by the EAEVE with its evaluation system. In this sense, TEEP observed that evaluated faculties do list quality matters as a relevant topic on their agendas. And they have a positive attitude in dealing with quality, being evaluated externally and at European level.

All faculties are working on several quality assurance initiatives. The initiatives are diverse, but there is a general tendency to favour the inclusion of students in the system, and, all faculties have procedures to make their participation possible. There are relevant internal controls in the delivery of training.

On the other hand, it was noticed that faculties and department should improve the participation of stakeholders (graduates, and employees) in the system. Additionally, it seems there is a need to establish in a more precise way strategic plans or institutional objectives and missions, and set up adequate procedures to evaluate their accomplishment.

Regarding the degree of implementation of QA mechanisms, slight differences were observed. At this point, it is important to mention that QA mechanism implementation clearly depends on 4 different factors. At institutional level, the support of senior management teams, the involvement of staff and the existence of individual experts or teams of QA (in faculties or in universities). Externally, the fourth factor in promoting QA is the regulatory context at national level.

Senior management support and a significant number of staff dealing with QA matters was observed in all the evaluated faculties, but the evaluation showed differences in so far as concerns the other two factors.

In general there were two faculties with longer-standing experience on QA (at least at university level). They also had experts willing to follow the QA procedures. The other two faculties, however, are newcomers in developing structures in terms of expertise staff and bodies. This gap is probably mainly due to a different tradition in QA regulations at national level, for instance in the implementation of a general policy and its legal and technical tools in QA. On the other hand the task of QA agencies in methodologies, in preparing benchmarking statements and other related tools have been an essential element to promote QA development in the faculties. In any case, QA systems need to mature in all evaluated faculties. This would permit a better use of tools and an optimisation of the resources dedicated to QA.

Finally, while degree contents are more or less specified in EU directives, and learning methods and facilities are contemplated in different evaluation methodologies, minimum requirements for QA mechanisms have not yet been established.

3 Institutional Reviews

The following chapters contain institutional reviews of the Vet Sciences programmes offered at Universitat Autònoma de Barcelona, Szent István University of Budapest, University of Glasgow and the University of Ljubljana. It is important to emphasize that the expert-panel gained a **positive impression of all four programmes** as good educational courses. In fact all programmes have a national reputation for providing high quality programmes and they have highly selective admittance procedures that ensure a high calibre of students.. This does not mean that the individual programmes do not have specific weaknesses. The reviews in this chapter need to be seen in context of the general view that all four programmes have a raison d'être and offer veterinary training at a satisfactory level.

The assessment of the programmes focuses on the following three selected areas: Educational context, skills and learning outcome and quality assurance. The programmes have been reviewed against a common set of quality criteria, associated with each of the three focus areas mentioned above.

It should be mentioned that the documentation procured in the institutional accounts and during the site visits is not entirely consistent. Some themes and aspects are highlighted more for one programme than at another. This point is accentuated by the fact that the strengths and weaknesses of each programme have to some extent been reviewed in relation to the specific context of the institution and the national higher education system. Furthermore, the differences in feedback on the programmes are also a reflection of the fact that the self-evaluation reports differ.

4 Universitat Autònoma de Barcelona

Educational Context:

The Faculty of Veterinary Medicine belongs to the Universitat Autònoma de Barcelona, a university with 29 faculties and schools that offer 72 different study programmes. The Faculty was founded in 1982 and it is the only one in Catalonia, a Spanish community of 32,000 Km^2 and a population of 6 million. The nearest Veterinary Faculties (Valencia, Saragossa in Spain and Toulouse in France) are located about 350 Km away.

A1. Regulation and programme approval procedures:

The procedure for the approval of a curriculum covers two phases. Internally, the design of the curriculum is carried out by a Faculty committee, approved by the Faculty senate and finally sent to the central government of the University. The curriculum is then approved by the university quality assurance office and by the higher legislative body within the University. Once approved at University level, the proposal is submitted to the *Consejo de Universidades* (a national body composed of representatives of all Spanish universities) and if the curriculum is approved at that level, it is sent to the Spanish government for a final approval. In practice this process for updating curriculum is not only complicated but also rigid and stiff. Apart from the Faculty Senate approval, it needs to consider the university and national regulations. The whole process is time consuming and from the Faculty perspective, lacks autonomy.

Until now, and for different reasons, mainly due to their own approval procedure, there is a very low (even no) stakeholders participation in the curriculum design. Improved contact with external bodies is recommended (labour market, professional associations, society, other universities) in revising the curriculum, in evaluating the programme and courses and getting information on the professional possibilities to students early in their programme.

There should be initiatives to make it legal and possible for the faculty to include the labour market in the revision of the curriculum and in the evaluation of the programme and courses.

At the moment the Faculty and the management team are working on a new curriculum based on the «Bologna» process. Currently there are two laws on Universities (Spanish and Catalan) designed to adjust the higher education structure to the Bologna Declaration although the details of those laws are not yet defined.

Finally, the conditions for the coordination of the improvement of the curriculum with other Veterinary Faculties (national and international ones) have not yet been developed. The main reasons are differences in curricula and legal frameworks; indeed, the relationship with other Spanish faculties is poor.

A.2 Academic staff:

All teachers were recruited according to the University Reform Law. This law set the legislative framework for Spanish Universities, establishing a series of knowledge areas to fit the different disciplines. Accordingly, a teacher can only teach in the area in which he/she has demonstrated proficiency. Nonetheless the criteria used by the University in the final classification are not clear; in fact the mechanism of choice should be more transparent.

Though this framework does, in principle, ensure that academic staff suits the aims of the programme, it would seem that the issue of rigidity of the programme requires change. The organization of the academic staff in knowledge areas and subjects sometimes represents an obstacle to the introduction of short-term curricula modifications. Knowledge areas operate as watertight compartments devoted mainly to research but with low flexibility in so far as concerns the educational demands and subjects. The Faculty does not have the power to move staff and money between departments.

The Dean/Vice Dean has no power to make certain demands to the academic staff. The Head of the Faculty can reject propositions for instance on new courses or changes in courses from the academic staff and suggest changes in the courses, but does not have the option or authority to demand changes through salary to improve the quality. This gives limits the potential of the organisation to act according to the requirements or expectations of the labour market and society and makes it difficult to the Faculty to make proper adjustments. Further it limits the value of students' evaluations of the programme.

It is important to mention that this legal framework for the recruitment of teaching staff is in a process of transformation according the new laws of universities (Spanish 2002 and Catalan 2003).

The academic staff of the Faculty is young but with experience and willing to introduce improvements in their way of teaching. It is open to the introduction of the new technologies and methods in the classroom, and also to work with quality assurance. This atmosphere is encouraged by the senior managers who have an understanding of the need for the ongoing modernization of the curriculum.
The mentor system seems to be efficient and appreciated by the students (considering the fact that some mentors are more efficient than other ones). As the Faculty size is reasonable, casual contact between teachers and students are possible.

The academic staff workload is almost compatible with research and management. In fact the teaching staff capacity in terms of students means a ratio of 1:5.3. The research activity of the academic staff seems good, at least in some departments, although the method of evaluation of individual scientific activity is currently unclear.

At the university there is at the moment in average 240h/y of teaching. The goal of the university is 180h/y. This is a ambitious and highly respectable goal and is very important for the future development of the programme. The research time holds true for most academic areas at the faculty, but it seems to be a problem for the clinical staff to achieve, as necessary clinical activities is not credited.

Further the potential for academic staff to get to meetings or pay financed visits to related universities is limited and they are more or less dependent on research money from projects. It is recommended that this problem is addressed and that a financial programme for these activities be established to secure contact with the veterinary professional world outside Spain.

	Number of persons	Full-time equivalents
Full Professors	17	15.7
Associate professors	82	77.3
Assistant professors	25	17.7
Research assistants	32	8
Teaching assistants	-	-
PhDs.	-	-
Other categories	43	72.5
Academic staff in total	197	191.2

Source: Faculty of Veterinary Universitat Autònoma de Barcelona

The institution has a programme for the development of the academic staff and the Faculty provides some courses, mainly to update lecturers in new technologies applied to higher education. However, the connection between the programme and the identification of individual training requirements is unclear.

A.3 Student population:

The Faculty attracts very good students with a selective recruitment based on secondary education marks plus a general examination common to the whole University (« Proves d'accés a la Universitat »). The number of applicants in first and second choice is more than 7 times bigger higher than the places available (165). The Faculty admission is based on a numerus clausus system carried out according to the final qualification and the applicants' preference. This process will change over the coming months in

compliance with the new laws. Additionally, because of the characteristics of the Veterinary programmes, all students are full time students.

Year	Applicants (1st and choice)		2n	Admitted Male total	Female	foreign	Transfers Nation Foreign		Entry requirements
2000 2001	-	1300		31 162	131	N.A.	4	4	>7.02 (10)
2001 2002	-	1300		N.A. 156	N.A.	N.A.	1	3	>7.20 (10)
2002 2003	-	1300		N.A. 156	N.A.	N.A.	4	5	>7.20 (10)

Source: Faculty of Veterinary Universitat Autònoma de Barcelona

The number of female students is increasing. In the present time about 80% of the first-year students are female. This feminisation follows the general trend throughout Europe.

Students are highly motivated in the discipline but there is a weak participation in the student organizations where they could set up cultural activities.

Theoretically the Faculty conducts analysis on the employment rates of graduates every 3rd year through an institutional office ("The Observatory of Graduates"). Information is currently available on the fourth year. According to the figures, the unemployment rate is 1.9%. Among those employed, 52% of graduates were working in small animal clinics, 17.6% in farm animal practice, 9.6% in food hygiene and 6.4% in commercial tasks. 21% were employed in other areas. In spite of this analysis, it is clear that the undergraduate (and some of post graduate - PhD preparing) students - have a very poor knowledge of the veterinary profession labour market.

Currently, the number of students who are working on an academic itinerary directed towards small animal clinics is too big in comparison with the labour market prospects. Moreover, very few students are planning on working with large animals and in food hygiene professional activities. Finally, (with the exception of a few associated teachers), the contacts with full time professionals are not formally organized. The faculty is aware of this problem and wants to address the issue with an increase in information for students. It is suggested that the faculty work with potential of profiling the scientific field more strongly than the society one, because the general trend seems to be that the students are dedicated to working in clinics from the outset of the course.

A.4 Programme scenario

The high level of facilities in labs and library is remarkable whereas in the hospital, although facilities are equally good, capacity is very restricted. Its situation in a campus 30 km from the city centre enables sufficient space for current and future necessities. On the other hand, the general organization of the institution seems to be considered as a strong point. Furthermore, the visiting team were concerned that the hospital was so dependent on a certain income to be able to teach and buy necessary equipment because this can result in limited time to train the students.

The Faculty is offering postgraduate training with an important level of demand (32% of the undergraduate students at the moment). This can be considered as a plus, concerning the quality of the faculty. On the same issue, it is interesting to note the high opinion the PhD students have of their courses, the standard of the facilities and of scientific mentors. Nevertheless, it seems that a majority of them have selected the branch of their studies mainly / exclusively according their scientific interest and not in relation to their knowledge of the labour market. It seems there are few initiatives on professional development after PhD and post-Doctorate studies.

The organizational mechanisms concerning the management of the institution is an interesting issue, as has been mentioned before. Nonetheless, clarification is required of the information on the Faculty on internet. The web site does of course give the institutional information but its organization in terms of «clients» is not well established. There is also a lack of information in English. In short, it is not easy readable, especially for foreigners

Internationalization should be empowered. At the moment there are some difficulties, for example in developing agreements with other veterinary faculties in so far as concerns the Socrates programme. Exchange possibilities in terms of student involvement and the participation of the faculties need to be improved. Information on exchange programmes seem not to be disseminated by the Faculty. Interested students have to ask about these programmes. There is a lack of information about some important academic affairs that concern student exchanges (credits recognition, curricula structure, etc.). This year there are 16/17 students abroad.

Competences and learning outcomes

B.1 Aims and outcomes

In its educational outcomes, the Faculty takes into consideration the European requirements for veterinary training. Consequently, the outcomes expected after completing the degree concern generic outcomes, specific outcomes in basic knowledge in the broad field of veterinary science, specific clinical knowledge, animal production or food hygiene, and professional knowledge.

European directives define competences and outcomes for veterinary courses. Additionally the Faculty is associated with the EAEVE (European Association of Establishments for Veterinary Education) following the EAEVE framework.

The Faculty is willing to work according to the Bologna process. Currently, ECTS correspondence to hours is under study for final approval.

B.2 Programme content

The programme has a generalist orientation that is in consonance with its professional profile for graduate level. In the first two years the curriculum is devoted to basic knowledge and basic skills while in the third and fourth years the content of the programme deals more with specific knowledge. The fifth year is devoted solely to specific and professional knowledge.

Training results of the programme are good but there is an large workload for students. The presence time required is significantly reducing the time needed for self-learning and consolidation of knowledge. The general opinion is that education is too theoretical, especially in the professional fields.

An average of 15-25 hours teaching per week is recommended. The students find they get too little practical training in professional-related areas, especially in clinical training. An impression which is confirmed by the number of practical hours in clinics on the curriculum as many of the clinical electives have limited practical clinical hours. There seems to be particularly limited potential to require practical clinical skills in production animals. The faculty is aware of the problem and plans to strengthen the curriculum in this area.

The participation of professionals in the training only takes place in the last year of the programme, when it is certainly too late. In this area, the Faculty seems to be organizing meetings between professors and professionals in order to adapt the programme but, for instance, the input into food hygiene and the food industry in the programme is insignificant.

