

## **The External Evaluation Report of a Doctoral Study Domain**

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### **I. Introduction<sup>1</sup>**

This external evaluation report was prepared by an international expert for the Biology Study Domain and is part of the periodical evaluation process of Doctoral Study Domains carried out by ARACIS (Romanian Agency for Quality Assurance in Higher Education) at School of Advanced Studies of the Romanian Academy.

The Evaluation Panel appointed by ARACIS for the Biology Study Domain was composed of three experts:

- Prof. PhD Diana CUPȘA (University of Oradea) – Coordinator;
- Prof. PhD Roman VOLKOV (“Yuriy Fedkovych” Chernivtsi National University, Ukraine) - International expert;
- Alexandra BÎNGĂ (University of Bucharest) - PhD student.

The evaluation visit took place from October 25 to November 19, 2021. On the agenda of the visit were the following evaluation activities, which were carried out online via the ARACIS and Romanian Academy Zoom platforms:

<b>Hour</b>	<b>Activity</b>
<b>Freiday, 22.10.2021</b>	
<b>16:00 - 17:00</b>	Online preliminary meeting of panel members for discussing main methodological aspects related to the evaluation of doctoral studies
<b>Monday, 25.10.2021</b>	
<b>17:00 - 17:45</b>	Online preliminary meeting for the preparation and harmonization of evaluation steps, in



Hour	Activity
	hybrid mode, of doctoral study domains and IOSUD
<b>18:00 - 18:45</b>	Online meeting with representatives of the Academy and of the Council for Academic Doctoral Studies (CSUD)
<b>Tuesday, 26.10.2021</b>	
<b>13:00 - 13:45</b>	Online meeting with the contact person for the doctoral study domain under review and the team who drafted the internal evaluation report
<b>14:00 - 14:45</b>	Online meeting with the academic staff corresponding to the doctoral study domain
<b>16:00 - 16:45</b>	Online meeting with the Commission for Quality Evaluation and Assurance (CEAC) members / Quality Assurance Department
<b>Wednesday, 27.10.2021</b>	
<b>10:00 - 12:45</b>	Continuation of the doctoral study domain evaluation activities
<b>14:00 - 14:45</b>	Online meeting with PhD students
<b>15:00 - 15:45</b>	Online meeting with the Directors/ persons in charge of the research centers/laboratories within the doctoral study domain
<b>Thursday, 28.10.2021</b>	
<b>15:00 - 15:45</b>	Online meeting with graduates for the respective doctoral study domain
<b>16:00 - 16:45</b>	Online meeting with employers of Doctoral graduates in the domain
<b>17:00 - 19:30</b>	Continuation of the doctoral study domain evaluation activities
<b>Tuesday, 2.11.2021</b>	
<b>09:00 - 10:45</b>	Continuation of the doctoral study domain evaluation activities
<b>18:00 - 18:45</b>	Online meeting with the members of the Ethics Commission
<b>Wednesady, 3.11.2021</b>	
<b>09:00 - 09:45</b>	Online technical meeting to identify specific issues that need to be clarified, if necessary, during the on-site visit
<b>Thursday, 4.11.2021</b>	
<b>09:00 - 15:00</b>	Face-to-face working meetings, visiting the educational and research infrastructure
	Completion of the evaluation documents
<b>Freiday, 19.11.2021</b>	
<b>16:00 - 16:45</b>	Online meeting for conclusions
<b>17:00 - 17:45</b>	Final Meeting with Academy's representatives -

The doctoral university studies at the Romanian Academy are organized in accordance with the National Education Law. The Romanian Academy organizes doctoral university studies through the "School of Advanced studies of the Romanian Academy" (SCOSAAR), which allows obtaining of doctoral degree in 16 fields. SCOSAAR is subordinated to the Presidium Bureau and to the Presidium of the Romanian Academy. The studies are carried out at the research institutes and centers of the Romanian Academy.



The field of Biology is part of the department of Life, Medical and Agricultural Sciences of SCOSAAR. Doctoral activity in the field of Biology takes place in four institutes located in Bucharest: Institute of Biology, Institute of Biochemistry, “Nicolae Simionescu” Institute of Cell Biology and Pathology and “Emil Racovita” Institute of Speleology. In the period from November 1, 2015 to October 31, 2020, there were 17 PhD supervisors and 48 PhD students in the four institutes.

## II. Methods used

For the evaluation of the Biology Doctoral Study Domain of the Romanian Academy the international expert analyzed the information obtained from the following sources:

- ✓ The Romanian National Education Law;
- ✓ 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;
- ✓ The Code of ethics and rules of conduct in the activities carried out by ARACIS regarding the quality assurance and assessment in higher education in Romania;
- ✓ The Internal Evaluation Report for the Doctoral Studies in Biology (the IER, from this point on), including the information presented in Annexes and other complementary documents;
- ✓ English translation of the CVs requested the international expert;
- ✓ Information available on the Doctoral School website;
- ✓ Information obtained during online meetings (see agenda above) with
  - representatives of the Academy and of the Council for Academic Doctoral Studies (CSUD);
  - the contact person for the doctoral study domain under review and the team who drafted the internal evaluation report;
  - the academic staff corresponding to the doctoral study domain;
  - the Commission for Quality Evaluation and Assurance (CEAC) members / Quality Assurance Department;
  - PhD students;
  - the Directors/ persons in charge of the research centers/laboratories within the doctoral study domain;
  - graduates for the respective doctoral study domain;
  - employers of Doctoral graduates;
  - the members of the Ethics Commission;
  - other members of the Evaluation Panel.

International expert did not personally take part in the onsite visit to the institutes, but had access to the photographs taken by other members of the Evaluation Panel.



### III. Analysis of ARACIS's performance indicators

#### Domain A. INSTITUTIONAL CAPACITY

##### 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.*

**Performance Indicator A.1.1.1.** *The existence of specific regulations and their application at the level of the Doctoral School of the respective university doctoral study domain:*

- (a) the internal regulations of the Doctoral School;*
- (b) the Methodology for conducting elections for the position of director of the Council of doctoral school (CSD), as well as elections by the students of their representative in CSD and the evidence of their conduct;*
- (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 (Council of the doctoral school), giving as well proof of the regularity of meetings;*
- (f) the contract for doctoral studies;*
- (g) internal procedures for the analysis and approval of proposals regarding the training for doctoral study programs based on advanced academic studies.*

**The indicator A.1.1.1 is partially fulfilled.**

In the Romanian Academy, the institution organizing doctoral university studies (IOSUD) is the School of Advanced Studies of the Romanian Academy (SCOSAAR). The SCOSAAR Regulation, the institutional regulation for the organization and implementation of doctoral studies (<https://acad.ro/scosaar/doc2013/doc2013-0910Regulament.pdf>), is to be updated in accordance with the national regulations in force. Currently, there are a number of methodologies and procedures that comply with the provisions of the applicable legislation in the field (for example, the academic mobility of students is regulated by: <https://acad.ro/scosaar/doc2021/MetodologiiScosaar/10Metodologie-Mobilitati.pdf>).

