

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

## **University of Oradea**

## **November 2021**



## CONTENTS

I. Introduction .....	3
II. Methods used .....	6
III. Analysis of performance indicators .....	8
IV. SWOT analysis .....	38
V. Overview of judgments awarded and of the recommendations .....	40
VI. Conclusions and general recommendations .....	49
VII. Annexes .....	52

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

In this chapter, the following shall be summarized:

- the context in which this external evaluation report was drafted (**the type of evaluation, the period of the evaluation visit, the composition of the Experts Committee etc.**);

As an international external evaluator, first of all I want to mention that I am honored to be a component part of the accreditation commission of the field of doctoral studies - **Agronomy**. Due to the COVID-19 pandemic restrictions, all meetings took place online on the ZOOM platform with links directly accessible from the program - for each day and time of the meeting, sent on 12.11.2021. The online meetings were based on discussions with the representatives of the university management and CSUD, the head of the evaluated doctoral university field and the team that made the internal evaluation report, teachers with the title of doctoral supervisor, members of the Ethics Commission, representatives of CEAC/AC Department, doctoral students, representatives of graduates, directors of research centers/laboratories, CSD members, representatives of employers, as well as during 18-19.11.2021 visiting the teaching and research material base at the University of Oradea. Discussions based on the analysis of the internal evaluation report of IOSUD (all the documentation regarding the evaluation of doctoral studies on the ARACIS website at: <https://www.aracis.ro/ghid-raport-de-autoevaluare/>), site - University of Oradea ([www.uoradea.ro](http://www.uoradea.ro)).

This external evaluation report was drafted as a result of the Periodic External Evaluation visit of IOSUD and the fields of doctoral studies at the University of Oradea, between 15.11.2021 - 22.11.2021.

**The objective of the external evaluation: *periodic evaluation***

**Visit period: *November 15 - 22, 2021***

**Doctoral field: Agronomy**

**Composition of the evaluation commission of the Agronomy field:**

<b>PhD, Assoc. Prof. Samuil Costel</b>	University for Life Sciences „Ion Ionescu de la Brad" in Iasi
<b>PhD, Assoc. Prof. Olessea Cojocar</b>	State Agrarian University of Chisinau, Republic of Moldova
<b>Drd. Şuba Anka-Roxana</b>	University of Agricultural Sciences and Veterinary Medicine of Banat „Regele Mihai I of Romania" in Timisoara

- **details about the doctoral school(s) of which the doctoral domain under review is part (number of doctoral advisors, number of students, institutional context, short history etc.);**

IOSUD is legally represented by the University of Oradea (U.O), and the head of the institution (U.O), which legally represents IOSUD, is the Rector (U.O) (GD 621/2011). IOSUD - The University of Oradea is an accredited higher education institution that organizes doctoral studies in 18 doctoral fields,

---

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

organized in 7 doctoral schools, both in the form of full-time education and in the form of part-time education.

The doctoral university study programs operate in accordance with the national legislation and meet the quality criteria imposed by the national regulations.

Details regarding the organization of doctoral university studies can be viewed by accessing the page <https://doctorat.utoradea.ro/ro/>, and the related statistical situations are presented in this Annual Report of the director of the C.S.U.D., for the year 2020.

Currently, within the University of Oradea, there are 7 Doctoral Schools within the structure of the faculties that manage the 18 doctoral fields, as follows:

- **Doctoral School of Humanities and Arts** - doctoral fields Philology and Theology, within the Faculty of Letters;
- **Doctoral School of Geography** - PhD field Geography, within the Faculty of Geography, Tourism and Sports;
- **Doctoral School of History** - the doctoral field of History, within the Faculty of History, International Relations, Political Sciences and Communication Sciences;
- **Doctoral School of Sociology** - the doctoral field of Sociology, within the Faculty of Socio-Human Sciences;
- **Doctoral School of Biomedical Sciences** - doctoral fields of Biology, Pharmacy and Medicine, within the Faculty of Medicine and Pharmacy;
- **Doctoral School of Economic Sciences** - Doctoral fields Business Administration, Economics and Finance, within the Faculty of Economic Sciences;
- **Doctoral School of Engineering Sciences** - doctoral fields Agronomy, Electrical Engineering, Electronic Engineering, Telecommunications and Information Technologies, Energy Engineering, Industrial Engineering, Engineering and Management and Mathematics, within the Faculty of Managerial and Technological Engineering.

The activity within the I.O.S.U.D. - The University of Oradea is coordinated by the Council of Doctoral Studies (C.S.U.D.), which is headed by a Director, and the Doctoral Schools are structures similar to the departments being set up within the faculties that manage the doctoral fields. The structure that coordinates the activity of the Doctoral Schools is the Doctoral School Council (CSD), led by a director. The secretarial activity is carried out within the Secretariat of Doctoral University Studies (SSUD) composed of a chief secretary and secretary.

The activity within the Doctoral Schools is carried out in accordance with the provisions of the national legislation and of the internal regulations.

- **details about the doctoral study domain under review (number of students, institutional context, short history etc.).**

The **ENGINEERING SCIENCES DOCTORAL SCHOOL (SD)** operates under this name starting with the academic year 2011-2012 (SD no. 170 of 12.09.2011 - Annex 11, according to ROFSUD, art. 6, paragraph (3) - [Annex II.A.a](#)), with doctoral studies in the fundamental fields of **Engineering Science and**



**Mathematics and Natural Sciences, doctoral fields Agronomy, Electrical Engineering, Electronics Engineering Telecommunications and Information Technology, Energy Engineering, Industrial Engineering, Engineering and Management and Mathematics.**

The doctoral field **AGRONOMY** was established in 2010 (OM no. 5677 /19.11.2010, [Annex II.Ab](#)), but only starting with the academic year 2015-2016, affiliations of qualified teachers were registered, respectively doctoral students were enrolled.

Currently (2020-2021), at the Doctoral School of Engineering Sciences, Doctoral Domain **Agronomy** there are enrolled a number of **23** PhD students. Between 2016-2020, a number of **3** doctoral students have publicly defended their doctoral thesis, and obtained the scientific title of doctor in **Agronomy**, being confirmed by CNATDCU.

## II. Methods used

In order to carry out the external evaluation report of the field of doctoral studies in **Agronomy**, a series of activities were carried out within the Doctoral School of Engineering Sciences, such as:

- Analysis of the Internal Evaluation Report of the evaluated doctoral university field and its annexes;
- Analysis of the Internal Evaluation Report of the evaluated doctoral university field and its annexes.

The internal evaluation report comprises 116 pages and is structured as follows:

Part I: **General information on the institutional capacity of IOSUD - University of Oradea**, as well as the Doctoral School of Engineering Sciences, respectively the field of doctoral studies in Agronomy. Information on the internal quality assurance system at the doctoral school level is also presented.

Part II: **Information necessary for the assessment of the degree of fulfillment of the criteria, standards and performance indicators**, together with the annexes drawn up.

- Other sources of information such as the website of the UO institution: <https://doctorat.uoradea.ro/ro/>;
- The analysis of documents made available by the IOSUD, in physical format, during the evaluation visit;
- The analysis of documents, data and information available on the IOSUD/Doctoral School(s) website, in electronic format;
- Visit to the spaces of the University of Oradea, comprising (indicative and non-exhaustive list):
  - classrooms (S123, S216);
  - laboratories (Pedology, Agrotechnics, Phytotechnics, Plant protection, GIS and Remote Sensing, Informatics);
  - Career Counseling and Guidance Center of the University of Oradea;
  - reading rooms for students in the buildings of the Faculty of Environmental Protection;
  - students residences on the campus of the University of Oradea;
  - studente cafeteria on the campus of the University of Oradea;
  - sports ground on the campus of the University of Oradea.

Meetings / discussions took place in accordance with the attached visit schedule and agreed by the team of expert evaluators and the management of UO. Considering the hybrid way in which the periodic evaluation of the doctoral field is performed, the discussions took place online, being registered and located on the ARACIS cloud. The meetings took place in accordance with the program annexed to this report.

These were:

- ✓ *Meeting/discussions with doctoral students* in the doctoral study domain under review;
- ✓ *Meeting/Discussions with the graduates* of the doctoral study domain under review;
- ✓ *Meeting/Discussions with employers of the graduates* in the doctoral study domain under review;
- ✓ *Meeting/Discussions with the school officials of the Doctoral School(s)* in which the doctoral study domain under review is operating;
- ✓ *Meeting/Discussions with the doctoral advisors* in the doctoral study domain under review;
- ✓ *Meeting/discussions with the representatives of the various structures of the IOSUD/Doctoral School(s)* in which the doctoral study domain under review is operating;

- The Council of the Doctoral School, the University Senate, the Board of Directors, the Quality Assessment and Assurance Commission, the Quality Assurance Department, the Ethics Commission (including with the student representatives of these structures);
  - the Career Counselling and Guidance Center;
  - student organizations;
  - secretariats;
  - various departments/administrative offices (Social/Student residences, Cafeteria etc.).
- Application of questionnaires to doctoral students in the field of evaluated doctoral university studies. Questionnaires were applied at IOSUD level and an interpretation of these results was made.

Following the analysis of the Internal Evaluation Report and the annexes to the report, it was not necessary to request additional documents for the construction of the evaluation experts.

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

#### Domain A. INSTITUTIONAL CAPACITY

IOSUD ensures good conditions for preparing students through the doctoral school, being interested in complying with the legislation in force, ensuring the proper functioning of the training, keeping track of doctoral students through computer systems and verifying the originality of the papers. The institution also provides the necessary resources to carry out the activity both in terms of research infrastructure, financial resources and staff involved. The activity within IOSUD - University of Oradea is carried out in accordance with the provisions of national legislation and internal regulations (<https://doctorat.uoradea.ro/ro/documente/reglementari>).

The University of Oradea, as the main higher education institution in Oradea, inherits the tradition of over **240** years of academic education in these lands. In the Enlightenment atmosphere of the late eighteenth century, in 1780 was established in Oradea „a higher institution for philosophical education", which in 1788 was completed with another 2 years of legal studies. In 1874 this institution was raised to the level of a *Faculty of Law*, functioning in this form until 1934, when it was transferred to Cluj. After 30 years, in 1963 the *Pedagogical Institute* of Oradea was established, which functioned under this name until 1976, when it was transformed into the *Institute of Higher Education of Oradea*, due to the appearance of sub-engineering specializations. In 1983, the Institute of Higher Education changed its name to the *Institute of Sub-Engineers in Oradea* and operated under this name until 1990. From 1991 until now, the institution operates under the name of „University of Oradea" ([Annexes I.1 - I.1.2](#)), considering itself a strong pole in Romanian higher education.

In May 1990, by Decision of the Romanian Government ([Annex I.1](#)), The Technical University was established, then named (March 1991) the University of Oradea ([Annex I.1](#)). Based on the self-evaluation reports and the external evaluation, UO obtained annually, successively, the authorization and accreditation of 172 study programs (106-bachelor's degree and 66-master's degree) recorded in the annual Decisions of the Romanian Government regarding the structure of the OU (code 33). In [Annex I.2](#), are presented, by way of example, GD no. 326/2019, with the subsequent completions by GD no. 640/2019, regarding the license programs, respectively GD no. 318/2019 with the subsequent completions by GD no. 641/2019, regarding the master programs. During the calendar year **2019**, **12** undergraduate study programs were evaluated externally by ARACIS, of which **1** was accredited, **10** periodically evaluated and **1** new program that was provisionally authorized. Of the **10** programs evaluated periodically, **11** received the qualification of maintaining accreditation, and **1** received the qualification of limited trust with maintaining the accreditation.

The organization and functioning of the OU is in accordance with national regulations and in the spirit of the European principles enshrined in the *Grand Charter of the Universities* of Bologna. The detailing of the organization and functioning, design and evaluation of processes and activities is done through all its own regulations, structured on **6** hierarchical levels ([Annex I.3](#)): OU guidance documents, Regulations, Procedures, US Regulations, Board Regulations. A special place in the design of policies and management activities at the level of OU and of the entities in its structure is held by the „Strategic

Development Plan” and the „Operational Plan”, having the purpose of programming the resources, in order to achieve the set objectives.

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

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

The institution organizing doctoral university studies (IOSUD), an institution with a tradition in training young people in the field of agronomy has had and has concerns to implement effective functioning mechanisms, provided in the specific legislation on doctoral studies. The activity is carried out on the basis of the regulations and methodologies provided by the legislation in force.

***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:***

At the level of IOSUD - University of Oradea there are specific regulations for the organization and development of doctoral studies, these being developed in accordance with the provisions of national legislation and are applied both at the level of IOSUD and doctoral schools.

