

## The External Evaluation Report of a Doctoral Study Domain

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

In this chapter, the following shall be summarized:

- the context in which this external evaluation report was drafted (**the type of evaluation, the period of the evaluation visit, the composition of the Experts Committee** etc.);
- details about the doctoral school(s) of which the doctoral domain under review is part (number of doctoral advisors, number of students, institutional context, short history etc.);
- details about the doctoral study domain under review (number of students, institutional context, short history etc.).

This report corresponds to a request from ARACIS for the periodic external evaluation of the Doctoral School of Geology of the Romanian Academy. Romanian Academy is an institution of scientific consecration and one comprehensive of advanced research and education. In general, through the subordinate institutes but also SCOSAAR, the primary mission of the Romanian Academy consists in generating and transferring knowledge, which is materialized by the fact that the Academy ensures the creation of knowledge through an intensive research process, ensures the training of researchers, active and responsible citizens, promoting research under the requirements of a society based on knowledge and values. Within the Romanian Academy, doctoral studies in Geology are conducted at the "Sabba S. Stefanescu" Institute of Geodynamics of the Romanian Academy (IGSSSAR) was established in 1990 (H.G. 364/03.04.1990). The institute continues a tradition started within the Geophysical Research Center of the Romanian Academy. The "Sabba S. Stefanescu" Institute of Geodynamics of the Romanian Academy has carried out an activity for over 45 years, including fundamental studies in Geodynamics, crust dynamics, natural and anthropic risk management, and environmental protection.

The "Sabba S. Stefanescu" Institute of Geodynamics was an institution organizing doctoral studies initially under the tutelage of the University of Bucharest (1993), then within SCOSAAR, Department of

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<sup>1</sup> Each time when applicable the information shall be presented gender-wise.



Exact Sciences, doctoral field Geology. The PhD studies form with funding from the budget or a scholarship, being a PhD studies Doctoral Organizing Institution within SCOSAAR.

The activities, stages and methodology for the accreditation procedures of doctoral studies are as described in the article 158 para (4) of the Law of National Education n<sup>o</sup> 1/2011; the Government's Emergency Ordinance n<sup>o</sup> 75/2005 on quality assurance in education, approved by Law n<sup>o</sup> 87/2006; the Ministerial Order n<sup>o</sup> 3200/2020 on the methodology for the evaluation of doctoral university studies and the systems of criteria, standards and performance indicators used in the evaluation and the guides on conducting the periodic external evaluation process of doctoral schools and doctoral study domains, developed by ARACIS. This evaluation report describes how the standards are met and provides additional suggestions for improving the program.

In order to carry out the external evaluation, ARACIS appointed an external committee consisting of the following members:

External evaluation committee. Domain: GEOLOGY

Coordinator: Prof. Dr. MOCANU Victor                      University of Bucharest, Romania

International expert: Prof. Dr. TOSCANO Manuel              University of Huelva, Spain

Student: Drd. Ing. AILENE Vasile

Members of the External Evaluation Committee (EEC) reviewed and examined the accreditation reports provided by the Doctoral School of Geology of the Romanian Academy. The reports were evaluated individually before the remote site visit on 2-19 November 2021.

## **II. Methods used**

This chapter will contain the methods and tools used in the external evaluation process, before and during the evaluation visit, including at least:

- The analysis of the internal evaluation report of the doctoral study domain under review and its Annexes;

- The analysis of documents made available by the IOSUD, in physical format, during the evaluation visit (if such documents have been requested);

- The analysis of documents, data and information available on the IOSUD/Doctoral School(s) website, in electronic format;

- Visiting the buildings included in the institution's property, comprising (indicative and non-exhaustive list, which shall be changed according to the context):

- classrooms;
- laboratories;
- the institution's library;
- research centers;
- the Career Counselling and Guidance Center;



