HOTĂRÂRE

privind validarea rezultatelor procedurilor de evaluare externă a calității educației

Având în vedere prevederile generale şi specifice aferente proceselor sau procedurilor privind:

- **evaluarea externă a calităţii şi validarea rezultatelor cuprinse în Rapoartele de evaluare externă:** art. 223-226, art. 229-230 şi art. 249 alin. (1) lit. f), g) şi h) din Legea nr. 199/2023 a învățământului superior nr. 199/2023, cu modificările şi completările ulterioare, denumită în continuare Legea, precum şi în Metodologia de evaluare externă a calității educației în învățământul superior, aprobată prin Hotărârea Guvernului nr. 962/2024, cu modificările şi completările ulterioare, denumită în continuare Metodologia;

- **autorizarea** de funcţionare provizorie **pentru programele de studii universitare din ciclul I de licenţă:** art. 235 alin. (1) lit. a) şi lit. b) pct. (ii), alin. (2)-(5) şi art. 236 alin. (1)-(2) din Lege;

art. 27, art. 29 şi art. 32-33, coroborate cu art. 59, art. 62 şi art. 63 din Metodologie;

- **autorizarea pentru domeniile de studii universitare din ciclul II de masterat:** art. 235 alin. (1) lit. a) şi lit. b) pct. (iii), alin. (2)-(5) şi art. 236 alin. (1)-(2) din Lege; art. 27-29 şi art. 34-35, coroborate cu art. 59, art. 62 şi art. 63 din Metodologie;

- **autorizarea pentru domeniile de studii universitare din ciclul III de doctorat:** art. 235 alin. (1) lit. b) pct. (iv), alin. (2)-(5) şi art. 236 alin. (1) şi (3) din Lege; art. 27-29 şi art. 37-38, coroborate cu art. 59, art. 62 şi art. 63 din Metodologie;

- **acreditarea pentru programele de studii universitare din ciclul I de licenţă:** art. 239 alin. (1) lit. b) şi alin. (6)-(7), art. 240 alin. (1) din Lege; art. 39-40 şi art. 42, coroborate cu art. 60, art. 62 şi art. 63 din Metodologie;

- **acreditarea pentru domeniile de studii universitare din ciclul II de masterat:** art. 239 alin. (3) şi alin. (6)-(7), art. 240 alin. (1) din Lege; art. 39-40 şi art. 43-44, coroborate cu art. 60, art. 62 şi art. 63 din Metodologie;

- **acreditarea pentru domeniile de studii universitare din ciclul III de doctorat:** art. 239 alin. (4) şi alin. (6)-(7), art. 240 alin. (2) din Lege; art. 39-40 şi art. 46-47, coroborate cu art. 60, art. 62 şi art. 63 din Metodologie;

- **analiza şi validarea în vederea verificării respectării Metodologiei, de către comisiile de experţi evaluatori în cadrul rapoartelor de evaluare externă:** art. 235 alin. (4), pentru autorizare, respectiv art. 239 alin. (6) lit. d), pentru acreditare şi menținerea acreditării, din Lege, precum şi art. 62-63 din Metodologie.

Luând în considerare:

a. Ghidul aplicabil programelor de studii universitare de licență, aprobat prin Hotărârea Consiliului ARACIS nr. 42/06.02.2025, cu modificările şi completările ulterioare;

b. Ghidul aplicabil domeniilor de studii universitare de masterat, aprobat prin Hotărârea Consiliului ARACIS nr. 83/03.04.2025;

c. Ghidul aplicabil domeniilor de studii universitare de doctorat, aprobat prin Hotărârea Consiliului ARACIS nr. 84/03.04.2025;

Întrucât Consiliul ARACIS validează, prin vot deschis şi pe baza verificării respectării Metodologiei, propunerile formulate de către comisiile de experți evaluatori şi poate solicita refacerea Rapoartelor de evaluare externă atunci când constată că Metodologia nu a fost respectată ori respectivele rapoarte nu cuprind suficiente date şi dovezi pentru adoptarea deciziei,

Ținând seama de considerentele Consiliului aferente validării rezultatelor individualizate în procesele verbale de şedință, al căror format a fost aprobat prin Hotărârea Consiliului nr. 170/H/03.07.2025,

În temeiul art. 258 alin. (1) din Lege şi al art. 62 alin. (1) şi (2) din Metodologie, precum şi al art. 7 alin. (1) şi alin. (3) lit. b) şi h), art. 11 alin. (1) şi al art. 23 alin. (5) din Regulamentul de organizare şi funcționare al ARACIS, aprobat prin Hotărârea Consiliului ARACIS nr. 188/H/27.06.2024 şi completat prin Hotărârea nr.116/H/02.04.2026,

Consiliul Agenției Române de Asigurare a Calității în Învățământul Superior
HOTĂRĂŞTE:

Art. 1. (1) Se validează rezultatele procedurilor de evaluare externă a calității educației pentru programele de studii universitare de licență, domeniile de studii universitare de masterat şi de doctorat, precum şi pentru programul universitar de formare psihopedagogică pentru învăţământul preuniversitar, după caz, cuprinse în anexele nr. 1-23 care fac parte integrantă din prezenta hotărâre.

(2) Pentru fiecare dintre programele sau domeniile de studii universitare, anexa corespunzătoare indică, conform art. 230 alin. (2) şi alin.(3) lit. b), c) şi d), art. 231 lit. a) şi b), art. 232 lit. c), d) şi e), art. 235 alin. (1) lit. b), punctele ii-iv, alin. (3)-(5), art. 239 alin. (1) lit. b), alin. (3), (4), (6) lit. a)-d) din Lege, procesul sau procedura de evaluare parcursă, rezultatele din Raportul de evaluare externă care se validează, precum şi considerentele analizei de validitate şi concluzia motivată a Consiliului.

(3) Rezultatele prevăzute la alin. (1) se comunică Ministerului Educației şi Cercetării şi instituțiilor solicitante şi se publică pe site-ul ARACIS.

Art. 2. Analiza de validitate se exercită în limitele art. 235 alin. (4), respectiv ale art. 239 alin. (6) lit. d) din Lege şi ale art. 62 raportat la art. 63 din Metodologie.

Art. 3. Rapoartele de evaluare externă, inclusiv numele experților, se publică integral pe site-ul ARACIS, în condițiile art. 229 alin. (2) din Lege şi ale art. 62 alin. (3) din Metodologie.

Art. 4. Prezenta hotărâre intră în vigoare la data de 22.10.2026.

Art. 5. Prezenta hotărâre va fi dusă la îndeplinire de Direcția Asigurarea Calității şi de Compartimentul Tehnologia Informației.

Prof. univ. dr. ing. Cristian-Vasile DOICIN
Preşedinte

Daniela Cristina GHIȚULICĂ
Director general

Carmen MIRIAN
Director Direcţia Asigurarea Calităţii

Cristina-Vasilica ICOCIU
Director Direcția Juridică, Cooperare, Comunicare şi Formare

Consilier juridic

NR. 318/H/22.10.2026

ANEXA NR. 7
la Hotărârea Consiliului ARACIS nr. 318/H/22.10.2026

Anexa 7.5

DATE DE IDENTIFICARE	
Instituţia de învăţământ superior/organizaţia furnizoare de educaţie	Universitatea „Babeş-Bolyai“ din Cluj-Napoca
Şcoala(ile) doctorală(e)	Inginerie Chimică
Domeniul de studii universitare de doctorat (DSUD)	*Inginerie chimică*
Procedura/procesul de evaluare externă a calităţii educaţiei	Menținerea acreditării

DECIZIA

Descrierea pe scurt a procesului de luare a deciziei

Raportul de evaluare externă (REE) a fost analizat în şedința Comisiei permanente de specialitate Ştiințe Inginereşti 2 (CPS_C11) din 25.09.2026, propunerea de decizie fiind consemnată în PV nr. **4823/25.09.2026.** Propunerea de decizie a fost analizată de către Departamentul de evaluare Studii Universitare (DESU), opinia DESU fiind consemnată în PV nr. **5321/ 20.10.2026**

Gradul de îndeplinire a standardelor şi indicatorilor de performanţă şi motivarea deciziei

(se indică cifrele care stau la baza luării deciziei Consiliului ARACIS)

Domeniul	Standarde Î / N	Indicatori de performanţă Î / PÎ / N
A	**Î:** S.A.1.1, S.A.1.2., S.A.2.1., S.A.2.2., S.A.3.1., S.A.3.2., S.A.4.1. N: -	**Î:** I.P.A.1.1.1, I.P.A.1.2.1, I.P.A.2.1.1, I.P.A.2.2.1, I.P.A.3.1.1, I.P.A.3.1.2, I.P.A.3.2.1, I.P.A.4.1.1 PÎ:- N: -
B	**Î:** S.B.1.1., S.B.2.1., S.B.3.1., S.B.3.2., S.B.4.1., S.B.5.1., S.B.7.1., S.B.7.2., S.B.8.1., S.B.9.1., S.B.9.2. N: -	**Î:** I.P.B.1.1.1., I.P.B.2.1.2, I.P.B.3.1.1, I.P.B.3.1.2, I.P.B.3.2.1, I.P.B.4.1.1., I.P.B.5.1.1, I.P.B.5.1.2, I.P.B.7.1.1, I.P.B.7.1.2, I.P.B.7.2.1, I.P.B.8.1.1, I.P.B.9.1.1, I.P.B.9.2.1 PÎ:- N: -
C	**Î:** S.C.1.1, S.C.1.2, S.C.2.2., S.C.3.1, S.C.4.1., S.C.5.1., S.C.6.1., S.C.8.1 N: -	**Î:** I.P.C.1.1.1, I.P.C.1.2.1, I.P.C.2.2.2, I.P.C.3.1.1, I.P.C.3.1.2, I.P.C.4.1.1., I.P.C.5.1.1, I.P.C.6.1.1, I.P.C.6.1.2, I.P.C.8.1.1 PÎ:- N: -

Motivarea deciziei

Consiliul ARACIS în şedința din 22.10.2026. analizează şi validează propunerea comisiei de experți în evaluarea externă a calității, constatând că din:

- *32 indicatori: 32 sunt îndepliniți, 0 parțial îndepliniți şi 0 neîndepliniți*
- *26 standarde: 26 sunt îndeplinite, 0 neîndeplinite*

*şi, astfel, prin aplicarea art. 63 din Metodologie decide că **standardele sunt** ÎNDEPLINITE*

Decizia	Menţinerea acreditării

The Romanian Agency for Quality Assurance in Higher Education

External Evaluation Report (REE) for the procedure for Maintaining acreditation of Doctoral Study Domain

Higher Education Institution/Education Provider Organization:	Babeş-Bolyai University, Cluj-Napoca
Doctoral School:	Faculty of Chemistry and Chemical Engineering
Doctoral Domain:	CHEMICAL ENGINEERING
The objective of the external evaluation:	Maintaining the Accreditation of the Doctoral Domain

Members of the ARACIS Evaluation Panel

No.	Last Name and First Name	Team role	Signature
1.	MAMALIGA IOAN	Expert evaluator	
2.	COZ FERNANDEZ ALBERTO	International Expert	
3.	PAULIUC COSMIN	PhD Student Evaluator	

I. Introduction

The report refers to the external evaluation of the field of doctoral studies Chemical Engineering within IOSUD Babeș-Bolyai University, Cluj-Napoca, Faculty of Chemistry and Chemical Engineering.

