



LEPL - National Center for Educational Quality  
Enhancement

**Thematic Analysis:  
Analysis of the Best International Practices and  
National Legal Framework for the Introduction  
of Micro-Credentials in the Higher Education  
System of Georgia**

2023

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## Introduction

Worldwide, the implementation of micro-credentials in higher education is still in its initial stage, however there is growing interest in developing micro-credentials' approaches to support lifelong learning.

Within Europe, a growing number of people need to update and improve their knowledge, skills and competences to fill the gap between their formal education and training and the needs of a fast-changing society and labour market. The recovery from the COVID-19 pandemic and the digital and green transitions have accelerated the pace of change in how we live, learn and work. This process has also highlighted the need for people to be better equipped to deal with current and future challenges.

Today, one of the main challenges of the European employment market is the mismatch of employees' competencies with the requirements of the EU employment market. There are more and more cases when employees are unprepared for changes related to the organization of work, while with the transition to the principles of the digital and green economy, there is an increasing demand for a workforce with developed competencies, who are retrained and adaptable.

Recommendation N 2023/0100 (NLE) of the Council of Europe of 25 May 2022 offers guidance and guidelines to Member States for employment policies, according to which it is necessary to continuously improve the skills of the workforce and train them so that employees meet the requirements defined for their employment position or have the opportunity for upskilling and employment in other developing sectors. People need access to quality teaching and learning provided in different ways and settings, to develop their personal, social, cultural and professional knowledge, skills and competences.

The European Commission's political agenda has made it urgent to remove barriers to learning in the education system and improve access to quality education. Accordingly, the recommendation of the European Commission aims to initiate the development of micro-credentials taking into account the common European approaches.

In accordance with the above, there is a demand for education systems to become more flexible and develop strategies for the inclusiveness of the learning process, including the support of different learning formats and student-centered teaching. The non-formal education and vocational training sector is also responding to these challenges by providing new, innovative ways of upskilling and reskilling.

To implement an effective culture of lifelong learning, it is essential that educational institutions develop a long-term strategy for lifelong learning so that they can respond to the challenges of a rapidly changing environment. It is recommended that higher education institutions, vocational education institutions,



adult learning providers and other providers of micro-credentials, including employers, cooperate and integrate the latest research findings in the design and update of learning opportunities.

Based on the above, the potential of micro-credentials has been recognized by the European Commission, which in May 2022 2023/0100 (NLE), developed a recommendation on the introduction of a European approach to micro-credentials to promote lifelong learning and employment. (Council of the European Union, 2022) The recommendation of the European Commission defines the framework for the development, implementation and recognition of micro-credentials in Europe. It calls on member states and interested parties to cooperate in the direction of ensuring high quality of micro-credentials, compliance with standards and increasing accessibility. This recommendation aims to support the building of trust in micro-credentials across Europe among all those involved, whether providers or beneficiaries. The European Commission's political agenda has made it urgent to remove barriers to learning in the education system and improve access to quality education. Accordingly, the recommendation of the European Commission aims to initiate the development of micro-credentials taking into account the common European approaches. To implement an effective culture of lifelong learning, it is essential that educational institutions develop a long-term strategy for lifelong learning so that they can respond to the challenges of a rapidly changing environment. It is recommended that higher education institutions, vocational education institutions, adult learning providers and other providers of micro-credentials, including employers, cooperate and integrate the latest research findings in the design and update of learning opportunities. The recommendation of the European Commission defines the framework for the development, implementation and recognition of micro-credentials in Europe. It calls on member states and interested parties to cooperate in the direction of ensuring high quality of micro-credentials, compliance with standards and increasing accessibility. This recommendation aims to support the building of trust in micro-credentials across Europe among all those involved, whether providers or beneficiaries.

According to the recommendation, micro-credentials can play a role in delivering on the EU's headline targets to be achieved by 2030, including a target of 60 % of all adults participating in training every year and an employment rate of at least 78 %.

