



National framework for micro-credentials (MC) (recommendations)

Montenegro

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List of abbreviations

A3ES - The Agency for Assessment and Accreditation of Higher Education
ACQAHÉ - The Agency for Control and Quality Assurance of Higher Education
AZVO - The Agency for Science in Higher Education
BAQUAL - Better academic qualifications through quality assurance
EACEA - The European Union or the European Education and Culture Executive Agency
ECTS - European Credit Transfer and Accumulation System
EHEA - European Higher Education Area
ENQA - The European Association for Quality Assurance in Higher Education
EQF - European Qualifications Framework
ESG - Standards and guidelines for quality assurance in the European Higher Education Area
HE - Higher Education
HEI - Higher Education Institutions
IMINQA - Implementation and Innovation in quality assurance through peer learning
MC - Micro-credentials
MICROBOL - Micro-credentials linked to the Bologna Key Commitments
MOOC - Massive Open Online Courses
MQF - Montenegrin Qualification Framework
MŠVaŠ - The Ministry of Education, Science, Research and Sport, Slovakia
NQF - National Qualifications Framework
QA - Quality Assurance
QC - Qualifications Council
QF-EHEA - Qualifications Framework for the European Higher Education Area

Introduction

The document "National framework for micro-credentials (MC) - recommendations" was created as a result of the participation of the Agency for Control and Quality Assurance of Higher Education in the framework of the Erasmus+ project "Micro-credentials for teacher professional development" (MOOC-based micro-credentials for teacher professional development - CRED4TEACH).

The overarching goal of the project is to enhance teacher professional development in Albania, Montenegro, and Ukraine by introducing and establishing mechanisms for creating and recognizing micro-credentials using MOOC-based pedagogies. The project aims to position micro-credentials as viable alternatives to formal continuing professional development courses, contributing to the advancement of credit-based learning pathways within the continuous professional development of teachers.

Through the project, training was organized for representatives of partner institutions on the topic "Professional development of teachers in Ukraine, Montenegro and Albania: conceptualization and accreditation of micro-credentials". The training was held at the beginning of February 2024 in Lisbon, organized by Universidade Aberta. The aim of the training was to define short programs for the needs of professional development of teachers. Different solutions were presented over three days, from those that focused on teachers at lower levels of education to those that focused on programs for teachers in the field of higher education. Examples of the Portuguese system of quality assurance in higher education were presented, as well as examples of the development of micro-credentials in partner countries. Through the practical part of the training, the participants (representatives of agencies and institutions of higher education) defined key challenges as well as future activities in the process of realizing project activities - creating recommendations for creating national and institutional frameworks for the development of micro-credentials for the professional development of teachers.

The current legal framework in Montenegro does not recognize micro-credentials as a form of short programs/courses, but recognizes special training programs in the field of lifelong learning that can be provided by institutions of higher education. That is why the this document focuses primarily on the use of existing legal framework, since the introduction, development and implementation of the new law (or even creating and adopting the amendments on the law as well as accompanying laws) takes longer time to conduct. Although, this framework with the recommendations towards the introduction and recognition of the micro-credentials might be the first step in introducing the need for such a changes.

According to the Law on higher education, the Agency for control and quality assurance in charge of providing quality assurance at the level of higher education. Thus, all kind of programs provided by higher education institutions which result in the acquisition of appropriate qualifications in the field of higher education are in the competence of the

evaluation procedures implemented by the Agency. For that reason, this recommendations for the national framework cover only those short programs/courses (micro-credentials) that are offered by the higher education institutions in the field of higher education.

To be more specific, this framework focuses on the procedures and models of short programs/courses (micro-credentials) for improving the qualifications of teachers in the field of higher education, provided by higher education institutions.

In the process of creating this document, we have followed the trends in the European area of higher education with special reference to the recommendations on the topic of micro-credentials given by ENQA and other international organizations, as well as to the development of recommendations for the development of short courses aimed at the professional development of teachers, which is also the focus of the CRED4TEACH project.

The framework contains the suggested definition of micro-credentials, based on different approaches and definitions of the term within the European Higher Education Area. Depending on the target group for which the micro-credential programs are intended, institutions can choose between two approaches - if the target group are students, then micro-credentials can be introduced by supplementing already existing study programs without conducting the accreditation procedure by the Agency (if these changes are not greater than 30ECTS on the level of the study program). If the target group are graduate students, professors or a third persons in the field of education (teachers at preschool, primary and secondary education levels), the institution should accredit such short programs.

