Report
of the Expert Panel
on the REACCREDITATION
of the University Postgraduate (Doctoral) Programme
Veterinary Sciences
Faculty of Veterinary Medicine, University of Zagreb

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INTRODUCTION

The Expert Panel appointed by the Agency for Science and Higher Education (ASHE) created this Report on the Re-accreditation of the University Postgraduate (Doctoral) Programme ***Veterinary Sciences*** on the basis of the Self-Evaluation Report of the Programme, other documentation submitted and a visit to the **Faculty of Veterinary Medicine, University of Zagreb.**

The Agency for Science and Higher Education (ASHE), a public body listed in EQAR (European Quality Assurance Register for Higher Education) and a full member of ENQA (European Association for Quality Assurance in Higher Education), re-accredits higher education institutions (hereinafter: HEIs) and their study programmes in line with the Act on Quality Assurance in Science and Higher Education (Official Gazette 45/09) and the Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions (OG 24/10). In this procedure parts of activities of higher education institutions and university postgraduate study programmes are re-accredited.
Expert Panel is appointed by the Agency's Accreditation Council, an independent expert body, to carry out independent evaluation of post-graduate university study programmes.
The Report contains the following elements:

- Short description of the study programme,
- The recommendation of the Expert Panel to the Agency's Accreditation Council,
- Recommendations for institutional improvement and measures to be implemented in the following period (and checked within a follow-up procedure),
- A brief analysis of the institutional advantages and disadvantages,
- A list of good practices found at the institution,
- Conclusions on compliance with the prescribed conditions of delivery of a study programme,
- Conclusions on compliance with the criteria for quality assessment.

Members of the Expert Panel:

- Prof. Michael Drinnen, Newcastle University/ Freeman Hospital, UK (site visit: Faculty of Medicine Zagreb and Split),
- Prof. Albert Selva O'Callaghan, Autonomous University of Barcelona/ Hospital Universitari General Vall d'Hebron, Spain (site visit: Faculty of Medicine Zagreb and Rijeka),
- Prof. Gernot Riedel, Aberdeen University, UK (site visit: Faculty of Medicine Zagreb and Split),

- Arturo Moncada Torres, doctoral student, KU Leuven, Belgium (site visit: Faculty of Medicine Zagreb and Rijeka),
- Dr. sc. Senthil Kaniyappan, postdoctoral researcher, Max Planck Institute of Metabolism Research and DZNE (German Centre for Neurodegenerative Diseases), Germany (site visit: Faculty of Medicine Zagreb and Split),
- Dr. sc. Patrycja Kozik, Group Leader, MRC Laboratory of Molecular Biology, Cambridge Biomedical Campus, Cambridge University, UK (site visit: Faculty of Medicine Zagreb and Rijeka),
- Prof. Peter Hylands, King's College London, UK (site visit: Faculty of Pharmacy and Biochemistry, Zagreb),
- Prof. Gonzalo Herradón, University CEU San Pablo, Spain (site visit: Faculty of Pharmacy and Biochemistry, Zagreb),
- Marcin Ciszewski, doctoral student, Medical University of Łódź, Poland (site visit: Faculty of Pharmacy and Biochemistry, Zagreb),
- Prof. Gábor Gerber, Semmelweis University, Hungary (site visit: School of Dental Medicine Zagreb and Faculty of Medicine Rijeka),
- Prof. Robert Allaker, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, UK (site visit: School of Dental Medicine, Zagreb),
- Prof. Pedro Sousa Gomes, University of Porto, Portugal (site visit: School of Dental Medicine Zagreb),
- Prof. Daniel W Lambert, University of Sheffield, UK (site visit: School of Dental Medicine Zagreb),
- Prof. Zdenek Broukal, Charles University, Czech Republic (site visit: School of Dental Medicine Zagreb),
- Nemanja Sarić, doctoral student, King's College London, UK (site visit: School of Dental Medicine Zagreb and Faculty of Medicine Split),
- Prof. Suzanne Held, University of Bristol, UK (site visit: Faculty of Veterinary Medicine Zagreb),
- Prof. David Sargan, University of Cambridge, UK (site visit: Faculty of Veterinary Medicine Zagreb),
- Vitalina Drobnytska, doctoral student, University of Greenwich, UK (site visit: Faculty of Veterinary Medicine Zagreb).

