



MICROGUIDE

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IMPLEMENTATION OF MICRO-CREDENTIALS IN HIGHER
EDUCATION
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1 Objectives

The analysis of the micro-credential quality assurance practice in in Project partner countries HE is the next research activity of the Project, as it can be used as part of the Logical Framework matrix of the Project to draw the conclusions necessary for the production of Guidelines.

The impact of this activity is to identify the qualities and weaknesses of MCs quality assurance practice in Project partner countries HE, and in that sense to define a measure for their improvement.

Tasks are defining information sources, gathering information, analysing information, presenting the analysis results, and creating a proposal for the best model of the MCs accreditation.

Methodological steps in research activity are:

Step 1. To identify information sources regarding topic of the research;

Step 2. To collect relevant information;

Step 3. To analyse collected information;

Step 4. To discuss results obtained by analysis;

Step 5. To produce analysis report;

Step 6. To create a proposal for the best model of the MCs accreditation in Project partner countries.

2 Quality assurance in higher education in Serbia

The quality assurance system in higher education follows the European standards and guidelines for quality assurance in the QF-EHEA¹ and includes competent bodies (such as National Council for Higher Education (NCHE), National Entity for Accreditation and Quality Assurance in Higher Education (NAEQA), Commission for Accreditation and Quality Assurance (CAQA) and Ministry of Education (MoE)) and procedures for ensuring the system of establishment and monitoring of quality in higher education.

2.1 Accreditation principles in higher education in Serbia

Quality assurance in higher education is built on complex set of documents which cover Initial Accreditation, Accreditation of higher education institutions, Accreditation of study programs, External quality assessment of higher education institutions and study programs and Self-evaluation and quality assessment of higher education institutions and study programs. It should be emphasized that the accreditation process as a whole is a very comprehensive process, which checks all elements of the quality of higher education institutions, with material and human resources at first.

The adequacy and appropriateness of the teaching staff and teaching support staff should align with the specific characteristics of the course and the student enrolment size. Therefore, they must be adequately numerous and committed to effectively fulfil the primary academic responsibilities, such as module delivery and evaluation, facilitation of student-teacher contact, and overall management of the training activity. Consequently, it is imperative that individuals possess the requisite expertise and training that aligns with the goals of the training endeavour. The teaching staff should possess teaching experience within the educational system, and methodological training in various areas, including didactic methodology, the utilization of ICT resources in teaching, classroom management, and other relevant domains.

In order to align with the training objectives and the intended teaching/learning methods, it is imperative to tailor the material resources and services provided for the training activity. The infrastructural facilities offered at the training centre and enterprises should consider the principles of universal accessibility for those with impairments, as well as incorporate a gender perspective. During the process of accreditation, various factors are assessed, including the adequacy and sufficiency of material resources, compliance with minimum requirements for spaces, facilities, and equipment, as well as the determination of the necessary number and type of classrooms for effective training delivery. Additionally, the availability of appropriate furniture, material resources, machinery, or tools that facilitate the development of students' knowledge and skills is considered. Moreover, the

¹ <http://www.ehea.info/cid105593/esg.html>

fulfilment of official requirements imposed by the governing administration of the country for educational institutions is taken into account.

2.1.1 Initial Accreditation

Initial accreditation determines that the standards for initial accreditation of higher education institutions and study programmes are met. In the process of initial accreditation, NAEQA prepares a report on the fulfilment of the standards for the initial accreditation of a higher education institution and study programmes with the recommendation for issuing a work permit, or for rejecting a request for a work permit of a higher education institution.

Initial Accreditation² is regulated by the Regulations on Standards for Initial Accreditation of Higher Educations and Study Programmes³, Request for initial accreditation⁴, and Instructions for preparing the documentation for the initial accreditation⁵, Tables⁶ and Attachments⁷.

2.1.2 Accreditation of higher education institutions and study programmes

The accreditation establishes that a higher education institution and study programmes meet the standards defined by the NCHE, and that a higher education institution has the right to issue public documents in accordance with this law. The accreditation process is carried out regularly, within the period of seven years, or earlier at the request of the higher education institution.

Based on the report on the fulfilment of the standards of the review commission, NAEQA issues an accreditation certificate, that is, issues a decision on rejecting the request for accreditation within nine months from the date of receipt of the valid request. Higher education institution may, within 15 days from the day of receiving the decision, appeal to the NCHE against the NAEQA decision rejecting its request for accreditation. The NCHE shall appoint an appeals board, within 30 days from the date of receiving an appeal, consisting of three reviewers from the relevant area from the list of reviewers. A person employed at a HEI that filed the appeal or a person who took part in the procedure of issuing the decision on rejecting the request for accreditation cannot be appointed to the appeal board. An appeal board shall, within 30 days from its appointment, submits to the NCHE a report and a proposal of the decision on the appeal. The NCHE shall, within 30 days from the submission of the report and the proposal, issue a decision on rejecting an appeal or annulling the first instance decision and returning it to the NAEQA for reconsideration. The NAEQA, within 30 days from the day of receiving the decision of the NCHE on the annulment of the first instance decision and its returning for reconsideration, issue a decision in accordance with the legal understanding of the NCHE. If a HEI files

² <https://www.nat.rs/en/initial-acc/>

³ <https://www.nat.rs/wp-content/uploads/2019/06/Regulations-for-Intial-Accreditation.docx>

⁴ <https://www.nat.rs/wp-content/uploads/2019/07/1.-Zahtev-za-pocetnu-akreditaciju-EN-2.doc>

⁵ <https://www.nat.rs/wp-content/uploads/2019/07/2.-Uputstvo-za-pocetnu-dokumentaciju-EN-2.doc>

⁶ <https://www.nat.rs/wp-content/uploads/2019/07/4.-Tabele-za-pocetnu-akreditaciju-EN-2.docx>

⁷ <https://www.nat.rs/wp-content/uploads/2019/07/5.-Prilozi-za-pocetnu-akreditaciju-EN-2.docx>

an appeal against the final decision of the NAEQA, the NCHE shall decide on the request for accreditation within 30 days from the day of receiving the appeal. The decision on rejecting the appeal of a HEI and the decision by which the NCHE itself decides on the request for accreditation, are final in the administrative procedure. The higher education institution whose request for the accreditation was denied in the process described above has the right to repeat the request after the expiration of 90 days from the date of the final decision.

Accreditation of Institutions is regulated by the Regulations on Standards and Procedures for Accreditation of Higher Education Institutions⁸, Request for the Accreditation^{9,10}, Instructions for preparing documentation^{11,12}, Standards and Instructions for the Accreditation of the Institutions¹³, Tables^{14,15} and Attachments^{16,17}.

Accreditation of Study Programs is regulated by the Regulations on Standards and Procedure for Accreditation of Study Programmes¹⁸, together with the further documents, depending on the study cycle:

Accreditation of I and II cycle study programs – Request for the Accreditation¹⁹, Instructions for preparing documentation²⁰, Standards and Instructions²¹, Tables²² and Attachments²³;

Accreditation of Doctoral Studies in educational-scientific fields – Request for the Accreditation²⁴, Instructions for preparing the documentation²⁵, Standards and instructions²⁶, Tables²⁷ and Attachments²⁸;

⁸ <https://www.nat.rs/wp-content/uploads/2019/06/Regulations-for-Accreditation-of-HEI.docx>

⁹ <https://www.nat.rs/wp-content/uploads/2019/08/1.-Zahtev-za-akreditaciju-UAS-EN.doc>

¹⁰ <https://www.nat.rs/wp-content/uploads/2019/08/1.-Zahtev-za-akreditaciju-VU-EN.doc>

¹¹ <https://www.nat.rs/wp-content/uploads/2019/08/2.-UPUTSTVA-za-pripremu-dokumentacije-UAS-EN.doc>

¹² <https://www.nat.rs/wp-content/uploads/2019/08/2.-UPUTSTVA-za-pripremu-dokumentacije-VU-EN.doc>

¹³ <https://www.nat.rs/wp-content/uploads/2019/08/3.-Standardi-i-uputstva-za-akreditaciju-UAS-EN.doc>

¹⁴ <https://www.nat.rs/wp-content/uploads/2019/08/4.-Tabele-za-UAS-EN.doc>

¹⁵ <https://www.nat.rs/wp-content/uploads/2019/08/4.-Tabele-za-VU-EN.doc>

¹⁶ <https://www.nat.rs/wp-content/uploads/2019/08/5.-Prilozi-za-UAS-EN.docx>

¹⁷ <https://www.nat.rs/wp-content/uploads/2019/08/5.-Prilozi-za-VU-EN.docx>

¹⁸ <https://www.nat.rs/wp-content/uploads/2019/06/Regulations-for-Accreditation-of-SP.docx>

