



Annex No. 3

**External Evaluation Report
Doctoral Study Domain Physics
West University Timisoara Romania**

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I. Introduction¹

This report summarizes my impressions as ARACIS International Expert Evaluator of the Doctoral Study Domain Physics within IOSUD West University Timisoara (UVT) Romania. The evaluation of university Doctoral Domain Physics at the West University Timisoara was carried out by ARACIS in view of maintaining accreditation, procedure of quality assurance aimed to certify fulfillment of operating standards by the institutions organizing university doctoral studies, based on the provisions of art. 4 para. (2) of the Government Emergency Ordinance no. 75/2005 on Quality Assurance of Education, approved with amendments by the Law No. 87/2006, with subsequent amendments and additions.

The evaluation process was performed by the Romanian Agency for Quality Assurance in Higher Education (ARACIS), who recruited the following Experts Committee, in charge of Evaluation of the Doctoral Domain Physics at the West University Timisoara (UVT) Romania:

Coordinator:

Prof. PhD Viorel Pop
Babes Bolyai University Cluj-Napoca

International expert:

Prof. PhD. Razvan Ionut Ghinea
University of Granada, Spain

PhD student:

Larisa Maria Petrila
Romanian Academy - Iasi

The evaluation period extended from 11/10/2021 to 15/10/2021, and it was developed in a hybrid mode, meaning that the evaluation benefited from both online meetings and on-site visits.

After my appointment as an International Expert Evaluator, I was informed by the Director (Prof Dr. Adrian Opre, Babes Bolyai University Cluj-Napoca), the Coordinator (Prof. Dr. Adriana Giurgiu, University of Oradea) as well as the Technical Assistant (Carmen Mirian - ARACIS) of the evaluation team on important aspects of the evaluation process, such as:

- Working methodology and the structure of the evaluation panels, for IOSUD and doctoral study domains, including contact data;
- Doctoral Study Domain that was going to be evaluated;
- All important working documents, such as The Guidelines for Periodical External Evaluation of the Institution Organizing Doctoral Study Programs (IOSUD), respectively of the Doctoral study domains; The Doctoral Studies Code of June 29th, 2011 and the Order no. 3651/12.04.2021 for the approval of the Methodology on conducting the evaluation of university doctoral studies and of the systems of criteria, standards and performance indicators used in the evaluation; General presentation of the HE and QA systems in Romania.
- Detailed on-line meetings and visit schedule;
- Credentials and how to access the Internal evaluation reports and their annexes uploaded by the evaluated institution.

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



Background

The Faculty of Physics was established in 1962 within the University of Timișoara. As an independent entity, the Faculty of Physics functioned until 1974 when it was incorporated, together with Mathematics and Computer Science, into the Faculty of Natural Sciences until 1990, when Physics became an independent entity again. The Faculty of Physics established a doctoral programme in 1962. The first doctorate in Physics at the West University was awarded in 1968. By 1976, 15 doctoral degrees had been awarded. From 1976 to 1992, the Doctoral School of Physics at the University of Timisoara was not functioning. After re-establishment in 1992, the first doctoral degree was awarded in 1998. Since then, 95 PhD degrees in Physics have been awarded at the Doctoral School of Physics of UVT (DS Physics).

The Faculty of Physics is a relatively small Faculty in terms of teaching staff and students (approximately 50 students annually), but it has a significant contribution to the scientific prestige of UVT, which is reflected in the University's position in various international rankings. It is worth mentioning that the West University is present in the famous Shanghai ranking only with the field of Physics, a position to which the Doctoral School of Physics has an important contribution.

The Doctoral School of Physics operates with only one doctoral field of study, the field of Physics, with a total of 13 PhD Supervisors, 9 of whom are Full Professors (5 are UVT tenured professors, 2 are full professors at the University of Oradea, one tenured professor at the Timisoara Branch of the Romanian Academy and one tenured professor at the Institute of Electrochemistry and Condensed Matter, Timisoara) and 4 are UVT retirees. Currently, there are 13 PhD students enrolled at the Doctoral School. Since 2013, 7 habilitation theses have been defended in the Doctoral School of Physics. The Doctoral School of Physics at UVT provides the organizational and functional framework for doctoral students in the field of physics so that they can carry out excellent scientific research in order to strengthen the field of physics at UVT, nationally and internationally. The UVT Physics PhD School is experiencing a positive momentum, with currently 4 more PhD theses being completed at the DS Physics UVT

The doctoral school offers doctoral students a training program based on advanced university studies consisting of courses, seminars, laboratories, and various specific activities. Another important aspect is that each PhD student benefits from the existence of an individual Guidance Commission, that will help and assess each PhD Student throughout the development of the PhD thesis.

All PhD students have access to several research facilities located within the Faculty of Physics at UVT. A great part of the research facilities and/or research equipment was either built or acquired in the last 5 years, which proves the continuous effort of the evaluated institution to provide its students with the best resources for the proper development of their PhD Thesis.

UVT has teaching spaces, offices and conference rooms that can be used by both PhD supervisors and PhD students. Finally, PhD Students have access to electronic documentation resources provided through the information platform (ANELIS+project) and physical documentation resources through the Central University Library "Eugen Todoran" Timișoara (BCUT).



II. Methods used

Self-Assessment Report

The institution has taken the evaluation process very seriously and carefully prepared a *Self-Assessment Report* of the Physics Doctoral Domain. This document was available as 49 pages .pdf document in the ARACIS cloud, and I was able to access it easily, on-time and as often as necessary. To support information included in the *Self-Assessment Report*, the evaluated institution also included a total of 58 Annexes that were later completed with other additional documents, upon request from the evaluation panel. All these documents were uploaded to the ARACIS cloud or sent directly by e-mail to the evaluation panel. No physical documents were requested during the evaluation visit.

Additional Information available on-line

To complete this evaluation report, documents, data and information available on the IOSUD/Doctoral School(s) website, in electronic format was also frequently consulted:

- <https://physics.uvt.ro/educatie/doctorat/>
- <https://www.doctorat.uvt.ro>

Similarly, webpages corresponding to research facilities mentioned in the Self-Assessment Report were consulted to verify the provided information:

- <https://erris.gov.ro/crystal-tim>
- <https://erris.gov.ro/EHD-NanoDep>
- <https://erris.gov.ro/CENTRUL-NAIONAL-DE-DIFRACTOM>
- <https://eeris.eu/erif-2000-000m-0972>

Meeting/discussions with doctoral students in the doctoral study domain under review

The meeting/discussions with doctoral students in the doctoral study domain under review was on-line and took place on 12/10/2021. At the meeting participated 12 students from DS Physics, belonging to different years (stages) of the PhD program. Students were generally positive and stated that PhD Supervisor were always supportive and accessible, that they have their own allocated space and easy access to all available research resources. Students also highly appreciated the training program, and they were satisfied on how access to laboratories was managed during COVID-restrictions in the past year. However, students showed some concerns regarding the number and value of scholarships and financial allocations made available to them. Also, some of them expressed that they feel that, for this specific domain, 3 years of PhD development might result short. Another issue identified during these interviews was that scientific meeting fees and travel support was almost exclusively funded by research grants awarded to the PhD supervisor, therefore limiting access to scientific meetings only to those PhD Students that are also part of a research project. This aspect must be rapidly addressed and corrected by the evaluated institution.



One very important topic that was discussed was the involvement of PhD Students CSD (Doctoral School Council). It was truly concerning to find out that they are generally not aware of the possibility to apply for membership in the CSD or CSUD.

Meeting/Discussions with the graduates of the doctoral study domain under review

Meeting/Discussions with the graduates of the doctoral study domain under review was on-line and took place on 12/10/2021. At the meeting participated 13 former students from DD Physics at IOSUD UVT. Overall, they all seem satisfied with the quality of their development throughout the PhD, and they easily found a job. The doctoral graduates valued positively organization and participation to TIM meetings (yearly scientific meeting organized by DS Physics), as it allowed them to achieve transversal competencies and to network with fellows from other Doctoral Schools, Research Institutes, or other institution from outside Romania.

Meeting/Discussions with employers of the graduates in the doctoral study domain under review

The meeting/Discussions with employers of the graduates in the doctoral study domain under review was on-line and took place on 13/10/2021. At the meeting participated 8 representatives of employers of graduate students from DS Physics. Overall, they were all satisfied with the level of training of the graduates as well as their considerably high level of multidisciplinary approach. They all agreed that both employers and doctoral school can benefit from constant cooperation that should start as soon as possible. Some of employers' representatives are also part of the Guidance committees of PhD Students, which clearly denotes the cooperation between DS Physics and the employers of their graduates. However, it seems that the level of cooperation can be further improved through the development of industrial doctorates or private-funded research contracts.