The regulation regarding the appointment of management structures and occupation of management positions in the Doctoral School Council (CSD) and "The Regulation on the Choice of PhD students' representatives in the Council for PhD studies (CSUD) and the Doctoral School Council (CSD) at IOSUD - Romanian Academy" are currently under approval.

The Romanian Academy has developed a policy of recruiting and admitting doctoral students, which it applies in a transparent and rigorous manner, respecting the principle of equal opportunities for all candidates without discrimination. The information on the implementation of the admission competition is made public: <https://acad.ro/scosaar/admitere.html>



There is "methodology of organization and support of the doctoral thesis":  
<https://acad.ro/scosaar/doc2021/MetodologiiScosaar/2Metodologii-SustinereTezaDoctorat/2METODOLOGIE.pdf>

The recognition of the doctoral supervisor quality and the equivalence of the PhD obtained in other states is based on methodologies:  
<https://acad.ro/scosaar/doc2021/MetodologiiScosaar/6MecanismeRecunoastereCalitataeConducatorDoctorat.pdf>

The Scientific Council, consisting of the President of SCOSAAR (a Vice-President of the Romanian Academy) and the 8 heads of departments, represented the management structure that ensured the direction of the doctoral program. The compliance of the management structures with existing legislation will be ensured through the use of methodologies that are currently being approved.

All doctoral students have signed the Doctoral University Study Agreement, which specifies activities during the doctoral studies and sets out the rights and obligations of the signatories in accordance with the applicable legal provisions. Additional legal acts on certain contractual clauses may be attached to this study contract. The Doctoral Studies Contract is available in Romanian and English  
<https://acad.ro/scosaar/formulareDoctorat.html>.

The themes of the doctoral studies programs are determined by the doctoral supervisors. Each institute or research center of the Romanian Academy (where the doctoral studies are carried out) presents the themes on its own website.

**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.*

**The indicator A.1.1.2 is partially fulfilled.** Mandatory criteria, procedures and standards for the issues specified in art. 17 par. (5) of the Doctoral Studies Code are not fully realized in the SCOSAAR regulation for the organization and implementation of doctoral studies. The new regulation, which is under approval, will explicitly include the question of the admission of new doctoral supervisors as members as well as regulations on the withdrawal of membership in the Doctoral School; Mechanisms by which decisions about the possibility, structure and content of studies are made on the basis of advanced university studies; Procedure for changing the doctoral supervisor of a doctoral student and conflict mediation procedures; The conditions under which the doctoral program can be interrupted; Ways to prevent scientific research fraud, including plagiarism; Ensuring access to research resources.

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

**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.*

**The indicator A.1.2.1 is fulfilled.**

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



**The indicator A.1.2.2 is fulfilled.** According to the IER (P. 17), every dissertation is checked for text similarities with anti-plagiarism software ([www.sistemantiplagiat.ro](http://www.sistemantiplagiat.ro)) before the defense.

**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.*

**Performance Indicator A.1.3.1.** *Existence of at least one research or institutional / human resources development grant under implementation at the time of submission of the internal evaluation file, per doctoral study domain under evaluation, or existence of at least 2 research or institutional development / human resources grant for the doctoral study domain, obtained by doctoral thesis advisors operating in the evaluated domain within the past 5 years. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students.*

**The indicator A.1.3.1 is fulfilled.** In the last 5 years, 17 PhD supervisors in the field Biology have acquired and coordinated 57 national and international research grants (see p. 18 of IER and Annex 4.1). Funding from these grants has been used to support SCOSAAR PhD students and their research. This state of affairs should be welcomed and viewed as a good practice.

**Recommendations:** Although the indicator is fulfilled, analysis of Annex 4.1 showed that two PhD supervisors, S. M. Petrescu and S. E. Szedlacsek have not received any research grants since 2017 and 2018, respectively. It is highly desirable that each of PhD supervisors have such grants that can be used to support PhD students.

**Performance Indicator \*A.1.3.2.** *The percentage of doctoral students active at the time of the evaluation, who for at least six months receive additional funding sources besides government funding, through scholarships awarded by individual persons or by legal entities, or who are financially supported through research or institutional / human resources development grants is not less than 20%.*

**The indicator A.1.3.2 is fulfilled.** The data provided in IER (p. 19 and Annex 4.2) indicate that at the evaluation moment 87.5% (i.e., 42 out of the total of 48) of the PhD students in the field of Biology have benefited at least 6 month from other funding resources than their scholarship. These data were confirmed during the interviews with the PhD students. Hence, the indicator is exceeded. However, the students think that the amount of the basic PhD scholarship is clearly insufficient, especially in the capital of the country, in which the Institutes are located.

**Recommendations:** It is very desirable to increase the amount of the PhD scholarship.

**Performance Indicator \*A.1.3.3.<sup>2</sup>** *At least 10% of the total amount of doctoral grants obtained by the university through institutional contracts and of tuition fees collected from the doctoral students enrolled in the paid tuition system is used to reimburse professional training expenses of doctoral students (attending conferences, summer schools, training, programs abroad, publication of specialty papers or other specific forms of dissemination etc.).*

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<sup>2</sup> 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.



**The indicator is not applicable** because the Romanian Academy (unlike universities) does not receive doctoral scholarships/grants from the Ministry of Education. Nevertheless, SCOSAAR provides doctoral students with the financial support for research materials, publications and participation in conferences, etc. (see the IER, p. 19, 27).

## **Criterion A.2. Research infrastructure**

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

**Performance Indicator A.2.1.1.** *The venues and the material equipment available to the doctoral school enable the research activities in the evaluated domain to be carried out, in line with the assumed mission and objectives (computers, specific software, equipment, laboratory equipment, library, access to international databases etc.). The research infrastructure and the provision of research services are presented to the public through a specific platform. The research infrastructure described above, which was purchased and developed within the past 5 years will be presented distinctly.*

**The indicator A.2.1.1 is fulfilled.** In the field of Biology, all four research institutes have the necessary premises (e.g. laboratories, lecture halls, etc.), and special facilities that are necessary for the successful completion of the doctoral program. The PhD students have full access to the herbarium collections and scientific equipment including the necessary assistance from technical staff, which was confirmed during the online meeting. There are also ample opportunities to work with scientific literature, including access to the Romanian Academy Library, international databases and specialized journals (see p. 19-20 of IER and Annex 4.3).

## **Criterion A.3. Quality of Human Resources**

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

**Performance Indicator A.3.1.1.** *Minimum three doctoral thesis advisors within that doctoral domain, and at least 50% of them (but no less than three) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification.*

**The indicator is A.3.1.1 fulfilled.** There are currently 15 PhD supervisors in the field of Biology, who go beyond the minimum standards set by the Commission for Biology and Biochemistry of CNATDCU (see p. 20 of IER and Annex 4.4).