- lecture halls for students;
- the student residences;
- the student cafeteria;
- sports ground etc.;
- Meeting/discussions with doctoral students in the doctoral study domain under review;
- Meeting/Discussions with the graduates of the doctoral study domain under review;
- Meeting/Discussions with employers of the graduates in the doctoral study domain under review;
- Meeting/Discussions with the school officials of the Doctoral School(s) in which the doctoral study domain under review is operating;
- Meeting/Discussions with the doctoral advisors in the doctoral study domain under review;
- Meeting/discussions with the representatives of the various structures of the IOSUD/Doctoral School(s) in which the doctoral study domain under review is operating:
  - The Council of the Doctoral School, the University Senate, the Board of Directors, the Quality Assessment and Assurance Commission, the Quality Assurance Department, the Ethics Commission (including with the student representatives of these structures);
  - the Career Counselling and Guidance Center;
  - student organizations;
  - secretariats;
  - various departments/administrative offices (Social/Student residences-Cafeterias etc.);
- Application of questionnaires to doctoral students or academic staff in the doctoral study domain under review.

The report is based on three sources:

1) An internal evaluation report for PhD studies in Geology drafted following the Order no. 3651/12.04.2021 on approving the Methodology for evaluating PhD studies and systems of criteria, standards and performance indicators used in the evaluation. This self-assessment report was prepared by the director of the IGSSSAR, Dr Crisan Demetrescu, a corresponding member of the Romanian Academy. The EEC had access to all documentation corresponding to the evaluation process through a restricted access authorisation to the ARACIS cloud, including reports and documentation to prepare for the remote site visit.

2) A day onsite visit of the educational and research infrastructure at Romanian Academy in November 2021. The visit was conducted by the director of the evaluation mission, the coordinator of the IGSSSAR evaluation panel, the coordinators of doctoral domain evaluation panels, the student evaluator and the Academia representatives. The coordinator performed a tour of the Institute facilities, who considered the questions requested by the other members of the committee. During the site visit, the coordinator of the EEC was presented with the detailed organisation, structure, and curricula of the Doctoral School of Geology.

3) Online meetings as a virtual visit. Several key persons were interviewed, including representatives of the Academy and the Council for Academic Doctoral Studies (CSUD), Commission for Quality Evaluation and Assurance, Ethics Commission, the contact person for the doctoral study domain under review and the team who drafted the internal evaluation report, the academic staff, the Directors/



persons in charge of the research centres/laboratories, PhD students, graduates, employers of Doctoral graduates. The EEC received answers to open questions based on reading the accreditation reports. The EEC received answers to identified open questions during the remote site visit and substantial additional insights about the operation, structure and plans of the Doctoral School. Those who were interviewed were encouraged to send additional comments to the committee. A few persons used this opportunity, and their comments are included in the committee's material.

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

#### **Domain A. INSTITUTIONAL CAPACITY**

*\*general description of domain analysis.*

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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator A.1.1.1.** *The 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.*

*- 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:**

**The indicator is fulfilled/partially fulfilled/not fulfilled.**



The indicator is **fulfilled**. The IGSSSAR provide adequate evidence. They have established regulations and protocols that ensure a high level of management and have described in <https://acad.ro/scosaar/doc2013/doc2013-0910Regulament.pdf>.

**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*

*Recommendations:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The institution includes all criteria, procedures and standards in its regulations.

*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*

*Recommendations:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. Doctoral students' records and their entire activity within the doctoral research programme is digitally registered.

**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.*

- *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:*



**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. Romanian Academy uses the required logistical resources to check the most advanced similarity analysis in the theses.

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

*\*general description of the standard analysis.*

**Performance Indicator A.1.3.1.** *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.*

*- 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:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. During the period evaluated, 2016-2020 PhD students in the field of Geology have benefited from 4 projects whose references are included in the dossier submitted by the IGSSSAR.

**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%.*

*- 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:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. IGSSSAR includes a table showing that at the level of 2020, 7 PhD students receive funding from sources other than government funding from 2016 to September 2020. Consequently, 43% of the PhD students have obtained this funding.



**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.).*

- *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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. This parameter does not apply as IGSSSAR doctoral students do not access studies through scholarships.