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 Director of the Doctoral School(s) in which the doctoral study domain under review is operating was on-line and took place on 11/10/2021. At the meeting participated the Director of DS Physics Prof. Daniel Vizman and Prof. Marius Paulescu, member of the CSD. It was discussed the number of PhD students of the evaluated domain, the number of PhD supervisors and how the doctoral school is organized. One of the concerns expressed by the evaluation team was related with the lack of a student member in the Doctoral School Council. Also, it was suggested to include a more detailed list with available research areas at the DS Physics on their website.

During the meeting, participants were informed on the results of the review of the Self-Assessment Report and several complementary documents were requested. All requested documents were either uploaded or sent by the evaluated institution within few days from request.

Meeting/Discussions with the doctoral advisors in the doctoral study domain under review

The meeting/discussions with the doctoral advisors in the doctoral study domain under review was on-line and took place on 11/10/2021. At the meeting participated a total of 9 PhD Advisors as well as the



Director of DS Physics at UVT, Prof. Daniel Vizman. Generally, it was discussed the specific research field of the participants, the number of PhD students that they supervise currently, their actual position within the DSs and their strategy to attract possible PhD candidates. There is a strategy for distributing PhD students to cover all areas that DS Physics encompasses. No distinction was made between tenured, external, or retired PhD Advisors. There is, in fact, a policy at DS level to this effect.

The evaluation panel addressed questions regarding the average time of development of a PhD Thesis (answered as typically 3-4 years), the average number of ISI publication of a PhD Student (answered as typically 2-3; there is a minimum requirement of 2 ISI Papers) and the first year of publication of an ISI paper (answered as typically end of 2nd beginning of 3rd year). To a large extent there is good collaboration between the Guidance committees and the PhD coordinator. There is a transfer of attributions from the PhD Supervisor to the Guidance committee for a better management of the PhD Thesis development.

Participants were also asked regarding the students' research training and internships in foreign institutions. It was answered that PhD Students are encouraged to attend lectures at international conferences, as well as research training and internships.

All question were adequately answered, and it seems that the doctoral domain works under the guidelines of a first-class institution, with considerable research potential as well as considerable research output. PhD supervisors are supportive with their students, and this is clearly reflected on the quality and quantity of the research output of the evaluated institution.

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 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 were on-line and took place on 11/10/2021 (Representatives of UVT, IOSUD and DD management), 12/10/2021 (Ethics Commission) and 11/10/2021 (Quality Assurance Department). All were joint meetings for IOSUD and different DD panel evaluators.

General aspects of IOSUD organization within UVT, funding sources, achievements of the last years and projects for the future were discussed.

Madalin Bunoiu, as Vice-President (Prorector) of UVT oversees quality assurance within IOSUD UVT. He briefly explained the architecture of quality management at UVT and IOSUD level. The quality management department (DMC) uses templates, model questionnaires, and several others technical tools for collecting feedback from students and all other actors involved in the educational process at IOSUD level. It was explained that DMC is very pro-active and growing as structure within UVT. However, there is a lack of a computerized support to keep track of performance indicators, as DMC uses online storage tools (Google Drive) to centralize answer and feedback. UVT representatives clearly shown their interest in the complete digitization of the quality assessment process, which is currently on-going. Nevertheless, information regarding Quality Assurance Committee and its activity was difficult to collect form institutional website, and UVT was strongly encouraged to update its website and include all necessary information, as requested by the evaluation committee.

The Chair of the Ethics Committee explained the mission and purpose of the ethics committee and its composition. The Ethics Committee has regular meetings and it has the ability to make recommendations in the area of prevention but has no competence to monitor implementation (which



depends on other structures). It was also resumed what kind of complaints the Ethics Committee received and how they were addressed and eventually solved. The Commission has the capacity to act on its own initiative (self-initiated) or following a complaint. According to the current commission regulation, anonymous complaints are not accepted.

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 school officials of the Doctoral School(s) in which the doctoral study domain under review is operating was on-line and took place on 12/10/2021. At the meeting participated the Director of SD Physics Prof. Daniel Vizman as well as 3 other members of DS Physics council. It was discussed the activity of the doctoral school council, what type of decision are they in charge of and other issues arising, such as periodical internal evaluation.

The evaluation panel emphasized the importance of providing information about the election of students within CSD and the importance of their participation in decision-making bodies. Also, it was translated to CSD members the concerns expressed by PhD Students regarding the short doctoral period (3 years). CSD members explained that, to overcome this issue, it has been implemented at DS level the fee exemption in case of extension to more than 3 years (only for those in co-tutelle). It was pleasingly surprising to see that one of the members of the CSD is a professor at the University of Medicine and Pharmacy of Timisoara, therefore bridging the gap between these institutions and fostering a proper development of ongoing collaboration between them.

All discussed items were properly answered by the participants. The evaluation team also requested additional information on how student satisfaction questionnaires are presented and how their results are further considered and insisted on the importance of these questionnaires.

The Evaluation Visit

The evaluation visit took place on 14/10/2021. The coordinator of the evaluation panel (Prof. Viorel Pop) visited the facilities available at UVT DS Physics. The visit included UVT headquarters, where the Faculty of Physics and the DS Physics UVT operate. The evaluated institution provided photos and additional resources to document the instruments available at their research and teaching facilities.

The visited sites were:

- Lecture halls and auditorium;
- Laboratories supporting research in DS Physics UVT, among which we mention:
 - Crystal Growth Laboratory ;
 - The Laboratory of Electrodynamics of Dispersed Nanoscale Systems;
 - X-ray diffractometry laboratory;
 - Mass Spectroscopy Laboratory;
 - Solar Platform;
 - Applied Electromagnetism Laboratory;
 - Waste separation laboratory;
 - Crystal Microstructure Characterization Laboratory.
- Library;



- Offices for PhD students;
- The new Institute for Advanced Environmental Research (ICAM), where DS Physics UVT will have 5 research laboratories;

Research facilities are in good standing, and they fulfill all recent requirements in terms of space distribution, allocated spaces, available complementary services, etc. In terms of research infrastructure, facilities are well equipped with state-of-the art equipment that can clearly help and motivate students to properly engage in their research activities.



III. Analysis of ARACIS's performance indicators

Domain A. INSTITUTIONAL CAPACITY

Following the analysis of the Self-Assessment Report, the online meetings and the visit to the Doctoral School of Physics of the West University of Timisoara (DS Physics UVT), it was concluded that the West University of Timisoara demonstrates the institutional capacity to carry out in excellent conditions the activities of doctoral studies in physics, successfully meeting the standards required for this activity.

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

The DS Physics at UVT has implemented the effective operating mechanisms set out in the specific legislation on the organisation of doctoral studies, the National Education Law no. 1/2011 and the Code of Doctoral Studies, HG 681/2011.

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*

The activities within the Doctoral School of Physics (DS Physics) take place according to the Regulations of the Doctoral School of Physics, which describes the general framework, the main actors (doctoral students, doctoral supervisors), and the documents legally necessary for doctoral studies. It



stipulates the admission conditions for doctoral studies, the conduct of doctoral research, and the conditions for completing the doctoral studies and affiliation to the Doctoral School of Physics.

The West University of Timisoara has regulated the framework for organizing the elections of the governing bodies through specific regulations. Thus, for the time span between 2016 and 2020, the Methodology regarding the elections of the management structures and positions at the West University of Timisoara for the 2016-2020 mandate was prepared (approved by H.S. 63 of 28.07.2015). Based on this methodology, the West University of Timisoara organized several rounds of partial elections, given that some elective positions became available, including for member of the doctoral school councils. The election of students in the management structures of CSUD, respectively on the doctoral school councils is regulated by special, specific documents, intended for the organization of student elections within WUT.

The proper functioning of doctoral studies within IOSUD-UVT is regulated by a series of methodologies and regulations, which explain the institutional norms regarding the organization and functioning of doctoral studies (including doctoral students admission and completion of doctoral studies). Regulations and procedures are publicly available at: doctorat.uvt.ro.

IOSUD-UVT has used internal methodologies and procedures to recognize the doctoral supervisor status based on certificates obtained at universities abroad, as well as to validate doctoral degrees obtained abroad. The methodology is publicly available at <http://doctorat.uvt.ro/?p=4183>.

Elections for the DS Physics UVT Council are held every 4 years. Currently, the Council of the Doctoral School of Physics is composed of:

Prof.Dr. Daniel Vizman -director

Prof.dr. Marius Paulescu -member

CS I Dr. Ladislau Vekas, MC Academia Romana - external member

Prof.dr. Adrian Neagu - external member

The student member of the DS Physics UVT Council will be elected during the next round of elections to be organized as soon as possible. The Council of the Doctoral School of Physics meets at least twice a semester or whenever the circumstances require.