Subject distribution per years.	1	2	3	4	5
Anatomy I	■				
Anatomy II	■				
Cellular Biology	■				
Mathematics	■				
Chemistry	■				
Physics	■				
Animal and Vegetable Biology	■				

Course					
Ethnology	▓				
Ethnology	▓				
Biochemistry I	▓				
Biochemistry II		▓			
Physiology I		▓			
Microbiology I		▓			
Histology		▓			
Agriculture		▓			
Epidemiology		▓			
Parasitology		▓			
Genetics		▓			
Physiology II		▓			
Microbiology II		▓			
Economy		▓			
Immunology		▓			
Pharmacology I			▓		
Pharmacology II			▓		
Animal production I			▓		
Animal production II			▓		
Nutrition I			▓		
Nutrition II			▓		
General Pathology			▓		
Food Technology			▓		
Propedeutics			▓		
Reproduction Technology and Phusiology			▓		
General Surgery				▓	
Parasitic Diseases I				▓	
Infectious Diseases I				▓	
Infectious Diseases II				▓	
Radiology				▓	
Clinical Surgery				▓	
Special Pathology				▓	
Medical Pathology I				▓	
Medical Pathology II					▓
Food Hygiene I					▓
Food Hygiene II					▓
Obstetrics and Reproductive Disorders					▓

Deontology and Legal Veterinary Medicine	
Therapeutics	
Toxicology	
Preventive Veterinary Medicine and Health Policies	
Electives	

It has been suggested that the objectives and distribution of hours for some of the courses should be extended and more detailed, so the students know what to expect and what is demanded in the context of a certain course. It is a particular important that the number of practical hours is specified and defined by the faculty. The faculty should describe the practical objectives of the clinical courses in more detail and with a list of expected abilities of the students to perform practical procedures and the students expected ability to make a diagnosis and prescribe a treatment for certain diseases. The students find that many practical hours are not practical. In the description of the courses it is recommended that the definition of EAEVE is used for practical training and exercises.

B.3 Subject related competences

Compulsory courses represent 85% of the total credits needed to graduate. The basic disciplines that are the pillars of the specific veterinary knowledge are distributed mainly in the first and second years of the programme. The first year deals with (physics, animal and vegetal biology, ethology, anatomy, etc.). The second year is dealing with basic topics related to the veterinary medicine. The third course is a transitional course towards specific veterinary medicine subjects (general pathology, nutrition, animal production, etc.). The fourth year is focused on clinical subjects and the fifth year is oriented to professional practice or to specific topics on food hygiene and toxicology. Students who choose this option have placements in the fourth and fifth year.

This organization follows the general framework on veterinary training, however in its operation some effort has to be made to give students more information on the labour market opportunities. It is obvious that most students decide on their career according to their preferences. independently of labour market situation, of which they are unaware. The inclusion of electives in the last years of the curriculum, allow a certain specialisation in the main areas of the veterinary career.

The Veterinary Teaching Hospital with horses and small animals seems to be well and functioning professionally with quite a good number of patients. But the students have limited primary patient responsibility and have limited potential to train in practical medical- and surgical procedures at a clinical level. The Hospital seems to work primarily as "a seeing practice" and the practical training seems to be focused on procedures which should be placed in a pre-clinical course.

It is important that the faculty meets its own objectives " To provide research-based veterinary training which enables veterinary students to examine and treat sick animals,.."

The labour market appreciates the education imparted in the Faculty, while the students have a tendency to demand more «specialisation». Perhaps this demand has a link with the idea that clinical training needs to be increased. On the other hand it is necessary to include the presence of the professional dimension at an earlier stage.

B.4 Generic competences

The following generic skills are considered in the curriculum: acquisition of skills in written and oral examination; adequate general knowledge and technical expertise in biomedical sciences; acquisition of basic knowledge of the life sciences including: problem-solving and the use of the acquired knowledge in accordance with the principles of scientific research and demonstration of scientific curiosity.

Although the acquisition of these skills is supported in different ways, in the new curriculum, the Faculty should think deeper about the balance between knowing and learning outcomes, versus skills in knowing how to act and how to be. Additionally it is necessary to mention that some of the skills could be improved by changing some points, for example the introduction of different methods of assessment. At the present time there are too many written examinations vs. oral tests, which are generally considered as good exercises in oral communication.

B.5 Teaching/learning methods and strategies

The teaching methods are diverse, though the lectures are predominant (58.3% in the first course, down to 41.9% in the fifth course). Nonetheless in the last year 36.1% are devoted to clinical training.

Teaching methods	1. year	2. year	3. year	4. year	5. year
Lectures	58.3	56.6	55.4	52.7	41.9
Small group teaching	2.3	5.3	5.3	3.0	2.8
Seminars	11.9	14.5	14.5	10.9	11.5
Coursework	1.4	1.7	28	-	1.3
Projects	-	-	-	-	-

Laboratory experiments	25.8	21.9	13.6	12.5	6.4
Trainee position	-	-	-	-	29.7
Other	-	-	7.5	20.9	6.4
In total	100 %	100 %	100 %	100 %	100 %

Source: Veterinary Dept. Universitat Autònoma de Barcelona

There is a tendency to improve the introduction of working methods based on clinical cases and reports. Also self-learning seems to improve in spite of the timetable constraints, and the participation of professionals in the programme in order to explain the different views of their activity and the importance of their professions should be encouraged.

During each semester two meetings with the students are organised in order to evaluate the teaching performance and to gauge the student's opinion about the development of the training and their perception of learning. A system of mentoring is appreciated and considered as useful by the students.

B.6 Assessment

The evaluation of learning outcomes is based on written exams, most of them using the multiple-choice method. An evaluation method which primarily evaluates the factual knowledge of the student is memory-oriented and not process-oriented. The procedures do not seem to suit an efficient assessment of the achievement of some skills. Therefore there is a need to introduce other kind of assessments such as oral examinations.

Assessment methods	1. year	2. year	3. year	4. year	5. year
Written Examination	72	75	60	73	66.7
Assessed coursework	7	15	25	14	25
Laboratory experiment write-ups	7	-	5	-	8.3
Oral examination	14	10	10	6.5	
Coursework reports	-	-	-	-	-
Project reports	-	-	-	-	-
Presentation	-	-	-	6.5	-
In total	100 %	100 %	100 %	100 %	100 %

Source: Faculty of Veterinary Science of Budapest. Universitat Autònoma de Barcelona

Some skill evaluation is carried out during the courses within small groups, providing an appreciated process with a short amount of resources. The Faculty is willing to improve on this method. Concerning oral examinations, students (especially beginners) seem to dread this kind of tests, and are reluctant, feeling that arguing in the oral test is stress producing. This is a good example of the fact that students need to improve self-control and communications skills that are important and mentioned as generic skills of the programme.

Continuous evaluation is encouraged in the faculty and well accepted by students. As has previously been noted, self-learning is also an important aim in the Faculty but difficult to implement because of the number of hours spent in lecture rooms and practical teaching.

A change in the exam methods is suggested, especially in the practical professional areas in order to relate to the training in the course for instance with a combination of written PBL or case oriented exams and practical / oral exams. This could be combined with an evaluation of students during the course.

The academic results are quiet good. The average proportion of success in the exams is about 80%. The average completion of studies is 6.01 years and the dropouts are low and mainly among first and second year students.

Student flow (students admitted in 1997)	Students
First year (1997)	N.A.
Second year (1998)	N.A.
Third year (1999)	N.A.
Fourth year (2000)	N.A.
Fifth year (2001)	N.A.
How many have graduated	N.A.
How many have dropped out	3
How many are not in any identifiable year (For those students who cannot be placed in one specific academic year)	N.A.

Source: Faculty of Veterinary. Universitat Autònoma de Barcelona

Formally, there is a review mechanism for learning assessment results but the Faculty should be aware to assure that the procedure can be used properly by the students if needed, especially in a situation where there is no external examination system.

Graduation	2000	2001	2002
% Graduation in N	N.A.	N.A.	N.A.

		Total	
% Drop-out	**In the first year**	**(through all generation)**	
2000	N.A.	N.A.	
2001	N.A.	1	
2002	N.A.	N.A.	

% Graduation in N+1 year	N.A.	N.A.	N.A.	
% Graduation in N+2 year	N.A.	N.A.	N.A.	
% Graduation in N+3 year	N.A.	N.A.	N.A.	

(prescribed time for student graduation is N years)

Source: Faculty of Veterinary Universitat Autònoma de Barcelona

Source: Faculty of Veterinary Universitat Autònoma de Barcelona

As a final remark, it is necessary to point out that the outcome assessment methodology is «expensive» and difficult to implement in veterinary training. This is a general issue in all professional orientated education.

Quality assurance

C.1 Strategy and goals

The Faculty is following the European regulations on veterinary education. Thus, the institution considers the skills and outcomes for the veterinary studies defined by EU Directives 78/1026 and 78/1027 EEC. In addition, the EEC Decision 78/1028 was established by the Advisory Committee on Veterinary Training.   These regulations were updated by the report II/F/5171/7/92.   The Faculty, as full EAEVE member, has been evaluated in1992 by this institution with a positive result.

 It demonstrates also an open attitude to participate in other international projects on quality assessment and improvement such as TEEP 2002.

The objectives of each specific courses are defined by the body of teachers involved in and available in Internet.   A commission is in charge to make sure that the individual goals suit the general objectives of the programme.

The Faculty has established a contract programme between departments and the University central government. This contract provides an extra funding to the units according to their performance in research and teaching.

C.2 Process

The internal quality assurance strategies of the Faculty are established both by the Faculty and by the quality assurance unit of the University.

At faculty level, three main mechanisms are applied:

- The first one is an internal body called « Comissió de Docència » or Committee for the Evaluation of Teaching composed by two *ex officio* members (the coordinator of the Veterinary studies and the Vice-Dean for teaching affairs) and by five elected members: three teachers and two students. This structure is responsible for the approval or not of the training methodology and the programme.
- The second one is the semestral meeting organisation for evaluation of training. It comprises two parts: (i) a private interview between the Coordinator of the veterinary studies and elected representatives of students, (ii) a general meeting in which professors and students are invited to discuss any critical teaching points and training development.
- The third one is represented by the semestral surveys managed by the University Agency (OPQD) in relation to the students.

In addition, every four year the University manages a survey based on the recent graduates in order to evaluate their insertion in the labour market. However, a deeper analysis of data would be mostly appreciated and their broad dissemination would be very helpful.

Students' participation in quality assurance mechanisms is notable; nonetheless the implementation of improvement proposals depends too much in individual attitudes and reactions ahead of quality improvements.

The Commission for teaching and academic affairs is appreciated both by teachers and students who participate actively in it. Nevertheless, mainly due to the apparent rigidity of «the System» the efficiency of the structures remains questionable. .

On the other hand there are some deficiencies of information in so far as concerns the organisation of teaching, for instance no data on the number of students per group is available.

Finally, and regarding the modification of the curriculum, it is recommended that there is more input from animal hospital managers.

C3 Rationale

The involvement of the Veterinary Faculty of Barcelona in the quality assurance system established by the EAEVE was chosen as the main external evaluation strategy. This was due to the characteristics of the veterinary education as professionally orientated and useful by means of a European standard achievement in veterinary training. Additionally the EAEVE system is considered as useful in order to participate in the definition of European trends in this issue.

C.4 Results and follow-up

The involvement in the EAEVE evaluation is considered as highly beneficial. At the beginning it instigated a modernisation of the curriculum in 1993 in keeping with the European goals. The diagnostic of this evaluation was considered as a good step toward an improvement of the Faculty performances and a benchmark with other European Veterinary faculties.

The follow-up evaluation is the responsibility of the Commission of Teaching and Academic Affairs and is ultimately up to the Dean's Office.

All information referred to quality assurance is publicly available to all students, teachers and staff, but it is not widely disseminated. This is a significant weakness of the quality assurance system. The other weak point is the difficulty to introduce changes in the programme affecting the distribution of credits and courses.

Finally the real autonomy of the Veterinary Faculty seems to be very restricted. Especially in the quality assurance process, the rigidity of the relationships with the University and the unwieldy nature of all the procedures seem to severely restrict the efficacy of all the mechanisms, which are set by the Faculty. Briefly, there is a serious lack of proportion between the energy and time invested by all the Faculty bodies in this issue and the real feedback on the training quality. The research performance was not really investigated by the group.

5 **Szent István University of Budapest**

Educational context:

The Faculty of Veterinary Science of Budapest is part of the Szent István University. The institution as a whole comprises 10 different faculties with a strong connection to agriculture and rural development. The Faculty is the smallest of the Szent István University but the oldest one (founded in 1787) and the only veterinary school in Hungary.

A1. Regulation and programme approval procedures:

In accordance with the Higher Education Act of the Hungarian Parliament, the university is autonomous ensuring the freedom of teaching and research. In this context, the Faculty has a procedure for the approval of the programme which requires the supporting decision of its Senate and of the University council. This procedure that ensures the autonomy and the participation of the different audiences of the Faculty is considered positive. In case of modifications of the program the Faculty Senate nominates an *ad hoc* Committee (Professors and students), which is in charge to recommend modifications. The suggestions are discussed in the Committee of Education (3 Professors + 2 Assistants Professors + 2 Students). The program accepted by this EC will be then discussed by the Faculty Senate and the final approval will be given by the University Council.