The European Commission called on EU Member States to report by December 2023 on measures taken to support the objectives of the Recommendation of 25 May 2022. The European Commission is obliged to report to the European Council on the progress of implementation of the recommendation within five years after receiving the recommendation. (Council of the European Union, 2022)

The urgency of introducing micro-credentials at the level of higher education is demonstrated by a number of projects funded and supported by the European Commission, including the MicroHE project, which aims to provide stakeholders and parties with a comprehensive analysis of the policy of "modularization" and "micro-credentialing" of education in the European higher education area. To this end, the project aims to conduct the most extensive survey in the direction of micro-credentials which

includes at least 70 higher education institutions on the European continent, in order to determine the established understanding of the concept of micro-credentials in Europe, the types of micro-credentials offered in the European space and the future trends of their implementation. The goal of the project is to forecast the impacts of continued modularisation of higher education in higher education institutions by using forward-scanning techniques, specifically through the use of DELPHI<sup>1</sup> methodology; examining the adequacy of European recognition instruments for micro-credentials, in particular in the direction of ECTS, diploma supplement and qualification frameworks; proposing a 'credit supplement' to give detailed information about micro-credentials in a way compatible with ECTS in the diploma supplement and qualification frameworks; proposing a meta-data standard and developing an online clearinghouse to facilitate recognition, transfer and portability of micro-credentials in Europe. (MicroHe, n.d.)

Another project created with the support of the European Commission, MICROGREDX, serves to stimulate the introduction and recognition of micro-credentials at the level of higher education. The project aims, through the development of joint micro-credentials by international cooperation, to promote the creation of interconnected systems of higher education within the relevant sectors of study and employment. The project also aims to recognize micro-credentials with the support of relevant digital platforms and, within the framework of micro-credentials developed in cooperation with higher education institutions, to stimulate innovative teaching-learning practices. (MICROGREDX, n.d.)

The project "Modularisation of Continuing Education and professionalisation by Micro-credentials (MCE)" was developed in accordance with the recommendations of the Council of Europe, which defined the steps for the introduction and recognition of micro-credentials in the EU member states in 2021-2025. The project aims to study the concept of micro-credentials for its further development in order to develop learner-oriented modular/micro-credential formats. The project is also focused on supporting higher education institutions in the direction of implementing modular programmes and micro-credentials, on testing microcredit through case studies and piloting via engagement of stakeholders, on policy development in the direction of introduction of micro-credentials for European frameworks, in the direction of Continuous Education and Professional Development (CEPD). It is noteworthy that within the framework of the mentioned project, the definition of micro-credentials also defines the volume range of micro-credentials in ECTS credits, according to which the volume of micro-credentials should vary from 1.5 ECTS credits to 45 ECTS credits. (MCE project, n.d.)

The urgency of introducing micro-credentials at the national level is echoed by the MICROBOL project implemented with the financial support of the European Commission (European project MICROBOL, 2022), within the framework of which an important research topic was the need to introduce micro-

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<sup>1</sup> The Delphi method <https://www.bps.org.uk/psychologist/delphi-method>





credentials in the formal space of higher education at the national level. According to the research carried out by LEPL National Center for Educational Quality Enhancement in 2021 - “Research Report on the Current Practice of the Micro-credentials System (MICROBOL) in the Higher Education Space of Georgia”, Georgia's higher education institutions identified the absence of an appropriate legal framework for the introduction of micro-credentials as the main challenge. (LEPL - National Center for Educational Quality Enhancement, 2021).

The experience of introducing micro-credentials in European countries indicates that many benefits can be obtained from micro-credentials, namely:

- **Increasing access to formal education, including higher education** - micro-credentials can make higher education more accessible to people enrolled in programmes with different backgrounds. Including those who work full time and who have other obligations;
- **Financial accessibility** - micro-credentials are usually programmes with more favorable fees than higher education programmes;
- **Flexibility** - micro-credentials can be received/obtained in a relatively shorter period and correspond to the individual needs of the enrolled persons;
- **Compliance** - micro-credentials should be developed in such a way as to be in accordance with the needs of the employer and the labor market;
- **Combining function** - micro-credentials can be combined for the purposes of a wider qualification (for example: vocational and/or higher).