The higher education institutions in Montenegro that are partners in the project, University of Montenegro and University of Mediterranean, were included in all phases of preparation of this document and contributed to its creation from the perspective of the institutions that will be creators of MOOC-based micro-credentials for the purposes of the project.

1. Micro-credentials in the European Higher Education System

Micro-credentials are not a new topic. In the past few years, the term micro-credentials has been used very often in the field of higher education (but also in other fields and types of informal learning) from the perspective of the growing need to create short programs that will improve students' skills, i.e. build on acquired skills through a formal form of education. Thereby, the aim was to prepare students for the workplace and the ever-increasing changes and the need for quick adaptation to these changes, as well as from the aspect of creating policies, creating flexible learning paths, that is, creating a stronger connection and cooperation between the university and the labour market.

With the increasing use of the term micro-credentials, there is also a need for a clear definition of this term, characterization and the general issue of arranging and creating appropriate regulations for micro-credentials. All these initiatives are motivated, above all, by the need for quick and flexible adaptation to the demands of the labour market.

Many international, regional and national initiatives, policy makers and higher education institutions have dealt with the issue of defining micro-credentials and the need for a clear regulatory framework that would enable the flexible creation, confirmation and recognition of micro-credentials not only within the national system of higher education but also a wider. Additionally, in the process of defining micro-credentials, one of the key issues is the quality assurance (QA) of this type of program, which results in easier recognition of micro-credentials in the field of higher education as well as on the labour market.

The relevance of quality assurance is justified by UNESCO's definition of micro-credentials, which states that micro-credentials should meet "standards required by relevant quality assurance" (UNESCO, 2022).

The topic of micro-credentials was also present in the project Microbol (Micro-credentials linked to the Bologna Key Commitments), which aimed to analyse the role of micro-credentials in the field of higher education and the way in which they are connected to the key commitments arising from the Bologna process. A large number of countries participated in the project, and the specific goal was to determine whether the existing Bologna tools can be applied to micro-credentials or whether their purpose needs to be adapted.

The definition of micro-credentials that was created through the Microbol project provides a comprehensive overview of what all micro-credentials are, what they provide, what is their connection with the existing qualification frameworks in the European Higher Education Area, what ensures quality, etc. (Microbol, 2020):

“A micro-credential is a small volume of learning certified by a credential. In the EHEA context, it can be offered by HEIs or recognised by them using recognition procedures in line with the Lisbon Recognition Convention or recognition of prior learning, where applicable.

A micro-credential is designed to provide the learner with specific knowledge, skills or competences that respond to societal, personal, cultural or labour market needs. Micro-credentials have explicitly defined learning outcomes at a QF-EHEA/NQF level, an indication of associated workload in ECTS credits, assessment methods and criteria, and are subject to QA in line with the ESG”.

The Microbol project also states the principles on which micro-credential quality assurance should be based, namely:

- Micro-credential quality assurance is an obligation of higher education institutions and is implemented through their internal quality assurance processes;
- External quality assurance should be based on institutional evaluation and application of ESG;
- Students should be involved in the quality assurance process;
- Policies and practices in the quality assurance process for micro-credentials should be transparent;
- Official registers of reliable service providers should be developed at the regional and national level;
- Micro-credentials should be evaluated in accordance with the principles and procedures of the Lisbon Convention on Recognition, primarily through recognition agreements between educational institutions at the regional and inter-regional level. (Microbol, 2021).

In the document "Towards a common definition of micro-credentials", UNESCO proposes the following definition of micro-credentials (UNESCO, 2022):

“A micro-credential:

- *Is a record of focused learning achievement verifying what the learner knows, understands or can do.*
- *Includes assessment based on clearly defined standards and is awarded by a trusted provider.*
- *Has standalone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning.*
- *Meets the standards required by relevant quality assurance.”*

The European Commission provides the following definition of micro-credentials (European Commission, 2021):

“A micro-credential is the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes have been assessed against transparent and clearly defined standards. Courses leading to micro-credentials are designed to provide

the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs. Micro-credentials are owned by the learner, can be shared and are portable. They may be standalone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity."

Although different initiatives offer different definitions of micro-credentials, they all "agree" in one thing - micro-credentials are programs that are designed to offer short, focused and directly applicable learning opportunities for personal development and created based on the needs of the labour market.