The actual programme was approved in 2000 taking into consideration the 1995 EAEVE recommendations. The Faculty has made efforts to receive international input on the course designing process, (EAEVE evaluation in 1995 and VetNEST). However this situation should be considered to be insufficient. In this respect, there is no clear evidence of stakeholder participation in the procedure while the international input should be generally broadened. This external participation is especially necessary considering the position of the Faculty as the sole one in the field of Veterinary training in Hungary.

On the development of The Bologna Declaration, hearing other European universities, the Faculty is not in favour of splitting the veterinary programme into Bachelor and Master courses. However the Faculty members should take into consideration the whole set of objectives of the «Bologna process» which means more than simply the organisation of degrees. The Bologna process represents also a new educational approach based on learning outcomes. Effort should be made in this direction.

The structure of the programme is a traditional veterinary curriculum of a degree of 5 and a half years.
With the new curriculum, a credit system was introduced as one of the first experiences in Hungary.
The introduction of a credit system makes exchanges with other universities easier. The credits are nearly equivalent to ECTS and some change is in progress.

In so far as concerns the future, there is a plan to integrate the practical training that is currently outside of the programme, into the undergraduate training.

A.2 Academic staff:

The capacity of the Faculty to offer the programme in three different languages (Hungarian, English and German for the two first years of the curriculum) is a very strong point that serves as a real indicator of the level of the academic staff. On the other hand, and according to the information obtained during the site visit, there is a significant number of professors with international experience.

The teaching staff capacity has a good theoretical student to teacher ratio, but this is only true when Hungarian students are considered. The ratio is quite different when it is calculated taking into consideration the foreign students.

The Faculty has an enthusiast academic staff with motivation in their activity, and they are also satisfied with their students. Both issues are relevant in obtaining good academic environment.

The staff recruitment process faces contradictory situations. Generally staff members are graduates of the Faculty since it is the only veterinary school in the country. The size of the Faculty makes it easy to identify potential teachers among the best undergraduate students, and they are invited after their graduation to joint the Faculty Academic staff; but, as a matter of fact, the institution is facing noticeable competition with other professional positions in the Hungarian labour market, which are generally offering substantially higher incomes.

On the other hand, the requirements established for admission as a teacher can be considered as positive, but there is a strong risk of endogamy when the provision of new academic staff is based totally on the school graduates. International recruitment seems, at the moment, difficult due to salary restrictions that makes difficult to compete in a wider context. Additionally there is also a few academic staff members coming from other Hungarian faculties According to this framework, though the actual requirements for receiving and holding a position at the Faculty are rigorous, it seems to be insufficient to prevent endogamy.

	Number of persons	**Full-time equivalents**
Full Professors	24	24
Associate professors	16	16
Assistant professors	23	23
Research assistants	36	36
Teaching assistants	5	5
PhDs.	31	31
Other categories	21	21

Academic staff in total	155	155

Source: Faculty of Veterinary Science of Budapest. Szent István University

A.3 Student population:

The Faculty is in a very favourable position in terms of the quality of the student intake. The number of applicants is more than 6 - 7 times greater than places (58 national students can be admitted every year). Additionally, because of the characteristics of the Veterinary programmes all students are full time students.

Year	Applicants	Admitted				Entry
		Male	Female	foreign	total	requirements
2000 - 2001	609	28	57	n.a.	n.a.	-
2001 - 2002	609	34	45	n.a.	n.a.	-
2002 - 2003	564	35	54	n.a.	n.a.	-

Source: Faculty of Veterinary Science of Budapest. Szent István University

The selection mechanism is based partially on secondary school scores and on the results of the entrance examination test in Biology and Chemistry. This procedure, which is well accepted, attracts very good students from Hungary in relation to the high social reputation of the veterinary profession in Hungary.

The number of female students is increasing. At the present time about 60% of the first-year students are female. This feminisation follows the general tendency throughout Europe and will have an impact on the labour market.

In addition, a significant (roughly equivalent) number of foreign students follow the course in English or German (students attending the German course have to decide after finishing the second year whether they return to their home country or join the English or Hungarian course). They come from Scandinavian countries, Israel, Germany, Greece, etc. This is a very important element in order to see how competitive the programme is in a wider context, while at the same time it favours the internationalisation of the Faculty.

According to the visit information, in terms of academic level there is no perceivable difference between the national students and foreign ones. But the Faculty should be aware of keeping equal academic conditions for all students and language based tracks. In addition the foreign student population reduces drastically the good student per teacher ratio (6.79 vs 11.79).

There is a need to improve the information about the programme available to future students. In that sense all academic requirements to obtain graduation should be stressed (workload, second language proficiently).

On the other hand, it should be noticed that student distribution in the different programme subjects or tracks seems inadequate with the labour market demands; this is especially noticeable in food hygiene and food safety specialities. In the opinion of the experts, the students seem to have passive information about labour market opportunities, but there is a need to stimulate actively new curiosities among them according the labour market necessities. Some affirmations of the teaching team seemed surprising i. e « 30% of the new graduates are going to work in pharmaceutical companies; 10% to 20% in the food industries! ».

Faculty social life is qualified as a good point by the students with several activities and active groups.

A.4 Programme scenario

The long tradition of the Faculty is seen as a strong point, additionally it is remarkable in its international position (exchange with other good reputed Vet Schools in Europe).
The faculty dimension gives advantages in terms of favouring interpersonal relationships, but on the other hand, the Faculty should be aware of avoiding the creation of a too comfortable umbrella that could block future developments and innovations.

It seems that there are good connections with the professional sector because the majority of veterinarians obtained their degree within the faculty, which facilitates extramural practices organisation. Nevertheless, from the students interview, our impression is that the general knowledge of students on the labour market is poor (most of them are interested by small animal clinics).

The Faculty's financial framework appears to be an issue of deep analysis, as is the level of integration in the whole university.

The School has some outstanding facilities such as the clinical hospital for large animals and the library, however there is other equipment that needs significant reform, such as for instance the small animal hospital. They are going to start with building the new small hospital this year.

Skills and learning outcomes

B.1 Aims and outcomes

The Faculty programme follows the EAEVE requirements for knowledge on subject-related and generic competences. Expected subject related skills are defined and they include knowledge on normal animal structures and functions, proper management of the animals, pathology, pathophysiology and those agents which can cause diseases in animals. After the study of the clinical block the students have to know the pathogenesis, symptoms, diagnostics, treatment, prevention and control of animal diseases. After finishing the food hygiene and infectious diseases block, the students have to have a wide knowledge of food hygiene, food safety, veterinary public health, prevention and control of infectious diseases.

In this context there is a lack of explicit definition of some outcomes in a subject level. In this sense the programme is designed according to input (topics contained in the different subjects) but much less in terms of output achievements. Although problem-solving ability is developed in internal medicine diagnostic, or communication skills are present in other matters, there is a need to work in a more concrete identification and definition of these outcomes across the programme.

On a more general level there is no evidence of an explicit consolidation of the Faculty objectives or a strategic plan. In this area topics such as the Faculty mission or the quality assurance policy should be considered.

Finally the surveys on the labour market figures should be encouraged and used in different fronts, as faculty policies to reinforce the information on this topic to the students

B.2 Programme content

The Faculty is providing a general programme under the requirements of EAEVE. In this sense changes have been introduced following the last evaluation and some facilities have been improved, especially in the field of Food Hygiene, and in the practical training with the clinic hospital.

The Faculty is concerned about the necessity of the curriculum integration. Although there was a fusion of departments, the number of units involved in delivery remains very high.

The training results of the programme are good but involve a heavy workload for students. Thus they spend too much time on activities requiring to be present; while they probably need more time to consolidate all the knowledge and for self-learning.

The faculty organises meetings between professors and professionals but Professionals' participation is only in the last year of training. On the other hand, input in Food Hygiene and Food industry in the curriculum is insufficient.

The introduction of a credit system is positive but it needs to be ruled according to the characteristics of the discipline where the progression in the field is not as flexible as it is in other academic fields.

Subject distribution per years.	1	2	3	4	5
Anatomy	X	X			
Zoology	X				
Biology	X				
Biophysics	X				
Chemistry	X				
Biomathematics	X				
Latin	X				
Botany	X				
Histology	X	X			
Agrareconomics	X				
Biochemistry		X			
Physiology		X			
Topographical Anatomy		X			
Animal Husbandry and Genetics		X	X		
Informatics		X			
Microbiology		X	X		
Pathophysiology			X		
Pathology			X	X	
Pharmacology			X		
Vet.economics, management, ethics			X		
Animal Nutrition			X	X	
Parasitology			X	X	
Applied ethology			X		
Diagnostics			X		
Honey Bee Diseases			X		
Toxicology				X	
Fish Diseases				X	
Pet Animal Diseases				X	
Surgery (incl. Anaes-thesiol., radiology)				X	X

Internal Medicine	
Food-hygiene	
Animal Hygiene	
Obstetrics and Repr. Biology	
Ophthalmology	
Forensic Vet. Medicine	
Epizootiology	
State Vet. Med. and Public Health	
elective subjects	

Source: Faculty of Veterinary Science of Budapest. Szent István University

B.3 Subject related skills

The faculty programme can enable the students to gain a general level of subject related skills, which makes it possible for graduates to work well as veterinarians.
In addition the Faculty declares an aim to increase the connection with the changing demands of society.

The Faculty has designed the programme to deliver all subject-related skills through compulsory subjects. In addition, the students have to collect 18% of their credits from elective subjects. This proportion is growing from 11% in the first semester to 56% in the 10th enabling students to form certain professional tracks, which can increase their value in the labour market and meet the professional demands.

The Faculty organises actions in order to provide information on course choices in line with labour market opportunities, but there is a clear trend for students to make choices according to their wishes, independently of labour market opportunities.

Though the labour market appreciates the education delivered in the programme, students demand greater specialisation. Perhaps this demand has a link with the idea that Clinical training needs to be increased; though out of 3850 compulsory hours, 1485 (38,6%) are for practical training. On the other hand it is necessary to include the presence of the professional dimension at an earlier stage.

There is a general impression that at the moment the Faculty IEAEVEs are delivering some practical skills in postgraduate training. The reason behind this is a plan to enlarge the undergraduate education in a supplementary year.

It must be emphasized that International students experience some difficulties in getting practical experience in the country, because some of them are not proficient in Hungarian.

B.4 Generic competences

In the new curriculum, the Faculty should reflect the appropriate balance of knowledge and learning outcomes with regard to skills on knowing how to act and how to be a Veterinary.

Training is the most relevant aspect through which students achieve generic skills. Two major tools may have an impact on this achievement. First the programme is currently entrusting part of the practical education to a further compulsory trainee year paid for by the Ministry of Agriculture and Rural Development. Secondly some generic skills are, in some cases, not automatically attached to the subject related training (self-directed learning, study skills, information technology). The preparation of diploma work during the 4th and 5th years would be a good exercise towards generic competences.

B.5 Teaching/learning methods and strategies

The academic staff making a substantial effort to teach in a modern style. Modern audiovisual teaching and learning methods are widely used. Some subjects like animal anatomy and physiology are also available on interactive multimedia CD-Rom.

However there is no clear evidence of the strategies used to develop skills and some generic competences. Though the content of the programme represents a good base for graduates, it is necessary to note that self-learning is also important in a context of ongoing change that requires life-long learning.

The participation of professionals in the programme in order to explain the different views on their activity and the importance of their professions should be increased.

Research Association Students offer the possibility of developing research skills during the programme. Thus students can join a research group and to carry out their research work in any department of the Faculty. On the other hand, the Faculty has a diploma that has been positively assessed by students and teachers. Based on topics offered by all departments of the Faculty and other related institutes, the diploma works on the basis of own examinations, some type of research work and the students have to write a diploma presenting literature, materials-methods and conclusions.

In so far as concerns the organisation of the practical education, the Faculty benefits from its good contact with professionals that are all graduates of the school. However in some areas such as bovine it is difficult to get placements. The size of student groups in practices like farm animal clinic would have to be reduced.

Teaching methods	1. year	2. year	3. year	4. year	5. year

Lectures	55	58	63	57	70
Small group teaching	8	8	7	4	5
Seminars	-	-	2	-	5 %
Coursework	-	-	-	-	-
Projects	-	-	-	-	-
Laboratory experiments	20	22	18	8	4
Trainee position	-	-	-	-	-
Other	17	12	12	31	21
In total	100 %	100 %	100 %	100 %	100 %

Source: Faculty of Veterinary Science of Budapest. Szent István University

B.6 Assessment

The Faculty has established different student assessment methods. In this respect, the number of oral examinations in the programme is seen as very positive. Additionally, this assessment method is well accepted by students. No significant problems or complaints where detected in this area though in a few subjects the academic results are poor and act as a bottleneck.

Assessment methods	1. year	2. year	3. year	4. year	5. year
Written Examination	27	20	8	23	0
Assessed coursework	9	30	23	31	18
Laboratory experiment write-ups	-	-	-	-	-
Oral examination	64	50	69	46	82
Coursework reports	-	-	-	-	-
Project reports	-	-	-	-	-
Presentation	-	-	-	-	-
In total	100 %	100 %	100 %	100 %	100 %

Source: Faculty of Veterinary Science of Budapest. Szent István University

The droop-out rate of the Faculty is significant. The Faculty has identified some of its causes although the messages are confused and they don't tackle the situation. In this area it is recommended that the

causes be identified and strategies implemented to reduce the drop-out rate and improve the completion rate, especially in those cases where the institution could take general action.

