

External Evaluation Report of a Animal Science Doctoral Study of the University of Agronomic Sciences and Veterinary Medicine of Bucharest

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I. Introduction¹

This external evaluation has been done by an international independent expert and is part of the process of periodical external evaluation of Doctoral Study Domains of the University of Agronomic Sciences and Veterinary Medicine of Bucharest, conducted by ARACIS (Romanian Agency for Quality Assurance in Higher Education), during June 14th-18th, 2021. The composition of the panel for the evaluation of the full Doctoral Studies includes two professors (one as the panel coordinator and other as international expert) and one PhD student for each domain (Table 1).

This evaluation report corresponds to the Animal Science Doctoral Study Domain.

¹ Each time when applicable the information shall be presented gender-wise.

Table 1. Composition of the panel for the evaluation of the Doctoral Study Domains of the University of Agronomic Sciences and Veterinary Medicine of Bucharest.

Surname and Name	University
Agronomy	
Prof. Univ.Dr. SAMUIL Costel <i>Coordinator</i>	<i>University of Agricultural Sciences and Veterinary Medicine, Iași</i>
Prof. Univ. Dr. KONVALINA Petr <i>International expert</i>	<i>University of Bohemia, Czech Rep.</i>
BORCEA Denis Gabriel <i>PhD student</i>	<i>"Ion Ionescu de la Brad" University of Agricultural Sciences and Veterinary Medicine, Iași</i>
Horticulture	
Prof. Univ. Dr. COSMULESCU Sina <i>Coordinator</i>	<i>University of Craiova</i>
Prof. Univ. Dr. DRENJANCEVIC Mato <i>International expert</i>	<i>University of Osijek, Croatia</i>
CODREA Maria Maruni <i>PhD student</i>	<i>University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca</i>
Animal Science	
Prof. Univ. Dr. STEF Lavinia <i>Coordinator</i>	<i>The Banat University of Agricultural Sciences and Veterinary Medicine "King Mihai I of Romania" Timișoara</i>
Prof. Univ. Dr. PEREZ-MARIN Dolores <i>International expert</i>	<i>University of Cordoba, Spain</i>
ORĂȘAN-ALIC Sergiu Aurel <i>PhD student</i>	<i>The Banat University of Agricultural Sciences and Veterinary Medicine "King Mihai I of Romania" Timișoara</i>
Biotechnology	
Prof. Univ. Dr. SAND Camelia <i>Coordinator</i>	<i>"Lucian Blaga" University of Sibiu</i>
Prof. Univ. Dr. CORCIONIVOSCHI Nicolae <i>International expert</i>	<i>Queen's University Belfast, Ireland</i>
MUSCA Adriana-Sebastiana <i>PhD student</i>	<i>University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca</i>
Management in Agriculture and Rural Development	
Prof. Univ. Dr. IANCU Tiberiu <i>Coordinator</i>	<i>The Banat University of Agricultural Sciences and Veterinary Medicine "King Mihai I of Romania" Timișoara</i>
Prof. Univ. Dr. CSAPO Zsolt <i>International expert</i>	<i>University of Debrecen, Hungary</i>
ȘUBA Anka-Roxana <i>PhD student</i>	<i>The Banat University of Agricultural Sciences and Veterinary Medicine "King Mihai I of Romania" Timișoara</i>
Veterinary Medicine	
Prof. Univ. Dr. PUSTA Dana <i>Coordinator</i>	<i>University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca</i>
Prof. Univ. Dr. PAWLAK Aleksandra <i>International expert</i>	<i>University of Wroclaw, Poland</i>
UNGUR Paul Andrei <i>PhD student</i>	<i>University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca</i>

IOSUD (Institution Organising Doctoral Study Programs) is legally represented by the University of Agronomic Sciences and Veterinary Medicine in Bucharest (USAMVB) which is a public higher education institution. The person in charge for the USAMVB that legally represents IOSUD is the Rector of USAMVB. The new study programs of USAMVB, following what Bologna Process established for the structure of the bachelor, master and doctorate studies, were implemented in the academic year 2005-2006.

