

External evaluation report for the accreditation of a joint study programme

Title of the joint study programme: Chemical and
Biochemical Process Technology

Study cycle: Master

Coordinating institution: “Gheorghe Asachi” Technical University of Iași
(Romania)

Partner higher education institutions: University of Oviedo (Spain) and
University of Rouen Normandie (France)



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I. General information

I.1 Information regarding the joint study programme evaluation procedure

This external evaluation report was drafted in the context of the accreditation procedure of the joint Master's study programme Chemical and Biochemical Process Technology, belonging to the Study Domain Chemical Engineering, within the Fundamental Field Engineering Sciences. The external evaluation visit took place on 21–22 May 2026 and was conducted by an international panel composed of Prof. Dr. Eng. Cristina BUSUIOC (Panel Coordinator), Prof. Dr. Eng. Francesco Xavier GRAU VIDAL, Eng. Jean LE QUENVEN, and student representative Tamara CIOBANU. The evaluation process was supported by the Technical Secretary, Stefania ARMĂȘELU.

The programme is jointly delivered by the coordinating institution, “Gheorghe Asachi” Technical University of Iași (Romania), in partnership with the University of Oviedo (Spain) and the University of Rouen Normandie (France). Particular attention was paid to the specific features of the joint programme arrangement, including the governance and management structure shared among the partner institutions, the implementation of joint academic regulations, the coordination of curriculum design and learning outcomes, student mobility pathways, recognition of study periods and credits, quality assurance mechanisms, and the institutional cooperation framework supporting the award of the joint qualification. The evaluation also examined the effectiveness of communication and coordination among the partner universities, the availability of academic and student support services across the consortium, and the extent to which the programme provides an integrated international learning experience consistent with European standards for joint programmes.

I.2 Methods used in the evaluation process

The external evaluation of the joint Master's study programme Chemical and Biochemical Process Technology was conducted through a combination of documentary analysis, on-site verification, and consultation with relevant stakeholders, in accordance with the procedures and standards applicable to the accreditation of joint programmes. The evaluation panel carried out a comprehensive review of the Internal Evaluation Report prepared by the coordinating institution and its partner universities, together with all annexed documents.

Particular attention was given to the governance structure of the joint programme (Joint Academic Committee), the Cooperation Agreement between the partner institutions, curriculum design and implementation, learning outcomes, quality assurance arrangements, student mobility provisions, recognition procedures, and the mechanisms supporting the award of the joint qualification. During the evaluation process, the panel examined additional documents and evidence made available in electronic and paper format by the coordinating institution and partner universities. These included documentation describing the measures implemented to support students admitted from non-engineering backgrounds and to facilitate their integration into the programme, recommendations arising from the most recent external institutional evaluations and, where applicable, evaluations of similar Master's programmes, as well as a list of French companies and potential employers relevant to the field of the programme, provided by the French partner institution to support the employability dimension of the joint programme. The evaluators also reviewed information published on the official websites of the partner institutions in order to verify the transparency, accessibility, and consistency of information provided to prospective students.

The external evaluation visit, conducted on 21–22 May 2026, included on-site activities at the coordinating institution, “Gheorghe Asachi” Technical University of Iași. The assessment of the partner institutions involved in the joint programme was carried out through online meetings with institutional and programme representatives, complemented by documentary evidence and audiovisual materials presenting the educational, research, and student-support facilities available at each location. This approach enabled the evaluation panel to examine the conditions under which the joint programme is delivered across the consortium and to assess the adequacy of the resources and infrastructure made available to students at all partner institutions.

A series of meetings were organised with the leadership of the coordinating and partner institutions, programme management representatives, academic staff, quality assurance personnel, administrative staff and employers. These discussions focused on the effectiveness of the joint programme governance and coordination

mechanisms, the implementation of the curriculum across the consortium, student mobility and support services, the adequacy of learning resources, stakeholder involvement in programme development, and the overall achievement of the programme educational objectives. The information gathered from these meetings was triangulated with documentary evidence and direct observations in order to formulate the panel's conclusions and recommendations.

II. Analysis on the compliance with the evaluation standards

1. Eligibility

1.1 Status¹

As a preliminary step in the accreditation process under the European Approach, ARACIS carried out an eligibility verification of the joint Master's study programme in Chemical and Biochemical Process Technology by reviewing the administrative and legal documentation submitted by the consortium.

The panel confirms that all institutions participating in the programme are fully recognized higher education institutions within their respective national higher education systems and possess the legal authority to deliver higher education programmes and award academic qualifications. The coordinating institution, "Gheorghe Asachi" Technical University of Iași (Romania), together with the partner institutions, the University of Oviedo (Spain) and the University of Rouen Normandie (France), are accredited and operate under the supervision of the competent national authorities and quality assurance agencies in their respective countries.

The panel verified that the legal frameworks governing higher education in Romania, Spain, and France allow the participation of higher education institutions in joint study programmes and support the development and delivery of integrated curricula in cooperation with international partners. As members of the European Higher Education Area (EHEA), all three countries have implemented the principles of the Bologna Process, including the use of the European Credit Transfer and Accumulation System (ECTS), qualification frameworks compatible with the EHEA, and mechanisms facilitating academic recognition and student mobility. These conditions provide a solid legal basis for the operation of the joint programme and for cooperation among the partner institutions.

