

The External Evaluation Report of an Institution Organizing Doctoral Study Programs (IOSUD)

Contents

- I. Introduction
- II. Methods used
- III. Analysis of performance indicators
- IV. SWOT Analysis
- V. Recommendations
- VI. Conclusions
- VII. Annexes

I. Introduction¹

I participated in the evaluation process as an international expert from 11/10/2021 to 15/10/2021. I received all the documents one month before the online meetings and I started checking all of them to be sure that the information I got everything I needed. I participated in the scheduled videoconferences and discussions with doctoral students, graduates, employers, school officials, Doctoral advisors and other representatives of the IOSUD – USAMVB Timisoara. I also carefully read the internal evaluation reports (including Annexes), visited the website of the IOSUD, and I also had the opportunity to exchange opinions with the Doctoral studies domains evaluation committee members. After the evaluation week, I finished my report and exchange emails and opinions with the other members of the Experts Committee for the final version.

The other members of the Experts Committee were Prof. Dr. Vasilica Stan from the University of Agronomical Sciences and Veterinary Medicine of Bucharest (Evaluation director), Prof. Dr. Roxana Vidican from the University of Agriculture Sciences and Veterinary Medicine of Cluj-Napoca (coordinator of the IOSUD committee), Maria Maruni Codrea from the University of Agriculture Sciences and veterinary Medicine from Cluj-Napoca (PhD student expert), Prof. Dr. Lucian Curtu from the Transilvania University of Brasoy (IOSUD expert for Engineering Sciences) and Prof. Dr. Mario Codreanu from the University of Agronomical Sciences and Veterinary Medicine from Bucharest. I also exchanged emails and opinions with them before and during the evaluation process, especially with Prof. Roxana Vidocan, the coordinator of the IOSUD committee.

My participation in this process started in September 2021 before the first online meeting (October 11). I received all the information needed to start the evaluation process from Mihaela Bajenaru (composition of the different Committees, guide on conducting the process of Periodic

¹ Each time when applicable the information shall be presented genderwise



External Evaluation of Institution organizing doctoral study programs, guidelines on conducting external evaluation of doctoral studies, recommendations for activities carried out during the experts' panel visit for the evaluation of an institution organizing doctoral study programs, structure of the internal evaluation report of an institution organizing doctoral study programs, the external evaluation report of an institution organizing doctoral study programs, the internal evaluation report and all the corresponding annexes). The links for each online session were also send to each of us beforehand (approximately one week before).

The Banat's University of Agricultural Sciences and Veterinaty Medicine King Michael I of Romania from Timisoara (USAMVBT) has a wide experience in the field of agronomy, veterinity and related fields of knowledge (more than 80 years). This is a higher education institution (bachelor, master and doctoral series) with two different doctoral schools: (i) the Doctoral School of Engineering of Plant and Animal Resources (SD-IRVA) with four different doctoral domains (Agronomy, Horticulture, Zootechnics and Food Engineering) and the Doctoral School in Veterinary Medicine (SD-MV). A total number of 111 doctoral theses were defended in the period 2015-2020 in SD-IRVA (60 in Agronomy, 13 in Horticulture, 12 in IPA and 26 in Zootechnics) and around 80 PhD students were enrolled in the SD-MV in the evaluated period. A high percentage of doctoral students are normally hired after finishing their PhD.

II. Methods used

I participated online (videoconferences and exchange of emails) in the evaluation process due to COVID restrictions. Therefore, my assessment is based on videoconferences and discussions with doctoral students, graduates, employers, school officials, Doctoral advisors, other representatives of the IOSUD and my colleagues of the Experts Committee, and on the analysis of the internal evaluation report of the IOSUD (including Annexes), website of the IOSUD. I cannot make any comments on the visit or the documents made available for that as I was not there but I had the opportunity of listening to and discussing about it with all the participants (online).

III. Analysis of ARACIS's performance indicators²

Domain A. INSTITUTIONAL CAPACITY

- *general description of the domain analysis.*

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

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.*

² Each time when applicable the information shall be presented genderwise



Performance Indicator A.1.1.1. *The existence of specific regulations and their application at the level of the IOSUD, respectively at the Doctoral School(s):*

c) the Methodologies for organizing and conducting doctoral studies for the admission of doctoral students, for the completion of doctoral studies);

d) the existence of mechanisms for recognizing the status of a Doctoral advisor and the equivalence of the doctoral degree obtained abroad;

e) functional management structures CSUD/Council of the Doctoral School with evidence of the regularity of meetings;

f) the contract for doctoral studies;

g) internal procedures for the analysis and approval of proposals about doctoral study programs based on advanced academic studies.

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

All the requirements for this indicator are satisfied. The internal regulations of the administrative structures, the methodology for conducting elections at the level of the Council of University Doctoral Studies (CSUD), including elections by students of their representatives, the methodology for conducting the competition for the position of CSUD director and evidence of its development, the methodologies for organizing and conducting doctoral studies (admission and completing doctoral studies), the mechanisms for the recognition of the quality of doctoral supervisor and for the equivalence of doctorates obtained in other states, the functional management structures, the contract for doctoral studies, and internal procedures for the analysis and approval of proposals about doctoral study programs on advanced academic studies are included in different Annexes and also in the website of the USAMVBT (links provided in the internal reports).

Recommendations:

The indicator is fulfilled.

Performance Indicator A.1.1.2. *The doctoral school' Regulation includes mandatory criteria, procedures and standards binding on the aspects specified in Article 17, paragraph (5) of the Government Decision No. 681/2011 on the approval of the Code of Doctoral Studies with subsequent amendments and additions.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

There is evidence to say that the doctoral schools' Regulation includes mandatory criteria, procedures and standards on the aspect specified in Article 17, paragraph 5 of the Government Decision No. 681/2011 on the approval of the Code of Doctoral Studies with subsequent



amendments and additions. Annexes A.1.1.1_17, 1.1.1_01, Annex A2a, links found in the internal reports and references to specific articles are provided to justify that.

Recommendations:

The indicator is fulfilled.