It is worth noting that various types of educational institutions and training centers, as well as professional organizations, associations and representatives of the business sector implement micro-credential programmes in Europe. Programmes are implemented both face-to-face, remote or hybrid format. Consequently, their accessibility and the variety of courses offered are also increasing. There are some common principles that all micro-credentials provider institutions take into account. First of all, micro-credentials are increasingly being considered as a way for students to develop workplace-relevant competencies. As a result, more employers are beginning to recognize micro-credentials. Moreover, micro-credentials are often modular, which means that several micro-credentials can be combined into a relatively broad qualification for recognition purposes. This simplifies obtaining and studying the micro-credentials. Also, the portability of micro-credentials becomes easier, because they can be recognized in different types of institutions. (UNESCO, 2022).

## 1. Aim and Objectives of Thematic Analysis

The aim of the analysis is to identify the needs of the relevant legal framework for the introduction, implementation and recognition of micro-credentials in the higher education system of Georgia through the review of existing framework documents and international practices in the direction of introduction,





implementation and recognition of micro-credentials in the higher education system of Georgia and to develop appropriate recommendations for initiating legislative changes.

**To achieve the goal of the thematic analysis, we set the following tasks:**

- Review of existing definitions of micro-credentials and defining the micro-credentials for the purposes of the document.
- Determining the main elements describing micro-credentials;
- Examining existing framework documents and best international practices in the direction of introduction and recognition of micro-credentials at the level of higher education and identification of quality assurance forms and mechanisms;
- Identification of challenges at the national level in the direction of introduction, implementation and recognition of micro-credentials in higher education;
- Analyzing the identified international best practices in terms of education regulatory legislation, taking into account the national context.

## 2. Methodology

Considering the aim and objectives of the research, the members of the working group determined the countries that had experience in the introduction and recognition of micro-credentials as well as the relevant sources, which were considered appropriate to investigate and analyze in the process of working on this thematic analysis.

As part of the desk study, examples of two EU member states and two non-member states have been analyzed. The existing regulations and experience in the United Kingdom, Ireland, Estonia and New Zealand in the direction of introduction, implementation and recognition of micro-credentials in the higher education system were reviewed. We discussed the recommendations, reports and studies of the Council of Europe, the European Training Foundation (ETF) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). Also, we reviewed the progress achieved in the direction of introducing micro-credentials at the national level and the relevant regulatory legislation to identify challenges.







This allowed us, taking into account the national context and the applicable legal regulations of higher education, to develop recommendations for the introduction, implementation and recognition of micro-credentials in higher education, to determine the ultimate model for Georgia and to regulate the relevant legislation.

### 3. Micro-Credentials - Definition

Micro-credentials also known as small-credit programmes, are small-volume learning activities - courses that are recognized by many states. According to the current practice in Europe, these courses can be offered by higher education institutions, or be recognized within the framework of previous education (if any) or be recognized in accordance with the Lisbon Convention. The purpose of micro-credentials is to equip a person with specific knowledge, skills and competencies that meet the needs of the social, cultural, personal and employment market. Micro-credentials is an effective tool for improving the skills in the workplace or beyond, applied by representatives of the employment market, educational institutions and non-profit organizations, because this tool best and most effectively responds to the changing demands of the employment market. (European project MICROBOL, 2020)

Due to the diversity of content, scope and form of implementation of micro-credentials worldwide, the definition of this term is diverse.

European Commission defines the micro-credentials as the record of the learning outcomes that a learner has acquired following a small volume of learning, while these learning outcomes will have been assessed against transparent and clearly defined criteria. (European Commission, 2021).

Organization of Economic Cooperation and Development (OECD), provides the following definition: “Micro-credentials is a learning activity with an associated credential which recognises a skill or competency that has been acquired through an organised learning process and validated through an assessment.” (OECD, 2021).

The European Commission's MicroHE project defines micro-credentials as a sub-unit of a credential or degree that could accumulate into a larger credential or be part of a portfolio. Micro-credential can be verified with a Certificates, Digital Badges, MicroMasters, Nanodegrees (MicroHE, 2019).