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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator A.2.1.1.** *The 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.*

- *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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. IGSSSAR has a network of observatories and observation points laboratories equipped adequately with modern instrumentation. The infrastructure of the IGSSSAR provides the analytical expertise necessary to complete the PhD student's thesis projects.

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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.





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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator A.3.1.1.** *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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The IGSSSAR 's team of three supervisors is highly scientifically trained. All PhD supervisors tenured at the evaluation meet the minimum standards.

**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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. All PhD supervisors working in the field of PhD studies in Geology within IGSSSAR have tenure within Romanian Academy.

**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.*





- 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:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. All the disciplines included in the training programme based on advanced studies about the field of PhD studies in Geology are taught by the tenured PhD supervisors of IGSSSAR, whose expertise in the disciplines they teach is proven by their scientific activity.

**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%.*

- 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:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. None of the doctoral supervisors reaches the number of 8 doctoral students. The maximum number of doctoral students supervised is 3.

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

*\*general description of the standard analysis.*

**Performance Indicator A.3.2.1.** *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 boards of*

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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.



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

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The doctoral supervisors develop an intensive research activity. Their production includes enough publications in journals listed in Web of Science, Scopus, and Google Scholar databases.

**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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The 66,67% of doctoral supervisors have a scientific production and research activity exceeding 25% of the minimum criteria established by the CNATDCU.

## **Domain B. EDUCATIONAL EFFECTIVENESS**

*\*general description of domain analysis.*

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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator \*B.1.1.1.** *The 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.

- 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:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. This parameter does not apply as IGSSSAR does not have a training programme at the Master level.

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

*\*general description of the standard analysis.*

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

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. Articles 30 to 41 of the "Regulamentul de organizare a studiilor universitare de doctorat în cadrul Școlii de Studii Avansate a Academiei Române" set out the criteria for admission to the doctoral school.

**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%.

- 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:*

**The indicator is fulfilled/partially fulfilled/not 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.



The indicator is **fulfilled**. No doctoral students dropped out during the period under evaluation.

## **Criterion B.2. The content of doctoral programs**

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator B.2.1.1.** *The 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*

*Recommendations:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The topics approached by the disciplines studied in the advanced university programme are relevant for the training of PhD students in scientific research. Within the training program of the IGSSSAR, the doctoral student participates in the activities from a compulsory discipline, "Etică și Integritate Academică".

**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*

*Recommendations:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The curriculum contains a discipline devoted to ethics in scientific research and intellectual property denominated "Etică și Integritate Academică".

**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>.

- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The competencies, skills, and attitudes that PhD students will acquire after completing each course are detailed in the course description in the training program on PhD studies in Geology coordinated by IGSSSAR. Each discipline within the training programme based on PhD studies offers PhD students the opportunity to expand their range of professional skills in the field covered by that discipline.

**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.*

- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. During the virtual visit, the alumni commented on the existence of such a commission.

**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.*

- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

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<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.



The indicator is **fulfilled**. The IGSSSAR has a lower ratio than required by the regulations. The guiding committees active during 2015-2020 comprised three teachers, and the number of PhD students enrolled in the same period was seven.

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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator B.3.1.1.** *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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. IGSSSAR presents the papers of PhD students in the field of Geology who obtained the degree of doctor in the evaluated period. All the papers presented are of a high scientific level and originality and have been published in leading scientific journals in Geology. All of them are well structured and show that PhD students have matured to do first-class science and publish their results in high impact journals.

**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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***



The indicator is **fulfilled**. During the evaluated period, IGSSSAR only presents evidence of one PhD student in the field of Geology who completed their PhD studies and presented six communications at international scientific events. The rate is 7/7. Although the ratio is fulfilled, it is unbalanced, as only one of the seven students has presented international communications.

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

*\*general description of the standard analysis.*

**Performance Indicator \*B.3.2.1.** *The 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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. According to the documentation examined, there were no external reviewers on the doctoral thesis defense evaluation committee dealing with more than two theses coordinated by the same doctoral supervisor during the same year.

**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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. Not applicable in this case since only one doctoral thesis has been defended.