The evaluation panel noted the existence of regulations concerning the relationship between the doctoral student, the doctoral supervisor, and the DS Physics, laid down in the Contract for Doctoral Studies (publicly available at <http://doctorat.uvt.ro/?=3285>). This document specifies the rights and obligations of each of the parties, setting out the doctoral student's pathway through the years of study. Any changes that occur during studies (interruptions of studies, extensions of studies) are stipulated by means of Additional Acts to the Doctoral Studies Contract. In view of the above, the committee notes that the doctoral studies contract regulates in detail the relations between the PhD Student, the DS Physics, and the PhD Supervisor.

Finally, the internal procedures for the analysis and approval of proposals regarding the training for doctoral study programs based on advanced academic studies were also submitted. Upon signing the Study Contract, PhD students complete, together and in agreement with the PhD supervisor, a Research Plan (publicly available at <http://doctorat.uvt.ro/wp-content/uploads/2015/07/Planul-studiilor-doctorale3.pdf>) which specifies the topics and the periods for the submission of progress reports, the training programme based on advanced university studies, the scientific research projects in which the PhD students participate, the mobilities carried out, etc. The PhD supervisor, based on discussions with the PhD student, following analysis of the PhD student's research topic, establishes the guidance committee (publicly available at <http://doctorat.uvt.ro/wp-content/uploads/2015/07/Componenta-comisie->



de-îndrumare.pdf). Research plans and guidance committees are reviewed and approved in the DS Physics UVT Council.

It is considered that the evaluated institution provided all required specific regulations as well as proof of their application at the level of the Doctoral School of the respective university doctoral study domain. When needed, additional documents were provided. Based on the analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself, this performance indicator is fulfilled

Recommendation: The International Expert Evaluator recommends to the evaluated institution to actively promote within their PhD Students the possibility of participating and being elected as a student representative member in the UVT DS Physics Council. Also, the evaluated institution is encouraged to motivate students to take more responsibility and ownership for the development of DS Physics at UVT.

The indicator is fulfilled.

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

The evaluated institution submitted for review regulation of DS Physics. The submitted documents included 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. Based on the analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself, this performance indicator is fulfilled.

The indicator is fulfilled.

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

According to the Self-Assessment Report and the online and on-site visit, the committee found that the DS Physics UVT has the necessary logistical resources to fulfil the mission of the PhD studies in Physics.

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 evaluated institution benefits from a computerized PhD Student management program (IT system). The record of doctoral students and their academic path can be found in the WUT own system: UMS -University Management System, but also in the systems of the Ministry of National Education: REI - Integrated Education Registers; RMU -Unique Matriculation Register.

Recommendations: The evaluated institution is encouraged to further develop their PhD Student management program in order to allow continuous and efficient monitoring of PhD Students and also to achieve almost complete digitalization of the bureaucratic flow within IOSUD and subsequently DS Physics. As a goal, reaching a level of "paperless university" by 2026 can be considered.



The indicator 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.*

IOSUD-UVT uses the online software iThenticate (available at <http://www.ithenticate.com>) as a support tool for academic writing instruction and for checking the similarity percentage. With the help of the software, all doctoral theses are analysed in accordance with internal procedures before their defence in front of the advising committee and before their public defence. The resulting reports are uploaded in full on the national REI platform, so that CNATDCU can check and approve the doctoral files and propose PhD title award. Additionally, the similarity report is accompanied by a statement from the doctoral supervisor assessing the instances of similarity identified by the software.

The methodology described above allows the PhD supervisor to discern whether the similarity is purely mechanical (broad titles, names of institutions, names of documents and normative acts, formulations that have entered into common usage in the language of a given discipline, etc.) and is not a fraudulent assumption of ideas, i.e. it is not plagiarism.

Recommendations: The evaluated institution is encouraged to further promote the use of anti-plagiarism software within their PhD Students at all levels of PhD Thesis development.

The indicator is fulfilled.

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.*

According to the Self-Assessment Report and the online and on-site visit, the committee found that the financial resources at the DS Physics UVT are used optimally, and that income from doctoral studies is complemented with additional funding, such as UVT grants, research projects led by the UVT or DS Physics partners.

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.*

Following the document review and analysis, DS Physics PhD Supervisors were directors or team leaders of a total of 11 competitively research grants for the evaluated period 2016-2020. Currently, there are two grants under implementation. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students, as 9 PhD students were involved in the development of these research grants, of which 5 have completed their thesis.

The indicator is fulfilled.

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 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 3 out of 13 enrolled students. The percentage is equal to 23%, therefore fulfilling this Performance Indicator.

Recommendations: The evaluated institution should develop strategies to attract additional funding sources besides government funding and further increase this ratio within next five years.

The indicator is fulfilled.

Performance Indicator *A.1.3.3.² *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.).*

During the evaluation activities it was clear that DS Physics UVT is pursuing this goal. IOSUD UVT has a methodology which describes that the doctoral student who carries out his/hers activity exclusively in IOSUD-UVT or in national co-supervision, regardless of the form of financing, can benefit annually, during the preparation period of 3 years, from financial support for carrying out training activities in the amount of 10% of the value of an annual doctoral grant, independent of other sources of funding for access by doctoral students to institutional resources for professional training,

However, although during several meetings with students and DS Physics representatives it seems that this amount is available for students, no clear proof of how this amount is distributed or how these grants are implemented was provided.

Recommendations: The evaluated institution is encouraged to establish clear mechanism to designate 10% of the value of an annual doctoral grant to financial support for PhD Students for carrying out training activities as well as actively promoting these opportunities among their PhD Students.

The indicator is partially fulfilled.

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



Criterion A.2. Research infrastructure

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

The research facilities and the equipment available at the DS Physics at UVT are adequate for scientific research activities in the field of physics and contribute successfully to the achievement of its mission and objectives. The research infrastructure and the offer of research services are presented to the public through the ERRIS platform (<https://erris.gov.ro>). In addition to the premises used for its functioning, there is a room for public presentations of doctoral and habilitation theses, as well as for various public conferences. Conferences and symposia can also be held in the UVT's specially equipped rooms, in particular rooms A01 and A11, which are equipped with projection and amplification equipment.

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.*

Research facilities available for PhD Students at Doctoral Domain Physics are truly remarkable, as they fulfill all recent requirements in terms of space distribution, allocated spaces, available complementary services, etc. In terms of research infrastructure, facilities are extremely well equipped with state-of-the art equipment that can clearly help and motivate students to properly engage in their research activities. The research infrastructure and the provision of research services are presented to the public through specific online (website) platforms (www.erris.gov.ro). A great part of the research facilities and/or research equipment was either built or acquired in the last 5 years, which proves the continuous effort of the evaluated institution to provide its students with the best resources for the proper development of their PhD Thesis.

After analyzing the findings from the assessed institution's documents and the evaluation visit itself, it was found the DS Physics UVT PhD students have access to several research laboratories where they can carry out their specific research activity in very good conditions:

- Crystal Growth Laboratory ;
- The Laboratory of Electrodynamics of Dispersed Nanoscale Systems;
- X-ray diffractometry laboratory;
- Mass Spectroscopy Laboratory;
- Solar Platform;
- Applied Electromagnetism Laboratory;
- Waste separation laboratory;
- Crystal Microstructure Characterization Laboratory.

Recommendations: The evaluated institution is encouraged to include on their institutional website (<https://physics.uvt.ro/educatie/doctorat/>) information on the available research infrastructure and the provision of research services.

The indicator is fulfilled.



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.

The DS Physics at UVT integrates only one doctoral field (Physics). The teaching staff is of exceptional quality, as proven by the CNATDCU's far exceeded qualifications and UVT's presence in the renowned Shanghai ranking with the field of Physics. We also mention the existence of full-time researchers DS Physics UVT, who play an important role in maintaining and improving the scientific research base serving DS Physics UVT.

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 Doctoral School of Physics operates with only one doctoral field of study, the field of Physics, with a total of 13 PhD Supervisors, 9 of whom are Full Professors (5 are UVT tenured professors, 2 are full professors at the University of Oradea, one tenured professor at the Timisoara Branch of the Romanian Academy and one tenured professor at the Institute of Electrochemistry and Condensed Matter, Timisoara) and 4 are UVT retirees.

All PhD Supervisors fully meet the CNATDCU 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.

The indicator is fulfilled.

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.*

For the evaluated Doctoral Domain, 5 out 13 PhD advisors have a full-time employment contract for an indefinite period with the IOSUD. However, there is also a collaboration protocol with the Institute of Electrochemistry and Condensed Matter, Timisoara, in an advanced stage of approval at the two institutions, so that one more PhD Supervisor (Prof. Dr. Alina Zamfir) can be also considered as a full professor at IOSUD UVT. Thus, the percentage of all doctoral advisors that have a full-time employment contract for an indefinite period with the IOSUD-UVT is 46,15% (6 out 13).