The New Zealand Qualifications Authority (NZQA) defines micro-credentials as evidence of consistent achievement of skills and knowledge. According to the definition, micro-credentials must be described

with a clear aim, learning outcomes, strong evidence of industry, employers, community needs. Micro-credentials are smaller in volume than qualifications and focus on skills development opportunities that are currently not covered by the formal higher education system. (New Zealand Qualification Authority (NZQA) 2021, 8).

The State University of New York defines the following regarding micro-credentials: “micro-credentials are credentials that verify, validate, and attest that specific skills and/or competencies have been achieved. They differ from traditional degrees and certificates in that they are generally offered in shorter or more flexible timespans and tend to be more narrowly focused.” (State University of New York, 2021, 10).

The Malaysian Qualifications Agency defines micro-credentials as a digital certification of assessed knowledge, skills and competencies in a specific area or field which can be a component of an accredited programme or stand-alone courses supporting the professional, technical, academic and personal development of the learners. (Malaysian Qualification Agency, 2020).

Quality Assurance Agency for Higher Education of the United Kingdom provides the following definition in its micro-credential document: “credit-bearing against a recognised level of the Qualifications Frameworks; subject to standard quality assurance mechanisms; not normally an award in its own right on the Qualifications Frameworks, although there are no upper or lower limits on the amount of credit that a micro-credential carries.” (Quality Assurance Agency for Higher Education, 2022).

E-learning platform FuturLearn defines micro-credentials as the certification of learning outcomes that can be accumulated into a larger credential or degree, be part of a portfolio that demonstrates individuals' proof of learning, or have a value in itself. (FutureLearn, n.d.).

The European Training Foundation's GUIDE TO DESIGN, ISSUE AND RECOGNISE MICRO-CREDENTIALS defines 3 main types/clusters of micro-credentials:

**Skill Credential** - 1-25 hours of learning; Awarded within the context of non-formal learning; Not explicitly quality assured by external QA; Linked to the acquisition of a specific competence;

**Learning Unit** -25-150 hours of learning; Awarded within the context of formal learning and include options for assessment. Often explicitly quality assured by external QA. Linked to the acquisition of a set of learning outcomes;

**Short Learning Programmes** -150-1500 hours of learning; Typically consists of more than one learning unit. Awarded within the context of formal learning and include options for assessment. Always explicitly





quality assured by external QA; Linked to specific career progression goals. Can be mapped to qualification frameworks, either as 'partial qualifications' or as a special category of micro-qualifications. (European Training Foundation (ETF), 2022)

This guide emphasizes the importance of quality assurance of micro-credentials for the recognition of micro-credentials and to increase the confidence of programme learners, providers, employers and other interested parties.

All of the above definitions are consistent with the fact that micro-credentials are small-volume qualifications that can be obtained in a relatively short period of time. Micro-credentials are designed to equip learners with the knowledge and skills that will help them succeed in a rapidly changing workforce. By combining micro-credentials, it is possible to obtain a wider qualification.

To sum up, the implementation of micro-credentials is possible in many formats - including online courses, workshops, internships. Micro-credentials can be awarded within the framework of traditional qualification programmes or in the form of stand-alone courses. However, it is much more affordable and flexible than traditional degree programmes, and allows the learners to earn credits in their preferred environment at their preferred pace.

For the purposes of this document, micro-credential is defined as documented evidence of the assessment and confirmation of the achievement of learning outcomes within a small-volume learning activity in a structured environment. A micro-credential can be a stand-alone micro-qualification or be combined with other micro-credentials for the purposes of a wider qualification.

Accordingly, the structured environment implies teaching in an organized manner. Based on the above definition, at the national level, micro-credentials at the level of higher education shall not imply confirmation of knowledge and skills (informal education) acquired throughout life.