¹⁹ <https://www.nat.rs/wp-content/uploads/2019/08/1.-Zahtev-za-akreditaciju-SP-I-i-II-EN.doc>

²⁰ <https://www.nat.rs/wp-content/uploads/2019/08/2.-UPUTSTVA-za-pripremu-dokumentacije-SP-I-i-II-novo-EN.doc>

²¹ <https://www.nat.rs/wp-content/uploads/2019/08/3.-Standardi-i-uputstva-za-akreditaciju-SP-I-i-II-ENG.doc>

²² <https://www.nat.rs/wp-content/uploads/2019/08/4.-Tabele-za-SP-I-i-II-novo-EN.doc>

²³ <https://www.nat.rs/wp-content/uploads/2019/08/5.-Prilozi-za-SP-I-i-II-EN.docx>

²⁴ <https://www.nat.rs/wp-content/uploads/2019/07/1.-Zahtev-za-akreditaciju-DAS-NAUKA-EN.doc>

²⁵ <https://www.nat.rs/wp-content/uploads/2019/07/2.-UPUTSTVA-za-pripremu-dokumentacije-DAS-NAUKA-EN.doc>

²⁶ <https://www.nat.rs/wp-content/uploads/2019/07/3.-Standardi-i-uputstva-za-akreditaciju-DAS-NAUKA-1-prevod.doc>

²⁷ <https://www.nat.rs/wp-content/uploads/2019/07/4.-Tabele-za-akreditaciju-DAS-NAUKA-EN.doc>

²⁸ <https://www.nat.rs/wp-content/uploads/2019/07/5.-Prilozi-za-DAS-NAUKA-EN.docx>

Accreditation of Doctoral Studies in Arts – Request for the Accreditation²⁹, Instructions for preparing the documentation³⁰, Standards and Instructions³¹, Classification of representative references³², Tables³³ and Attachments³⁴.

2.1.3 The external quality assessment of higher education institutions and study programmes

The evaluation of the fulfilment of the higher education institution's obligations regarding quality is performed in accordance with the rulebook on standards and procedures for external quality assessment.

The procedure of external quality assessment of higher education institutions is conducted regularly by the CAQA in the fourth year of the accreditation cycle, and it may also be performed extraordinary, as well as on the request of the MoE and the NCHE. The report on the external quality assessment of a higher education institution shall be submitted by the CAQA to the higher education institution and to the applicant for extraordinary control. External quality assessment is carried out by a review commission consisting of three teachers from the higher education institutions from the list established by the NCHE, one student from the student list determined by the Student Conference of Serbian Universities, i.e., Student Conference of the Academies of Applied Studies of Serbia and one expert in specific fields from among the employers, professional or vocational associations, labour markets, chambers, proposed by appropriate organisations. The external quality assessment of higher education institutions and study programmes is regulated by the Rulebook on Standards and Procedure for External Quality Control of Higher Education Institutions³⁵.

2.1.4 Self-evaluation and quality assessment of higher education institutions and study programmes

Self-evaluation and quality assessment of higher education institutions and study programmes is being conducted in the manner and according to the procedure prescribed by the general act of a higher education institution, in accordance with the act on standards for self-evaluation and quality assessment of higher education institutions and study programmes.

The self-evaluation process also considers the students' assessment. The higher education institution conducts the self-evaluation procedure in the fourth year of accreditation of the higher education institution and study programmes, for the previous three-year period and reports on the procedure

²⁹ <https://www.nat.rs/wp-content/uploads/2019/07/1.-Zahtev-za-akreditaciju-DAS-UM-EN.doc>

³⁰ <https://www.nat.rs/wp-content/uploads/2019/07/2.-UPUTSTVA-za-pripremu-dokumentacije-DAS-UM-EN.doc>

³¹ <https://www.nat.rs/wp-content/uploads/2019/07/3.-Standardi-i-uputstva-za-akreditaciju-DAS-UM-2-ENG.doc>

³² <https://www.nat.rs/wp-content/uploads/2019/07/klasifikacija-referenci-EN.doc>

³³ <https://www.nat.rs/wp-content/uploads/2019/07/4.-Tabele-za-akreditaciju-DAS-UM-EN.doc>

³⁴ <https://www.nat.rs/wp-content/uploads/2019/07/5.-Prilozi-za-DAS-UM-EN.docx>

³⁵ <https://www.nat.rs/wp-content/uploads/2019/07/Pravilnik-za-spolja%C5%A1nju-proveru-kvaliteta-eng.doc>

and results of self-evaluation, as well as other data relevant to the quality assessment, publishes on its website and submits it to the NEAQA. The higher education institution publishes a report on the procedure and results of self-evaluation, as well as other data relevant to the quality assessment, on its website and submits it to the NEAQA within the accreditation documentation. Self-evaluation and quality assessment of higher education institutions and study programmes is regulated by the Regulation on standards for self-evaluation and quality assessment of higher education institutions and study program³⁶.

2.2 Accreditation of micro-credentials in higher education in Serbia

As has been pointed out several times before, micro-credentials currently do not exist in higher education in Serbia. Therefore, one of the advantages of their implementation is their accreditation.

It is quite clear from the previous text that the accreditation process in Serbian higher education is not only comprehensive, but also extremely demanding process, involving filling literally hundreds of pages of different documents. In addition, the whole process lasts for months, not only because of the administrative requirements, but also because of the involvement of foreign reviewers. If we add to that the large financial burden on higher education institutions, because accreditation is paid by HEIs, and not by the state, there is a justified fear that the same or a similar approach in micro-credential accreditation would be extremely demotivating for higher education institutions – micro-credentials are small and highly flexible packages of knowledge and skills, often intended for only a small number of participants, hence very vulnerable to excessive administrative and financial requirements.

A possible solution is the approach used in lifelong learning programs in higher education in Serbia. Lifelong learning programs are positioned outside 3 formal study cycles, allowing them to be equally delivered for persons with secondary and people with tertiary education. They do not have credit evaluation, or link to NQFS and ENIC/NARIC recognition system, with the accreditation/approval being done by the HEIs itself. Hence, micro-credentials, defined as the special case of lifelong learning programs, could become part of this system, with the introduction of both credit evaluation and link to NQFS and ENIC/NARIC recognition system.

³⁶ <https://www.nat.rs/wp-content/uploads/2019/07/Pravilnik-za-samovrednovanje-f-eng.doc>

3 Quality assurance in higher education in Austria

Quality assurance in higher education is a complex and multi-faceted topic. Some of the main issues related to quality assurance in Austrian higher education are:

Accreditation: The accreditation of degree programs is an important aspect of quality assurance in higher education. In Austria, the Accreditation Council is responsible for accrediting degree programs. However, there have been concerns about the transparency and consistency of the accreditation process. In the higher education sector, quality assurance helps universities to achieve their goals. It ensures greater transparency and increased trust in the relevance and quality of higher education institutions. The Act on Quality Assurance in Higher Education (HS-QSG) is the legal basis for the external quality assurance of public universities, universities of applied sciences and private universities. There are two external quality assurance procedures: accreditation and certification by audit.

Accreditation procedures are used to determine whether a higher education institution or degree programme meets prescribed (minimum) standards and to award the (temporary) right to operate a higher education institution or conduct higher education degree programmes. In this context, a distinction is made between institutional accreditation procedures and programme accreditation procedures.

Agency for Quality Assurance and Accreditation Austria is an independent body for external quality assurance in the higher education sector and is responsible for conducting accreditation procedures and audits in Austria. AQ Austria is responsible for the entire higher education sector in Austria and is ensuring academic standards which is a key aspect of quality assurance in higher education and is responsible for setting and maintaining academic standards.

According to section 3 para. 3 of the Act on Quality Assurance in Higher Education (HS-QSG) as amended, AQ Austria is responsible in particular for the following tasks in the area of external quality assurance³⁷:

- developing and carrying out external quality assurance procedures, as a minimum, audit and accreditation procedures, according to national and international standards;
- accrediting HEIs and degree programmes;
- continuously supervising accredited HEIs and degree programmes regarding accreditation requirements;
- reporting to the National Council and publishing reports on the outcomes of the quality assurance procedures;

³⁷ <https://www.aq.ac.at/en/about-us/responsibilities.php>

- fulfilling the tasks according to the statutory provisions of the University of Applied Sciences Studies Act (FHG) and the Private Universities Studies Act (PrivHG);
- issuing certificates for educational institutions upon an audit;
- conducting studies and system analyses, performing reviews, and carrying out projects;
- providing information and advice in matters related to quality assurance and quality improvement;
- notification of foreign degree programmes;
- international co-operation in the field of quality assurance;

Internationalization: Internationalization is an important aspect of higher education in Austria. However, there have been concerns that the focus on internationalization may come at the expense of quality. For example, there have been concerns about the quality of English-language degree programs and the potential for an overreliance on international students to generate revenue.