Student flow (students admitted in 1997)	Students
First year (1997)	91
Second year (1998)	85
Third year (1999)	60
Fourth year (2000)	55
Fifth year (2001)	41
How many have graduated	31
How many have dropped out	17
How many are not in any identifiable year (For those students who cannot be placed in one specific academic year)	-

Source: Faculty of Veterinary Science of Budapest. Szent István University

There is a final examination in order to test proficiency in a second language. This is a favourable point in internationalisation and student skills improvement, but if a good standard in a foreign language practice is seen as very positive, the time in which the evaluation of the corresponding skill could be done has to be considered.

Graduation	2000	2001	2002
% Graduation in N	52	54	36
% Graduation in N+1 year	48	36	42
% Graduation in N+2 year	0	10	22
% Graduation in N+3 year	-	-	-

(prescribed time for student graduation is N years)

Source: Faculty of Veterinary Science of Budapest. Szent István University

% Drop-out	In the first year	Total (through all generation)
2000	N.A.	N.A.
2001	N.A.	N.A
2002	3	19

Source: Faculty of Veterinary Science of Budapest. Szent István University

Quality assurance

C.1 Strategy and goals

The Faculty has been positively evaluated by EAEVE and it has an active and open attitude to participation in other international projects such as TEEP-2002. This is seen as a very strong point and the Faculty can be considered as a pioneer in the area of quality assurance, which is a relatively new issue in the Hungarian higher education system. It should be underlined that the Faculty is willing to get an international perspective on this matter.

At the moment the Faculty follows the principles of the quality assurance strategy, as laid down in the Higher Education Act of Hungarian Parliament, and controlled by the National Accreditation Board. At the moment the Veterinary Faculty has no summarised description of the quality assurance strategy.
At the Faculty level, the Vice-Dean is officially responsible for quality assurance. Each Department has to prepare a self-evaluation report summarising the most important aspects of teaching and research.
In this context the Faculty should formalise in more depth its quality assurance strategy and make it public.

C.2 Process

The Faculty is introducing quality assurance mechanisms in a context where this issue is still quite new. Accordingly, the quality assurance culture should be disseminated within the faculty. Participation in international assessments can be used to deal with this objective, but specific training is also another strategy.

The academic staff is evaluated every 4/5 years following an institutional procedure in which several parameters are considered. In this context the definition of expected goals at institutional level in connection with the parameters is not clear or shared.

The institution has also a regular, independent and parallel system to evaluate teaching delivery with a strong leadership of the student council. This situation has a positive effect on student participation, but it is necessary to mention some weak points of this system. First the level of formalisation is not clear: is this system revised and approved by experts on reviews? Secondly, the objective of the system in terms of recognising « the best teacher of the year » can be considered as poor. The priority should be oriented towards teaching delivery changes.

Of course students are invited to give advice on lecturers but in not in any structured way. On the other hand the use of surveys and reviews as a general method to analyse student satisfaction does not figure as a main objective.

C4 Rationale

The Faculty should develop this issue according to a definition of its institutional mission and the aims and goals of the programme.

C.5 Results

The Faculty participation in the EAEVE evaluation has motivated improvement actions in the programme, for instance the introduction of subjects on Food Hygiene. The results of all evaluations are public and available in the Faculty library.

The quality assurance mechanism implementation is in progress. At the moment the Faculty is in the process of identifying the areas to be improved. In this way, the next step should be to implement improvement plans and follow-up procedures.

6 University of Glasgow

Educational context

A.1 Regulation and programme approval procedures:

The courses of the Veterinary School of Glasgow University are approved according the procedures of the University. Proposals are first discussed and agreed internally by the Faculty Teaching Committee, the Faculty Board of Studies and the Faculty. Next, the proposal is scrutinized by the Academic Regulations Committee of the University and finally, approved by the Senate.

At present there is no national curriculum for veterinary courses and this is appreciated in order to produce diversity of contents and orientations. However the Faculty comments that the need for all veterinary degrees to meet the requirements of the Royal College could produce, in an extreme situation, a negative impact, with greater standardisation between the different programmes, reducing the chance for innovation in the curricula, especially in subjects where students have greater choice.

The flexibility and independency, especially when agreement with an external body is not necessary, has been considered a positive element. Thus, in general the amount of time needed to introduce changes in the programme is considered to be a plus, especially considering that, in general, the proposals, once approved, are operative the following academic year. Nonetheless teaching staff is of the opinion that, for major changes, the required amount of time is quite long.

It is relevant to mention that in the UK this independence is accompanied by systematic audits of subject disciplines for teaching quality. In Scotland, this cyclical audit is established every 6/7 years.

Additionally within the United Kingdom the undergraduate veterinary programmes are subject to approval by the Royal College of Veterinary Surgeons College. This means that the degrees must be registered with the Royal College in order for it to be possible for the graduates to be designated members of the Royal College and to obtain the license to practice as veterinary surgeons in the UK and in Europe. The programme was also evaluated by the EAEVE.

At present, the Faculty has no plans to bring the undergraduate veterinary programme in to the framework of the "Bologna" recommendations. Moreover, a Bachelor with a professional orientation should require a pre-clinics vertical integration.

Nonetheless, there is provision to offer a Bachelor of Animal Health to those students that can't continue to study because of extreme reasons, but who have successfully completed the 3rd or 4th Year of the BVMS. This degree is not registrable with the Royal College and, as such, holders cannot practice veterinary medicine in the UK.

On the other hand, the Faculty programme doesn't take into consideration the ECTS structure. The Faculty is of the option that the programme is not compatible with the ECTS. This position is

questionable and anyway, the level of integration in broad courses, that is not common in other European faculties, seems to reduce the interest in using ECTS as a tool for student's mobility.

A.2 Academic staff:

The Faculty has authority on staff recruitment. The Faculty Management Group is responsible for discussing and agreeing the needs and policies to cover vacancies and new posts in line with the strategic priorities of the School and the professional framework of the School's activities. Within the Faculty's budget, the allocation of staff to particular courses and functions is at the discretion of the Faculty Management Group.

The School is facing a competitive labour market that makes it difficult to recruit qualified staff into research. The working environment in terms of salary and time for research and career development is not as good as in the private sector.

The academic staff's profile matches the aims of the programme well. The School has a motivated teaching staff both in education and in research, and in this sense there is general satisfaction among the students.

	Number of persons	**Full-time equivalents**
Full Professors	24	24
Associate professors	16	15
Assistant professors	35	30
Research assistants	-	-
Teaching assistants	-	-
PhDs.	-	-
Other categories	-	-
Academic staff in total	75	69

Source: Faculty of Veterinary Glasgow University

At present, the staff composition represents a mixture of a staff with veterinary qualifications (65%) and staff with other qualifications (35%). The presence of teachers without veterinary qualifications is seen as positive, although the School should pay attention to this situation. The concentration of those teachers in the same teaching area could represent a potential obstacle to their adaptation to the characteristics of the veterinary training.

There are 3 promotion routes for academic staff recruited at Lecturer level, namely to senior lecturer, reader and professor. The first step is done on the basis of benchmarks on teaching, research and service work. The second step is according research performance, while the promotion to professor can be established on research achievements only, or encompassing the three above-mentioned dimensions (teaching, research and service contributions).

The University offers comprehensive courses for the development academic staff. These are available to all staff members. All new academic staff attend a comprehensive induction course introducing them to developing and assessing new teaching methods. The rest of staff are encouraged to attend teaching

method courses. On this issue there is no evidence of the policy to prioritize the organization of courses according School staff necessities. In fact, though all academic staff are expected to undertake Continuous Professional Development in their subject area, no formal requirements or monitoring mechanisms are in place.

The potential for staff to do research is obligatory for the different scientific fields to be developed, for a good training of the students and to make an attractive environment in order to recruit staff. The university is well aware of this, but it is difficult, especially in the clinical areas, to make time to do research and in order not to destroy the clinical environment and development in this area, the faculty have to find a solution to this problem. Some clinicians are finding it difficult to devote time to research due to clinical and teaching demands. Would this be possible if there was more back-up i.e. ≥2 clinicians in each specialist area?

On the other hand there is the possibility that, in fact, the increase in specialisation has caused the problem, leading to a small pool of qualified clinicians within each specialist area. Additionally it is important to note that many specialists were drawn away to private referral practices. Within the school, there is a need to focus research on a limited number of specialist areas. However, this could lead into recruitment problems in areas that, in particular, the School has designated as "weakness" or "non-focus" specialist areas.

A.3 Student population:

The Faculty has an intake target of 96 new students per year. At the moment 72 of these places are state-funded and are occupied by students coming from secondary education. The competition to have a place is significant, considering the 850 applications for those funded places. The remainder of places are for privately funded students from UK/EU, that in many cases already have a first science degree or overseas students.

Year	Applicants	Admitted				Entry requirements
		Male	Female	foreign	total	
2000 - 2001	1423	18	66	8	92	See comments in the text.
2001 - 2002	1006	25	57	11	93	
2002 - 2003	1032	29	58	21	108	

Source: Faculty of Veterinary Glasgow University

The Faculty has an Admissions Committee that receives applications from the central Universities and the Colleges Admissions Service manages the selection mechanism.

The selection of new students is based in different dimensions. There is an interview in order to assess the motivation of the candidate, communication skills and opinion on ethical matters. On the other hand, all applicants must have achieved a high level in Chemistry, Biology, and in Physics or Mathematics.

Moreover, applicants are also required to demonstrate that they have acquired a certain level of practical experience. On this aspect there are relevant doubts. For students, it was deemed inappropriate to ask potential applicants to demonstrate their motivation by including lab/ research exposure, due to the candidate's age at that stage. However, it was necessary to ensure that (potential) applicants were fully aware of all professional career paths, not just generic practice.

There was also some concern raised by the students with regard to the admissions procedure for American applicants. It was perceived that many "walked in", paid their money, failed to achieve and dropped out, without integrating socially through the year.

The uptake of intercalated degrees is low, probably due to financial implications, since current graduates are leaving with around £20K debt. However, even saying that the uptake is lower than in other UK vet schools, this financial issue does not favour the developing of academic careers for young graduates, who prefer to have jobs in private firms.

Students have, in general, limited contact and interest in travelling/visiting/studying at other universities/countries. The very good student environment, close relationship and social contact among students, is one reason not to go. Another is that above-mentioned student debts are a problem for movement (studying abroad), plus the limited possibilities to earn money due to extensive EMS.

A.4 Programme scenario:

The existence of a big campus is plus for integration. On the other hand the integration between departments has been assessed as a positive element for the veterinary education.

The university has a wide range of undergraduate programmes, and has considerable strength in biomedical sciences (medicine, dentistry, nursing and biological sciences). Research conducted within the Veterinary Faculty spans comparative medicine, so there is integration with research programmes across the University.

The School facilities on the campus are very good, particularly the equine centre and the small animal intensive care unit. Nevertheless there is a query on the appropriate caseload of these units.

Another relevant point is the existence of a positive feeling among staff and students to be part of the school.

Although the Faculty and its undergraduate programme are academically self-contained and the campus is separate from the main university campus, there is a feeling of being part of the greater community of Glasgow University.

As most of the postgraduate we were confronted with were residents, it was difficult to get an impression of the PhD course (1 PhD and 7 residents/master), but there seems not to be a formalized PhD program with basic research courses, resulting in a lack of structure on the PhD programme.

Regarding the residents, they ask for more caseload, more supervision, better and more formalised rotation programme and less work, to obtain more time for self-learning. They were happy with the

environment, flexibility and possibilities and support to attend meetings. They were – as students in general – open- minded, eager and fond of the university and positive to the profession.

Competences and learning outcomes

B.1 Aims and competences:

The overall aim of the programme is to turn highly qualified entrants (with a good scientific knowledge and good intellectual development but with little specific or applied veterinary knowledge) into graduates who understand the scientific basis of the subject and can combine that with necessary practical and applied competences.

The Faculty also refers to the "RCVS Guidelines" and the "Benchmarks Statements for Veterinary Science", which are national obligatory guidelines for the Veterinary Schools. At this level, it is recommended that the Faculty describe its own objectives, aims and strategy for the Faculty - and for the programme as a whole based on the guidelines described. Certainly the professional fields for graduates are important and the aims of the programme should reflect this broadband of professional destination.

The programme has specified competences and learning outcomes at course level, usually every component of the courses has its aims and objectives. Additionally these objectives follow two external documents: The RCVS guidelines list 29 skills under theoretically-based, practically-based and general veterinary skills, and the Benchmarking Statement of the QAA with a list of 21 skills on the application of subject knowledge and understanding, and 11 under the heading of professional and personal skills.

These external documents were both well assessed by the Faculty and they represent a good tool for programme design, in particular the Benchmarking Statement.

B.2 Programme content :

The programme is tough in 5 academic years with an integrated structure of 13 different courses, this structure has been considered modern and is appreciated by staff and students.

Subject distribution per years.	1	2	3	4	5
Extra-mural Studies (formal course from 2004)	▓	▓	▓	▓	▓
Veterinary Anatomy	▓	▓			
Veterinary Physiology	▓	▓			
Veterinary Biomolecular Sciences	▓	▓			
Veterinary Animal Husbandry	▓	▓			
Veterinary Pharmacology & Therapeutics			▓		
Veterinary Microbiology			▓		
Veterinary Parasitology			▓		
Veterinary Pathology			▓		

Farm Animal Disease and Veterinary Public Health	
Companion Animal Disease	
Veterinary Surgery and Reproduction	
Small Animal Clinical Studies	
Large Animal Clinical Studies	

Source: Faculty of Veterinary Glasgow University

Thus, the programme contains the courses of Veterinary anatomy, veterinary physiology, Veterinary biomolecular and veterinary animal husbandry, tough in the first two years. Veterinary Pharmacology & Therapeutics, Veterinary microbiology, Veterinary parasitology and Veterinary Pathology, tough in the third year, while Farm animal disease and veterinary public health, companion animal disease and veterinary surgery and reproduction belongs to the fourth year. The fifth year is reserved to small and large animal clinics studies. In the year 2004 there will be the introduction of EMS from first year to the fifth year.