## 4. Review of Existing Framework Documents in the Direction of Introduction and Recognition of Micro-Credentials at the Level of Higher Education

### 4.1 Recommendations of the Council of the European Union



In 2022, Council of the European Union adopted a recommendation “on a European approach to micro-credentials for lifelong learning and employability” which will be implemented in accordance with regional, national and EU legislation and priorities, national characteristics and available resources, including socio-economic conditions and national education, training, the characteristics of lifelong learning and employment systems, and in close cooperation with all relevant stakeholders.

The European Commission recommends Member States to implement this Recommendation as soon as possible and calls on Member States to inform the Commission of the activities undertaken in support of this Recommendation by December 2023.

The document developed by the Council provides the objectives and scope of the recommendation, the definition of "micro-credentials" and other related terms; Description of European, standard and mandatory elements of micro-credentials. The following recommendations are defined for the Member States: regarding the development of the micro-credential ecosystem; Regarding the potential of delivering the micro-credentials in different subsystems of education; about the quality assurance of micro-credentials and for this purpose, as far as possible, regarding the use of existing quality assurance mechanisms, or their adaptation and modification; Also, recommendations are presented to the member states regarding the integration of micro-credentials into employment and labor market policies; regarding the recognition of micro-credentials received abroad for the implementation of relevant activities and research and, in addition, it is recommended to develop mechanisms for the recognition of micro-credentials; Also, the recommendations include the reflection of micro-credentials received by individuals in various electronic systems (if any); It is recommended to use micro-credentials for the improvement of competences and employment opportunities of the elderly, socially vulnerable persons, representatives of minorities, representatives of vulnerable groups, people living in poverty, persons with low qualifications etc. Also, it is recommended to carry out research on the introduction of micro-credentials and share best practices with other EU member states; Use of micro-credentials for upskilling and reskilling the teachers, etc.

The EU Member States are recommended to adopt a European approach to micro-credentials with the objective of:

- enabling individuals to acquire, update and improve the knowledge, skills and competences they need to thrive in an evolving labour market and society; to benefit fully from a socially fair recovery and just transitions to the green and digital economy and to be better equipped to deal with current and future challenges;
- supporting the preparedness of providers of micro-credentials to enhance the quality, transparency, accessibility and flexibility of the learning offering in order to empower individuals to forge personalised learning and career pathways;