Student evaluation: Student evaluation is an important aspect of quality assurance in higher education. In Austria, student evaluations are used to provide feedback to instructors and to inform decisions about the quality of degree programs. However, there have been concerns that student evaluations may not be reliable or may be influenced by factors such as instructor popularity.

European reference framework: Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) provide the international reference framework for Austria's higher education quality assurance system. The standards and guidelines formulated in this document form the common reference point for quality assurance for higher education institutions and quality assurance agencies in the European Higher Education Area. As they are a set of standards and guidelines for internal and external quality assurance in higher education, they provide guidance, and are considered in a broader context that also includes qualifications frameworks, ECTS, diploma supplement, and also micro-credentials.

3.1 Quality assurance and micro-credentials

The quality assurance of micro-credentials in the higher education sector is based on the national quality assurance mechanisms and the European Standards and Guidelines for Quality Assurance (ESG).

The quality assurance of micro-credentials includes national QA systems, recognised international regulations (e.g., ISO standards, EFQM...) must be ensured by the university's internal QM system.

According to the EU Council Recommendation a minimum mandatory element to describe micro-credential is also type of quality assurance, that is underpinning the micro-credential. Processes within the quality assurance must be *“fit-for-purpose, clearly documented and accessible and meet the needs and expectations of learners and stakeholders.”*

External QA is based “*primarily on the assessment of providers (rather than individual courses) and the effectiveness of their internal quality assurance procedures.*” It is important that internal and external quality procedures are assured and processed by Micro-credential providers. External QA should be based on the Council EU recommendation (2017) ³⁸and should:

- address the design of micro-credentials as well as application of the learning outcomes approach;
- involve feedback mechanisms, procedures for continuous improvement, aligned evaluation methods, regular self-assessment;
- involve relevant external stakeholders;
- be important part in the internal management and
- assure electronic access of evaluation results.

Internal QA should according to the Council recommendation 2022 ³⁹cover following segments:

- the overall quality of the micro-credential itself;
- the quality of the course, where applicable, leading to the micro-credential;
- learners’ feedback on the learning experience leading to the micro-credential and;
- peers’ feedback, including other providers and stakeholders, on the learning experience leading to the micro-credential.

ESG are fundamental guidelines and principles which allow higher education institution customizing their study programmes. Furthermore, they emphasise the importance of assessing learning outcomes, which is also one of the key elements in developing micro-credentials.

According to the Austrian Ministry of Education, Science and Research the recommendation of the national Bologna follow-up group is planned to be published within the academic year 2023/24.

3.2 References and links to important regulations, laws, and agreements

1. “Council recommendation of 16th June 2022 on a European approach to Micro-Credentials for Lifelong Learning and Employability.” (Official Journal of the European Union, vol. 2022/C 16 June 2022). [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627\(02\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627(02)). Accessed: March 2023
2. “Council recommendation of 22 May 2017 on the European Qualifications Framework for Lifelong learning and Repealing the Recommendation of the European Parliament and of the Council of 23 April 2008 on the Establishment of the European Qualifications Framework for Lifelong Learning.” Official Journal of the European Union, vol. 2017/C 22 May 2017).

³⁸ [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017H0615\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017H0615(01))

³⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022H0627%2802%29>

[https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017H0615\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017H0615(01)).

Accessed: March 2023

3. “Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).” https://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf. Accessed: April 2023
4. ETF. Guide to Design, issue and recognise Micro-credentials 2022.
<https://www.etf.europa.eu/sites/default/files/2023-06/Micro-Credential%20Guidelines%20Final%20Delivery.pdf>. Accessed: June 2023
5. Ministry of Education, Science and Research in Austria: Micro-credentials (bmbwf.gv.at)
6. “Act on Quality Assurance in Higher Education (HS-QSG).” (Federal Law Gazette 74/2011)
https://www.ris.bka.gv.at/Dokumente/ErV/ERV_2011_1_74/ERV_2011_1_74.html. Accessed: April 2023

4 Quality assurance in higher education in Germany

4.1 Internal Quality Assurance

The first subsection discusses the factors that have contributed to the development of IQA systems, including program accreditation requirements, political pressure, and the demand for measurable indicators. An example of how IQA can be implemented is provided through the University of Duisburg-Essen (UDE). The second subsection outlines the IQA process for study programs in HEIs and highlights the importance of the process in ensuring quality standards are met and areas for improvement are identified. The guidelines and standards for IQA processes are discussed, along with the general steps involved in the IQA process. Overall, the paper emphasizes the importance of IQA in enhancing the quality of teaching and learning in German HEIs.

4.2 Internal Quality Assurance of Higher Education Institutions

In Germany, external and internal factors have contributed to the development of internal quality assurance (IQA) systems in higher education institutions (HEIs). One external factor was inefficient program accreditation requirements, which led universities to develop their own coherent IQA systems for system accreditation. Third-party funded projects, political pressure to improve student retention, and the need to promote institutional brand have also contributed to the rise of IQA. Internally, evidence-based decision-making and the demand for measurable indicators have supported the development of IQA. Additionally, institutions use positive messages from IQA in communication strategies. Overall, IQA is a crucial aspect of quality enhancement in German HEIs.

The University of Duisburg-Essen (UDE) provides a comprehensive example of how IQA can be implemented in HEIs. The key elements of their IQA system include institutional evaluation, data-supported discussion of study program quality, and case-oriented support on core processes. Quantitative evaluation tools, such as student course evaluation surveys and workload recording, as well as qualitative tools like teaching analysis polls and course evaluation via student representatives, can be used for decision-making. Quality reporting systems and integrating quality reports into institutional evaluation and target agreement can also improve teaching and learning in HEIs.

UDE employs an IQA system consisting of institutional evaluation leading to target and performance agreements, data-supported discussion of study program quality, case-oriented support on core processes, and quantitative evaluation tools. They also use various IQA tools like student and graduate tracer surveys and course evaluations through teaching analysis polls and student representatives. UDE mandates each faculty to conduct a quality conference annually, and the quality reports are integrated into the process of institutional evaluation and target agreement (Ganseuer & Pistor, 2017).

4.3 Internal Quality Assurance of Study Programs within HEIs

Guidelines and standards for the Internal Quality Assurance (IQA) process in German universities have been published by various organizations, including the German Accreditation Council (Akkreditierungsrat), the German Rectors' Conference (HRK), and the Standing Conference of the Ministers of Education and Cultural Affairs (KMK). These guidelines outline the basic principles of quality assurance, the criteria for evaluating study programs, and the procedures for the IQA process. However, it's important to note that while these guidelines provide a framework for IQA, universities are not legally bound to follow them and may develop their own approaches to IQA. As a result, there can be some variation in the IQA process across different universities, even though they may follow the same general principles and criteria outlined in the guidelines.

In Germany, the Internal Quality Assurance (IQA) process of study programs is typically conducted by universities themselves to ensure that study programs meet the required quality standards and identify areas for improvement. The IQA process involves a systematic and continuous evaluation of the study program's quality and its relevance to the changing needs of society, the job market, and academic standards.

The IQA process generally follows the following steps:

1. **Design and implementation of quality assurance measures:** The university defines and implements a set of measures to ensure quality in the study program. This includes the establishment of evaluation criteria, the collection of feedback from students and stakeholders, and the monitoring of performance indicators.
2. **Evaluation of the study program:** The university conducts regular evaluations of the study program to identify areas for improvement. This may include student surveys, analysis of student performance data, and input from industry professionals.
3. **Analysis of evaluation results:** The university analyzes the results of the evaluation to identify strengths and weaknesses of the study program. The findings are used to develop strategies for improvement.
4. **Improvement measures:** Based on the analysis of the evaluation results, the university develops and implements measures to improve the quality of the study program. This may include changes to the curriculum, teaching methods, or assessment criteria.
5. **Quality assurance report:** The university compiles a quality assurance report that summarizes the findings of the evaluation and the measures taken to improve the quality of the study program. This report is reviewed by external quality assurance agencies, such as the German Accreditation Council, to ensure that the university's IQA processes are rigorous and effective.