These are published on the website of the University of Oradea being visible by accessing the button Doctoral Studies - Regulations - National Regulations - Internal Regulations (<https://doctorat.uoradea.ro/ro/documente/reglementari>).

The internal regulations that underlie the organization and development of activities within the doctoral studies are:

***(a) Regulation on the organization and conduct of doctoral studies and postdoctoral programs at IOSUD\_UO***, in force at the time of the internal evaluation, was adopted by the Decision of the University Senate number 14 of 28.01.2021, being available for consultation on the IOSUD website (<https://www.uoradea.ro/display22980>), respectively in [Annex II.A.1](#); The regulation for the organization and development of doctoral studies at the level of the Doctoral School of Engineering Sciences - Agronomy was adopted by CSUD Decision and is available for consultation on the SD website: <https://doctorat.uoradea.ro/ro/documente/regulations>;

***(b) The methodology for organizing the elections and appointing the members of the Council and the director of the Doctoral School from I.O.S.U.D. - University of Oradea***, in force at the date of the internal evaluation, was adopted by the Decision of the University Senate number 11, dated 26.10.2020 Annex 13, being available for consultation on the IOSUD website (<https://www.uoradea.ro/display22410>), respectively Methodology for organizing the elections and appointing the members of the Board and the director of the Doctoral School from IOSUD - University of Oradea (<https://www.uoradea.ro/display12788> ([Annex II.A.2](#))). The documents proving the conduct of the elections of the Doctoral Schools Councils and the elections / appointment of the Directors of the Doctoral Schools can be found in the annexes [Annex II .A.3](#);

***c) The methodology for organizing and conducting the competition for admission to doctoral studies at the level of IOSUD\_UO***, being available for consultation on the IOSUD website

(<https://www.uoradea.ro/display23530https://cloud.uoradea.ro/index.php/s/RsLKYTbMFrkAdW5-pdfviewer>), respectively in [Annex II.A.4](#). The methodologies for admission to Doctoral Schools have been adopted by CSUD Decision and are available for consultation on the IOSUD website (<https://doctorat.uoradea.ro/ro/admitere/metodologie-admitere-doctorat-iosud-uo>). The methodology regarding the admission and schooling of Romanians everywhere for doctoral studies starting with the academic year 2021 - 2022, in force at the date of the internal evaluation, was adopted by the Decision of the University Senate number 16 of 25.03.2021, being available for consultation on IOSUD web page (<https://www.uoradea.ro/display23268>), respectively in [Annex II.A.5](#); The methodology regarding the admission and schooling of foreign citizens starting with the academic year 2021-2022 in force at the date of the internal evaluation, was adopted by the Decision of the University Senate number 16 of 25.03.2021, being available for consultation on the IOSUD website (<https://www.uoradea.ro/display23255>), respectively in [Annex II.A.6](#);

d) **The operational procedure regarding the recognition of the doctoral degree in sciences or in a professional field, obtained abroad**, in force at the date of the internal evaluation, was adopted by the Decision of the University Senate number 19 of 27.03.2017, being available for consultation on the IOSUD website (<https://www.uoradea.ro/display12986>), respectively in [Annex II.A.7](#);

e) **The operational procedure regarding the automatic recognition by the University of Oradea of the quality of doctoral supervisor obtained in university educational institutions accredited from abroad**, in force at the date of the internal evaluation, was adopted by the Decision of the University Senate number 19 of 27.03.2017, being available for consultation on the IOSUD website (<https://www.uoradea.ro/display12989>), respectively in [Annex II.A.8](#);

f) **Functional management structures** (Doctoral School Council), including proving the regularity of convening meetings. Regarding the organization of meetings at the level of the Doctoral School of Engineering Sciences, they are held as many times as necessary, but at least three times a year. (<https://www.uoradea.ro/display15512>), respectively in [Annex II.A.9](#);

g) **The Doctoral Studies Contract** - is presented in Annex 1 to ROFSUD (<https://www.uoradea.ro/display17406>), for example, a model is presented in [Annex II.A.10](#);

h) **internal procedures for analysis and approval of proposals on the subject of the training program** based on advanced university studies.

Also at the IOSUD level, the University of Oradea has the following internal regulations:

a) **Framework regulation for granting scholarships and other forms of material support for students** of the University of Oradea (<https://www.uoradea.ro/display22413>) - [Annex II.A.11](#);

b) **Methodology regarding the exemption from the payment of the fee for the presentation of the habilitation thesis**, respectively for the settlement of the expenses occasioned by the defense of the habilitation thesis (<https://www.uoradea.ro/display6904>) - [Annex II.A.12](#);

c) **Regulation regarding the occupation of university assistant positions for a determined period** (<https://www.uoradea.ro/display22532>) - [Annex II.A.13](#);

d) **Regulation on the organization and conduct of the process of obtaining the certificate of qualification at the I.O.S.U.D.** - University of Oradea (<https://www.uoradea.ro/display5846>) - [Annex II.A.14](#);

e) Methodology regarding the granting of doctoral scholarships at I.O.S.U.D. - University of Oradea (<https://www.uoradea.ro/display13987>) - [Annex II.A.16](#).

The existence of the documents submitted for Indicator A.1.1.1 is confirmed.

**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 Regulation of the Doctoral School of Engineering Sciences within IOSUD University of Oradea (<https://doctorat.uoradea.ro/ro/documente/reglementari>) includes criteria, procedures and mandatory standards for the aspects specified in art.17, par. 5 of GD 681/2011 on the approval of the Code of doctoral studies, with subsequent amendments and completions, as follows:

a) the acceptance of new doctoral supervising members, as well as regulations regarding the way in which a doctoral supervisor can be withdrawn as a member of the doctoral school, are regulated in the *Regulation on granting and revoking the membership of Doctoral Schools*, approved by Decision Senate 33 of 26.03.2018 (<https://www.uoradea.ro/display16171>);

b) the mechanisms by which decisions are taken on the appropriateness, structure and content of the training program based on advanced university studies are provided in paragraph 3.2.3 (art. 31 and art. 32, respectively) of the *Regulation on the organization and conduct of university studies, doctorate and postdoctoral programs* (<https://www.uoradea.ro/display22980>);

c) the procedures for changing the doctoral supervisor of a certain doctoral student and the procedures for mediating conflicts are regulated in art. 34 para. 2, art. 38 and respectively art. 27 of the *Regulation on the organization and conduct of doctoral studies and postdoctoral programs* (<https://www.uoradea.ro/display22980>);

d) the conditions under which the doctoral program can be interrupted are regulated in paragraph 3.1.1. Duration of the cycle of doctoral university studies, art. 24 of the *Regulation on the organization and development of doctoral studies and postdoctoral programs* (<https://www.uoradea.ro/display22980>);

e) the ways to prevent fraud in scientific research, including plagiarism, are regulated in the Code of Ethics and University Ethics of the University of Oradea (<https://www.uoradea.ro/display23004> - [Annex II.A.17.](#)) and the sanctions in case of non-compliance with the quality or professional ethics standards are provided in art. 77 of the *Regulation on the organization and conduct of doctoral studies and postdoctoral programs* (<https://www.uoradea.ro/display22980>);

f) ensuring access to research resources is regulated in art. 68 of the *Regulation on the organization and conduct of doctoral studies and postdoctoral programs* and respectively art. 6.1 Obligations of IOSUD UO from the Contract for Doctoral Studies - Annex 1 to the *Regulation on the organization and conduct of doctoral studies and postdoctoral programs* (<https://www.uoradea.ro/display22980>);

g) the attendance obligations of the doctoral students, according to a methodology elaborated by the Ministry of National Education, are established at the level of each Doctoral School ([Anexa II.A.1.](#)).

It was found that the Regulations of the Doctoral School include the submitted documents and are in accordance with the requirements for Indicator A.1.1.2.

***The indicator is fulfilled.***

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

IOSUD has the necessary logistical resources to fulfill the mission of doctoral studies (computer system for recording students and their academic background, computer program and evidence of its use to verify the percentage of similarity in all doctoral theses).

*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.*

IOSUD has implemented a computer system for data management of doctoral students (UNIWEB Platform), which integrates both personal data, teaching and financial activity. The results obtained by the doctoral student during schooling are entered in the individual training program ([Annex II.A.18.](#)) and in the Single Matriculation Register which contains the records of doctoral students and includes personal, school data (promotion, expulsion, interruption of studies, extension), scholarships, completion of studies and study documents issued (series and diploma number). The UNIWEB application (<https://uniweb.uoradea.ro/>) is the integrated application for managing the activity carried out within the doctoral studies, offering all the information through the web interface independent of the operating system. At the same time, a security element is the organization on user levels created on the platform, so that each user has access only to the resources he needs, thus being implemented and editing limitations, thus reducing the possibility of corrupting databases.

It confirms the existence and efficient application of adequate computer systems for the record of doctoral students and their academic background according to the requirements of indicator A.1.2.1.

***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 - The University of Oradea uses, based on a contract, the anti-plagiarism system through the online platform <https://www.sistemantiplagiat.ro> ([Annex II.A.19.](#)). The system for detecting similarities made available to doctoral schools within IOSUD - University of Oradea is included in the MENCS Order no. 3485/2016 - the list of programs recognized by CNATDCU and used at the level of higher education institutions organizing doctoral university studies and of the Romanian Academy, in order to establish the degree of similarity.

From a procedural point of view at the IOSUD level, there is a person designated as a system administrator, who monitors the access to the platform, respectively the allocation of user accounts for each doctoral school. Based on an internal form, each doctoral school is assigned an account (username and password), which allows the verification of doctoral theses.

The theses are verified before the defense in the steering committee, and based on the recommendations of the steering committee regarding the modifications of the thesis and at the request of the mentor the thesis can be re-verified before the public defense.

According to the provisions of the Operational Procedure regarding the evaluation of doctoral students (<https://www.uoradea.ro/display17187>), art.8.2.3.18., each doctoral thesis to be defended publicly will be accompanied by both the Antiplagiarism Report generated by the Sistemantiplagiat software.ro as well as the Resolution of the doctoral supervisor on the similarity report (Annex 13 of the OP), the opinion of the doctoral school on the anti-plagiarism verification (Annex 12 of the OP) and the Declaration of authenticity of the doctoral thesis (Annex 18 of the OP), assumed by the doctoral student and the scientific coordinator.

Within IOSUD/SD there is a computer program and there is evidence of their use to verify the percentage of similarity in all doctoral theses according to the requirements of indicator A.1.2.2.

***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.*

IOSUD provides the financial resources for the doctoral activity, and the revenues obtained from doctoral studies are supplemented by additional funding to that provided by the Government (research grants, scholarships) and ensures the settlement of training costs for doctoral students.

***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.***

Within the evaluated doctoral field, a determining factor for the good development of research and/or professional development activities of doctoral students is the ability of doctoral supervisors to attract additional financial resources, one of the variants being the financial resources obtained through grants.

Research contracts obtained by PhD supervisors in the field of Agronomy have been carried out since 2015, and address issues relevant to the field and the involvement of PhD students. Projects carried out: CNFIS-FDI-2019-0105 project - Facilities for exploitation and innovation within the Pomicola Resort of the University of Oradea. [http://www.cnfis.ro/wp-content/uploads/2019/04/Rezultate\\_finale-FDI2019-](http://www.cnfis.ro/wp-content/uploads/2019/04/Rezultate_finale-FDI2019-)

lista\_proiecte\_domenii\_site.pdf; Contract No. 1/17.12.2015, financed by Piscicola S.A. Satu-Mare, entitled: "Study on feeding behavior and migration of marsh avifauna in the northwest of the country" [Annex II.A.22.c](#), pp.12-13.

Within the Doctoral School of Engineering Sciences, the field of Agronomy were concerned with ensuring extra-budgetary funding, in order to attract funds to finance research activities or to support doctoral students in research, mobility at scientific events or training courses.

***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%.*

Within the field of doctoral studies in Agronomy, there are a total of 23 doctoral students at the time of drawing up the Internal Evaluation Report. The number of doctoral students who have benefited from other sources of funding, for a period of at least six months, is 9.

At the level of IOSUD\_UO, doctoral scholarships from own income are assigned annually, to a number, higher than 40.9% of the total PhD students.

The reported data are confirmed, according to the table on page 105.

***The indicator is fulfilled.***

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

At the level of IOSUD-UO there are specific regulations regarding the use of funds dedicated to doctoral studies, from own resources or from other sources of funding for expenses regarding the salary of the doctoral supervisor, members of the steering committee, expenses for the additional training program and research activity. doctoral students.