The higher education institution was visited by the following Expert Panel members:

- Prof. David Sargan, University of Cambridge, UK, moderator of the expert panel,
- Prof. Suzanne Held, University of Bristol, UK,
- Vitalina Drobnytska, doctoral student, University of Greenwich, UK, doctoral candidate.

In the analysis of the documentation, site visit and writing of the report the Panel was supported by:

- Marina Grubišić, coordinator, ASHE,
- Maja Šegvić, assistant coordinator, ASHE,
- Ivana Rončević, interpreter at the site visit and translator of the Report, ASHE.

During the visit to the institution the Expert Panel held meetings with the representatives of the following groups:

- Management,
- Study programme coordinators,
- Doctoral candidates,
- Teachers and supervisors,
- External stakeholders,
- Alumni.

The Expert Panel also had a tour of the library, IT rooms, student register desk and the classrooms.

SHORT DESCRIPTION OF THE STUDY PROGRAMME

Name of the study programme: Veterinary Sciences
Issuing institution(s): Faculty of Veterinary Medicine, University of Zagreb
Education provider(s): Faculty of Veterinary Medicine
Scientific area and field: Biomedicine and Health / Veterinary Medicine
Place of delivery: Faculty of Veterinary Medicine
Number of doctoral candidates: 136 (from 2005 to the present, including the non-active students)
Number of teachers: 115
Number of supervisors: 40
Learning outcomes: Upon the completion of studies, a doctoral candidate will be competent to participate in the work on scientific projects, monitor scientific literature in the field, write scientific papers, communicate with the scientific community in the world, propose or participate in proposals for new research projects, participate in university scientific-educational processes etc. He or she will be qualified to pursue further postdoctoral studies at scientific research institutions around the world, and may become involved in the work of public and private research institutes.
Short description of programme progression conditions (ECTS or other): In order to complete PhD program students are obliged to collect a minimum of 180 ECTS points. The ECTS points are divided among obligatory subjects, obligatory elective and branch directed subjects, thesis preparation and scientific activity. Briefly, during the first semester students are obliged to collect 13 ECTS points from obligatory and 5 ECTS points from obligatory elective subjects. During second and third semester it is necessary to collect 10 ECTS points per semester. Preparation of thesis during fourth, fifth and sixth semester carries 132 ECTS points. Finally, prior to defence of the thesis students are obliged to collect 10 ECTS points from scientific activity. Number of points awarded for scientific activity depends whether students present scientific paper (author type), or conference oral or poster presentation.

RECOMMENDATION BY THE EXPERT PANEL TO THE ASHE'S ACCREDITATION COUNCIL

Upon the completion of the re-accreditation procedure and the examination of the materials submitted (Self-Evaluation Report etc.), the visit to the higher education institution and interviews with HEI members in accordance with the visit protocol, the Expert Panel renders its opinion in which it recommends to the Accreditation Council of the Agency the following:

1. **issue a confirmation on compliance** for performing parts of activities (**renew the licence) and label it as 'high quality'**.

RECOMMENDATIONS FOR THE IMPROVEMENT OF THE STUDY PROGRAMME

1. To include a requirement to *always* include at least one external (to the University) member in the Committee for Thesis Evaluation; ideally/preferably this should be a scientist from abroad to support internationalisation.
2. Greater ambition in quantity and/or level of research required from each candidate at time of thesis submission.
3. Increased number of fellowships would further strengthen the programme's scientific focus and reach, and support the internationalisation of the programme.
4. Further activities to support English language publications.

ADVANTAGES OF THE STUDY PROGRAMME

1. Exemplary procedures for topic selection and candidate monitoring.
2. Highly dedicated staff delivering the programme.
3. Very good laboratory facilities and placement programme.
4. Strong regulatory framework.
5. International outlook and strategy.

DISADVANTAGES OF THE STUDY PROGRAMME

1. High teaching/research support loads of majority of students (other than 'Fellows') restricts research performed; funding base appears to restrict PhD research time (see also 1).
2. Low completion rates, also appear related to the current funding base rather than institutional weaknesses.

3. Despite international aspirations the programme currently appears directed more at the production of staff required to fill faculty places locally than at increasing research strength more generally and producing international scientists.

EXAMPLES OF GOOD PRACTICE

1. FVMUZ's procedures for developing and approving proposed thesis topics are exemplary.
2. Cross faculty and cross institutional training courses and research projects.
3. General and transferable skills training.
4. Internationalisation of training.
5. International aspiration for the programme.