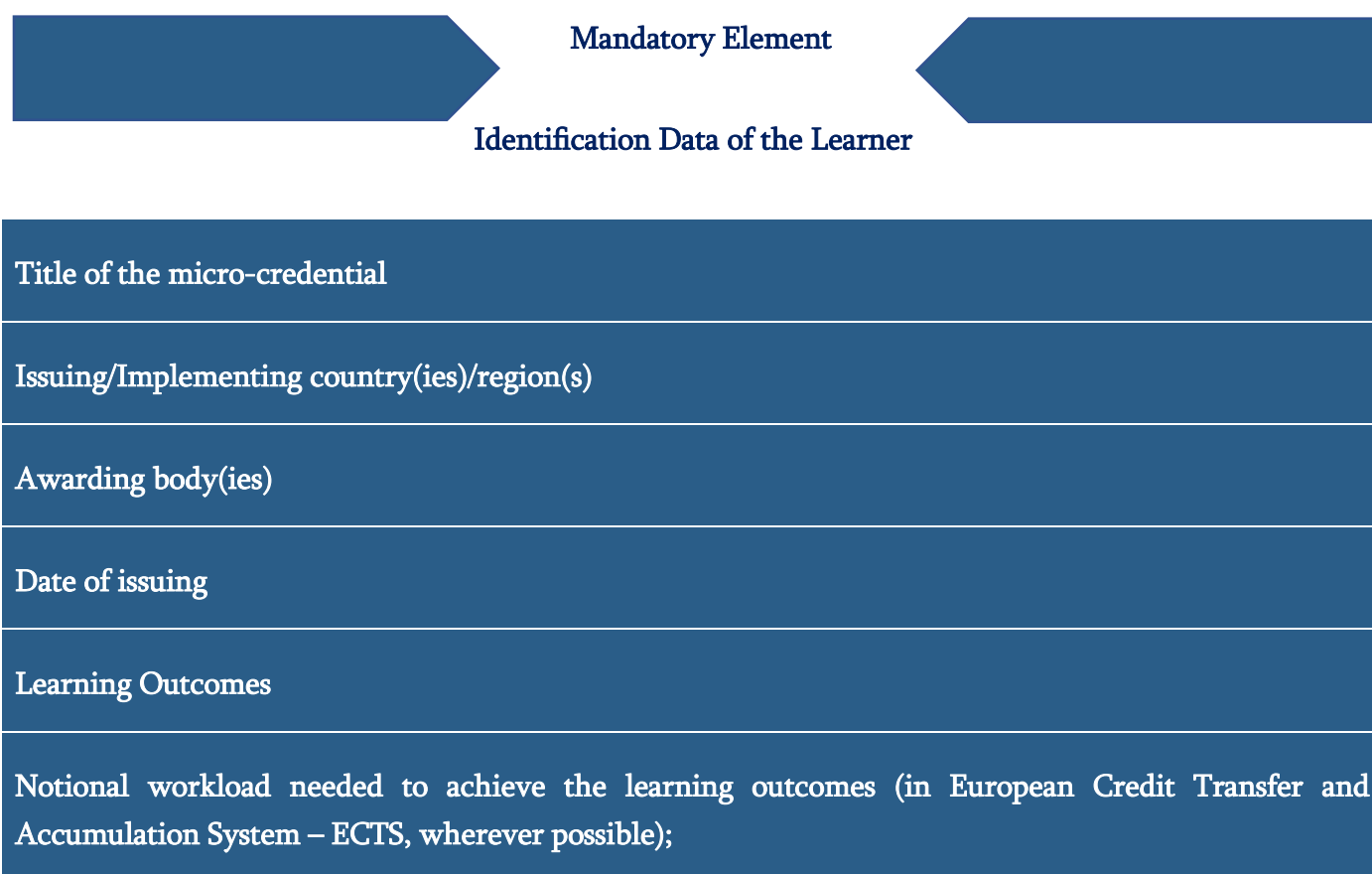


- fostering inclusiveness, access and equal opportunities and contributing to the achievement of resilience, social fairness and prosperity for all, in a context of demographic and societal changes and throughout all phases of economic cycles. (Council of the European Union, 2022).

#### 4.2 European Standard Elements of Micro-Credential Description

The European Commission recommends to the Member States of the European Union to adapt and promote micro-credentials in accordance with the content of the European Commission's definition.<sup>2</sup>

The European Commission's recommendation provides for the Definition and European standard elements to describe a micro-credential:




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<sup>2</sup>In particular, “Micro-credential is the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes will have been assessed against transparent and clearly defined criteria. 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 stand-alone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.” (Council of the European Union 2022).

Level (and cycle, if applicable) of the learning experience leading to the micro-credential (European Qualifications Framework, Qualifications Frameworks in the European Higher Education Area), if applicable

Type of assessment

Form of participation in the learning activity

Type of quality assurance used to underpin the micro-credential

Optional Elements

Where relevant (non-exhaustive list)

Identification Data of the Learner

Prerequisites needed to enroll in the learning activity

Supervision and identity verification during assessment (unsupervised with no identity verification, supervised with no identity verification, supervised online, or onsite with identity verification)

Grade achieved

Integration/stackability options (stand-alone, independent micro-credential/integrated, stackable towards another credential)

Further information





These standard elements will be included in a European data model that specifies a common format for describing micro-credentials. The data model will be available as an open standard to be used by providers of micro-credentials; This could support interoperability and easier exchange of data on micro-credentials.

## 01 Quality

Micro-credentials are subject to internal and external quality assurance by the system producing them (e.g. the education, training or labour market context in which the micro-credential is developed and delivered).

Quality assurance processes must be fit-for-purpose, clearly documented and accessible and meet the needs and expectations of learners and stakeholders.