**Recommendations:** Although the indicator is fulfilled, analysis of Annex 4.4 showed that in the "Emil Racovita" Institute of Speleology there are only two PhD supervisors. I would recommend increasing the number of supervisors at the Institute of Speleology to three (or more).

**Performance Indicator \*A.3.1.2.** *At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.*



**The indicator A.3.1.2 is fulfilled.** 12 of 15 (80%) PhD supervisors have an employment contract for an indefinite period (see p. 20 of IER and Annex 4.5).

**Performance Indicator A.3.1.3.** *The study subjects in the education program based on advanced higher education studies pertaining to the doctoral domain are taught by teaching staff or researchers who are doctoral thesis advisors / certified doctoral thesis advisors, professors / CS I or lecturer / CS II, with proved expertise in the field of the study subjects they teach, or other specialists in the field who meet the standards established by the institution in relation with the aforementioned teaching and research functions, as provided by the law.*

**The indicator A.3.1.3 is fulfilled.**

**Recommendations:** According to IER (p. 20), “a peculiar situation exists at the “Emil Racovita” Institute of Speleology, where scientific researcher I Oana Moldovan, PhD, teachers all four studied disciplines. This situation needs argent remedy!” The expert fully agrees with this view and suggests correcting the situation as soon as possible. Certainly, one person (i.e., Dr. Oana Moldovan) cannot teach so many disciplines! In addition, analysis of Annex 4.6 showed that in the Institute of Speleology there are only compulsory disciplines (and no optional disciplines) in the Program of doctoral studies. The number of optional disciplines is also very limited in other institutes. I recommend increasing the number of optional disciplines in order to provide more opportunities for individual learning.

**Performance Indicator \*A.3.1.4.** *The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12, who are themselves studying in doctoral programs<sup>3</sup> does not exceed 20%.*

**The indicator A.3.1.4 is fulfilled** - see p. 20 of IER and Annex 4.7.

**Recommendations:** Although the indicator is fulfilled, I believe that eighth PhD students per one supervisor simultaneously are too much. I would recommend reducing the number to five or six and completely abolishing the option of supervising more than eight dissertations at the same time.

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

**Performance Indicator A.3.2.1.** *At least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 Web of Science- or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for that domain, including international-level contributions that indicate progress in scientific research - development - innovation for the evaluated domain. The aforementioned doctoral thesis advisors enjoy international awareness within the past five years, consisting of: membership on scientific boards of international publications and conferences; membership on boards of international professional associations; guests in conferences or expert groups working abroad, or membership on doctoral defense commissions at universities abroad or co-leading with universities abroad. For Arts and Sports and Physical Education Sciences, doctoral thesis advisors shall prove their international visibility within the past five years by their membership on the*

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<sup>3</sup> 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.





boards of professional associations, membership in organizing committees of arts events and international competitions, membership on juries or umpire teams in artistic events or international competitions.

**The indicator A.3.2.1 is fulfilled.** All PhD supervisors meet these requirements - see p. 20 of IER, Annex 4.8 and CVs.

**Performance Indicator \*A.3.2.2.** *At least 50% of the doctoral thesis advisors in a specific doctoral study domain continue to be active in their scientific field, and acquire at least 25% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation, which are required and mandatory for acquiring their enabling certificate, based on their scientific results within the past five years.*

**The indicator A.3.2.2 is fulfilled** - see p. 21 of IER and Annex 4.9.

## **Domain B. EDUCATIONAL EFFECTIVENESS**

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

**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.*

**Performance Indicator \*B.1.1.1.** *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, put out through contest within the doctoral domain is at least 0.2 or the ratio between the number of candidates within the past five years and the number of seats funded by the state budget put out through contest within the doctoral studies domain is at least 1,2.*

**The indicator B.1.1.1 is not applicable for SCOSAAR** because there is no second Bologna cycle at the Romanian Academy (see p. 21 and 29 of the IER).

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

**Performance Indicator \*B.1.2.1.** *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.*

**The indicator B.1.2.1 is fulfilled.**



**Performance Indicator B.1.2.2.** *The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission<sup>4</sup> does not exceed 30%.*

**The indicator B.1.2.2 is fulfilled.** PhD students' expulsion and quitting rate in the field of Biology is 28.83% - see p. 21 of the IER.

## **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.*

**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.*

**The indicator B.2.1.1 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.*

**The indicator B.2.1.2 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 activities<sup>5</sup>.*

**The indicator B.2.1.3 is fulfilled.**

**Performance Indicator B.2.1.4.** *All along the duration of the doctoral training, doctoral students in the domain receive counselling/guidance from functional guidance commissions, which is reflected in written guidance and feedback or regular meeting.*

**The indicator B.2.1.4 is fulfilled.** The activities of each PhD student are directed by a guidance commission composed of three researchers. The chairman of the commission is the supervisor of the PhD student - see p. 22 of the IER and Annex 4.10.

**Performance Indicator B.2.1.5.** *For a doctoral study domain, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance must not exceed 3:1.*

**The indicator B.2.1.5 is fulfilled.**

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<sup>4</sup> 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.

<sup>5</sup> Or by what the graduate should know, understand and to be able to do, according to the provisions of the Methodology of 17 March 2017 regarding inscription and registration of higher education qualifications in the National Register of Qualifications in Higher Education (RNCIS) approved by the Order No.3475/2017 with subsequent amendments and additions.



### **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.*

**Performance Indicator B.3.1.1.** *For the evaluated domain, the evaluation commission will be provided with at least one paper or some other relevant contribution per doctoral student who has obtained a doctor's title within the past 5 years. From this list, the members of the evaluation commission shall randomly select 5 such papers / relevant contributions per doctoral study domain for review. At least 3 selected papers must contain significant original contributions in the respective domain.*

**The indicator B.3.1.1 is fulfilled.** According to the IER (p. 22), 37 PhD students defended their theses in the period 2016-2020. 56 selected papers of 33 PhD students, which have been published in high-ranking international journals, are presented in Annex 4.11.

**Performance Indicator \*B.3.1.2.** *The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (past 5 years), including posters, exhibitions made at prestigious international events (organized in the country or abroad) and the number of doctoral students who have completed their doctoral studies within the evaluated period (past 5 years) is at least 1.*

**The indicator B.3.1.2 is fulfilled.** The ratio amounts to 6.08, i.e., it is well above the minimum requirement - see the IER (p. 22) and Annex 4.12.

**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.*

**Performance Indicator \*B.3.2.1.** *The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD should not exceed two (2) in a year for the theses coordinated by the same doctoral thesis advisor.*

**The indicator B.3.2.1 is fulfilled.**

**Performance Indicator \*B.3.2.2.** *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 should not exceed 0.3, considering the past five years. Only those doctoral study domains in which minimum ten doctoral theses have been presented within the past five years should be analyzed.*

**The indicator B.3.2.2 is fulfilled.** The ratio ranges from 0.03 to 0.14 over the past 5 years - see the IER (p. 23) and Annex 4.14.