Several considerations were made when analyzing this Performance Indicator. One of them is the fact that the drop of percentage was caused by a very recent retirement of one PhD Supervisor. Also, it is worth mentioning that the DS Physics UVT is experiencing a positive dynamic, with 5 more habilitation theses currently being completed, as it could be ascertained during the various stages of this evaluation (Conf.dr. Madalin Bunoiu, Conf.dr. Eugenia Paulescu, Conf.dr. Nicoleta Stefu, Lect.dr, Cosmin Crucean, Lect.dr. Victor Ambrus - all fulfilling CNATDCU criteria). This means that this situation is temporary and soon the percentage of all PhD Advisors that have a full-time employment contract for an indefinite period with the IOSUD-UVT will increase considerably. Considering all the above, the evaluation committee deems this indicator as fulfilled.



Recommendations: The evaluated institution is required to accelerate the completion of ongoing Faculty members habilitation theses.

The indicator is fulfilled.

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.*

All teaching staff that participates in the training program are either Full or Associate Professors with proved expertise in the field of the study subjects they teach.

The indicator is fulfilled.

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 programs³ does not exceed 20%.*

Within DS Physics, during the analyzed period, there were no doctoral supervisors who coordinate more than 8 doctoral students simultaneously.

The indicator is fulfilled.

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

After reviewing the documents submitted, the lists of publications and the CVs of the DS Physics UVT members, it was found that the overwhelming majority of PhD supervisors have an internationally recognised scientific activity. This finding is supported by publications in high-impact journals as well as by the number of citations that their publications received in the past years.

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*

³ 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

According to the analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself all PhD supervisors have more than 23 Web of Science indexed publications each in scientific journals with impact factor, proving a substantial overachievement of the benchmark indicated in this criterion. A summary of their achievements is presented in Table 4 of the Self-Assessment Report. The international visibility of the DS Physics UVT members is clearly proven by the high number of citations received by the PhD supervisors' publications in the Web of Science, which, during the period analysed, according to Table 5, is between 100 and 800. International recognition is also confirmed by membership in scientific committees of international publications and conferences as well as membership in boards of international professional associations, membership in PhD committees at universities abroad, PhDs in cotutelle, etc., as listed in the Self-Assessment Report.

The indicator is fulfilled.

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.*

All the PhD supervisors (100%) from DS Physics have been scientifically active in the last 5 years, achieving over 50% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation.

The indicator is fulfilled.

Domain B. EDUCATIONAL EFFECTIVENESS

Online and on-site visits, as well as the analysis of DS Physics provided documents, show a diversity in origin universities of students at DS; the admission methodology provides the framework for a good selection of students, with a clear concern for selecting the best performing students. Students and employers of the graduates show a high level of satisfaction with the professional skills and competences obtained during the doctoral studies. The publications and conference participations of doctoral students illustrate a high level of dissemination of the scientific results obtained. The committees for the public defense of doctoral theses contain a significant number of external referees from prestigious universities and research institutes, both foreign and national.

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.*

According to provided documents, 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, was as follows: 0.4 in 2015/2016, 0 in 2016/2017, 0.2 in 2017/2018, 0.4 in 2018/2019 and 0.2 in 2019/2021. The average over the evaluated period is 0.25.

Although the indicator is clearly fulfilled, here a possible threat is identified, as the number of candidates from other higher education institutions has a tendency to fluctuate, with a one-year situation when the number of masters' programs graduates of other higher education institutions was 0. The evaluated institution should keep an eye on the evolution of this indicator.

Recommendations: The evaluated institution is encouraged to develop functional strategies to attract graduates of masters' programs of other higher education institutions, national or foreign.

The indicator is fulfilled.

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

The admissions methodology ensures a good selection of students, and there is a concern for selecting the best candidates, which leads to a low rate of students being expelled.

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.*

Based on the analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself, it was ascertained that admission to doctoral study programs is based on selection criteria including: previous academic, research and professional performance, their interest for scientific research, publications in the domain and a proposal for a research subject. Compulsory interviewing with the candidate is also part of the admission procedure.

The indicator is fulfilled.



Performance Indicator B.1.2.2. *The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission⁴ does not exceed 30%.*

According to the documents provided, the expelling rate, including renouncement / dropping out of doctoral students 3 years after admission over the last 5 years, it can be seen that 3 students were expelled at 3 years after admission. Considering that the total number of doctoral students admitted to studies during this period was 30, the expelling rate at 3 years after admission is 10%. If we take into account the doctoral students expelled after the first and second year, the ratio is increased to 26.6%. In neither case exceeds 30%. Therefore, this performance indicator is fulfilled.

The indicator is fulfilled.

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.

Following discussions with students, graduates and their employers, a high level of satisfaction with the professional skills and abilities acquired during doctoral studies (courses, scientific research, participation in conferences, etc.) it was found.

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 training program based on advanced university studies at DS Physics includes two optional specialized disciplines that doctoral students can choose depending on the relevance for the scientific research to be carried out within the doctorate. The training programme also includes one course titled "Scientific authorship and research project management" for the in-depth study of scientific authorship and scientific research methodology.

Recommendation: Although students highly appreciated the training program, this Evaluator considers that it can be improved by including new courses that include information on how to effectively present research output, how to make better presentations, how to speak in public and how to properly communicate a scientific message, among others. Furthermore, it is highly recommended to personalize these courses, as far as possible, for each specific doctoral domain.

The indicator is fulfilled.

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

⁴ 3 years for the doctoral university studies with the duration stipulated at Article 159, paragraph (3), respectively 4 years for the doctoral university studies with the duration stipulated at Article 174, paragraph (3) of the Law of national education No. 1/2011 with subsequent amendments and additions.



The curriculum related to the doctoral program in Physics, includes the discipline “Ethics and academic integrity”, which is dedicated to ethics in scientific research, integrity and intellectual property with well-defined topics on these subjects.

The indicator is fulfilled.

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

According to the analysis of the facts, the findings from the assessed institution’s documents and the evaluation visit itself, the IOSUD has proven to have 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

The indicator 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.*

Along the duration of their doctoral training, Phd Students in the evaluated domain receive counselling/guidance from an Guidance committee. The Guidance committees are chosen so that, through the expertise of the members of the committee, they can competently guide the research activity of the PhD student. PhD students have regular meetings with the Guidance committee, in which they present annually, in a research report, the results obtained. The written guidance and feedback are periodically analyzed in accordance with the SD and IOSUD regulations.

The indicator is fulfilled.

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.*

For the Doctoral Domain evaluated, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance is $29/30=0.97$.

The indicator is fulfilled.

⁵ 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.

The analysis carried out focused on the publications and participations in conferences of PhD students and illustrates a high level of dissemination of the scientific results obtained.

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 evaluated institution provided a list of significant works of PhD students who have obtained the title of doctor in the last 5 years as well as one representative article per student. The average of publications/PhD Student was 2.3 items. This reviewer randomly selected 5 papers and all of them contained significant original contributions in the respective domain. In fact, after briefly consulting the list of provided contributions, I was pleasantly surprised by the quality and relevance of almost all contributions (most of them in Q1 and Q2). This clearly reflects the high-quality of the research carried out at the evaluated institution.

The indicator is fulfilled.

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.*

According to the documents provided, for the Doctoral Domain evaluated, 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) was 4.4 (79/18), exceeding the recommended threshold.

The indicator is fulfilled.

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.*



For PhD Theses coordinated by the same doctoral thesis advisor, the number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD did not exceed two (2) in a year in any case.

The indicator 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.*

According to the findings from the assessed institution's documents, 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 past five years and in the same doctoral study domain is below 0.1 for the vast majority of reviewers. There is only one exception, Prof. Dr. Adrian Palcu, whose ratio is 0.38, slightly above the 0.3 threshold. Taking into account the total number of reviewers, this small excess only represents 4% of the total number of reviewers, and the fact that there is a clear trend of not exceeding this limit in the last 2-3 years, this indicator can be considered as fulfilled.

Recommendation: The evaluated institution has to be careful in the future not to exceed the 0.3 ratio between the number of doctoral theses allocated to a certain scientific reviewer from a higher education institution other than the one in which the defence of the doctoral thesis is organized and the number of doctoral theses defended in DS Physics UVT.

The indicator is fulfilled.

Domain C. QUALITY MANAGEMENT

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

From the analysis of the available documents as well as a result of online meetings and on-site visits (including meetings with students and graduates) it can be concluded that the institutional framework for quality assurance is in place and policies and procedures for internal quality assurance are in practice. DS Physics UVT doctoral students have secured access to learning resources and have unrestricted access to the resources necessary to conduct their doctoral studies. There is also a coherent and successful strategy on sustaining international collaborations and increasing the internationalisation of doctoral studies.

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.