COMPLIANCE WITH THE PRESCRIBED CONDITIONS FOR THE DELIVERY OF A STUDY PROGRAMME

Minimal legal conditions:	**YES/NO notes**
1. Higher education institution (HEI) is listed in the Register of Scientific Organisations in the scientific area of the programme, and has a positive reaccreditation decision on performing higher education activities and scientific activity.	Yes
2. HEI delivers programmes in the two cycles leading to the doctoral programme, i.e., first two cycles in the same area and field/fields (for interdisciplinary programmes), and employs a sufficient number of teachers as defined by Article 6 of the Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions (OG 24/10).	Yes
HEI employs a sufficient number of researchers, as defined by Article 7 of the the Ordinance on Conditions for Issuing Licence for Scientific Activity, Conditions for Re-Accreditation of Scientific Organisations and Content of Licence (OG 83/2010).	Yes
3. At least 50% of teaching as expressed in norm-hours is delivered by teachers employed at the HEI (full-time, elected into scientific-teaching titles).	Yes
4. Student: teacher ratio at the HEI is below 30:1.	Yes
5. HEI ensures that doctoral theses are public.	Yes
6. HEI launches the procedure of revoking the academic title if it is determined that it has been attained contrary to the conditions stipulated for its attainment, by severe violation of the studying rules or based on a doctoral thesis (dissertation) that has proved to be a plagiarism or a forgery according to provisions of the statute or other enactments.	Yes
Additional/ recommended conditions of the ASHE Accreditation Council for passing a positive opinion	**YES/NO notes**
1. HEI (or HEIs in joint programmes) has at least five teachers appointed to scientific-teaching titles in the field, or fields relevant for the programme involved in its delivery.	Yes
2. In the most recent reaccreditation, HEI had the standard Scientific and Professional Activity marked as at least "partly implemented" (3).	Yes
3. The doctoral programme is aligned with the HEI's research strategy.	Yes

4. The candidate : supervisor ratio at the HEI is not above 3:1.	Yes
5. All supervisors meet the following conditions: a) PhD, elected into a scientific title, holds a scientific or a scientific-teaching position and/or has at least two years of postdoctoral research experience; b) active researcher in the scientific area of the programme, as evidenced by publications, participation in scientific conferences and/or projects in the past five years (table 2, Supervisors and candidates); c) confirms feasibility of the draft research plan upon admission of the candidate (or submission of the proposal); d) ensures the conditions (and funding) necessary to implement the candidate's research (in line with the draft research plan) as a research project leader, co-leader, participant, collaborator or in other ways; e) trained for the role before assuming it (through workshops, co-supervisions etc.); f) received a positive opinion of the HEI on previous supervisory work.	Yes
6. All teachers meet the following conditions: a) holds a scientific or a scientific-teaching position; b) active researcher, recognized in the field relevant for the course (table 1, Teachers).	Yes
7. The supervisor normally does not participate in the assessment committees.	Yes
8. The programme ensures that all candidates spend at least three years doing independent research (while studying, individually, within or outside courses), which includes writing the thesis, publishing, participating in international conferences, field work, attending courses relevant for research etc.	Yes
9. For joint programmes and doctoral schools (at the university level): cooperation between HEIs is based on adequate contracts; joint programmes are delivered in cooperation with accredited HEIs; the HEI delivers the programme within a doctoral school in line with the regulations and ensures good coordination aimed at supporting the candidates; at least 80% of courses are delivered by teachers employed at HEIs within the consortium.	The FVMUZ currently does not carry out joint studies or doctoral schools

QUALITY ASSESSMENT

	Quality assessment ("high level of quality" or "improvements are necessary") and the explanation of the Expert Panel
1. RESOURCES: TEACHERS, SUPERVISORS, RESEARCH CAPACITIES AND INFRASTRUCTURE	
1.1. HEI is distinguished by its scientific/ artistic achievements in the discipline in which the doctoral study programme is delivered.	**High level of quality** The level of achievement is consistent with a middle ranking institution (in world terms) and a discipline in which there are a relatively few researchers worldwide. The activities demonstrating this include the organisation of successful veterinary research conferences, training of visiting academics, as well as output of peer reviewed papers. Our comparison recognises citation numbers are smaller than in some other disciplines. For example the median impact factor for journals in the field of veterinary medicine is about 0.9, whilst high-ranking veterinary journals have an impact factor of about 2. Most of the papers published by the FVMUZ staff in 2014 and 2015 belong to group Q1 and Q2 of internationally recognized veterinary journals, as well as some publications in more general journals, with a range of impact factors from 1.364 to 3.1064. It was clear during the visit of the expert panel that the faculty is making substantial efforts to increase the impact of its scientific output.
1.2. The number and workload of teachers involved in the study programme ensure quality doctoral education.	**High level of quality** The ratios of mentors to students are appropriate and mentors had appropriate workloads. However, some of the students are also teachers in undergraduate programmes. The expert panel members were concerned that for some of the teachers pursuing doctoral studies, the amount of teaching being performed did detract from their ability to complete a