## **Domain C. QUALITY MANAGEMENT**

### **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.*

**Performance Indicator C.1.1.1.** *The Doctoral school in the respective university study domain 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 IOSUD, 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 scientific activity of doctoral students;*
- e) the training program based on advanced academic studies of doctoral students;*
- f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.*

**The indicator C.1.1.1 is fulfilled.**

**Performance Indicator \*C.1.1.2.** *Mechanisms are implemented during the stage of the doctoral study program to enable feedback from doctoral students allowing to identify their needs, as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. Following the analysis of the results, there is evidence that an action plan was drafted and implemented.*

**The indicator C.1.1.2 is fulfilled.** During online meetings, the doctoral students and graduates confirmed their satisfaction with the doctoral program.

### **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.*

**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 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 training 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) links to the doctoral theses' 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.

**The indicator C.2.1.1 is fulfilled.** In the field of Biology, all the required information can be found on the websites of SCOSAAR and the four institutes.

**Recommendations:** Regarding the internalization of doctoral studies (Criterion C.3) in order to attract foreign students, I would recommend presenting the information on the website in English as well.

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

**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 their thesis.*

**The indicator C.2.2.1 is fulfilled** - see the IER (p. 24).

**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.*

**The indicator C.2.2.2 is fulfilled** - see the IER (p. 25).

**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.*

**The indicator C.2.2.3 is fulfilled.** All PhD students have full access to the herbarium collections and scientific equipment including the necessary assistance from technical staff, which was confirmed during the online meetings with the PhD students and graduates.

### **Criterion C.3. Internationalization**

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

**Performance Indicator \*C.3.1.1.** *IOSUD, for every evaluated domain, 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%, which is the target at the level of the European Higher Education Area.*



**The indicator C.3.1.1 is fulfilled** - see the IER (p. 25) and Annex 4.15.

**Performance Indicator C.3.1.2.** *In the evaluated doctoral study domain, support is granted, including financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.*

**The indicator C.3.1.2 is fulfilled** - see the IER (p. 25) and Annex 4.16.

**Recommendations:** According to the IER, one PhD thesis was co-supervised by the foreign professor. I think that's not enough. I recommend making efforts to increase the number of PhD dissertations supervised in collaboration with foreign experts.

**Performance Indicator C.3.1.3.** *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 committees etc.).*

**The indicator C.3.1.3 is fulfilled.**

**Recommendations:** More needs to be done to attract foreign PhD students. For example, it is worth offering a special scholarship from the Romanian Academy to foreigners to write a doctoral thesis in Romania. This will facilitate international academic exchange.

#### IV. SWOT Analysis

<b><u>Strengths:</u></b>	<b><u>Weaknesses:</u></b>
<ul style="list-style-type: none"> <li>- the strengths identified throughout the report will be resumed as part of the indicators' analysis. Other general strengths that do not fall within a particular indicator may be formulated.</li> <li>- <b>A qualified team of supervisors with international achievements, high quality of the research.</b></li> <li>- <b>Good research facilities, equipment and infrastructure.</b></li> <li>- <b>Financial support for doctoral students from research project funds.</b></li> </ul>	<ul style="list-style-type: none"> <li>- 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.</li> <li>- <b>The basic funding (scholarships) for doctoral students is insufficient.</b></li> <li>- <b>Too many PhD students are coordinated by the same supervisor; an important step towards improving the situation can be the inclusion of young scientists with excellent research achievements in the supervisor pool.</b></li> <li>- <b>Interaction and collaboration with stakeholders representing the industry is insufficient; experts from industry / medicine / pharmaceuticals can be invited as co-supervisors of doctoral students.</b></li> <li>- <b>In order to attract students from abroad, the doctoral program should also be offered in English and relevant information should be</b></li> </ul>

	<b>visible on the website; it makes sense to invite more co-supervisors from abroad.</b>
<p><b><u>Opportunities:</u></b></p> <ul style="list-style-type: none"> <li>- possible lines of action for the development of the institution under review shall be identified;</li> <li>- 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 market, the overall attractiveness of the study programs etc.</li> <li>- <b>In view of the fact that the doctoral activity in the field of Biology takes place at four institutes in Bucharest, it makes sense to improve the teaching cooperation between them; e.g. some disciplines can be taught to students from different institutes at the same time.</b></li> <li>- <b>The support of doctoral students can be improved by developing cooperation with industry.</b></li> <li>- <b>Relatively low cost of living in Romania compared to other EU countries make Bucharest an attractive place to study for PhD students from abroad.</b></li> </ul>	<p><b><u>Threats:</u></b></p> <ul style="list-style-type: none"> <li>- 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;</li> <li>- besides, there may be external threats, such as: the inopportune economic environment in the proximity of the assessed institution, the conduct of low attractiveness study programs for both candidates and the labor market etc.</li> <li>- <b>A low basic scholarship could make it difficult to attract good candidates for doctoral studies.</b></li> <li>- <b>High fees for publication in open access journals limit the possibility of publication of results for doctoral students who do not receive funding from a research project; alternative sources of funding should be found.</b></li> </ul>

## V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
1.	PI	<p><b>A.1.1.1.</b> The existence of specific regulations and their application at the level of the Doctoral School of the respective university doctoral study domain:</p> <ul style="list-style-type: none"> <li>a) the internal regulations of the Doctoral School;</li> <li>b) the Methodology for conducting elections for the position of director of the Council of doctoral school (CSD), as well as elections by the students of their representative in CSD and the evidence of their conduct;</li> <li>c) the Methodologies for organizing and</li> </ul>	partially fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		<p>conducting doctoral studies (for the admission of doctoral students, for the completion of doctoral studies);</p> <p>d) the existence of mechanisms for recognizing the status of a Doctoral advisor and the equivalence of the doctoral degree obtained abroad;</p> <p>e) functional management structures (Council of the doctoral school), giving as well proof of the regularity of meetings;</p> <p>f) the contract for doctoral studies;</p> <p>g) internal procedures for the analysis and approval of proposals regarding the training for doctoral study programs based on advanced academic studies.</p>		
2.	PI	<p><b>A.1.1.2.</b> 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.</p>	partially fulfilled	
3.	PI	<p><b>A.1.2.1.</b> The existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.</p>	fulfilled	
4.	PI	<p><b>A.1.2.2.</b> The existence and use of an appropriate software program and evidence of its use to verify the percentage of similarity in all doctoral theses.</p>	fulfilled	
5.	IP	<p><b>A.1.3.1.</b> Existence of at least one research or institutional / human resources development grant under implementation at the time of submission of the internal evaluation file, per doctoral study domain under evaluation, or existence of at least 2 research or institutional development / human resources grant for the doctoral study domain, obtained by doctoral thesis advisors operating in the evaluated domain within the past 5 years. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students.</p>	fulfilled	<p>Although the indicator is fulfilled, analysis of Annex 4.1 showed that two PhD supervisors, S. M. Petrescu and S. E. Szedlacsek have not received any research grants since 2017 and 2018, respectively. It is highly desirable that each of PhD supervisors have such grants that can be used to support PhD students.</p>
6.	PI *	<p><b>A.1.3.2.</b> The percentage of doctoral students active at the time of the evaluation, who for at</p>	fulfilled	<p>It is very desirable to increase the amount of the PhD scholarship.</p>