Performance IndicatorA.1.1.3³***. *Doctoral schools included in IOSUD are organized as disciplinary or interdisciplinary disciplines/thematic, according to Article 158, paragraph (7) of the Law of National Education No. 1/2011 with subsequent amendments and additions.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The Doctoral studies of the USAMVBT are organized in two different branches, SD-IRVA and SD-MV, and the first one in different fields of knowledge, Agronomy, Horticulture, Engineering of Food Products and Animal Husbandry (HOTĂRĂREA nr. 3210 din 18.05.2012 and internal reports).

Recommendations:

The indicator is fulfilled.

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 existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The IOSUD USAMVBT has a specific system (INTRANET) to record doctoral students and the courses they do, CVs, training programs. Additional information for each student of the Doctoral Schools such as personal data, schooling, field of knowledge, supervisors, funding, personal picture is also included. There is a website for students (www.intranet.usab-tm.ro).

Recommendations:

The indicator is fulfilled.

³ The indicators marked with an asterisk (*) hold a special status, referring exclusively to the evaluation of doctoral schools, 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 fulfilled, the Agency extends a period of maximum 3 years to IOSUD to correct the respective deficiencies.



Performance Indicator A.1.2.2. *The existence and use of a software program and evidence of its use to verify the percentage of similarity in all doctoral theses.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The IOSUD USAMVBT has experience with "Sistemantiplagiat.ro". This system is used to check the percentage of similarity for the doctoral theses, before the public defense of theses (minimum of 30 days). The users can access to this system (online) and check a similarity report, which includes the % of similar phrases (according to other documents) and the % of fragments of >25 words similar to other documents. For the 111 Doctoral Theses defended in the last years (2015-2020, SD-IRVA), the similarity coefficients were within the limits for most of them (98.3%) and only 3 Theses were above these limits. In this last case, the supervisor and PhD students justified them. For SD-MV, Annex A17 shows some data regarding the use of the antiplagiarism system and the results are satisfactory (it seems to be below the permitted limits). In my opinion, although the USAMVBT did a good job to fulfill this indicator, they should make an effort in the next years to avoid potential plagiarism and check if the system is working properly and all the students know the existence of this system, and also to clarify what happened with or how the three doctoral theses that did not fulfill the limit for plagiarisms were justified by students and PhD supervisors.

The indicator is fulfilled.

Criterion A.2. Research infrastructure

Standard A.2.1. The IOSUD/doctoral schools have 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 IOSUD/the doctoral school(s) present proof of possessing or having rented adequate spaces for research activity specific to doctoral studies (laboratories, experimental fields, research stations etc.)*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

There is a research platform (ERRIS platform) in which the facilities, laboratories, research centers, etc. are shown. In addition, a list of laboratories, research stations and facilities within the different fields of knowledge is included in the internal reports, which allows the doctoral students to develop their research. Besides that, agricultural land is available for students to do their research, cultivated with a range of crops and plantations (fruit trees, cereals, vines), and doctoral students can develop their research in any of the locations of the university



independently on their research. Furthermore, there are agreements with private companies and other institutions that increase the opportunities of PhD students.

Furthermore, Annex A12 shows the existing facilities in the FMV and USAMVBT. Besides that, links to the different Research laboratories and centres are shown in the internal report. It should be highlighted that some of the laboratories are state of the art facilities (Horia Cernescu Research laboratory complex, Multidisciplinary Research Platform, the Molecular Biology Laboratory and those located in the European Research Area).

The access of teachers, researchers and students to these facilities is organized (ERRI Platform and Annex A.1.1.1_17).

It was mentioned during the meetings that the laboratories were modernized recently but I think the internal reports should be more specific, including a list of equipment and facilities (old and new ones). It was also mentioned that interdisciplinarity (between different labs, research stations, etc.) is promoted and that PhD students can use any laboratory or facility that belongs to other field of knowledge and not only the ones related to their of their topic.

The indicator is fulfilled.

Performance Indicator A.2.1.2. *The IOSUD/doctoral school(s) has/have collaboration agreements with higher education institutions, research institutes, research networks for joint partnerships and have access for using various research infrastructures; the offer for research services is presented publicly using a dedicated platform.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

There are multiple collaboration agreements for the joint use of infrastructures within a specialist platform (public platform-ERRIS, SD-IRVA). This is fundamental for the university and PhD students as it will help develop a network for science and knowledge, and even to get access to multiple facilities. National collaboration agreements with the ICI Bucharest Institute for Research and University of Agricultural Sciences and veterinary Sciences and Veterinary Medicine Cluj-Napoca (Annex A.2.1.2a), the international collaboration agreement with the Agri-Food and Biosciences Institute in Northern Ireland and the 65 bilateral Erasmus agreements (Annex. A.2.1.2b) are key to fulfill this indicator.

The TVMDS has multiple partners within the socio-economic sector and a list of collaboration agreements (Annex A19; >30 international institutions) and scientific projects and grants obtained (Annex A14) is shown. This is a very positive point for the future of PhD candidates and for the university itself.



In my opinion, international collaborations should be widened and focus on new ways to collaborate with international (EU and non-EU) universities/research centers/institutions. The Doctoral Schools should explore different ways of collaboration and show them to their PhD students.

The indicator is fulfilled.

Performance Indicator A.2.1.3. *The IOSUD/doctoral school(s) proves that it is/are concerned with permanent renewal of the research infrastructure to provide doctoral students access to up-dated research resources, by applying to various funding competitions and using own university resources for acquiring new research infrastructure.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The research infrastructure of the USAMVBT is included in the Research institute for Biosafety and Biotechnologies. However, there is evidence of only 1 project in which the doctoral school SD-IRVA-USAMBVT renewed or acquire new research infrastructure (<13000 € were spent on that; Annex A.2.1.3). No evidence of other proposals/rejected proposals to renew infrastructures.

According to the internal reports and the website provided, the doctoral schools should (i) apply to more funding competitions and (ii) increase the amount of university resources dedicated to renew the equipment, facilities and acquire up-dated research resources.

The indicator is fulfilled.

Criterion A.3. Quality of Human Resource

Standard A.3.1. At the level of each Doctoral School there are sufficient qualified staff to ensure a quality educational process.