Bearing in mind previously mentioned definitions and the nature of the micro-credentials, the following definition provides a comprehensive approach towards understanding this topic and should be used to define micro-credentials within Montenegrin higher education system:

"Micro-credentials are programs that are designed to offer short, focused and directly applicable learning opportunities for personal development and created based on the needs of the labour market. A micro-credentials should be designed to provide learners with specific knowledge, skills, or competencies that meet societal, personal, cultural, or labor market demands. They have explicitly defined learning outcomes at a particular NQF level, indicated the associated workload in ECTS credits, specified assessment methods and criteria, and are subject to quality assurance according to the ESG."

At the same time it reflects the possibility of building on existing regulated special programs of specialisation in the area of higher education for the purpose of lifelong learning within the Montenegrin Law on Higher Education.

1.1. Challenges for Quality Assurance agencies

The Law on Higher Education (Article 13a) in Montenegro stipulates that quality assurance in higher education is performed by the Agency for Control and Quality Assurance of Higher Education in accordance with European standards and guidelines.

The European Association for Quality Assurance in Higher Education (ENQA) encourages agencies dealing with quality assurance in higher education to direct innovations in the field of quality assurance and to ensure that quality assurance processes are in line with appropriate development initiatives in the field of higher education.

There is an ongoing debate about how to best assure the quality of micro-credentials, whether through external mechanisms similar to traditional study programs or through internal institutional mechanisms evaluated by agencies. Experiences across European higher education vary, with some agencies preferring to adapt existing quality assurance (QA) systems rather than creating new ones specifically for micro-credentials.

The ENQA working group (2023) found that the chosen QA approach depends on the maturity of the higher education system, national regulations, and institutional

experiences. A clear and broad approach is needed to guide agencies in deciding on the method and scope of QA processes for micro-credentials.

Many European countries lack specific frameworks for micro-credentials, highlighting the need for developing concrete QA standards. A structured approach is necessary to address differences in student career guidance, learning support information, internal QA processes, and micro-credential outcomes.

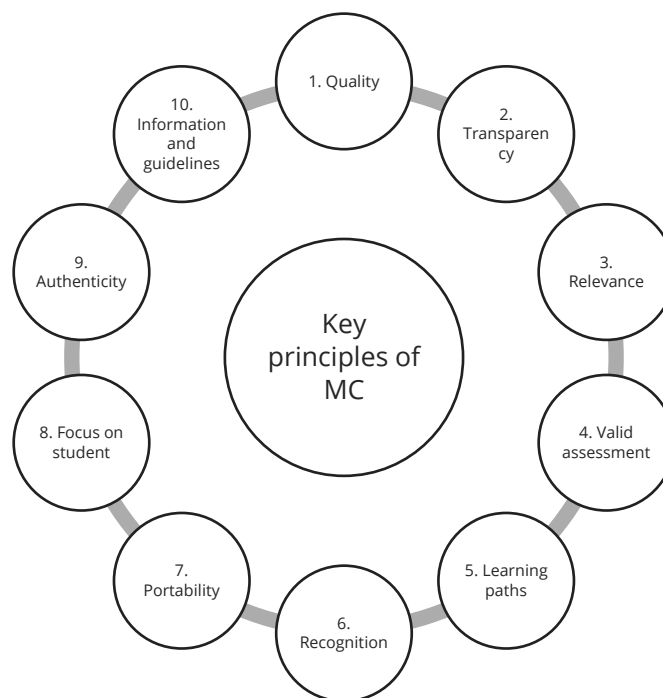
Similar to other Agencies in the EHEA, Montenegro faces different challenges regarding micro-credentials. The term “micro-credential” is not recognised through any law that regulates the higher education system. Because of that, micro-credentials are not recognised within the national frameworks, and that all together directly affect the lack of understanding within the sector. To overcome these obstacles, it is necessary to introduce micro-credentials within the legislative framework on the national level, in order to create a comprehensive framework for all stakeholders in the system. With the introduction of micro-credentials within the legislative framework, the prerequisites for creation of comprehensive and flexible QA framework which is essential for integrating micro-credentials into formal education systems while adhering to European standards and guidelines will be created. This integration should strategically respond to labor market and societal demands.

Additionally, based on the maturity level of the Montenegrin quality assurance system but also on the level and scope of the institutional internal quality systems, the best approach for quality assurance of the micro-credentials should be the implementation of the external quality system. This means that, except for the programmes that could be introduced through existing study programs all other programs would have to go through the accreditation procedure carried out by the Agency.