Though the structure ensures a high grade of integration, some students think that it is possible to have some content repetitions; on the other hand, it could be convenient to analyse whether it is really worth while studying some topics in such depth, especially when they are connected with some practices that don't need the same level of knowledge. This situation it seems to be crop up in the third year.

The Extramural Course of 26 weeks is one of the strongest elements of the programme that make it possible to have contact with the daily practice in a broad manner. On the other hand traditionally, the BVMS course has been inflexible, with limited choice for personal focus within EMS. The problem with introducing "Final Year tracking" has been that the students, rather than seeing it as an opportunity to specialise to a limited degree, have seen it as a risk of "missing out" on certain cases / tutorials / visits from the opposite track! The problem may be solved by introducing students to some form of choice / tracking earlier in the programme, so that it doesn't become such a big issue by Final Year.

On the other hand, course information booklets are comprehensive documents detailing which staff members are teaching the course, course content, timetables, aims and objectives, examination procedures and descriptors for examination marking.

These course documents are therefore very impressive tools. It might be useful if parts of the documents were to be available on the Internet. It could be interesting to see if it was possible to formulate a similar umbrella document for the whole undergraduate programme, without being "woolly", yet trying to identify Glasgow Vet School strengths (focused areas). This might be of use both to potential applicants and for accreditation schemes.

B3 Subject-related competences:

The students are very focused on clinical subjects and the clinical profession and this opinion is audible among faculty staff as well. Furthermore, there is very limited contact with other areas of the profession ex: food hygiene and research based employments resulting in minor interest on the part of the students to get into these areas of the profession. Since the students find these subjects boring and not very interesting, it seems that a change is needed in the description of the related courses and the focus in the curriculum. An initiative like this in combination with more focus on generic skills may also make it easier to recruit staff to scientific positions within the faculty

The increasing importance of food hygiene suggests reformulation of the scheduled time for practices in food industries and abattoirs, although we understand that it is hoped that students will soon be required to spend some time in food / meat cutting / processing / packing plants. There seems to be an increasing number of students taking the opportunity to see practice in research / diagnostic labs – again, this may increase awareness of careers in these areas. EMS also provides an important feedback mechanism to the vet schools in order to change needs within the profession, especially within the Farm Animal sector.

Specialisation areas are limited to Final Year exposure to interns, residents, etc. Students have their own idea about the need to be taught by *vets*. Teaching should certainly be based upon extensive research experience and evidence. However, care must be taken that, in general, taught material should be relevant to the majority i.e. for those with futures in practice, rather than the few. (Particular area of concern: Veterinary Pharmacology). It may be useful for GUVMA to invite a number of scientists / researchers to give presentations to the students, detailing the relevance of their work and how they deal with it – "a day in the life of a veterinary researcher" This may lead to an increased uptake of Student Vacation Scholarship projects and, in turn, increased numbers interested in taking up careers in academia / research / hospital specialist areas after graduation or within a few years of graduation.

B4 generic competences:

Right now, the courses are more focused on subject-related skills while the area of generic skills is quite new and it needs strengthening, thus the Faculty plans to introduce a new vocational skills course; this will stream vertically through years 1 to 5. This course is considered to be an important development in providing the graduates with generic skills.

Students need to put a lot into EMS to get a lot out of it. Students, where possible, should be encouraged to take part in all aspects of work – inc nights, "dirty" work, "boring" work e.g. TB testing – not just "exciting" clinical cases.

The Faculty has introduced a taught Communication Skills course. Two comments about that: (1) some students were not attending the course because it was not "compulsory" or being examined, and (2) this course should maybe be taught earlier in the undergraduate curriculum to allow students to develop practical execution of the taught elements of the course from an earlier stage, during EMS.

Most groups welcomed the principle of OSCEs provided that they didn't become a "tick-box" exercise – there is still a very important need to build up other skills.

The curriculum has few project-orientated subjects and the there is currently little potential for the students to delve into certain scientific areas due to time schedule and course descriptions. The faculty is aware of the situation and if the faculty wants to introduce more subjects related to generic skills; it should be noted that students in general are focused on examinations, grades and subjects that are obligatory. It is therefore an important signal from the faculty to the students to include these areas in the curriculum as obligatory subjects and make a kind of final assessment to stress the significance of this scientific method. The faculty should be aware that success is partly based on the students getting used to working this way through an early introduction in the course, and all the way through the course, to get to see the advantages of this method. Further education of the teachers and collaboration between scientific areas (departments) are also necessary to make the subjects relevant and interesting for the students.

B.5 Teaching methods:

The main pedagogical methods used in the programme are lecturers (with a maximum presence of 39% in the 4th year) and the trainee position that includes EMS (with a minimum presence of 33% in the first year). In the fifth year, clinical work plus trainee position accounts 80% of the teaching/learning time.

Teaching methods	1. year	2. year	3. year	4. year	5. year
Lectures	29.9	33.1	30.8	39.1	0.5
Small group teaching	26.6	29.9	16.8	2.6	2.1
Seminars	0.7	0.8	5.8	6.5	13.8
Coursework	2.2	1.4	-	5.8	52.8
Projects	-	-	-	-	-
Laboratory experiments	-	-	-	-	-
Trainee position	32.9	33.4	33.3	40.2	27.8
Other	7.7	1.4	13.3	5.8	3.0
In total	100 %	100 %	100 %	100 %	100 %

Source: Faculty of Veterinary Glasgow University

Students are happy with the EMS but they ask for smaller group sizes in the university clinic and more patients. Furthermore, students claim that many of the practical exercises have been changed to E-

learning programmes. The faculty should notice that this method of teaching has interesting possibilities and advantages but cannot replace practical exercises, which are defined as hands-on training.

The Faculty has good banks of digital images and computer aided learning packages for use in teaching, which is appreciated as a supplement to the other conventional teaching methods.

It was noted that there is a little project work in the course. This is being addressed; students have a Biomolecular Sciences project, a Meat Hygiene presentation / project, Farm Animal and Equine track presentations and Grand Rounds presentations which encourage more "reading around" particular subjects. Uptake of Summer vacation projects is on the increase – these allow an introduction to research, basic training, exposure to bigger "real" projects being carried out in that discipline (being done by vets *and* non-vets), which count for up to 6 weeks EMS and they are usually paid positions. The potential to travel to another institution and do a project was noted.

Though students have a room to develop extramural experiences: summer studentships, Extramural Studies, IVSA projects, it is necessary to point out that Erasmus projects status is a weak point of the Faculty: this failure is due to several reasons but the evaluation underlined that language support funding was withdrawn and the difficulty to match what the students were being taught whilst "away" with what they were missing at "home".

Teaching staff see as positive the presence of experts on educational methods in the improvement of the teaching methods. At the same time they appreciate that the school makes it easy to introduce new teaching methods. Nonetheless there is some limited input by educationalists in assessment and examination procedures.

The Faculty and, indeed, the University place strong emphasis on "pure education" by placing junior lecturers through appropriate formal training in teaching and presentation skills. From basic level to membership of ILT and Postgraduate Certificate in Education (PGCE).

B.6 Assessment:

Course leaders choose the assessment methods they consider most appropriate to the course material and learning objectives. In addition the Faculty has a system of external examiners from other Vet schools, which represents a strong quality assurance system. After the examinations they report individually. Nonetheless there is no mechanism to collect their view in a combined manner having group meetings. This would ensure a richer feedback.

Among the assessment methods there is a wide presence of written examinations in the 2nd, 3rd and 4th year while in the 5th year 100% of assessment is done through practical examinations. However, selected candidates are called for oral examinations at the discretion of the examiners. The oral examination may influence the final grade but does not constitute a predetermined proportion of marks.

Assessment methods	1. year	2. year	3. year	4. year	5. year
Written Examination	See note 1	75	86	100	-

Assessed coursework	See note 1	15	-	-	-
Practical examination	See note 1	10	14	-	100
Laboratory experiment write-ups	See note 1	-	-	-	-
Essays	See note 1	-	-	-	-
Oral examination	See note 1	See note 2	See note 2	See note 2	See note 2
Coursework reports	See note 1	-	-	-	-
Project reports	See note 1	-	-	-	-
Presentation	See note 1	-	-	-	-
In total	100 %	100 %	100 %	100 %	100 %

Source: Faculty of Veterinary. Glasgow University

Note 1: all professional examinations have an external examiner appointed. At the study point there were no professional examinations in First Year; these have been introduced for the current academic year.

Note 2: selected candidates are called for oral examination at the discretion of the examiners. The oral examination may influence the final grade but does not constitute a predetermined proportion of the marks.

The examination forms for the EMS are very interesting and well designed. This represents a very good example of assessment procedures, nevertheless it requires a huge effort, thus the cost of controlling the EMS is important. On the other hand there is a need for better communication of the objectives to the EMS placement managers and the students.

Student flow (students admitted in 1997)	Students in 2001
First year (1997)	0
Second year (1998)	0
Third year (1999)	0
Fourth year (2000)	0
Fifth year (2001)	12
How many have graduated	65
How many have dropped out	8
How many are not in any identifiable year (For those students who cannot be placed in one specific academic year)	-

Source: Faculty of Veterinary. Glasgow University

Graduation	2000	2001	2002
% Graduation in N	N.A.	3	N.A.
% Graduation in N+1 year	N.A.	63	N.A.
% Graduation in N+2 year	N.A.	4	N.A.
% Graduation in N+3 year	N.A.	2	N.A.

(prescribed time for student graduation is N years)

Source: Faculty of Veterinary. Glasgow University

% Drop-out	In the first year	Total (through all generation)
2000	N.A.	N.A.
2001	5.9	9.4
2002	N.A.	N.A.

Source: Faculty of Veterinary. Glasgow University

Quality assurance

C1 Strategy and goals:

The programme is audited periodically by the Royal College of Veterinary Surgeons in connection with the EAEVE. At the faculty level, it is important to mention that the Scottish Qualifications Authority inspected the institution in 1996 assessing the teaching and quality assurance provision. This inspection awarded a very positive rating.

Although all faculty members have the capacity to make proposals to introduce changes, the role of course leader is one of the appreciated cornerstones of the quality assurance system.
On the other hand, students are satisfied with the possibility to participate in future curricular planning. They consider this process as useful and interesting.

The identification of future demands of the curriculum and courses is an important exercise and should to a higher extent involve surveys of the current employment situation, feed back from past graduates and from labour market contacts to improve the suitability of the graduates in the veterinary labour market.

The University has a commitment to quality enhancement of teaching and learning as in the University Strategic Plan. Apart of the feedback mechanisms described, some measures were taken in the school to monitor and improve quality of teaching: to appoint a director of teaching and learning with a budget, to have a formal quality assurance office.

Two final reflections on the strategy:

The Faculty should have mechanisms to evaluate all established objectives. Otherwise it would be convenient to distinguish what are measurable objectives from other kind of aims.

The extent of the QA system; on this issue, the Faculty should be always aware of having the best QA procedures, in terms of benefits but also in terms of costs. A peril could appear if the QA mechanism represents more a burden than a useful tool.

C2 Process:

The faculty has also an impressive organisation for developing and assuring the quality of the courses on the curriculum. Every course has it own booklet with detailed and through description of objectives, aims and evaluation procedures. Students have good potential to evaluate the courses and there seem to be smoothly functioning annual course meetings with staff and students involved. Meetings are minuted and conclusions with suggestions of changes are published annually in the Annual Monitoring Report.

Furthermore Staff, the Faculty Board of Studies and the Teaching Committee seem to be open and able to make especially minor changes without complications and delays.

The Faculty has established a strong mechanism for course review. There are procedures to obtain the feedback from students, staff and external examiners. However quality assurance related to individual courses is mainly used to identify underperformance, problems and failures rather than to suggest major changes in teaching methodology.

Apart from permanent updating made by staff according their research programmes and through continuing professional development as teachers, additionally the Deans encourage active review of the curriculum by appointment of working groups. The curriculum is reviewed in response of external bodies (RCVS).

There is also a very formalised method to evaluate the EMS. This can be considered as one of the key elements of the process to assure the quality of those external activities.

C3. Rationale:

Formal QA is a relatively recent innovation to the Faculty's teaching in the last ten years but has been rapidly accepted as desirable part of teaching practice, which has led to a considerable rise in the standard of teaching delivery. These innovations have coincided with a general increase in academic consumerism among students and with a rise in expectations from external bodies such as the RCVS, EAEVE and the QAA, and with a desire for transparent mechanisms for auditing the educational programme and comparing it across European Institutions offering similar degree programmes.

The underlying principle of receiving input from students and staff, presenting this to external assessors and providing feedback from this process to staff and ultimately students, is considered to be the optimal means of ensuring continued quality enhancements of teaching.

C4. Results:

At faculty level the main change produced by the implementation of quality assurance mechanism was the formalization and systematization of documents describing quality assurance procedures. There is an important level of transparency of the mechanisms, and a greater acceptance of the student's right to comment and criticize.

Machinery to go through before subjects can be made to course takes time but there is a good QA using feedback loops: Students → Staff → Department → Board of Studies → Faculty → University Senate → University Court. A good example of where it "all went to plan" was the recent change to First & Second Year Biomolecular Sciences course, allowing greater vertical and horizontal integration within programme.