From the analysis of the available documents as well as a result of online meetings and on-site visits it was noted the existence of the institutional framework for quality assurance and the application of policies and procedures for 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.*

In order to ensure the quality of the activities carried out within the doctoral schools, IOSUD-UVT has organized periodically internal evaluations of the doctoral schools. The internal evaluation reports followed the evolution of the logistic infrastructure necessary for the research activity, the scientific activity of the doctoral supervisors, respectively the evolution of the procedures and norms based on which the activities within the doctoral schools are carried out. A series of internal audit and control procedures were started within the university. The scientific activity of PhD Supervisors is monitored periodically, on a two year basis, in the context of the CNFIS IC reports. PhD students work in laboratories and research centres whose infrastructure and logistics are managed at the level of specialized faculties

The regulations and procedures are publicly available at <https://doctorat.uvt.ro/?cat=37>. Thus, annually CSUD discusses the frameworks of the admission of doctoral students, proposing customized admission methodologies (available at <https://doctorat.uvt.ro/?cat=43>). Admission to doctoral studies in IOSUD-UVT is carried out transparently and the enrolment information is disseminated efficiently. Thus, the number and type of available places are announced on the website, as well as the distribution of places to doctoral schools and fields of doctoral studies. IOSUD-UVT also has clear procedures for completing doctoral studies. Drafted on the basis of national legislation and compliant with national platforms for the validation of doctoral degrees (Integrated Education Register and the Unique Matriculation Register), these procedures include information on the stages prior to defending the doctoral thesis and the conditions for defending it.

The scientific and artistic creation activity of doctoral students is carefully supervised by the doctoral supervisors and the advising committees. The list of own works accompanies each doctoral thesis submitted for analysis.

Upon signing the Study Contract, the doctoral students complete, together and in agreement with the doctoral supervisor, a Research Plan (available at <http://doctorat.uvt.ro/wp-content/uploads/2015/07/Planul-studiilor-doctorale3.pdf>), in which are specified the topics and times for presenting the progress reports, the training programme based on advanced university studies, the scientific research projects in which the doctoral students participate, the mobilities carried out, etc.

The University social service manages the accommodation process of doctoral students in dormitories and ensures the maintenance of accommodation spaces. The Career Counselling and



Guidance Center (<http://www.ccoc.uvt.ro>) of WUT offers students guidance and vocational counselling services, as well as psychological counselling if needed.

The indicator 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 evaluated institution has tools and mechanisms in place to identify the needs and satisfaction of students through specific questionnaires. These questionnaires allow for a permanent analysis and feedback mechanism for students on different aspects of the educational act carried out within the DS Physics.

However, it was somehow concerning that most of the PhD students were unaware of the existence of a student satisfaction questionnaire, and it was not clear evidence that an action plan was drafted and implemented based on answers of the aforementioned questionnaires.

Recommendations:

- *In order to create a real climate of quality culture, the institution is encouraged to promote the purpose and benefits of quality assurance procedures among both staff and students. The student satisfaction questionnaires should be filled at least once a year by the majority of PhD Students. Consequently, the evaluation results should be considered for strategic decision-making. Both the results as well as the consequences are highly recommended to be made publicly available (as for example, on the institutional website).*
- *The evaluated institution is encouraged to try to motivate students to take more responsibility and ownership for the development of DS Physics UVT (to promote the possibility to apply as a student member in the CSD).*

The indicator is fulfilled.

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

From the analysis of the available documents as well as a result of online meetings and on-site visits (including meetings with students and graduates) it can be concluded that PhD students were provided access to learning resources. The evaluation committee finds that the DS Physics UVT provides doctoral students with unrestricted access to the resources needed to carry out their doctoral studies.

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

From the analysis of the available documents as well as a result of online meetings and on-site visits it was noted that the evaluated institution ensures information and access to it for doctoral students, potential candidates, all information of public interest is available for electronic access.



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.*

According to the description of the facts, the findings from the assessed institution's documents, the consulted websites and the evaluation visit itself it can be concluded that the IOSUD publishes, in compliance with the general regulations on data protection, on several websites related with the Doctoral domain evaluated:

<https://doctorat.uvt.ro/>

<https://physics.uvt.ro/admitere/admitere-doctorat/>

<https://physics.uvt.ro/educatie/doctorat/>

relevant information on:

- the Doctoral School regulation;
- the admission regulation;
- the doctoral studies contract;
- the study completion regulation including the procedure for the public presentation of the thesis;
- the content of training program based on advanced academic studies;
- the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data;
- the list of doctoral students within the domain with necessary information (year of registration; advisor);
- information on the standards for developing the doctoral thesis;
- 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.

IOSUD-UVT publishes on its website relevant information regarding the organization and functioning of doctoral studies within the university. Thus, on the site can be found the Institutional Regulation on the organization and functioning of doctoral studies as well as a whole series of concrete information on enrolment in doctoral studies, conducting doctoral studies/research, and the public defence of the doctoral thesis. The other (specific) doctoral regulations, in particular the regulations and procedures for the public defence of the doctoral thesis, are also presented in detail on the website.

The doctoral schools sum up and customize, on their own sites or in sections on the websites of the faculties, information regarding the development of doctoral studies depending on the fields. Thus, the particular regulations of doctoral schools are published, information on admissions to doctoral studies



(number of places and their types, admission methodologies, admission schedule, topics proposed by doctoral supervisors, etc.), information on the actual functioning of doctoral studies (content of study programmes, information on conferences and trainings organized by the university, etc.), as well as information on the organization and public defence of doctoral theses.

Recommendations: The evaluated institution is encouraged to re-organize information on their website (<https://physics.uvt.ro/educatie/doctorat/>) in order to simplify access paths and to make retrieving information an easier task. This evaluator had difficulties to find some relevant information. Also, the evaluated institution should post regularly links to the doctoral theses' summaries and habilitation thesis to be publicly presented and the date, time, place where they will be presented on their institutional website (as for the moment is only done at IOSUD level); this information will be communicated at least twenty days before the presentation.

The indicator is fulfilled.

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

The evaluated institution provides doctoral students with unrestricted access to the resources needed for conducting doctoral studies (scientific documentation, help in editing scientific papers and theses, free access to research laboratories, dissemination).

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.

All PhD Students are granted access to the University Main Library. UVT benefits through the ANELIS Plus 2020 National Project of online access to scientific electronic resources (databases/platforms of scientific journals with full text and bibliographic and bibliometric databases) to support research, education, innovation and stimulate scientific production.

The indicator is fulfilled.

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

The evaluated institution proved the use of one of the best plagiarism check (percentage of similarity) softwares (iThenticate). This grants access to each PhD Student to an electronic system for verifying the degree of similarity with other existing scientific or artistic works.

PhD students can receive access/become holders of an iThenticate account upon request. The Information Technology department will grant access after verifying their doctoral student status.

Recommendations: the evaluated institution is encouraged to further promote the use of anti-plagiarism software within their PhD Students at all levels of PhD Thesis development.

The indicator is fulfilled.



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

The doctoral studies contracts stipulate the right of doctoral students to have access to the WUT libraries, respectively to the different research laboratories, depending on the specific field. Thus, PhD students from DS Physics have access to all the laboratories described at Indicator A2.1.1. It is noteworthy that PhD Students are involved as active members in the research projects of doctoral supervisors or members of the guidance committees.

The indicator is fulfilled.

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.

According to the description of the facts, the findings from the assessed institution's documents, the consulted websites and the evaluation visit itself it was observed a coherent and successful strategy for sustaining DS Physics UVT international collaborations and increasing the internationalization of the 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.*

According to the documents provided by the institution regarding the participation in international conferences of doctoral students who completed their thesis during the evaluated period, it results that a number of 10 doctoral students participated in international conferences organized abroad, which represents a percentage of 55% of the total number of doctoral students who completed their thesis in this period.

Although it seems that IOSUD drafts and applies policies and measures aiming at increasing the number of doctoral students participating at mobility periods abroad, it is still room for improvement regarding PhD Students' research training and internships in external institutions.

Recommendations: Increase the number of students' research training and internships in external institutions (mobility period abroad). It is highly recommended for each student to perform a research internship of at least three months outside the evaluated institution during his/hers PhD Thesis development.

The indicator is fulfilled.

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.*

According to the analysis of the facts, the findings from the assessed institution's documents and the evaluation visit itself, it was clear that within the evaluated Doctoral Domain - Physics is an international opening related to the co-opting of foreign students and for the organization of doctorates in international co-tutelage. For the evaluated period, a thesis in international co-supervision was completed and there is an ongoing thesis co-supervised by doctoral student Iuliana Vladisavlevici, with the University of Bordeaux. The two PhD students who work(ed) on a joint supervision thesis have been financially supported through research funds attracted through projects by the doctoral supervisor, so that each has spent at least 1.5 years at the partner university.