Furthermore, the panel found that the consortium has established arrangements ensuring that the qualification awarded through the programme will be recognized within the national higher education systems of the participating countries. The programme is subject to quality assurance and accreditation procedures consistent with national and European requirements, while the partner institutions have the necessary authority to participate in the award and recognition of the qualification.

Based on the evidence reviewed, the panel concludes that the programme fully satisfies the requirements of this standard concerning institutional recognition, legal eligibility to participate in a joint programme, and the recognition of the awarded degree within the national systems in which the partner institutions operate.

1.2 Joint design and implementation

The panel found that the joint Master's study programme in Chemical and Biochemical Process Technology is genuinely designed and implemented as a joint programme by all three partner institutions: "Gheorghe Asachi" Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie. Evidence provided during the evaluation demonstrates that the curriculum was developed through a collaborative process involving academic staff from all partner universities, based on the analysis of existing programmes, the identification of complementary expertise, and the joint definition of learning outcomes, course content, and programme structure.

The programme is organized as an integrated 120 ECTS curriculum delivered over four semesters, with educational activities distributed among the three partner institutions. Students undertake the first semester at "Gheorghe Asachi" Technical University of Iași, the second semester at the University of Oviedo, and the third semester at the University of Rouen Normandie, while the fourth semester is dedicated to the Master's thesis, which may be carried out under the

¹ The analysis was conducted during the preliminary phases before initiation of the external evaluation process. Include the findings from the Report on the compliance with the eligibility requirements.

supervision of academic staff from any of the partner universities. This structure ensures that students benefit directly from the academic expertise, facilities, and research environments available across the consortium.

The panel also verified that the implementation of the programme is based on shared responsibilities among the partners. Academic delivery, student supervision, mobility arrangements, laboratory activities, and thesis coordination are jointly organized, reflecting the integrated nature of the programme. Furthermore, the Joint Academic Committee provides a common governance framework for overseeing curriculum development, quality assurance, academic coordination, and continuous improvement processes.

Based on the evidence reviewed, the panel concludes that all partner institutions are actively involved in both the design and implementation of the programme and that the requirements of this standard are fully met.

1.3 Cooperation agreement

The panel verified that the terms and conditions governing the operation of the joint Master's study programme in Chemical and Biochemical Process Technology are comprehensively defined in a formal Cooperation Agreement signed by all partner institutions. The agreement provides a clear legal and operational framework for the joint delivery of the programme and establishes the responsibilities of each partner in relation to academic, administrative, financial, and quality assurance matters.

The Cooperation Agreement specifies the qualification to be awarded upon successful completion of the programme and defines the procedures for issuing the joint diploma, which is recognized within the national higher education systems of the participating countries. The panel found that the agreement clearly identifies the roles and responsibilities of the consortium members, including the coordinating role of "Gheorghe Asachi" Technical University of Iași and the contributions of the partner institutions to programme delivery, governance, quality assurance, and student support.

The Joint Academic Committee is established as the main decision-making and coordinating body, ensuring coherent implementation of the programme across the consortium. The panel also confirmed that the agreement includes provisions concerning the financial organization of the programme, including tuition fees, cost-sharing arrangements, scholarship opportunities, and the management of mobility-related funding.

Student admission and selection procedures are jointly defined and implemented through a common admission framework, ensuring transparency, equal treatment of applicants, and coordinated decision-making among the partner institutions. For the first cohort, enrolment is expected to range between 10 and 30 students, subject to annual review. Furthermore, the Cooperation Agreement contains detailed regulations regarding student mobility, including the organization and monitoring of mobility periods within the consortium. It also establishes common rules for student assessment, examination procedures, progression requirements, credit recognition, and the transferability of academic achievements based on ECTS principles. The requirements for awarding the joint diploma are clearly defined and supported by procedures agreed upon by all partners.

Based on the evidence reviewed, the panel concludes that the Cooperation Agreement adequately regulates all key aspects required by this standard and provides a robust framework for the effective implementation and management of the joint programme.

Recommendations:

- 1. Balanced involvement of the three partner institutions in governance, management, and student participation*
- 2. Clear definition of roles and responsibilities of the Joint Academic Committee and Continuous Improvement Commission in programme management and quality assurance, allowing the independence of the quality organisation*
- 3. Extension of student voting rights within the Joint Academic Committee to all decision-making areas, enhancing student participation*

The standard is met/partially met/not met.

2. Learning outcomes

2.1 Qualification level [ESG 1.2]

The panel examined the intended learning outcomes of the Joint Master Programme in Chemical and Biochemical Process Technology and found them to be consistent with the requirements of Level 7 of the Qualifications Framework for the European Higher Education Area (QF-EHEA). The learning outcomes reflect the advanced knowledge, specialized skills, and high degree of autonomy and responsibility expected from graduates of a second-cycle programme. They encompass scientific and technical expertise in chemical and biochemical process technologies, the ability to address complex and interdisciplinary problems, research and innovation competences, as well as professional, ethical, and managerial skills relevant to the field.