	PhD level research programme at sufficient depth and in a timely manner. It was clear that the level of teaching input being made by doctoral candidates was such that this could absorb a substantial proportion of their time. Whilst the experience of the panel was that PhD studies could take a minimum of three years (and often longer) only when pursued full time, and that part time study would generally result in up to six years being taken, it appeared that this amount of time was not available to all candidates.
1.3. The teachers are highly qualified researchers who actively engage with the topics they teach, providing a quality doctoral programme.	**High level of quality** Teachers are experienced veterinary scientists. In some cases, available expertise in the Faculty is supplemented by collaborations set up to allow doctoral trainees to receive instruction in other countries in order to bring new techniques on to this site. The expert panel applauds the sensible use of this approach to supplement local expertise.
1.4. The number of supervisors and their qualifications provide for quality in producing the doctoral thesis.	**High level of quality** The expert panel is very happy with the ratios of mentors to students. During the visit we saw examples of high quality and intensive mentoring, and all students we spoke to were satisfied with this aspect. Teaching staff involved with the programme felt that they had adequate time to interact with, teach and otherwise mentor their students.
1.5. The HEI has developed methods of assessing the qualifications and competencies of teachers and supervisors.	**High level of quality** The expert panel was satisfied that the Council for Doctoral Studies gives active and appropriate consideration to qualifications and competencies of supervisors, and to the number of students being supervised.
1.6. The HEI has access to high-quality resources for research, as required by the programme discipline.	**High level of quality** The panel was satisfied that the library and electronic facilities were adequate for the programme, and were very impressed with the investments that have been made in laboratory facilities and equipment in several programmes. It was clear that high quality and modern research was possible in these facilities.

2. INTERNAL QUALITY ASSURANCE OF THE PROGRAMME	
2.1. The HEI has established and accepted effective procedures for proposing, approving and delivering doctoral education. The procedures include identification of scientific/ artistic, cultural, social and economic needs.	**High level of quality** The Doctoral Programme in Veterinary Sciences (DPVS) as presented and discussed is well suited to meeting the needs of veterinary science and practice in Croatia and the wider veterinary community. Procedures for reviewing and delivering the doctoral programme are effective and sound.
2.2. The programme is aligned with the HEI research mission and vision, i.e. research strategy.	**High level of quality** The DPVS is fully aligned and based on the Research Strategy of the Faculty of Veterinary Medicine at Zagreb University (FVMUZ) as evidenced by the faculty's research strategic plan 2012-17.
2.3. The HEI systematically monitors the success of the programmes through periodic reviews, and implements improvements.	**High level of quality** The DPVS is reviewed externally by EAEVE every ten years, and was reformed following EAEVE's last review in 2003. A new programme was launched in 2005/6, and reviewed again internally in 2013. There is therefore good evidence for periodic reviews and improvements. A Doctoral Studies Committee monitors the scientific productivity of students and supervisors. Its procedures are very strong.
2.4. HEI continuously monitors supervisors' performance and has mechanisms for evaluating supervisors, and, if necessary, changing them and mediating between the supervisors and the candidates.	**High level of quality** Supervisor performance is regularly evaluated including by student feedback. Evidence for procedures for changing supervisors, mediation, and completion rates were included in the SER and discussed during the site visit.
2.5. HEI assures academic integrity and freedom.	**High level of quality** Anti-plagiarism procedures were mentioned in the SER, and further discussed during the site visit. They are of the expected high standards. In addition, FVMUZ doctoral students are familiarised with the University Code of Ethics which covers the principles of ethical research and publication of results.