IOSUD is managed by the Council of doctoral studies (CSUD) and operates according to the code of doctoral studies and the institutional regulation of organization and development of doctoral programs, developed by CSUD and approved by the USAMVB. The CSUD consists of 11 members, of which eight are PhD supervisors from IOSUD and three are PhD students elected in accordance with the approved code of doctoral studies.

The doctoral study programs within IOSUD are structured in two Doctoral Schools: the Doctoral School of Engineering and Management of Plant and Animal Resources (DS IMRVA) and the Doctoral School of Veterinary Medicine (DS MV). In addition, six doctoral domains are recognised: Agronomy, Horticulture, Animal Science, Biotechnology and Engineering and Management in Agriculture and Rural Development, belonging to the DS IMRVA, and finally Veterinary Medicine belonging to the DS MV. The number of PhD students in USAMVB on 2019 was 365.

The doctoral schools operate with doctoral supervisors who have acquired this right (habilitation certificate) according to the Romanian law. Each doctoral supervisor can supervise a maximum of 8 students per year (Art. 77 Doctoral Studies Code of June 29th, 2011). An important objective in doctoral training in recent years has been to respect the number of doctoral students under the guidance of a supervisor to increase the quality of teaching and scientific research and student satisfaction. The PhD supervisors through the professional performances ensure the quality of the coordination process and together with the guidance commissions they participate in the development of the academic and research path of the doctoral students.

The duration of the doctoral university studies is 3 years, and can be extended up to 2 years for justified reasons (medical, child rearing, the research topic requires it, other personal reasons), with the approval of the Doctoral School Council and the approval of the University Senate, at the proposal of the PhD supervisor. The doctoral studies represent the third cycle of studies according to the Bologna process and have as objectives the formation and development of the competent human resource at higher level.

For the "Animal Science" domain, there are currently 7 full-time supervisors and 48 PhD students during the last five years, 46 effective since one PhD student interrupted his studies and other was expelled due to get over the maximum permanency time. The number of students per year has decreased from 2016 (36 to 25) as well as the number of supervisors (10 to 7). The mission of the doctoral studies in Animal Science is carried out in accordance with the requirements and qualification needs corresponding to the doctoral academic studies in Animal Science. The scientific and research mission of the doctoral field in Animal Science is focused on the contribution to the scientific and technological progress in Animal Science at national and international level.

PhD students follow a training process that enables them to accumulate professional skills in advanced knowledge in Animal Science, as well as in transversal skills. This includes basic and advanced concepts, specific research methods, technological and research methodologies in Animal Science, communication with specialists in the animal science field and related ones, explanation and

interpretation of results and practical problems. At the same time, PhD students have the opportunity to develop a series of transversal competences: written and oral communication skills in the scientific field, advanced language skills in world languages, use of information and communication technology, interrelationship and teamwork skills in the research teams in the doctoral field and in the area of the developed research topic, knowledge of human resource management as well as of financial resource management, management of various situations, use of legislation in the field of intellectual property rights and entrepreneurial skills. Thus, through the training program based on advanced university studies and the individual scientific research program, PhD students obtain the established number of credits of 180 ECTS. During the first training program, PhD students in Animal Science attend a 12 weeks' period of courses, practical projects and seminars covering 4 subjects and providing 30 ECTS. The study program includes training on research methodology, doctoral thesis preparation, ethics and academic integrity together with specialized subjects, chosen according to the research area of the doctoral thesis.

II. Methods used

For the evaluation of Doctoral Study Domains of the University of Agronomic Sciences and Veterinary Medicine of Bucharest, in particular the Animal Science domain, this expert has considered the information provided through the following sources:

- An Internal Evaluation Report of the Doctoral Studies for the Animal Science domain, together with the information provided in 196 Annexes and other complementary documents.
- The information provided in the video recorded from the visit to the University facilities.
- In particular, and of specific important, the information obtained from the interviews with the different parts of these studies (director, supervisors, students, posgraduated, quality and assurance commission, etc.).
- Information shared with the other panel members during emails and meetings.
- The Romanian Doctoral Studies Code of June 29th, 2011.
- The Order 3651 / 2021 related to the Methodology on conducting the evaluation of university doctoral studies and the systems of criteria, standards and performance indicators used in the evaluation.