C5 Follow-up and improvement:

There is an evaluation at course level, the results of the questionnaires are analysed and the group meetings are minuted in order to take action if any is merited and to keep students informed. Edited versions of these interactions are included in the Annual Course Monitoring Report and may be discussed at the Board of Studies.

In this scheme the follow up is the responsibility of the course leader who is ultimately answerable to the board of studies and the Faculty QA officer for implementation of university and faculty policy.

The wider distribution of the course monitoring reports should ensure that all stakeholders, including students, subject them to adequate scrutiny.

Each course has its regular staff-student liaison committee meetings (with comments being included in the course report). There is also a Faculty Staff-Student Liaison Committee, including undergraduate & postgraduate student Year Representatives and a representative of the vet student body (GUVMA – Glasgow University Veterinary Medical Association). A representative of GUVMA also sits on Faculty. There is possibly a need for a feedback mechanism from recent (1year, 5year, 10year) graduates, and indeed, their employers.

7 University of Ljubljana

Educational context:

The Veterinary Faculty is part of the University of Ljubljana. The Faculty, founded in 1953 as a university education institution, is the unique institution in Slovenia offering a programme in Veterinary Science. Moreover it is interesting to notice the long tradition of the Faculty considering that the beginnings of veterinary education in Slovenia date back the year 1795.

A.1 Regulation and programme approval procedures:

The study programme in Veterinary Science follows the Master Plan for Higher Education and approved by the University senate and by the Council of Higher Education of the Republic of Slovenia.
The senate of the Faculty has the major responsibility in order to assure the updating of the programme. In this process the Faculty takes into consideration the proposal made by the Students and Student Affairs Committee. The programme is discussed at university level and approved by the Senate of the University of Ljubljana.

In principle, the approval method allows a sufficient flexibility for the curriculum adaptations, but it is unclear why the faculty is consulting the stakeholders, such as professionals, the Veterinary Chamber or even international experts (probably not efficient enough through the teaching team interview).

On the other hand, it is necessary to underline that there is a positive attitude towards the participation of the faculty in international projects, not only regarding the quality assessment but also in the cooperation with other EU Veterinary Faculties in order to compare the curricula and to promote the programmes adaptation to the EU directives. This situation should continue in order to facilitate international input in the programme.

At the moment the Faculty has not worked on the Bachelor and Master degrees. There is no plan, as for others veterinary schools, in the direction of offering a Bachelor degree at the end of the third year, nevertheless the Faculty should be aware of the «Bologna protocol» recommendations, i.e. the introduction of ECTS, the diploma supplement, etc.

A.2 Academic staff:

The system used to recruit research and teaching staff is following the criteria of the University of Ljubljana. First of all, there is a set of legally defined conditions and minimum criteria regarding the standards and based on scientific creativity, teaching and professional qualifications.

Associate professors, assistant professors, and research associates are elected for a period of 5 years. Full professors and senior research associates are elected for an unlimited period. Assistants are elected for a period of 3 years. Additionally the rank of assistant requires an active command of one foreign language

Criteria for appointments are set in such a way that a certain number of points have to be obtain for each promotion (but the system of allowing these points and by whom remains unclear).

In principle this procedure ensures that the academic staff suit the aims and objectives of the programme. In this sense, the faculty has a well prepared, motivated and young academic staff.

The academic staff currently includes 83 teachers, 5 of them as full professors. In addition there is a significantly numerous technical support staff that mainly works in the Slovenian Veterinary Institute which association with the Faculty is certainly more beneficial for the latter.

The teaching staff capacity in terms of students is good, thus the faculty has a ratio teacher/students of 1:5,59. This is especially significant in training study, but in first years the ratio is higher while in the last years is lower.

	Number of persons	Full-time equivalents
Full Professors	8	7
Associate professors	10	8
Assistant professors	17	13
Research assistants	9	-
Teaching assistants	32	28
PhDs.	17	1
Other categories	30	-
Academic staff in total	123	57

Source: Veterinary Faculty, University of Ljubljana

The staff of the Faculty is, currently, facing the retirement of some professors. This process is done fairly, admitting new young professors. In this sense it is important to notice that internationalization is theoretically considered as a factor in appointments.

Though the Faculty is participating in academic staff exchange programmes, it is necessary to mention that at the moment the Faculty has no presence of foreign academic staff.

There is a process of teaching staff appraisal that takes place every 5 years. This process that ends when the teachers are appointed as full professors seems to work quite well. It is also interesting to mention how the method, among several indicators, takes into account collected students opinion. Students are invited every year to answer a « questionnaire for teachers evaluation ». From the students interview it seems that the completion of this questionnaire is reasonably good. Both teaching staff and

students consider this questionnaire as positive input and a tool towards a permanent improvement of the teaching

Nonetheless there are some methodological weaknesses in this process. For instance, giving the students the power - although it seems theoretical - of blockage of one teacher's entitlement, remains questionable. On the other hand the pedagogical assessment is made in a passive way, because the survey serves basically as a self-regulator for teachers, more than as a basis of planning actions in order to improve teaching quality.

Additionally, from the teaching staff perspective there are some doubts concerning the validity of the method. Is the moment chosen to fill up the questionnaire the right one? Is the completion rate of the questionnaire by students high enough to give a reasonable reference? (some groups are very small to be representative).

Some professors have expressed some ideas on improving this student participation. Obviously, the process should be improved, especially if its consequences (staff entitlement) are to be maintained. There should be a continuous further development of the questionnaire, a significant feedback of the results of student evaluation to the teacher, and an attempt to separate answers in two categories: on the discipline and on issues related to the personality of the teacher. The method needs to be extended to others targets such as the programme improvement and the teacher training policy.

Finally an annual self-evaluation process has been organised since 2000 in one particular field of the educational process, which is chosen in addition to the core indications of basic achievements (over the last 3 years, research, part-time studies and university undergraduate programmes were scrutinised). Nevertheless in relation with the too short time allowed for the interviews, the effectiveness of this "annual self evaluation" process has not been clearly evaluated by the experts.

A.3 Student population:

Taking into consideration the admission figures, the student standard seems very good. All the students are full-time, and their apparently good participation and integration in the Faculty is a very positive factor. This commitment with the institution could be observed, for instance, in the rate of completion of the questionnaire of teachers' evaluation.

Students are selected in a first step according to their year of matriculation, general score of grade (60%) secondary school (3d and 4th years) results (30%) and the score of grades in one of matriculation natural sciences subjects (10%).

The Veterinary Faculty applicants are admitted to the first year of Academic studies of Veterinary Sciences through a selective examination taking in account the grade they have obtained during their

secondary school studies and a *numerous clausus* policy depending on the supposed national demand in the professional field. A second selective examination is organised at the end of the 1st year.

At the present time (2002 - 2003) the student intake is 79. This status quo has recently been changed according to a new national rule, making the Faculty intake less restricted.

Year	Applicants	Admitted				Entry
		Male	Female	foreign	total	requirements
2000 - 2001	102	18	49	(4)	67	89
2001 - 2002	104	11	57	(2)	68	88
2002 - 2003	88	23	57	(3)	80	79

Source: Veterinary Faculty, University of Ljubljana

The Faculty and the Veterinary Chamber labour market analysis suggested lowering the number to 40 new graduates per year. Actually, this represents a corporative control over the new graduates flow in order to ensure a labour market free of unemployment. This aim which is defended by the Faculty is finding an answer to the new situation of a less restricted intake.
According to the teaching team opinion, the veterinary profession in Slovenia meets at the moment a high level of employment (the unemployment rate would be no more than 1.4%) including the fact that Slovenian veterinarians are working outside from Slovenia (UK, Germany. etc.)

The number of female students is about 70% in concordance with the other veterinary schools evaluated in the TEEP. It is important to keep in mind that this situation will probably have an impact on the labour market.

Another relevant point is the financing rules of the institution, especially those indicators linked to the teaching capacity of schools. These rules can affect the group size in classrooms and labs. At the moment the number of students in labs is about 15, while in clinics it is 5.

A.4 Programme scenario
The size of the Faculty is small but this circumstance can not be considered as a weakness because of the positive integration with the Slovenian Veterinary Institute. This integration of activities gives opportunities both to the Faculty and the Institute and represents a good opportunity for the intake. This is a strong point and explains how the establishment, both in its education and research activities is getting a good standard in Slovenia.

This integration has made possible to solve the significant problem of the small size of the Vet Faculty (" critical size ») through common facilities and staff members' exchanges. The Faculty has good

standards of facilities (classrooms, labs and small animal hospital). Outside of Ljubljana there are also some regional laboratories where students are admitted for « hands on » training

Nevertheless there is an important need to build up a mechanism of coordination between the Faculty, the Veterinary Chamber (which does not seem to be strongly associated to the Faculty policy at the moment) and the Government in order to meet common objectives concerning veterinary training in Slovenia. This is one of the key points for the future that should be accurately defined in a strategic plan for the discipline. It would be also very important to merge three important parameters: intake, graduation and financing in Vet Sciences Education.

B. Competences and learning outcomes

B.1 Aims and outcomes

The Faculty has defined the outcomes of the programme in terms of expected competences, which are published in a booklet, (« Study in Veterinary Medicine in Ljubljana, 2001»). It is interesting to mention the existence of a set of educational goals that are orientated toward quality assurance competitiveness, creativity, knowledge and applicability in Vet Sciences education.

These goals for competences have been developed regarding the European Directives concerning the Veterinary profession (directives 78/1026/EEC, 78/1027/EEC and 78/1028/EEC)

The EAEVE evaluation of the Ljubljana Veterinary Faculty, carried out in April 1998, concludes that the Faculty training meets the requirements included in EU Directives on veterinary education and actually is providing a good standard training. However, it is important to keep in mind that the directives from 1978 do not reflect the up to date aspects of a future oriented competitive veterinary training.

B.2 Programme content

The educational programme is appreciated by students and graduates. The Faculty, students included, is in favour of adding a 6th year in the programme. This is a trend followed in other veterinary faculties. A 6th year in the curriculum would be beneficial for the training, making it possible to enlarge the contents in respect of animal health and public health and more practical exercises included outside. This issue would be discussed on the basis of the cost-benefit ratio of this policy, especially considering the situation in other European veterinary faculties, which are delivering a good professional training in 5 years.

Subject distribution per years.	1	2	3	4	5
Biophysics		▓			
Physiological chemistry		▓			

Subject			
Cell biology			
Anatomy of domestic animals			
Histology with embryology			
Herbage, poisonous and medical plants – botany			
English language			
Genetics and biostatistics			
Terminology in veterinary science			
Sport			
Physiology of domestic animals			
Parasitology			
Microbiology and immunology			
Animal husbandry			
Animal nutrition			
Pathological anatomy with pathological histology			
German language			
Pathological physiology			
Clinical diagnostics			
Pharmacology with toxicology			
Animal and environm. hygiene – seminar			
Surgery and ophthalmology			
Radiology and physical therapy			
Reproduction of domestic animals with obstetrics			
Diseases and hygiene of breeding and health care of fish and honey bee			
Radiation hygiene			
Introduction into food hygiene			
Veterinary sanitary control of animals for slaughter and meat			
Reproduction of domestic animals with obstetrics			
Diseases and health care of poultry			
Diseases and health care of swine			
Diseases and health care of equines			
Diseases and health care of ruminants			
Diseases and health care of carnivores			
Epizootiology			
Ambulatory clinical practice			
Hygiene and control of meat, fish and products			
Hygiene and control of milk, milk products and food of vegetable origin			
Hygiene and pathology of animal nutrition			

Economics		
Diseases and health care of small animals		
Diseases, health care and breeding of game		
Forensic and state veterinary medicine		
Hygiene of food production plants		
Ambulatory clinical practice		
Elective subjects		

Source: Veterinary Faculty, University of Ljubljana

B.3 Subject-related skills

The subject-related skills are designed to be obtained through the compulsory subjects. Only 120 hours of electives courses can be chosen by students (only 2.7% of the whole program). Though the programme is in line with the EAEVE recommendations, the faculty has identified some deficiencies. Thus the introduction of more topics in food hygiene and public health is recommended.

The curriculum follows a predefined sequence ensuring progression in the academic field, but there is a need to strengthen the clinical training. It would be necessary to increase the skill of the students when they are trying to apply their theoretical knowledge.

Finally the « drop out » of students in the Faculty remains too much high (45% in 1996-1997) as the mean graduation time (7.5 years). The reasons are not very clear, although the free access of the students to the exams is certainly one of them.

B.4 Generic competences

There is no formal program supporting the development of students' generic competences. At the moment the acquisition of those competences depends on the students' interest and capability.

Additionally there is no established method to allow the monitoring of generic skills achievement by the students. The Faculty is, at the moment, obtaining informal feedback from companies where some students are doing their practical training

It is an interesting statement that there is at the Faculty undergraduate level no requirement for a thesis and that project work (a student personal work) is optional. Both would be excellent training exercises on personal initiative, judgment development communication, and all generic competences. The Slovenian Veterinary Institute would serve as a good platform for this objective assessment.

B.5 Teaching/learning methods and strategies

Lectures are the main teaching method in the Faculty, they represent the main part of the second year program with a 57% of the total teaching time, while in the fifth course the figure drops down to 42%. Small group teaching grow up from 14% during the 2d year up to 32% in the 5th, while laboratory

experiments are dropping down from 23% to 4% respectively. Modern veterinary education aims is at a percentage of not considerably more than 50% (frontal) lectures.