- Type of evaluation: Evaluation for Maintaining the Accreditation of the Doctoral Domain Chemical engineering, within IOSUD Babeș-Bolyai University, Cluj-Napoca, carried out by ARACIS.
- Evaluation period: September 17-18, 2026
- Evaluation team:

Coordinator: Prof. univ. dr. eng. Ioan MAMALIGA, "Gheorghe Asachi" Technical University of Iași, E-mail: ioan.mamaliga@academic.tuiasi.ro , Tel: +40 749036662
International expert: Prof. univ. dr. Alberto COZ FERNANDEZ, University of Cantabria, Spain
PhD student: drd. eng. Cosmin PAULIUC - National University of Science and Technology Politehnica Bucharest.

Babeș-Bolyai University of Cluj-Napoca (UBB) is the largest and most comprehensive higher education institution in Romania. UBB's tradition dates back to 1580, when Stephen Báthory, as King of Poland, Grand Duke of Lithuania, and Prince of Transylvania, issued the first founding document of the Jesuit Major College which was to be located in the city of Cluj. On 12 May 1581, Stephen Báthory issued in Vilna (today Vilnius, in Lithuania) the Founding Diploma of the Jesuit Major College in Cluj, an institution comparable to the established European universities of the time, which would award the titles of baccalaureus, magister, and doctor. Teaching and learning was conducted in Latin. The Romanian University of Cluj opened almost a year after the Great Union of 1 December 1918. By Royal Decree of 12 September 1919, published in the Official Gazette on 23 September 1919, the Romanian University of Cluj was founded and officially inaugurated on 1 February 1920 by King Ferdinand I. The new university would be officially granted "recognition as a public legal entity" by a law published in the Official Gazette no. 243 of 2 November 1924. In 1995, UBB reorganized its structure, introducing a multicultural educational model. Thus, three lines of study were created based on language criteria: Romanian, Hungarian, and German. At that time, Babeș–Bolyai University was the only multicultural institution in the country, with 16 faculties, 3 languages of instruction (Romanian, Hungarian, and German), and numerous programmes in international languages. By Civil Court Decision no. 9226/2002, issued by the Cluj-Napoca Court, Babeș-Bolyai University (UBB) was officially recognized as the legal successor of the "King Ferdinand I" University of Cluj. Starting with the 2020-2021 academic year, UBB has degree programmes offered by 22 faculties (21 in Cluj-Napoca and one in Reșița), along with numerous research centres and institutes.

The Institute for Doctoral Studies (ISD) is a structure established on 1 May 2006 in order to manage, through relevant regulations and measures, the doctoral schools of Babeș-Bolyai University, based on an administrative system similar to that of the graduate schools in the international system, based on the activity of faculties and specialist departments. The Doctoral Studies Institute coordinates all administrative activities pertaining to the doctoral cycle, under the Council for Doctoral Studies (CSUD) and in collaboration with doctoral school councils. This structure ensures: unity of doctoral studies, a suitable framework for interdisciplinary approaches, and enhanced communication between faculties and doctoral schools. According to national regulations and internal methodologies elaborated by ISD - such as the CSUD Election Methodology - the position of CSUD Director is filled following a selection competition process, in compliance with the approved selection competition methodology.

General Description of the Constituent Unit that Organises the Field of Doctoral Studies

The Faculty of Chemistry and Chemical Engineering (FCIC) activity is dedicated both to educational purposes and to research, both crowned with remarkable academic and scientific achievements. The faculty possesses a modern and competitive infrastructure that enables participation in various national and international partnerships. The research infrastructure is used by academic staff, researchers, and students who carry out research activities within the various fields and research centers of FCIC. The

Faculty of Chemistry and Chemical Engineering is organized into three departments: the Department of Chemistry, the Department of Chemical Engineering, and the Department of Chemistry and Chemical Engineering of the Hungarian Line. It serves a total of approximately 700 students and comprises 2 doctoral schools. The study programs offered by FCIC are accredited in the fields of Chemistry and Chemical Engineering, at the bachelor's, master's, and doctoral levels.

General Description of the Doctoral Field of Study

Chemical Engineering education at UBB began in the academic year 1974/1975, with the transfer of the Construction Materials Section – Subengineers from the Polytechnic Institute of Cluj-Napoca to UBB. In the academic year 1977/1978, courses started for the first three sections of chemical engineering students (inorganic, organic,and construction materials). Today, at Babeș-Bolyai University of Cluj-Napoca, within the Faculty of Chemistry and Chemical Engineering, six bachelor's programs in Chemical Engineering are accredited. There are also five master's programs in Chemical Engineering. Advanced Process Chemical Engineering – in English (Romanian version available); Materials Engineering and Environmental Protection – in Romanian Engineering of Organic and Biochemical Processes – in Romanian; Chemistry and Engineering of Nano- and Biomaterials – in Hungarian; Food Processing and Control (interdisciplinary master's with the Chemistry domain, in Romanian). Doctoral University Studies in Chemical Engineering (DSUDIC) was approved through Order MEdC No. 667/28.03.2007, to provide graduates of chemical engineering programs in FCIC—initially those completing 5-year study programs and later master's graduates—the opportunity to obtain, through the PhD in Chemical Engineering, the highest level of formal education, EQF level 8, equivalent to level 8 of the Romanian National Qualifications Framework (CNC), oriented toward advanced research and the creation of original knowledge. DSUDIC comprises a single doctoral school, the Doctoral School of Chemical Engineering (ȘDIC).

The mission of the Field of Doctoral University Studies in Chemical Engineering (DSUDIC) is to:

- Ensure the training of high-level researchers and specialists in Chemical and Process Engineering, promoting education and research in accordance with the requirements of a knowledge-based society, life-long learning, and integration into the circuit of universal values.
- Generate knowledge through original research, using advanced research methods, and contribute to the training of graduates so that they can carry out advanced research activities in chemical engineering and in fields with interdisciplinary connections to it.
- Contribute to the development of highly qualified human resources capable of supporting development at local, regional, national, and international levels.

II. Methods used

The methods and tools used in the external evaluation process, before, and during the evaluation visit were the following:

- Analysis of the Internal Evaluation Report of the Chemical Engineering domain and its annexes;
- Analysis of the documents in electronic format made available by IOSUD in Sharepoint;
- Analysis of documents, data and information available on the IOSUD website and the Doctoral School, in electronic format; On-site visit: classrooms; research laboratories in the field of chemical engineering, research centers; - analysis of the documents made available by IOSUD during the assessment visit;
- Meeting/discussions with: the management of the Doctoral School, Faculty, UBB; the doctoral supervisors in the field of chemical engineering; representatives of PhD Students, PhD graduates, PhD student's employers; the Quality Assessment and Assurance Committee; the Quality Assurance Department, the Ethics Committee; secretariat.

The entire team of experts participated in the elaboration of this Report. The PhD student evaluator, Cosmin Pauliuc completed with his opinions on several indicators and drafted the Synthesis of

the discussions with doctoral students from the doctoral school, which she inserted in the Commission's Report.

III. Judgement on the extent to which the standards and performance indicators are fulfilled

DOMAIN A. Institutional capacity

Criterion A.1. Managerial and administrative structures and processes involving students and other stakeholders

Standard S.A.1.1. Organisational components and institutional processes The HEI has organisational components in its structure, which function based on adequate competences, responsibilities, processes, and implementation procedures, and ensure an effective management system.	
Indicator I.P.A.1.1.1	For delivering the study programme/domain, the HEI has adequate organisational components and an adequate management system, which operate based on methodologies, regulations and procedures that are periodically reviewed as required by law.

The structure and organisation of Babeş-Bolyai University (UBB) are regulated in accordance with the legal provisions in force and are outlined in the UBB Charter. The UBB Internal Rules and Regulations establish the general provisions regarding staff conduct and the organisation of work, in compliance with the current legal regulations. Elections for the leadership structures and positions are held in line with the provisions of the General Regulation on Elections to the Leadership Structures and Positions at UBB, adopted in 2024. The mechanisms for electing students in the university's governing bodies are provided in both the UBB Charter and the Code of Student Rights and Obligations, and comply with current regulations, guaranteeing the right of the students to be represented and to represent.
The University **Senate** is the main decision-making and deliberative organ at university level, established on the principle of representativeness of faculties and lines of study, in accordance with the provisions of the General Regulation Governing Elections to the Leadership Structures and Positions at UBB.
The University's **Administrative Council** includes the rector, vice-rectors, deans, the general administrative director, and the students' prefect, and operates under its own regulation.
The **Faculty Council** includes representatives of all sections, departments, lines of study, and research units of the faculty. The Faculty Council meets in ordinary sessions on a monthly basis and in extraordinary sessions summoned by the dean or at the request of at least one-third of its members.
The **Council for Doctoral Studies** (CSUD) is the organisational structure that leads the Institute for Doctoral Studies (ISD). CSUD is headed by a director. The position of a CSUD director is equivalent to that of a vice-rector. Doctoral studies are organised by Doctoral Schools, which are grouped in and coordinated by the Institute for Doctoral Studies (ISD). Doctoral Schools operate as departments within faculties or within UBB research/ development/ innovation units. Doctoral Schools are managed by a School Council and a director, both elected by the members of the doctoral school. The director of the Doctoral School holds a position equivalent to that of a head of department. The Scientific Council at the level of independent research units coordinates their activities. Student representation at the level of the university management is ensured under the Higher Education Law No. 199/2023. Student representation in the executive structure of the university and faculties complies with legal provisions, the democratic nature of the academic decision-making process, and encourages students to assume the responsibility of proposing initiatives to improve the quality of teaching and student life, while also ensuring their participation in the development of the university's strategic development plans.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Standard S.A.1.2. Stakeholder engagement The HEI proves that it engages the relevant stakeholders in developing methodologies and regulations, as well as implementation procedures.	
Indicator I.P.A.1.2.1	The opinions of the faculty and department members, of the subsidiary or extension* and of other stakeholders are considered in the process of adopting and revising methodologies, regulations and implementation procedures.

The process of adopting / revising methodologies, regulations, and implementation procedures is carried out in accordance with the UBB Charter and in compliance with the applicable legal provisions. Members of the academic community and other third parties are consulted during these processes. UBB regulations, procedures, and methodologies are developed in collaboration with the university community, and the university establishes advisory councils for various fields (i.e., the Didactic Council). The Council of the Faculty of Chemistry and Chemical Engineering (CFCIC) supervises DSUDIC, endorsing key regulations, methodologies, and procedures proposed by the doctoral. The Council of the Doctoral School of Chemical Engineering (CȘDIC), consisting of the director, three supervisors, and a student representative, manages all DSUDIC activities, meeting regularly and documenting decisions. Doctoral students are represented in decision-making, expressing views on proposals. Major decisions are made after consulting all doctoral supervisors. DSUDIC consults with external organizations (e.g., INCDTIM, EMERSON, Ministry of Education, Technical University of Dresden) to improve doctoral training, organize dual education, align with national and European standards, and recognize international patents. Discussions with stakeholders indicate their participation in the process of revising anf implementing procedures at UBB.

Recommendations: Expanding digitalization of decision-making processes and increasing national and international collaborations and consultations.