## **Domain C. QUALITY MANAGEMENT**

*\*general description of domain analysis.*





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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator C.1.1.1.** *The 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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. The IGSSSAR has an adequate Operational Procedure regarding the evaluation and internal monitoring of the Doctoral School of Geology within the Romanian Academia. It applies the procedure for internal assessment and monitoring of the evolution of the doctoral school, a procedure that defines the dimensional structure and the indicators needed for the periodical evaluation of PhD studies fields and doctoral schools. Although the Romanian Academy has periodically evaluated the quality and progress of the doctoral school of Geology, further evidence is necessary.

**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.*

*- 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:*



**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. The students' level of satisfaction with the teaching-learning process, the physical assets, the services, and the facilities provided by the Romanian Academy is evaluated. The survey is based on questionnaires is addressed to all students. However, IGSSSAR presents the global data for all doctoral schools of the Romanian Academy, so it is not easy to know the specific data relating to the doctoral school in Geology, nor the level of student participation.

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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator C.2.1.1.** *The 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.*
  - 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:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. The information available on the website is limited. The information can be found in <http://www.geodin.ro/phd-school/>. In general, the information required by ARACIS needs to be completed and updated. The presentation of the information could be improved by centralizing it on a single website.



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 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

*Recommendations:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. The access to databases is through the website <https://biblacad.ro/databases.html>.

**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

*Recommendations:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. The IGSSSAR has access to an electronic system to verify the percentage of similarity of doctoral theses.

**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

*Recommendations:*

**The indicator is fulfilled/partially fulfilled/not fulfilled.**

The indicator is **fulfilled**. All the doctoral students have access to the analytical equipment.



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

*\*general description of the criterion analysis.*

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

*\*general description of the standard analysis.*

**Performance Indicator \*C.3.1.1.** *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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. This item is not applicable in the case of the Romanian Academy since the Romanian Academy is not part of Erasmus agreements.

**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.*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **fulfilled**. During the evaluated period (2015-2020), the PhD students in the field of Geology have the opportunity of attend experts from prestigious foreign universities or companies.

**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.).*

*- 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:*

***The indicator is fulfilled/partially fulfilled/not fulfilled.***

The indicator is **not fulfilled**. The IGSSSAR has not carried out any activity to increase the visibility and promotion of the Romanian Academy to develop new partnerships to achieve the objectives of increasing the number of international students.

#### IV. SWOT Analysis

<p><b><u>Strengths:</u></b></p> <p>- 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.</p> <ul style="list-style-type: none"> <li>✓ The Romanian Academy has an excellent institutional standing that supports the quality of its education and research.</li> <li>✓ They have high-quality, qualified and well-trained teaching staff with a high scientific capacity.</li> <li>✓ The doctoral supervisors have trained students who acquire a high level of scientific competence.</li> <li>✓ The graduates have a high rate of employability, both in academia and industry.</li> <li>✓ There is excellent communication between supervisors and students.</li> <li>✓ The IGSSSAR offers adequate facilities to accommodate a more significant number of PhD students.</li> <li>✓ The student/teacher ratio favours close contact and guarantees a level of excellence that a high number of students could limit.</li> </ul>	<p><b><u>Weaknesses:</u></b></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> <ul style="list-style-type: none"> <li>✓ Limited funding to do first-class science.</li> <li>✓ Low number of students.</li> <li>✓ The IGSSSAR website needs to be improved, including complete content in English.</li> <li>✓ Geology should have more visibility in the Romanian social environment, which implies a vital effort from all institutions, including professional associations.</li> <li>✓ Lack of international mobility challenging IGSSSAR students to integrate into the global science context.</li> <li>✓ A period of three years is seen by most of those involved in the training process as too short, with an extension of training to four years being considered more appropriate. The requirement is to submit first-level publications alongside the doctoral thesis since publication; some of the results may take more than a year after the first version of the publication is submitted to the journal.</li> </ul>
<p><b><u>Opportunities:</u></b></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 market,</p>	<p><b><u>Threats:</u></b></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</p>