4.4 External Quality Assurance

The first section focuses on the system accreditation process, which assesses the internal quality assurance system of HEIs, and outlines the key steps involved in the accreditation process. The second section discusses the external quality assurance process for study programs within HEIs and provides a detailed description of the steps involved in the accreditation process for new and existing study programs. The document highlights the importance of accreditation in ensuring ongoing quality and describes the types of documents required for the accreditation process.

4.5 External Quality Assurance of Higher Education Institutions

System accreditation is a process that assesses the internal quality assurance system of higher education institutions in Germany. It involves a peer review process, with at least three professors and other experts evaluating the quality management system of the institution. A positive accreditation decision means the institution's quality management system is suitable for ensuring its study programs achieve their qualification goals and quality standards. The institution receives the right to award the Accreditation Council's quality seal for its self-assessed study programs.

Here are the key steps involved in the process of accreditation of HEIs in Germany:

- A higher education institution commissions an agency approved by the Accreditation Council to carry out a peer review procedure;
- The agency appoints a review panel comprising at least three professors, one representative with professional experience, and one student;
- The review panel evaluates the quality management system of the higher education institution based on the criteria laid down in part 3 of the specimen decree;
- The evaluation process includes two site visits at the higher education institution in addition to the analysis of the application documents;
- The review panel holds discussions with representatives of the institution during the site visits;
- The experts prepare an experts' report with a recommendation for the accreditation of the higher education institution's internal quality management system;
- A random sample is examined to determine whether the intended effects of the quality management system to be evaluated occur at the level of the study program;
- The Accreditation Council decides on the accreditation of the quality management system at the request of the higher education institution;
- The decision is based on the experts' report submitted by the review panel as well as the formal report drawn up by the agency;

- If the Accreditation Council intends to deviate significantly from the recommendation of the peers, the higher education institution will be given the opportunity to comment before the Accreditation Council's decision;
- In the event of a positive accreditation decision, the quality management system bears the quality seal of the Accreditation Council;
- The higher education institution receives the right to award the seal of the Accreditation Council for the study programs it has assessed itself;
- The Accreditation Council publishes its decision and the accreditation report, including the names of the experts in the central database of accredited study programs and system-accredited universities;
- Accreditation is granted for a limited period of eight years.

4.6 External Quality Assurance of Study Programs within HEIs

The Accreditation Council in Germany evaluates Bachelor's and Master's programs offered by state or state-recognized higher education institutions through a peer review process. The review panel appointed by the council evaluates both the formal and academic criteria of the program and prepares an experts' report with a recommendation for a decision on accreditation. The Accreditation Council makes the final decision based on the reports, and if the decision is positive, the program is awarded a quality seal that is valid for eight years. The decision and expert report are also published in a central database. The accreditation process is mandatory for all new study programs and repeated at regular intervals for existing programs to ensure ongoing quality.

The key steps involved in the process of accreditation of study programs in Germany are:

1. **Application:** The first step in the accreditation process is for the institution offering the study program to submit an application to an accreditation agency that is recognized by the Accreditation Council.
2. **Self-evaluation report:** The institution must then prepare a self-evaluation report that provides detailed information about the study program, including its curriculum, teaching methods, learning outcomes, and student assessment procedures.
3. **External evaluation:** An external evaluation team appointed by the accreditation agency conducts a thorough evaluation of the study program. The team typically consists of academic experts from other universities, as well as representatives from industry or professional associations.
4. **Evaluation report:** The external evaluation team prepares a report that provides an assessment of the study program, highlighting strengths and weaknesses and making recommendations for improvement.

5. **Accreditation decision:** The accreditation agency decides on whether to grant accreditation to the study program based on the self-evaluation report and the external evaluation report.
6. **Accreditation period:** If the study program is accredited, the accreditation is usually granted for a period of up to 8 years, after which the institution must undergo the accreditation process again.

In terms of the documents required for the accreditation process, these typically include the self-evaluation report, as well as documentation on the qualifications of the teaching staff, the facilities and resources available to support the program, and the learning outcomes achieved by graduates.

4.7 Alternative Procedures

The Interstate study accreditation treaty allows higher education institutions to choose between program accreditation, system accreditation, and alternative procedures that meet the same quality standards as the other accreditation methods. Alternative procedures must be accredited and approved by the Accreditation Council and the responsible scientific authority before they can replace program or system accreditation. During the multi-stage peer review process, the higher education institution submits a self-evaluation report and receives recommendations from independent experts. The Accreditation Council ultimately decides on accreditation and awards its seal to the alternative procedure. Higher education institutions can use the alternative procedure for both programs and systems and receive self-accreditation rights for the programs assessed within the alternative procedure. The alternative procedure is evaluated periodically to determine if it should be continued.

4.8 Obtaining Agency Authorization in Germany with the Accreditation Council

The Accreditation Council authorizes agencies that meet certain criteria. To apply for authorization, the agency must informally submit proof of their entry in the European Quality Assurance Register for Higher Education. The authorization is valid indefinitely, but the agency must renew their registration with EQAR as necessary. There is a fee for the authorization. If the agency fails to provide evidence of EQAR listing or violates their obligations, the authorization can be revoked. In some cases, agencies not listed in EQAR can still be authorized if they periodically demonstrate compliance with quality assurance standards through external evaluation.

4.9 References and links to important regulations, laws, and agreements

7. [Akkreditierungsrat. \(n.d.-a\). Agencies. Retrieved March 16, 2023, from https://www.akkreditierungsrat.de/en/accreditation-system/agencies/agencies](https://www.akkreditierungsrat.de/en/accreditation-system/agencies/agencies)
8. [Akkreditierungsrat. \(n.d.-b\). Alternative Procedures. Retrieved March 16, 2023, from https://www.akkreditierungsrat.de/en/accreditation-system/alternative-procedures/alternative-procedures](https://www.akkreditierungsrat.de/en/accreditation-system/alternative-procedures/alternative-procedures)

9. [Akkreditierungsrat. \(n.d.-c\). Programme Accreditation. Retrieved March 16, 2023, from https://www.akkreditierungsrat.de/en/accreditation-system/programme-accreditation/programme-accreditation](https://www.akkreditierungsrat.de/en/accreditation-system/programme-accreditation/programme-accreditation)
10. [Akkreditierungsrat. \(n.d.-d\). System Accreditation. Retrieved March 16, 2023, from https://www.akkreditierungsrat.de/en/accreditation-system/system-accreditation/system-accreditation](https://www.akkreditierungsrat.de/en/accreditation-system/system-accreditation/system-accreditation)
11. [Ganseuer, C., & Pistor, P. \(2017\). From tools to an internal quality assurance system. International Institute for Educational Planning. Https://Www. Researchgate. Net/Publication/337977789.](https://www.researchgate.net/publication/337977789)

5 Quality assurance in higher education in Spain

5.1 Framework for the validation (ex-ante assessment), monitoring, modification and accreditation of recognised degrees (VSMA Framework)

Joining the European Higher Education Area (EHEA) implied various commitments on the part of the university system in Spain, one of which was the application of a robust internal and external quality assurance system for the provision of all higher education courses. The system set in place is based on the revised version of the ESG1⁴⁰ (Standards and Guidelines for Quality Assurance in the European Higher Education Area) adopted by the Ministers responsible for higher education in the European Higher Education Area in May 2015.

Although the system is similar in all Spain, it is applied by different agencies in different regions. In this document, we will refer to the specific case of Catalonia and the methodology used by AQU-Catalonia⁴¹. In any case, the procedures are similar in all the country.