- *general description of the standard analysis.*

Performance Indicator *A.3.1.1. *The share of Doctoral advisors coordinating simultaneously more than 8 doctoral students but not more than 12 during their doctoral studies⁴ does not exceed 20%.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed ins*
- *institution's documents and the evaluation visit itself.*
-

⁴ 3 years for the doctoral university studies with the duration stipulated at Article 159, paragraph (3), respectively 4 years for the doctoral university studies with the duration stipulated at Article 174, paragraph (3) of the Law of national education No.1/2011 with subsequent amendments and additions, with additional extension periods approved as per Article 39, paragraph (3) of the Code of doctoral studies approved by the GD No. 681/2011 with subsequent amendments and additions.



Only 3 PhD supervisors out of 70 in Agronomy) and 1 out of 29 in Zootechnics simultaneously coordinate more than 8 doctoral students but not more than 12 doctoral students (<20%). There are not supervisors that coordinate more than 15 PhD students (Annex A.3.1.1.a). No SD-MV supervisors were working with more than 12 doctoral students and the % that supervises more than 8 but not more than 12 PhD students was around 19% (Annex A16).

The indicator is fulfilled.

Performance Indicator A.3.1.2. *At least 50% of all teaching/research staff involved in teaching/research activities related to training programs for advanced university studies or in individual research/art creation programs have a full-time employment contract for an indefinite period with the IOSUD.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

This value is higher than 90% in the two doctoral schools

The indicator is fulfilled.

Domain B. EDUCATIONAL EFFECTIVENESS

- *general description of the domain analysis.*

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

Standard B.1.1. Candidates admitted to doctoral studies demonstrate academic, research and professional performance and are diversified as social representation and by gender.

- *general description of the standard analysis.*

There is an entrance exam within SD-IRVA and in the last years (2015-2020) a 22% of the PhD students came from other universities. In general, more students came from urban environments than from rural environments and around 50% were women and men, so representation by gender seems appropriate (except in IPA where women dominated, 80 VS. 20%, and zootechnics, where men dominated 70 VS. 30%). The SD-IRVA tries to attract national and international talents to their doctoral programs; they organize doctoral studies of excellence in English or French, but it is not clear if this is happening now (how many students per year are attending?) or if this is planned for the future (when?).

Performance Indicator *B.1.1.1. *Admission to doctoral study programs is based on selection criteria including: previous academic, research and professional performance, their interest for scientific or arts/sports research, publications in the domain and a proposal for a research subject. Interviewing the candidate is compulsory, as part of the admission procedure.*



- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.
- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.

Recommendations:

Admission to doctoral study programs is based on CV, one exam related to the discipline of the research topic proposed by the doctoral supervisor and agreed by the candidate, and an interview on the chosen research topic by the student. Not enough information is available in English in the SD-MV internal report to check if this indicator is fulfilled (only that the interview has a weight of 50% of the admission exam). During the meetings, it was clarified that the interview is key to pass the entrance exam for a PhD candidate and that a skills in international languages are also required.

Not sure how research and professional performance, interest for science and publications are evaluated in this process as this is not included in the internal reports.

The indicator is fulfilled.

Performance Indicator B.1.1.2. *The IOSUD/doctoral school(s) have a policy for stimulating enrollment of doctoral students coming from disadvantaged social environments, by allocating reserved positions in the admission procedure and/or granting special scholarships, as well as organising support programs to prevent drop-outs.*

There are regulations and a strategic plan of the university for that.

In my opinion and according to the requirements to fulfill this indicator, the IOSUD should stimulate the enrollment of doctoral students coming from disadvantaged social environments. Not clear if the IOSUD do an extra effort to attract Roma or other ethnicities as no applicants were registered in the last years in any of the Doctoral Schools and no evidence is shown regarding this point.

In addition, although the percentages of drop-outs are low (between 0 and 12.2%), it is not clear how the IOSUD support programs to prevent drop-outs.

It seems that the "SD-MV is trying to develop a strategy for attracting national talent to doctoral programmes and expanding the recruitment of doctoral students from developing and developed countries where Romania is internationally competitive".

The IOSUD should work harder to promote the enrollment of doctoral students coming from disadvantaged social environments and minorities and on a plan to prevent drop-outs.

Recommendations:

The indicator is fulfilled.



Criterion B.2. The content of doctoral programs

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 training program based on advanced academic studies includes at least 3 disciplines relevant to the scientific research training of doctoral students; at least one of these disciplines is intended to study in-depth the research methodology and/or the statistical data processing.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The training programs include at least 3 disciplines relevant for the PhD students and at least one of them is focused on research methodology and/or statistical processing (Annexes B.2.1.1, b, c, d, f, e; Annex B1, Annex B1a,b).

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.2. *At least one discipline is dedicated to Ethics and Intellectual Property in scientific research or there are well-defined topics on these subjects within a discipline taught in the doctoral program.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

As mentioned in the previous indicator, one of the subjects of the PhD programs is Ethics and academic integrity (Annex B.2.1.1f, e; Annex B1a)

Recommendations:

The indicator is fulfilled.

Performance Indicator B.2.1.3. *The IOSUD has mechanisms to ensure that the academic training program based on advanced university studies addresses "the learning outcomes", specifying the knowledge, skills, responsibility and autonomy that doctoral students should acquire after completing each discipline or through the research activities⁵.*

⁵ Or by what the graduate should know, understand and to be able to do, according to the provisions of the Methodology regarding inscription and registration of higher education qualifications in the the National Register of Qualifications in Higher Education (RNCIS) approved by the Order No.3475/2017 with subsequent amendments and additions.



- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The SD-IRVA and the SD-MV have designed and chosen professional and transversal competences, skills and specific objectives, content and bibliographic data for the different disciplines to ensure that the academic training program is useful for the PhD students and their career (autonomy, learning, responsibility acquired). The first year of the PhD students is basic for their development and it is reflected within the actions that the doctoral schools has developed in this sense.

The mechanisms should be highlighted. The first paragraph of the internal report (SD-IRVA) related to this indicator is vague and general.

Recommendations:

The indicator is fulfilled.