No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		least six months receive additional funding sources besides government funding, through scholarships awarded by individual persons or by legal entities, or who are financially supported through research or institutional / human resources development grants is not less than 20%.		
7.	PI *	<b>A.1.3.3.</b> At least 10% of the total amount of doctoral grants obtained by the university through institutional contracts and of tuition fees collected from the doctoral students enrolled in the paid tuition system is used to reimburse professional training expenses of doctoral students (attending conferences, summer schools, training, programs abroad, publication of specialty papers or other specific forms of dissemination etc.).	fulfilled	
8.	CPI	<b>A.2.1.1.</b> The venues and the material equipment available to the doctoral school enable the research activities in the evaluated domain to be carried out, in line with the assumed mission and objectives (computers, specific software, equipment, laboratory equipment, library, access to international databases etc.). The research infrastructure and the provision of research services are presented to the public through a specific platform. The research infrastructure described above, which was purchased and developed within the past 5 years will be presented distinctly	fulfilled	
9.	CPI	<b>A.3.1.1.</b> Minimum three doctoral thesis advisors within that doctoral domain, and at least 50% of them (but no less than three) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification.	fulfilled	Although the indicator is fulfilled, analysis of Annex 4.4 showed that in the “Emil Racovita” Institute of Speleology there are only two PhD supervisors. I would recommend increasing the number of supervisors at the Institute of Speleology to three (or more).
10.	PI *	<b>A.3.1.2.</b> At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.	fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
11.	PI	<p><b>A.3.1.3.</b> The study subjects in the education program based on advanced higher education studies pertaining to the doctoral domain are taught by teaching staff or researchers who are doctoral thesis advisors / certified doctoral thesis advisors, professors / CS I or lecturer / CS II, with proved expertise in the field of the study subjects they teach, or other specialists in the field who meet the standards established by the institution in relation with the aforementioned teaching and research functions, as provided by the law.</p>	fulfilled	<p>According to IER (p. 20), "a peculiar situation exists at the "Emil Racovita" Institute of Speleology, where scientific researcher I Oana Moldovan, PhD, teachers all four studied disciplines. This situation needs argent remedy!" The expert fully agrees with this view and suggests correcting the situation as soon as possible. Certainly, one person (i.e., Dr. Oana Moldovan) cannot teach so many disciplines! In addition, analysis of Annex 4.6 showed that in the Institute of Speleology there are only compulsory disciplines (and no optional disciplines) in the Program of doctoral studies. The number of optional disciplines is also very limited in other institutes. I recommend increasing the number of optional disciplines in order to provide more opportunities for individual learning.</p>
12.	PI *	<p><b>A.3.1.4.</b> The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12, who are themselves studying in doctoral programs does not exceed 20%.</p>	fulfilled	<p>Although the indicator is fulfilled, I believe that eighth PhD students per one supervisor simultaneously are too much. I would recommend reducing the number to five or six and completely abolishing the option of supervising more than eight dissertations at the same time.</p>
13.	CPI	<p><b>A.3.2.1.</b> At least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 Web of Science- or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for that domain, including international-level contributions that indicate progress in scientific research - development - innovation for the evaluated domain. The aforementioned doctoral thesis advisors enjoy international awareness within the past five years, consisting of: membership on scientific boards of international publications and conferences; membership on boards of international professional associations; guests in conferences or expert groups working abroad, or membership on doctoral defense commissions at universities abroad or co-leading with universities abroad. For Arts and</p>	fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		Sports and Physical Education Sciences, doctoral thesis advisors shall prove their international visibility within the past five years by their membership on the boards of professional associations, membership in organizing committees of arts events and international competitions, membership on juries or umpire teams in artistic events or international competitions.		
14.	PI *	<b>A.3.2.2.</b> At least 50% of the doctoral thesis advisors in a specific doctoral study domain continue to be active in their scientific field, and acquire at least 25% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation, which are required and mandatory for acquiring their enabling certificate, based on their scientific results within the past five years	fulfilled	
15.	PI *	<b>B.1.1.1.</b> 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, put out through contest within the doctoral domain is at least 0.2 or the ratio between the number of candidates within the past five years and the number of seats funded by the state budget put out through contest within the doctoral studies domain is at least 1,2.	fulfilled	
16.	PI *	<b>B.1.2.1.</b> 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.	fulfilled	
17.	PI	<b>B.1.2.2.</b> The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission does not exceed 30%.	fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
18.	PI	<b>B.2.1.1.</b> 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.	fulfilled	
19.	PI	<b>B.2.1.2.</b> 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.	fulfilled	
20.	PI	<b>B.2.1.3.</b> 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 activities.	fulfilled	
21.	PI	<b>B.2.1.4.</b> All along the duration of the doctoral training, doctoral students in the domain receive counselling/guidance from functional guidance commissions, which is reflected in written guidance and feedback or regular meeting.	fulfilled	
22.	CPI	<b>B.2.1.5.</b> For a doctoral study domain, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance must not exceed 3:1.	fulfilled	
23.	CPI	<b>B.3.1.1.</b> For the evaluated domain, the evaluation commission will be provided with at least one paper or some other relevant contribution per doctoral student who has obtained a doctor's title within the past 5 years. From this list, the members of the evaluation commission shall randomly select 5 such papers / relevant contributions per doctoral study domain for review. At least 3 selected papers must contain significant original contributions in the respective domain	fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
24.	PI *	<b>B.3.1.2.</b> The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (past 5 years), including posters, exhibitions made at prestigious international events (organized in the country or abroad) and the number of doctoral students who have completed their doctoral studies within the evaluated period (past 5 years) is at least 1.	fulfilled	
25.	PI *	<b>B.3.2.1.</b> The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD should not exceed two (2) in a year for the theses coordinated by the same doctoral thesis advisor.	fulfilled	
26.	PI *	<b>B.3.2.2.</b> 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 should not exceed 0.3, considering the past five years. Only those doctoral study domains in which minimum ten doctoral theses have been presented within the past five years should be analyzed.	fulfilled	
27.	PI	<b>C.1.1.1.</b> The Doctoral school in the respective university study domain 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 IOSUD, 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 scientific activity of doctoral students; e) the training program based on advanced academic studies of doctoral students; f) social and academic services (including for participation at different events, publishing	fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		papers etc.) and counselling made available to doctoral students.		
28.	PI *	<b>C.1.1.2.</b> Mechanisms are implemented during the stage of the doctoral study program to enable feedback from doctoral students allowing to identify their needs, as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. Following the analysis of the results, there is evidence that an action plan was drafted and implemented.	fulfilled	
29.	CPI	<b>C.2.1.1.</b> The IOSUD publishes on the website of the organizing institution, in compliance with the general regulations on data protection, information such as: a) the 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 training 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) links to the doctoral theses' 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.	fulfilled	Regarding the internalization of doctoral studies (Criterion C.3) in order to attract foreign students, I would recommend presenting the information on the website in English as well.
30.	PI	<b>C.2.2.1.</b> All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of their thesis.	fulfilled	
31.	PI	<b>C.2.2.2.</b> Each doctoral student shall have access, upon request, to an electronic system for verifying the degree of similarity with other	fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		existing scientific or artistic works.		
32.	PI	<b>C.2.2.3.</b> 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.	fulfilled	
33.	PI *	<b>C.3.1.1.</b> IOSUD, for every evaluated domain, 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%, which is the target at the level of the European Higher Education Area.	fulfilled	
34.	PI	<b>C.3.1.2.</b> In the evaluated doctoral study domain, support is granted, including financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.	fulfilled	According to the IER, one PhD thesis was co-supervised by the foreign professor. I think that's not enough. I recommend making efforts to increase the number of PhD dissertations supervised in collaboration with foreign experts.
35.	PI	<b>C.3.1.3.</b> 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 committees etc.).	fulfilled	More needs to be done to attract foreign PhD students. For example, it is worth offering a special scholarship from the Romanian Academy to foreigners to write a doctoral thesis in Romania. This will facilitate international academic exchange.