At this moment it is clear that this can be an additional burden for institutions but also for the Agency. However, until reaching the appropriate level of quality system maturity, it is necessary to take more detailed approach.

1.2. Key principles of micro-credentials

In the process of designing micro-credentials, the European Commission in its document "A European Approach to micro-credentials" (European Commission, 2021) lists 10 principles in the form of recommendations that describe the very nature of micro-credentials and which are applicable in any field or sector (Graph 1).



Graph 1. Key principles of micro-credentials (Source: *A European Approach to micro-credentials*, European Commission, 2021)

The aim of the recommendations is to provide support for the development, implementation and recognition of micro-credentials in institutions, companies, sectors and generally in higher education systems.

Bearing this in mind, higher education institutions should, in the process of creating micro-credentials, take into consideration all 10 recommendations recognised by the European Commission:

- Quality - micro-credentials should be subject to internal and external quality assurance. The quality assurance process should be flexible, adapted to national regulations, clearly documented, accessible and able to meet the needs of students and stakeholders.
- Transparency - micro-credentials should be measurable, comparable and understandable with clear information regarding learning outcomes, workload, content, level and learning offer.
- Relevance - micro-credentials should be designed as different, targeted learning outcomes. The learning opportunities they provide must be updated as necessary to meet identified learning needs.
- Valid assessment - learning outcomes are assessed against transparent standards.
- Learning paths - micro-credentials aim to support flexible learning paths, including the ability to stack, verify and recognize micro-credentials from different systems.
- Recognition - should enable the comparison of micro-credentials throughout the European system of higher education.

- Portability - the owners of micro-credentials are learners. Micro-credentials can be saved and shared by students. The data storage infrastructure is based on open standards and data models, which ensures interoperability and seamless data exchange, but also enables simple verification of data authenticity.
- Focus on the student - micro-credentials are created to meet the needs of target groups of students.
- Authenticity - micro-credentials contain enough information to verify the authenticity of the student, the legal identity of the provider of the micro-credential as well as the date and place of issuance of the micro-credential.
- Information and guidelines - information and advice regarding micro-credentials should be an integral part of guidelines for lifelong learning and should be created to cover the widest groups of participants, respecting the principles of inclusivity, availability of education, training and career choice.

It is important to highlight that despite the fact that the term micro-credentials has not yet been introduced, these principles are already applicable in the process of creating special training programs in the field of lifelong learning that can be provided by institutions of higher education.

2. Regulatory framework for QA in HE in Montenegro

As stated, quality assurance in higher education in Montenegro is regulated by the Law on Higher Education and by-laws. The Law on Higher Education stipulates that ensuring and improving the quality of higher education is achieved through accreditation, self-evaluation and re-accreditation (Article 7). Article 13a of the same law states that quality assurance in higher education is performed by the Agency for Control and Quality Assurance of Higher Education, in accordance with the European standards and guidelines (ESG).

Internal quality assurance is provided by institutions externally evaluated by the Agency. Two main procedures of external evaluation are in force:

- Accreditation of study programs and
- Reaccreditation of higher education institutions

In addition, the Law on Higher Education (Article 43) stipulates that institutions have the possibility to make changes to the study program without conducting the accreditation procedure if these changes do not exceed 30 ECTS credits:

“During the validity period of accreditation or reaccreditation, a licensed institution can make alterations in study a program at undergraduate level up to maximum 30 ECTS credits without undergoing accreditation and licensing procedure.”

Although the Law and by-laws do not define and recognize micro-credentials, according to the Law on Higher Education (Article 97) the Agency for Control and Quality Assurance of Higher Education is also responsible for the accreditation of special programs of

specialisation in the area of higher education for the purpose of lifelong learning. Article 97 states the following:

„Institutions may carry out special programs of specialisation in the area of higher education for the purpose of lifelong learning with the aim of acquiring professional qualification or a part of professional qualification or other qualification, in compliance with law and special regulations of an institution.

Special program of specialisation referred to in paragraph 1 of this Article shall not be considered a study program.

Programs referred to in paragraph 1 of this Article shall be accredited by the Agency, except in case of programs adopted by competent authorities in compliance with law, and can be carried out at licensed institutions, in compliance with a special law.

Institution referred to in paragraph 1 of this Article, shall issue a credential to a person completing the specialisation program.

Assessment of knowledge, skills and competences of persons completing the special programs shall be done in compliance with special act of institution.”