III. Analysis of ARACIS's performance indicators

Domain A. INSTITUTIONAL CAPACITY

**general description of domain analysis.*

Criterion A.1. The administrative, managerial institutional structures and the financial resources

**general description of the criterion analysis.*

Standard A.1.1. The institution organizing doctoral studies (IOSUD) has implemented the effective functioning mechanisms provided for in the specific legislation on the organization of doctoral studies.

**general description of the standard analysis.*

Performance Indicator A.1.1.1. The indicator A.1.1 is fulfilled. The Doctoral School IMRVA has established internal regulations, matching well with that formulated by the Doctoral Studies Code and by the Romanian National Education Law. According to the specific regulations, everything related to the mechanisms for the performance, organization and development of doctoral studies are well implemented and is working in a proper manner. It is well respected the elections for the different positions in the CDS and the CDSU, both at teacher and student levels.

In addition, it is confirmed the process of accreditation of the doctoral supervisors, as a quality remark of the system. The recognition of the doctoral supervisor position and of the equivalence of the doctorate degree obtained abroad is made according to the Procedure of Recognition approved by USAMV Bucharest.

CSD management structures and activities is confirmed through the agendas of the meetings containing the debated documents and their resolution and the signature of the participants.

The interviews with the supervisors and the PhD Students, together with the information provided, enabled to confirm the suitability of the procedure for the approval of proposals and assignation of supervisors, and it was not appreciated any problem or disconformity in this aspect.

Performance Indicator A.1.1.2. The indicator A.1.1.2 is fulfilled. It is clear that the Regulations of the DS IMRVA accomplish all the aspects specified in the Art. 17 of the GD 681/2011. This includes rights and duties of supervisors and students, how to change the supervisor, conditions for interrupting the thesis, the prevention of plagiarism or conflict mediation between the student and the supervisor.

Standard A.1.2. The IOSUD has the logistical resources necessary to carry out the doctoral studies' mission.

**general description of the standard analysis.*

Performance Indicator A.1.2.1. The indicator A.1.2.1 is fulfilled. The USAMVB has a IT system that contains the records of PhD students from the academic year 2015-2016, including information on personal data, schooling (promotion, expulsion, interruption of studies, extension), scholarships, completion of studies and study documents issued (series and diploma number). The old IT system contains record from the academic year 2009/2010, with a more reduced information data per student. Although this evaluator could not evaluate how the current IT system operate, it should be work without any problems, since during the interviews no one from the teaching staff, quality assurance commission or students declared any conflict or problem about it.

Performance Indicator A.1.2.2. The indicator A.1.2.2 is fulfilled. The USAMVB provides access to suitable software programs for the verification of similarity in all doctoral theses, establishing a threshold of maximum 10%. This is a key aspect in the fighting towards the plagiarism in science, and in the increasing of the quality and novelty of the results.

Standard A.1.3. The IOSUD makes sure that financial resources are used optimally, and the revenues obtained from doctoral studies are supplemented through additional funding besides governmental funding.



**general description of the standard analysis.*

Performance Indicator A.1.3.1. The indicator A.1.3.1 is fulfilled. In the Animal Sciences domain, it can be confirmed the existence of different national and international research projects (9 projects in 6 years, that can be considered an excellent ratio) related to the some of the main topics of interest in Animal Science at the present time. In addition, they developed a capacity building project at national level related to the professional future of the university students.

Performance Indicator *A.1.3.2. The indicator A.1.3.2 is fulfilled. The data provided for this evaluation confirmed that more than the 20% of the doctoral students belonging to the Animal Science domain were benefited from other funding sources (as research projects) besides the government ones. In addition, during the interviews with the student and posgraduated this issue were commented and confirmed as well.