The panel also verified that the programme learning outcomes are aligned with the national qualifications frameworks applicable in Romania, Spain, and France. The defined competences correspond to the expectations for Master's level qualifications in the participating countries and support both academic progression and professional development. The programme structure, curriculum content, and assessment methods are coherent with the intended learning outcomes and contribute to their achievement.

Based on the evidence reviewed, the panel concludes that the learning outcomes are appropriately positioned at Level 7 of the QF-EHEA and are compatible with the relevant national qualifications frameworks of all partner institutions.

2.2 Study domain

The panel reviewed the intended learning outcomes of the joint Master's study programme in Chemical and Biochemical Process Technology and found that they adequately reflect the knowledge, skills, and competences required within the study domain of Chemical Engineering. The programme learning outcomes are clearly linked to the disciplinary content of the curriculum and are supported by the modules delivered by the three partner institutions.

The panel noted that the programme provides students with advanced knowledge of chemical and biochemical process technologies, process design and optimization (building on prior knowledge of chemical/process engineering fundamentals), sustainable production systems, and modern engineering methodologies. The intended learning outcomes also emphasize the development of analytical, technical, and problem-solving skills required for addressing complex engineering challenges, as well as the ability to apply scientific principles in professional and research contexts. Furthermore, the programme promotes interdisciplinary competences, innovation and research capabilities, project management skills, and awareness of ethical, environmental, and societal aspects relevant to the chemical engineering profession.

Employers participating in the meeting confirmed the relevance of the intended learning outcomes and associated competencies, noting that they correspond well to current industry expectations and anticipated future labour market needs.

Based on the analysis of the curriculum, module descriptors, and programme learning outcomes, the panel concludes that the programme ensures the acquisition of knowledge, skills, and competences appropriate to the study domain (with additional mathematics credits provided where required, depending on students' entry qualifications, to ensure the necessary foundational knowledge), and that the requirements of this standard are fully met.

2.3 Achieving of the learning outcomes [ESG 1.2]

The panel examined the curriculum structure, module descriptors, teaching and learning methods, and assessment arrangements of the joint Master's study programme in Chemical and Biochemical Process Technology in order to determine whether the intended learning outcomes can be achieved by students. The evidence reviewed demonstrates a clear alignment between the programme learning outcomes, the curriculum content, and the assessment methods applied throughout the programme.

The panel noted that the programme combines advanced theoretical instruction with practical laboratory activities, project-based learning, research-oriented assignments, interdisciplinary training opportunities and remedial complementary credits. The curriculum covers the key areas of chemical and biochemical process technology through a coherent progression of modules delivered by the three partner institutions, allowing students to develop both specialized scientific knowledge and professional competences. The programme also provides opportunities for students to apply acquired knowledge in practical and research contexts, including laboratory work, engineering projects, innovation-related activities, and the preparation of the Master's thesis.

The module descriptors clearly define learning objectives, expected competences, workload, teaching methods, and assessment criteria, ensuring that each component contributes to the achievement of the programme learning outcomes. The panel further observed that the curriculum includes elements related to sustainability, safety, risk management, innovation, research, and professional ethics, supporting the development of a broad range of disciplinary and transferable competences expected from graduates at Master's level.

Based on the evidence provided and the consistency observed between the intended learning outcomes, curriculum design, teaching methods, and assessment procedures, the panel concludes that the programme has appropriate mechanisms (including complementary credits to address differences in students' prior academic backgrounds) in place to enable students to achieve the envisaged learning outcomes and therefore meets the requirements of this standard.

2.4 Regulated professions

The joint Master's study programme in Chemical and Biochemical Process Technology does not lead directly to a regulated profession as defined by European Union Directive 2005/36/EC or by any other relevant European training framework. Consequently, the programme is not subject to specific minimum training requirements established for regulated professions and is not required to comply with sector-specific provisions regarding professional qualification recognition. Therefore, the requirements of this standard are not applicable to the programme.

Recommendations:

1. Further develop the intended learning outcomes through the consistent use of measurable and assessable competency-based formulations

The standard is met/partially met/not met.

3. Study programme [ESG 1.2]

3.1 Curriculum

The curriculum of the joint Master's study programme in Chemical and Biochemical Process Technology is structured in a manner that supports the achievement of the intended learning outcomes. The programme comprises 120 ECTS distributed over four semesters and includes courses, laboratory activities, engineering projects, research-oriented training, and the preparation of the Master's thesis.

The curriculum covers the main areas relevant to chemical and biochemical process technologies and includes both theoretical and practical components. The programme combines modules delivered by the three partner institutions, allowing students to acquire knowledge and competences related to process design, process analysis, industrial biotechnology, sustainability, safety, research methodologies, and innovation. Research activities and project-based learning are integrated throughout the programme and are supported by laboratory work and training opportunities in academic and industrial environments. The mapping of courses to programme learning outcomes demonstrates that the intended learning outcomes are addressed across the curriculum. In addition, the mobility structure enables students to complete parts of their studies at each partner institution and provides access to different academic environments, areas of expertise, and research facilities.