*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!*



## 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 within the doctoral study domain 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).*

Based on the analysis of all available information during the evaluation of the Biology Study Domain of the School of Advanced Studies of the Romanian Academy, the international expert came to the following conclusions and recommendations:

- 1) The training of the doctoral students at the School is carried out by the team of highly qualified supervisors with international research achievements. In order to ensure the effective execution of the experimental part of dissertations, good research facilities, equipment and infrastructure are available. All this leads to a high level of training. In order to further improve the quality of the education, however, it is desirable to reduce the number of students per supervisor.
- 2) Doctoral students receive scholarships from the Academy and / or financial support from research project funds during their studies. However, the average student income appears to be insufficient. In the future, a low basic scholarship could make it difficult to attract good candidates for doctoral studies.
- 3) It is desirable to strengthen the internationalization of the doctoral program.
- 4) Strengthening collaboration with industry, medical and pharmaceutical stakeholders will help resolve these issues and further improve the quality of the program.

Taking together, the analysis showed that the "School of Advanced studies of the Romanian Academy" (SCOSAAR), field of Biology has good results from the doctoral program, **fulfills the majority of the required indicators, with the exception of indicators A.1.1.1 and A.1.1.2, which are partially fulfilled** and can be evaluated positively.

**Prof. Dr. Roman VOLKOV**

"Yuriy Fedkovych" Chernivtsi National University,  
Chernivtsi, Ukraine



## VII. Annexes

The following types of documents shall be attached:

- The detailed schedule of the evaluation visit – MANDATORY.
- The survey questionnaire applied to doctoral students or academic staff in the doctoral study domain under review, the results - optional (e.g., in graphic form) and their interpretation - if applicable.
- Scanned documents – any document requested from the IOSUD during the evaluation visit and received, which is not found in the internal evaluation file received before the visit and referred to in the report.
- Pictures – if relevant issues are raised regarding the condition of the student residences, cafeterias, premises for teaching and learning activities, library etc.
- Screenshots/Print screens of the Doctoral School/IOSUD website proving specific claims in the report, accompanied by the date when they were accessed and saved.
- Any other documents relevant to the evaluation process referred to in the report.

### ÎNTÂLNIRI PRELIMINARE / PRELIMINARY MEETING

Vizita de evaluare instituțională - IOSUD / domenii de studii universitare de doctorat a  
ACADEMIA ROMÂNĂ

*The institutional evaluation visit - IOSUD / doctoral study domains of the  
ROMANIAN ACADEMY*

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Observations/ Responsible
<b>EVALUAREA STUDIILOR UNIVERSITARE DE DOCTORAT / DOCTORAL STUDIES EVALUATION</b>			
October 22 4 pm – 5 pm	Întâlnirea echipei de evaluare pentru discutarea principalelor aspecte metodologice legate de activitatea de evaluare a studiilor universitare de doctorat Meeting of panel members for discussing main methodological aspects related to the evaluation of doctoral studies	<b>Toți membrii echipei de evaluare</b> All evaluation panel members	platforma <b>ZOOM ARACIS</b> <i>ARACIS ZOOM platform</i>  Join Zoom Meeting <a href="https://us02web.zoom.us/j/84451409630?pwd=YOJZamRIZDduTUF2cC8zenlIZEJIUT09">https://us02web.zoom.us/j/84451409630?pwd=YOJZamRIZDduTUF2cC8zenlIZEJIUT09</a>  Meeting ID: 844 5140 9630 Passcode: 734372

Programul<sup>6</sup> vizitei de evaluare instituțională - IOSUD / domenii de studii universitare de doctorat a  
**ACADEMIEI ROMÂNE**

*The timetable of the institutional evaluation visit - IOSUD / doctoral study domains at the  
**ROMANIAN ACADEMY***

**Perioada de derulare a vizitei: 25.10.2021 – 19.11.2021**

*The evaluation period: 25.10.2021 - 19.11.2021*

**Evaluarea Externă Periodică a domeniului de studii universitare de doctorat  
Biologie**

***Periodical External Evaluation of the doctoral study domain Biology***

<b>Intervalul orar / Hour</b>	<b>Activitate / Activity</b>	<b>Participanți / Participants</b>	<b>Observații/ Responsabil Comments/ Responsible</b>
<b>Luni / Monday, 25.10.2021</b>			
<b>17:00 - 17:45</b>	<i>Online preliminary meeting for the preparation and harmonization of evaluation steps, in hybrid mode, of doctoral study domains and IOSUD</i>	<i>all evaluation panel members</i>	<p>Înregistrare audio-video/ platforma <b>ARACIS ZOOM</b> <i>Audio-video recording / ARACIS ZOOM platform</i></p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/82045255623?pwd=WVlaUGk2NTI3MEJXZklzbndUTnkwQT09">https://us02web.zoom.us/j/82045255623?pwd=WVlaUGk2NTI3MEJXZklzbndUTnkwQT09</a></p> <p>Meeting ID: 820 4525 5623 Passcode: 234896</p>
<b>18:00 - 18:45</b>	<i>Online meeting with representatives of the Academy and of the Council for Academic Doctoral Studies (CSUD)</i>	<p><i>IOSUD and domains evaluation panels</i></p> <p>- <i>all evaluation panel members</i></p> <p>- <i>representatives of the Academy's management</i></p> <p><i>representatives of the CSUD and of the Doctoral School</i></p>	<p>Înregistrare audio-video/<b>platforma Zoom Academia Română</b> <i>Audio-video recording / Romanian Academy Zoom platform</i></p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/83758740684?pwd=cEhJZmYwemJ1b0k4eC9FRGt5bnNpZz09">https://us02web.zoom.us/j/83758740684?pwd=cEhJZmYwemJ1b0k4eC9FRGt5bnNpZz09</a></p> <p>Meeting ID: 837 5874 0684 Passcode: 144342</p>

<sup>6</sup> În perioada vizitei, pot fi solicitate și alte întâlniri, pentru eventuale clarificări.