Performance Indicator *A.1.3.3.² The indicator A.1.3.3 is fulfilled. The data provided in the Annex 165 inform that the amount dedicated to training expenses of the Animal Science doctoral students is slightly higher than the minimum 10 % required. These funds have been destined mainly to participation in conferences and publications, for which the numbers are really good for the evaluated period. Regarding the international exchanges, the evaluation of the documentation and the interviews brought out the need to increase them, and in particular to destined more funds to balance the life level of the home and host countries, avoiding that the economical part was the most important aspect to decide about international mobility.

Criterion A.2. Research infrastructure

**general description of the criterion analysis.*

Standard A.2.1. *The IOSUD has a modern research infrastructure to support the conduct of doctoral studies' specific activities.*

**general description of the standard analysis.*

Performance Indicator A.2.1.1. The indicator A.2.1.1 is fulfilled. The Animal Science Doctoral Domain is well equipped with the infrastructures and facilities available required to assure the practical training and the acquisition of all the competences expected for a professional in this field. They have specific labs and infrastructures for animal nutrition, animal breeding, a smart farm for dairy cows, a research center for poultry production or an aquaculture lab. Although more new technologies and sensors would be recommended. In addition the University provides the student with , classrooms, rooms for collaborative studies, library and access to digital resources and computer rooms. During the interviews, the research infrastructure available was well valued for the teaching staff and also for the students.

² The indicators marked with an asterisk (*) hold a special status, referring exclusively to the evaluation of doctoral studies domains, as per Article 12 from the annex No.1 of the Order of the minister of education No. 3651/12.04.2021 approving the Methodology for evaluating university doctoral studies and the system of criteria, standards and performance indicators used in the evaluation. In case they are not met, the Agency extends a period of maximum 3 years to IOSUD to correct the respective deficiencies.

Criterion A.3. Quality of Human Resources

**general description of the criterion analysis.*

Standard A.3.1. At the level of each domain there are sufficient qualified staff to ensure the conduct of doctoral study program.

**general description of the standard analysis.*

Performance Indicator A.3.1.1. The indicator A.3.1.1 is fulfilled. In the Animal Science domain, there are 7 supervisors, an 4 of them (57%) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU). It must be stressed that the level of scientific production, linked to scientific publications and research projects developed in the last 5 years, is quite high for the field.

Performance Indicator *A.3.1.2. The indicator A.3.1.2 is fulfilled. All the supervisors of the Doctoral Studies IMRVA belonging to the Animal Science domain are full-time undefined staff of the Bucarest University as the documents provided in Annex 174 prove.

Performance Indicator A.3.1.3. The indicator A.3.1.3 is fulfilled. The teaching staff supporting the Doctoral Studies in Animal Science gathers all the requirements and expertise in training and research to meet the standars established by the University and the Romanian Educational National Law. The CVs of the 7 supervisors provided endorse this statement.

Performance Indicator *A.3.1.4. The indicator A.3.1.4 is fulfilled. This was a particular issue discussd during the interviews with the supervisors. From an international point of view, the perception is that supervising 8 students by the same supervisor is a huge job, so supervising until 12 is too much. Nevertheless, no more than 2 of the 7 supervisor of the Animal Science domain exceeded the 8 students, and none of them the limit of 12. In the student and posgraduate interviews, all of them indicated that the suvervision provided by the teachers was excellent.

Recommendations:

Standard A.3.2. The Doctoral advisors within the domain are carrying out a scientific activity visible at international level.

**general description of the standard analysis.*

Performance Indicator A.3.2.1. The indicator A.3.2.1 is fulfilled. For the Animal Science domain, 4 of 7 supervisors have more than 5 indexed publications in top sceintific journals. It is clear also their contribution to knowledge dissemination through scientific conferences. Their involvement in scientific boards at international level in the field of Animal Science is limited, but it is high at national level.

Recommendations: More involvement at international level and the enlarging of the international network are recommended actions.