SD Director and Council members showed a continuing concern regarding the invitation of leading experts and specialists for lectures of interest for PhD students. Nevertheless, for the evaluated period, the number of leading experts in different fields of research (from both within and outside Romania) to give lectures to PhD students enrolled at the SD was low. The same applies to doctorates in co-tutelage with both national and international institutions. However, this indicator does not assess number of invited experts or PhD thesis co-tutelage; it evaluates if proper support for these activities is granted. In this sense, the Performance Indicator is considered to be fulfilled.

Recommendations:

- *The evaluated institution is encouraged to increase the percentage of foreign (international) participants within PhD Committees. As a possible target, a recommendation would be that 50% of PhD Committees should benefit from the presence of an international reviewer.*
- *The evaluated institution should increase its collaborative effort into realizing a higher number of doctorates in co-tutelage with both national and international institutions.*
- *It is recommended to invite more leading experts in different fields of research (from both within and outside Romania) to give lectures to PhD students enrolled at the SD.*

The indicator is fulfilled.

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 West University of Timișoara is an active participant in the international fairs organized for the dissemination of its international studies offer. Also, through partnerships with several stakeholders, the university attracts international students from North African countries or the Arabian Peninsula. In the time period under analysis, a number of researchers and professors from foreign universities were integrated in the activity of doctoral schools. Thus, in doctoral schools are affiliated, as doctoral coordinators, a number of researchers or professors from foreign universities; also, researchers or professors from institutes and universities abroad were integrated in the guidance committees of some doctoral researches, respectively in the public defense committees of some doctoral theses.



Recommendations:

- *The evaluated institution is encouraged to increase the percentage of international experts in guidance committees or doctoral committees as close as possibly to 50% within next 5 years.*
- *The evaluated institution is encouraged to create a complete English version of its website and to offer, if applicable, teaching alternatives and guidance in English.*

The indicator is fulfilled.



IV. SWOT Analysis

<u>Strengths:</u>	<u>Weaknesses:</u>
<ul style="list-style-type: none">- Within the Doctoral School of Physics of the West University of Timisoara, DS Physics UVT, a high performance scientific research activity is carried out, validated by a large number of WoS rated articles, with undeniable recognition (large number of citations) and presence in the Shanghai ranking, where UVT is ranked first in Romania in the field of Physics.- Low ratio of PhD Students / PhD Supervisor;- Very good research facilities, with several unique laboratories at national level (Crystal Growth Laboratory, Mass Spectroscopy Laboratory, Solar Platform).- Positive dynamics regarding the development of the research facilities - state-of-the-art equipment of a recently built institute, ICAM, is underway.- A functional institutional capacity proven both by the quality of the teaching and research staff and by the administrative structure of IOSUD UVT, which has a constant concern in supporting the training process of PhD students.- The competences formed are successfully confirmed by the low dropout rate and by the fact that all graduates work in fields related to the scientific training obtained in the doctoral school.- The high degree of dissemination and valorisation of the scientific results obtained by the PhD students (published articles, participation in conferences).- Doctoral students benefit from IOSUD financial resources to cover expenses related to their professional training (participation in international conferences, publication of articles, etc.);- Positive feedback from students, graduates and employers;- Existence of collaboration protocols with other higher education institutions, research centres or economic agents ensuring access of doctoral students to the research infrastructure of partner institutions;	<ul style="list-style-type: none">- The process of electing student representative within DS Council.- The information contained on the DS webpage is not complete and information is sometimes difficult to find.- Funding for PhD Students from other sources.- Reduced number of applicants for admission at Doctoral studies.

<u>Opportunities:</u>	<u>Threats:</u>
<ul style="list-style-type: none"> - Existence of a high number of faculty members who are in the process of writing/finishing their habilitation thesis, therefore a significant increase of PhD Supervisor is expected in the near future. - Excellent links with industry and research institutes (potential employers and partners in research projects).The development of industrial doctorate could be an excellent opportunity to strenghten links with industrial partners as well as to attract more student to DS. Other possibilities might arise by attracting industrial partners into private-funded research labs. - Excellent relationship with the Universities in the consortium. - Building and equipping a new advanced research institute, ICAM, in which physics will benefit from at least one dedicated laboratory. - Open up UVT to support scientific research in physics. - Accelerated development of scientific collaborations thanks to the remarkable improvement of the infrastructure for on-line activities. - Development of new international partnerships to increase the number of students participating in mobilities; - Increasing the number of co-tutelage doctorate might be a way of attracting more students towards Physics Doctoral Domain. - Access to additional sources of funding (DAAD grants, Marie Curie, etc.) to support the research activities of doctoral students; - Implement a feedback mechanism from graduates and their employers to improve the content of the advanced degree-based training programme; 	<ul style="list-style-type: none"> - Unpredictability of scientific research funding at national level. - Insufficient concern for the development of science literacy in pre-university education. - Decrease in the number of applicants due to the introduction of doctoral studies in Physics at other Universities and/or Institutes of the Romanian Academy in the same geographic area; - Decrease in the number of applicants for admission due to the decreasing interest in the field and/or the low visibility of IOSUD/ DS Physics. The evaluated institution should be more proactive on identifying and recruiting possible PhD candidates and to ensure that they have available, in an accessible and prompt manner, as much information as possible on all relevant aspects of the institution

V. Overview of judgments awarded and of the recommendations

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
1.	PI	<p>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:</p> <p>a) the internal regulations of the Doctoral School;</p> <p>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;</p> <p>c) the Methodologies for organizing and 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>	Fulfilled	The International Expert Evaluator recommends to the evaluated institution to actively promote within their PhD Students the possibility of participating and being elected as a student representative member in the UVT DS Physics Council. Also, the evaluated institution is encouraged to motivate students to take more responsibility and ownership for the development of DS Physics at UVT.
2.	PI	<p>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.</p>	Fulfilled	
3.	PI	<p>A.1.2.1. The existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.</p>	Fulfilled	The evaluated institution is encouraged to further develop their PhD Student management program in order to allow continuous and efficient monitoring of PhD Students and also to achieve almost complete digitalization of the bureaucratic flow within IOSUD and subsequently DS Physics. As a goal, reaching a level of "paperless university" by 2026 can be considered.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
4.	PI	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.	Fulfilled	The evaluated institution is encouraged to further promote the use of anti-plagiarism software within their PhD Students at all levels of PhD Thesis development.
5.	IP	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.	Fulfilled	
6.	PI *	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%.	Fulfilled	The evaluated institution should develop strategies to attract additional funding sources besides government funding and further increase this ratio within next five years.
7.	PI *	A.1.3.3. 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.).	Partially Fulfilled	The evaluated institution is encouraged to establish clear mechanism to designate 10% of the value of an annual doctoral grant to financial support for PhD Students for carrying out training activities as well as actively promoting these opportunities among their PhD Students.
8.	CPI	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,	Fulfilled	The evaluated institution is encouraged to include on their institutional website (https://physics.uvt.ro/educatie/doctorat/) information on the available research

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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		infrastructure and the provision of research services.
9.	CPI	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.	Fulfilled	
10.	PI *	A.3.1.2. At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.	Fulfilled	The evaluated institution is required to accelerate the completion of ongoing Faculty habilitation theses.
11.	PI	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.	Fulfilled	
12.	PI *	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 does not exceed 20%.	Fulfilled	
13.	CPI	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	Fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		<p>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>		
14.	PI *	<p>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</p>	Fulfilled	
15.	PI *	<p>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.</p>	Fulfilled	<p>The evaluated institution is encouraged to develop functional strategies to attract graduates of masters' programs of other higher education institutions, national or foreign.</p>

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
16.	PI *	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.	Fulfilled	
17.	PI	B.1.2.2. The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission does not exceed 30%.	Fulfilled	
18.	PI	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.	Fulfilled	Although students highly appreciated the training program, this Evaluator considers that it can be improved by including new courses that include information on how to effectively present research output, how to make better presentations, how to speak in public and how to properly communicate a scientific message, among others. Furthermore, it is highly recommended to personalize these courses, as far as possible, for each specific doctoral domain.
19.	PI	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.	Fulfilled	
20.	PI	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.	Fulfilled	
21.	PI	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.	Fulfilled	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
22.	CPI	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.	Fulfilled	
23.	CPI	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	Fulfilled	
24.	PI *	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.	Fulfilled	
25.	PI *	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.	Fulfilled	
26.	PI *	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.	Fulfilled	The evaluated institution has to be careful in the future not to exceed the 0.3 ratio between the number of doctoral theses allocated to a certain scientific reviewer from a higher education institution other than the one in which the defence of the doctoral thesis is organized and the number of doctoral theses defended in DS Physics UVT.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
27.	PI	<p>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:</p> <ul style="list-style-type: none"> 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. 	Fulfilled	
28.	PI *	<p>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.</p>	Fulfilled	<p>In order to create a real climate of quality culture, the institution is encouraged to promote the purpose and benefits of quality assurance procedures among both staff and students. The student satisfaction questionnaires should be filled at least once a year by the majority of PhD Students. Consequently, the evaluation results should be considered for strategic decision-making. Both the results as well as the consequences are highly recommended to be made publicly available (as for example, on the institutional website).</p> <p>The evaluated institution is encouraged to try to motivate students to take more responsibility and ownership for the development of DS Physics UVT (to promote the possibility to apply as a student member in the CSD).</p>
29.	CPI	<p>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:</p> <ul style="list-style-type: none"> a) the Doctoral School regulation; b) the admission regulation; 	Fulfilled	<p>The evaluated institution is encouraged to re-organize information on their website (https://physics.uvt.ro/educatie/doctorat/) in order to simplify access paths and to make retrieving information an easier task. This evaluator had difficulties to find some</p>