The indicator is: fulfilled.

Criterion A.2. The material resources and optimisation of the use of the material resources

Standard S.A.2.1. Material resources The HEI owns adequate movable and immovable assets to enable it to carry out the study programme/domain.	
Indicator I.P.A.2.1.1	The HEI legally owns venues for the related education, research and administrative processes, as well as for services for students, doctoral students and trainees, thus providing an enabling environment for living and studying, including for disabled persons. Optimal venues are also provided for activities of the staff. Such venues are adequately equipped.

Babes-Bolyai University (UBB) manages over 100 buildings, including 85 educational facilities spanning ~210,000 sqm (74,556 sqm for teaching) across 54 lecture halls, 173 classrooms, 402 seminar rooms, 601 labs, and 124 reading rooms. Academic Network: Broad footprint across 23 localities in 14 counties, supplemented by 19 foreign cultural centres, museums, and galleries. Accommodation & Dining: Offers 7,186 housing spots across 21 residence halls and operates 20 dining locations. Research & Practice Hubs: Maintains 5 active practice centers/scientific stations, 2 upcoming stations (Neptun and Blăjoaia), the Astronomical Observatory, the Alexandru Borza Botanical Garden, the Jibou Biological Research Centre, and the Strategic Research Infrastructure with over 100 research units. Sports Facilities: Features the Iuliu Hațieganu Park sports centre and other additional sports facilities. The Lucian Blaga Central University Library (BCU) network includes 29 branch libraries, 4 special libraries, and 8 campus libraries, offering over 4 million volumes, 2.4 million electronic units, and 1,914 reading room seats.
Fully equipped multimedia classrooms, digital e-learning platforms, and dedicated administrative resources. Active support via specialized centers (Centre for Students with Disabilities, CCOPA, StudHub) providing

* The faculty, department, subsidiary, extension - hereinafter “organisational components”

medical care, career counseling, and accessible infrastructure. Research conducted by doctoral students in Chemical Engineering benefits from a large number of research instruments. Doctoral students have access to dedicated workspaces, each equipped with furniture, office equipment, computers, software applications, and electronic access to scientific literature via Anelis Plus. Access is also facilitated for persons with disabilities. The research laboratories are very well-equipped, featuring new, high-performance instrumentation aquired through various projects. Furthermore, there are workspaces(offices) available for doctoral students. The on-site visit and discussions with laboratory staff also indicated that, when required for their research, doctoral students may have access to equipment available in other research groups, subject to the relevant coordination and operating arrangements.

Recommendations: Expanding access to assistive technology and training staff to support students with disabilities.

The indicator is: fulfilled.

Standard S.A.2.2. Management of material resources The organisational components manage the movable and immovable assets used for the evaluated study programme/domain in an optimal, sustainable manner.	
Indicator I.P.A.2.2.1	The movable and immovable assets are properly maintained to ensure optimal conditions for studying, living and research, as well as for work.

UBB owns teaching, research, and administrative spaces that fully comply with technical, safety, and sanitary-hygienic standards. Faculty management updates infrastructure strategic plans at the start of each term. The university fosters optimal working conditions through seed grants for academic staff and performance grants for administrative staff. Under the "UBB Goes Green" program, the university actively implements eco-friendly policies across all academic, administrative, and infrastructure operations.Faculty of Chemistry & Chemical Engineering (FCIC). The faculty performs annual and on-demand maintenance of its facilities (offices, labs, lecture halls) and utilities to guarantee strict occupational safety and fire protection. Movable assets like research instruments, computers, and pilot installations are continuously updated. FCIC Infrastructure Funding: 16% of research grant overhead is reinvested directly into the faculty to maintain and upgrade major equipment on the InfraChem platform. Doctoral supervisors use national and international project funds to buy new equipment, cover maintenance, and secure software licenses. Doctoral grant funds serve as an extra development source, allocated jointly by supervisors and students (totaling 1,160,000 RON for ȘDIC over the 2021–2025 period).
The interviews held the faculty dean and the laboratory supervisors confirm the points mentioned above.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion A.3. Adequate human resources and transparent staff recruiting procedures developed according to the law

Standard S.A.3.1. Human resources The HEI has the required human resources to organise and deliver the evaluated study programme/domain.	
Indicator I.P.A.3.1.1	The human resources of the organisational component are suitable to perform the activities pertaining to the evaluated study programme/domain. The teaching staff has the required qualifications and professional competences to teach the subject matters assigned to them in the job list.

Fully aware that human resources represent the fundamental premise for fulfilling the mission and objectives assumed, the Doctoral Field of Chemical Engineering has pursued both a quantitative development (a 40% increase in the number of habilitated supervisors since the last accreditation) and a qualitative one, through the significant improvement of research performance among doctoral supervisors and doctoral students.

Moreover, the group of members in the guidance and integrity committees has been strengthened with specialists who have high-level research activity and international recognition.
At present, DSUDIC comprises **9 doctoral supervisors (5 tenured,** 4 associate**) and 19 PhD students**.
The habilitated doctoral supervisors meet the CNATDCU minimum standards with individual achievement levels ranging between 289% and 1684%. Every year, doctoral supervisors submit reports on their activities at the national level, at the university and faculty level within UBB, as well as within the doctoral school, where their contribution to DSUDIC's development is assessed. These also serve as report for allocating doctoral grants provided annually by IOSUD UBB.

Recommendations: It is recommended to strengthen the strategy for attracting well-qualified doctoral candidates from other Romanian universities and from abroad.

The indicator is: fulfilled.

Indicator I.P.A.3.1.2	The HEI ensures professional and personal development for its staff.

In 2020 was introduced the Individual Career Development Plan (PIC) for academic staff. The PIC tracks personal career projects, sets short-term development goals, manages teaching workloads, optimizes resource distribution, and supports both leadership and peer performance evaluations.

The Human Resources Directorate offers programs to enhance both personal and professional growth for administrative personnel. The Centre for Continuing Education and Distance and Part-Time Learning provides flexible, e-learning-based programs for diverse student groups, including bachelor's, master's, and postgraduate professional training. The doctoral school invites international experts to deliver lectures, facilitating direct knowledge transfer and best practices in education and research (e.g., lectures by professors from the University of Texas at Austin and Delft University of Technology).
Training is provided for doctoral school secretaries on digital tools for admissions, plagiarism detection, and managing doctoral student records from admission to thesis defence.
Interviews with the leadership and teaching staff confirm the aforementioned points. UBB ensures participation in profesional developement courses for teaching and ayuxiliary teaching staff.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Standard S.A.3.2. Recruitment procedures Teaching staff recruitment procedures compliant with the provisions of the law.	
Indicator I.P.A.3.2.1	Recruitment procedures comply with the provisions of the law, and are established and carried out transparently.

Recruitment for academic, research, auxiliary teaching, and administrative positions at UBB is transparent and follows specific internal methodologies and legal regulations. Separate procedures exist for academic/research roles, auxiliary/administrative roles, and project-based positions outside the organizational chart. Career advancement is regulated for both academic and non-academic staff through dedicated promotion methodologies and procedures. In 2022, UBB enhanced the visibility and accessibility of job announcements for academic and research positions at national and international levels. UBB adheres to European standards, including the European Charter for Researchers, the Code of Conduct for Recruitment, and recommendations from CoARA, ensuring fairness and transparency. The recruitment of doctoral supervisors involves two stages: obtaining habilitation and co-option into a doctoral school. The habilitation process is coordinated by the Doctoral Studies Institute (ISD), follows national legislation, and is governed by university regulations approved by the Senate. The process habilitation is designed to be transparent, accessible, and aligned with both national and European best practices.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion A.4. Digitalisation of institutional processes

Standard S.A.4.1. Digital transformation

The digital transformation process in the organisational component seeks to achieve administrative simplification and improve the quality of the services provided to the members of its own community, as well as to third parties.	
Indicator I.P.A.4.1.1	The organisational component uses IT tools in its own procedures, to improve access and provide good quality services for the members of its own community and the indirect beneficiaries of education.

In UBB, the Information and Communications Technology Directorate (DTIC) is the entity that provides IT&C services to all users within the faculties, administrative units, and research units. DTIC collaborates with similar departments in other academic institutions and with the IT&C business sector to improve the IT&C services offered within the University and by the University to the public and private community. DTIC implements the Digital Transformation Strategy of UBB, developing specific services for staff (14 dedicated services: FluxUBB, Email, Microsoft Teams, Online Admission, Teaching Degree Registration, AcademicInfo, Research Management, Workload Planning, Events – Online Payments, Rector's Order (CMS UBB), STAR-UBB Institute Evaluation, Cloud UBB, EduRoam, Hosting UBB) and students (12 dedicated services: CTP Subscription Reimbursement Request, Email, Microsoft Teams, Graduation Procedures, Scholarship Applications, Online Admission, Doctoral Student Requests, Doctoral Student Clearance Form, AcademicInfo, STAR-UBB Institute Evaluation, Cloud UBB, EduRoam), so that, according to the strategy, the majority of academic and administrative processes are already digitalised.

The record-keeping of doctoral students and all their activities within the doctoral study program is maintained digitally through dedicated electronic management applications. Digital tools cover several key areas, such as: the scientific documentation of doctoral students throughout advanced study programs and individual training through electronic access to scientific literature via Anelis Plus; the use of MS Teams and Zoom platforms for instructional activities, including hybrid-format courses; the simplification of administrative activities related to admission, the transmission of necessity notes or approval requests for the Rector's Order, preparation and submission of curricula, staffing plans, time sheets, as well as the digitalization of processes for monitoring and managing the doctoral student's progress throughout their doctoral studies; etc. Dedicated sections offer information on Admission and Thesis Defence.

Recommendations: There are no recommendations.

The indicator is: fulfilled.

DOMAIN B. Educational efficacy

Criterion B.1. Content and relevance of study programmes

Standard S.B.1.1. Content of study programme/s* The study programme is based on a curriculum designed so that students can acquire the expected learning outcomes.	
Indicator I.P.B.1.1.1	The study programme is developed and structured according to the expected learning outcomes, and organised based on transferable study credits. It includes all learning, teaching, practical training, research and evaluation experiences, which, together, lead to a higher education qualification.

Doctoral studies include a Training Programme Based on Advanced University Studies, carried out through advanced didactic-scientific activities (courses, seminars, laboratories, projects) and allocated 30 ECTS credits, as well as an Individual Programme of Scientific or Applied Research, dedicated to the preparation of the doctoral thesis under the direct supervision of the doctoral advisor, allocated 210 ECTS credits. The Training Programme Based on Advanced University Studies is conducted during the first semester and

* The term "programmes" concerns the external quality evaluation for the study programmes contained in a master/doctoral domain. The term "programme" shall be used hereinafter.

consists of a minimum of three courses, selected jointly by the doctoral student and the supervisor from the ŞDIC curriculum, each assigned 10 ECTS credits. These courses conclude with an assessment determined by the course holder. The course Ethics is compulsory.