Thus, the Procedure regarding the elaboration and execution of the UO Income and Expenditure Budget stipulates that the SD Directors have the responsibility to participate in the elaboration of the income and expenditure budget of the doctoral school according to the structure presented in the Procedure and in compliance with its provisions.

---

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

The Doctoral Schools draw up their income and expenditure budget in the structure presented in the procedure. For each doctoral field of SD, the conventional hourly income is calculated using the Uniweb application, starting from the assigned SD income from the budget and the income from tuition fees and other related SD fees, after deducting the direction, related to the total number of conventional hours of each field in the doctoral school. There are details on how to use their amounts related to doctoral grants obtained by the university through institutional contract and tuition fees collected from doctoral students in the form of paid education, to settle the training costs of doctoral students (participation in conferences, summer schools, courses, internships abroad, publication of specialized articles or other specific forms of dissemination, etc.).

There are details on how to use the amounts related to doctoral grants obtained by the university through institutional contract and tuition fees collected from doctoral students in the form of fee-paying education, to settle the training costs of doctoral students (participation in conferences, summer schools, courses, internships abroad, publication of specialized articles or other specific forms of dissemination, etc.).

**10.1%** of the total amounts related to doctoral grants obtained by the university through institutional contract and tuition fees collected from doctoral students in the form of paid education are used to settle the training costs of doctoral students.

*Recommendations: It is recommended to increase the percentage of expenses with the professional training of doctoral students.*

***The indicator is fulfilled.***

## **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.*

IOSUD - OU / doctoral school have a research infrastructure that supports the development of activities specific to doctoral studies.

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

The spaces and material endowment assigned to the PhD field of Agronomy allow the realization of research activities in the evaluated field, in accordance with the mission and objectives assumed (computers, specific software, equipment, laboratory equipment, library, access to international databases). There are laboratories at the level of the doctoral field Agronomy posted on the ERRIS platform

At the level of the Faculty of Environmental Protection that manages the doctoral field of Agronomy there is a certified research center/centers/internally certified. Its members are both doctoral coordinators, teachers members of the steering committees and doctoral students. Details of that establishment, the latest Activity Report are set out in [Annex II.A.20](#). Also, additional information can be viewed by accessing the following link: [University of Oradea | Research centers \(uoradea.ro\)](#).

**University of Oradea Library** - headquarters, with a total area of 7,800 m<sup>2</sup> on the 5 levels of the building, of which: 5 reading rooms, with an area of 2389.80 m<sup>2</sup>; 5 warehouses, with an area of 994.21 m<sup>2</sup>; a total fund of over 353,300 publications (books, journals, doctoral theses, STAS, patents, CDs, DVDs, phonographic discs, posters) introduced in the Liberty5 library program.

**Agricultural lands destined for teaching and research activity**, with a total area of 14,444.67 ha, composed of: Pietroasa hunting fund, with an area of 14,414.00 ha; Gurahont dendrological park, with an area of 4.22 ha; Carei agricultural land, with an area of 16.00 ha; Orchard Research and Development Station, with an area of 10.45 ha.

The research infrastructure presented complies with the standards necessary for the activity of doctoral students. In the last 5 years, purchases of laboratory furniture, computers, apparatus and equipment have been made. PhD students have access to IOSUD libraries and international databases through the ANELIS PLUS 2020 program.

***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 staff involved in the activity of the doctoral school, Agronomy field has the necessary experience to carry out the doctoral university study program (they are holders, have recognized scientific activity, the disciplines in the training program are supported by teachers who have the quality of doctoral supervisor, teacher or associate professor).

**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 field Agronomy has been operating at IOSUD UO since 2004 ([Annex II.A.b.](#)), and within it there are 3 doctoral supervisors: Professor habil. Nicu Cornel SABĂU, PhD; Associate professor Ioan Valentin PETRSCU MAG, PhD; Associate professor habil. Radu Petru BREJEA, PhD.

Regarding the human resources involved in the **doctoral field of Agronomy**, we specify that at the level of the academic year 2020/2021, according to the Functioning States ([Annex II.A.24.](#)), The activity at the doctoral studies is supported by three teachers who meet CNATDCU criteria in force at the time of evaluation ([Annex II.A.23.a](#), [Annex II.A.23.b](#), [Annex II.A.23.c](#)).

All three PhD supervisors (100%) meet all CNATDCU minimum standards, achieving a score between 824.78 and 3888 points, compared to 420 points the minimum value according to order 6129/2016.

***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.*

Of the three doctoral supervisors who work in the Doctoral School of Engineering, Agronomy, two (66.6%) are holders in IOSUD - University of Oradea. In [Annex II.A.27.](#), there are proving certificates signed by the IOSUD supervisor for the titular doctoral supervisors.

The requirements of indicator A.3.1.2 are met, respectively 66.6% of the doctoral supervisors are holders with employment contract for an indefinite period within IOSUD.

***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.*

The disciplines in the Curriculum are taught by the university's own teachers who have the quality of doctoral/qualified supervisor, professor or associate professor with proven expertise in the field of taught subjects ([Annex All.21.a](#), [Annex All.21.b](#), [Annex All.21.d](#), [Annex All.21.d](#)).

The analysis of the documents confirms the fulfillment of the requirements of the indicator A.3.1.3.

***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 programs<sup>3</sup> does not exceed 20%.*

---

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

Of the three mentors, none exceeds 12 PhD students. The average number of students per supervisor is 7.3 (<https://www.doctorat.uoradea.ro/ro/>). Therefore, out of the total of **3** doctoral supervisors in the field of AGRONOMY, **THERE ARE NO** doctoral supervisors who have more than 8 doctoral students in internship and extension (cf. art. 39 para. 3 GD 681/2011) but no more of 12.

A number of two PhD supervisors are coordinated by a maximum of 8 PhD students, and a single PhD coordinator coordinates 12 PhD students.

**The indicator is fulfilled.**

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

The research activity of the doctoral supervisors is visible at international level through publications, the presence in the scientific committees of some journals.

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

Within the evaluated doctoral field, all three doctoral supervisors prove the publication of five indexed articles Web of Science or ERIH, and two supervisors prove at least 2 mentions that highlight the international visibility.

The reported data are compliant, the requirements of indicator A.3.2.1 are met, over 50% of doctoral supervisors reported at least 5 articles indexed WOS with FI.

**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.*

Summarizing the score from the evaluation sheets for the last 5 years, it appears that the doctoral supervisors are scientifically active, all three exceeding 25% of the score required by the minimum



CNATDCU standards in force at the date of evaluation. In [Annex II.A.24.](#) the Sheets for fulfilling the minimum standards with the scientific results from the last 5 of the doctoral supervisors in the doctoral field Agronomy are presented. This indicator is fulfilled by all three doctoral supervisors. Proof of obtaining at least 25% of the score required by the minimum CNATDCU standards in force are presented in the annexes ([Annex II.A.24.a](#), [Annex II.A.24.b](#), [Annex II.A.24.c](#)).

The doctoral supervisors assigned to the field of doctoral studies Agronomy, have achieved at least 25% of the score required by the minimum CNATDCU standards in force at the date of evaluation.

***The indicator is fulfilled.***

## **Domain B. EDUCATIONAL EFFECTIVENESS**

For the field of Agronomy, within the Doctoral School of Engineering Sciences, the correct and complete information regarding the doctoral studies program is provided to the candidates for this program, to the university community and to all those interested. IOSUD ensures the publication on the Internet of all the necessary information regarding the doctoral study program, such as: the doctoral school regulations; information on the content of doctoral study programs; the model of the framework contract for doctoral studies; information on doctoral supervisors; information on doctoral theses, respectively elaboration standards, procedures and criteria for their evaluation; the summaries of the doctoral theses to be defended publicly, as well as the date, time and location related to the public defenses, at least 20 days before their defense; the addresses to which the completed doctoral theses can be accessed.

### **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.*

The institution organizing doctoral studies has the capacity to attract candidates from outside the higher education institution, and the training program based on advanced university studies - the field of Agronomy is adequate to improve the research skills of doctoral students.

Graduates of master's degree programs from other universities in the country also participate in the admission contest for doctoral studies organized by IOSUD. The number of candidates registered for the admission competition was higher than the number of places financed from the budget put up for competition, in these conditions there were also doctoral students who occupied places financed under a fee.

*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.*

In the last five years, 2015-2020, for the field of doctoral studies Agronomy, 3 places financed from the state budget have been allocated, the candidates being graduates of both the master's degree programs within the University of Oradea and the master's programs from other higher education institutions in the country. The number of candidates exceeded the number of places budgeted in the field of doctoral studies Agronomy, so there were also candidates who opted for places funded by fee.

The ratio between the number of master's degree graduates of other higher education institutions in the country or abroad who have registered for the competition for admission to doctoral studies and the number of places financed from the state budget put up for competition at the admissions 2015- 2020 in

the doctoral field AGRONOMY is **2.33**, and the ratio between the number of candidates and the number of budgeted places was on average 7.33 (**RA\_en page 120**).

Reported data are compliant, indicator requirements are met \* B.1.1.1.

*Recommendations:* attracting students to the third cycle of studies by identifying research topics of interest including the agricultural economic environment, identifying alternative sources of financial support for research to motivate candidates.

***The indicator is fulfilled.***

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

Considering the university autonomy, IOSUD, legally represented by the University of Oradea, organizes a competition for the selection and admission of doctoral students, respecting the legislation in force that provides the right to study of every citizen. At the same time, IOSUD and the doctoral school of Engineering Sciences give equal opportunities to all young people, regardless of the environment they come from, race, sex or religious options, etc.

The procedure for selecting and admitting doctoral candidates, the field of doctoral studies Agronomy, within the doctoral school of Engineering Sciences is performed according to the legislation in force and with the provisions of the Methodology regarding the organization and conduct of the admission contest ([Annex II.A.4.](#)). Only graduates with a master's degree or equivalent, from the country or abroad, have the right to participate in the procedure for admission to doctoral university studies, according to art. 152 paragraph (2) of Law no. 1/2011. The specific knowledge of the field of doctoral studies Agronomy and the research topic of the candidate are verified through the admission contest. The doctoral school ensures the transparency of the selection and admission procedures for doctoral studies and guarantees access to information through various and accessible means, including through the website: <https://doctorat.uoradea.ro/ro> providing the necessary information to the university community and the public.

***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.***

In accordance with the Methodology of organizing and conducting the competition for admission to doctoral studies at the level of the Doctoral School of Agronomy, [Annex II.A.4.](#), Admission to doctoral study programs is based on selection criteria that include:

Criterion 1 - Previous professional performance of the candidates (articles, studies mentioned in the CV);

Criterion 2 - The level of the proposed doctoral research project (PCD), evaluated in relation to:

C2.1 - The scientific context and the motivation of the chosen topic;

C2.2 - Defining the objectives of scientific research;

C2.3 - Research methodology;

C2.4 - Estimated results.

Criterion 3 - How the project was presented and the candidate's answers to the questions put by the committee.

Following the admission colloquium, each member present of the commission will give each candidate a grade (an integer, between 10 and 1) for each evaluation criterion. The average given by each member of the commission is obtained as a weighted arithmetic average of the marks awarded for each evaluation criterion. The candidate's admission average is the arithmetic average of the averages resulting from the marks awarded by each member of the competition committee.

Admission is made according to the specifications of the indicator \* B.1.2.1.

***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 admission<sup>4</sup> does not exceed 30%.*

Within the Doctoral School of Engineering Sciences, field of Agronomy, the dropout rate among doctoral students enrolled in doctoral studies, in the period 2015-2020, was 27.28%. Thus, during this period, three expelled doctoral students were registered.

The average dropout rates for the evaluated period is 3/11 - 27.28 percent, not exceeding the value of 30% (27.28%).

***The indicator is fulfilled.***

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

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

The training program based on advanced university studies - Agronomy is suitable to improve the research skills of PhD students and to strengthen ethical behavior in science: there is a curriculum that includes disciplines on Scientific Research Methodology and Ethics and Academic Integrity; the subject sheets set out the competencies and the expected results; during the entire duration of the doctoral training internship, the doctoral students benefit from the guidance of a commission composed of 4 teachers.

***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.*

---

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

The advanced university training program includes disciplines of scientific research methodology and ethics and academic integrity, but also relevant disciplines for training in scientific research in the evaluated doctoral field. Starting with the academic year 2018-2019, the Curriculum ([Annex II.B.1.a](#)) was revised and updated in accordance with OMEN 3131 / 30.01.2018, respectively, introducing as a separate discipline Ethics and academic integrity in the field Engineering sciences. The optional subjects in the curriculum are chosen either from the optional subjects in the curriculum, or they can be supplemented with disciplines from the offer of research master's degrees.