<p>the overall attractiveness of the study programs etc.</p> <ul style="list-style-type: none"> <li>✓ There are few Doctoral Schools in Geology in Romania.</li> <li>✓ The academy is responsible for a robust data network and must have qualified staff trained at the Romanian Academy itself.</li> <li>✓ The high scientific potential of the Romanian Academy's Geology domain makes them very competitive at the international level, so the recruitment of international projects should also be oriented towards attracting international students.</li> </ul>	<p>proximity of the assessed institution, the conduct of low attractiveness study programs for both candidates and the labor market etc.</p> <ul style="list-style-type: none"> <li>✓ The low number of students may cause the government authorities to reconsider the profitability of doctoral studies in Geology in the medium term.</li> </ul>
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## 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 conducting doctoral studies (for the admission of doctoral students, for the completion of doctoral studies);</li> <li>d) the existence of mechanisms for recognizing the status of a Doctoral advisor and the equivalence of the doctoral degree obtained abroad;</li> <li>e) functional management structures (Council of the doctoral school), giving as well proof of the regularity of meetings;</li> <li>f) the contract for doctoral studies;</li> <li>g) internal procedures for the analysis and approval of proposals regarding the training</li> </ul>	<b>Fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		for doctoral study programs based on advanced academic studies.		
2.	PI	<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.	<b>Fulfilled</b>	
3.	PI	<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.	<b>Fulfilled</b>	
4.	PI	<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.	<b>Fulfilled</b>	
5.	IP	<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.	<b>Fulfilled</b>	
6.	PI *	<b>A.1.3.2.</b> 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%.	<b>Fulfilled</b>	
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	<b>Fulfilled</b>	It should be considered that doctoral students do not enter this institution through scholarships but through contracts, which differentiates them from the traditional university environment.



No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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.).		
8.	<b>CPI</b>	<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	<b>Fulfilled</b>	
9.	<b>CPI</b>	<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.	<b>Fulfilled</b>	
10.	<b>PI *</b>	<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.	<b>Fulfilled</b>	
11.	<b>PI</b>	<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.	<b>Fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
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>	<b><i>Fulfilled</i></b>	
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 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.</p>	<b><i>Fulfilled</i></b>	
14.	PI *	<p><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</p>	<b><i>Fulfilled</i></b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
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.	<b>Fulfilled</b>	<p>The access mechanisms to the academy are different from those of universities, so when entering through contracts..</p> <p>It might be possible to include students doing their doctoral studies within the academy through a scholarship system, either as an institution or coalition with another university.</p>
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.	<b>Fulfilled</b>	
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%.	<b>Fulfilled</b>	
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.	<b>Fulfilled</b>	
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.	<b>Fulfilled</b>	
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	<b>Fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		acquire after completing each discipline or through the research activities.		
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.	<b>Fulfilled</b>	
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.	<b>Fulfilled</b>	
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	<b>Fulfilled</b>	
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.	<b>Fulfilled</b>	
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.	<b>Fulfilled</b>	
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	<b>Fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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.		
27.	PI	<p><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:</p> <ul style="list-style-type: none"> <li>a) the scientific work of Doctoral advisors;</li> <li>b) the infrastructure and logistics necessary to carry out the research activity;</li> <li>c) the procedures and subsequent rules based on which doctoral studies are organized;</li> <li>d) the scientific activity of doctoral students;</li> <li>e) the training program based on advanced academic studies of doctoral students;</li> <li>f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.</li> </ul>	<b>Fulfilled</b>	Although the Romanian Academy has periodically evaluated the quality and progress of the doctoral school of Geology, further evidence is necessary.
28.	PI *	<p><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.</p>	<b>Fulfilled</b>	Although the Romanian Academy carries out surveys to determine the level of satisfaction of doctoral students, the results should be segregated by doctoral school. In this way, the information from each school could be analysed in a detailed manner, and the strengths and weaknesses of the individual doctoral schools could be analysed.
29.	CPI	<p><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:</p> <ul style="list-style-type: none"> <li>a) the Doctoral School regulation;</li> <li>b) the admission regulation;</li> <li>c) the doctoral studies contract;</li> </ul>	<b>Fulfilled</b>	It is recommended that the contents of the website be improved. The website is one of the best marketing tools to approach potential students who have not contacted Romanian Academy members. Therefore, it has to show as much information as possible to make a favourable decision.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		<p>d) the study completion regulation including the procedure for the public presentation of the thesis;</p> <p>e) the content of training program based on advanced academic studies;</p> <p>f) the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data;</p> <p>g) the list of doctoral students within the domain with necessary information (year of registration; advisor);</p> <p>h) information on the standards for developing the doctoral thesis;</p> <p>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.</p>		
30.	PI	<p><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.</p>	<b>Fulfilled</b>	
31.	PI	<p><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 existing scientific or artistic works.</p>	<b>Fulfilled</b>	
32.	PI	<p><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.</p>	<b>Fulfilled</b>	
33.	PI *	<p><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</p>	<b>Fulfilled</b>	<p>This item is not applicable in the case of the Romanian Academy since the Romanian Academy is not part of Erasmus agreements.</p>