The Individual Programme of Scientific or Applied Research extends throughout the entire duration of the doctoral studies covers all activities aimed at generating knowledge through original research, using advanced research methods. In the first year, the doctoral student presents the scientific or applied research project, and its evaluation with the grade "Admitted" leads to the award of 30 ECTS credits.
In years II, III, and IV, the doctoral student delivers an oral presentation of their annual research report, and its evaluation with the grade "Admitted" results in 60 ECTS credits awarded each year. Additionally, at the request of the supervisor and the guidance and integrity committee, the student submits interim activity reports. The Individual Programme of Scientific or Applied Research is materialized by the doctoral student through at least the minimum required publications, as established by the regulations of the Ministry of Education / CNATDCU for awarding the doctoral title. Based on the National Qualifications Framework, Level 8, the doctoral studies within DSUDIC are structured so that the doctoral student achieves the expected learning outcomes, derived from advanced competencies in designing and optimizing sustainable chemical processes and developing new materials, the ability to use experimental and computational methods, and the capacity to generate original scientific contributions relevant at international level.
During the interview, the students stated that they are satified with the curriculum and consider thet it contributes to their preparation for completing their doctoral thesis.

Recommendations: Adapting professional training to the learning outcomes required by advances in the use of Artificial Intelligence in accordance with specific procedures.

The indicator is: fulfilled.

Criterion B.2. Alignment of the curriculum with the qualification

Standard S.B.2.1. Alignment with the qualification level and the intended competences In the curriculum design and development process, the organisational component seeks to ensure the qualification level, as well as correlation with the envisaged occupations.	
Indicator I.P.B.2.1.2	The expected learning outcomes are correlated with the competences required by those occupations, according to the occupational standards and/or the European Skills, Competences and Occupations (ESCO).

The expected learning outcomes of the doctoral programme in Chemical Engineering are aligned with the professional and transversal competencies defined by ESCO for European occupations, targeting EQF level 8, the highest level of the European Qualifications.
The advanced research domains—such as chemical plant design, advanced automatic control and process optimisation, development of new materials and biomaterials, energy-use reduction, sustainable development, and use of digital tools in research—are correlated with the core competencies associated with occupations including: Chemical Engineer, Process Engineer, Research Scientist, Chemical Process Control Engineer, Energy Engineer, Process Integration Specialist, Materials Scientist, Electrochemical Engineer, Process Development Engineer, R&D Data Analyst, Research Methodologist, R&D Project Manager, and Team Leader. The academic and experimental activities carried out within the doctoral school, together with participation in interdisciplinary research projects, ensure the acquisition of competencies required on the scientific research and industrial labour market, thus confirming both the relevance and the quality of doctoral training. The specific learning outcomes of the doctoral programme in Chemical Engineering are presented in correlation with the programme's professional and transversal competencies, as well as with ESCO competencies. During interviews with employersand PhD graduates, the strong preparations and appropriate competencies are highlighted.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion B.3. Student-centred learning, teaching and evaluation

Standard S.B.3.1 Principles The organisational component implements the principles of student-centred learning.	
Indicator I.P.B.3.1.1	The organisational component ensures implementation of the student-centred learning in the curriculum and through the teaching strategies used in the learning and teaching activities and experiences.

Student-centredness in teaching activities is ensured at UBB through the practical implementation of the following concrete imperatives: ensuring transparency in the instructional and training process; designing teaching activities based on students' learning and development needs and interests; ensuring active student participation in the deepening and construction of knowledge; diversifying and differentiating forms of academic assessment. UBB is committed to ensuring the implementation of student-centred learning principles through a flexible curriculum and the use of innovative teaching strategies. The UBB Teaching Council (CD-UBB) plays an essential role in developing and monitoring educational policies, ensuring the coherence and relevance of study programmes. Through its activities, curricular adaptability is promoted, and interactive teaching methods based on collaboration and the development of students' critical thinking are encouraged. Since continuous teacher training is the main factor ensuring the efficiency and relevance of teaching, UBB has organised summer schools, workshops, and communication sessions on university pedagogy and teaching matters. Furthermore, the PhD students and supervisors confirmed that flexibile learning paths can be chosen by taking elective courses. The interviews also evidenced a strong student-centred and collegial culture. Doctoral students feel valued and supported, and cooperation within the doctoral community contributes positively to their academic, scientific and personal development.

Recommendations: Organization of more activities (workshops,seminars...) aimed at developing methodologies related to student-centered learning.

The indicator is: fulfilled.

Indicator I.P. B.3.1.2	The organisational component ensures opportunities for students to participate in academic mobility programmes organised in person and/or virtually.

UBB ensures that its students, teaching staff, and administrative personnel have access to Erasmus mobility, with information publicly and transparently posted on the website of the Centre for International Cooperation. UBB students can attend in person and/or remote mobilities through summer schools and Blended Intensive Programmes (BIP), earning ECTS credits. Credit allocation is carried out in accordance with the Operational Procedure for approving extracurricular activities and awarding transferable credits for BIP-type programmes, seasonal schools (spring/summer/autumn/ winter), and other types of short-term learning programmes. Since joining the EUTOPIA university alliance, UBB has further strengthened its commitment to internationalisation, facilitating academic collaboration and student mobility within the European university network. Babeș-Bolyai University also recognises study periods conducted abroad, in accordance with its Regulation on the Recognition of Study Periods Abroad, and promotes the European doctorate, applying this label under specific internal regulations. DSUDIC supports and ensures favourable conditions for doctoral students to participate in national and international mobilities, with either physical or virtual presence. The doctoral students have benefited from these support mechanisms, as evidenced by the comprehensive list of mobilities. These mobilities have significantly contributed to achieving the objectives of their research plans. Mobilities carried out by DSUDIC graduates have resulted in the publication of a substantial number of Q1 and Q2 papers. European Doctorates (with the University of Rostock and the Technical University of Dortmund) and international cotutelle doctorates (with the Technical University of Dresden, University of Pannonia in Veszprém, etc.) are directly linked to the mobilities carried out with DSUDIC's support.

During the evaluated period, 13 PhD students benefited from scholarships and mobility placements. The total number of scholarships/mobilities is over 30.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Standard S.B.3.2. Fairness The organisational component provides fair opportunities for students.	
Indicator I.P.B.3.2.1	The organisational component provides fair opportunities for students, in line with their potential and aspirations, taking into account the diversity of learning styles and abilities

UBB promotes access to its programmes for students from various disadvantaged categories, supporting their academic and social integration. In order to ensure equal opportunities for all students and staff, the university has implemented inclusive institutional policies, updating and supplementing two essential guidelines: the UBB Gender Equality Guideline and the Guideline for Combating Discrimination.
UBB's language policy guarantees equity in the use of the university's three official languages, reinforcing the institution's commitment to multiculturalism. In addition, the university has implemented procedures dedicated to mental health for both students and staff, aimed at supporting an inclusive, tolerant, and open academic environment. In 2023, UBB implemented the CNFIS-FDI-2023-F-0394 project entitled Enhancing Inclusion Capacity Through Adequate Academic Support Measures – Open2UBB. This initiative facilitated access to higher education, aligned the educational offer with labour market demands, and strengthened the university's ability to respond to societal challenges through sustainable and socially equitable measures. DSUDIC, through its organizational component, ensures equitable opportunities for all doctoral students, in accordance with their potential, pace, and aspirations.

Recommendations: There are no recommendations
The indicator is: fulfilled.

Criterion B.4. Accessibility and efficiency of the resources and support services, adequate for learning

Standard S.B.4.1. Access to resources and services The organisational component provides access to adequate resources and support services, according to the needs of the students.	
Indicator I.P.B.4.1.1	The organisational component provides students, including those with special educational needs/disabilities, with access to resources and services designed to support the learning process, adequate for the individual learning needs, the study domain, the study cycle, and the form of organisation of the study programme.

UBB continuously updates its study programs based on student and alumni feedback to meet labor market demands. To strengthen the learning partnership, the university has increased academic flexibility by offering more optional courses and customizable study alternatives. Additionally, through specialized centers like the Centre for Students with Disabilities (CSD, UBB ensures equitable access to resources, adapts study materials, and provides optimal evaluation conditions for all students, including doctoral candidates with special educational needs. This is achieved through: accessible infrastructure, including ramps, adequate access corridors, and sanitary facilities that allow students with reduced mobility to participate safely in doctoral school activities; the possibility to structure the individual career plan and adapt activities in cases of doctoral students with special individual needs, in consultation with the doctoral supervisor; educational and research resources that facilitate safe access to documentation, study, and use of the research infrastructure for all doctoral students, including those with special educational needs. However, as the FCIC building is an old, heritage structure, it lacks sufficient architectural features to ensure accessibility for individuals with mobility impairments to the upper floors or the basement. The faculty purchased a ramp for access by students with mobility impairments.

Recommendations: There are no recommendations
The indicator is: fulfilled

Criterion B.5. Learning outcomes

Standard S.B.5.1. Definition and evaluation

Learning outcomes are adequately defined and evaluated.	
Indicator I.P.B.5.1.1	Learning outcomes are adequately described, and they support understanding of the students' and teachers' expectations regarding the content of the subject matters in the curriculum.

Expected learning outcomes are communicated to students in terms of their relevance for personal development, acknowledging valuable contributions and explaining the reasons why a performance is recognized, thereby fostering learning motivation. Presenting evaluation criteria in advance facilitates self-assessment and reflection on one's own behavior and learning achievements. The learning outcomes are formulated explicitly to ensure that both the doctoral student and the doctoral supervisor clearly understand and achieve the expected educational performance. The clear definition of learning outcomes is achieved through: course syllabi, which include the learning outcomes specific to the doctoral study programme, and the learning outcomes specific to each course; correlation of the learning outcomes with the course content and with the competencies formed; explanation and clarification of the intended learning outcomes by the doctoral supervisor for activities within the individual research programme, and by the course instructors for the courses taught within the advanced training programme. Learning outcomes are not clearly specified in all course outlines. In some cases, the bibliography is not up to date.

Recommendations: It is recommended to describe the learning outcomes more explicitly and update the bibliography in all course specifications.

The indicator is: **fulfilled.**

Indicator I.P.B.5.1.2	Achievement of the learning outcomes is checked in ongoing examinations and study completion exams.

The verification of learning outcomes is carried out through continuous assessment during the semester and summative assessment at the end of each semester. These activities are organized in accordance with the Regulation on Students' Academic Activity based on the European Credit Transfer and Accumulation System (ECTS). The learning outcomes are verified at key evaluation moments by analysing the doctoral student's knowledge and their ability to apply it to problem-solving or by assessing the research results obtained. Verification is carried out through: continuous and final course evaluation (as specified in the course syllabus), for the activities included in the programme based on advanced university studies; continuous evaluation by the doctoral supervisor for activities within the individual scientific or applied research programme; summative annual evaluation, based on the presentation of results obtained during the preceding year before the guidance and integrity committee, followed by feedback from this committee; evaluation related to the presentation of the doctoral thesis, both in front of the guidance and integrity committee and during the final doctoral examination. The course syllabi, course evaluation results, annual presentations/reports, minutes of the meetings of the guidance and integrity committee, and the evaluations of external reviewers during the public defence constitute the core instruments used to verify the achievement of learning outcomes. The evaluation method is not clearly presented in all course outlines.

Recommendations: It is recommended to describe the evaluation methods more explicitly in all course specifications.

The indicator is: **fulfilled.**

Criterion B.7. Procedures and practices regarding the admission competition, the journey, recognition and equivalence of studies, and result certification

Standard S.B.7.1. Admission The admission procedures and principles ensure access to higher education.	
Indicator I.P.B.7.1.1	The organisational component applies the admission procedures.