2.6. The process of developing and defending the thesis proposal is transparent and objective, and includes a public presentation.	**High level of quality** FVMUZ's procedures for developing and approving proposed thesis topics are exemplary.
2.7. Thesis assessment results from a scientifically sound assessment of an independent committee.	**High level of quality** Procedures for assessing the thesis are of high quality as defined in the criteria provided. As a further improvement (for scientific independence) it is suggested that the Committee for Thesis Evaluation that should always include at least one external member from another university (rather than 'preferably'). To support the FVMUZ's ambition for increased internationalisation, the requirement for this to be an external member *from abroad* should be considered.
2.8. The HEI publishes all necessary information on the study programme, admissions, delivery and conditions for progression and completion, in accessible outlets and media.	**High level of quality** Various statutory and regulatory documents plus the FMVUZ's website lay out the necessary information on admission, delivery, progression and completion.
2.9. Funds collected for the needs of doctoral education are distributed transparently and in a way that ensures sustainability and further development of doctoral education (ensures that candidates' research is carried out and supported, so that doctoral education can be completed successfully).	**High level of quality** Procedures for assessing funding are of high quality, as defined in the criteria provided. As a further improvement it is suggested that the number of independent, research-focused fellowships is increased wherever possible. This would support the retention and scientific progression of candidates, and also the programme's international strategy.
2.10. Tuition fees are determined on the basis of transparent criteria (and real costs of studying).	**Improvement needed** It was not possible for the panel to assess whether tuition fees are determined based on the real costs of studying as there is no way available of determining the real costs of studying. However, the SER clearly explains how fees are used, that is what they need to cover.

3. SUPPORT TO DOCTORAL CANDIDATES AND THEIR PROGRESSION	
3.1. The HEI establishes admission quotas with respect to its teaching and supervision capacities.	**High level of quality** Admission quotas are based on a maximum ratio of three students to one supervisor, and the selection of supervisors is rigorous and sound. The panel is happy with the arrangements to ensure that students have adequate support from supervisors/mentors in the preparation of theses, although we would also refer the HEI to our comments on the quality of theses under section 4.1. The panel was satisfied that care was taken in appointing appropriate mentors. The panel was very pleased with the Faculty's intention to provide training for all mentors but noted that training courses have not in practice run very regularly, and that some mentors had not been through a formal training for this role.
3.2. The HEI establishes admission quotas on the basis of scientific/ artistic, cultural, social, economic and other needs.	**High level of quality** FMVUZ demonstrated a high level of awareness of the wider scientific and economic needs of the veterinary profession. This is reflected in the diversity of backgrounds of admitted students and their destinations after graduation. Discussions with stakeholders during the site visit provided further evidence for the close dialogue between the faculty and the wider community to determine and meet societal, scientific and economic needs.
3.3. The HEI establishes the admission quotas taking into account the funding available to the candidates, that is, on the basis of the absorption potentials of research projects or other sources of funding.	**High level of quality** Procedures for establishing admission quotas are of high quality as defined in the criteria provided. Selection procedures for topics and candidates are robust, but the funding model could be improved to strengthen the programme's internationalisation and scientific reach and focus (see 2.9).

3.4. The HEI should pay attention to the number of candidates admitted as to provide each with an advisor (a potential supervisor). From the point of admission to the end of doctoral education, efforts are invested so that each candidate has a sustainable research plan and is able to complete doctoral research successfully.	**High level of quality** Procedures towards monitoring and research project selection are exemplary.
3.5. The HEI ensures that interested, talented and highly motivated candidates are recruited internationally.	**Improvement needed** Improvements to the funding model (see above) are necessary in order to support the programme's internationalisation strategy. A well-established international profile is essential to attracting a critical mass of high-quality international candidates. In addition, it is recommended that the majority of scientific papers resulting from PhD research should be published in English language journals.
3.6. The selection process is public and based on choosing the best applicants.	**High level of quality** Calls for applications are publicly announced. Transparent selection criteria are made available, and a complaints procedure for unsuccessful applicants is in place.
3.7. The HEI ensures that the selection procedure is transparent and in line with published criteria, and that there is a transparent complaints procedure.	**High level of quality** as 3.6
3.8. There is a possibility to recognize applicants' and candidates' prior learning.	**High level of quality** Prior learning and relevant experience are recognised either through awarding credits or granting exemption from courses covering previously learnt subjects. Relevant rules and procedures are specified in FMVUZ's Regulations on Doctoral Studies.
3.9. Candidates' rights and obligations are defined in relevant HEI regulations and a contract on	**High level of quality** A number of regulatory and statutory documents prescribe the students' rights and obligations,