Performance Indicator *A.3.2.2. The indicator A.3.2.2 is fulfilled. The full Animal Science teaching staff can be considered scientically active and with a good score in relation to the standard of 420



minimum points requested by the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU), for getting the habilitation certificate as doctoral student supervisor. All of them exceed the minimum score required (420 points) in more than a 25%. Thus the scores of the Animal Science team range from 557 to 2499 points as it can be appreciated in the Annex 178 of the documents provided for this evaluation.

Domain B. EDUCATIONAL EFFECTIVENESS

**general description of domain analysis.*

Criterion B.1. The number, quality and diversity of candidates enrolled for the admission contest

**general description of the criterion analysis.*

Standard B.1.1. The institution organizing doctoral studies has the capacity to attract candidates from outside the higher education institution or a number of candidates exceeding the number of seats available.

**general description of the standard analysis.*

Performance Indicator *B.1.1.1. The indicator B.1.1.1 is partially fulfilled. The ratio between the number of graduates of masters' programs of other higher education institutions, national or foreign, who have enrolled for the doctoral admission contest within the past five years and the number of seats funded by the state budget, within the Animal Science doctoral domain, is higher than 0.2 for the years 2015, 2016 y 2019 of the evaluated 5-years period, but it is smaller for 2017 and 2018.

Recommendations: The attraction for candidates coming from other education institutions must be improved, maybe the internationalization dimension of the studies could be of help.

Standard B.1.2 Candidates admitted to doctoral studies demonstrate academic, research and professional performance.

**general description of the standard analysis.*

Performance Indicator *B.1.2.1. The indicator B.1.2.1 is fulfilled. The DS IMRVA have established in its regulations the criteria for the admission of doctoral students according to their academic, research and professional curricula. Moreover, the admission procedure considers an international language test and an interview of the candidate with the admission commission.

Performance Indicator B.1.2.2. The indicator B.1.2.2 is fulfilled. Only one student out of 48 renounced to the doctoral studies during the second year after admission. In addition, others were expelled since they spent the full time and the extension time provided to finalize the doctoral studies. In the interview with the supervisors, they indicated that only one student was expelled and in the internal report appear sometime 2 and other 3 students. Nevertheless, in any case, the dropout ratio for the 5-years period evaluated is much more lower than 30%.



Criterion B.2. The content of doctoral programs

**general description of the criterion analysis.*

Standard B.2.1. The training program based on advanced university studies is appropriate to improve doctoral students' research skills and to strengthen ethical behavior in science.

**general description of the standard analysis.*

Performance Indicator B.2.1.1. The indicator B.2.1.1 is fulfilled. The training program approved for the Doctoral Student in Animal Science includes transversal subjects related to scientific methodology, development of a doctoral thesis work or other ethical issues for research. During the interview with the student, this aspect was discussed and the student gave a high valued to the transversal training courses, and declared not to miss any specific kind of knowlegde in the program.

Performance Indicator B.2.1.2. The indicator B.2.1.2 is fulfilled. The training program includes a subject focused in wthics and academic integrity of 7 credits.

Performance Indicator B.2.1.3. The indicator B.2.1.3 is fulfilled. To address the learning outcomes, the DS IMRVA for the Animal Science domains has available syllabus for each subject. Each syllabus provides to the students information about the objectives and content of the course, together with the skill required and the evaluation methods and criteria.

Performance Indicator B.2.1.4. The indicator B.2.1.4 is fulfilled. Each student of the program has a specific guidance commission that will support and guide the PhD student in all the aspects related to Thesis, both at burocracy and research level. The results obtained with the students prove the importance of this specific guidance commission.

Performance Indicator B.2.1.5. The indicator B.2.1.5 is fulfilled. The average ratio between the number of doctoral students and the number of teaching staff providing doctoral guidance during the full period is lower than 3. Nevertheless, it could exist specific periods getting over this, but it is difficult to calculate with the data provided. But the students declared a perfect attention from the supervisors, so no problems are appreciated in this aspect.

Criterion B.3. The results of doctoral studies and procedures for their evaluation.