The panel noted that the programme has been designed as a genuinely integrated joint programme, with a coherent curriculum developed collectively by the partner institutions, rather than as a combination of pre-existing courses. This integrated approach contributes to the consistency of the learning experience and supports the achievement of the intended learning outcomes.

Based on the documentation reviewed, the curriculum structure and content are consistent with the intended learning outcomes of the programme.

3.2 Transferable credits

The programme applies the European Credit Transfer and Accumulation System (ECTS) in accordance with the principles of the European Higher Education Area. The joint Master's study programme in Chemical and Biochemical Process Technology is structured as a 120 ECTS programme distributed over four semesters, with 30 ECTS allocated to each semester, ensuring a standardized framework for student workload and academic progression. The distribution of ECTS credits across courses, laboratory activities, project work, mobility periods, and the Master's thesis is defined in the

curriculum and detailed in the jointly approved module descriptors of the partner institutions. Credit allocation is based on defined learning outcomes and estimated student workload, in line with the ECTS Users' Guide (2015).

The programme takes into account minor differences in national approaches to workload calculation among the partner institutions; however, all applied values remain within the ECTS reference range of 25–30 hours per credit. These differences do not affect the transfer, recognition, or accumulation of credits within the consortium. ECTS credits are transferable and recognized across all partner institutions in accordance with the Cooperation Agreement. Credits obtained during mobility periods are recorded and recognized without additional requirements, ensuring consistency in academic progression and comparability of study results across the programme structure.

Overall, the arrangements for credit allocation, accumulation, transfer, and recognition support student mobility and ensure consistency with the requirements of the European Credit Transfer and Accumulation System.

3.3 Workload

The joint Master's study Programme in Chemical and Biochemical Process Technology comprises 120 ECTS credits, which is within the standard range established for joint Master's study programmes (90–120 ECTS). The programme is structured over four semesters of full-time study, with a workload of 30 ECTS credits per semester, corresponding to an expected duration of two academic years. The distribution of workload is defined in the curriculum and detailed in the module descriptors provided by the partner institutions. These documents specify the components of student workload, including lectures, seminars, laboratory work, project activities, independent study, and assessment preparation.

The allocation of ECTS credits follows the principles of the European Credit Transfer and Accumulation System, ensuring consistency between credits and student workload. Across the partner institutions, the estimated workload corresponding to one ECTS credit falls within the standard European range of approximately 25–30 hours. This approach ensures comparability of credit allocation within the consortium and alignment with ECTS principles. The programme structure and associated regulations provide a basis for monitoring student workload and academic progression through course evaluation procedures, academic supervision, and tracking of student performance.

These mechanisms support the completion of the programme within the intended timeframe and ensure that the defined workload is appropriate for the achievement of the intended learning outcomes.

Recommendations:

1. Continue harmonising workload calculations and curriculum structures across partner institutions, including the gradual elimination of fractional ECTS credit allocations
2. Strengthened collaboration with industry and ensured industrial experience for all students, improving employability outcomes

The standard is met/partially met/not met.

4. Admission and recognition [ESG 1.4]

4.1. Student admission

The admission requirements and selection procedures for the joint Master's study programme in Chemical and Biochemical Process Technology are defined in the Cooperation Agreement and in the annexed admission regulations of the coordinating institution. These provisions establish a common framework for student recruitment and ensure consistency in the application of admission criteria across the consortium.

Admission is open to candidates holding a Bachelor's degree or equivalent qualification in relevant fields such as Chemical Engineering, Biochemical Engineering, Biotechnology, Industrial Chemistry, Environmental Engineering, Food Engineering, Pharmaceutical Sciences, or related disciplines. Applicants are also required to demonstrate English language proficiency at a minimum B2 level and to submit supporting documents including an academic record and a motivation letter.

The admission process is organized jointly by the partner institutions. Applications are submitted through a common platform and processed under the coordination of the coordinating institution, with candidate information shared among all partners. The selection of candidates is based on predefined criteria and a ranking procedure, and the final list of admitted students is approved jointly within the governance structure of the programme.

The admission requirements and selection procedures are aligned with the level of the Master's programme and are consistent with the academic content and competences defined in the curriculum. Based on the documentation reviewed, the framework ensures that admitted students possess the necessary academic background and language skills to follow the programme successfully.

4.2. Study recognition

The recognition of qualifications and study periods within the joint Master's study programme in Chemical and Biochemical Process Technology is regulated through the Cooperation Agreement and is based on the principles of the Lisbon Recognition Convention and the European Credit Transfer and Accumulation System (ECTS). The framework established by the partner institutions ensures that study periods completed at any of the participating universities are subject to academic recognition across the consortium. The Cooperation Agreement provides for the mutual recognition of credits, learning outcomes, and assessment results obtained during mobility periods within the programme. Standardised documentation tools, including learning agreements, mobility agreements, and recognition forms, are used to ensure transparent recording and transfer of academic results between the partner institutions.

The programme also includes provisions for the recognition of prior learning (RPL), allowing candidates with relevant academic backgrounds or professional experience to have previously acquired competences assessed and, where appropriate, recognised for credit within the programme. Such recognition procedures are carried out in accordance with national regulations, institutional policies, and the principles of the Lisbon Recognition Convention.