Admission to the doctoral studies is based on a selection competition. Based on institutional autonomy, the university annually drafts and updates the Admission Methodology for Doctoral Studies, as well as the

Regulation on the Organisation and Operation of Doctoral Studies, both of which enter into force after being adopted by the University Senate. Admission to doctoral university studies is based on a selection competition organised by Babeș-Bolyai University, through the Institute for Doctoral Studies, in accordance with the admission methodology for doctoral studies. Each faculty operates the framework regulation through a specific regulation that establishes its own selection and ranking criteria, admission exams, calendar, and registration conditions. Information regarding admission to ȘDIC is available transparently in the Admission section of its website. This section provides candidates with details such as the admission calendar, candidate registration, research topics proposed by doctoral supervisors, the schedule of admission examinations, and admission results. The DSUDIC Secretariat verifies the admission files to ensure compliance with all required documents in this initial stage and supports candidates in submitting complete files. The admission competition consists of evaluating the proposed scientific project and conducting an interview in which a committee of doctoral supervisors assesses candidates' knowledge and potential to carry out the research activities associated with the topic proposed by the doctoral supervisor under whose doctoral grant the candidates are applying. The research topics associated with each vacant doctoral position are proposed by the supervisors and approved by the Doctoral School Council.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Indicator I.P.B.7.1.2	Admission in higher education study programmes complies with the principles of fairness and equal opportunities, and with the establishing of support measures to ensure access of vulnerable groups at social and educational risk, including candidates with special educational needs and/or disabilities.

DSUDIC organizes and conducts the admission competition in full compliance with ethical principles and without discrimination based on gender, ethnicity, disability, age, religious orientation, or socio-economic status, while ensuring the confidentiality of candidates' personal data and providing support for candidates with special educational needs and/or disabilities. This is ensured through: transparent publication on the ȘDIC website of all information related to admission, including the admission calendar, candidate registration details, doctoral supervisors' research topics, the admission examination schedule, the admission methodology, and final results; admission based on objective criteria, such as the research proposal and the specialist interview; administrative and logistical support for candidates with special needs or disabilities during registration), as well as technical assistance and equal opportunities during the selection process. The interviews with PhD students confirm all mentioned above.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Standard S.B.7.2. Academic journey of students The organisational component carries out actions supporting the students' academic journey.	
Indicator I.P.B.7.2.1	The organisational component applies the regulations concerning the students' professional activity.

Students' academic activity is organized in accordance with the Regulation on Students' Academic Activity based on the European Credit Transfer and Accumulation System (ECTS), as well as the Code of Students' Rights and Responsibilities. At UBB, students are considered strategic partners and equals of the University in all areas of its activity and interest, and they are members of the university community, enjoying rights and responsibilities based on the principles set out in Article 4 of the Higher Education Law No. 199/2023, with subsequent amendments and completions. The University provides ongoing support to students through grants, both from UBB's own funds and by applying for national funding sources. University leadership ensures that students are well-informed by publishing these regulations on the website, while the Student Organization of Babeș–Bolyai University and the Student Council of UBB translate and present these regulations in an accessible language for both recent high school graduates and current students.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion B.8. Internationalisation process

Standard S.B.8.1. Internationalisation Improving the quality of education and research through internationalisation actions.	
Indicator I.P.B.8.1.1	The organisational component carries out international cooperation actions supporting mobility of the members of its own community and collaboration in academic and research activities.

At DSUDIC, internationalization is a continuous priority and an important objective, recognized as one of the main strategic goals of the doctoral school. Internationalization is achieved through: Mobilities of doctoral students and collaborative contacts with doctoral supervisors abroad (e.g., Prof. Jennifer Strunck LIKAT, University of Rostock; Prof. Kockhman, University of Dortmund; Prof. Berendok, University of Dresden); Mobilities through research projects (e.g., the EUTOPIA programme) or through the doctoral grant (e.g., Institute of Materials and Environmental Chemistry, Budapest);Research internships within European Doctorate programmes (e.g., University of Rostock, University of Dortmund); Research internships within international cotutelle doctorates (e.g., Technical University of Dresden; University of Pannonia in Veszprém; Botswana International University of Science and Technology); Participation of doctoral students and supervisors in research projects with international teams (e.g., COST Project: Techno-economic analysis of carbon mitigation technologies, CA21127; Horizon Europe excellence project PN-IV-P8-8_1-PRE-HE-ORG-2024-0228; Horizon Europe Project on Calcium Looping to capture CO_2 from industrial processes by 2030); Participation of supervisors as expert evaluators in national and international research competitions (e.g., Horizon Europe, European Commission); Representation of Romania in international professional bodies (e.g., the Executive Council of the Computer Aided Process Engineering Working Party of the European Federation of Chemical Engineering); Participation of students and doctoral candidates in ERASMUS+ programmes (e.g., Al-Farabi Kazakh National University, Alma-Ata, Kazakhstan; University of Nice, France; Nova University Lisbon, Portugal; Écoles des Mines d'Albi, France); Summer Schools organized by the doctoral supervisors (e.g., Summer Schools for doctoral students, 2021–2026, Stana, Sălaj County);

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion B.9. Scientific research results

Standard S.B.9.1 Scientific research in the education process Scientific research activities support students in achieving the learning outcomes.	
Indicator I.P.B.9.1.1	Learning based on scientific investigation and research results support and are capitalised upon in achieving the learning outcomes envisaged through the study programme.

Within DSUDIC, the training of doctoral students is fundamentally based on scientific investigation, making full use of research results to fulfil the assumed mission of generating knowledge through original research. This is achieved through: centering the activities of the programme based on advanced university studies and of the individual scientific or applied research programme on research itself, these elements forming the backbone of the individual research plan; constructing the individual research plan with clearly defined objectives, implementation methods, and experimental and/or computational activities, evaluated continuously by the doctoral supervisor and annually by the guidance and integrity committee; involving doctoral students in national and international research projects, where they directly contribute to the development of innovative solutions within these projects; structuring the curriculum so that it includes courses supporting the development of both professional and transversal research competencies; ensuring that the courses taught integrate the research activity of the instructor, including examples, case studies, seminar topics, or projects derived from published articles and books authored by the course holder;

Recommendations: Periodic organization within the doctoral school of meetings dedicated to analysing and presenting research and learning results, with the participation of doctoral students and supervisors.
The indicator is: fulfilled.

Standard S.B.9.2. Scientific research pertaining to the objectives of the study programme The organisational component carries out scientific research activities aligned with the objectives of the evaluated study programme.	
Indicator I.P.B.9.2.1	The results of scientific research are visible at national and international level in that scientific domain, and capitalised upon in an adequate manner.

The research outcomes of the supervisors, doctoral engineers (graduates), and current doctoral students support and demonstrate the remarkable national and international visibility of DSUDIC's scientific results. This visibility and the valorisation of scientific research outputs are evidenced by:

- The scientific production in internationally indexed journals, comprising a large number of publications in Q1 and Q2 journals, with high impact factors of up to 16.8;
- Habilitated doctoral supervisors who exceed the minimum CNATDCU standards, with individual achievement levels ranging from 289% to 1684%. The average fulfilment of minimum CNATDCU standards for all habilitated supervisors is 753%;
- Detailed standard-fulfilment profiles, together with links to Google Scholar, Scopus, Web of Science profiles and supervisors' CVs, presented in the dedicated section of the ŞDIC website, offering a comprehensive overview of supervisors' publications;
- Prof. dr. ing. Călin-Cristian Cormoş, a doctoral supervisor with exceptional research activity within DSUDIC, ranked in positions 1 / 2 internationally for the number and quality of publications in the field of Carbon Capture, Utilization and Storage (CCUS);
- Publications authored by doctoral graduates and current doctoral students, as well as their participation and presentations at national and international conferences, which demonstrate the outstanding scientific results achieved within DSUDIC;
- A significant proportion of publicly defended theses since the last accreditation have exceeded the minimum CNATDCU standards by 10-fold or even 20-fold in terms of the sum of journal impact factors (e.g., theses defended by Sima S., Sandu V., Galusniak S.C., Ilea F.M., Várhelyi M., Mihály N.B., Boga B., Farkas N.I.); National and international research projects in which DSUDIC doctoral supervisors act as project directors or team members, contributing to the visibility, recognition, and valorisation of DSUDIC's scientific results in competitive research environments;

The Doctoral School and the University provide science communication training and public engagement opportunities, including workshops, activities with schools and participation in the European Researchers' Night. However, awareness of these opportunities and participation across the doctoral community could be further broadened.

Recommendations: It is recommended to increase the visibility of science communication opportunities and encourage broader participation by doctoral supervisors and students in public engagement activities.
The indicator is: fulfilled.

DOMAIN C. Quality management

Criterion C.1. Quality assurance strategies and procedures, including in the field of academic ethics and conduct, which involve students, employers and other stakeholders and are applied in a consistent, transparent manner

Standard S.C.1.1. Application Adequately implemented strategic directions, actions, and procedures

Indicator I.P.C.1.1.1	The organisational component consistently carries out actions and applies procedures, proving their impact on improving the quality of education at the level of the study programme

Quality assurance and competitiveness are regulated through a series of internal decisions, based on the directions set out in the Quality Assurance Policy. At the same time, through the 2024–2029 Strategic Plan, UBB's annual operational plans, and the annual Quality Assurance Programmes, UBB aims to ensure the continuous improvement of the quality of teaching and research activities, the relationship with students and the external environment, as well as the improvement of university management. At the end of the period covered by these programmes, the achievement of the assumed objectives is evaluated.
The procedures developed by the Quality Council (CQ) and by any administrative unit of UBB comply with the applicable legal provisions and are published in the Quality Manual, on the Qualitas Centre website, or on the website of the Administration Council. In collaboration with IOSUD UBB, DSUDIC carries out and applies procedures aimed at improving the quality of education in the field of doctoral studies in Chemical Engineering. Interviews with representative of quality structures confirms that they have procedures intiated at each intrested department of the university, most of them are in electronic format for which they collect feedback from stakeholders (academic staff, industry representatives, students,..) in a online form. The discussed procedures are finaly aproved by Senate.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Standard S.C.1.2. Stakeholder engagement The HEI proves that it engages the stakeholders who have relevant activity in applying the procedures.	
Indicator I.P.C.1.2.1	The opinions of the members of its own community and of other stakeholders are taken into account in the procedure implementation process.