Teaching methods	1. year	2. year	3. year	4. year	5. year	All electives
Lectures	48	57	55	51	42	33 %
Small group teaching	-	14	26	44	32	50 %
Seminars	3	-	2	-	5 %	-
Coursework	-	-	-	-	-	-
Projects	-	-	-	-	-	-
Laboratory experiments	38	23	17	45	4	17 %
Trainee position	-	-	-	-	17	-
Other	11	6	-	-	-	-
In total	100 %	100 %	100 %	100 %	100 %	100 %

Source: Veterinary Faculty, University of Ljubljana

The Faculty is implementing actions aimed at a modernisation of the teaching methods, in this way it would be good to develop personal research works during the programme, and to increase problem orientated and problem solving learning, present in some elective subjects.

The Faculty is organizing few conferences given by professionals in order to present students with a general picture of the professional sphere. In this issue, the students seem to be satisfied by the present situation in which the only information they have is given by some teachers during their courses. Nevertheless, the question remains whether the Faculty on its own, is sufficiently competent to give to its students specific and up to date information on the labour market. Contact with stakeholders and professionals must be encouraged, and Research and clinical training could be also used in order to improve professional contacts.

Students and professors consider that the size of the Faculty has a very positive impact in terms of teacher-students relationships, favouring the learning dynamics.

Teaching is mainly based on lectures, as it in other veterinary faculties; free time for self-learning is not yet fully considered in the teaching-learning process and seems to be too short.

Although the teaching staff is encouraged to participate in teaching seminars organized by the Pedagogic education Center at the Faculty of Philosophy, there is no evidence of a formal procedure that

links the results of the teachers' evaluation to the recommendation or the requirements to follow such courses, (excepted for young teachers).

On the other hand, there is a students mobility program within a central European veterinary faculties network (VetNEST) and the TEMPUS project allowing to about 15 students to move out per year (for some weeks). Nevertheless students are active in searching by their own methods for international experiences.

B.6 Assessment

The Faculty is using different methods for students. Assessment Oral examinations remain important, in association with other methods of assessment.

Assessment methods	1. year	2. year	3. year	4. year	5. year
Written Examination	35	24	24	7	5
Assessed coursework	15	12	17	21,5	11
Laboratory experiment write-ups	25	23	24	21,5	28
Oral examination	25	41	35	50	56
Coursework reports	-	-	-	-	-
Project reports	-	-	-	-	-
Presentation	-	-	-	-	-
In total	100 %	100 %	100 %	100 %	100 %

Source: Veterinary Faculty, University of Ljubljana

Practically all of the students use to pass their final exams not just after the program completion but also during the so-called «6th year». This additional and unofficial year devoted to examinations raises the question of the drop out and the mean graduating time (see before: As a matter of fact the Faculty drop-out has not been well analysed in the self-evaluation report, therefore those figures should be recalculated). It would be an excessive waste of time. In Moreover, adding a 6th year to the curriculum will not be helpful if another 1,5 years (estimated average) will be taken for the final examination. A total of 7.5 years would than have to be spent to become a veterinarian. Setting time limits for the examinations could correct this weakness.

The students are more or less speculating before going to the exam; in relation to a selective process of assessment based on an initial test giving access to a second phase (a case report), before going the final oral test. Nevertheless; in general, students usually appreciate this examinations schedule.

The question for the future is whether the change in the intake will go to move the selection of students, from admission towards the first or the second years of the degree.

Student flow	94/95	95/96	96/97

First year	60	63	66
Second year	54	55	53
Third year	45	46	37
Fourth year	39	37	36
Fifth year	38	36	36
ABS - registered in the regular period for finishing the exams (1 year)	37	36	36
ABS - registered in the additional allowed period for finishing the exams (from 1 month to 1 year)	28	33	32
How many have graduated (until 31.12.02)	4 (do 30.9.2002)	- (do 30.9.2001)	1 (do 30.9.2000)
How many have dropped out (until 31.12.02)	30	27	23
How many are not in any identifiable year (For those students who cannot be placed in one specific academic year)	Can not be distinguished from the category of drop-out students		

Source: Veterinary Faculty, University of Ljubljana

Graduation	1996/97	1995/96	1994/95
% Graduation in N	4 (6,1%)	/	1 (1,7%)
% Graduation in N+1 year	/	30 (47,6%)	20 (33,3%)
% Graduation in N+2 year	/	3 (4,8%) (until 31.12.2002)	13 (21,7%)
% Graduation in N+3 year	/	/	/ (until 31.12.2002)

(prescribed time for student graduation is N years)
Source: Veterinary Faculty, University of Ljubljana

% Drop-out	In the first year	Total (through all generation)
1994/95 - (60)	6 (10%)	23 (38,3%)
1995/96 - (63)	8 (12,7%)	27 (42,9%)
1996/97 - (66)	13 (19,7%)	30 (45,5%)

Source: Veterinary Faculty, University of Ljubljana

Quality assurance

C.1 Strategy and goals

The overall strategy for quality assurance is determined within the University of Ljubljana and documented in the mission statement of this University. Quality assurance and the self- evaluation process are regulated by law (Law on Higher Education, statute of University of Ljubljana) and controlled by the National Committee for the quality of the higher education (at national level) and by the Committee for self-evaluation and development of the University (at university level) and specifically at Faculty level, by the Committee for self evaluation of the Veterinary Faculty. It is important to note that a faculty could dismiss a member of the University in the case that his or her performance did not meet the standard quality of the University.

Also, the Faculty is following the European directives on veterinary training. As a member of EAEVE, it was evaluated in 1997 with a positive result. The faculty laboratories management, organisation and quality were audited in September 2002 and was granted an accreditation, ISO/EN17025 was obtained at the end of 2002.

Though the Faculty has established its educational goals, the definition of performance indicators is recommended for measurement purposes.
Finally, the Faculty has a noticeable willingness to participate in projects concerning quality assurance, not only in Slovenia but also at an international level.

C.2 Process

The quality assurance policy of the Faculty is documented in a Quality manual. In this domain, the position of the Faculty which set up a permanent structure devoted to quality assurance, is remarkable. Despite the fact that the implementation of quality assurance mechanisms is quite new, the Faculty has already nominated a person with responsibility for quality in cooperation with an academic staff group

C.3 Rationale

The Faculty rationale on quality is facing the building up of a system to comply with external expectations. There is also another aim, which is the recognition of the Slovenian veterinary diploma by European countries.
According to these principles the Faculty seems to be on the path towards the European recognition of qualifications but there is some uncertainty when the rationale of external expectations is analysed in connection with the quality assurance mechanisms of the Faculty, because the participation of external experts (professionals, international academics) is too low.

C.4 Results

The EAEVE evaluation was a relevant opportunity to improve the teaching program of the Ljubljana Veterinary Faculty. This evaluation was important also for the recognition of the diploma by some European governments, allowing the graduates of Ljubljana Veterinary Faculty to obtain professional positions in those countries.

The EAEVE evaluation has facilitated the development of quality assurance and the implementation of improvement actions.

C5. Follow-up and improvement

The Ljubljana Veterinary Faculty may currently be using, in relation to the Ljubljana University, an efficient quality assurance system.

Nevertheless, follow-up procedures are still lacking in this system. Additionally it would be necessary to define the Faculty strategic objectives, in order to give a more precise framework to the follow-up.

At the moment, the monitoring of the quality of the programme at individual subject level is under the responsibility of the head of department. Therefore it seems necessary to consider a common quality assurance unit for the whole Faculty, in order to collect all the results before designing corrective actions.

Appendix A

Formulation and use of criteria

In national evaluations of educational programmes, quality is often assessed in terms of the extent to which the individual programmes achieve their own goals, and the legal regulations under which they operate. This approach commonly referred to as assessing the 'fitness for purpose'.

The goals of the programmes participating in this trans-national evaluation, and the legal framework under which they operate, differ and the use of such a 'fitness for purpose' approach would not have enabled the intended outcomes of TEEP. These are a comparative assessment of the extent to which the programmes identify commonly relevant and similar goals. The application and critical assessment of pre-defined criteria is an important part of the project in both ensuring the comparative dimension, and assisting the development of a common reference framework for future trans-national evaluations and comparisons..

The criteria have been formulated with reference to a number of different sources. Overall the objectives of the Bologna declaration and the agreements reached at the Prague meeting have constituted one important reference point for the formulation of the specific criteria. Another important source for the formulation of criteria was the Tuning Project. This dimension is considered a crucial part of the project, and is designed to ensure a knowledge transfer from the Tuning project to, and beyond, the TEEP project. Additionally, it should assist the development of quality assurance processes in which European institutions can follow the same or similar paths and thus facilitate comparability.

Further criteria have been formulated on the basis on the Bachelor and Master descriptors (the Bachelor/Master descriptors formulated by the Joint Quality Initiative (http://www.jointquality.org). This developmental activity has been undertaken in line with the Bologna declaration that proposes the introduction, within a European higher education space, of a system of qualifications in higher (tertiary) education that is based on two cycles.

In addition, existing international evaluation models using common quality criteria, and the criteria used in the recent international comparative evaluations mentioned in point 1.2, have been used in the preparation of the criteria proposed for TEEP. Finally, the formulation has rested upon the experience and knowledge that the European Network of Quality Assurance Agencies has gained from the implementation of numerous evaluations of higher education programmes.

The criteria for competences focus on the formulation of goals, their relevance and consistency with programme content, and the extent to which the goals were developed considering the needs and requirements of the labour market. The criteria are particularly concerned with the actual content of the

programmes in terms of subject-related and generic competences, a terminology that was applied within the Tuning Project.

The criteria for first cycle degree/Bachelors programmes, and for second cycle degree/Masters, correspond directly to the formulated objectives in the Bologna Declaration. The development of the BaMa descriptors suggested that they might be shared within Europe and be available for a variety of purposes depending on particular national, regional or institutional contexts and requirements. Each descriptor indicates an overarching summary of the outcomes of a whole programme of study. The descriptor is concerned with the totality of the study, and a student's abilities and attributes that have resulted in the award of the qualification. This implies that a part of the criteria concentrate on the learning outcomes of the programme.

Finally, the criteria associated with the area of quality assurance mechanisms are primarily formulated to provide a basis for an analysis of the comparability of the systems and procedures applied at the participating programmes. This will be done in terms of strategies, procedures and systems for quality assurance.

The formulated criteria have been developed from many different sources and previous experiences. It will, however, be essential to take into account the specific conditions which apply to their application within the conduct of any trans-national evaluation. First of all, the considerable differences in terms of e.g. educational cultures, national traditions and regulatory systems within which the individual programmes operate must to be considered. Secondly, the aim of developing a methodology for trans-national evaluations implies an obligation to ensure that the criteria are formulated to be flexible enough to allow them to be replicated to other international evaluations of programmes with a comparative perspective. Thirdly, the variation in programme content offers a significant challenge for developing commonly-relevant criteria that at the same time allow the expressions of individual priorities and qualities.

To overcome these obstacles and to assure a high level of common applicability and relevance, a framework for criteria formulation has been developed.

Criteria Requirements
The following requirements have driven the formulation of the draft set of criteria with regards to their character and content:
Broadness: the criteria must be formulated broadly enough to allow for variations that ensure that the criteria respect specific national traditions, concerns and priorities and do not hinder diversity.
Uniformity: the set of criteria should be the same for all the programmes participating in the evaluation. In this way it is assured that the programmes are assessed on equal grounds, and that the assessments are transparent, so that a comparative perspective is enabled.

Reference to level: in order to be able to operate with one set of criteria, the criteria have to be formulated with reference to the BSc as a level of academic achievement, irrespective of the variations in the nominal duration.

Precision: the criteria must be precise enough to allow an assessment of the extent to which they are fulfilled by the individual programmes.

Internal consistency: the set of criteria must be internally coherent.

Topicality: the criteria must reflect present objectives and developments within the area of higher education in Europe.

As described in point 1.4, the purpose of the self-evaluation is two-fold. The criteria are considered as a reference frame for assessing the quality of the trans-national programmes. The criteria are also formulated in a manner to ensure a high level of common applicability and relevance for the three discipline areas.

In order to improve the quality of the criteria, the self-assessment group is requested to reflect upon the extent to which the criteria have appeared to be:

understandable and clearly formulated;

relevant, considering present goals and developments within the programme;

adequate in terms of areas covered;

internally consistent;

precise enough to allow for a proper assessment.

The groups are also asked to provide suggestions for revision, amendments and re-phrasing of the criteria, where they think it appropriate.

Criteria for competences and learning outcomes

1. Aims and outcomes

The goals for competences of graduates are clearly formulated, publicly available and consistent with the degree title

The goals are realistic and achievable considering the nominal duration of the programme and initial level of the student

The goals are formulated and developed considering the needs and requirements of the labour market

The goals not only consist of aims for subject related qualifications but also aims for generic skills

The goals specify the intended mixture of theoretical orientation and practical orientation as well as the intended balance between depth and breath of the programme content

Programme aims are used to promote understanding about the programme outcomes and the other strategies used to communicate information of this type

The goals for competences are communicated and known by student, staff etc.

2. Programme content

The content of the programme is clearly formulated and publicly available

The composition of the courses and the curriculum are consistent with the goals for competences

The basic disciplines and approaches that underpin the qualification in the discipline area are clearly formulated.

The subject-related competences are achieved through the programme

The programme is characterised by progression in the sense that it comprises a coherent set of courses or other educational modules that enable students to gain basic knowledge the discipline area in the beginning and widen and deepen their experience in the advanced level courses.

The content reflects breadth and depth in relation to subject. Breadth means that the students develop fundamental knowledge of various approaches to the discipline area. Depth requires the study of at least one area at a more advanced level.

Evidence is provided that the curriculum supports the progressive development of the intended outcomes.