Based on the established procedures and the cooperation framework between the partner institutions, study recognition is implemented in a structured and consistent manner, ensuring transparency and comparability of academic results across the consortium.

The standard is met/partially met/not met.

5. Learning, teaching and evaluation [ESG 1.3]

5.1 Learning and teaching

The learning and teaching approaches of the joint Master's study programme in Chemical and Biochemical Process Technology are designed to support the achievement of the envisaged Level 7 learning outcomes of the European Qualifications Framework and the corresponding national qualification frameworks of Romania, Spain, and France. The programme combines different teaching formats, including lectures, seminars, laboratory work, project-based activities, and research-oriented tasks, complemented by individual and group assignments.

A blended learning approach is used, combining online and face-to-face delivery. Online components are applied where appropriate, while laboratory activities and project work are conducted in person in order to ensure the acquisition of practical and technical skills required by the programme. The curriculum includes both theoretical modules and applied courses, supported by elective subjects that address transversal competences such as communication, scientific English, project management, and industrial practice. The programme structure includes mobility periods across the three partner institutions, which exposes students to different academic environments and teaching practices. This contributes to the development of intercultural competences and adaptation to diverse academic contexts.

Teaching and learning methods are supported by feedback mechanisms, course evaluations, and supervision of project and thesis work. The programme takes into account the diversity of students in terms of academic background and cultural context. Bridging and support measures are provided where necessary to facilitate integration into the programme.

Overall, the learning and teaching approaches are aligned with the intended learning outcomes and are designed to support their achievement for a diverse student cohort.

5.2 Students' evaluation

The regulations governing student assessment within the joint Master's study programme in Chemical and Biochemical Process Technology are defined in the Cooperation Agreement and in the module descriptors of the partner institutions. These provisions establish a common framework for examination and evaluation across "Gheorghe Asachi" Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie, ensuring that assessment methods are aligned with the intended learning outcomes of the programme. The assessment system includes a variety of evaluation methods, such as written examinations, oral presentations, laboratory reports, project work, essays, and group

assignments, reflecting the theoretical and applied nature of the curriculum.

Each module descriptor specifies the learning outcomes, assessment methods, grading criteria, and the contribution of each component to the final grade, ensuring transparency and consistency in evaluation design. Assessments are scheduled at the end of each semester in accordance with the academic calendars of the partner institutions. The Master's thesis is assessed through an oral defence before a joint examination board that includes representatives from the partner universities, ensuring joint academic oversight of the final evaluation.

While national grading scales are applied by each institution, a common grade conversion framework based on ECTS principles is used to support comparability and recognition of results across the consortium. The implementation of the assessment framework is coordinated through the joint governance structure of the programme, which monitors consistency in the application of evaluation procedures.

Based on the documentation reviewed, the assessment regulations are structured to correspond to the programme learning outcomes and are applied in a coordinated manner by the partner institutions.

Recommendations:

- 1. Support measures for students without an engineering background and monitoring of their academic progress to facilitate integration, academic success, and the achievement of the intended learning outcomes*
- 2. Provide a clearer description of the role and limitations of online teaching activities in the programme documentation*
- 3. Monitor student distribution across partner institutions for thesis supervision and internship placements and establish appropriate balancing mechanisms where necessary to ensure equitable distribution*
- 4. Enhance collaboration with industrial stakeholders by involving them more actively in teaching activities and in the development and supervision of applied Master's theses*

The standard is met/partially met/not met.

6. Support for students [ESG 1.6]

The joint Master's study programme in Chemical and Biochemical Process Technology provides a structured framework of student support services intended to facilitate student progression and the achievement of the envisaged learning outcomes. These support services are defined in the Cooperation Agreement and cover academic, administrative, mobility, and personal support mechanisms implemented across the three partner institutions: "Gheorghe Asachi" Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie.

Academic support includes access to teaching staff, library and laboratory resources, and institutional learning platforms. Students are provided with guidance for coursework, laboratory activities, project work, and the preparation of the Master's thesis. Academic mentoring and consultation hours are available at each institution, and bridging modules may be offered to students with diverse academic backgrounds in order to support their integration into the programme.

Mobility-related support is provided to address the specific needs of students participating in a joint programme delivered across multiple countries. This includes administrative assistance related to enrolment, travel, accommodation, and visa procedures where applicable, as well as support for the organisation and recognition of study periods undertaken at partner institutions.

The programme operates within the framework of the INGENIUM European University alliance and Erasmus+ mobility mechanisms, which facilitate the coordination of student exchanges and the recognition of academic results across institutions. In addition, students may benefit from financial support mechanisms, including Erasmus+ mobility grants and scholarships available through the alliance framework.

Students also benefit from language and intercultural support measures, including access to scientific English courses and opportunities to develop additional language and intercultural competences relevant to studying in an international environment. Orientation activities and guidance provided by the international and student services offices at each institution contribute to student integration in different academic and cultural contexts. The partner institutions also provide



access to specialised support services for students with disabilities or other specific needs, thereby contributing to equal opportunities and inclusive participation in the programme.

Overall, the student support services are structured to address the specific requirements of a joint and mobile study programme and provide a framework that supports student progression and the achievement of the intended learning outcomes.