**general description of the criterion analysis.*

Standard B.3.1. Doctoral students capitalize on the research through presentations at scientific conferences, scientific publications, technological transfer, patents, products and service orders.

**general description of the standard analysis.*

Performance Indicator B.3.1.1. The indicator B.3.1.1 is fulfilled. It could be checked that each doctoral student that has finalised his Doctoral Thesis, has at least one paper or other relevant scientifical contribution, with quality indexation. Some of the scientific journal in which these works were published are top journals in the SCI, located in the first quartil of the field. The novelty of the research is endorsed by this scientific journal quality standars.

Performance Indicator *B.3.1.2. The indicator B.3.1.2 is fulfilled. The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (42 presentations) and the number of doctoral students who have completed their doctoral studies within the evaluated period (22 students) is 1.9 (higher than the threshold of 1)

Standard B.3.2. The Doctoral School engages a significant number of external scientific specialists in the commissions for public defense of doctoral theses in the analyzed domain.

**general description of the standard analysis.*

Performance Indicator *B.3.2.1. The indicator B.3.2.1 is fulfilled. *The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD do not exceed two in a year for the theses coordinated by the same doctoral thesis advisor.*

Performance Indicator *B.3.2.2. The indicator B.3.2.2 is fulfilled. In the Animal Science doctoral domain, 22 thesis were defended during the 5-year period evaluated. The ratio between the doctoral theses allocated to one scientific specialist coming from a higher education institution, other than the institution where the defense on the doctoral thesis is organized, and the number of doctoral theses presented in the same doctoral study domain in the doctoral school do not exceed 0.3, during the past five years. This ratio was always lower than 0.23.

Domain C. QUALITY MANAGEMENT

**general description of domain analysis.*

Criterion C.1. Existence and periodic implementation of the internal quality assurance system

**general description of the criterion analysis.*

Standard C.1.1. There are an institutional framework and procedures in place and relevant internal quality assurance policies, applied for monitoring the internal quality assurance.

**general description of the standard analysis.*

Performance Indicator C.1.1.1. The indicator C.1.1.1 is fulfilled. For the continuous evaluation process and the internal quality assurance of the Doctoral Studies in Animal Science, the Faculty of Animal Production Engineering and Management, in which the doctoral domain in Animal Science is included, has established the Commission for Evaluation and Quality Assurance (CEAC) in Animal Science, made of five members between teaching staff and student representatives. The CEAC works in accordance with the quality assurance policy of USAMV Bucharest, which has a Quality Assurance Department (DAC) for the coordination of these aspects and for setting a whole quality assurance strategy. The Faculty of Animal Production Engineering and Management makes an annual report of the doctoral activity, research, infrastructures, including the evaluation of the supervisors. The information is public and can be accessed through a centralized platform of the University, guaranteeing the transparency of the system.



Performance Indicator *C.1.1.2. The indicator C.1.1.2 is fulfilled. The mechanisms implemented for the DS IMRVA in the Animal Science domain for getting the feedback of the students and identifying their needs, demands and satisfaction level are based in the task assigned to the guidance committee of each student and in the encouragement of the communication with the doctoral supervisor. In addition, at University level, there is a IT platform that enables the students to evaluate the teaching staff, the program and the methodologies applied.

Criterion C.2. Transparency of information and accessibility of learning resources

**general description of the criterion analysis.*

Standard C.2.1. Information of interest to doctoral students, future candidates and public interest information is available for electronic format consultation.

**general description of the standard analysis.*

Performance Indicator C.2.1.1. . The indicator C.2.1.1 is fulfilled. The University has a website where all the information related to regulations, admission, study contract, contents of the training program, steps in the development of the thesis and the procedure for the public disertation, the list of supervisor and doctoral students.

Standard C.2.2. The IOSUD/The Doctoral School provides doctoral students with access to the resources needed for conducting doctoral studies.

**general description of the standard analysis.*

Performance Indicator C.2.2.1. The indicator C.2.2.1 is fulfilled. The Doctoral School provides all the doctoral students with access to the most important scientific databases in life sciences field through the agreement with ANELIS PLUS 2020 project at national level.