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

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. *For the doctoral school there are in place mechanisms for valorification of the results of doctoral studies in accordance with the specificity of the particular domain (i.e. technological transfer, products, patents in the case of exact sciences; products and services for social sciences and humanities; festivals, contests, recitals, sports competitions; cultural-arts orders in the vocational domain; presentations at national and international conferences, publication of research results in national and international publications, engaging doctoral students in writing research-development projects etc.)*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

In my opinion, the study contract signed by the PhD student and the supervisors is a recommended strategy to start a PhD program; the students know from the very beginning what is expected from them and what they should work on. A table summarizing each of the outputs (patents, conferences, publications...) related to the PhD students would make easier the work of reviewers (this is shown in the case of the SD-MV but not for SD-IRVA).

For scientific publications in peer-review journals and journals included in the JCR, indexed in SCOPUS or similar, the position of the journal [decile (D1) and quartile (Q1, Q2, Q3 and Q4)] could be included with the impact factor and the topic in which the journal was published. Furthermore, it



would be interesting to include the participation of PhD in research projects as suggested (writing proposals, team member, etc.). These kind of publications (in peer review journals included in WOS and SCOPUS) should be aimed. For grants/fundings, their origin/program, participant researchers and amount of money funded should be included.

The Doctoral schools (in their internal reports) pointed out some of their deficiencies regarding this indicator: they need to improve the dissemination of the results.

Recommendations:

The indicator is fulfilled.

Criterion B.4. Quality of doctoral theses

Standard B.4.1. Doctoral theses fulfil high quality standards

- *general description of the standard analysis.*

Performance Indicator B.4.1.1. *At the level of IOSUD, the percentage of theses non-validated, at the level of General Council of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNADTCU), without the right of further amendments and re-organizing the process of public defending, is not exceeding 5% in the last 5 years.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

In 2015-2020, 111 doctoral theses were defended within SD-IRVA.

The % of theses non-validated was 0% (according to the internal reports). This is an indicator of the success of these doctoral programmes and the effort of doctoral schools.

Annex B.4.1 does not show the qualification of each doctoral thesis, it would help include this information to validate it. However, this is not evaluated in this indicator (but it is mentioned in the internal report).

I would recommend to include the abstract of each thesis and at least one chapter in an international language (English, French) . This should start as soon as possible for all defended doctoral theses.

Recommendations:

The indicator is fulfilled.

Domain C. QUALITY MANAGEMENT

- *general description of domain analysis.*



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

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 IOSUD shall demonstrate the continuous development of the evaluation process and its internal quality assurance following a procedure developed and applied at the level of the doctoral school(s), the following assessed criteria being mandatory:*

(a) the scientific work of Doctoral advisors;

(b) the infrastructure and logistics necessary to carry out the research activity;

(c) the procedures and subsequent rules based on which doctoral studies are organized;

d) the academic and social services (including participation to various events, publication of papers etc.) and counselling made available to doctoral students.

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

It is obvious that the IOSUD wants to improve. They developed internal evaluation procedures according to national and European requirements (Annexes C.1.1.1_01 to _022). The scientific activity of doctoral supervisors is shown in Annexes C.1.1.1.23, 24 and 25 for SD-IRVA and Annex A14 for SD-MV; in my opinion, this work could be improved by summarizing all the information in tables / figures showing the most relevant achievements of the supervisors (it is complicated for readers now), especially for SD-IRVA (this is done for SD-MV). The infrastructures and logistic needed to carry out the research are shown in the internal reports and also in links to the ERRIS platform, Annex A_12 and to the website of the university; a table summarizing this information was included in the internal report. Finally, the procedures for analysis and approval of proposals and rules on the basis of which the doctoral studies are organized are shown in Annex C.1.1.1_28, Annex A1, Annex 2a, Annex C1 links to specific information were also added to the internal reports.

However, the academic and social services (including participation to various events, publication of papers etc.) and counselling are not included in the internal report (in this section). During the meetings some aspects were mentioned and discussed, for example the help PhD students receive in the laboratory (tutors and academic staff), future orientation (tutor and colleagues), scientific resources, dealing with data, etc., but it was not clear for me how this is monitored by the Commission for Quality Evaluation and Assurance. Some of these aspects are evaluated with questionnaires.

I suggest summarizing part of this information within the website of the university and showing there a list of the projects in which each PhD supervisor is involved, latest publications and



contributions to conferences, students that are being supervised, ORCID/Scopus Author ID/ Researcher ID/Google Scholar, etc. In addition, more transparency and information on academic and social services should also be considered and included in the website and Annexes as this is mandatory to fulfill this indicator.

The indicator is fulfilled.

Performance Indicator C.1.1.2. *Students' associations and, according to the case, representatives of students organise elections in the community of doctoral students, for positions in the CSUD, by universal vote, direct and secret, all doctoral students having the right of electing or being elected.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The elections are organized accordingly and all related information is shown in Annex C.1.1.2.26. Annex C13 and links to the website of the university containing this information are provided. The students and the members of the CSUD seemed to know how the system works as was seen during the meetings.

The indicator is fulfilled.

Performance Indicator C.1.1.3. *Students' associations and, according to the case, representatives of students organise elections in the community of doctoral students at the level of each doctoral school, for positions in the councils of doctoral schools, by universal vote, direct and secret, all doctoral students having the right of electing or being elected.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The doctoral students nominate their representative candidates for the different structures of IOSUD / SD. The elections are organized by student associations or student representatives without the involvement of teachers. They are publicly promoted to involve students. In the period evaluated there were 3 elections (2016-CSUD, 2019 in february-CSDU and SD-IRVA and in december-CSUD domain Zootechnics, Engineering of Food Products and Horticulture). Some students talked about it and they were pleased with the development of the process and the knowledge they had on it.

I would suggest including additional information (in annexes) such as the number of students that voted in the elections out of the total, the number of candidates, etc.

Recommendations:

The indicator is fulfilled.



Performance Indicator *C.1.1.4. *Following the internal evaluation, IOSUD and the doctoral schools draft strategies and policies aiming to eliminate the identified deficiencies and to stimulate scientific and academic performance of IOSUD.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The IOSUD and the doctoral schools draft strategies and policies regarding this indicator and the internal monitoring and evaluation of the doctoral programs are developed according with The Code of doctoral university studies (approved by HG no. 681/2011).

I suggest including evidence of periodic meetings and documents (reports, summarized information) to show that the strategies and policies (which are shown in the internal reports) are being used to eliminate the identified deficiencies and to stimulate academic performance.