Recommendations:

- 1. Diversification of funding sources to ensure more stable and predictable long-term programme development*
- 2. Develop a comprehensive mobility support package for students, including guidance on accommodation, administrative procedures, cultural adaptation, and academic requirements at each partner institution*

The standard is met/partially met/not met.

7.Resources [ESG 1.5 and 1.6]

7.1 Teaching staff

The joint Master's study programme in Chemical and Biochemical Process Technology is delivered by teaching staff from the three partner institutions: "Gheorghe Asachi" Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie. The academic staff involved in the programme hold advanced qualifications, including doctoral degrees in chemical engineering, biochemical engineering, biotechnology, industrial chemistry, and related disciplines, ensuring coverage of the scientific areas included in the curriculum.

The teaching staff has relevant academic, research, and, in many cases, professional experience in industry and applied research environments. This experience supports the delivery of both theoretical and practice-oriented components of the programme. A significant proportion of the academic staff are permanent faculty members of the partner institutions, which contributes to continuity in programme delivery and supervision of students. The programme involves academic staff with experience in international cooperation, research projects, and mobility activities, which supports the international dimension of the joint programme.

Teaching assignments are distributed across the partner institutions in accordance with the Cooperation Agreement and module descriptors, ensuring that courses are delivered by staff with appropriate expertise in the relevant subject areas. Support staff involved in laboratories and practical training activities are also available where required to ensure the proper implementation of experimental and applied components of the curriculum. Recruitment and assignment of teaching staff follow the internal procedures of each partner institution in accordance with national regulations and institutional quality assurance frameworks.

The evaluation panel noted that the English language proficiency demonstrated by some teaching staff during the meetings was not always fully satisfactory. Given that English is the language of instruction, it is essential that all teachers possess the necessary linguistic competences to deliver course content effectively and support the achievement of the intended learning outcomes. The partner institutions should continue to monitor and strengthen English language skills where necessary.

Overall, the composition and qualifications of the teaching staff are consistent with the requirements of the programme and are adequate for the implementation of the joint study programme.

7.2 Infrastructure

The infrastructure available for the implementation of the joint Master's study programme in Chemical and Biochemical Process Technology is provided by the three partner institutions: "Gheorghe Asachi" Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie. The facilities available at these institutions support both the theoretical and practical components of the curriculum and are aligned with the learning outcomes of the programme.

Teaching activities are supported by lecture halls and seminar rooms equipped with modern audiovisual and digital teaching equipment. These facilities allow the delivery of traditional and blended learning formats and support interactive teaching methods. The partner institutions also ensure access to digital learning platforms, internet connectivity, and

relevant software tools required for teaching and learning activities.

Laboratory facilities are available for the implementation of practical and experimental components of the programme. These include laboratories in chemical engineering, biochemical engineering, biotechnology, and related fields, which enable students to carry out hands-on activities and project work in accordance with the curriculum requirements. Technical and laboratory staff support the use of these facilities and ensure compliance with safety regulations.

Library resources are available at each partner institution and include access to physical collections, electronic journals, databases, and other scientific resources relevant to the study field. Study spaces for individual and group work are also provided to support student learning. IT infrastructure, including computer laboratories and access to specialised software, supports modelling, simulation, and data analysis activities included in the programme.

Based on the information provided, the available infrastructure is considered adequate to support the implementation of the programme and the achievement of the intended learning outcomes.

Recommendations:

1. *Defined language and competence requirements for teaching staff at each institution to ensure effective delivery*
2. *Team-building activities and joint events for academic and administrative staff to strengthen collaboration*

The standard is met/partially met/not met.

8. Transparency and documentation [ESG 1.8]

Relevant information about the joint Master's study programme in Chemical and Biochemical Process Technology is made available through structured documentation and dissemination channels defined in the Cooperation Agreement, with the aim of ensuring transparency and accessibility for students and external stakeholders, including those participating in mobility periods. Information regarding the programme is published through a dedicated programme webpage integrated within the INGENIUM platform and on the official websites of the partner institutions: "Gheorghe Asachi" Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie. The information is provided in English and, where appropriate, in the national languages of the partner institutions, in order to support accessibility for a diverse student population.

Publicly available information includes details on admission requirements and procedures, programme structure and curriculum, learning outcomes, mobility pathways, academic calendar, assessment and examination regulations, tuition fees, and available scholarship opportunities. Module descriptions and relevant learning resources are also made accessible to students. The programme further ensures transparency through the publication of key governance and operational documents, including student-related regulations, codes of conduct, and assessment procedures. Administrative and academic contact points are clearly indicated to support communication with applicants and enrolled students.

Information needs specific to mobile students are taken into account through the provision of guidance on mobility procedures, administrative requirements, and study organisation across partner institutions. This includes practical information relevant to studying in different national contexts within the consortium.

It is envisaged that information on complaint mechanisms, data management, and programme monitoring will be made available to students. Common digital platforms are also expected to be used to facilitate communication, transparency, and access to programme documentation across the consortium.

Based on the documented arrangements, the programme provides a structured framework for the publication and dissemination of relevant information, supporting transparency and facilitating student access to essential academic and administrative data.