DSUDIC uses the opinions of its own academic community, both teaching staff and doctoral students, as well as those of specialists from other institutions or companies, to ensure the structuring and implementation of quality assurance procedures. This is achieved through: Consulting members of the community (doctoral supervisors, doctoral students, FCIC academic staff) and incorporating their opinions into analyses for decision-making (e.g., drafting and approval of the ȘDIC Regulation, associated procedures, Thesis Drafting Guide, Thesis Similarity Analysis, Thesis Distinctions–Grades, proposals related to habilitation criteria); Submitting decisions for approval through a chain involving a large number of community members, a process that starts with doctoral students, doctoral supervisors, the guidance and integrity committees, ȘDIC Council, FCIC Council (CFCIC), the Council for Doctoral Studies (CSUD), the UBB Administrative Council (CA), and the UBB Senate, depending on the importance of the decision. The minutes of the ȘDIC, CFCIC, CSUD, CA, and Senate meetings include these consultations/approvals; -Doctoral students, in their own meetings (e.g., the election of their representative in ȘDIC) or other meetings (via the ȘDIC student representative), express their viewpoints regarding the improvement of their activity or make proposals (e.g., allocation of dormitory places), opinions which are considered in addressing their needs; Doctoral supervisors are consulted and participate in the development/revision of procedures, so that these are adapted to the specific needs of the Chemical Engineering field while respecting current regulations; During working meetings, scientific, professional, and administrative events, opinions are requested and conveyed by DSUDIC doctoral graduates or representatives of institutions/industry partners employing them, to understand their perspective and obtain useful feedback for adapting the training of future graduates to labor market requirements (e.g., feedback from INCDTIM Cluj-Napoca regarding doctoral students' individual training plans; from EMERSON Cluj-Napoca regarding dual-education models. The panel also noted that meetings with representatives of companies had previously provided a useful framework for dialogue. Organising such meetings on a regular basis could further support the adaptation of doctoral training and research to industrial needs.

Recommendations: It is recommended to hold regular meetings with industry representatives and to develop more flexible mechanisms for academia–industry collaboration, thereby strengthening the applied dimension of doctoral research.

The indicator is: fulfilled.

Criterion C.2. Functionality of education quality assurance structures, including in the field of academic ethics and conduct, according to the law

Standard S.C.2.2. Operation Quality assurance and academic ethics and conduct organisational structures adequately perform their specific role and functions.	
Indicator I.P.C.2.2.2.	The academic ethics commission operates based on the regulation approved by the University Senate, and performs actions that are compliant with the law, independently from any other structure or person in the higher education institution.

The Code of Ethics and Professional Conduct, updated in 2025, draws on the following values: academic freedom, competence and professionalism, integrity, intellectual honesty, collegiality, loyalty, justice and fairness, non-discrimination and equal opportunities, and responsibility. Responsibility for complying with the provisions of the Code of Ethics lies primarily with each member of the academic community, and the institution has practices and mechanisms in place to ensure and monitor their application.
The institutional structure in charge of monitoring the implementation and compliance with the provisions of this code is UBB's Ethics Committee – an independent structure in relation to the Senate and the Rector's Office. The committee operates under the Organisation and Operation Regulation of the UBB Ethics Committee. The composition of the Ethics Committee includes at least 25% students.
The Ethics Committee of Babeș-Bolyai University carries out its activity based on its own Regulation, approved by the University Senate, in accordance with national legislation on academic ethics and integrity, as well as national norms governing research integrity. The Regulation establishes the principles of operation, the responsibilities of its members, and the procedures for analyzing submitted complaints.
The UBB Ethics Committee is an independent administrative structure, and its decisions are binding for all other administrative structures within the institution. Consequently, upon request, DSUDIC provides the UBB Ethics Committee with the information and documents required and complies with the decisions it issues following its analyses. During the interview with the Ethics Commission representative, the process for selecting the commission's members was outlined; the commission comprises 11 members appointed in accordance with the law. An open call was issued across UBB, and interested candidates submitted their CVs; eight of the members are academic staff from various faculties. Extensive work has gone into developing internal procedures, and the regulations were proposed by the commission members themselves. The Research Ethics Subcommittee operates within the Ethics Commission, which also includes student members. One of these acts as an ombudsman. There have been no ethics-related issues involving doctoral students or doctoral supervisors within the faculty. A formal response is drafted for every annonimus request submitted to the Ethics Commission, as the situation requires. The ethics committee's report is publicly presented on the website.

Recommendations: Try to give more publicity for the ombudsman.

The indicator is: fulfilled.

Criterion C.3. Procedures for the initiation, monitoring and periodic review of the study programmes and domains and of the performed activities, involving students, employers and other stakeholders

Standard S.C.3.1. Procedures and implementation of procedures The HEI has procedures for initiating, monitoring, and periodically reviewing the study programmes and domains and the performed activities, and applies them systematically.	
Indicator I.P.C.3.1.1	The organisational component consistently applies the procedures, and proves their impact on quality assurance.

The Curriculum Committee of the University Senate is the Senate's specialised body responsible for the internal accreditation, regulation, and monitoring of doctoral study programmes, in line with UBB's development strategy and the requirements of national and international external accreditations.

On an annual basis, the Doctoral School (SD) prepares and updates the curricula in accordance with the objective needs related to the scientific trajectory of doctoral students. The curricula are validated by the Doctoral School Council (CSD) and the Faculty Council, and subsequently approved by the Council for University Doctoral Studies (CSUD), after which they are made public so that admission candidates have access to all relevant information. The courses included in the curricula are reflected in the individual doctoral study plan, which is prepared and signed by each doctoral student as an annex to the study contract. The activity of DSUDIC is based on the ȘDIC Regulation and its associated procedures, consistently applied by the doctoral school of Chemical Engineering. These ensure operation in accordance with current regulations, with proper administrative conduct and full transparency. Periodic updates of regulations and procedures—whether scheduled or required—together with the digitalization of administrative management and the increased efficiency of communication tools are direct consequences of the consistent application of these rules.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Indicator I.P.C.3.1.2	Members of its own community and other stakeholders are involved in the procedure implementation process.

DSUDIC ensures the implementation of quality assurance procedures by consistently considering the consultation and opinions of community members and other stakeholders. •
Both doctoral supervisors, doctoral students, and FCIC academic staff participate in the development, updating, and implementation of regulations and procedures (e.g., drafting and approval of the ȘDIC Regulation and its associated procedures: Thesis Drafting Guide, Thesis Similarity Analysis, Thesis Distinctions–Grades, proposals related to habilitation criteria, etc.);
Approval of DSUDIC decisions through a multi-level consultation chain involving a large number of community members, a process that starts with doctoral students, doctoral supervisors, the ȘDIC Council, the FCIC Council (CFCIC), the Council for Doctoral Studies (CSUD), the UBB Administrative Council (CA), and the UBB Senate. The minutes of the meetings of ȘDIC, CFCIC, CSUD, CA, and the Senate document these consultations/approvals; Doctoral students, in their own meetings or in other meetings (through the ȘDIC student representative), express their views and monitor the implementation of proposals to improve their activity (e.g., allocation of accommodation places), and their feedback is taken into account in decision-making; Doctoral supervisors are consulted and participate in the development/revision of procedures, ensuring that these are tailored to the specific needs of the Chemical Engineering field while respecting existing regulations; Transparency and communication ensured through internal and external communication platforms, the ȘDIC Website, and direct meetings with stakeholders;

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion C.4. Procedures for the periodic evaluation of the quality of the activities of teaching staff, auxiliary teaching staff, and administrative staff

Standard S.C.4.1. Procedures Applying the methodologies and procedures contributes to improving the quality of the staff's activities.	
Indicator I.P.C.4.1.1	The organisational component analyses the results of the students' biannual evaluation of teachers.

The evaluation of the professional activity of academic staff and researchers by the university management, as well as peer evaluation, is carried out in accordance with dedicated operational procedures adopted by the UBB Senate. The procedure for the evaluation of the professional activity of academic staff and researchers by management, as well as the peer evaluation procedure, applies to all academic staff and researchers employed under both open-ended and fixed-term contracts, with the exception of associate teaching staff. Faculties may decide, by decision of the Faculty Council, that the operational procedure shall also apply to teaching staff and doctoral students who carry out teaching activities on an hourly-paid

basis. In addition, in accordance with the procedure adopted in March 2024, the evaluation of the doctoral stage is conducted annually by UBB doctoral students. The evaluation of teaching staff by students, including those affiliated with DSUDIC, is carried out based on the regulations and procedures approved at UBB level. These define the items assessed and the frequency of evaluations, which are conducted online and anonymously through the dedicated applications provided by the Qualitas Centre and AcademicInfo (Student Evaluation of Teaching Performance), along with instructions on how to access them. The analysis of evaluation results is performed on the basis of reports generated from the completed questionnaires, insofar as responses have been submitted. The semi-annual periodicity is directly linked to the outcomes of the advanced university-level study programme. DSUDIC, through the Council of the Doctoral School, evaluates the performance of teaching staff, also using observations, recommendations, and notifications that may be submitted via its communication channels. During the annual presentations/reports of doctoral students before the guidance and integrity committee, recommendations for improvement of these aspects are also discussed.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion C.5. Systematically updated databases on internal quality assurance

Standard S.C.5.1. Databases The HEI uses databases to support internal quality assurance activities.	
Indicator I.P.C.5.1.1	The organisational component systematically collects and analyses data required for the internal quality assurance process.

Administrative activities are supported by three integrated IT systems developed within the Centre for Information Systems. These systems bring together services for both employees and students and are accessible via login credentials (username, password). Departments within the General Administrative Directorate use the ManageAsist application, which offers managerial assistance functionalities at various levels. Faculty secretariats use AcademicInfo, a suite of programs that enables tracking of students' academic trajectories and the online evaluation of courses by students. The Centre for Scientific Research Management, along with UBB's academic and research staff, uses the UBB Academic/ Research Activity Management application to submit the results of their professional activities. AcademicInfo supports the modelling of school record keeping processes and provides the following features: UBB level integration (selection of subjects from the range of UBB course offer); extension of teaching activities (bachelor's, master's, doctorate, continuing education modules, specific curricula); multilingual support in records; integrated faculty and financial department fees; integrated student applications; course assessments. The financial-accounting activity is IT-supported through the integrated ManageAsist system which is dedicated to the administrative management of the University.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion C.6. Transparency of information of public interest, including those regarding the study programmes and domains offered, and transparency regarding the related certificates, diplomas and qualifications

Standard S.C.6.1. Transparency The organisational component ensures transparency of information, as required by the law.	
Indicator I.P.C.6.1.1	The organisational component ensures publication and access to information of public interest regarding the evaluated study programme.

At UBB, public interest information is disseminated through multiple channels: official editorials signed by the University spokesperson, press releases issued by the Communication and Public Relations Directorate, press conferences, bulletin boards located in University buildings, the University's official website, social media accounts, faculty websites, and admission brochures detailing bachelor's and master's programmes. The spokesperson's office is in charge of answering all media inquiries and of

drafting the University's official statements. The mission of the Communication and Public Relations Directorate is to establish and maintain communication between the University and the media in order to inform the public about educational, scientific, and research-related programmes and events taking place within the institution.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Indicator I.P.C.6.1.2	The organisational component ensures transparent decision-making processes.

In order to assist people seeking to access public information, UBB facilitates access to the public information it generates through its official website. Anyone can obtain public information concerning UBB by visiting the INFOUBB section on the university's website and the Faculty of Chemistry and Chemical Engineering website. At DSUDIC, the transparency of decision-making processes is considered a fundamental principle in fulfilling the mission assumed by the doctoral school, serving as a prerequisite for transmitting and receiving relevant information and thus becoming an essential component of internal quality assurance. Decisions, depending on the beneficiary, are communicated transparently to doctoral students, academic staff, higher-level organizational structures, stakeholders, and the general public.

Recommendations: There are no recommendations

The indicator is: fulfilled.

Criterion C.8. Participation in external evaluation processes, according to the law

Standard S.C.8.1. Compliance with the external evaluation obligation The HEI undergoes external quality evaluation as required by the law.	
Indicator I.P.C.8.1.1	The organisational component carries out the procedures pertaining to the external quality evaluation process, aiming to organise the evaluated study programme as provided by the law.