The VSMA Framework applies to all higher educational program, degree or master, and is based on four main aspects:

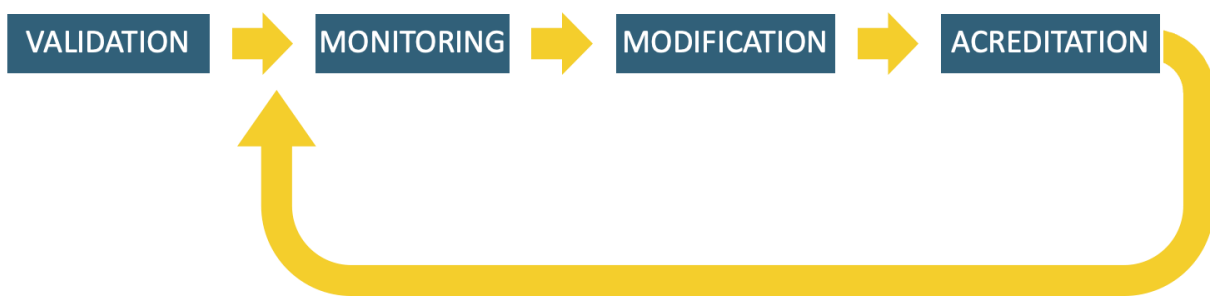
- **Certification of quality assurance systems:** Development of procedures for the certification of QA systems that are being implemented by institutions needs to become the cornerstone for streamlining procedures associated with the VSMA. This means on- going progress needs to be made towards quality assurance at institutional level, in line with developments at international level. The aim here is for all universities and higher education institutions in Catalonia to enter the category of self-accrediting institutions.
- **Improvements in process-related document management:** In line with practice in other administration authorities and agencies, the intention is for the new VSMA Framework to make best use of currently available information systems to automatically generate all required reports for quality assurance. Participating stakeholders, such as the university and external experts, will thereby be able to formulate planning (discussion and analysis, enhancements, etc.) by validating or confirming the indicators included in these reports without the need to produce them themselves.
- **Focus on accreditation:** A new model will undoubtedly need to underpin the role of accreditation within the VSMA framework as it is the procedure that gives most added value to institutions and, at international level, is one of the main tasks being developed by quality assurance agencies in higher education.

⁴⁰ <https://www.enqa.eu/esg-standards-and-guidelines-for-quality-assurance-in-the-european-higher-education-area/>

⁴¹ <https://www.aqu.cat/doc/Universitats/Metodologia/Framework-for-the-validation-ex-ante-assessment-monitoring-modification-and-accreditation-of-recognised-degrees>

- **Cluster benchmarking for use in the design of study programmes:** Benchmarks currently exist according to discipline, and, at national and international level, they provide relevant information on the learning outcomes expected of higher education courses that form part of the same cluster. In spite of the fact that a great disparity of courses complicates benchmarking, the use of benchmarks can help redefine the present map with coordinates that facilitate the design and position of higher education courses within a qualifications framework that is clear and well known to users.

The VSMA Framework links together the quality assurance (QA) processes (ex-ante assessment, monitoring, modification and accreditation) that take place throughout the life-cycle of a degree course, the aim being to establish coherent links between all of them and promote greater efficiency in process management.



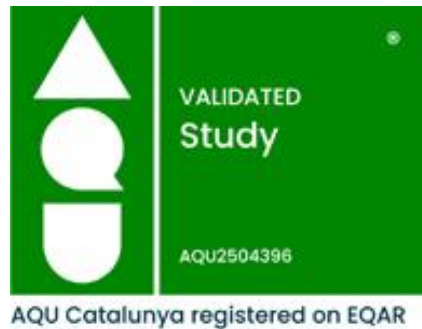
Quality Assurance Process in Higher Education in Spain.

5.2 Validation

To validate proposals for new recognized degree programs made by higher education institutions in Catalonia, AQU Catalunya constitutes the subject-specific committees (CEA) that come under the Agency's Institutional and Program Review Commission (CAIP) and are made up of recognized academics, EHEA experts, professionals and students.

The university itself must request implementation of the principles of mutual trust between institutions, following which the Institutional and Program Review Commission (CAIP), having established the position of each proposal within the corresponding cluster, endorses the use of this pathway. To make this decision, it will need the following information:

- The name to be given to the program;
- The cluster or benchmark it will be assigned to;
- The workload in ECTS and courses;
- The institution (faculty/school/institute, or "faculty") responsible for the proposal;
- The rector's recommendation that, where appropriate, quality assurance of the program can be managed directly by the university.



Label used by AQU-Catalonia for Validated study programs

5.3 Monitoring

The monitoring of recognized degree programs must enable the institution to evaluate program delivery, using as evidence among other things the levels of academic performance and other necessary indicators (employment outcomes, resource availability, the satisfaction of students, teaching staff and employers, etc.) in their diagnosis and to draw up enhancement proposals to correct any deviations detected between the program design and actual delivery.

Each university will therefore need to have its own system for monitoring each program in accordance with the guidelines of AQU Catalunya and as stipulated in its own internal quality assurance system, which is the main evidence for the subsequent accreditation of the program.

5.4 Modification.

Proposals to modify degree programs can only be made because of the monitoring process and are to be considered a natural result of this process.

Possible changes to higher education degree courses can be classified according to type:

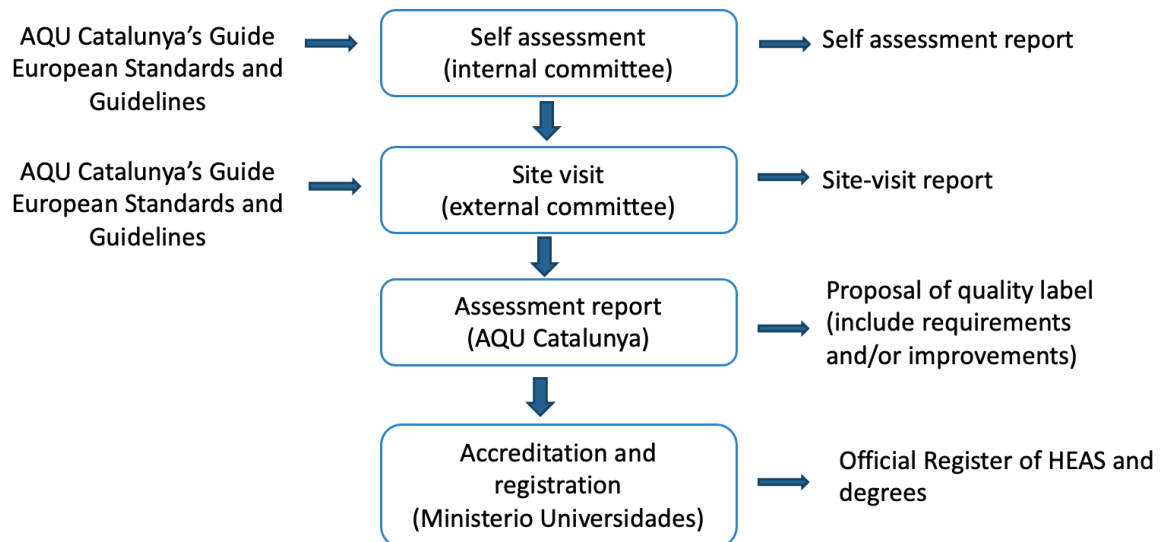
- **Non-substantial modifications:** minor changes that are improvements to the degree that the university can make because of monitoring. Changes of this type are set out in the monitoring reports and are included in the program specification when it undergoes any modification.
- **Substantial modifications:** changes to a validated degree that imply alterations to its structure, nature, general objectives or competences. These are classified according to two types:
 - **Authorized:** changes that affect the structure of the degree, but not its nature, general objectives or competences. Changes of this type can be requested by way of modification;
 - **Unauthorized:** substantial changes that affect the nature, general objectives or competences of a validated degree and cannot be requested through program modification. Such changes can only be made by applying for the validation of a new degree course and discontinuation of the degree course that is running.

5.5 Accreditation of full study programs

5.5.1 Pathway 1

There are different pathways for accreditation of study programs in Spain. The accreditation of each individual degree programme is known as pathway 1 and it has been the most used up to now.

As the corresponding external quality assurance body, AQU Catalunya is responsible for program accreditation. The most used pathway for accreditation is to do it for each individual program.



Process for accreditation and output of each step.

This pathway will be exclusively managed by AQU Catalunya, according to the following:

- In order to streamline and make viable the accreditation procedures, AQU Catalunya will, wherever possible, simultaneously carry out external reviews of all the degree programmes being run in a faculty, with the aim being to:
 - Integrate programme review with institutional review;
 - Promote coherence between degree programs;
 - Facilitate an overview and strengthen the strategic vision of each faculty;
 - Simplify the external QA process;
 - Bring about economies of scale that reduce the expense of external review.
- Programme review should be as closely aligned as possible with the review of each faculty's internal quality assurance system (IQAS). One should bear in mind that the faculty becomes the unit of assessment in the external review, with the IQAS linking together the drawing up and analysis of the monitoring reports on the individual degree programmes, which will be indispensable evidence in the external review.
- The external review panels may include international experts. The presence of international experts provides an essential point of reference for comparing programme delivery with

experience in other universities in Europe and the rest of the world. This approach will call for all relevant information for external review to be in English.