Performance Indicator C.2.2.2. The indicator C.2.2.2 is fulfilled. Although the University and the Doctoral School have antiplagiarism software, the access is not totally free for the students. Thus, the University have electronic systems for verifying the degree of similarity with other existing scientific publications, as a measurement to avoid plagiarism, but it is not directly available for the student use. Moreover, the Faculty of Animal Production Engineering and Management has an anti-plagiarism verification software for scientific papers available to PhD students but after the recommendation of the doctoral supervisor as a requirement.

Recommendations: to provide free acces to the students to antiplagiarism sotware

Performance Indicator C.2.2.3. The indicator C.2.2.3 is fulfilled. The laboratories available for the doctoral students of the Animal Science domain are used for teaching and research purposes. They are well equipped labs and enable the acces of the student to develop the different assays scheduled in their thesis works. Moreover, the students have access to experimental farms (dedicated to palmipeds and dairy cows), as well as to the laboratories of the related institutions with which collaboration agreements have been signed. This is a very important and positive aspect for the improvement of the student training.

Criterion C.3. Internationalization

**general description of the criterion analysis.*

Standard C.3.1. There is a strategy in place and it is applied to enhance the internationalization of doctoral studies.

**general description of the standard analysis.*

Performance Indicator *C.3.1.1. The indicator C.3.1.1 is fulfilled. The DS IMVRA has established 87 bilateral agreements with European Universities for Erasmus + mobilities, and other agreements with more than 12 countries outside Europe. Nevertheless, the exchange mobility in the doctoral students is very limited. In the interviews, the students stated that the main reason is that the grants are very limited, and that joined to the big differences in the life level with other European or international countries, make impossible for them to do research stays at international or European level. In the other hand, the level of their participation in training and conferences abroad is medium to high. This aspect was also confirmed in the interviews with students and postgraduates.

Recommendations: It is recommended to increase the internationalization of the doctoral students through long exchange mobilities (more than one month, although three months are recommended). It would be important to implement an international recognition in their doctoral studies, as Doctorate with International Mention, for which must be compulsory to stay abroad in other research institution 2-3 months.

Performance Indicator C.3.1.2. The indicator C.3.1.2 is fulfilled. Nevertheless, it must be indicated that the actions presented are isolated, i.e. there are not an established plan to promote the internationalization of these doctoral studies. There are some actions related to the invitation of international academics and experts, but it cannot be observed an internationalization strategic agenda. Co-tutelage is not implemented either.

Recommendations: To improve the internationalization of the doctoral studies and the access of the student to this important and valuable source of shared knowledge through the development of a clear strategic university plan to encourage this aspect in the student curricula.

Performance Indicator C.3.1.3. The indicator C.3.1.3 is fulfilled. Some actions as the participation in educational fairs or same contact with other universities are supported by IOSU, but it is not enough since the results shown in this aspect are still limited.

Recommendations: Increase the support of IOSU for improving the international dimension of the doctoral studies and therefore of the doctoral students.

IV. SWOT Analysis

<p><u>Strengths:</u></p> <ul style="list-style-type: none"> - Supervisor involvement with the students . - Supervisors research dedication. - Guidance commission for each student - Facilities for research, stressing the experimental farms. - Connection with professionals and other close institutions for research issues and infrastructures. 	<p><u>Weaknesses:</u></p> <ul style="list-style-type: none"> - the international dimension of the doctoral studies and of the students are very limited. - the limited connexion with other universities at international level. - the limited capacity to attract students from other countries. - the overload of supervisors - the lack in the use of new technologies and sensors at reserch level
<p><u>Opportunities:</u></p> <ul style="list-style-type: none"> - to atract foreign students through the increasing of the international dimension of the university. - to provide a very practical training in animal science for the future posgraduated. - the training of the best profesional for a field with good market perspectives in the country and around the world. - to initiate new research line in the animal field science related to new technologies and sensors applied to livestock farming. 	<p><u>Threats:</u></p> <ul style="list-style-type: none"> - not to have enough economic support for the development of the require international strategic development plan. - the use of romanian language for teaching, avoiding the opening to other students from outside. - the lack of suppot and encouragemnt of students to do international exchange mobilities. -to lose the opportunity to renew the sytems introducing new techniques, knowledge, etc.