*During the visit, other meetings may be requested for possible clarifications.*

Intervalul orar / Hour	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
		<i>the contact person for IOSUD / doctoral domains</i>	
<b>Marti / Tuesday, 26.10.2021</b>			
13:00-13:45	<i>Online meeting with the contact person for the doctoral study domain under review and the team who drafted the internal evaluation report</i>	<b>Comisia de evaluare domeniu</b> <i>Domain evaluation panel</i>  -membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  - responsabilul domeniului de studii universitare de doctorat evaluat și echipa care a realizat raportul de evaluare internă <i>The doctoral studies domain contact person and the team who drafted the internal evaluation report</i>	Înregistrare audio-video/ <b>platforma Zoom Academia Română</b> <i>Audio-video recording / Romanian Academy Zoom platform</i>  Join Zoom Meeting  <a href="https://us02web.zoom.us/j/87616543128?pwd=dnY5cWNHRGZjaFNQs21YTkFFcTIVUT09">https://us02web.zoom.us/j/87616543128?pwd=dnY5cWNHRGZjaFNQs21YTkFFcTIVUT09</a>  Meeting ID: 876 1654 3128  Passcode: 408839
14:00-14:45	<i>Online meeting with the academic staff corresponding to the doctoral study domain</i>	<b>Comisia de evaluare domeniu</b> <i>Domain evaluation panel</i>  -membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  -cadre didactice cu titlul de conducător de doctorat <i>Doctoral coordinators</i>	Înregistrare audio-video/ <b>platforma Zoom Academia Română</b> <i>Audio-video recording / Romanian Academy Zoom platform</i>  Join Zoom Meeting  <a href="https://us02web.zoom.us/j/87616543128?pwd=dnY5cWNHRGZjaFNQs21YTkFFcTIVUT09">https://us02web.zoom.us/j/87616543128?pwd=dnY5cWNHRGZjaFNQs21YTkFFcTIVUT09</a>  Meeting ID: 876 1654 3128  Passcode: 408839
16:00-16:45	<i>Online meeting with the Commission for</i>	<b>Comisia de evaluare IOSUD</b> <i>IOSUD evaluation</i>	Înregistrare audio-video/ <b>platforma Zoom Academia Română</b> <i>Audio-video recording /</i>

Intervalul orar / Hour	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	Quality Evaluation and Assurance (CEAC) members / Quality Assurance Department	<p>panel</p> <p>- <b>toți membrii echipei de evaluare</b></p> <p>all evaluation panel members</p> <p>- reprezentanți ai CEAC/ Departament AC representatives of Commission for Quality Evaluation and Assurance (CEAC) / Quality Assurance Department</p>	<p>Romanian Academy Zoom platform</p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/81960904549?pwd=a1VLMWE5ZmVQeUhlLeTBEQnNUbkcrdz09">https://us02web.zoom.us/j/81960904549?pwd=a1VLMWE5ZmVQeUhlLeTBEQnNUbkcrdz09</a></p> <p>Meeting ID: 819 6090 4549 Passcode: 528181</p>
<b>Miercuri / Wednesday, 27.10.2021</b>			
10:00 - 12:45	Continuation of the doctoral study domain evaluation activities	<p><b>Comisia de evaluare Domeniu</b></p> <p>Domain evaluation panel</p> <p>- la nivel de domenii de doctorat at doctoral study domain level</p>	<p><b>Se lucrează separat.</b></p> <p>Independent evaluation activities.</p>
14:00 - 14:45	Online meeting with PhD students	<p><b>Comisia de evaluare Domeniu</b></p> <p>Domain evaluation panel</p> <p>- membrii comisiei de experți evaluatori domeniu members of domain evaluation panel</p> <p>- studenții doctoranzi PhD students</p>	<p>Înregistrare audio-video/ platforma <b>ARACIS ZOOM</b></p> <p>Audio-video recording /ARACIS ZOOM platform</p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/85295713243?pwd=MWpJZWIKU1FSbkFHZIVZRG81UjdEQ_T09">https://us02web.zoom.us/j/85295713243?pwd=MWpJZWIKU1FSbkFHZIVZRG81UjdEQ_T09</a></p> <p>Meeting ID: 852 9571 3243</p> <p>Passcode: 117659</p>

Intervalul orar / Hour	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
15:00 - 15:45	<i>Online meeting with the Directors/ persons in charge of the research centers/laboratories within the doctoral study domain</i>	<b>Comisia de evaluare Domeniu</b> <i>Domain evaluation panel</i> - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i> -directorii centrelor / laboratoarelor de cercetare <i>directors of research centers/ laboratories</i>	Înregistrare audio-video/ <b>platforma Zoom Academia Română</b> <i>Audio-video recording / Romanian Academy Zoom platform</i>  Join Zoom Meeting  <a href="https://us02web.zoom.us/j/89830223052?pwd=OG90enRYVENQN0pYd2tNYlpZa3p0dz09">https://us02web.zoom.us/j/89830223052?pwd=OG90enRYVENQN0pYd2tNYlpZa3p0dz09</a>  Meeting ID: 898 3022 3052  Passcode: 934442
<b>Joi/ Thursday, 28.10.2021</b>			
15:00 - 15:45	<i>Domain: Online meeting with graduates for the respective doctoral study domain</i>	<b>Comisia de evaluare domeniu</b> <i>Domain evaluation panel</i> - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i> - reprezentanți ai absolvenților <i>representatives of doctoral graduates</i>	Înregistrare audio-video/ <b>platforma Zoom Academia Română</b> <i>Audio-video recording / Romanian Academy Zoom platform</i>  Join Zoom Meeting  <a href="https://us02web.zoom.us/j/88656451327?pwd=cGkzLzZrNnZpTzV5MjlxSGUzSy9sQT09">https://us02web.zoom.us/j/88656451327?pwd=cGkzLzZrNnZpTzV5MjlxSGUzSy9sQT09</a>  Meeting ID: 886 5645 1327  Passcode: 237955
16:00 - 16:45	<i>Online meeting with employers of Doctoral graduates in the domain</i>	<b>Comisia de evaluare domeniu</b> <i>Domain evaluation panel</i> - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i> - reprezentanți ai angajatorilor <i>employers' representatives</i>	Înregistrare audio-video/ <b>platforma Zoom Academia Română</b> <i>Audio-video recording /</i>