Following the attendance of the activities enrolled in the Training and Results Program, the doctoral students are obliged to obtain a number of 30 credits. The disciplines within the PUA run for three months. The details of the activities (course, seminar, number of credits, etc.) are provided in the Discipline Sheets, specifying the objectives of the disciplines, the basic thematic content, the evaluation system of doctoral students and the minimum bibliography. The activities within the PUA are provided in a schedule made public at the beginning of the school year.

The curriculum comprises at least two components dedicated to some of the transversal competences, including aspects related to research ethics, scientometry and academic writing. The list of disciplines provided in the curriculum are presented in [Annex II.B.2](#).

The advanced university training program includes disciplines relevant to the training in scientific research in the doctoral field AGRONOMY according to [Annex II.B.2](#).

***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.*

The doctoral school of Engineering Sciences pays special attention to the observance of professional ethics and deontology at the level of teaching and research staff and doctoral students. Within the training program, in the first year of studies, there is provided in the curriculum a discipline that addresses ethics in scientific research and intellectual property - Ethics and academic integrity in the field of Engineering Sciences ([Annex II.B.1.a](#)).

In the evaluated doctoral field, there is the discipline Ethics and academic integrity in the field of Engineering Sciences provided in the curriculum of the doctoral field ([Annex II.B.1.a](#)).

***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 activities<sup>5</sup>.*

The curriculum for the doctoral field Agronomy has formulated the competencies that are to be ensured through the curriculum. They are divided into professional and transversal skills. The professional competencies pursued are: advanced knowledge in the fundamental field of Engineering Sciences, doctoral field in Agronomy; understanding and ability to apply the principles and values of scientific research ethics.

The transversal competencies pursued are: the efficient application of communication techniques, written and oral, combined with interrelationship and work skills at organizational or professional group level; economic, technological and social entrepreneurship. The subject sheets for the compulsory subjects in the plan corresponding to the training program based on advanced university studies are presented in [Annex II.B.2](#).

At the level of the University of Oradea there is the Operational Procedure regarding the evaluation and internal monitoring of the doctoral schools / doctoral fields within IOSUD\_UO ([Annex II.C.7](#)).

Mechanisms are provided to ensure that the training program, based on advanced university studies, aims at „learning outcomes”.

***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.*

Each doctoral student is guided, in addition to the scientific director (who has a schedule of activities and consultations made public at the level of the doctoral school - [Annex II.B.3](#)), by a steering committee consisting of 3 other teachers, with at least the title of lecturer doctor, specialists in the field of doctorate and thesis topic. The guidance commissions for doctoral students enrolled within the Doctoral School of Engineering Sciences/doctoral field AGRONOMY are presented in [Annex II.B.4](#).

The activity of the doctoral supervisors and of the members of the guiding commissions is regulated in the State of functions of the doctoral school or in the states of functions of the university departments where the holders have the basic norm.

The doctoral students benefit during the entire training preparation period of a functional guidance commission formed by the doctoral coordinator and three other specialists.

***The indicator is fulfilled.***

---

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

**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.*

In the field of Agronomy, in the last 5 years, 23 students were enrolled, and in the guidance commissions were included 8 people, as presented in the table entitled "Information on the situation of members of the guidance commissions within the doctoral field AGRONOMY"

The maximum ratio recorded for the reporting period was **2.87: 1**.

**The indicator is fulfilled.**

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

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

During the evaluated period, the results of the scientific research of the doctoral students in the field of Agronomy were capitalized, depending on their character, through scientific publications, consultancy and specialized assistance, etc.

Coordinating teachers and PhD students annually publish results of their own scientific research in articles published in ISI scientific journals (with and without impact factor), journals indexed in various international databases (BDI - e.g. CAB International).

The main scientific achievements were materialized in participations in national and international scientific conferences, the publication of scientific papers in national and international specialized journals listed ISI and BDI.

**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.*

In the period 2015-2020, in the doctoral field of Agronomy, a number of three doctoral students defended their doctoral theses and obtained the title of doctor.

For each doctoral student, a published article was proposed for analysis, the articles were published both in ISI-listed/indexed journals and in BDI-indexed journals.

Items selected for analysis:

1. **Stoian R. O.**, Papuc T., Petrescu-Mag I. V., **2020**. The influence of temperature on the gonadal maturation of the drone of *Apis mellifera* (Insect: Hymenoptera: Apidae). *ABAH Bioflux* 12(2):49-69;
2. **Susana Mondici**, Teofil Fritea, Alexandrina Popescu, Radu Brejea THE INFLUENCE OF THE HERBICIDE TREATMENTS AT WHEAT CROPS ON THREE TYPES OF SOIL IN NORTHWEST OF ROMANIA. *ROMANIAN AGRICULTURAL RESEARCH*, NO. 36, 2019 First Online: February. DII 2067-5720 RAR 2019-12, **2019**.

3. Radu Brejea, Sanda Roșca, **Florian Dumitru Tăut**, Ștefan Bilașco, Cristian Domuța, Ioana Maria Borza, Quantitative GIS Model for Evaluating the Favorability of Alfalfa (*Medicago sativa* L.) Culture for Suitable Varieties in Romania: Case Study Bihor County Applied- Sciences Basel, Volume 11, ISSUE 9, 4205, ID: applsci-1167262; doi: 10.3390/app11094205, MDPI Academic Open Access Publishing since 1996, May **2021** Impact factor 2.474, PDF Version: <https://www.mdpi.com/2076-3417/11/9/4205/pdf> WOS:000649891100001.

For doctoral students who have obtained a doctorate in the last 5 years, there is at least one article or other contribution. All three articles selected for analysis present significant original contributions to the field of Agronomy.

**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.*

In order to disseminate the results of scientific research, PhD students participated in various international scientific events held both in the country and abroad. Under these conditions, the doctoral students who completed the doctoral thesis in the analyzed period (2015-2020) presented at least one paper at prestigious international scientific events organized in the country or abroad.

The ratio between the number of presentations of doctoral students who completed their doctoral studies in the evaluated period (last 5 years), including those of poster type, exhibitions, made at prestigious international events (held in the country or abroad) - 4 - and the number of doctoral students who completed their doctoral studies in the evaluated period (last five years) - 3 - is 1.33, so higher than 1.

**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.*

For the evaluation of theses for public defense, IOSUD uses external scientific references in the commissions for public support of doctoral theses, the number of doctoral theses allocated to a specific referent from a higher education institution, other than IOSUD evaluated, does not exceed two for theses coordinated by the same doctoral supervisor, in one year.

**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 the public defense of the doctoral theses, commissions of specialists in the field of Agronomy are appointed (5 members: president, scientific leader, 3 specialists, of which at least 2 from outside the university), which will evaluate their quality.

For the evaluation of the doctoral theses, the Doctoral School of Engineering Sciences used a number of 6 specialized references, coming from other universities.

No more than 2 participations / year of a referent in the analysis of theses coordinated by the same doctoral supervisor.

***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.*

In the evaluated period, 2015-2020, in the field of Agronomy, 3 doctoral theses were defended, all of which were validated. Prof.univ.dr. Ioan PĂCURAR \* and Prof.univ.dr.habil.Teodor RUSU \*, present in 2 commissions but each in a different year, out of the total of 3 commissions set up in the evaluated period and the threshold of 0.30 was not exceeded.

The ratio between the number of doctoral theses assigned to a certain scientific referent from another higher education institution than the one in which the doctoral thesis is organized and the number of doctoral theses defended in the same doctoral field within the doctoral school **does not exceed 0.3, by reference to the situation recorded in the last five years.**

***The indicator is fulfilled.***

## **Domain C. QUALITY MANAGEMENT**

According to the Regulation on quality assurance in OU, one of the constant concerns within the university is to establish a policy of assurance and constant improvement of quality. In achieving quality standards, OU takes into account the following priority objectives: strategic planning of OU activity, including in the field of quality assurance and training of specialists; reviewing educational goals and technologies in order to align them with modern educational standards; improving the provision of resources; diversification of educational pathways according to the needs of the labor market and consumers of educational services; updating, resizing and restructuring educational plans and programs based on the principle of early development.

Regarding the teaching-learning activity, the UO quality assurance policy emphasizes the activity centering on the student. For this, the students are partners in the quality assessment processes, being represented in the CEAC structures at university level, which operate in accordance with the legislation in force and on the basis of their own regulation and draw up an annual report.

The quality of the educational process in OU is achieved through the annual internal evaluation of the study programs from all forms of education, based on the quality standards recognized at national and international level; external evaluation of study programs and compatibility of the university's educational offer with that of the universities in the European Union and not only, from the perspective of the conferred competences, the quality and actuality of the accumulated knowledge, the developed practical skills and / or the competencies .

The internal quality assurance system within UO leads to ensuring high quality standards on institutional and managerial capacity for the development of high-performance higher education.

Within IOSUD - UO, procedures for monitoring internal quality assurance, as well as internal quality assurance policies have been developed and implemented in accordance with the following regulations:

1. **The Quality Assurance Code for the education and research processes at the University of Oradea** <http://arhiva-info.uoradea.ro/attachment/0e4acd64bb21068be729ed01b0a1fd/c6da629b5010769d8cd96fa533d2c5/020-HS014> - [Annex II.C.1.](#);
2. SEAQ\_PS\_DAC\_08\_F.01 - **System procedure regarding the monitoring of teaching activities** <https://www.uoradea.ro/display15960>.;
3. III.b2. SEAQ-PE-U.02 - **Procedure for evaluating and ensuring the quality of teachers and study disciplines** <https://www.uoradea.ro/display7093> - [Annex II.C.3.](#);
4. III.b3. SEAQ-PE-U.03 - **Procedure regarding the establishment, evaluation and ranking of research centers** <https://www.uoradea.ro/display8448> - [Annex II.C.4.](#);
5. III.b4. SEAQ-PE-U.04 - **Procedure regarding the establishment and evaluation of teaching laboratories**, annex - [Annex II.C.5.](#);
6. **Program of quality policies, strategies and actions** - [Annex II.C.6.](#);
7. **The operational procedure regarding the evaluation and internal monitoring of the doctoral schools/doctoral fields** within IOSUD\_UO - [Annex II.C.7.](#), In which the evaluation and monitoring activities are provided.

The use of the information produced by the internal quality assurance system contributes: to the evaluation of the individual professional performances of the teaching staff for the didactic activity, the scientific and research activity, the participation in the activities of the department, of the academic community, of the local community and of the economic-social environment. and other relevant activities associated with the quality of teacher; to identify the changes that are required in the subject sheets and in the Curriculum, in order to improve the quality in this field.

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

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

The internal quality assurance system at the University of Oradea, the legal representative of IOSUD has the following objectives: supporting the mechanism of continuous improvement of teaching-learning and research performances; improving a culture of quality management in the educational process with the participation of all staff.

The Department for Quality Assurance is part of the executive structure of the university and has the mission of coordinating and achieving the compliance of the quality management system with the reference standards.

The system for evaluating the activity of teachers is a necessity in ensuring the quality of higher education so that every person in the academic community can align with the rapid changes in their area of competence. The evaluation of the quality of teachers is approached as a periodic, transparent and formative process, destined to guarantee the improvement and maintenance to high standards of their level of professional and didactic training. The internal quality assurance system within the University of Oradea leads to ensuring high quality standards regarding the institutional and managerial capacity for the development of a high-performance higher education.

**Performance Indicator C.1.1.1.** *The Doctoral school in the respective university study domain shall demonstrate the continuous development of the evaluation process and its internal quality assurance following a procedure developed and applied at the level of the IOSUD, the following assessed criteria being mandatory:*

- (a) the scientific work of Doctoral advisors;*
- (b) the infrastructure and logistics necessary to carry out the research activity;*
- (c) the procedures and subsequent rules based on which doctoral studies are organized;*
- d) the scientific activity of doctoral students;*
- e) the training program based on advanced academic studies of doctoral students;*
- f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.*

The quality of the educational process at the University of Oradea is achieved through the annual internal evaluation of the study programs from all forms of education, based on the quality standards

recognized at national and international level. The quality of the educational process must take into account:

(a) **the scientific activity** of doctoral supervisors with reference to:

- Ministerial Order certifying the granting of the quality of doctoral / habilitation supervisor;
- Affiliation to a Doctoral School that operates within IOSUD\_UO;
- Fulfilling the minimum necessary and obligatory standards for conferring didactic titles in higher education and professional research-development degrees, for the didactic degree of university professor, in accordance with the specific annex to the doctoral field, according to OMEN no. 6129\_2016, on the date on which the evaluation is made. In this sense, each doctoral/qualified doctor-teacher, affiliated to IOSUD\_UO will present the Standards Compliance Form, on the date of the request, whenever necessary, but at least once every 5 years;
- Scientific activity visible internationally by presenting indexed publications Web of Sciences or ERIH in journals with impact factor or other achievements with relevant significance for the respective field;
- The disciplines in the training program based on advanced university studies related to the doctoral field are supported by teachers and researchers who have the quality of doctoral/qualified leaders, professor/CIS or associate professor/CSII with proven expertise in the field of taught subjects;
- The guiding commissions are made up of teachers doctoral supervisors/abilities or associate professor/CSII in the targeted doctoral field, specialists on the research topic of the doctoral thesis;
- The extent to which doctoral supervisors assigned to a field of doctoral studies continue to be scientifically active, obtaining at least 25% of the score required by the CNATDCU standards in force, based on the scientific results of the last 5 years.