Recommendations:

The indicator is fulfilled.

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

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 IOSUD publishes on the website of the organizing institution, in compliance with the general regulations on data protection, information such as:*

(a) the IOSUD/Doctoral School regulation;

(b) the admission regulation;

(c) the doctoral studies contract;

(d) the study completion regulation including the procedure for the public presentation of the thesis;

(e) the content of the training study program based on advanced academic studies;

(f) the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data;

(g) the list of doctoral students within the domain with necessary information (year of registration; Advisor);

(h) information on the standards for developing the doctoral thesis;

(i) information on the opportunities for doctoral students aiming to attend conferences, to publish articles, awarding scholarships etc.

(j) links to the doctoral theses's summaries to be publicly presented and the date, time, place where they will be presented; this information will be communicated at least twenty days before the presentation.

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*



- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

Multiple links are provided to demonstrate that all this information is shown on the website of the organizing institution. In the future, these links in English/French should also be provided to make it easier (it is difficult to navigate through the website in Romanian for a foreigner).

Recommendations:

The indicator is fulfilled.

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. *All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of the their thesis.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

Doctoral students have free access to Anelis Plus program (platform containing academic databases relevant to the doctoral fields of study), the BUASVMT library and E-nformation.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.2.2.2. *Each doctoral student shall have access, upon request, to an electronic system for verifying the degree of similarity with other existing scientific or artistic works.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The vice deans or the SD-MV Director verify the degree of similarity of the new scientific papers and doctoral theses with previous works. Therefore, I would say that each doctoral student has access to an electronic system (<https://sistemantiplagiat.ro/>) to verify the degree of similarity of their work with other works (through thir supervisors, as discussed in the meetings).

It would be interesting to report some data of the number of students (out of the total) that use these systems per year. I understand that is 100% but is not clear fot both Doctoral Schools and I also understood that they can check it only 30 days before their PhD is finished (a bit late in my opinion).

Recommendations:



The indicator is fulfilled.

Performance Indicator C.2.2.3. All doctoral students have access to scientific research laboratories or other facilities depending on the specific domain/domains within the Doctoral School, according to internal order procedures.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.
- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.

Doctoral students have access to scientific laboratories and other facilities. There is a procedure for that (Annex C.2.2.3, Annex C2).

I was wondering if doctoral students are allowed to use not only the facilities directly related to their field but also scientific research laboratories and other facilities that were not directly related to their field, if needed. Different actors of the system clarified that this is allowed and several students explained their case, in which they did not have problems to use other facilities or laboratories. This is key to promote interdisciplinarity an better results and I suggest including this information in the internal reports.

Recommendations:

The indicator is fulfilled.

Criterion C.3. Internationalization

Standard C.3.1. IOSUD/Doctoral school has 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. IOSUD, for every doctoral school, has concluded mobility agreements with universities abroad, with research institutes, with companies working in the field of study, aimed at the mobility of doctoral students and academic staff (e.g., ERASMUS agreements for the doctoral studies). At least 35% of the doctoral students have completed a training course abroad or other mobility forms such as attending international scientific conferences. IOSUD drafts and applies policies and measures aiming at increasing the number of doctoral students participating at mobility periods abroad, up to at least 20%, wich is the target at the level of the European Higher Education Area.

- description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.
- analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.

The USAMBVT has 65 bilateral Erasmus agreements with institutions from Europe (39) and other countries (26; Annex C11). The SD-MV mentioned that 36% of their students participated in international scientific mobility / conferences but most of them were in Romania and even in



Timisoara (Annex C8). This % was >44% for SD-IRVA. During the meetings, it was clear that only a reduced number of PhD students were abroad.

Although there were multiple contributions to conferences (Annex C.3.1.1.b), PhD students should be stimulated to do training courses abroad, academic and research exchanges in other countries, and contributions to international conferences (in other countries). I suggest: (i) stimulating the students to write their whole Thesis in an international language (it could be gradually implemented, firstly the abstract section and one chapter, then some more chapters and, finally, the whole doctoral thesis); (ii) when possible, making PhD students part of ongoing research projects (writing proposals, team members, etc.); (iv) invite foreign researchers to supervise PhD students. Furthermore, the application to other international competitive sources of funding such as (and not only Erasmus +) Marie Curie actions, Embo fellowships, Fulbright, or other programs that PhD students seem to have benefited from, etc. should be promoted by the doctoral schools and PhD students encouraged to apply to them. Information campaigns organized by the doctoral schools could help at the beginning.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.3.1.2. *IOSUD supports, including providing financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The IOSUD – USAMVB had organised lectures with guest recognised experts for doctoral students (6 in the evaluated period). The TVMDS only had three cotutelle Theses (with English support) and they invited some professors to lecture at the IOSUD. However, this could be the beginning but it is not enough to enhance internationalization of doctoral studies.

These activities should be organised more often and include various types of support (including financial support) to organise international joint PhD studies supervision and to invite leading experts. Inviting international experts to be supervisors of PhD students could help fulfill this indicator and others related to internationalization as it will facilitate international cooperation. National and international funds/projects could help.

Recommendations:

The indicator is fulfilled.



Performance Indicator *C.3.1.3. *At least 10% of the doctoral theses of every doctoral schools of the IOSUD are drafted and/or submitted in an international foreign language or are organised in international co-tutelage.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

In general, the theses are submitted in Romanian and not in an international language. Two out of 111 doctoral theses were done under co-supervision in the SD-IRVA) and one in the SD-MV. Additionally, no international experts or only a few (SD-MV) are included in the commissions of doctoral studies. It seems that some PhD students have started writing their Theses in an international language according to some supervisors (as mentioned in videoconferences).

I recommend to include international experts in doctoral programs (as the IOSUD pointed out), promote the number of Thesis written in English (co-tutelage could help here; a minimum % of Thesis in international co-tutelage should be defended each year). It will be useful from different points of view: (i) this performance indicator will be fulfilled; (ii) it will make easier the process of publishing manuscripts and will reduce the time from writing to publishing papers (a chapter could be a manuscript sent / ready to submit to a journal); (iii) international collaborations will be easier if an international colleague participates as PhD supervisor; and (iv) it will facilitate future collaborations with these and other researchers, not only for supervision of students but also to apply to international projects (funding).