- Wherever possible, a system for the periodic review and quality assurance of all programmes belonging to the same cluster is to be set up. Reviews will be based on the performance of the indicators for each course and operational aspects of the IQAS. This process of cluster review should facilitate cross-cluster analysis and the improvement and enhancement of all programmes in a given cluster.
- Reviews will be based on the same dimensions and criteria laid down in the current accreditation procedure, in accordance with the ESG, with a more in-depth evaluation and assessment of the design of programmes that have joined each cluster (current accreditation dimension 1: "Programme quality").
- Focus will be placed on programmes and/or dimensions that, during the prior analysis of the indicators associated with monitoring, show the need for particular attention (for example, courses with low indicator values)
- In the case of joint international programmes where the coordinator is from a university in Catalonia, priority will be given to external review managed by AQU Catalunya itself.



Labels for accredited individual programs

5.5.2 Pathway 2

Pathway 2 enables an institution to accredit certain programmes through accreditation at international level managed by AQU Catalunya or another agency registered with EQAR.

A favourable review/accreditation will be recognised by AQU Catalunya provided that the programme's QA criteria are based on the ESG.

5.5.3 Pathway 3

Pathway 3, which offers the possibility of accreditation provided for under the current regulations in Spain, is the pathway that in the medium term will probably be the most used. Its purpose is to reduce the extent of quality assurance through a focus on the IQAS and just several of the programmes run in the faculty.

A faculty can apply for institutional accreditation, which will be valid for 5 years, following the accreditation of at least 50% of its programmes through any of the abovementioned pathways and certification of its IQAS. From this point in time onwards, all of the faculty's courses will be automatically accredited for a period of 5 years.

The renewal of institutional accreditation will no longer be carried out on the basis of each degree, but at institutional level and in terms of the fitness for purpose of the QA procedures used with the programmes run in the faculty, together with the programme outcomes. AQU will develop the corresponding methodology for accreditation when the regulatory framework governing this has been definitively set in place (pending endorsement by the Spanish Ministry of Education of the QA protocol).



Label for institutional accreditation

5.6 Accreditation of short-learning programs in Spain

The QA process for degree, master and doctorate programs in Spain is well developed and there are clear procedures for it. Universities and quality assurance agencies have earned a large experience in the process and have been improving and updating the procedures searching efficiency while keeping the rigor required for the objectives of the QA.

For short-learning programs and micro-credentials, there is not yet a stablished framework for the development of the micro-credentials. There has been only one organized experience developed by AQU-Catalonia, based on the procedures used for the degree programs. This has the advantage of using the previous experience with degree programs to develop micro-credentials but, the results of the pilot project showed that it needs some adjustments in order to be able to deal with the high number of programs that will need to be assessed in the future.

The pilot program will be presented here as it is the only structured and piloted experience known in Spain. The program prepared a guide for the ex-ante verification of short learning programs⁴².

Many institutions in Spain, private and public HE institutions, are offering Life-long Learning course mentioning that considered micro-credentials, without being submitted to any verification process by any QA agency. One of the most important values of being accredited by, for instance, AQU-Catalonia

⁴² <https://www.aqu.cat/ca/doc/Universitats/Metodologia/Guia-acreditacio-ex-ante-de-programes-de-curta-durada-PCD>

following its guidelines, is that, in the event that they are reported as favourable, they can be recognized as part of the official qualifications of the Catalan university system. This is very important as it is one of the requirements of the EU for the development of micro-credentials.

5.6.1 AQU-Catalonia Guidelines for the verification of short-learning programs

Short Learning Programs (SLP) are a type of courses (units, modules, etc.) in a specific subject that focus on specific needs of society and that can form part of larger degrees.

A micro-credential is proof of the learning outcomes that a student has acquired after completing a short-term program.

SLPs promote continuous professional development and lifelong learning. The main characteristics of SLPs are:

- Level according to the Catalan Framework of Qualifications for Higher Education (levels 2 and 3) and the National Catalogue of Professional Qualifications (levels 4 and 5);
- Teaching load: between 4 and 30 ECTS;
- Recognition of ECTS in official qualifications;
- Supplier: Catalan universities;
- They respond to the needs of the labour market;
- Target audience: non-traditional students.

About the teaching load, changes in the legislation in Spain occurred after this guide was prepared, have established a maximum of 15 ECTS for a micro-credential. These are the royal decree RD 822/2021⁴³ which establishes the organization of university education and the quality assurance procedure, and the organic law for university system LO 2/2023⁴⁴

In the next picture, the equivalence between the Catalan and the EHEA qualification frameworks is shown. The levels referred are the equivalent to undergraduate and graduate.

⁴³ <https://www.boe.es/buscar/act.php?id=BOE-A-2021-15781>

⁴⁴ <https://www.boe.es/buscar/act.php?id=BOE-A-2023-7500>

CHE-QF LEVELS	QUALIFICATIONS				LEVELS MECES	LEVELS EQF	LEVELS QF-EHEA
	Upper Vocational Training	HE Study Programmes In Arts	University				
4			PhD Diploma Not typically credit-rated 3 years		4	8	Third Cycle
3		Master's Degree in Arts 120 ECTS 2 years	Master's Degree 120 ECTS 2 years	Integrated Bachelor's Degree 360-ECTS 6 years	3	7	Second Cycle
		60-ECTS 1 years	60-ECTS 1 years				
2B		Bachelor's Degree in Arts 240 ECTS 4 years	Advanced Bachelor's Degree 240 ECTS 4 years	300-ECTS 5 years	2	6	First Cycle
2A							
1	Advanced Technician in Vocational Training, Advanced Technician in Plastic Arts and Design, Advanced Technician in Sports Education (Advanced Technician) 120 ECTS 2 years		Bachelor's Degree 180 ECTS 3 years		1	5	Short Cycle

Equivalence on the qualification framework levels

When designing these programs, the following must be considered:

- The description of the program;
- The justification for its creation;
- The internal quality assurance system (IQAS);
- The objective and learning outcomes;
- Student access and admission, and student support;
- Planning;
- Teaching and support staff;
- Material resources and services;
- Expected outcomes.

The assessment process consists of a prior evaluation by an ad hoc committee, which submits a proposal for an assessment report to the specific assessment committee of the corresponding area of the Institutional and Program Assessment Committee⁴⁵.

⁴⁵ <https://www.aqu.cat/en/About-us/Who-are-we/Organisation/Assessment-accreditation-and-certification-bodies/Institutional-and-Programme-Review-Commission-CAIP>

This Specific Committee is the one that issues an initial report (preliminary report), regarding which the university may submit allegations. After having analyzed the allegations made, the Specific Committee issues the final report in terms of a favorable or unfavorable *ex ante* assessment.

The university may lodge an appeal against this decision before the AQU Catalunya Appeals Committee⁴⁶ within a maximum period of one month from its notification.

5.7 Organization and planning of the evaluation

5.7.1 Ad hoc evaluation committee of the proposals

AQU Catalunya will create an *ad hoc* assessment committee for SLP proposals, which will be made up of academics, representatives of the professional world and one or more students. This committee will evaluate the suitability and appropriateness of the new program proposal in a collegiate manner. The *ad hoc* evaluation committee will report to the specific evaluation committee (CEA) of AQU Catalunya that corresponds (by area), which are responsible for the evaluation processes of the programs.

As a general rule, the *ad hoc* evaluation committee for SLP proposals has the following composition:

- The president, preferably a professor, appointed from among people with recognized academic merit;
- At least one academic member or an academic member of the knowledge branch of the program;
- At least two people of recognized professional merit;
- At least one student from the SLP field of knowledge;
- A methodologist, with a voice but without a vote, preferably appointed from among the technical staff of AQU Catalunya.

All members of the *ad hoc* evaluation committee for SLP proposals are appointed by the president of the Institutional and Program Evaluation Commission (CAIP).

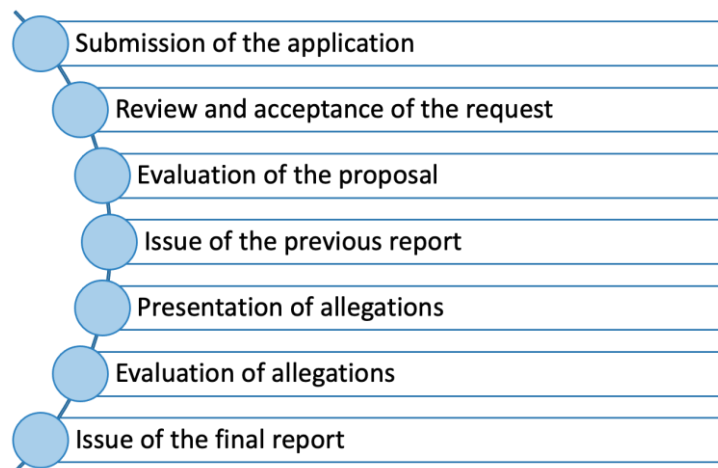
5.7.2 Specific evaluation commissions

The Institutional and Program Evaluation Commission (CAIP) has set up, for the verification of bachelor's and master's degrees, five specific evaluation commissions (CEA) of a permanent nature and corresponding to the five branches of knowledge: Arts and Humanities, Social and Legal Sciences, Sciences, Health Sciences, and Engineering and Architecture. The CEAs are responsible for the evaluation of programs and institutions within the VSMA Framework (AQU Catalunya, 2016) and, therefore, are responsible for the verification, monitoring, modification and accreditation process. Its main function is to assess the suitability and adequacy of the new degree proposal made by the university institutions so that the Universities Council can verify them.