(b) **the infrastructure and logistics necessary for carrying out the research activity**, with reference to:

- The quality of teaching materials made available to doctoral students;
- The access of doctoral students to the material, didactic and research base available to IOSUD\_UO;
- Doctoral students' access to electronic documentary information resources through the acquisition of fulltext databases / platforms and bibliographic and bibliometric databases;
- PhD students actually benefit from counseling and guidance from doctoral supervisors, who have established a program of consultations and other guidance / counseling mechanisms (including the use of e-mail, e-learning platforms, personal pages, etc.);
- The existence, endowment and use of research laboratories with equipment and logistics specific to the field, necessary for the development of the scientific activity of doctoral students at the highest standards. In this sense, the audit sheets of the laboratories will be presented, in accordance with the provisions of the Procedure for the establishment and evaluation of the didactic laboratories (SEAQ\_PE - U.04) or the proof of the registration of the laboratory on the ERRIS platform will be made;
- The existence, endowment and use of the Research Centers with the equipment and logistics specific to the field, necessary for the development of the scientific activity of the doctoral students

at the highest standards. In this sense, the Document on the Presentation of the Research Center will be presented, accompanied by the Validation from the UO Senate, in accordance with the provisions of the Procedure on the establishment, evaluation and ranking of research centers (SEAQ-PE-U.03);

- Notifying doctoral students about the possibilities to participate in national and international scientific conferences and communications, by posting them on the doctoral school website, dedicated platforms.

(c) **the regulations and procedures on the basis of which doctoral studies** are organized in relation to:

- Regulation of the University of Oradea regarding the organization and development of doctoral studies and postdoctoral programs;
- The own organization and functioning regulations of the doctoral schools;
- Regulation on the organization and development of the process of obtaining the habilitation certificate;
- Regulation on granting and revoking the membership of Ș.D. within IOSUD-UO;
- Operational procedure for the evaluation of doctoral students (SEAQ\_PO\_CSUD\_04).

(d) **the scientific activity of doctoral students** with reference to:

- Continuous evaluation of the scientific activity of doctoral students carried out by the doctoral supervisor based on the way of inclusion in the individual work plan, during the doctoral internship, research reports or lectures made by them, published articles, and participation at conferences and in projects;
- The results of the continuous evaluation are presented by the doctoral supervisor to the doctoral student's guidance committee. When presenting the scientific progress, recommendations can be made regarding the continuation of the doctoral student's research program.

(e) **a training program based on advanced university studies of doctoral students** with references to the evaluation method which is annual and which is done on the following levels:

- At the level of Doctoral Schools, the curriculum of the doctoral field is analyzed annually and modifications of the disciplines are provided for the development of the professional competencies but also of the transversal competencies of the doctoral students can be proposed;
- If, following the feedback mechanism from doctoral students, conclusions are drawn regarding the need for changes in both the training program based on advanced university studies and the scientific research program - these are discussed in the CSD and it proposes CSUD measures to improve the two programs.

(f) **social and academic support services** (including participation in various events, publication of articles, etc.) and counseling available to doctoral students, with reference to:

At the IOSUD level, the University of Oradea provides the beneficiaries of the educational services with a series of social, cultural, and sports facilities: accommodation, canteen, sports base, counseling services, as follows:

- The university has a Social Service, an administrative structure coordinated by the vice-rector responsible for student services. UO offers accommodation to students in the four student dormitories (**C1** - boys 'dormitory, **C2** - girls' dormitory, **C3** – mixed dormitory, **C4** - mixed

dormitory) with **1,435 accommodation places**. Student accommodation is regulated by the UO Framework **Regulation on accommodation in student dormitories**, ([Annex I.27.](#));

- The student canteen under private administration has a capacity of 250 seats/series, with the possibility of serving meals in three series. Representatives of the UO management, together with the students, monitor the observance of the requirements imposed by the university regarding the offer of food products and the services offered for students and employees. In the same location were arranged the Select Cafeteria and the Student Club, which, together with the student canteen are collectively called U @ Select Student's Club. U @ Select Student's Club is more than just a student canteen, it offers dining and leisure opportunities focused on students' needs in order to provide them with a welcoming "home". About 400 people benefit from these services every day, either in the cafe/pizzeria or in the canteen;
- The medical office offers preventive and curative medical assistance to UO students, here activating doctors specializing in family medicine, ASCO employees. Healthcare services are provided in the existing medical office on the central campus of the university;
- UO also offers spiritual spaces for students. In the central campus, there is a prayer chapel with a daily liturgical program (third floor in Building E) and the historical monument church „St. Archangels Michael and Gabriel ", where priests and doctoral students in the field of Theology work;
- **The Career Counseling and Services Center (CCSC)** has its basic mission to facilitate the access of students/doctoral students/graduates to the labor market. The main objective of this structure is to guide students through counseling services, personal development, and mediation of relationships with employers. These objectives are explicitly provided in the CCSC Operating Regulations (<https://www.uoradea.ro/display2310>). CCSC is composed of specialized employees with skills in the field of psychological counseling, sociological research and works with volunteer members among students, with students who benefit from the university internship scholarship (3 students) (<http://ccsc.uoradea.ro/Echipa+noastra>). In order to achieve its objectives, CCSC participates in: writing and carrying out projects on the insertion on the labor market of graduates in programs financed to reduce university dropout.

Academic support services are provided by:

- Informing PhD students about the opportunities for international mobility in different projects (Erasmus +, AUF, etc.);
- Informing doctoral students about the opportunities for disseminating research results at various conferences, specialized journals;
- Financial support for the publication of articles in ISI indexed journals.

At the same time, at the level of IOSUD - UO these procedures are implemented continuously.

The doctoral school of Engineering Sciences, which also includes the field of doctoral studies in Agronomy, proves the constant development of the process of evaluation and internal quality assurance.

**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 Operational Procedure for the evaluation and internal monitoring of doctoral schools/doctoral fields within IOSUD\_UO provides that:

- PhD students will complete the Questionnaire on the level of satisfaction with the doctoral program (Annex SEAQ\_PO\_CSUD\_05\_A.01), in each academic year, in the first quarter of the year;
- In the next period, the data collected from these questionnaires will be processed, so that the CSD, based on the information in these questionnaires, will present the CSUD conclusions and, as appropriate, the package of measures proposed to improve the doctoral program as a whole. academic and administrative services provided.

PhD students must express their degree of satisfaction on a scale from “very dissatisfied - dissatisfied - neither satisfied, nor dissatisfied - satisfied - to very satisfied” to the questions of the questionnaire presented in ([Annex II.C.8](#)).

The results of the „Satisfaction Report of PhD students from the Doctoral School of Engineering Sciences” for 2020 are presented in [Annex II.C.9](#).

These results are analyzed in the CSD, and the CSD will draw conclusions and, where appropriate, propose a package of measures to improve the doctoral program as a whole, respectively in order to continuously improve the academic and administrative services provided.

***The indicator is fulfilled.***

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

All the information regarding the completion of the doctoral program, starting with the admission and until obtaining the doctoral degree, are provided to the doctoral students both through the IOSUD secretariat department and by posting on the site, the related forms can be found at (<https://doctorat.uoradea.ro/ro/documente/formulare-utile>).

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

The university's website provides all the information that future candidates need, and the information of public interest is available for consultation in electronic format (<https://doctorat.uoradea.ro/ro/>).

***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:***

The Doctoral School, through IOSUD, publishes on the website of the organizing institution information about, in compliance with the general regulations on data protection:

- (a) ***the doctoral school regulations*** ([Anexa II.A.1.](#));
- (b) ***the rules of admission*** ([Anexa II.A.4.](#));

- (c) **Doctoral study contract** (<https://www.uoradea.ro/display17406>);
  - (d) the regulation for the completion of studies which should also include **the procedure for the public presentation of the thesis** (<https://cloud.uoradea.ro/index.php/s/TrLZx6ZYKjeiso5#pdfviewer>) [Anexa.II.C.10.](#);
  - (e) **the content of the study programs** - Curriculum/discipline sheet, [Anexa.II.B.2.](#);
  - (f) **the academic and scientific profile, thematic areas/research topics** of the doctoral supervisors in the school, as well as the institutional contact details of these centralized situations - [Anexa.II.C.11.](#);
  - (g) **list of doctoral students in the school** with basic information (year of enrollment; leader) - [Anexa.II.C.12.a.](#);
  - (h) **information on the standards for the elaboration of the doctoral thesis** OM/Annex to the SUD contract/Training program and results [Anexa.II.C.13.](#);
  - (h) **links to abstracts of doctoral theses to be defended publicly**, as well as the date, time, place where they will be defended, at least 20 days before the defense. Public support link (<https://doctorat.uoradea.ro/ro/sustineri-teze/sustineri-teze-doctorat>).
- All information is public on the university website <https://doctorat.uoradea.ro/ro>.

**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.*

Doctoral students in the field of Agronomy have access to all the necessary resources for carrying out doctoral studies in good conditions.

PhD students have free access to platforms with academic databases relevant to the field of study, they have access to existing libraries within the University of Oradea. Doctoral students are also allowed access to the scientific research laboratories within the institution.

**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.*

IOSUD –UO has and has had for the entire assessed duration of access to the services offered through the ANELIS Plus program ([Anexa II.C.12](#) - ANELIS Plus Contracts), in order to offer doctoral students free access to a platform with relevant academic databases for the fields of organized doctoral studies.

Thus, at the level of IOSUD - UO all doctoral students have access to this platform permanently, based on account and password, from anywhere, free of charge, based on their email account ([prenume.numedotorand@student.uoradea.ro](mailto:prenume.numedotorand@student.uoradea.ro)).

Students can access the following databases: PROQUEST Central, ScienceDirect Freedom Collection, Scopus, Elsevier, de Gruyter ebooks, SpringerLink Journals, Springer, Web of Science - Core Collection, InCites Journal Citation Reports, Derwent Innovations Index, Clarivate Analytics.

Students' access to information on the database platform is free and open (ANELIS PLUS 2020).

***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.*

For the prevention and control of plagiarism-related fraud at the level of IOSUD - University of Oradea, all doctoral and habilitation theses are verified by an anti-plagiarism software, which is in the list of programs recognized by CNATDCU and used at the level of higher education institutions organizing studies doctoral university and of the Romanian Academy, in order to establish the degree of similarity for scientific papers, in accordance with MENCS Order no. 3485/24.03.2016. ([Anexa II.A.19.](#) - Evidence of purchase of anti-plagiarism software), respectively, – Doctoral School approval-antiplagiarism verification ([Annex II.A.19.](#)). Also, each doctoral student assumes the authenticity of the doctoral thesis, together with the scientific supervisor, completing the Declaration on the authenticity of the doctoral thesis.

Each doctoral student has access, upon request and with the consent of the doctoral supervisor, to an electronic system for verifying the degree of similarity with other existing scientific or artistic creations.

As also specified in criterion A.1.2.2. at the IOSUD level there is a person designated as the system administrator, who monitors the access to the platform, respectively the allocation of user accounts for each doctoral school.

Based on an internal form, each doctoral school is assigned an account (username and password), which allows the verification of doctoral theses.

The theses are checked before the defense in the guiding commission. On the basis of the recommendations of the tutorship committee regarding changes to the thesis and at the request of the tutor, the thesis may be rechecked before the public defence.

All doctoral theses are verified by an antiplagiarism software, which is in the list of programs recognized by CNATDCU.

***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 permanent access to the research infrastructure within IOSUD - USAMV UO of all doctoral students is assumed and guaranteed by the Contract for doctoral studies.