Recommendations:

The indicator is partially fulfilled.

Performance Indicator C.3.1.4. *The internationalization of activities carried out during the doctoral studies is supported by IOSUD through concrete measures (e.g., by participating in educational fairs to attract international doctoral students; by including international experts in guidance committees or doctoral committees⁶ etc.).*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

There is evidence that PhD students and supervisors participated in exhibitions, fairs, international fairs (Annex C.3.1.4, Annex A19, C11 and C12).

Recommendations:

The indicator is fulfilled.

⁶ Doctoral studies are completed by presenting the doctoral thesis in public session in front of a committee whose members hear and judge the final public presentation of the thesis



Criterion C.4. System for assurance of ethical and academic integrity

Standard C.4.1. IOSUD/Doctoral school has a functional and efficient system in place for prevention and assuring ethical and academic integrity norms

- *general description of the standard analysis.*

Performance Indicator C.4.1.1. *IOSUD, applies the current provisions regulating ethics, deontology/academic integrity, respectively to academic freedom and has developed:*

- *policies based on prevention regarding possible violations of the Code of ethics and academic integrity, demonstrated by public postionings, studies, analyses or measures taken;*
- *practices and mechanisms for preventing fraud, from an institutional perspective as well as from the perspective of the doctoral students;*
- *practices for preventing possible fraud in academic activity, research or any other activity, including active measures for preventing and avoiding plagiarism of any kind, as well as promoting ethical and integrity/deontology principles or observing intellectual property norms, authors' rights and other related rights, among all members of the academic community;*
- *administrative instruments which allow applying effective and eliminatory sanctions;*
- *mechanisms and measures to assure equal opportunities and protection against intolerance and discrimination of any kind;*

IOSUD monitors and permanently evaluates these practices and can prove they are applied to all activities and engagement of students in all these processes, and the results of the monitoring is made public yearly or whenever it becomes necessary.

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The USAMVBT applies the current provisions regulating the aspects related to this indicator. The code of university professional ethics and deontology is "an integral part of the USAMVBT and includes both the explicit formulation of common ideals, principles and moral norms that the university community agrees to respect and follow..."; a link to this code is provided in the internal report. In addition, the USAMVBT has implemented a Code of Ethics in Scientific Research that defines rules of conduct, principles and procedures to conduct and complete scientific research at the university (a link is provided in the internal report).

It is said that the SD-IRVA monitors and evaluates good practices related to ethics and academic integrity by checking three documents submitted to the school secretariat and by checking the publications on the anti-plagiarism system. In my opinion, these measures are passive measures. However, there is no evidence on active measures for preventing and avoiding plagiarism.

The indicator is fulfilled.



Performance Indicator C.4.1.2. *All intimations regarding suspicion of plagiarism related to doctoral theses have been analysed and resolved by the IOSUD within the time interval legally established for expressing in writing its position regarding the intimation received.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The internal report answered "this is not the case" for this indicator. Although this have not happened so far (SD-IRVA and MV), the IOSUD should include the measures they will take in the future in official documents.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.4.1.3. *Annual Reports of the Ethics commission of the IOSUD contain information on the stage of solving each case of intimation or own-initiative intimation regarding violation of norms or ethical aspects relevant for university doctoral studies. description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

The internal report answered "this is not the case" for this indicator. Reports are available only in the internal report of the SD-MV. I think a report for both doctoral schools could help minimize errors and the understanding of the work done by these two doctoral schools and then the differences between the doctoral schools could be highlighted.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.4.1.4. *The measures taken by IOSUD after the final decision of CNADTCU to withdraw the title of "doctor" following accusations of plagiarism have addressed all the aspects mentioned in CNADTCU's decision and in the current legislation.*

- *description of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself.*

Although this have not happened so far, the IOSUD should include mechanisms to act if needed, in official documents.

Recommendations:



The indicator is fulfilled.

Performance Indicator C.4.1.5. *The measures aiming to prevent academic fraud in the doctoral studies, taken by IOSUD, could be:*

- a) *Suspension of the right to advise newly enrolled doctoral students, for a period of 3 years, in the case of doctoral advisors having coordinated a doctoral thesis with a definitive decision of withdrawal of the “doctor” title for plagiarism;*
- b) *Exclusion from the IOSUD of the doctoral advisor having coordinated at least two doctoral theses with definitive decisions of withdrawal of the “doctor” title for plagiarism;*
- c) *Suspension of the right to organize the admission process of new doctoral students in the Doctoral studies domain, for a period of 2 years, if in the respective domain a doctoral thesis has been finalized and defended with a definitive decision of withdrawal of the “doctor” title for plagiarism.*

- *description of the facts, the findings from the assessed institution’s documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution’s documents and the evaluation visit itself.*

The indicator is fulfilled.

Performance Indicator *C.4.1.6. *The scientific reviewers members in the commissions for public defense of two or more doctoral theses with definitive decisions of withdrawal of the “doctor” title for plagiarism, have not been nominated in other commissions for public defence of doctoral theses for a period of at least 3 years.*

- *description of the facts, the findings from the assessed institution’s documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution’s documents and the evaluation visit itself.*

There is a link and an Annex (Annex B5) in the SD-MV internal report related to this indicator.

Recommendations:

The indicator is fulfilled.

Performance Indicator C.4.1.7. *IOSUD has a database open to the public containing all the doctoral theses defended in the institution beginning at least in 2016 in a format including: the domain, author, doctoral advisor, title of the thesis and the thesis in electronic format (if there is an agreement of the author).*

- *description of the facts, the findings from the assessed institution’s documents and the evaluation visit itself.*
- *analysis of the facts, the findings from the assessed institution’s documents and the evaluation visit itself.*



There is a database with with information (INTRANET). I would suggest including some annexes to show it to the experts that are evaluating the internal report.

Recommendations:

The indicator is fulfilled.