9. Quality assurance [ESG 1.1 and part 1]

The cooperating institutions have developed a shared framework for internal quality assurance for the joint Master's study programme in Chemical and Biochemical Process Technology, in line with the principles set out in Part I of the Standards

and Guidelines for Quality Assurance in the European Higher Education Area (ESG). This framework is defined in the Cooperation Agreement and is based on the INGENIUM quality assurance policy, providing a common reference for quality assurance across the three partner institutions: “Gheorghe Asachi” Technical University of Iași, the University of Oviedo, and the University of Rouen Normandie.

The quality assurance system establishes common principles and responsibilities for the monitoring and continuous improvement of the programme. It covers key aspects such as programme design and delivery, assessment and grading practices, and the evaluation of learning outcomes. Responsibilities for quality assurance are shared among the partner institutions and coordinated through the joint governance structure of the programme. The framework includes procedures for ongoing monitoring and periodic review of the programme, addressing aspects such as curriculum implementation, teaching quality, student progression, and overall programme relevance.

Feedback from students and other stakeholders is integrated into the review processes in order to support continuous improvement. In addition, the quality assurance system foresees the collection and analysis of relevant qualitative and quantitative indicators, including student performance, completion rates, mobility data, and satisfaction feedback. These data are used to support evidence-based decision-making within the consortium.

This framework is implemented as a multi-layered quality assurance system combining institutional quality assurance mechanisms with joint consortium-level monitoring. In this context, the Joint Academic Committee and the Continuous Improvement Commission play a central role in overseeing programme implementation, analysing feedback from students, academic staff, and employers, and supporting continuous enhancement. Monitoring activities include student and stakeholder surveys, annual programme reviews, key performance indicators, and structured stakeholder consultations.

Based on the documentation provided, the cooperating institutions have established a common approach to internal quality assurance that ensures coordinated implementation and continuous monitoring of the joint programme in accordance with ESG Part I.

Recommendations:

- 1. Further strengthen the integration of quality assurance arrangements across the consortium by developing more harmonised joint procedures and mechanisms*
- 2. Strengthen the systematic review of the curriculum by ensuring the regular involvement of industrial stakeholders and academic partners in curriculum development and revision processes*
- 3. Develop regular benchmarking activities with similar international joint degree programmes to support continuous quality enhancement and alignment with European good practices*

The standard is met/partially met/not met.

III. SWOT analysis

Strengths

1. Strong institutional support through the INGENIUM European University Alliance, which contributes significantly to the implementation and long-term sustainability of the joint programme through established administrative coordination mechanisms and dedicated financial support instruments.
2. Strong commitment from all partner institutions to collaboratively design and deliver a programme that generates added value beyond the capacities of individual institutions
3. Complementary contributions from partner institutions to curriculum design and delivery, with each university contributing expertise in its respective academic and research strengths
4. Access to advanced facilities and specialised human resources across partner institutions, supporting the delivery of a high-quality and internationally competitive curriculum
5. Student exposure to diverse cultural and industrial environments across partner countries, fostering



intercultural competence and providing broader insight into varying industrial practices and technological ecosystems

6. Established long-term collaborations between higher education institutions and companies operating in relevant sectors, strengthening practical relevance, innovation potential, and employability outcomes

7. Comprehensive student support services across the three partner institutions, including accommodation-related support, contributing to an improved student experience and facilitating mobility within the programme

Weaknesses

1. Limited predictability of financial resources allocated to the programme, which may create challenges in ensuring stable long-term planning and the continuity of joint academic activities

2. Limited pedagogical readiness of some teaching staff to effectively address the challenges associated with highly diverse student profiles, potentially requiring more differentiated, inclusive, and adaptive teaching approaches

3. Industrial experience opportunities are not guaranteed for all participating students, which may limit the uniformity of practical and professional exposure across the cohort

4. Insufficient representation of students in programme governance and decision-making bodies, potentially reducing opportunities for student feedback and participatory engagement

5. Overlap among the three institutional quality assurance systems implemented by the partner institutions, which may reduce operational efficiency and limit the overall degree of programme integration and jointness

6. Administrative complexity resulting from the remote coordination of programme-related processes, which may lead to delays, communication challenges, and increased organisational effort across partner institutions

Opportunities

1. Potential to attract international students through participation in the INGENIUM European University Alliance, benefiting from increased visibility and access to a broader international audience

2. Potential to become a flagship joint study programme within INGENIUM, establishing good practices and serving as a model for the development of future joint educational initiatives

3. Opportunity to strengthen research collaboration among researchers from the three partner institutions, fostering the development of interdisciplinary and internationally oriented research projects

4. Enhanced graduate employability through internship opportunities, supporting students' transition into full-time employment within partner companies and related industrial sectors

5. Growing demand in the European and global labour markets for specialists in chemical engineering, bioprocessing, and sustainable technologies, creating favourable employability prospects for graduates

6. Alignment of the programme strategic direction with the increasing international emphasis on green technologies and circular economy principles, reinforcing its relevance and long-term sustainability.