The University of Oradea provides the necessary material base for scientific research and supports the realization of research-development-innovation projects as well as a favorable climate for scientific research and development. PhD students have free access to the existing infrastructure in research laboratories and those with a dual purpose, teaching and research.

Within the PhD field of Agronomy, the leading PhD teachers and doctoral students carry out their scientific research activity in research centers and laboratories equipped with equipment. A series of

laboratories in which doctoral students can carry out their research are registered in the ERRIS research platform.

PhD students have free access to the existing infrastructure in research laboratories and those with a dual purpose, teaching and research, upon request and according to the work program of the laboratory.

Depending on the research topic of the doctoral thesis, based on a prior appointment, with the approval of the doctoral supervisor and under his direct or indirect supervision, with the approval of the Doctoral School, doctoral students have access throughout the internship to research laboratories or those with dual purpose (teaching and research), equipment, IT resources or other resources needed to carry out the contracted research program.

As can be seen from the documents made available to the external evaluation team, as well as the on-site visit, PhD students have free access to the existing infrastructure in research laboratories and those with a dual purpose, teaching and research, based on upon request and according to the work program of the laboratory.

***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.*

The University of Oradea is analyzing the IOSUD partnership agreements in Erasmus+ programs and general bilateral agreements.

**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.*

In order to develop educational dialogue and partnerships with higher education and research institutions around the world, the International Relations Service of the University of Oradea is constantly concerned with identifying relevant institutions and universities, in order to establish cooperation agreements that lead to to expand the internationalization process, for the benefit of all parties involved. IOSUD has concluded agreements in Erasmus+ programs and general bilateral agreements according to which mobilities have taken place and which may target the realization of mobilities (<https://www.uoradea.ro/display21229>).

IOSUD-UO develops and implements policies and action plans aimed at increasing the number of doctoral students participating in training courses abroad, but the analysis of data from 2015-2020 shows that only three doctoral students participated in scientific events organized abroad - representing 13%.

*Recommendations:* increase the number of PhD students participating in training courses abroad by stimulating their application and financial support from IOSUD, increasing the number of interinstitutional collaboration agreements and placement mobility and identifying alternative sources of funding.

***The indicator is partially 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.*

The analysis of the data presented in the RA\_en and the accompanying annexes shows that in the period 2015-2020 no co-supervised doctorates were carried out. Lectures were organized for PhD students with the invitation of experts from Hungary.

*Recommendations:* Intensify the concerns of attracting scientific personalities in research teams and then as PhD Supervisor in co-tutoring, in order to increase the international visibility of leading PhD teachers in the field of AGRONOMY.

***The indicator is partially 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.).*

IOSUD makes public its educational offer by participating in various events held at international level such as: Seville, Spain 12-15 September 2017, European Association for International Education - EAIE Annual Conference and Exhibition, Geneva, Switzerland, 11-14 September 2018, 30<sup>th</sup> European Association for International Education - EAIE Annual Conference and Exhibition, Participation with its own stand under the auspices of the National Council of Rectors - CNR, within the Romanian pavilion „Study in Romania”, Istanbul, Turkey, October 28-30, 2019, IEFT Fall Fair EuroAsia Agent Workshop, Participation with own flag.

Concrete measures are applied to promote educational programs and attract foreign doctoral students.

***The indicator is fulfilled.***

## IV. SWOT Analysis

Based on the self-assessment Report and its annexes, the discussions/on-site visits that took place in accordance with the visit schedule, the SWOT analysis of the doctoral field AGRONOMY was developed - part of the Doctoral School of Engineering Sciences at the University of Oradea.

It aims to be a tool capable of providing an overview of the doctoral field, while assessing internal and external influencers in order to highlight strengths and weaknesses in relation to existing opportunities and threats.

<p><b><u>Strengths:</u></b></p> <ul style="list-style-type: none"> <li>- diverse educational offer, specific to the field at all three study cycles: bachelor's, master's and doctorate;</li> <li>- ARACIS accreditation for all study programs: bachelor's, master's, doctorate;</li> <li>- human resource represented by doctoral supervisors in the field of AGRONOMY with proven skills in scientific research, in university management - a fundamental condition for conducting scientific research at a high scientific level;</li> <li>- the material base, characterized by the existence of a modern equipment of education and research, which offers optimal conditions for teaching, as well as for practical training in research centers, in the experimental station and units (farms);</li> <li>- consistent university library in terms of the number and diversity of books and publications, access to scientific literature in the field, databases provided free of charge to doctoral students;</li> <li>- effective communication with doctoral students, regarding the professional path, research directions, access to bibliography, etc.;</li> <li>- the existence of quality assurance policies and strategies targeting doctoral schools, as well as their fields;</li> <li>- transparency in the selection, admission and enrollment of students in doctoral university study programs.</li> </ul>	<p><b><u>Weaknesses:</u></b></p> <ul style="list-style-type: none"> <li>- reduced number of teachers/researchers from abroad who participate in the guiding commissions, respectively public defense of the doctoral theses of the doctoral schools;</li> <li>- lack of doctorates in co-tutoring and low visibility of PhD leading teachers;</li> <li>- reduced capitalization of research results of PhD students in ISI listed journals;</li> <li>- relatively small number of doctoral students participating in training internships abroad;</li> <li>- low number of graduates who were integrated on the labor market after obtaining the doctorate in the field of doctoral studies;</li> <li>- weak connection of research centers and laboratories to the existing network at European level.</li> </ul>
<p><b><u>Opportunities:</u></b></p>	<p><b><u>Threats:</u></b></p>

<ul style="list-style-type: none"> <li>- increasing the educational and professional training offer by developing postdoctoral and postgraduate study programs, continuous professional training and lifelong learning programs, professional reconversion programs, etc. and increasing its competitiveness and visibility in the European Higher Education Area;</li> <li>- international cooperation programs for doctoral students that offer doctoral students the opportunity to carry out training courses in the form of various external mobilities for their professional development;</li> <li>- availability of the private sector to hire PhD students due to skills, knowledge, etc. with consequences on the interest for doctoral studies and the facilitation of the collaboration between the university and companies (investments, additional financing, joint projects, possibility of financing doctoral students);</li> <li>- the possibility of collaboration with foreign research centers involved in the international network of agricultural research centers;</li> <li>- development of new European programs such as Life Long Learning and e-Platforms that offer the possibility of doctoral theses in international co-supervision, as well as stimulating doctoral students to carry out external training courses;</li> <li>- developing relations with the socio-economic environment and creating the premises for its involvement in the development of research projects through partnerships in the field of doctoral schools;</li> <li>- additional funding based on performance criteria, which also includes the results of doctoral students' research.</li> </ul>	<ul style="list-style-type: none"> <li>- the tendency of demographic decrease, with a negative impact on the dynamics of the number of students and the gradual increase of the costs that contribute to the lack of interest for university studies;</li> <li>- lack of interest in accessing doctoral training programs determined by the weak insertion on the labor market;</li> <li>- significant reduction of research funds in recent years, while increasing standards for minimum eligibility criteria, for attracting research grants at national level, for project managers;</li> <li>- increased competition from educational institutions in the country and the European Area for attracting students and the aggressive policy of European universities;</li> <li>- short duration of doctoral research internships and the need to postpone the defense of doctoral theses;</li> <li>- reduced salary compared to the private sector;</li> <li>- low budget available for research and academia;</li> <li>- reduced duration of research to 3 years - makes it impossible to conduct research in the field of agriculture subject to the influence of climatic conditions.</li> </ul>
---	--

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

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
1.	PI	<p><b>A.1.1.1.</b> The existence of specific regulations and their application at the level of the Doctoral School of the respective university doctoral study domain:</p> <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>	<b>fulfilled</b>	
2.	PI	<p><b>A.1.1.2.</b> The doctoral school' Regulation includes mandatory criteria, procedures and standards binding on the aspects specified in Article 17, paragraph (5) of the Government Decision No. 681/2011 on the approval of the Code of Doctoral Studies with subsequent amendments and additions.</p>	<b>fulfilled</b>	
3.	PI	<p><b>A.1.2.1.</b> The existence and effectiveness of an appropriate IT system to keep track of doctoral students and their academic background.</p>	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
4.	PI	<b>A.1.2.2.</b> The existence and use of an appropriate software program and evidence of its use to verify the percentage of similarity in all doctoral theses.	<b>fulfilled</b>	
5.	IP	<b>A.1.3.1.</b> Existence of at least one research or institutional / human resources development grant under implementation at the time of submission of the internal evaluation file, per doctoral study domain under evaluation, or existence of at least 2 research or institutional development / human resources grant for the doctoral study domain, obtained by doctoral thesis advisors operating in the evaluated domain within the past 5 years. The grants address relevant themes for the respective domain and, as a rule, are engaging doctoral students.	<b>fulfilled</b>	
6.	PI *	<b>A.1.3.2.</b> The percentage of doctoral students active at the time of the evaluation, who for at least six months receive additional funding sources besides government funding, through scholarships awarded by individual persons or by legal entities, or who are financially supported through research or institutional / human resources development grants is not less than 20%.	<b>fulfilled</b>	
7.	PI *	<b>A.1.3.3.</b> At least 10% of the total amount of doctoral grants obtained by the university through institutional contracts and of tuition fees collected from the doctoral students enrolled in the paid tuition system is used to 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.).	<b>fulfilled</b>	<b>The increasing the percentage of expenses with the professional training of doctoral students</b>
8.	CPI	<b>A.2.1.1.</b> The venues and the material equipment available to the doctoral school enable the research activities in the evaluated	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		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		
9.	<b>CPI</b>	<b>A.3.1.1.</b> Minimum three doctoral thesis advisors within that doctoral domain, and at least 50% of them (but no less than three) meet the minimum standards of the National Council for Attestation of University Degrees, Diplomas and Certificates (CNATDCU) in force at the time when the evaluation is carried out, which standards are required and mandatory for obtaining the enabling certification.	<b>fulfilled</b>	
10.	<b>PI *</b>	<b>A.3.1.2.</b> At least 50% of all doctoral advisors have a full-time employment contract for an indefinite period with the IOSUD.	<b>fulfilled</b>	
11.	<b>PI</b>	<b>A.3.1.3.</b> The study subjects in the education program based on advanced higher education studies pertaining to the doctoral domain are taught by teaching staff or researchers who are doctoral thesis advisors / certified doctoral thesis advisors, professors / CS I or lecturer / CS II, with proved expertise in the field of the study subjects they teach, or other specialists in the field who meet the standards established by the institution in relation with the aforementioned teaching and research functions, as provided by the law.	<b>fulfilled</b>	
12.	<b>PI *</b>	<b>A.3.1.4.</b> The percentage of doctoral thesis advisors who concomitantly coordinate more than 8 doctoral students, but no more than 12,	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		who are themselves studying in doctoral programs does not exceed 20%.		
13.	<b>CPI</b>	<b>A.3.2.1.</b> At least 50% of the doctoral thesis advisors in the evaluated domain have at least 5 Web of Science- or ERIH-indexed publications in magazines of impact, or other achievements of relevant significance for that domain, including international-level contributions that indicate progress in scientific research - development - innovation for the evaluated domain. The aforementioned doctoral thesis advisors enjoy international awareness within the past five years, consisting of: membership on scientific boards of international publications and conferences; membership on boards of international professional associations; guests in conferences or expert groups working abroad, or membership on doctoral defense commissions at universities abroad or co-leading with universities abroad. For Arts and Sports and Physical Education Sciences, doctoral thesis advisors shall prove their international visibility within the past five years by their membership on the boards of professional associations, membership in organizing committees of arts events and international competitions, membership on juries or umpire teams in artistic events or international competitions.	<b>fulfilled</b>	
14.	<b>PI *</b>	<b>A.3.2.2.</b> At least 50% of the doctoral thesis advisors in a specific doctoral study domain continue to be active in their scientific field, and acquire at least 25% of the score requested by the minimal CNATDCU standards in force at the time of the evaluation, which are required and mandatory for acquiring their enabling certificate, based on their scientific results within the past five years	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
15.	PI *	<b>B.1.1.1.</b> The ratio between the number of graduates of masters' programs of other higher education institutions, national or foreign, who have enrolled for the doctoral admission contest within the past five years and the number of seats funded by the state budget, put out through contest within the doctoral domain is at least 0.2 or the ratio between the number of candidates within the past five years and the number of seats funded by the state budget put out through contest within the doctoral studies domain is at least 1,2.	<b>fulfilled</b>	<b>The attracting students to the third cycle of studies by identifying research topics of interest, including for the agricultural economic environment, identifying alternative sources of financial support for research to motivate candidates</b>
16.	PI *	<b>B.1.2.1.</b> Admission to doctoral study programs is based on selection criteria including: previous academic, research and professional performance, their interest for scientific or arts/sports research, publications in the domain and a proposal for a research subject. Interviewing the candidate is compulsory, as part of the admission procedure.	<b>fulfilled</b>	
17.	PI	<b>B.1.2.2.</b> The expelling rate, including renouncement / dropping out of doctoral students 3, respectively 4, years after admission does not exceed 30%.	<b>fulfilled</b>	
18.	PI	<b>B.2.1.1.</b> The training program based on advanced academic studies includes at least 3 disciplines relevant to the scientific research training of doctoral students; at least one of these disciplines is intended to study in-depth the research methodology and/or the statistical data processing.	<b>fulfilled</b>	
19.	PI	<b>B.2.1.2.</b> At least one discipline is dedicated to Ethics and Intellectual Property in scientific research or there are well-defined topics on these subjects within a discipline taught in the doctoral program.	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
20.	PI	<b>B.2.1.3.</b> The IOSUD has mechanisms to ensure that the academic training program based on advanced university studies addresses „the learning outcomes”, specifying the knowledge, skills, responsibility and autonomy that doctoral students should acquire after completing each discipline or through the research activities.	<b>fulfilled</b>	
21.	PI	<b>B.2.1.4.</b> All along the duration of the doctoral training, doctoral students in the domain receive counselling/guidance from functional guidance commissions, which is reflected in written guidance and feedback or regular meeting.	<b>fulfilled</b>	
22.	CPI	<b>B.2.1.5.</b> For a doctoral study domain, the ratio between the number of doctoral students and the number of teaching staff/researchers providing doctoral guidance must not exceed 3:1.	<b>fulfilled</b>	
23.	CPI	<b>B.3.1.1.</b> For the evaluated domain, the evaluation commission will be provided with at least one paper or some other relevant contribution per doctoral student who has obtained a doctor's title within the past 5 years. From this list, the members of the evaluation commission shall randomly select 5 such papers / relevant contributions per doctoral study domain for review. At least 3 selected papers must contain significant original contributions in the respective domain	<b>fulfilled</b>	
24.	PI *	<b>B.3.1.2.</b> The ratio between the number of presentations of doctoral students who completed their doctoral studies within the evaluated period (past 5 years), including posters, exhibitions made at prestigious international events (organized in the country or abroad) and the number of doctoral students who have completed their doctoral	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
		studies within the evaluated period (past 5 years) is at least 1.		
25.	PI *	<b>B.3.2.1.</b> The number of doctoral theses allocated to one specialist coming from a higher education institution, other than the evaluated IOSUD should not exceed two (2) in a year for the theses coordinated by the same doctoral thesis advisor.	<b>fulfilled</b>	
26.	PI *	<b>B.3.2.2.</b> The ratio between the doctoral theses allocated to one scientific specialist coming from a higher education institution, other than 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.	<b>fulfilled</b>	
27.	PI	<b>C.1.1.1.</b> The Doctoral school in the respective university study domain shall demonstrate the continuous development of the evaluation process and its internal quality assurance following a procedure developed and applied at the level of the IOSUD, the following assessed criteria being mandatory: a) the scientific work of Doctoral advisors; b) the infrastructure and logistics necessary to carry out the research activity; c) the procedures and subsequent rules based on which doctoral studies are organized; d) the scientific activity of doctoral students; e) the training program based on advanced academic studies of doctoral students; f) social and academic services (including for participation at different events, publishing papers etc.) and counselling made available to doctoral students.	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
28.	PI *	<b>C.1.1.2.</b> Mechanisms are implemented during the stage of the doctoral study program to enable feedback from doctoral students allowing to identify their needs, as well as their overall level of satisfaction with the doctoral study program in order to ensure continuous improvement of the academic and administrative processes. Following the analysis of the results, there is evidence that an action plan was drafted and implemented.	<b>fulfilled</b>	
29.	CPI	<b>C.2.1.1.</b> The IOSUD publishes on the website of the organizing institution, in compliance with the general regulations on data protection, information such as: a) the Doctoral School regulation; b) the admission regulation; c) the doctoral studies contract; d) the study completion regulation including the procedure for the public presentation of the thesis; e) the content of training program based on advanced academic studies; f) the academic and scientific profile, thematic areas/research themes of the Doctoral advisors within the domain, as well as their institutional contact data; g) the list of doctoral students within the domain with necessary information (year of registration; advisor); h) information on the standards for developing the doctoral thesis; i) links to the doctoral theses' summaries to be publicly presented and the date, time, place where they will be presented; this information will be communicated at least twenty days before the presentation.	<b>fulfilled</b>	
30.	PI	<b>C.2.2.1.</b> All doctoral students have free access to one platform providing academic databases relevant to the doctoral studies domain of their thesis.	<b>fulfilled</b>	