Providers: External quality assurance is based primarily on the assessment of providers (rather than individual courses) and the effectiveness of their internal quality assurance procedures. Providers should make sure that internal quality assurance covers all the following elements:

Providers should make sure that internal quality assurance covers all the following elements:

- The overall quality of the micro-credential itself, based on the standards referred to below;
- 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 on the learning experience leading to the micro-credential; Peers may be other micro-credential providers and interested parties.

Standards: External quality assurance is to be conducted in line with: Annex IV of the European Qualifications Framework Recommendation, where applicable;

The Standards and Guidelines for Quality Assurance in the European Higher Education Area, where applicable;



The European Quality Assurance Reference Framework (the EQAVET Framework) in the field of vocational education and training, where applicable;

Other quality assurance instruments, including registries and labels, to build public trust in micro-credentials, where applicable.

## 02 Transparency

Micro-credentials are measurable, comparable and understandable, with clear information on learning outcomes, workload, content, level, and the learning offer, as relevant.

**Workload:** Higher education institutions should use the European Credit Transfer and Accumulation System (ECTS) and comply with the principles in Annex V to the EQF Recommendation, where possible, to demonstrate the notional workload needed to achieve the learning outcomes of the micro-credential.

Providers that do not use the ECTS may use other systems or types of information that can effectively describe learning outcomes and workload, in compliance with the principles in Annex V to the EQF Recommendation.

**Qualifications framework/systems:** Micro-credentials may be included in national qualifications frameworks/systems, where relevant, and in line with national priorities and decisions. National qualifications frameworks/ systems are referenced to the European qualifications framework and, for higher education qualifications, self-certified to the qualifications framework of the European Higher Education Area, which can further support the transparency of, and trust in, micro-credentials.

Information on the offer of micro-credentials system shall be transparent and clear, to underpin information/guidance systems for learners/interested parties, in line with national practices and stakeholders needs. Information on providers of micro-credentials is published where possible in existing relevant registers.



Higher-education providers (and other relevant providers) should be included, where possible, in the Database of External Quality Assurance Results (DEQAR), based on quality assurance in line with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG);

Information on learning opportunities leading to micro-credentials should be accessible and easily exchanged through relevant platforms, including Europass.

### 03 Relevance

Micro-credentials should be designed and issued as distinct, targeted learning achievements and learning opportunities leading to them are to be updated as necessary, to meet identified learning needs.

Collaboration between education and training organisations, employers, social partners, other providers and users of micro-credentials is encouraged to increase the relevance of the micro-credentials for the labour market.

### 04 Valid assessment

Micro-credential learning outcomes are assessed against transparent criteria.

### 05 Learning pathways

Micro-credentials are designed and issued to support flexible learning pathways, including the possibility to validate, recognise and 'stack' micro-credentials from across different systems.

#### Stackability

Micro-credentials are designed to be modular so that other micro-credentials may be added to create larger credentials. Decisions to 'stack' or combine credentials lie with the receiving organisation (e.g. education and training institutions, employers, etc.), in line with their practices, and should support the goals and needs of the learner. Stacking does not create an automatic entitlement to a qualification or a degree.



Such decisions are made by regional and national authorities or institutions in line with their awarding processes.

### **Validation of non-formal learning**

Obtaining micro-credentials is possible following assessment of learning outcomes, obtained either through a specific course leading to a micro-credential, or on the basis of assessment of learning outcomes resulting from non-formal learning.

## **06 Recognition**

Micro-credentials have a clear signaling value of learning outcomes for smaller modules of learning. Recognition paves the way for a wider offer of such learning experiences in a comparable way across the EU.

Micro-credentials are recognised, where possible, by the competent authorities, for academic, training or employment purposes, based on the information provided according to the European standard elements (Annex I) and the principles for the design and issuance of micro-credentials (Annex II).

When micro-credentials are issued by formal education providers, they are recognised, where possible, based on standard recognition procedures used in recognising foreign qualifications and learning periods abroad.

This is without prejudice to the right of the competent authorities to define recognition procedures or to verify the authenticity of documents.

## **07 Portable**

Micro-credentials owned by the learner may be stored and shared easily (for example via Europass). The infrastructure for storing data is based on open standards and data models. This ensures interoperability and seamless exchange of data, and allows for smooth checks of data authenticity.