IV. SWOT Analysis

<p><u>Strengths:</u></p> <p>* the strengths identified throughout the report will be resumed as part of the indicators' analysis. Other general strenghts that do not fall within a particular indicator may be formulated.</p> <p>-The Doctoral Schools are dealing with the Bologna 2020 Process.</p> <p>-The Doctoral Schools want to improve their work.</p> <p>-Agreements with multiple universities/institutions from all over the world and also with companies (private sector).</p> <p>-PhD are needed to improve public and private services and companies.</p> <p>-A high percentage of doctoral students are hired after completing their PhD in the first year.</p> <p>-Some state of the art facilities and laboratories.</p> <p>-History of the university and positive opinion of PhD students, graduates, private sector and society on the university and doctoral schools.</p>	<p><u>Weaknesses:</u></p> <p>*the weaknesses identified throughout the report will be resumed as part of the indicators' analysis. Other general weaknesses that do not fall within a particular indicator may be formulated.</p> <p>-Some weaknesses were detected related to the system for preventing and ensuring the observance of the norms of ethics and academic integrity, especially in SD-IRVA.</p> <p>-Internationalization: almost no co-tutelage of doctoral theses, no doctoral theses drafted or submitted in an international language (English, French), no international experts included as part of the doctoral programs, reduced number of international projects and reduced collaboration with international researchers.</p> <p>-Low funding dedicated to renewing equipment and facilities. No evidence of grant applications to get more funding.</p> <p>-Agreements with multiple universities from all over the world are not used for research/projects or PhD supervision.</p> <p>-Very low salaries for PhD students (a problem in Romania and other countries).</p>
<p><u>Opportunities:</u></p> <p>*possible lines of action for the development of the institution under review shall be identified;</p> <p>*examples of opportunities: a favorable economic environment in the proximity of the assessed institution, the uniqueness of the study programs and their relevance to the local/national</p>	<p><u>Threats:</u></p> <p>*the possible causes of the deficient aspects (= the causes of the identified weaknesses), which are practically the threats to the proper functioning of the institution, shall be identified;</p> <p>*besides, there may be external threats, such as: the inopportune economic environment in the proximity of the assessed institution, the</p>

<p>market, the overall attractiveness of the study programs etc.</p> <p>-Key areas of knowledge of the university are urgently and constantly required in our society (at a national and international level) in these uncertain times (food production, food quality, veterinary medicine).</p> <p>-Doctoral programs are attractive for companies and society in general. This should be a pillar of the university-doctoral schools to grow.</p> <p>-There are multiple options to improve internationalization and other international institutions are looking for that: international projects and funding including European funds, exchange of professors, researchers and students, etc.</p> <p>-Enhance the visibility of the Doctoral Schools by means of the state of the art facilities and laboratories; it could facilitate international collaborations and attract international students/researchers/professors.</p>	<p>conduct of low attractiveness study programs for both candidates and the labor market etc.</p> <p>-Science/research is very competitive. Numerous institutions working harder every year.</p> <p>- Low salary of PhD students in comparison with private sector. As a consequence, some PhD students are working (not only doing a PhD), which could be a problem in order to finish it and to publish in high impact factor journals.</p> <p>-Low budget available for research and academia. Not only a problem in Romania. Old fashioned equipment and facilities and no renewal of them.</p>
--	--

V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (*, C)	Performance indicator	Judgment	Recommendations
1	A, C	A.1.1.1, C.1.1.3	Fulfilled	I would suggest including additional information (in annexes) such as the number of students that voted in the elections out of the total, the number of candidates, etc (Annex C.1.1.3).
2	A	A.1.2.2	Fulfilled	In my opinion, although the USAMVBT did a good job to fulfill this indicator, they should make an effort in the next years to avoid potential plagiarism and check if the system is working properly and all the students know the existence of this system, and also to clarify what happened with or how the three doctoral theses that did not fulfill the limit for plagiarisms were justified by students and PhD supervisors.

3	A	A.2.1.1	Fulfilled	<p>It was mentioned that the laboratories were modernized recently but I think the internal reports should be more specific, including a list of equipment and facilities (old and new ones). The access of teachers, researchers and students to these facilities is organized (see Annex A.1.1.1_17).</p> <p>Furthermore, Annex A12 shows the existing facilities in the FMV and USAMVBT. Besides that, links to the different Research laboratories and centres are shown in the internal report. It should be highlighted that some of the laboratories are state of the art facilities (Horia Cernescu Research laboratory complex, Multidisciplinary Research Platform, the Molecular Biology Laboratory and those located in the European Research Area).</p> <p>I wonder if interdisciplinarity (between different labs, research stations, etc.) is promoted and how easy is for a student of a field to do research in a laboratory or facility that belongs to other field of knowledge.</p>
4	A	A.2.1.2	Fulfilled	<p>In my opinion, international collaborations should be widened and focus on new ways to collaborate with international (EU and non-EU) universities/research centers/institutions.</p>
5	A	A.2.1.3	Fulfilled	<p>No evidence of proposals/rejected proposals to renew infrastructures.</p> <p>According to the internal reports and the website provided (in which some links do not work), the doctoral schools should apply to more funding competitions and increase the amount of university resources dedicated to renew the equipment, facilities and acquire updated research resources.</p>
6	*, B	B.1.1.1	Fulfilled	<p>Not sure how research and professional performance, interest for science and publications are evaluated in this process as this is not included in the internal reports.</p>
7	B	B.1.1.2	Fulfilled	<p>In my opinion and according to the requirements to fulfill this indicator, the IOSUD should stimulate the enrollment of doctoral students coming from disadvantaged social environments. Not clear if the IOSUD do an extra effort to attract Roma or other ethnicities</p>