No.	Type of indicator (PI, PI *, CPI)	Performance indicator	Judgment	Recommendations
31.	PI	<b>C.2.2.2.</b> Each doctoral student shall have access, upon request, to an electronic system for verifying the degree of similarity with other existing scientific or artistic works.	<b>fulfilled</b>	
32.	PI	<b>C.2.2.3.</b> All doctoral students have access to scientific research laboratories or other facilities depending on the specific domain/domains within the Doctoral School, according to internal order procedures.	<b>fulfilled</b>	
33.	PI *	<b>C.3.1.1.</b> IOSUD, for every evaluated domain, has concluded mobility agreements with universities abroad, with research institutes, with companies working in the field of study, aimed at the mobility of doctoral students and academic staff (e.g., ERASMUS agreements for the doctoral studies). At least 35% of the doctoral students have completed a training course abroad or other mobility forms such as attending international scientific conferences. IOSUD drafts and applies policies and measures aiming at increasing the number of doctoral students participating at mobility periods abroad, up to at least 20%, which is the target at the level of the European Higher Education Area.	<b>partially fulfilled</b>	<b>Increasing the number of doctoral students participating in training courses abroad by stimulating the submission of applications by them and financial support from the university, increasing the number of inter-institutional collaboration agreements and placement mobility and identifying alternative sources of funding.</b>
34.	PI	<b>C.3.1.2.</b> In the evaluated doctoral study domain, support is granted, including financial support, to the organization of doctoral studies in international co-tutelage or invitation of leading experts to deliver courses/lectures for doctoral students.	<b>partially fulfilled</b>	<b>Intensifying the preoccupations of attracting scientific personalities in research teams and then as PhD Supervisor in co-tutoring, in order to increase the international visibility of the leading PhD teachers in the field of AGRONOMY.</b>
35.	PI	<b>C.3.1.3.</b> The internationalization of activities carried out during the doctoral studies is supported by IOSUD through concrete measures (e.g., by participating in educational fairs to attract international doctoral students; by including international experts in guidance committees or doctoral committees etc.).	<b>fulfilled</b>	

## VI. Conclusions and general recommendations

*Based on the information contained in the self-assessment Report, the on-site visit and the online discussions with representatives of the USAMV UO management, doctoral schools, teachers, doctoral students and employers, as well as with those who coordinate the activity of research centers and laboratories In general, the activity within the doctoral field AGRONOMY was analyzed by referring to the way of fulfilling the indicators.*

### **Conclusions:**

- It is found the fulfillment of the performance indicators regarding the implementation of the functioning mechanisms provided in the specific legislation regarding the organization of the doctoral university studies;
- The institutional framework for carrying out the activity within IOSUD is ensured by: the Regulation of the Doctoral Schools criteria, procedures and obligatory standards provided in GD no 681/2011, including those mentioned in GD 134 of 2.03.2016;
- The regulation of doctoral schools within IOSUD from OU establishes mandatory criteria, procedures and standards regarding the following aspect: the inclusion in doctoral schools of new doctoral supervisors, as well as regulations regarding the way in which a doctoral supervisor can be withdrawn doctoral school, decision-making mechanisms on the opportunity, structure and content of the training program based on advanced university studies, procedures for changing the doctoral supervisor and procedures for mediating conflicts between the supervisor and the doctoral student, ways to prevent fraud in scientific research, including plagiarism, ensuring access to research resources;
- UO ensures the access of doctoral students to the material base, characterized by the existence of a modern education and research equipment, offers optimal conditions for teaching, as well as for practical training in pilot units and in experimental resorts and units (farms);
- The research infrastructure presented complies with the standards necessary for the activity of doctoral students. In the last 5 years, purchases of laboratory furniture, computers, apparatus and equipment have been made. PhD students have access to IOSUD libraries and international databases;
- The quality of the human resource is the condition for the successful completion of the doctoral training of the students, for the elaboration of scientific papers with novelty elements and to offer recognition to the authors;
- PhD students carry out their own research under the direct guidance of doctoral leading teachers selected from among teachers and researchers. Within the PhD field of Agronomy, three PhD supervisors currently work;
- All doctoral supervisors (100%) meet the CNATDCU minimum standards, achieving a score between 824.78 and 3888 points, compared to 420 points the minimum value according to order 6129/2016;
- The specialized disciplines within the doctoral students' training program are supported by doctoral supervisors in the field of Agronomy who have the degree of professor and associate professor;
- A single doctoral supervisor coordinates a maximum of 8 doctoral students;

- All 3 PhD supervisors reported at least 5 WOS indexed publications, in journals with FI or other achievements, all 3 supervisors (100%) have international visibility through membership in the scientific committees of international publications and conferences;
- For the analyzed period, 2015-2020, within the field of Agronomy, the ratio between the number of doctoral students and teachers / researchers who provide guidance / counseling was between 2.87: 1;
- For doctoral students who have obtained a doctorate in the last 5 years there is at least one article or other contribution. All three articles selected for analysis present significant original contributions to the field of Agronomy;
- The doctoral school in which the field of doctoral studies in doctoral agronomy falls is proof of the constant development of the process of evaluation and internal assurance of its quality;
- The duration of doctoral studies is 3 years, so there are some difficulties related to limiting to 3 years the duration of doctorate in Agronomy, generated by the fact that certain research in that field can not be completed in 3 years because in these experimental sciences research requires field experiments, of at least 3 years, and climatic conditions, may compromise the experiences, being necessary to extend the duration of doctoral studies.

In the context of the analysis based on standards and external evaluation indicators for the AGRONOMY field, it is found that there are two partially fulfilled indicators:

#### Performance indicator \* C.3.1.1

IOSUD, for the evaluated field of study, has concluded mobility agreements with foreign universities, with research institutes, with companies that carry out activities in the studied field, aiming at the mobility of doctoral students and teachers (for example, ERASMUS agreements for the cycle of Doctoral studies). At least 35% of PhD students have completed a training course abroad or another form of mobility, such as participating in international scientific conferences. IOSUD develops and implements policies and action plans aimed at increasing the number of doctoral students participating in training courses abroad, up to at least 20%, which is the target at the level of the European Higher Education Area.

• ***It is recommended:*** Increasing the number of PhD students participating in training courses abroad by stimulating their submission and financial support from the university, increasing the number of inter-institutional collaboration agreements and placement mobility and identifying sources financing alternatives.

#### Performance indicator \* C.3.1.2

Within the evaluated field of studies, it is supported, including financially, the organization of doctorates in international co-supervision, respectively the invitation of first-rate experts to give courses / lectures for doctoral students.

• ***It is recommended:*** Intensifying the preoccupations of attracting scientific personalities in research teams and then as PhD Supervisor in co-tutoring, in order to increase the international visibility of the leading PhD teachers in the field of AGRONOMY.

### **Recommendations:**

- Extending the number of compulsory disciplines, which should include other disciplines of wider interest for all doctoral students (eg: Methodology for developing scientific papers, Management of project preparation, Career management, etc.);
- Increasing the percentage of expenses allocated for the professional training of doctoral students;
- Intensifying the preoccupations of attracting scientific personalities in research teams and then as PhD Supervisor in co-tutoring, in order to increase the international visibility of the leading PhD teachers in the field of AGRONOMY;
- Increasing the number of doctoral students participating in training internships abroad by developing collaboration agreements and financial support from IOSUD;
- Connecting research centers and laboratories to the existing network at European level, allowing access to external funding sources;
- Increasing the number of scientific papers/patents/inventions published as a result of research activity;
- Extending the endowment of the laboratories with research equipment, calculation technique and statistical interpretation, which would allow a much better interpretation of the obtained scientific results;
- Continuous updating of the proposed research topics, inclusion in the topic of topics of interest with applicability in practice, consultation of economic partners in establishing the proposed topic;
- Increasing the preoccupations for the internationalization of the activities within the doctoral studies (e.g. participation in educational fairs for attracting international doctoral students; inclusion of international experts in commissions for guiding or defending doctoral theses, etc.);
- Intensifying the collaboration between the university and the farmers' associations;
- Supporting teachers within the UO to obtain the right to conduct doctoral theses based on meeting the CNADTCU criteria and increasing the number of doctoral supervisors in the field of AGRONOMY;
- It is recommended to support doctoral students, in internships, in order to maintain the quality of "medically insured" even after reaching the age of 26 years.