3. Subject related competences

The subject-related competences can be obtained through the compulsory subjects

Basic disciplines underpin the subject-related competences in the programme

The programme is characterised by progression in the sense that it comprises a coherent set of courses or modules that enable students to gain basic knowledge of the discipline area in the beginning and widen and deepen their experience in the upper level courses

The content of the programme reflects breadth and depth in relation to the discipline field, including a description and assessment of:

the fundamental knowledge of various approaches to the discipline field that students will obtain throughout the programme?

the opportunities for study areas at a more advanced level?

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4. Generic competences

Students can, throughout the programme, obtain the generic competences such as capacity to learn, the capacity for analysis and syntheses, communicative skills etc.

The composition of the methods of teaching and learning support the achievement of the generic competences as listed in annex 3 or as determined by the self evaluation group as mentioned above.

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5. Descriptors for first and second degree

First cycle degrees (Bachelor's or equivalent) are awarded to students who have demonstrated knowledge and understanding in a field of study that builds upon and supersedes their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;

- can apply their knowledge and understanding in a manner that indicates a professional1 approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study;
- have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;
- can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;
- have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.

Second cycle degrees (Master's degrees or equivalent) are awarded to students who have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with first degree level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;

- can apply their knowledge and understanding, and problem solving abilities in new or

unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;

- have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;

- can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;

- have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

6. Teaching/learning methods and strategies

A strategy for the teaching/learning methods of the programme is formulated and used.

The different teaching and learning methods encourage achievement of the intended learning outcomes in terms of discipline-specific skills and generic skills, employment and/or further study, and personal development.

Teaching and learning methods enable students to achieve the intended learning outcomes.

Students are involved in a) development of teaching and learning strategies; b) appraisal of their implementation.

7. Assessment

Assessment processes enable learners to demonstrate achievement of the intended outcomes

The assessment strategy ensures an adequate formative function in developing student abilities

Quality assurance criteria

1. Programmes should have a formulated quality assurance strategy to:
- ensure that programmes remain current and valid in the light of developing knowledge in the discipline, and practice in its application;
- ensure that appropriate actions are taken to remedy any identified shortcomings.
- ensure that programmes are current and valid in the light of international developments
- when programmes review the extent to which the original programme aims and intended outcomes remain appropriate, considerations might include, for example:
- the cumulative effect of changes made over time, as a result of regular monitoring, to the design and operation of the programme

- current research and practice in the application of knowledge in the relevant discipline(s), technological advances, and developments in teaching and learning
- changes to external points of reference, such as subject benchmark statements, relevant professional or statutory body requirements
- changes in student demand, employer expectations and employment opportunities
- the achievements of student cohorts

2. Programmes should involve students, staff and other stakeholders in their quality assurance practices.

For instance by using:
- any reports from accrediting or other external bodies;
- staff and student feedback;
- feedback from former students and their employers;
- feedback from international partner institutions;
- student progress information;
- other feedback (e.g. external examiners' reports);

and by:
- making the quality assurance strategy available to students and teaching staff;
- involving students and staff in discussing improvement of programme quality;
- disseminating results of quality assurance to students and staff.

3. Programmes evaluate the effectiveness of their quality assurance practices and seek improvement according to these results.

Programmes consider:
- the benefits gained by the programme, staff, students and other stakeholders from quality assurance activities undertaken;
- how the processes promote enhancement and disseminate good practice;
- opportunities to make review practices more effective and efficient.

4. Within the institution there are clearly assigned divisions of responsibility for quality assurance, to the level of the programme

regarding;

- formulation of quality assurance strategy;

- process of quality assurance;

- involvement of students, staff and other stakeholders;

- follow-up on the results of quality assurance;

- dissemination of results of quality assurance;

- improvement in practice.

Annex: The management group of the project

ENQA Steering Group:

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Ton Vroeijenstijn

Project agencies:

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Dorte Kristoffersen, (The Danish Evaluation Institute)

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Chairs of Thematic Networks:

Katherin Isaacs (The History Network)

Hendrik Ferdinande (The Physics Network)

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Addendum

1.- Comments on TEEP evaluation report from Faculty of Veterinary, Szent István University of Budapest

Outside stakeholders cannot participate in forming the study programme by law, however they are informally involved.

1. The school participated in 7 different international projects (in some projects several times) aiming curriculum and programme harmonisation, international input cannot be evaluated insufficient.
2. Only one aspect of the Bologna Process (Bachelor and Master degree) was discussed at the site visit, other activities cannot be judged.
3. Since academic staff in research position is fully involved in teaching, they have to be taken into account when calculating the teacher-student ratio (7.71).
4. It cannot be regarded endogamy when veterinary surgeons employed by the school are own graduates, it is quite common in a country with a single veterinary school. Having high standard of requirements for receiving and holding a position at the school is a good way to build and maintain a good academic staff. Its efficacy can be characterised by different parameters (publications, impact factor, international acknowledgement, etc.). I have to refuse the accusation of endogamy.
5. Every year 85 national students are admitted.
6. The report states that "Student distribution in the different programme subjects or tracks seems inadequate with labour market demands." There are no different programmes or tracks at all, we have a uniform general training following the guidelines of EU Directive (78/1027). The students are informed on the labour market, but like in other European countries, companion animal practice, pharmaceutical industry, etc. are more attractive. The fact that most students are interested in small animal clinics does not mean that they are not informed on the labour market.
7. The students do not spend too much time with activities requiring to be present, only attending the practicals (36.6% of the workload) is compulsory. Self learning is important, it is calculated in the credits and it is shown by the diploma work (30 credit).
8. Input of food hygiene in the curriculum is important, there are 105 lectures, 60 practicals and a 3-week-long extramural practical on this topic. These figures are comparable to that of the European standard.
9. Participation of professionals in the programme is important, 5-10% of the lectures are given by invited speakers.
10. The drop-out rate is not high, it is between 16 and 20%. It is regarded in Hungary as an indicator of the high standard of the school.
11. There is no final examination at the school in order to test proficiency in a second language. According to the Higher Education Act passing a language proficiency examination accredited by the Ministry of Education outside the faculty is a condition of graduation. More than 60% of the admitted students pass this exam while they are at the secondary school but several students reach the final year without having the exam and it results postponing the graduation. It is not the fault of the faculty.
12. Introduction of subjects on food hygiene was not a result of the EAEVE evaluation. Food hygiene is taught at our faculty since 1875. As a result of the EAEVE evaluation the number of teaching hours were increased, the subject area was enlarged and it became a part of the final examination.

2.- Comments on TEEP evaluation report from Faculty of Veterinary Medicine, University of Glasgow

Note: Extracts from the draft TEEP report are reproduced in quotes " " with attention drawn to particular phrases by underlining. Comments and recommendations from the Faculty in Glasgow are shown in *italics*.

Section A1

Reword to "The programmes….are approved according to procedures *laid out in the University regulations.*

The first part of the next paragraph should be reworded "At present there is no national curriculum for veterinary programmes, although all veterinary Schools are audited by the RCVS and EAEVE. This is recognised as a strength as it allows for diversity of contents and orientations." *The remainder of the paragraph beginning* "However the Faculty etc" *is not accurate and should be deleted.*

"At present, the Faculty has no plans to bring the undergraduate veterinary programme under the frame of the "Bologna" recommendations. Moreover, a Bachelor with a professional orientation should require a pre clinics vertical integration." *This paragraph cannot be understood. The Veterinary degree in the UK is considered to be equivalent to Masters level.*

Please change "cannot study for extreme reasons" *to* "cannot complete the course" *which would be more accurate.*

Section A2 Academic staff
Reword the first sentence to "The Faculty has responsibility for staff recruitment".

"The School is facing a competitive labour market that makes difficult the recruitment of <u>qualified staff</u> into research". This should state *veterinary* qualified staff. *The remainder of the paragraph* "The Working environment in terms of salary and time for research and career development is not as good as in the private sector." *is inaccurate and should be deleted. Private sector practitioners have negligible time for research. Career development at the faculty is good as shown by the number of full professors in the Faculty.*

"On the other hand there is the possibility that, in fact, specialisation's increase has caused the problem, leading to a small pool of qualified clinicians within each specialism. Additionally it is important to comment that <u>many specialists were drawn away to private referral practices</u>". *Please note this is not accurate – most of the clinical academics that leave the Faculty move on to other University institutions to promoted positions.* "Within school, it needs to focus research on a limited number of specialisms. However, this could lead into recruitment problems in areas that, in particular, the School has designated as "weakness" or "non-focus" specialisms. *Please note our Institute of Comparative Medicine, the research base of the Faculty, is focussed on*

specialisms in terms of areas of basic science research. In the clinical areas, however, the Faculty does not have "weakness" or non-focus" specialisms and it should be made clear that this comment is solely the Panel's.

The scope of this audit did not include research and we were not asked to submit information on the Faculty's research. It is important that comments and recommendations are not made outside the remit of TEEP and the evidence submitted.

"Moreover applicants are also required to demonstrate that they have acquired a certain level of practical experience. On this aspect there are relevant doubts". *It is not clear who the report is referring to. Whose doubts? The visiting panel or the students?*

"There was also some concern raised by the students with regard to the admissions procedure for American applicants. It was perceived that many "walked in", paid their money, failed to achieve and dropped out, without integrating socially through the year". *While this statement may reflect some student opinions, it is ill-informed and destructive. There are other students apart from Americans who pay full fees. We ask the group to reword it.*

A4 Programme scenario

"The School facilities in the campus are very good. In particular, the equine centre and the small animal intensive care unit. Nevertheless there is a query on the appropriate caseload of these units". *What is the query? Please clarify.*

"As most of the postgraduate we were confronted with, were residents, it was difficult to get an impression on the PhD course (1 PhD and 7 residents/master), but there seems not to be a formalized PhD program with basic research courses, resulting in a lack of structure of the PhD programme." *These comments are inappropriate. The UK research PhD model is based on a 3 year research programme without a taught component. There is, however, some structure around this programme with formal monitoring of progress. The Faculty Graduate School has a strong research record including graduation of PhD students.*

The make-up of the postgraduate group that met the Panel was not representative of all postgraduates in the School. The self-evaluation document, and the TEEP project as a whole, are concerned solely with the undergraduate course and members of the postgraduate group were chosen largely to reflect what we anticipated would be the interests of the Visiting Panel and the objectives of TEEP. It would be best if the report made no comment on PhD studies and research output.

"Thus, the programme contains the courses of Veterinary anatomy, veterinary physiology, Veterinary biomolecular and veterinary animal husbandry, *taught* in the first two years. Veterinary Pharmacology & Therapeutics, Veterinary microbiology, Veterinary parasitology and Veterinary

Pathology, *taught* in the third year, while Farm animal disease and veterinary public health, companion animal disease and veterinary surgery and reproduction belongs to the fourth year. The fifth year is reserved to small and large animal clinics studies. In the year 2004 there will be the introduction of EMS *as a formal course* from first year to the fifth year."

"The Extramural Course of 26 weeks is one of the strongest elements of the programme that make possible the contact with the daily practice in a wide manner. On the other hand traditionally, the BVMS course has been inflexible, with limited choice to personal focus within EMS." *This would read better as …with choice limited to personal focus…*

"Faculty has introduced a taught Communication Skills course. Two comments about that: (1) some students were not attending the course because it was not "compulsory" or being examined, and (2) this course should maybe be taught earlier in the undergraduate curriculum to allow students to develop practical execution of the taught elements of the course from an earlier stage, during EMS." *Please note that Communication Skills were taught in Year 1 in the current year and will continue to be so. They will also be examined in the Small Animal OSCE professional exam from 2004.*

"Further education of the teachers and collaboration between scientific areas (departments) are also necessary to make the subjects relevant and interesting for the students." *We do not feel this statement is accurate. All our staff collaborate highly across departments in both teaching and research. Indeed at the recent EAEVE/RCVS inspection, the cross departmental collaboration was applauded.*

"Students are happy with the EMS but they ask for smaller group sizes in the university clinic and more patients. Further, students claim that many of the practical exercises has been changed to E-learning programmes. The faculty should notice that this method of teaching has interesting possibilities and advantages but they cannot replace practical exercises, which are defined as hands on training." *This statement may give a false impression. The course includes a considerable amount of 'practical' training and satisfies fully the EAEVE criteria for this.*

B.6 Assessment:

"Course leaders choose the assessment methods they consider most appropriate to the course material and learning objectives. In addition the Faculty has a system of external examiners from other Vet schools, which represents a strong quality assurance system. After the examinations they report individually. Nonetheless there is no mechanism to collect their view in a combined manner having group meetings". *This is not accurate. The Faculty Annual Course Monitoring*

Report, discussed at Board of Studies and at Faculty, is the mechanism to combine and discuss feedback from all external examiners.

First para after table "nevertheless it requires a huge effort, thus the cost of controlling the EMS is important." *The word important does not read well here. Significant would be better. "Controlling" – the common English term is monitoring.*

C1 Strategy and goals:

"The programme is audited periodically by the Royal College of Veterinary Surgeons in connection with the EAEVE. At the faculty level, it is important to mention that the SHEFC *through the QAA* inspected the institution in 1996 assessing the teaching and quality assurance provision. This inspection was awarded *the top rating of Excellent."*

"The Faculty should have mechanisms to evaluate all established objectives. Otherwise it should be convenient to distinguish what are measurable objectives from other kind of aims." *The Faculty does have mechanisms to evaluate its objectives. The Faculty generates an operational plan every year with objectives and timelines, which is submitted to the University Court. This also contains a report on the previous year's achievements.*