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		periods abroad, up to at least 20%, which is the target at the level of the European Higher Education Area.		
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.	<b>Fulfilled</b>	The IGSSSAR should promote international collaboration agreements that facilitate collaboration in the supervision of doctoral theses and encourage the invitation of leading lecturers. To this end, the IGSSSAR should have adequate funding to carry out these activities.
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.).	<b>Not fulfilled</b>	The IGSSSAR must make a significant effort to promote its doctoral programme internationally. Perhaps the organisational structure of the Romanian Academy does not facilitate such international missions, but they could be carried out jointly with other Romanian universities in order to attract international students. In particular, the IGSSSAR 's most important content must be available in English on its website. In addition, at least the fundamental courses should be taught in English.

*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).*

The EEC evaluated the Doctoral School of Geology of the Romanian Academy based on the provided accreditation reports and the remote site visit. The International Expert (IE) concludes that the doctoral





school of Geology evaluated has high standards and partially meets quality expectations on the basis of the provided information. Overall, the IGSSSAR has an excellent scientific working environment conducive to highly scientifically qualified PhDs training. It includes several fields of academic studies in Geology, and it makes a great effort to offer high-quality education to doctoral students.

The IGSSSAR exhibits specific commendable positive characteristics. To begin with, it allows good support for students. Among the positive characteristics of the institution were the excellent relations developed between students and their supervisors.

The IGSSSAR, from its inception to the present time, has a reputation for providing high-quality education to its students in the field of Geology. They have an expert leadership team with excellent management capabilities.

The research operations in Geology of the IGSSSAR are sizeable and impressive. They also include some notable examples of research and worldwide recognition. It has now impressive laboratories that support IGSSSAR research, and this operation must continue to exist.

The IE found the general operation of the Romanian Academy and particularly the Doctoral School of Geology to be excellent. However, some aspects related to the implementation of doctoral degrees accordingly to principles in the European Higher Education Area in the European Union need to be improved, such as the existence of some agencies to perform accurate quality control of the doctoral programme within the institutional framework in which the Romanian government is engaged.

There are also some internal weaknesses that the IE would like to bring to the institution's attention. The IE recommends that the Romanian Academy make concerted efforts to clearly define and increase the visibility of the institution's centres of excellence in research. Given the current trend towards the internationalization of education and research, it is highly desirable to attract international students by expanding the offer of courses taught in English. This offer will support incoming international students and also provide opportunities for visiting professors. This visualization also involves improving the website of the doctoral school, where all the information required by students to decide to apply to the doctoral school should be detailed. The information presented on the website must include the doctoral courses offered, including their content, legislation, facilities, teaching staff, research lines, internationalization offer, results of quality audits... Also, the institution, in general, should reorient itself towards an international framework, favouring and supporting the mobility of its doctoral students.

The IE was impressed by the IGSSSAR's performance and achievements, especially in research, teaching and management. However, the global strategy of quality of the doctoral school should be redesigned. All of this is to be commended.

## 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*