Bearing in mind that the Agency accredits lifelong learning programs, as stated in the Law, for the purposes of accreditation of this type of program, the following by-laws were adopted:

- Rules on the accreditation procedure of lifelong learning programs i
- Application form for accreditation of lifelong learning programs

The rules on the accreditation procedure of lifelong learning programs (2019) regulate the procedure, method and criteria for accreditation of lifelong learning programs, which are implemented at licensed institutions of higher education. Also, the rules state that "more detailed conditions and criteria, method and procedure for enrolment in lifelong learning programs are prescribed by the institution that implements such programs in accordance with its special act."

Here is important to highlight that Montenegro, as already stated, has developed and regulated accreditation of special programs of specialisation in the area of higher education for the purpose of lifelong learning, which may also be applicable when it comes to micro-credential programs, which essentially represent a type of lifelong learning program.

This is important because the process of introducing micro-credentials as well as quality assurance of these types of programs is developed to some extent, and it will take less time for their full implementation.

Even now, the higher education institutions can accredit special programs of specialisation in the area of higher education, which are still not called micro-credentials but have all characteristics of these types of programs, as defined within EHAE.

Some of the activities that need to be carried out in order to comprehensively define and fully recognize micro-credentials are:

- Introducing the term micro-credential with the acceptance of its definition within the regulatory framework;
- Define the number of ECTS credits that would be obtained by completing the micro-credential (1-5 ECTS);
- Define the level within the National Qualifications Framework (considering that this framework covers only micro-credentials implemented at the higher education level, they should be levelled at Level 6 – bachelor, Level 7 – master studies and Level 8 – doctoral studies);
- Institutions must have clear strategic objectives regarding the development and implementation of micro-credentials, as well as developed institutional frameworks for this type of programs. With these they should regulate the organization, financing, implementation of micro-credentials, registration, evaluation of work, issuing of documents, awarding of certificates to participants as well as other issues of importance for the implementation of higher education through micro-credential programs.

2.1. Improving the qualifications of teachers in the field of higher education

Standard 1.5. of the European standards and guidelines states that "*Institutions of higher education must ensure the competence of their teachers and apply fair and transparent processes of employment and development of employees*". This means that the strengthening of competences and the adoption of new skills and knowledge that are characteristic of modern times should be the focus of higher education institutions so that the teaching staff can meet the needs of an increasingly demanding and diverse student population.

The need to strengthen teacher competencies at higher education institutions is recognised by the Agency through different project activities. The project "*Integration of key competences in the Montenegrin education system*" resulted with a development of a supplementary standard (standard 10 - Accreditation of study programs for initial teacher education) for the accreditation of the study program for initial teacher education. Also, the Agency participated in the project Better academic qualifications through quality assurance (BAQUAL), which aimed to identify a common standard in evaluation procedures and encourage the application of the qualifications framework in internal and external quality assurance procedures in Croatia, Montenegro and North Macedonia. The task of the project team was to develop a new qualification standard - a professional

qualification, by designing a lifelong learning program aimed at improving teacher competencies in the field of higher education.

The analysis that was carried out through the aforementioned project showed that most university professors during their formal education in Montenegro did not have the opportunity to acquire the elementary didactic skills that are necessary for the implementation of the teaching process. In addition, curricula and programs at higher education institutions in a large number of cases do not provide the opportunity to study the teaching methodology of appropriate subjects, which represents another of the key skills and needs of the teaching process.

Recognizing the need to develop and provide micro-credentials to strengthen teacher competencies, which is also the goal of the Cred4Teach project, institutions can develop new short training programs (micro-credentials) in various areas of pedagogical work.

By harmonizing the internal procedures and rules of institutions with the Rules on the accreditation process of lifelong learning programs, the quality of the micro-credentials can be assured. Also, the application of these Rules ensures alignment with ESG standards, which establishes the quality mechanism of the European qualification framework.

In order to accredit this type of program, the institution is legally obliged to possess a developed qualification for the field in which will be established a micro-credential (special education program in the field of lifelong learning) . The Agency provides support through ensuring the quality of this type of program, in accordance with the Law and by-laws.

Micro-credentials for strengthening teacher competencies (as a form of special programs in the field of higher education for the needs of lifelong learning) as the goal of the Cred4Teach project, are the responsibility of higher education institutions. To establish quality assurance, the following participants are targeted through current legal regulations (Graph 2):



Graph 2. Participants in the process of developing of micro-credentials

1. *Higher Education Institutions (or another legal entity through HEI)* are responsible for developing their institutional framework, for establishing appropriate internal quality assurance system and developing the micro-credentials.
2. *Qualifications Council* is the main strategic body for the development of the National Qualifications Framework, which monitors the development of the Qualifications Framework as a whole. This body provides the opinion about the initiative for the qualification development submitted by the institution.
3. *Agency for Control and Quality Assurance of Higher Education* carries out the process of accreditation of study programs and special training programs in the field of higher education for the needs of lifelong learning (micro-credentials).