⁴⁶ <https://www.aqu.cat/en/About-us/Who-are-we/Organisation/Assessment-accreditation-and-certification-bodies/Appeals-Commission>

5.7.3 Appeals committee

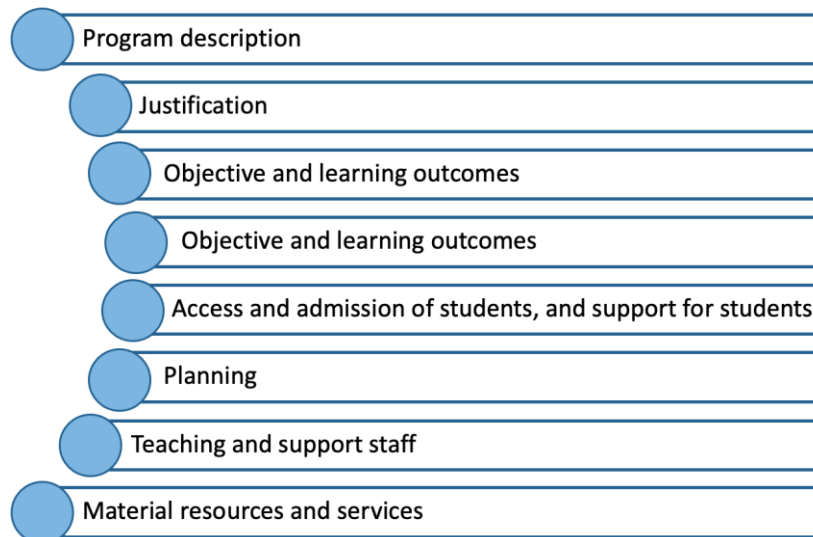
The Appeals Committee is the committee responsible for resolving the appeals presented in the evaluation processes. For the resolution of appeals, the Commission must have reports from experts in the area or areas of the PCDs that bring the appeal, preferably from outside the Catalan university system.



Evaluation Process

5.7.4 Assessment dimensions and standards

The following dimensions and standards are assessed for accrediting a new SLP.



The aspects that must be assessed to accredit (ex-ante) a new SLP proposal

5.7.5 Program description

- University and requesting centre
- Denomination
- Program level, according to Qualification Framework

- Link with the professional specialty
 - Professional family and professional area
 - Occupations related to this training
- Total training duration (ECTS)
- Mode of teaching: on-site, on-line, blended.
- Offer of new entry places

5.7.6 Justification

The justification of a proposal has multiple aspects:

- Description of the identified training needs;
- Describe the facts that make it necessary to include the training specialty in the Training Specialties Catalogue:
 - Aspects of the professional sector or employment that justify the need for the development of a new specialty;
 - Changes in the functional structures of the sector;
 - Mandatory compliance regulations or changes in the related legal framework.
 - New jobs;
 - Increase in job functions;
 - Adaptation to new procedures and technological changes (computer, machinery, etc.).
 - New social demand or new services in the sector;
- Differential aspects of the recipient population that justify the need;
- Describe all the aspects that make the specialty suitable for a specific group or what characteristics the group has that make specific training necessary;
- Analysis carried out of the specialties in the Catalogue to affirm the non-existence of a registered specialty that already has the focus and content necessary to fill the jobs;
- Indicate whether there is indeed no similar specialty or identify the specialties that, despite being related in some way to the same training needs, do not comply, due to duration, content, outdatedness, etc., with the needs detected;
- Provision for placement of students trained in the new specialty in the short and medium term
- Specify the general forecasts in relation to employment in the sector and the forecast percentage of the hiring commitment;
 - In the event that there are companies or business associations interested in hiring people trained in this specialty and that support this request, this must also be specified.

Point out other factors that you want to mention to include the specialty in the Catalogue of training specialties.

5.7.7 Objective and learning outcomes

Objective of the program

1. Learning outcomes
 - a) Knowledge
 - b) Types of knowledge
 - c) Depth, breadth and diversity of knowledge
2. Skills
 - d) Cognitive skills
 - e) Creative skills
 - f) Problem solving
 - g) Technical and practical skills
 - h) Informative/communication skills
3. Competences
 - i) Learning environment
 - j) professional environment

The evaluation will focus on two main elements:

- Ensure the level of learning outcomes in the qualification's framework (MCQES/EQF/CNCP) and the disciplinary framework:
 - The learning outcomes that comprise the set of knowledge, skills and competencies of the training activity must be relevant to the labor market. In addition, they must be those corresponding to the training level of the proposal, in accordance with the Catalan Framework of Qualifications for Higher Education (MCQES), the European Qualification Framework (EQF) and the National Catalogue of Professional Qualifications.
- Ensure the correct formulation of learning outcomes:
 - The relationship of knowledge, skills and competences that the student must achieve must be clearly and coherently formulated.
 - The objective of the training course and the learning outcomes must be identical for all students who carry out the training activity, regardless of the mode of education chosen.

5.7.8 Access and admission of students, and support for students

Access routes are determined by the MCQES –Qualification Framework– level of the training activity.

In some cases, the institution may establish access requirements to the training activity. Specifically:

1. Access to degree level training courses

To access the level 2 (MCQES) / level 4 (CNCP) training, students must meet one of these conditions:

- a) Official degree (level 2, EQF 6; first cycle of the QF-EHEA) or university master's degree (level 3, EQF 7; second cycle of the QF-EHEA) or equivalent;
- b) Advanced technician title (level 1, EQF 5; QF-EHEA short cycle) or equivalent from the same professional family as the specialty;
- c) Certificate of professionalism level 3 of the CNCP of the same professional family as the specialty.

2. Access to master's level training courses

To apply for admission to level 3 (MCQES) / level 5 (CNCP) training courses, candidates must meet one of the following conditions:

- a) Official degree (level 2, EQF 6; first cycle of the QF-EHEA) or equivalent in the field of the training specialty;
- b) University master's degree (level 3, EQF 7; second cycle of the QF-EHEA) or equivalent.

With respect to the support to students, institutions must specify at least:

- The bodies or units responsible for carrying them out;
- An orientate plan;
- The main actions to be carried out;

In the case of proposals that have more than one teaching modality, the support system must be specified for each modality. The mechanisms for tutoring and monitoring students must include:

- The functions of the teaching staff and who will carry out this activity;
- The procedure to be followed and the criteria that allow the traceability of each student's participation and interaction in the subjects, subjects, discussion forums and proposed tasks to be carried out;
- The frequency with which tutors must contact students and, in particular, in which cases the alarms are activated (for example, when a student stop completing tasks).

5.7.9 Planning

The planning consists of two parts:

- Curricular structure
- Training modules

The following image shows a table that can be used for the planning of the training modules.

Module Name

Name		Code
ECTS:	Teaching hours:	No. order:
Objective:		
Contents:		
Learning outcomes:		
Knowledges:		
Skills :		
Competencies:		
Teaching modality:		
Teaching methods:		
Assessment methods:		

Table used for the planning of the training modules

5.7.10 Teaching and support staff

The teaching staff and teaching support staff must be sufficient and appropriate, in accordance with the characteristics of the course and the number of students. Therefore, they must have the experience and training appropriate to the objectives of the training activity, and be sufficient in number and dedication to cover the main academic tasks: delivery and evaluation of modules, student-teacher interaction, management of the training activity, etc.

The teaching staff must have methodological training in matters such as trainer training, didactic methodology, ICT resources applied to teaching, classroom management, etc., or teaching experience within the educational system, the business or associational world, internal training or training for employment aimed at the unemployed and active workers.

In the case of the non-face-to-face modality, the teaching staff must provide evidence of at least 30 hours of training or at least 60 hours of experience teaching this modality.

5.7.11 Material resources and services

The material resources and services available for the training activity must be adapted to the training objectives and the teaching/learning methods envisaged. The infrastructures available at the centre that provides the training and at the companies must consider the criteria of universal accessibility for people with disabilities and the gender perspective.