The most recent ARACIS external evaluation, conducted between 02–05 November 2021 by a commission specially appointed by ARACIS, concluded with ARACIS Council Decision No. 132/16.12.2021, which granted the qualification of Maintaining the accreditation of the doctoral field of chemical engineering

Recommendations: There are no recommendations

The indicator is: fulfilled.

IV. SWOT Analysis

Strengths:		Weaknesses:
-Existence of a highly qualified human resource, with very well-prepared and experienced doctoral supervisors - Specialists with international reputation and visibility in chemical engineering, advanced materials, and chemical process informatics - Remarkable international visibility through publications resulting from the research conducted by graduates (doc-tor-engineers) - Tradition and experience at bachelor's, master's, and doctoral level in chemical engineering programs - Collaborations with universities and projects involving European institutions - Teaching spaces and research infrastructure aligned with the requirements of the chemical engineering profile - Modern and high-performance computing and communication infrastructure - Interdisciplinary and multilingual character of the study programs offered by the faculty hosting ŞDIC	INTERNAL FACTORS	- The need to develop a bachelor-level study program at UBB/FCIC with English as the language of instruction - Insufficient motivation among companies to support the enhancement of employee competencies through doctoral studies - Difficulty in identifying financial sources for the continuous modernization of infrastructure, including limited project competitions dedicated to infrastructure development - The need to strengthen the recruitment of doctoral candidates from other Romanian universities and from abroad.

- Excellent managerial capacities of doctoral supervisors - Openness toward the local and regional community - Strategic partnerships and training collaborations with lo-cal and regional employers - Strong student-centred and collegial culture, with close support for doctoral students and effective cooperation within the doctoral community.		
	SWOT analysis	
Opportunities: -Increasing society's awareness of the need for sustain-able development, whose solutions, methodologies, and tools are offered—some of them exclusively—by chemical engineering - The positive national and international reputation of UBB, which encourages master's graduates to continue their studies at the doctoral level - Existence of cooperation networks with universities in Romania and abroad, e.g., EUTOPIA - Availability of diversified study programs at UBB - Potential for collaboration with other doctoral fields and doctoral schools within UBB - Increasing need for highly qualified human resources for activities involving expertise, consultancy, and technology transfer - Development of the IT sector in Cluj-Napoca due to the presence of specialized companies and multinational corporations - Funding programs of the European Commission, bilateral/ multilateral agreements, and grants - Broader use of existing science communication and public engagement initiatives involving doctoral supervisors and students. - Development of more flexible mechanisms for academia–industry collaboration and co-defined applied doctoral research.	EXTERNAL FACTORS	Threats: - Underfunding of doctoral scholarships, which is not aligned with the specific expenses of the Chemical Engineering field nor with the cost of living in Cluj-Napoca - Decreasing number of doctoral scholarships allocated to the doctoral school - Competition from Euro-pean education systems in attracting domestic candi-dates to doctoral studies - Centralized and non-stimulating legislation and educational policies - Declining school-age population - Chemical industry companies in Romania are continually decreasing in number and face strong international competition - Doctoral scholarships are not competitive compared to salaries offered by companies, even for entry-level positions (without a doctorate)

V. Extent to which the standards and performance indicators are fulfilled, and recommendations

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
DOMAIN A. Institutional capacity			
1.	I.P.A.1.1.1 For delivering the study programme/domain, the HEI has adequate organisational components and an adequate management system, which operate based on methodologies, regulations and procedures that are periodically reviewed as required by law.	fulfilled	There are no recommendations
2.	I.P.A.1.2.1 The opinions of the faculty and department members, of the subsidiary or extension and of other stakeholders are considered in the process of adopting	fulfilled	Expanding digitalization of decision-making processes and increasing national and

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
	and revising methodologies, regulations and implementation procedures.		international collaborations and consultations.
3.	I.P.A.2.1.1 The HEI legally owns venues for the related education, research and administrative processes, as well as for services for students, doctoral students and trainees, thus providing an enabling environment for living and studying, including for disabled persons. Optimal venues are also provided for activities of the staff. Such venues are adequately equipped.	fulfilled	Expanding access to assistive technology and training staff to support students with disabilities.
4.	I.P.A.2.2.1 The movable and immovable assets are properly maintained to ensure optimal conditions for studying, living and research, as well as for work.	fulfilled	There are no recommendations
5.	I.P.A.3.1.1 The human resources of the organisational component are suitable to perform the activities pertaining to the evaluated study programme/domain. The teaching staff has the required qualifications and professional competences to teach the subject matters assigned to them in the job list.	fulfilled	It is recommended to strengthen the strategy for attracting well-qualified doctoral candidates from other Romanian universities and from abroad.
6.	I.P.A.3.1.2 The HEI ensures professional and personal development for its staff.	fulfilled	There are no recommendations
7.	I.P.A.3.2.1 Recruitment procedures comply with the provisions of the law, and are established and carried out transparently.	fulfilled	There are no recommendations
8.	I.P.A.4.1.1 The organisational component uses IT tools in its own procedures, to improve access and provide good quality services for the members of its own community and the indirect beneficiaries of education.	fulfilled	There are no recommendations
DOMAIN B. Educational efficacy			
9.	I.P.B.1.1.1 The study programme is developed and structured according to the expected learning outcomes, and organised based on transferable study credits. It includes all learning, teaching, practical training, research and evaluation experiences, which, together, lead to a higher education qualification.	fulfilled	There are no recommendations
10.	I.P.B.2.1.2 The expected learning outcomes are correlated with the competences required by those occupations, according to the occupational standards and/or the European Skills, Competences and Occupations (ESCO).	fulfilled	There are no recommendations
11.	I.P.B.3.1.1 The organisational component ensures implementation of the student-centred learning in the curriculum and through the teaching strategies used in the learning and teaching activities and experiences.	fulfilled	Organization of more activities (workshops,seminars...) aimed at developing methodologies related to student-centered learning.
12.	I.P.B.3.1.2 The organisational component ensures opportunities for students to participate in academic mobility programmes organised in person and/or virtually.	fulfilled	There are no recommendations
13.	I.P.B.3.2.1 The organisational component provides fair opportunities for students, in line with their potential and aspirations, taking into account the diversity of learning styles and abilities.	fulfilled	There are no recommendations

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
14.	**I.P.B.4.1.1** The organisational component provides students, including those with special educational needs/disabilities, with access to resources and services designed to support the learning process, adequate for the individual learning needs, the study domain, the study cycle, and the form of organisation of the study programme.	fulfilled	There are no recommendations
15.	**I.P.B.5.1.1** Learning outcomes are adequately described, and they support understanding of the students' and teachers' expectations regarding the content of the subject matters in the curriculum.	fulfilled	It is recommended to describe the learning outcomes more explicitly and update the bibliography in all course specifications
16.	**I.P.B.5.1.2** Achievement of the learning outcomes is checked in ongoing examinations and study completion exams.	fulfilled	It is recommended to describe the evaluation methods more explicitly in all course specifications.
17.	**I.P.B.7.1.1** The organisational component applies the admission procedures.	fulfilled	There are no recommendations
18.	**I.P.B.7.1.2** Admission in higher education study programmes complies with the principles of fairness and equal opportunities, and with the establishing of support measures to ensure access of vulnerable groups at social and educational risk, including candidates with special educational needs and/or disabilities.	fulfilled	There are no recommendations
19.	**I.P.B.7.2.1** The organisational component applies the regulations concerning the students' professional activity.	fulfilled	There are no recommendations
20.	**I.P.B.8.1.1** The organisational component carries out international cooperation actions supporting mobility of the members of its own community and collaboration in academic and research activities.	fulfilled	There are no recommendations
21.	**I.P.B.9.1.1** Learning based on scientific investigation and research results support and are capitalised upon in achieving the learning outcomes envisaged through the study programme.	fulfilled	Periodic organization within the doctoral school of meetings dedicated to analysing and presenting research and learning results, with the participation of doctoral students and supervisors.
22.	**I.P.B.9.2.1** The results of scientific research are visible at national and international level in that scientific domain, and capitalised upon in an adequate manner.	fulfilled	It is recommended to increase the visibility of science communication opportunities and encourage broader participation by doctoral supervisors and students in public engagement activities.
DOMAIN C. Quality management			
23.	**I.P.C.1.1.1** The organisational component consistently applies the procedures, and proves their impact on quality assurance.	fulfilled	There are no recommendations
24.	**I.P.C.1.2.1** The opinions of the members of its own community and of other stakeholders are taken into account in the procedure implementation process.	fulfilled	It is recommended to hold regular meetings with industry representatives and to develop more flexible mechanisms for academia–industry collaboration,

No.	Performance Indicator	Extent to which it was fulfilled (F/PF/UF)	Recommendations
			thereby strengthening the applied dimension of doctoral research.
25.	**I.P.C.2.2.2.** The academic ethics commission operates based on the regulation approved by the University Senate, and performs actions that are compliant with the law, independently from any other structure or person in the higher education institution.	fulfilled	Try to give more publicity for the ombudsman.
26.	**I.P.C.3.1.1** The organisational component consistently applies the procedures, and proves their impact on quality assurance.	fulfilled	There are no recommendations
27.	**I.P.C.3.1.2** Members of its own community and other stakeholders are involved in the procedure implementation process.	fulfilled	There are no recommendations
28.	**I.P.C.4.1.1** The organisational component analyses the results of the students' biannual evaluation of teachers.	fulfilled	There are no recommendations
29.	**I.P.C.5.1.1** The organisational component systematically collects and analyses data required for the internal quality assurance process.	fulfilled	There are no recommendations
30.	**I.P.C.6.1.1** The organisational component ensures publication and access to information of public interest regarding the evaluated study programme.	fulfilled	There are no recommendations
31.	**I.P.C.6.1.2** The organisational component ensures transparent decision-making processes.	fulfilled	There are no recommendations
32.	**I.P.C.8.1.1** The organisational component carries out the procedures pertaining to the external quality evaluation process, aiming to organise the evaluated study programme as provided by the law.	fulfilled	There are no recommendations

Summary Table of Performance Indicators – Degree of Fulfillment

Evaluation Domain	Number of Performance Indicators		
	Fulfilled	Partially fulfilled	Unfulfilled
Domain A. Institutional capacity	8	-	-
Domain B. Educational efficacy	14	-	-
Domain C. Quality management	10	-	-
Total	32	-	-

VI. Conclusions

Following the analysis of the documents available in the internal evaluation filed, the discussions held with the university representatives involved in the didactic research activities and procedures implementation of this in the doctoral field Chemical engineering, and based on the conclusions resulting from the analysis of the available infrastructure, the points of view expressed by PhD students and grdaduated, the socio-economic representatives, the members of the external evaluation committee agree with the **maintaining accreditation** of the doctoral field CHEMICAL ENGINEERING at Babes-Bolyai University. Following the completion of the maintaining accretditation procedure, the decision of the evaluation panel is the following: **maintaining accreditation** (MAC);

VII. Annexes

No additional annexes were requested during the initial analysis of the REI.

The following were consulted during the visit:

- *Grade records of doctoral students*
- *The doctoral study contract*

Further information useful for completing the REE was provided during the interviews.