V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (*, C)	Performance indicator	Judgment	Recommendations
A1.1	C	A.1.1.1	Fullfilled	-
A1.1	C	A.1.1.2	Fullfilled	-
A.1.2	C	A.1.2.1	Fullfilled	-
A.1.2	C	A.1.2.2	Fullfilled	-
A.1.3	C	A.1.3.1	Fullfilled	-
A.1.3	*	A.1.3.2	Fullfilled	-
A.1.3	*	A.1.3.3	Fullfilled	-
A.2.1	C	A.2.1.1	Fullfilled	-
A.3.1	C	A.3.1.1	Fullfilled	-
A.3.1	*	A.3.1.2	Fullfilled	-
A.3.1	C	A.3.1.3	Fullfilled	-
A.3.1	*	A.3.1.4	Fullfilled	The recommendation of this expert is to keep the

				number of student supervised per supervisor under 8, even when the romanian educational legislation allows to reach until 12. This is an important aspect to guarantee not only the attention to the students but also to do not overload the teaching staff.-
A.3.2	C	A.3.2.1	Fullfilled	More involvement in scientific boards at international level and the enlarging of their international network are recommended actions.
A.3.2	*	A.3.2.2	Fullfilled	-
B.1.1	*	B.1.1.1	Fullfilled	The attraction for candidates coming from other education institutions must be improved, maybe the internationalization dimension of the studies could be of help.
B.1.1	C	B.1.1.2	Fullfilled	-
B.2.1	C	B.2.1.1	Fullfilled	-
B.2.1	C	B.2.1.2	Fullfilled	-
B.2.1	C	B.2.1.3	Fullfilled	-
B.2.1	C	B.2.1.4	Fullfilled	-
B.2.1	C	B.2.1.5	Fullfilled	-
B.3.1	C	B.3.1.1	Fullfilled	-
B.3.1	*	B.3.1.2	Fullfilled	-
B.3.2	*	B.3.2.1	Fullfilled	-
B.3.2	*	B.3.2.2	Fullfilled	-
C.1.1	C	C.1.1.1	Fullfilled	-
C.1.1	*	C.1.1.2	Fullfilled	-
C.2.1	C	C.2.1.1	Fullfilled	-
C.2.2	C	C.2.2.1	Fullfilled	-
C.2.2	C	C.2.2.2	Fullfilled	To provide free acces to the students to

				antiplagiarism software
C.2.2	C	C.2.2.3	Fullfilled	-
C.3.1	*	C.3.1.1	Fullfilled	It is recommended to increase the internationalization of the doctoral students through long exchanges mobilities (more than one month, although three months are recommended). It would be important to impelment an international recognition in their doctoral studies, as Doctorate with International Mention, for which must be compulsory to stay abroad in other research institution 2-3 months.
C.3.1	C	C.3.1.2	Fullfilled	To improve the internationalization of the doctoral studies and the access of the student to this important and valuable source of share knowlwdge through the development of a clera strategic university plan to encourage this aspect in the student curricula.
C.3.1	C	C.3.1.3	Fullfilled	Increase the support of IOSU for improving the international dimension of the doctoral studies and therefore of the doctoral students.



VI. Conclusions and general recommendations

In general the Doctoral Studies in Animal Science domain in USAMVB are well structured, and have suitable infrastructures and a teaching staff with the proper expertise to provide the students a good training and future development in this scientific field. The satisfaction of the doctoral students and the posgraduates with the program and supervisors is high. Also the supervisors shown a high level of satisfaction with the program. The main weakness in the international dimesion of the program This aspects should be improved through the development of an specific strategic plan at university level, with the enough economical and institutional support.

Signed By Prof. Dr. Dolores Pérez Marín
ETSIAM, University of Cordoba (Spain)