1. Adequacy and sufficiency of material resources
 - Minimum requirements for spaces, facilities and equipment;

- The number and type of classrooms needed to deliver the training will be considered. In addition, the furniture, material resources, machinery or tools that will allow students to develop their knowledge and skills must be indicated;
- Official requirements of the centres, meaning requirements by the administration of the country for an educational institution;
- Online training platform;
- The tele-training platform used to deliver training actions must have sufficient capacity to manage and guarantee student training, allowing interactivity and cooperative work, and must meet the technical requirements described in Annex 3 of the guide.

2. Adequacy of collaborating entities (practice centres)

The university must provide the signed collaboration agreements. It must be ensured that these agreements contain clauses that promote equal treatment and opportunities for women and men in the labor market, do not discriminate on the basis of cultural origin, race or sexual orientation and include protocols against harassment. In the case of external academic activities, the following aspects must be specified:

- calendar;
- conditions of use of the facilities;
- academic tutor and practice tutor (functions).

5.7.12 Internal quality assurance system

The institution must inform about its internal quality assurance system.

5.8 Evaluation results

5.8.1 Final report

For the preparation of the ex-ante accreditation report issued by the CEAs, these commissions will have as main evidence the evaluation report prepared by the ad hoc evaluation committee. The reports can be favourable or unfavourable, according to the criteria presented.

The report must contain at least the following information:

1. Description of the context of the title;
2. Description of the procedure used, including the experts involved;
3. Result of the ex-ante accreditation;
4. Evaluation result for each of the dimensions;
5. Improvement proposals (recommendations for follow-up actions).

AQU Catalunya sends the final report to the requesting entity.

5.8.2 Labels and certificates

When the training activity evaluated obtains a favourable ex ante accreditation report, AQU Catalunya will issue an unambiguously numbered quality seal. The stamp is valid for a maximum of six years.



Image of the label for accredited programs

5.8.3 Effects of the evaluation

The ex-ante accreditation of a PCD makes it possible to ensure that it meets the minimum requirements for the established level. This accreditation allows the process of registration of the training activity to begin in the Catalogue of training specialties of the SEPE⁴⁷.

Finally, all the assessment reports are published on the AQU Catalunya reporting portal (<http://estudis.aqu.cat/informes>) and, later, also in the Database on External Quality Assurance Results (DEQAR). When the assessed training activity obtains a favorable ex-ante accreditation report, AQU Catalunya will issue a quality label with a unique number valid for a maximum of six years. Once the program has been accredited, it must be reviewed at least every six years according to the same dimensions. Follow-up is mandatory but is an internal process for the institution.

5.9 Pilot program: assessment 2020

The entire process proposed by these guidelines were validated by assessing different programs in 2020. The evaluated programs focused on one area of knowledge, the digital sector.

Collaborating in the 2020 project to assess short learning programs were the Secretariat for Universities and Research, the Catalan Public Employment Service (SOC)⁴⁸ and the Consortium for Lifelong Learning in Catalonia⁴⁹. It also received support from the Barcelona Digital Talent⁵⁰ alliance, which includes, among others, Mobile World Capital - Barcelona⁵¹.

The project assessed seven short learning programs linked to the field of information and communication technologies taught in different Catalan universities.

Assessment reports on the design of short learning or micro-credential programs:

⁴⁷ Public Service of State Employment (*Servicio Público de Empleo Estatal*). <https://www.sepe.es/HomeSepe>

⁴⁸ <https://serveiocupacio.gencat.cat/es/inici>

⁴⁹ <https://conforcat.gencat.cat/es/inici>

⁵⁰ <https://barcelonadigitaltalent.com/en/>

⁵¹ <https://mobileworldcapital.com>

- Android mobile developer⁵²
- Cloud Deployer⁵³
- Consultor CRM⁵⁴
- Data Scientist⁵⁵
- Frontal developer⁵⁶
- Java Back-end web developer⁵⁷
- Open-Source Back end web developer⁵⁸

There were 9 universities belonging to the Catalan university system participating in this pilot. Each program in different institutions was the same in terms of contents but could be different in implementation and all were evaluated separately. This gave a total of 33 evaluated programs.

According to Marti Casadesus, Esther Huertas and Carme Edo⁵⁹, who analysed the results of the experience, the main conclusions of the pilot program are:

The main pros are:

- SLP are a very good tool for improving training with a very close link to a particular professional sector;
- Cooperation between professional bodies and universities is a strength of the model;
- Other sectors are showing interest in the model proposed;
- All participants consider very useful to be able to accredit the SLPs through an agency registered at the EQAR;
- The 8 proposed dimensions are well seen, specially the third, “Objective and learning outcomes”;
- The alignment with international standards of the model.

The main cons are:

- the excessive bureaucracy involved in an individual programme accreditation procedure;
- the method of access to SLPs is detected as a source of conflict. If, according to the standards designed, students are required to have met the lower level of education (for example, they cannot access an EQF level 7, or Master’s level programme if they do not have EQF level 6),

⁵² <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Android-mobile-developer>

⁵³ <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Cloud-Deployer>

⁵⁴ <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Consultor-CRM>

⁵⁵ <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Data-Scientist>

⁵⁶ <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Frontal-developer>

⁵⁷ <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Java-Back-end-web-developer>

⁵⁸ <https://www.aqu.cat/en/doc/Universitats/Titulacions/Verificacio/Open-Source-Back-end-web-developer>

⁵⁹ Casadesus, M., Huertas, E., & Edo, C. (2023). A European perspective on accrediting short learning programs: First experiences are out. *Industry and Higher Education*, 37(3), 433–442.

<https://doi.org/10.1177/0950422221132129>

this is a constraint that hinders access by professionals in the sector in need of reskilling and who do not hold prior university degrees;

- There are also discrepancies in reference to standard 6 “Teaching and supporting staff”, specifically in the definition of the academic-professional balance in the study programmes provided. Thus, while universities have organised programmes with a strong academic emphasis, taught mainly by full-time university doctor lecturers and researchers, the professional sector calls for greater involvement from professionals in the sector.

6 Proposal for a best MCs accreditation model

The main goal should be establishing an effective quality assurance framework for micro-credentials which includes the development of policies and procedures that address key aspects of micro-credentials. Key aspects of a micro-credential should comply with procedures, strategies, and policies, which build a framework for performing micro-credentialing in high quality:

- Design and development of micro-credentials aligned with Council recommendation and national policies;
- Consistent and fair assessment methods and evaluation criteria developed to ensure the quality of learning outcomes;
- Feedback mechanisms – regular review and revision of micro-credentials to ensure that it is up to date;
- Fair recognition with clear procedures – relying on institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention and in cooperation with other institutions, quality assurance agencies;
- Accreditation policies;
- Relevant stakeholder engagement at all stages of developing micro-credentials;
- Ongoing monitoring of compliance with quality assurance regulations and national and international guidelines and regulations;
- Continuous improvement by involving all stakeholders, including industry partners, academia and learners, as they have to be engaged in development, implementation and evaluation process of micro-credentialing;
- Digitalization = easy access;
- Transparency – all information about micro-credentials is easily accessible and visible to the learner.

The guidelines proposed by Council recommendation are acceptable and might be tuned with subsequent experiences that will be developed. Although the so far experience with micro-credentials is short, the following challenges must be addressed for the sustainability and development of the micro-credentials⁶⁰:

- The need to devise a more scalable procedure that allows for the accreditation of programmes in a more aggregated way, avoiding the external assessment of each programme individually;

⁶⁰ Casadesus, M., Huertas, E., & Edo, C. (2023). A European perspective on accrediting short learning programs: First experiences are out. *Industry and Higher Education*, 37(3), 433–442. <https://doi.org/10.1177/09504222221132129>

- There is a need to put in place institutional assessment systems, focused on the internal quality assurance systems of the institutions to avoid overwhelming assessment agencies;
- The challenge of adapting criteria and standards initially designed for highly regulated programmes and full-time students to new programmes that focus on employability and on students with a completely different profile. Thus, two dimensions are identified with associated problems: firstly, the conditions for access to MCs at a given EQF level for persons who may not have the necessary academic requirements for admission to the university, and, secondly, the balance between academics and professionals who must organise these MCs and allow for academic foundations in parallel to highly industry-oriented training;
- The need to design systems where other higher education providers already operating on the market, and not necessarily universities, may also participate. Their clearly different characteristics should not prevent them from also being able to secure accreditation for their programmes according to the same quality criteria.