2.2. The process of accreditation of micro-credentials

In the process of designing and implementing micro-credentials aimed at the professional development of teachers (as special training programs in the field of higher education for the needs of lifelong learning) higher education institutions, in accordance with national regulations, can choose between two models of development depending on the target group for which this type of program is intended (Table 1).

Model 1 refers to the micro-credentials for improving the qualifications of teachers in the field of higher education that are aimed for **students** and they can be developed and introduced through supplement of the accredited study programs. This can be done without conducting the accreditation procedure, in case when the change in the study program is not greater than 30 ECTS (according to the Law).

Model 2 refers to the micro-credentials (short programs/courses) for improving the qualifications of teachers in the field of higher education that are aimed for **teaching assistants, professors and third parties** (teachers at preschool, primary and secondary education levels). In this model, it is necessary that the institution submit the initiative for the developing of the qualification, and then to go through the accreditation process as follows:

1. An initiative for the development of a qualification can be submitted by a higher education institution or another legal entity through a higher education institution. The institution submits the initiative to the competent sector council, which can accept the initiative or return it for amendment. After the acceptance of the initiative by the sector council, the Council for Qualifications determines the initiative as a proposal for the development of the qualification and submits it to the institution that submitted the initiative, for the development of the qualification.

2. The program thus prepared, with the confirmation of the National Council for Qualifications, together with the Request for Accreditation and the report on the fulfilment of standards, is submitted to the Agency for Control and Quality Assurance of Higher Education for accreditation.

When preparing the elaborate for the micro-credential, institutions should pay special attention to:

- *Quality assurance policies* – Higher education institutions must have a developed institutional framework ensuring smooth development processes for micro-credentials. Additionally, as one of the goals of developing micro-credentials is to respond to growing labour market demands, institutions must have clear strategic commitments and defined objectives regarding the development and implementation of micro-credentials;
- *Program structure and implementation concept* – Institutions must have clear procedures and processes for creating and approving micro-credentials, which should be designed to meet set objectives, clearly defined learning outcomes, and a clearly described type of qualification obtained upon program completion. Program objectives must align with the institution's goals. Additionally, institutions must have established regulations related to enrolment, progression, participant obligations, assessment, recognition, and certification.
- *Resources* – Higher education institutions must ensure competent and professional teaching staff capable of achieving expected learning outcomes within the planned program completion time. Furthermore, the institution must provide physical, technical, and material resources to facilitate the smooth implementation of the program depending on the mode of delivery of the micro-credential (physical, online, blended).
- *Continuous monitoring and revision* – As micro-credentials arise in response to increasing labour market needs for specialized skills and are characterized by flexibility in design, development, and implementation. Thus, continuous and periodic revision of these programs is necessary to achieve strategic capacity-building goals effectively.

Related to the previous, the elaborate for micro-credential (as a special training program in the field of higher education for the needs of lifelong learning) should contain the following:

- Title of the program;
- Program description;
- Objectives of the program;
- Name and surname of the program manager;
- Short professional biography of the program manager;
- List of academic staff implementing the program;

- Short professional biographies of the academic staff implementing the program;
 - Method of teaching or program activities;
 - Physical and material prerequisites for the execution of the program;
 - Prerequisites for enrolling in the program;
 - Enrolment and program attendance costs;
 - Number of expected participants;
 - Duration of the program according to subjects, that is, activities with information sheets for each, that is, each one individually (work plan);
 - Form of monitoring the quality of teaching (survey of participants or some other way);
 - Obligations of program participants;
 - The number of ECTS points earned after the end of the program, if the program is carried out with the aim of obtaining ECTS points;
 - Learning outcomes;
 - The manner of conducting the knowledge test or exam, if they are provided for in the program;
 - Type and content of the document obtained upon completion of the program.
3. The Agency appoints a coordinator (an employee from the Agency) to check the formal fulfilment of the request.
 4. If the request is irregular, after receiving the notification, the institution is obliged to eliminate the deficiencies.
 5. If the institution eliminates the identified deficiencies within the deadline, it shall be considered that the request has been correct from the day of submission. If the institution does not eliminate the identified deficiencies within the deadline, the Agency will issue a decision rejecting the request. At the request of the institution, the deadline may be extended by a maximum of 15 days, after which it is considered, in case of failure to submit a proper request, that the institution has given up on the same.
 6. The Agency appoints a review panel that should evaluate the submission of the Request. The review panel consists of at least three members, who are chosen from the list of experts by the Agency with the task of drawing up and submitting to the coordinator the Report on the accreditation of the micro-credential (special training program).
 7. Based on the proposal of the review panel, the Agency makes a decision on the accreditation of a micro-credential (special training program) no later than three months from the date of submission of the formal application, on the basis of which it issues a certificate or a decision rejecting the application for accreditation.