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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.		relevant information. Also, the evaluated institution should post regularly links to the doctoral theses' summaries and habilitation thesis to be publicly presented and the date, time, place where they will be presented on their institutional website (as for the moment is only done at IOSUD level); this information will be communicated at least twenty days before the presentation.
30.	PI	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.	Fulfilled	
31.	PI	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.	Fulfilled	The evaluated institution is encouraged to further promote the use of anti-plagiarism software within their PhD Students at all levels of PhD Thesis development.
32.	PI	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.	Fulfilled	
33.	PI *	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	Fulfilled	Increase the number of students' research training and internships in external institutions (mobility period abroad). It is highly recommended for each student to perform a research internship of at least three months outside the evaluated institution during his/hers PhD Thesis development.

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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.		
34.	PI	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.	Fulfilled	<p>The evaluated institution is encouraged to increase the percentage of foreign (international) participants within PhD Committees. As a possible target, a recommendation would be that 50% of PhD Committees should benefit from the presence of an international reviewer.</p> <p>The evaluated institution should increase its collaborative effort into realizing a higher number of doctorates in co-tutelage with both national and international institutions.</p> <p>It is recommended to invite more leading experts in different fields of research (from both within and outside Romania) to give lectures to PhD students enrolled at the SD.</p>
35.	PI	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.).	Fulfilled	<p>The evaluated institution is encouraged to increase the percentage of international experts in guidance committees or doctoral committees as close as possibly to 50% within next 5 years.</p> <p>The evaluated institution is encouraged to create a complete English version of its website and to offer, if applicable, teaching alternatives and guidance in English.</p>



VI. Conclusions and general recommendations

The Doctoral Study Domain Physics within IOSUD West University of Timisoara (UVT) is of remarkable quality and benefits of highly qualified PhD Supervisors, with significantly number of publication and international visibility; a low ratio of PhD Students / PhD Supervisor and a high number of research output (research articles, meeting abstracts, conference papers, etc.) / PhD Student. Also, PhD Students at DS Physics can benefit of very good research facilities, with several unique laboratories at national level (Crystal Growth Laboratory, Mass Spectroscopy Laboratory, Solar Platform). Furthermore, there is a positive dynamic regarding the development of the research facilities. The competences formed are successfully confirmed by the low dropout rate and by the fact that all graduates work in fields related to the scientific training obtained in the doctoral school. The discussions held during this evaluation showed that the DS graduates have found jobs in the field in which they studied and trained, their competences being also highlighted by the favorable opinions of the employers' representatives expressed during the evaluation.

The high level of the DS Physics UVT is also proved by the existence of collaboration protocols with other higher education institutions, research centers or economic agents, ensuring access of doctoral students to the research infrastructure of partner institutions as well as the development of national and international scientific collaborations, which have led, in addition to internships in research institutes and universities in Romania and abroad, to the development of co-tutelle theses.

Some weaknesses were also identified, such as the incomplete (or difficult to find) information contained on the DS webpage, the inconsistencies related to the process of electing student representative within DS Council, funding for PhD Students from different sources and the reduced number of applicants for admission at Doctoral studies. Possible threats have also been identified, such as the unpredictability of scientific research funding at national level, the decrease in the number of applicants due to the introduction of doctoral studies in physics at universities/institutes of the Romanian Academy in the same geographic area or the decrease in the number of applicants for admission due to the decreasing interest in the field and/or the low visibility of IOSUD/ DS Physics. In this sense, the institution should be more proactive on identifying and recruiting possible PhD candidates and to ensure that they have available, in an accessible and prompt manner, as much information as possible on all relevant aspects of the institution

Nevertheless, DS Physics at UVT can benefit on the future from the existence of a high number faculty members who are in the process of writing/finishing their habilitation thesis, therefore a significant increase of PhD Supervisor is expected. Also, due to the excellent links with industry and research institutes (potential employers and partners in research projects), industrial doctorate development could be an excellent opportunity to strengthen links with industrial partners as well as to attract more student to DS. The undergoing building and equipping a new advanced research institute, ICAM, in which physics will benefit from at least one dedicated laboratory, it is expected to attract more PhD Students in the future. In the field of internationalization, the development of new international partnerships to increase the number of students participating in mobilities; the increase of the number of co-tutelages doctorate and access to additional sources of funding (DAAD grants, Marie Curie, etc.) to support the research activities



of doctoral student might be an effective way of attracting more students towards Physics Doctoral Domain at UVT.

From a formal quantitative point of view, all critical performance indicators have been qualified as met. Except for one performance indicator, indicator A.1.3.3, all other performance indicators were also rated as met. Indicator A.1.3.3, which is not critical, was rated partially met because at the time of the assessment, the evaluated institution could not provide evidence of the redistribution of 10% of the total amount of doctoral grants obtained by the university and tuition fees for student training, because the doctoral school does not directly administer these funds. Following discussions with doctoral students and DS graduates, they confirmed the possibility of accessing university/doctoral school grants to cover training activities such as participation in scientific conferences or payment of publication fees for scientific articles. However, there is no clear methodology for the allocation of these funds and no clear system for the traceability of these financial allocations, which shall be regulated at IOSUD level.

In conclusion, the educational and research activity in the Physics PhD field at the West University of Timisoara meets all the evaluation criteria, often exceeding the quantitative indicators, as a result of the full involvement of the PhD supervisors, all the teaching staff and decision makers, providing an example of excellence worthy of being followed.

VII. Annexes

- *The detailed schedule of the evaluation visit – MANDATORY.*



AGENȚIA ROMÂNĂ DE ASIGURARE A CALITĂȚII ÎN ÎNVĂȚĂMÂNTUL SUPERIOR
 Membră în Asociația Europeană pentru Asigurarea Calității în Învățământul Superior - ENQA
 Înscrișă în Registrul European pentru Asigurarea Calității în Învățământul Superior - EQAR

Nr.5038 /15.09.2021

Programul¹ vizitei de evaluare instituțională - IOSUD / domeniul de studii universitare de doctorat

The timetable of the institutional evaluation visit - IOSUD / doctoral study domains at the UNIVERSITATEA DE VEST DIN TIMIȘOARA - WEST UNIVERSITY OF TIMIȘOARA

Perioada de derulare a vizitei: 11-15.10.2021

The evaluation period: 11-15.10..2021

Evaluarea Externă Periodică a IOSUD și a domeniilor de studii universitare de doctorat

Periodical External Evaluation of the Institution Organising Doctoral Study Programs (IOSUD), and of the doctoral study domains

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
Luni / Monday, 11.10.2021			
09:00-09:45	Întâlnire preliminară online pentru pregătirea și armonizarea etapelor de evaluare, în modul mixt, la nivel de domenii de doctorat și IOSUD <i>Online preliminary meeting for the preparation and harmonization of evaluation</i>	Comisia de evaluare IOSUD&domeniul IOSUD&domains evaluation panel - toți membrii echipei de evaluare <i>all evaluation panel members</i>	Înregistrare audio-video ARACIS / platforma ZOOM (apăsați aici pentru a vă conecta) <i>Audio-video recording ARACIS / ZOOM platform (click here to join)</i>

¹ În perioada vizitei, pot fi solicitate și alte întâlniri, pentru eventuale clarificări.
During the visit, other meetings may be requested for possible clarifications.