***All performance indicators were assessed as met, except the indicators:***

***Indicator \* C.3.1.1;***

***Performance indicator C.3.1.2.,***

*defined as belonging to the category of those with an asterisk or main, within the evaluation process, carried out under the conditions of art. 12 of the annex no. 1 to the Order of the Minister of Education no. 3651 of 12.04.2021 on the approval of the Methodology for evaluating doctoral studies and the systems of criteria, standards and performance indicators used in evaluation.*

## VII. Annexes

The following is attached to this External Evaluation Report:

1. The program of the external evaluation visit of the AGRONOMY field within IOSUD of USAMV UO.



AGENȚIA ROMÂNĂ DE ASIGURARE A CALITĂȚII ÎN ÎNVĂȚĂMÂNTUL SUPERIOR

Membră în Asociația Europeană pentru Asigurarea Calității în Învățământul Superior - **ENQA**  
Înscrisă în Registrul European pentru Asigurarea Calității în Învățământul Superior - **EQAR**

Nr 6239/02.11.2021

Programul<sup>1</sup> vizitei de evaluare instituțională - IOSUD / domenii de studii universitare de doctorat a **Universității din Oradea**

*The timetable of the institutional evaluation visit - IOSUD / doctoral study domains at the **University of Oradea***

**Perioada de derulare a vizitei: 15.11.2021 - 22.11.2021**

*The evaluation period: 15.11.2021 - 22.11.2021*

### Evaluarea Externă Periodică a domeniului de studii universitare de doctorat Agronomie

#### Periodical External Evaluation of the doctoral study domain Agronomy

Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
<b>Luni / Monday, 15.11.2021</b>			
<b>09:00-10:45</b>	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 steps, in hybrid mode, of doctoral study domains and IOSUD</i>	<b>Comisia de evaluare IOSUD&amp;domenii</b> <i>IOSUD&amp;domains evaluation panel</i> <b>- toți membrii echipei de evaluare all</b> <i>evaluation panel members</i>	<b>Înregistrare audio-video ARACIS / platforma ZOOM</b> <b>(apăsați aici pentru a vă conecta)</b> <i>Audio-video recording ARACIS / ZOOM platform (click here to join)</i>

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

Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
11:00-11:45	Întâlnirea online a comisiei de experți evaluatori cu reprezentanții conducerii universității și ai CSUD <i>Online meeting with representatives of the institution and of the Council for Academic Doctoral Studies (CSUD)</i>	Comisia de evaluare IOSUD&domenii <i>IOSUD&amp;domains evaluation panel</i> - toți membrii echipei de evaluare <i>all evaluation panel members</i> - reprezentanți ai conducerii <i>representatives of the University's management</i> - reprezentanți ai CSUD și ai școlii/școlilor doctorale <i>representatives of the CSUD and of the Doctoral School/Schools</i> - persoana de contact IOSUD/domenii <i>the contact person for IOSUD / doctoral domains</i>	Înregistrare audio-video / platforma UO (apăsați aici pentru a vă conecta) <i>Audio-video recording UO / ZOOM platform (click here to join)</i>
12:00-13:00	Activități de evaluare <i>Evaluation activities</i>  <b>Domeniu Agronomie:</b> 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 <i>Domain Agronomy: Online meeting with the contact person for the doctoral study domain under review and the team who drafted the internal evaluation report</i>	Comisia de evaluare domeniu Agronomie <i>Domain evaluation panel Agronomy</i> -membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i> - responsabilul domeniului de studii universitare de doctorat evaluat și echipa care a realizat raportul de evaluare internă <i>The doctoral studies domain contact person and the team who drafted the internal evaluation report</i>	Înregistrare audio-video / platforma UO (apăsați aici pentru a vă conecta) <i>Audio-video recording UO / ZOOM platform (click here to join)</i>
Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
14:30-15:30	Activități de evaluare <i>Evaluation activities</i>  <b>Domeniu Agronomie:</b> Întâlnire online a comisiei de experți evaluatori cu personalul didactic aferent domeniului evaluat <i>Domain Agronomy : Online meeting with the academic staff corresponding to the doctoral study domain</i>	Comisia de evaluare domeniu Agronomie <i>Domain evaluation panel Agronomy</i> -membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i> -cadre didactice cu titlul de conducător de doctorat <i>Doctoral coordinators</i>	Înregistrare audio-video / platforma UO (apăsați aici pentru a vă conecta) <i>Audio-video recording UO / ZOOM platform (click here to join)</i>
<b>Marti / Tuesday, 16.11.2021</b>			
09:00 - 10:00	- 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&amp;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 audio-video / platforma UO (apăsați aici pentru a vă conecta) <i>Audio-video recording UO / ZOOM platform (click here to join)</i>
10:15 - 11:15	- Activități de evaluare <i>Evaluation activities</i>	Comisia de evaluare IOSUD&domenii <i>IOSUD&amp;domains evaluation panel</i> - toți membrii echipei de evaluare <i>all evaluation panel members</i>	Înregistrare audio-video / platforma UO (apăsați aici pentru a vă conecta) <i>Audio-video recording UO / ZOOM platform</i>

Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	Întâlnire online cu membrii <b>Comisiei pentru Evaluarea și Asigurarea Calității (CEAC)</b> / Departamentul de asigurare a calității <i>Online meeting with the Commission for Quality Evaluation and Assurance (CEAC) members/ Quality Assurance Department</i>	- reprezentanți ai CEAC/Departament AC <i>representatives of Commission for Quality Evaluation and Assurance (CEAC) / Quality Assurance Department</i>	( <a href="#">click here to join</a> )
11:30-12:30	Activități de evaluare <i>Evaluation activities</i>  <b>Domeniu Agronomie</b> Întâlnire online a comisiei de evaluare cu <b>studenții doctoranzi</b> <i>Domain Agronomy: Online meeting with PhD students</i>	<b>Comisia de evaluare domeniu Agronomie</b> <i>Domain evaluation panel Agronomy</i>  - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  - studenții doctoranzi <i>PhD students</i>	Înregistrare audio-video <b>ARACIS / platforma ZOOM</b> ( <a href="#">apăsați aici pentru a vă conecta</a> )  <i>Audio-video recording ARACIS / ZOOM platform (click here to join)</i>
14:00-15:00	Activități de evaluare <i>Evaluation activities</i>  <b>Domeniu Agronomie</b> : Întâlnire online a comisiei de evaluare cu reprezentanți ai <b>absolvenților domeniului</b> <i>Domain Agronomy : Online meeting with graduates for the respective doctoral study domain</i>	<b>Comisia de evaluare domeniu Agronomie</b> <i>Domain evaluation panel Agronomy</i>  - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  - studenții doctoranzi <i>PhD students</i>  - reprezentanți ai absolvenților <i>representatives of doctoral graduates</i>	Înregistrare audio-video / <b>platforma UO</b> ( <a href="#">apăsați aici pentru a vă conecta</a> )  <i>Audio-video recording UO / ZOOM platform (click here to join)</i>
<b>Miercuri / Wednesday, 17.11.2021</b>			
09:00-10:00	Activități de evaluare <i>Evaluation activities</i>	<b>Comisia de evaluare domeniu Agronomie</b> <i>Domain evaluation panel Agronomy</i>	Înregistrare audio-video / <b>platforma UO</b> ( <a href="#">apăsați aici pentru a vă conecta</a> )
Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	<b>Domeniu Agronomie:</b> Întâlnire online cu <b>directorii/responsabilii centrelor/laboratoarelor de cercetare</b> aferente domeniului de studii universitare de doctorat <i>Domain Agronomy: Online meeting with the Directors/ persons in charge of the research centers/laboratories within the doctoral study domain</i>	- membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  - directorii centrelor / laboratoarelor de cercetare <i>directors of research centers/laboratories</i>	<i>Audio-video recording UO / ZOOM platform (click here to join)</i>
11:30-12:30	Activități de evaluare <i>Evaluation activities</i>  <b>Domeniu Agronomie:</b> Întâlnire online cu membrii <b>Consiliului școlii /școlilor doctorale (CSD)</b> în cadrul cărora funcționează domeniul evaluat <i>Domain Agronomy: Online meeting with Doctoral Schools Council (CSD members)</i>	<b>Comisia de evaluare domeniu Agronomie</b> <i>Domain evaluation panel Agronomy</i>  - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  -membrii CSD <i>CSD's members</i>	Înregistrare audio-video / <b>platforma UO</b> ( <a href="#">apăsați aici pentru a vă conecta</a> )  <i>Audio-video recording UO / ZOOM platform (click here to join)</i>
14:00-15:00	Activități de evaluare <i>Evaluation activities</i>  <b>Domeniu Agronomie</b> Întâlnire online a comisiei de evaluare cu reprezentanți ai <b>angajatorilor absolvenților domeniului</b> <i>Domain Agronomy : Online meeting with employers of Doctoral graduates in the domain</i>	<b>Comisia de evaluare domeniu Agronomie</b> <i>Domain evaluation panel Agronomy</i>  - membrii comisiei de experți evaluatori domeniu <i>members of domain evaluation panel</i>  - reprezentanți ai angajatorilor <i>employers' representatives</i>	Înregistrare audio-video / <b>platforma UO</b> ( <a href="#">apăsați aici pentru a vă conecta</a> )  <i>Audio-video recording UO / ZOOM platform (click here to join)</i>

Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
16:30 -17:30	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&amp;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>
Joi / Thursday, 18.11.2021			
09:00-18:00	Reuniuni de lucru față în față <sup>2</sup> , vizitarea bazei materiale didactice și de cercetare <i>Face-to-face working meetings, visiting the educational and research infrastructure</i>	- directorul de misiune și coordonatorul, un student doctorand evaluator <i>the Evaluation Director and the coordinator of the IOSUD evaluation panel, one student</i> - reprezentanți ai universității <i>university's representatives</i>	Vizită UNIVERSITATE Site visit to the university
Vineri / Friday, 19.11.2021			
09:00-18:00	Reuniuni de lucru față în față, vizitarea bazei materiale didactice și de cercetare	- directorul de misiune și coordonatorul, un student doctorand evaluator <i>the Evaluation Director and the coordinator of the IOSUD evaluation panel, one student</i>	Vizită UNIVERSITATE Site visit to the university

<sup>2</sup> Experții evaluatori la nivelul domeniilor de studii universitare de doctorat pot stabili independent programul vizitei la fața locului, de comun acord cu persoana de contact de la domeniul evaluat și respectând programul întâlnirilor comune cu restul membrilor echipei de evaluare. *The evaluators at doctoral study domain level can independently establish the program of the on-site visit, in agreement with the contact person for the evaluated domain and respecting the schedule of joint meetings with the rest of the evaluation panel members.*

Intervalul orar EET/ Hour (Bucharest time-EET)	Activitate / Activity	Participanți / Participants	Observații/ Responsabil Comments/ Responsible
	<i>Face-to-face working meetings, visiting the educational and research infrastructure</i>	- reprezentanți ai universității <i>university's representatives</i>	
Sâmbătă/ Saturday, 20.11.2021			
10:00-11:30	Întâlnire online pentru concluzii <i>Online meeting for conclusions</i>	Comisia de evaluare IOSUD & domenii <i>IOSUD&amp;domains evaluation panel</i> - 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>
11:45-12:30	Întâlnire finală online în vederea prezentării principalelor constatări rezultate în urma evaluării la nivel de domenii de doctorat și IOSUD și a recomandărilor de îmbunătățire a calității <i>Meeting with representatives of the institution under review to discuss on the conclusions of the evaluation process and the main recommendations</i>	Comisia de evaluare IOSUD & domenii <i>IOSUD&amp;domains evaluation panel</i> - toți membrii echipei de evaluare <i>all evaluation panel members</i> - reprezentanții universității <i>university's representatives</i>	Înregistrare audio-video / platforma UO (apăsați aici pentru a vă conecta) <i>Audio-video recording UO / ZOOM platform (click here to join)</i>

Prof. univ. dr. Oprean Radu

Prof.univ.dr. Țarcă Radu Cătălin

Director de misiune

Director CSUD

International expert

PhD., Associate Professore, COJOCARU Olesea