Intervalul orar / Hour	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
			<p><i>Romanian Academy Zoom platform</i></p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/81987536307?pwd=ejlGaWdjRG1Bc2VJcEE4ZWFKQeUJ2QT09">https://us02web.zoom.us/j/81987536307?pwd=ejlGaWdjRG1Bc2VJcEE4ZWFKQeUJ2QT09</a></p> <p>Meeting ID: 819 8753 6307</p> <p>Passcode: 193775</p>
17:00 - 19:30	<p>Continuarea activităților de evaluare a domeniilor de studii universitare de doctorat</p> <p><i>Continuation of the doctoral study domain evaluation activities</i></p>	<p><b>Comisia de evaluare Domeniu</b></p> <p><i>Domain evaluation panel</i></p> <p>- la nivel de domenii de doctorat</p> <p><i>at doctoral study domain level</i></p>	<p><b>Se lucrează separat.</b></p> <p><i>Independent evaluation activities.</i></p>
<b>Marti/ Tuesday, 2.11.2021</b>			
09:00 - 10:45	<p>Continuarea activităților de evaluare a domeniilor de studii universitare de doctorat și IOSUD</p> <p><i>Continuation of the doctoral study domain evaluation activities</i></p>	<p><b>Comisia de evaluare Domeniu</b></p> <p><i>Domain evaluation panel</i></p> <p>- la nivel de domenii de doctorat</p> <p><i>at doctoral study domain level</i></p>	<p><b>Se lucrează separat.</b></p> <p><i>Independent evaluation activities.</i></p>
18:00 - 18:45	<p><i>Online meeting with the members of the Ethics Commission</i></p>	<p><b>Comisia de evaluare IOSUD și domenii</b></p> <p><i>IOSUD and domains evaluation panels</i></p> <p>- <b>toți membrii echipei de evaluare</b></p> <p><i>all evaluation panel members</i></p> <p>-membrii Comisiei de Etică</p> <p><i>Ethics Commission</i></p>	<p>Înregistrare audio-video/ <b>platforma Zoom Academia Română</b></p> <p><i>Audio-video recording Romanian Academy Zoom platform</i></p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/86321759099?pwd=UjBZMkcwZzROeGZObzNxU3hYcWdodz09">https://us02web.zoom.us/j/86321759099?pwd=UjBZMkcwZzROeGZObzNxU3hYcWdodz09</a></p> <p>Meeting ID: 863 2175 9099 Passcode: 660250</p>

Intervalul orar / Hour	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
		members	
<b>Miercuri/ Wednesday, 3.11.2021</b>			
09:00 - 09:45	<p>Întâlnire tehnică online, pentru identificarea aspectelor specifice care trebuie clarificate, dacă este cazul, pe parcursul vizitei la fața locului</p> <p><i>Online technical meeting to identify specific issues that need to be clarified, if necessary, during the on-site visit</i></p>	<p><b>Comisia de evaluare IOSUD și domenii</b></p> <p><i>IOSUD and domains evaluation panels</i></p> <p>- <b>toți membrii echipei de vizită</b></p> <p><i>all evaluation panel members</i></p>	<p>Înregistrare audio-video/ <b>platforma ZOOM ARACIS</b></p> <p><i>Audio-video recording / ARACIS Zoom platform</i></p> <p>Join Zoom Meeting</p> <p><a href="https://us02web.zoom.us/j/82791969986?pwd=aXdoOTdSOFRoUnVQNFlxR1JvL3ltdz09">https://us02web.zoom.us/j/82791969986?pwd=aXdoOTdSOFRoUnVQNFlxR1JvL3ltdz09</a></p> <p>Meeting ID: 827 9196 9986 Passcode: 423071</p>
<b>Joi/ Thursday, 4.11.2021</b>			
09:00 - 15:00	<p>Reuniuni de lucru față în față<sup>7</sup>, vizitarea bazei materiale didactice și de cercetare</p> <p><i>Face-to-face working meetings, visiting the educational and research infrastructure</i></p>	<p>- <b>coordonatorul de domeniu, un student doctorand evaluator</b></p> <p><i>the Domain coordinator evaluation panel, one student</i></p> <p>- reprezentanți ai Academiei</p> <p><i>Academy's representatives</i></p>	<p>Vizită ACADEMIE</p> <p><i>Site visit to the Academy</i></p>
<b>The final meetings below will be rescheduled later than November 5th</b>			
	<p>Finalizarea documentelor</p> <p><i>Completion of the evaluation documents</i></p>	<p><b>Comisia de evaluare IOSUD și domenii</b></p> <p><i>IOSUD and domains evaluation panels</i></p>	<p><b>Se lucrează separat.</b></p> <p><i>Independent evaluation activities.</i></p>

<sup>7</sup> Experții evaluatori la nivelul domeniilor de studii universitare de doctorat pot stabili independent programul vizitei la fața locului, de comun acord cu persoana de contact de la domeniul evaluat și respectând programul întâlnirilor comune cu restul membrilor echipei de evaluare. *The evaluators at doctoral study domain level can independently establish the program of the on-site visit, in agreement with the contact person for the evaluated domain and respecting the schedule of joint meetings with the rest of the evaluation panel members.*



Intervalul orar / Hour	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
		- la nivel de IOSUD <i>at IOSUD level</i> - la nivel de domenii de doctorat <i>at doctoral study domain level</i>	
	Întâlnire online pentru concluzii <i>Online meeting for conclusions</i>	<b>Comisia de evaluare IOSUD și domenii</b> <i>IOSUD and domains evaluation panels</i>  - <b>toți membrii echipei de evaluare</b> <i>all evaluation panel members</i>	Înregistrare audio-video/ platforma <b>ZOOM ARACIS</b> <i>Audio-video recording /ARACIS ZOOM platform</i>
	<i>Meeting with representatives of the institution under review to discuss on the conclusions of the evaluation process and the main recommendations</i>	<b>Comisia de evaluare IOSUD și domenii</b> <i>IOSUD and domains evaluation panels</i>  - <b>toți membrii echipei de evaluare</b> <i>all evaluation panel members</i>  - reprezentanții Academiei <i>Academy's representatives</i>	Înregistrare audio-video/ platforma <b>Zoom Academia Română</b> <i>Audio-video recording Romanian Academy Zoom platform</i>

**Friday, November 19th, 4 PM (Bucharest Time)**

*Meeting for conclusions - all members of the evaluation team*

Join Zoom Meeting

<https://us02web.zoom.us/j/85286840767?pwd=NnhDcmhmeXF1N3UvOFFmcXR4R25Gdz09>

**Friday, November 19th, 5 PM (Bucharest Time)**

*Final Meeting with Academy's representatives - all members of the evaluation team*

Join Zoom Meeting

<https://us02web.zoom.us/j/89178524411?pwd=K0tyWndGaVNPuUY2SjRNQWhiWHh3UT09>