				<p>as no applicants were registered in the last years in any of the Doctoral Schools.</p> <p>In addition, although the percentages of drop-outs are low (between 0 and 12.2%), it is not clear how the IOSUD support programs to prevent drop-outs.</p> <p>The IOSUD should work harder to promote the enrollment of doctoral students coming from disadvantaged social environments and minorities and on a plan to prevent drop-outs.</p>
8	B	B.3.1.1	Fulfilled	<p>A table summarizing each of the outputs (patents, conferences, publications...) related to the PhD students would make easier the work of reviewers (this is shown in the cas eof the SD-MV but not for SD-IRVA).</p> <p>For scientific publications in peer-review journals and journals included in the JCR, indexed in SCOPUS or similar, the position of the journal [decile (D1) and quartile (Q1, Q2, Q3 and Q4)] could be included with the impact factor and the topic in with the journal was published. Furthermore, it would be interesting to include the participation of PhD in research projects as suggested (writing proposals, team member, etc.). These kind of publications (in peer review journals included in WOS and SCOPUS) should be aimed. For grants/fundings, their origin/program, participant researchers and amount of money funded should be included.</p>
9	B	B.4.1.1	Fulfilled	<p>Annex B.4.1 does not show the qualification of each doctoral thesis, it would help include this information to validate it. However, this is not evaluated in this indicator (but it is mentioned in the internal report).</p> <p>I would recommend to include an abstract and at least one chapter for each thesis in an international language (English, French). This should start as soon as possible for all defended doctoral theses.</p>
10	*, C	C.1.1.1	Fulfilled	<p>However, the academic and social services (including participation to various events, publication of papers etc.) and counselling are not included in the internal report (in this</p>

				<p>section). During the meetings some aspects were mentioned and discussed, for example the help PhD students receive in the laboratory (tutors and academic staff), future orientation (tutor and colleagues), scientific resources, dealing with data, etc., but it was not clear for me how this is monitored by the Commission for Quality Evaluation and Assurance. Some of these aspects are evaluated with questionnaires.</p> <p>I suggest summarizing part of this information within the website of the university and showing there a list of the projects in which each PhD supervisor is involved, latest publications and contributions to conferences, students that are being supervised, ORCID/Scopus Author ID/Researcher ID/Google Scholar, etc. In addition, information on academic and social services should also be considered and included in the website and Annexes as this is mandatory to fulfill this indicator.</p>
11	C	C.1.1.3	Fulfilled	I would suggest including additional information (in annexes) such as the number of students that voted in the elections out of the total, the number of candidates, etc.
12	*, C	C.1.1.4	Fulfilled	I suggest including evidence of periodic meetings and documents (reports, summarized information) to show that the strategies and policies (which are shown in the internal reports) are being used to eliminate the identified deficiencies and to stimulate academic performance.
13	C	C.2.2.2	Fulfilled	It would be interesting to report some data of the number of students (out of the total) that use these systems per year. I understand that is 100% but is not clear for both Doctoral Schools and I also understood that they can check it only 30 days before their PhD is finished (a bit late in my opinion).
14	C	C.2.2.3	Fulfilled	The access to facilities, laboratories, etc to all PhD students is key to promote interdisciplinarity and better results. I suggest including information related to that in the internal reports.

15	*, C	C.3.1.1	Fulfilled	<p>I suggest: (i) stimulating the students to write their whole Thesis in an international language (it could be gradually implemented, firstly the abstract section and one chapter, then some more chapters and, finally, the whole doctoral thesis); (ii) when possible, making PhD students part of ongoing research projects (writing proposals, team members, etc.); (iv) invite foreign researchers to supervise PhD students. Furthermore, the application to other international competitive sources of funding such as (and not only Erasmus +) Marie Curie actions, Embo fellowships, Fulbright, or other programs that PhD students seem to have benefited from, etc. should be promoted by the doctoral schools and PhD students encouraged to apply to them. Information campaigns organized by the doctoral schools could help at the beginning.</p>
16	C	C.3.1.2	Fulfilled	<p>The activities judged here should be organised more often and include various types of support (including financial support) to organise international joint PhD studies supervision and to invite leading experts. Inviting international experts to be supervisors of PhD students could help fulfill this indicator and others related to internationalization as it will facilitate international cooperation. Increase the number of thesis supervised by international researcher (cotutelage).</p>
17	*, C	C.3.1.3	Partially fulfilled	<p>I recommend to include international experts in doctoral programs (as the IOSUD pointed out), promote the number of Thesis written in English (co-tutelage could help here; a minimum % of Thesis in international cotutelage should be defended each year). It will be useful from different points of view: (i) this performance indicator will be fulfilled; (ii) it will make easier the process of publishing manuscripts and will reduce the time from writing to publishing papers (a chapter could be a manuscript sent / ready to submit to a journal); (iii) international collaborations will be easier if an international colleague participates as PhD supervisor; and (iv) it will facilitate future collaborations with these and other researchers, not only for supervision of</p>

				students but also to apply to international projects (funding).
18	C	C.3.1.4	Fulfilled	These activities should be enhanced in the future to attract foreign PhD students and also including international experts in guidance committees or doctoral committees.

The recommendations contained in the report shall be resumed in the indicators' analysis. Other general recommendations may be made that do not fit within a particular indicator.

VERY IMPORTANT!!! – Each identified weakness must be correlated with at least one recommendation to improve the situation! No weakness can be identified without formulating at least one recommendation regarding the way it could be corrected!

VI. Conclusions and general recommendations

Several important issues raised during the evaluation are resumed and some general conclusions are drawn on the quality of the education provided by the IOSUD under review; the Experts Panel also presents general assessments about the institution. Other general recommendation may also be presented, which cannot be related to a specific indicator and have not been presented at point V.

A decision is proposed, together with the reasons for granting it (if the Experts' Panel members do not reach a consensus, each of them can propose and argue his/her own decision).

It was evident that the Doctoral Schools want to improve the quality of education, research infrastructures and their effort was seen and evaluated. PhD students and graduates have a very positive opinion on their supervisors, Doctoral Schools and the doctoral programs. The private sector is willing to hire doctors due to their experience, knowledge and skills that are useful to solve problems. The Doctoral Schools have the necessary facilities and equipment for students to develop their experiments and research in general, including some state of the art facilities. Furthermore, there are agreements with multiple /institutions from all over the world and also with private companies, which is very positive for the development of education and science within the Doctoral Schools.

Some aspects should be improved soon. The IOSUD presented two different internal reports (one for SD-IRVA, another for SD-MV). This was confusing for some indicators as contradictory information or lack of information was found. They should focus on coordinating both internal reports and considering the possibility of presenting only one in the future, with all general information and focusing on each doctoral school if needed for each indicator. There is only 1 indicator that was partially fulfilled. These aspects are mainly related to internationalisation (lack of international PhD advisors, PhD supervisors, no theses defended in an international language, limited number and time of PhD stays abroad and scientific publications in high impact journals by PhD students).



Antonio Rafael Sánchez Rodríguez