Threats

1. High competition resulting from the growing number of joint study programmes at the European level in the fields of chemical engineering and biotechnology, which may affect student recruitment and programme visibility

2. Economic uncertainties arising from geopolitical instability, which may influence funding availability, student mobility, institutional priorities, and overall programme sustainability

3. Unbalanced student participation among the three partner universities, potentially affecting programme dynamics, resource allocation, and the equitable distribution of responsibilities

4. Challenges associated with the broad scope and interdisciplinary nature of the curriculum, which may create difficulties in maintaining coherence, integration, and balanced student workload

5. Increased workload for academic staff due to additional responsibilities linked to the joint programme, including coordination activities, mobility-related teaching commitments, and administrative tasks.

IV. Overview of judgments awarded and of the recommendations

No.	Standard	Judgment	Recommendations
1	Eligibility	Met	1. Balanced involvement of the three partner institutions in governance, management, and student participation 2. Clear definition of roles and responsibilities of the Joint Academic Committee and Continuous Improvement Commission in programme management and quality assurance, allowing the independence of the quality organisation 3. Extension of student voting rights within the Joint Academic Committee to all decision-making areas, enhancing student participation
2	Learning outcomes	Met	1. Further develop the intended learning outcomes through the consistent use of measurable and assessable competency-based formulations
3	Study programme	Met	1. Continue harmonising workload calculations and curriculum structures across partner institutions, including the gradual elimination of fractional ECTS credit allocations 2. Strengthened collaboration with industry and ensured industrial experience for all students, improving employability outcomes
4	Admission and recognition	Met	
5	Learning, teaching and assessment	Met	1. Support measures for students without an engineering background and monitoring of their

			academic progress to facilitate integration, academic success, and the achievement of the intended learning outcomes 2. Provide a clearer description of the role and limitations of online teaching activities in the programme documentation 3. Monitor student distribution across partner institutions for thesis supervision and internship placements and establish appropriate balancing mechanisms where necessary to ensure equitable distribution 4. Enhance collaboration with industrial stakeholders by involving them more actively in teaching activities and in the development and supervision of applied Master's theses
6	Student support	Met	1. Diversification of funding sources to ensure more stable and predictable long-term programme development 2. Develop a comprehensive mobility support package for students, including guidance on accommodation, administrative procedures, cultural adaptation, and academic requirements at each partner institution
7	Resources	Met	1. Defined language and competence requirements for teaching staff at each institution to ensure effective delivery 2. Team-building activities and joint events for academic and administrative staff to strengthen collaboration
8	Transparency and documentation	Met	
9	Quality assurance	Met	1. Further strengthen the integration of quality assurance arrangements across the consortium by developing more harmonised joint procedures and mechanisms 2. Strengthen the systematic review of the curriculum by ensuring the regular involvement of industrial stakeholders and academic partners in curriculum development and revision processes 3. Develop regular benchmarking activities with similar international joint degree programmes to support continuous quality enhancement and alignment with European good practices

V. Conclusions and general recommendations

Based on the documentation analysed, the meetings conducted during the evaluation visit, and the additional evidence provided by the consortium, the panel concludes that the joint Master's study programme in Chemical and Biochemical Process Technology demonstrates a solid academic foundation, a coherent curriculum structure, and a clear alignment with the learning outcomes at EQF Level 7. The programme is characterised by strong cooperation between the three partner institutions and benefits from complementary academic expertise, shared governance mechanisms, and a well-defined mobility structure that supports the international dimension of the study experience.

The panel particularly notes that the programme has been designed and implemented as a genuinely integrated joint programme, supported by a formal Cooperation Agreement and coordinated through joint governance structures, ensuring consistency in curriculum delivery, student mobility, and academic recognition across the consortium. The involvement of stakeholders, including employers, confirms the relevance of the programme learning outcomes to current and future labour market needs in the fields of chemical and biochemical process technologies.

At the same time, the panel identifies several areas for further development, particularly in relation to the strengthening of integrated governance and quality assurance mechanisms, the harmonisation of

institutional practices across the consortium, and the further refinement of student-centred support measures. Additional attention should be given to ensuring more consistent implementation of joint procedures across all partner institutions in order to further enhance the “jointness” of the programme in all its dimensions.

The panel also highlights the importance of continuing efforts to refine the formulation of learning outcomes, to ensure they are consistently expressed in measurable and assessable terms, and to further harmonise workload distribution and structural elements of the curriculum across institutions. In addition, improving the balance of student distribution for mobility, thesis supervision, and internship placements would further contribute to equity and coherence within the programme.

Overall, the panel considers that the programme meets the requirements of the European Approach for Quality Assurance of Joint Programmes and demonstrates a high level of academic quality, international cooperation, and institutional commitment. The identified recommendations are primarily of an enhancement nature and aim to support the continued development of an already well-structured and robust joint study programme.

Based on the findings presented in this report, the panel recommends the accreditation of the joint Master’s study programme in Chemical and Biochemical Process Technology, with a proposed enrolment capacity of 30 students per academic year.

VI. List of annexes

Annex 1. Measures implemented to support students admitted from non-engineering backgrounds

Annex 2. Recommendations from the most recent external institutional or similar programme evaluations

Annex 3. List of French companies and potential employers relevant to the field of the programme