studying that provides for a high level of supervisory and institutional support to the candidates.	including their annual progress monitoring and publication requirements. A contract is signed between the student and the faculty that lays out mutual rights and obligations.
3.10. There are institutional support mechanisms for candidates' successful progression.	**Improvement needed** Improvements are needed to support the candidates' scientific and international progression. The small proportion of credits attributed to scientific activity within the DPVS credit framework appears at least to some extent to reflect the funding base of most students (other than fellows). The funding model appears to require them to contribute substantially to teaching and research support. This puts them at a disadvantage when competing internationally against young scientists whose PhD time typically was exclusively dedicated to their own research work and producing publications from it.
4. PROGRAMME AND OUTCOMES	
4.1. The content and quality of the doctoral programme are aligned with internationally recognized standards.	**High level of quality** Many aspects of the programme equip the students well, including the training of modern technical skills and methods. The panel was impressed by the facilities and research available for the delivery of training, and by the shared teaching of new skills in difficult theoretical disciplines such as statistical and mathematical biology and epidemiology and bioinformatics.
4.2. Programme learning outcomes, as well as the learning outcomes of modules and subject units, are aligned with the level 8.2 of the CroQF. They clearly describe the competencies the candidates will develop during the doctoral programme, including the ethical requirements of doing research.	**Improvement needed** We are satisfied that the teaching programme is designed to deliver learning outcomes at the level required by Cro QF, that these are clear, and that they describe the competencies the students are expected to acquire, including ethical competencies. However, as noted in 4.4, below, we feel that research outcomes are not set at a level that would be expected in Doctoral programmes in international comparator institutions.
4.3. Programme learning outcomes are logically and clearly connected with teaching contents, as well as the	**High level of quality** - In research investigations it is appropriate that each individual pursues different learning outcomes.

contents included in supervision and research.	Teaching options both through mentors and through collaborative work and taught courses are appropriate. Students were very satisfied that teaching was appropriate for their own research projects. Although levels of achievement required of the students are lower than the panel would prefer, connections between teaching and learning outcomes are good.
4.4. The doctoral programme ensures the achievement of learning outcomes and competencies aligned with the level 8.2 of the CroQF.	**Improvement needed** Many aspects of the programme equip the students well, including the training of modern technical skills and methods. However, we are concerned that the scope of the investigations recorded by students in their dissertation reports is comparatively limited and not yet of internationally recognised standards in many cases. The projects described and results obtained are often akin to those described in masters by research theses in more established graduate programmes elsewhere. We would like to see any PhD programme aspire to more ambitious scientific output from the candidates. Hence we are unable to describe this aspect of the programme as high quality at present.
4.5. Teaching methods (and ECTS, if applicable) are appropriate for level 8.2 of the CroQF and assure achievement of clearly defined learning outcomes.	**Improvement needed** Aspects of the teaching methods have high levels of quality. Laboratories are well equipped and mentors are very capable of teaching. However, the panel was concerned to ensure that the 144 credits available for scientific presentation and dissertation preparation should be distributed in a way that requires the student to do more than simply present a dissertation at the end of the teaching period. It appears that the student can pass the course with little more than this level of work. We also remain somewhat unclear about the progression of students through the course. The number of students completing the course compared with admissions suggested that there is a fairly high loss of students from the course. That is, as with all PhD and other courses, some students left before finishing it. But we were uncertain how this was

	achieved. Do the annual reports prepared by each student act as intermediate checks on suitability for research or is the loss of students from the course due to failures of finance or for other voluntary reasons coming from the students themselves? If a method for removal of unsuitable students from the course does not exist, then we recommend that there should be a clear mechanism to allow students who are not able to show that they are suited to research at PhD level can be removed from the course.
4.6. The programme enables acquisition of general (transferable) skills.	**High level of quality** This facet of the programme is well designed and aspiration for it is high. It is important to ensure that workshops in the transferable skills area take place as regularly as suggested by the program design – mechanisms to ensure this are particularly important when those workshops are organised by other faculties of the University. We would recommend that all students are regularly given the opportunity to present their work internally but to more people than just their lab group (in a Faculty seminar series or similar programme), to prepare them for the external opportunities mentioned in these papers.
4.7. Teaching content is adapted to the needs of current and future research and candidates' training (individual course plans, generic skills etc.).	**High level of quality** The panel was very satisfied through its meeting with students and separately with mentors, that both current and future career needs are being met for these candidates. It was also clear that research needs of the Department and of Croatia are considered in the training. But it was slightly disappointing that for most PhD candidates it appeared that their ambitions in subsequent employment were limited. Given the international aspirations of the Faculty, it would be wise to encourage candidates to consider employment options outside the Faculty of Veterinary Medicine and associated or related governmental institutes, and indeed to consider looking for opportunities further afield, in the international world of veterinary science. In the long term sending a proportion of students to acquire postdoctoral experience abroad will enhance the reputation of the school and enrich the Faculty