8. The Agency delivers the decision or resolution to the institution with the Report on the accreditation of the micro-credential (special training program).
9. On the basis of a positive decision on the accreditation, the Agency issues an accreditation certificate to the institution for a maximum period of five years.
10. Upon completion of the accreditation process of the program for obtaining a qualification, in case of a positive decision, i.e. accreditation approval, the higher education institution, on the basis of the accredited program, prepares a qualification standard and submits the prepared standard to the Qualifications Council for confirmation, adoption and registration in the register of the National Framework of Qualifications.

Table 1. Models of development of short courses (micro-credentials) for the professional development of teachers at Montenegrin higher education institutions

| Target group | Type of the program | Way of implementation | Is program accreditation required? |
|--|---|--|--|
| Students | Compulsory or elective subject within the study program | By introducing a compulsory or elective subject within the study program, upon completion of which the student acquires teaching competencies and professional (subject) competencies that are also acquired through practical work in primary and secondary schools. | <p>If the changes within the study program are less than 30 ECTS credits, the institution can introduce the program through its internal procedures for adoption at the teaching councils.</p> <p>If the changes within the study program are greater than 30 ECTS credits, then a request for accreditation of the entire study program is submitted.</p> |
| Teaching assistants at the higher education institutions | Special training programs in the field of higher education for the needs of lifelong learning (micro-credentials) | <p>Creation of a special training program in the field of lifelong learning (micro-credentials) in order to improve teaching competencies for future teachers.</p> <p>Given that teaching assistants are graduate students, this program cannot be an integral part of the study program, but represents a special training program in the field of lifelong learning.</p> | Yes |

| | | | |
|--|--|--|------------|
| <p>Professors at the higher education institutions</p> | <p>Special training programs in the field of higher education for the needs of lifelong learning (micro-credentials)</p> | <p>In the process of election to a higher academic position, scientific, pedagogical and professional competences are assessed.</p> <p>Scientific competences are evaluated by applying the Criteria for selection into academic titles, which are adopted at the national level and are applied at all institutions of higher education in Montenegro.</p> <p>Pedagogical and professional competencies are prescribed by interim acts at institutions of higher education.</p> <p>Institutions of higher education can impose an obligation on teachers to have completed a micro-credential in the field of strengthening teacher competences when being elected to a higher academic position.</p> | <p>Yes</p> |
| <p>Third parties (teachers at preschool, primary and secondary education levels)</p> | <p>Special training programs in the field of higher education for the needs of lifelong learning (micro-credentials)</p> | <p>Special training program in the field of higher education for the purposes of lifelong learning (micro-credentials) for the parties outside the system of higher education in Montenegro (teachers at all levels of education).</p> | <p>Yes</p> |

The scope of micro-credentials depends primarily on the target group, the thematic coverage as well as the method of implementation. As indicated in Table 1, short programs aimed at strengthening teacher competencies can be implemented through existing study programs or accredited as special training programs in the field of higher education for the needs of lifelong learning (micro-credentials). In this sense, the following target groups have been identified:

1. **Students** - it is possible to strengthen curricula by introducing new compulsory or elective courses that will help students develop pedagogical, didactic and methodological skills. By developing such programs, the existing study program would be supplemented by the introduction of a compulsory or optional subject, where the institution would have to go through the process of accreditation of the new study program only if the changes are greater than 30 ECTS. Otherwise, through internal mechanisms at higher education institutions, all changes of less than 30 ECTS credits can be implemented. Also, if students complete a micro-credential related to the strengthening of teaching competencies, institutions should consider the possibility of recognizing such a micro-credential if it is a question of studies which, upon completion, acquire teaching competencies.
2. **Teaching assistants** - in this group are graduated students, so micro-credentials in the form of compulsory or elective subjects in study programs are not applicable. Especially if it is a question of study programs that do not acquire teaching competencies. For this target group, the institution can develop and accredit a special training program in the field of higher education for the needs of lifelong learning (micro-credential), upon completion of which a professional, part-professional or other qualification would be obtained in accordance with the Law on Higher Education. Bearing in mind that in this group are graduated students who enter classrooms after completing their studies and who represent potential future professors, higher education institutions should enable all associates to complete micro-credentials aimed at strengthening teachers' competencies that would be evaluated during selection for further engagement at a higher education institution.
3. **Professors at the higher education institutions** - the completion of special training program in the field of higher education for the needs of lifelong learning (micro-credentials) to strengthen teaching competencies can be an obligation for all teachers at institutions of higher education in the process of being elected to a higher academic title. Institutions can prescribe such measures in their internal rules, where this type of program would be especially valued within the framework of pedagogical or professional work. So in this case too, the institution can develop special training programs in the field of higher education for the purposes of lifelong learning (micro-credentials) which, in accordance with the Law on Higher Education and by-laws, will undergo the accreditation process by the Agency.
4. **Third parties (teachers at preschool, primary and secondary education levels)** - higher education institutions can develop special training programs in the field of higher education for the purposes of lifelong learning (micro-credentials) for the needs of teachers at other levels of education. In addition to the



accreditation procedure that needs to be carried out in this case, it is necessary to ensure the recognition and acceptance of a professional qualification, a part of a professional qualification or another qualification on the labour market that would be acquired upon completion of such a program.

Conclusion

There are numerous challenges that higher education systems face when it comes to micro-qualifications. These challenges can be from the very way of definition, through the identification of service providers, but also the participants themselves and the target groups for which micro-qualifications are developed.

In addition, national regulations regulate this area differently, so the same solution is not applicable in every system of higher education. That is why the recommendations of various initiatives and international organizations can help in the process of defining and creating recommendations for the development of a framework for micro-credentials in a higher education system.

In Montenegro, the Law on Higher Education does not recognize micro-credentials, but recognises special training program in the field of higher education for the purposes of lifelong learning. Through the development of special training program in the field of higher education for the purposes of lifelong learning, institutions are able to develop short programs (micro-credentials) and thus respond to the growing demands of the labour market and the growing needs of students who want to acquire and strengthen their skills and competencies in modern society.

The results of the research conducted through the BAQUAL project also show that it is necessary to strengthen teacher competencies. The research showed that only those study programs whose exit qualification is a teacher, and the subject teacher in primary and secondary schools, have to some extent covered subjects that acquire teaching competencies. The analysis also showed that the majority of university professors during their formal education did not have the opportunity to acquire elementary pedagogical-didactic skills necessary for the realization of the teaching process, that is, that the curricula do not provide the opportunity to study the teaching methodology of the corresponding subjects.

It is this target group (teaching assistants and professors at higher education institutions and then at all levels of education) that should be the focus of the development of micro-credentials for acquiring and strengthening teaching competencies.

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Project description

The CRED4TEACH project addresses the needs of higher education institutions (HEIs) and educational decision-makers in Albania, Montenegro, and Ukraine to provide high-quality, inclusive, flexible, and competence-based training for in-service teachers across various educational sectors.

The overarching goal of the project is to enhance teacher professional development in these countries by introducing and establishing mechanisms for creating and recognizing micro-credentials using MOOC-based pedagogies. The project aims to position micro-credentials as viable alternatives to formal continuing professional development courses, contributing to the advancement of credit-based learning pathways within the continuous professional development of teachers.

The specific objectives of the project include:

- Enhancing the skills and competencies of academic and administrative staff at participating institutions in developing, delivering, assessing, recognizing, and ensuring the transferability of MOOC-based micro-credentials;
- Developing, testing, and establishing national and institutional frameworks for creating, assessing, issuing, and recognizing micro-credentials in Ukraine, Albania, and Montenegro;
- Creating and delivering pilot MOOC-based micro-credentials tailored to in-service teachers across various sectors;
- Promoting the broader adoption of micro-credentials for professional development among teachers and other target groups, thereby advancing the lifelong learning dimension in higher education.

The CRED4TEACH partnership comprises 15 institutions from seven countries: Albania, Estonia, Germany, Montenegro, Portugal, Türkiye, and Ukraine. Learn more about CRED4TEACH at www.cred4teach.eu.