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	<i>steps, in hybrid mode, of doctoral study domains and IOSUD</i>		
10:00-10:45	<p>Întâlnirea online a comisiei de experți evaluatori cu reprezentanții conducerii universității și ai CSUD</p> <p><i>Online meeting with representatives of the institution and of the Council for Academic Doctoral Studies (CSUD)</i></p>	<p>Comisia de evaluare IOSUD&domenii <i>IOSUD&domains evaluation panel</i></p> <p>- toți membrii echipei de evaluare <i>all evaluation panel members</i></p> <p>- reprezentanți ai conducerii <i>representatives of the University's management</i></p> <p>- reprezentanți ai CSUD și ai școlii/școlilor doctorale <i>representatives of the CSUD and of the Doctoral School /Schools</i></p> <p>- persoana de contact IOSUD/domenii <i>the contact person for IOSUD / doctoral domains</i></p>	<p>Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording UVT / ZOOM platform (click here to join)</i></p>
12:00-12:55	<p>Activități de evaluare</p> <p><i>Evaluation activities</i></p> <p>IOSUD: Întâlnire online a comisiei de experți evaluatori cu directorul CSUD/directorii școlilor doctorale din IOSUD supus procesului de evaluare și cu echipa care a realizat raportul de evaluare internă</p> <p><i>IOSUD: Online meeting with the director of CSUD / directors of doctoral schools and the</i></p>	<p>Comisia de evaluare IOSUD <i>IOSUD evaluation panel</i></p> <p>- membrii comisiei de experți evaluatori IOSUD <i>members of IOSUD evaluation panel</i></p> <p>- reprezentanți ai CSUD și ai școlii/școlilor doctorale/ IOSUD <i>representatives of CSUD and of doctoral school(s)/IOSUD</i></p>	<p>Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording UVT / ZOOM platform (click here to join)</i></p>

2

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	<i>team who drafted the internal evaluation report</i>		
13:00-13:55	<p>Activități de evaluare</p> <p><i>Evaluation activities</i></p> <p>Domeniu II²: Întâlnire online a comisiei de experți evaluatori cu responsabilul domeniului de studii universitare de doctorat evaluat și cu echipa care a realizat raportul de evaluare internă</p> <p><i>Domain I: Online meeting with the contact person for the doctoral study domain under review and the team who drafted the internal evaluation report</i></p>	<p>Comisia de evaluare domeniu Domeniu II (Fizica) <i>Domain II evaluation panel (Physics)</i></p> <p>-membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i></p> <p>-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></p>	<p>Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording UVT / ZOOM platform (click here to join)</i></p>
14:00– 15:00	<p>Activități de evaluare</p> <p><i>Evaluation activities</i></p> <p>IOSUD: Întâlnire online a comisiei de experți evaluatori cu personalul didactic aferent școlilor doctorale din IOSUD</p> <p><i>IOSUD: Online meeting with IOSUD academic staff</i></p>	<p>Comisia de evaluare IOSUD <i>IOSUD evaluation panel</i></p> <p>- membrii comisiei de experți evaluatori IOSUD <i>members of IOSUD evaluation panel</i></p> <p>- cadre didactice cu titlul de conducător de doctorat <i>Doctoral coordinators</i></p>	<p>Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording UVT / ZOOM platform (click here to join)</i></p>

3

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	<p>Domeniu II: Întâlnire online a comisiei de evaluare cu studenții doctoranzi</p> <p><i>Domain II: Online meeting with PhD students</i></p>	<p>- membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i></p> <p>- studenții doctoranzi <i>PhD students</i></p>	<p>(click here to join)</p>
10:30-11:25	<p>Activități de evaluare <i>Evaluation activities</i></p> <p>IOSUD: Întâlnire online a comisiei de evaluare cu studenții doctoranzi</p> <p><i>IOSUD: Online meeting with PhD students</i></p>	<p>Comisia de evaluare IOSUD <i>IOSUD evaluation panel</i></p> <p>- membrii comisiei de experți evaluatori IOSUD <i>members of IOSUD evaluation panel</i></p> <p>- studenții doctoranzi <i>PhD students</i></p>	<p>Înregistrare audio-video ARACIS / platforma ZOOM (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording ARACIS / ZOOM platform</i> (click here to join)</p>
11:30-12:25	<p>Activități de evaluare <i>Evaluation activities</i></p> <p>IOSUD: Întâlnire cu membrii Consiliului Studiilor Universitare de Doctorat al IOSUD</p> <p><i>IOSUD: Online meeting with Doctoral University Studies Council (CSUD) members</i></p>	<p>Comisia de evaluare IOSUD <i>IOSUD evaluation panel</i></p> <p>- membrii comisiei de experți evaluatori IOSUD <i>members of IOSUD evaluation panel</i></p> <p>- membrii CSUD <i>CSUD's members</i></p>	<p>Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording UVT / ZOOM platform</i> (click here to join)</p>
13:30 - 14:25	<p>Activități de evaluare <i>Evaluation activities</i></p> <p>Domeniu II: Întâlnire online cu membrii Consiliului școlii /școlilor</p>	<p>Comisia de evaluare domeniu Domeniu II (Fizica) <i>Domain evaluation panel II (Physics)</i></p>	<p>Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording UVT / ZOOM platform</i> (click here to join)</p>

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	doctorale (CSD) în cadrul cărora funcționează domeniul evaluat <u>Domain:</u> Online meeting with Doctoral Schools Council (CSD members)	- membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i> -membrii CSD <i>CSD's members</i>	
14:30 - 15:30	Întâlnire online cu membrii Comisiei de Etică a universității <i>Online meeting with the members of the Ethics Commission</i>	Comisia de evaluare IOSUD&domenii <i>IOSUD&domains evaluation panel</i> - toți membrii echipei de evaluare <i>all evaluation panel members</i> -membrii Comisiei de Etică <i>Ethics Commission members</i>	Înregistrare a (apăsați >) A
16:35-17:20	Activități de evaluare <i>Evaluation activities</i> <u>Domainu II:</u> Întâlnire online a comisiei de evaluare cu reprezentanți ai absolvenților domeniului <u>Domain II:</u> Online meeting graduates for the doctoral study d'	Comisia de evaluare Domeniu II (Fizic) <i>Domain evc'</i> <i>II (Physics)</i>	

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
17:30-18:30	Activități de evaluare <i>Evaluation activities</i> <u>IOSUD:</u> Întâlnire online a comisiei de evaluare cu reprezentanți ai absolvenților IOSUD <u>IOSUD:</u> Online meeting with IOSUD graduates	Comisia de evaluare IOSUD <i>IOSUD evaluation panel</i> - membrii comisiei de experți evaluatori IOSUD <i>members of IOSUD evaluation panel</i> - reprezentanți ai absolvenților <i>representatives of doctoral graduates</i>	Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta) <i>Audio-video recording UVT / ZOOM platform (click here to join)</i>
Miercuri / Wednesday, 13.10.2021			
09:00 -09:45	Întâlnire tehnică online, pentru identificarea aspectelor specifice care trebuie clarificate, dacă este cazul, pe parcursul vizitei la fața locului <i>Online technical meeting to identify specific issues that need to be clarified, if necessary, during the on-site visit</i>	Comisia de evaluare IOSUD&domenii <i>IOSUD&domains evaluation panel</i> - toți membrii echipei de vizită <i>all evaluation panel members</i>	Înregistrare audio-video ARACIS / platforma ZOOM (apăsați aici pentru a vă conecta) <i>Audio-video recording ARACIS / ZOOM platform (click here to join)</i>
10:50-11:35	Activități de evaluare <i>Evaluation activities</i> <u>Domainu II:</u> Întâlnire online cu directorii/responsabilii centrelor/laboratoarelor de cercetare aferente domeniului de studii universitare de doctorat	Comisia de evaluare domeniu Domeniu II (Fizica) <i>Domain evaluation panel II (Physics)</i> - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>	Înregistrare audio-video UVT / platforma (apăsați aici pentru a vă conecta) <i>Audio-video recording UVT / ZOOM platform (click here to join)</i>

Data/ora Date/hour (Bucharest time)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	<p>IOSUD: Întâlnire online a comisiei de evaluare cu reprezentanți ai angajatorilor absolvenților</p> <p><i>IOSUD: Online meeting with employers of doctoral graduates</i></p>	<p>- membrii comisiei de experți evaluatori IOSUD <i>members of IOSUD evaluation panel</i></p> <p>- reprezentanți ai angajatorilor <i>employers' representatives</i></p>	<p>Audio-video recording UVT / ZOOM platform (click here to join)</p>
Joi / Thursday, 14.10.2021			
09:00-18:00	<p>Reuniuni de lucru față în față³, vizitarea bazei materiale didactice și de cercetare</p> <p><i>Face-to-face working meetings, visiting the educational and research infrastructure</i></p>	<p>- directorul de misiune și coordonatorul, un student doctorand evaluator <i>the Evaluation Director and the coordinator of the IOSUD evaluation panel, one student</i></p> <p>- reprezentanți ai universității <i>university's representatives</i></p>	<p>Vizită UNIVERSITATE <i>Site visit to the university</i></p>
Vineri / Friday, 15.10.2021			
10:00-11:30	<p>Întâlnire online pentru concluzii <i>Online meeting for conclusions</i></p>	<p>Comisia de evaluare IOSUD&domenii <i>IOSUD&domains evaluation panel</i></p> <p>- toți membrii echipei de evaluare</p>	<p>Înregistrare audio-video ARACIS / platforma ZOOM (apăsați aici pentru a vă conecta)</p> <p><i>Audio-video recording ARACIS / ZOOM platform</i></p>

³ 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.*