The timetable for the evaluation of the external quality evaluation visit for the doctoral university study domain

Instituția de învățământ superior/Organizația furnizoare de educație/ Higher Education Institution / Education Provider Organization: Babeș-Bolyai University, Cluj-Napoca
Școala doctorală/ Doctoral School: Școala Doctorală de Ingineri Chimică /Doctoral School of Chemical Engineering (Faculty of Chemistry and Chemical Engineering)
Domeniul de doctorat/ Doctoral Domain: **Chemical engineering**
Obiectivul evaluării externe/ The objective of the external evaluation: *(autorizare de funcționare provizorie/acreditare/menținerea acreditării domeniului de doctorat):* ***Maintaining the Accreditation of the Doctoral Study Field***
Perioada vizitei de evaluare/ The evaluation period: ***16 – 18 September 2026***
Comisia de experți evaluatori ai ARACIS/Evaluation panel:
Reprezentantul IÎS/OFE:

Nr./No.	Numele și prenumele/ Last Name and First Name	Calitatea/Team role	Nr./ No.	Numele și prenumele/ Last Name and First Name	Calitatea/Team role
1.	***Prof. Mămăligă Ioan***	*Membru - Cadru didactic RNE*	1.	***Prof. Cristea Vasile Mircea***	*Responsible for the PhD Program*
2.	***Prof. Coz Fernandez Alberto***	*Membru - Evaluator internațional RNE-I*	2.	***Prof. Nemeș Gabriela Nicoleta***	*Decan / Dean*
3.	***Drd. Pauliuc Cosmin-Gabriel***	*Membru - Student doctorand RNE-S*	3		

Intervalul orar/ *Hour*	Activități de evaluare/ *Evaluation activities*	Participanți/ *Participants*	Locație/*Location* /Listă participanți/*List of Participants*
Miercuri/ *Wednesday*, 16.09.2026			
18.00 – 19.00	Întâlnire membrilor comisiei de evaluare; Stabilirea responsabilităților membrilor comisiei.	Membrii comisiei de evaluare */ Panel members*	
Joi/*Thursday*, 17.09.2026			
9:00-9:30	Discuții tehnice în cadrul comisiei de experți în evaluarea externă a calității/ *Technical discussions within the expert committee for external quality evaluation*	- Comisia de experți evaluatori ai ARACIS/ *Panel members*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică (str. Arany Janos, nr.11)** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering

9:30 - 10:10	Întâlnirea comisiei de experți în evaluarea externă a calității cu **reprezentanții conducerii componentei organizatorice/** *Meeting of the external quality evaluation experts' panel with the representatives of the management of the organisational component*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Reprezentanți ai conducerii componentei organizatorice aferente domeniului de studii de doctorat evaluat/ *Representatives of the management of the organisational component* - Persoana de contact/ *Contact person*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering **List of participants attending the meeting**: - Prof. univ. dr. Ing.... Consiliul pentru Studiile Universitare de Doctorat UBB - Prof. univ. dr. **....** Decan al Facultății Chimie și Inginerie Chimică - Prof. univ. dr. ing. ..., Prodecan Facultatea de Facultății de Chimie și Inginerie Chimica / Vice-Dean of the Faculty of Chemistry and Chemical Engineering - Prof. univ. dr. ing...., responsabil pentru întocmirea REI / Responsible for preparing the IER - Prof. univ. dr. ing..., Director departament de inginerie chimica/Director of the Chemical Engineering Department - Prof. univ. dr. ing. .., Drirector departeament chimie/ Director of the Chemistry Department - Prof. univ. dr. ing. ..., Director of the Chemistry and Chemical Engineering Department of Hungarian Language Line of Study
10:10 - 11:00	Întâlnirea comisiei de experți evaluatori în evaluarea externă a calității cu **echipa care a realizat raportul de evaluare internă (REI)/** *Meeting of the external quality evaluation experts' panel with the team that has drafted the internal evaluation report*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Echipa care a realizat REI/ *Team that has drafted the IER*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**: -6 persons - Responsabili pentru întocmirea REI/ Responsibles for preparing the IER
11:10- 12:30	Vizitarea bazei materiale/ *Visiting the material resources*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Reprezentanți ai instituției sau Academiei Române, după caz/ *Representatives of the HEI or the Romanian Academy, as applicable*	Laboratorul nr. 7, Prof. dr. ing. ... Laboratorul nr. 13, Prof. dr. ing. .. Laboratorul nr. 53, Prof. dr. ing. .. Laboratorul nr. 76, Prof. dr. ing. .. Laboratorul nr. 133B, Prof. Dr. ing. Laboratorul nr. 219, Prof. dr. ing. ..
12:30- 13:00	Întâlnire tehnică a comisiei de experți evaluatori/ *Technical meeting of the expert evaluation panel*		

13:00-13:50	Întâlnirea comisiei de experți în evaluarea externă a calității cu **personalul didactic** implicat în activitățile din cadrul DSUD/ *Meeting of the external quality evaluation experts' panel with the teaching staff involved in the activities within the DSUD*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Cadre didactice conducători de doctorat/ *Teaching staff who are PhD supervisors*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**: 11 persons, PhD supervisor and didactic staff (7 professors, 4 assoc. Prof.)
13:50 - 15:00	Pauză/ *Break*		
15:00 - 15:30	Întâlnirea comisiei de experți în evaluarea externă a calității cu **responsabilii centrelor/laboratoarelor de cercetare** / *Meeting of the external quality evaluation experts' panel with the staff in charge with the research centres/laboratories*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Responsabilii centrelor/laboratoarelor de cercetare/ *Staff in charge with research centres/laboratories*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**: Directori ai centrelor de cercetare / Directors of the research centers - Centrul de Cercetare în Domeniul Ingineriei Chimice Asistate de Calculator – CCDIAC (acreditat, excelență) - Centrul de Cercetare pentru Analize Chimice Avansate, Instrumentație și Chemometrie – ANALYTICA (acreditat, excelență) - Centrul de Cercetări în Electrochimie și Materiale Neconvenționale – CCEMN (acreditat): - Centrul de Cercetare Enzimologie și Biocataliză Aplicată (acreditat, excelență) Centrul de Heterochimie Fundamentală și Aplicată – METALOMICA (acreditat, excelență) - Centrul de Chimie Supramoleculară Organică și Organometalică – CCSOOM (acreditat, excelență) - Laborator Materiale avansate
15:30-16:10	Întâlnirea comisiei de experți în evaluarea externă a calității cu **studenti** de la DSUD/ *Meeting of the external quality evaluation experts' panel PhD students*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* *PhD students*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**:

			Doctoranzi ai SDIC/PhD Sudents of the doctoral school 9 PhD students.
16:10 - 17.00	Întâlnirea comisiei de experți în evaluarea externă a calității cu **absolventi** si **angajatori** ai absolvenților DSUD/ *Meeting of the external quality evaluation experts' panel with doctoral graduates and employers[*] of the DSUD alumni*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Absolventi/ *Doctoral graduates* - Angajatori/ *Employers*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**:... **SDIC Graduates:** *-2 Dr. Ing. (INCDTIM), -Dr. Ing. (MDPI, -2 Dr. Ing. (UBB)* *-Dr. Ing. (Emerson), -Dr. Ing. .online (Lonza, Visp, Elevetia), -Dr. Ing. online (Delft, Olanda)* *- Dr. ing.,(EMPA, St. Gallen, Elvetia)* **Employers:** *- HR Leader, Emerson Company Cluj-Napoca* *- Dr. Habil...,Institutul Național de Cercetare-Dezvoltare pentru Tehnologii Izotopice și Moleculare INCDTIM/ National Institute for Research and Development of Isotopic and Molecular Technologies (INCDTIM) Cluj-Napoca, ….. "Babeş-Bolyai" University, "Raluca Ripan" Chemistry Research Institute, Cluj-Napoca, - Dr. ing..., Saint-Gobain Rigips Romania, Turda* *- Dr. Ing. A. F. - ARQES*
17.00-17.30	Întâlnire tehnică a comisiei de experți evaluatori/ *Technical meeting of the expert evaluation panel*		
Vineri/ *Friday*, 18.09.2026			
9:00 - 9:30	**Întâlnirea tehnică** a comisiei de experți evaluator. (Activitate în colaborare pentru clarificarea aspectelor prezentate în REI)/*Technical meeting of the expert evaluation panel (Collaborative activity for clarifying the aspects presented in the Internal Evaluation Report - IER)*	- Comisia de experți evaluatori ai ARACIS/ *Panel members*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering
9:30 - 10:20	Întâlnirea comisiei de experți în evaluarea externă a calității cu reprezentanți ai structurilor organizatorice în domeniul asigurării calității/ ***Meeting of the external quality evaluation experts' panel with representatives of the quality assurance organisational structures***	- Comisia de experți evaluatori ai ARACIS/ ***Panel members*** - Reprezentanți ai structurilor organizatorice în domeniul asigurării calității/ ***Representatives of quality***	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering

[*] Avoid inviting employers who are also staff of the HEI or members of the Romanian Academy, as applicable.

		assurance organisational structures	Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**: *-Lect. Univ. Dr. ... CEAC UBB* Reprezentant al Comisiei CEAC UBB. Representative of the Quality Committe of UBB (Qualitas) *-Conf. dr. ing....*, Presedinte CEAC Facultatea de chimie si inginerie chimica / Quality Committee of the Faculty of Chemistry and Chemical Engineering
10:30 - 11:20	Întâlnirea comisiei de experți în evaluarea externă a calității cu membri ai **Comisiei de etică universitară/** *Meeting of the experts panel with members of the University Ethics Committee*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Membri ai Comisiei de etică universitară/ *Members of the University Ethics Committee*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering Lista persoanelor care vor participa la întâlnire/ **List of participants attending the meeting**: *-Conf. Univ. Dr. ..... Reprezentant Comisia de Etica BB.*Representative of the Ethics Committe of BBU
11:20-12:00-	Întâlnire tehnică a comisiei de experți evaluatori/ *Technical meeting of the expert evaluation panel*	- Comisia de experți evaluatori ai ARACIS/ *Panel members*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty of Chemistry and Chemical Engineering
12:00-12:50	Întâlnirea membrilor comisiei de experți evaluatori cu reprezentanții conducerii IÎS pentru comunicarea concluziilor partiale ale procesului de evaluare/ *Meeting of the members of the expert evaluators' panel with representatives of the management of the HEI and management of the organisational component, to communicate the partial conclusions of the evaluation process*	- Comisia de experți evaluatori ai ARACIS/ *Panel members* - Reprezentanți ai conducerii și ai domeniului de studii evaluat/ *Representatives of the management* - Persoana de contact/ *Contact person*	**Sala de Consiliu a Facultății de Chimie și Inginerie Chimică** Room: Council Hall of the Faculty - Prof. dr. -- Decan al Facultății Chimie și Inginerie Chimică / Dean of the Faculty -Prof. univ. dr. ing. ---, Vice-Dean of the Faculty of Chemistry and Chemical Engineering - Prof. univ. dr. ing..., Director of the Chemical Engineering Department - Prof. dr. ing. …, Responsabil program / Responsible for the PhD Program

Prepared by,

Professor Ioan Mamaliga

Program responsible:
Professor Mircea Vasile Cristea