	with those who return and bring fresh skills.
4.8. The programme ensures quality through international connections and teacher and candidate mobility.	**High level of quality** The panel is impressed by the international aspirations of the programme, and encourages further recruitment of the best possible students from overseas (as already happens in small numbers, see 3.2, 3.10). The placement of students abroad on laboratory visits and in collaborative projects is welcome and we encourage further development of these links. In developing an international reputation it is important to move towards using English, the international language of science, in all writing of theses and to publish as far as possible in scientific journals written in English. This gives international scientists access to the work published by the doctoral candidates.

*** NOTE: RECOMMENDATIONS OF THE EXPERT PANEL TO THE ASHE'S ACCREDITATION COUNCIL AND QUALITY LABEL**

The role of the Expert Panel in the re-accreditation of doctoral study programmes is manifold. The Expert Panel or part of the Expert Panel visiting a higher education institution drafts a report on the basis of a self-evaluation report, the accompanying relevant documentation, and a site visit to HEI. The draft report is adopted by all members of the Cluster Expert Panel, while the president of the Cluster Expert Panel is responsible for coordinating the assessment levels.

The report contains an assessment on whether a doctoral study programme delivered at a higher education institution complies with the prescribed laws and by-laws, as well as any additional/recommended requirements defined by the Agency's Accreditation Council, and whether a higher education institution can obtain a positive, i.e. satisfactory quality assessment according to the criteria set out in this document. Moreover, the Expert Panel must make recommendations for quality improvement.
Based on the assessment of all these elements, the Expert Panel may propose to the Accreditation Council of the Agency to issue either a confirmation on compliance, a letter of expectation for the period up to three (3) years in which period the higher education institution should eliminate the identified deficiencies, or to deny the license.

If the Expert Panel has assessed that a doctoral study programme delivered by a higher education institution does not meet legal and other requirements or that the quality of a study programme is not ensured (i.e. that HEI does not meet additional requirements or recommendations made by the Accreditation Council, or has a very poor quality assessment), they should propose to the Accreditation Council to deny the license.

If the Expert Panel considers that the relevant laws and bylaws have been met by a higher education institution, but that certain elements mentioned above do not meet the quality requirements, while they consider that the identified shortcomings can be corrected within a time frame of three years, they should issue a letter of expectation.

If the Expert Panel considers that all legal and additional/recommended requirements have been met and the quality assessment is satisfactory, i.e. that a study programme fulfils the learning outcomes appropriately defined for that level and scientific area, they may propose the issuance of a certificate and have a HEI commit to quality improvement and reporting to the Agency during the follow-up period.

Finally, if the Expert Panel has, in accordance with the criteria mentioned above, proposed issuing the certificate of compliance and assessed that, in addition to meeting the minimum quality requirements – i.e. the qualification framework level - for a study programme, the programme should be identified as a doctoral programme of a 'high level of quality', the Expert Panel may propose to the Agency's Accreditation Council that such a doctoral study programme be awarded the 'high quality label'. Thus the Agency, with the consent of the Accreditation Council, grants a higher education institution the right to use the label for their academic and promotional purposes.
The 'high quality label' cannot be proposed or awarded to a programme or a higher education institution that does not comply with the requirements laid down by the laws and bylaws mentioned in this document, and any additional requirements recommended by the Accreditation Council. Moreover, the quality assessment awarded to a study programme should reflect a high level of quality

inasmuch that at least half of the sub-criteria in each of the quality assessment criteria are assessed as being of high quality. The Accreditation Council of the Agency issues a final opinion on the label awarded. The content and form of the quality labels shall be prescribed by the Agency in a relevant general act.

The Accreditation Council of the Agency discusses the final report with all recommendations and suggestions, and issues their opinion on the report. Based on a prior opinion of the Accreditation Council, the Agency issues an Accreditation Recommendation to the minister responsible for science and higher education, and upon receipt of the minister's final decision on the outcome of the procedure, awards the 'high quality label" to a higher education institution.