### 08 Learner- centred

Micro-credentials are designed to meet the needs of the target group of learners. Learners are involved in the internal and external quality assurance processes and their feedback is taken into account as part of the continuous improvement of the micro-credential.

### 09 Authenticity

Micro-credentials contain sufficient information to check the identity of the credential-holder (learner), the legal identity of the issuer, the date and place of issuance of the micro-credential.

### 10 Information and guidance

Information and advice on micro-credentials should be incorporated in lifelong learning guidance services and should reach the broadest possible learner groups, in an inclusive way, supporting education, training and career choices.

## 5. Delivering on the Potential of Micro-Credentials

The Council recommends the Member States, where appropriate, to integrate micro-credentials into both education and training systems and skills policies, including by:

- 1) Including micro-credentials in education and training offers;
- 2) Using micro-credentials to improve access to education and training for all learners, including disadvantaged and vulnerable groups (such as people with disabilities, the elderly, low-qualified/skilled people, minorities, people with a migrant background, refugees and people with fewer opportunities because of their geographical location and/or their socio-economically disadvantaged situation), where appropriate;



- 3) Using micro-credentials to support flexible learning pathways and the transition from upper secondary or VET to tertiary education and adult education where relevant;
- 4) Using micro-credentials that can be integrated in or that can complement degree programmes, where relevant;
- 5) Using micro-credentials as a further means to improve basic and advanced digital skills and competences of a wider range of learners, in line with the Digital Education Action Plan and the European Pillar of Social Rights Action Plan;
- 6) using micro-credentials to support the development of learning for the green transition and sustainable development as part of the national implementation of the Council Recommendation on learning for the green transition and sustainable development;
- 7) Promoting the use of micro-credentials by education and training institutions and other providers – in cooperation with their surrounding knowledge and innovation ecosystem – to boost the relevance and increase the potential positive impact of micro-credentials on the economy at local and regional level;
- 8) Promoting the understanding and use of micro-credentials through continuing professional development for teachers and trainers, guidance counsellors (e.g. in the context of the Erasmus+ Teacher Academies), as well as academics, researchers and other related staff;
- 9) Promoting the use of micro-credentials for the prompt transfer of the latest research findings into learning opportunities, strengthening synergies between the European Education Area and the European Research Area;
- 10) Exploring the use of micro-credentials in the European Education Area to challenge gender and other discriminatory stereotypes concerning study choices and within educational practices and materials.

Member states shall develop and adapt, where relevant, existing Union tools and services to support the development of micro-credentials by all types of providers.

Within the recommendation, the Council calls on the Member States to support cooperation between states and other interested parties in the direction of micro-credentials both at the regional and national, as well as international levels. It is also recommended to cooperate on quality assurance of micro-credentials, thus building reciprocal trust; Using international associations and alliances of higher and vocational educational institutions and training centers to encourage the development and







implementation of micro-credentials; It is recommended to introduce the use of micro-credentials for teacher education and teacher training. The Council recommends that EU member states cooperate in developing further research on micro-credentials.

## 6. Stackability of Micro-Credentials

One of the key features of micro-credentials is that they are 'stackable', meaning they can be combined into a wider learning module or qualification.

A key element for stacking the micro-credentials is recognition of learning outcomes. Microcredits that comply with Bologna standards can be recognized under the Lisbon Convention. This significantly facilitates the work of the recognising body and makes the results of the recognition process more transparent and predictable for applicants. One notable example of this is the University of Lincoln's Quality Assurance Manual on Approval of Short Courses and Micro-credentials which set out clear guidelines for the quality assurance of credits awarded within stacked micro-credentials through course learning outcomes, content and assessment methods. (University of Lincoln, 2020)

In the guide "The Rise and Recognition of Micro-credentials Stacking Modules and the Future of the Qualification" developed by NUFFIC, The Dutch Organisation for Internationalisation in Education, it is determined that micro-credentials cannot be automatically stacked into a full qualification. For this reason, the question of stacking micro-credentials is particularly relevant in terms of recognition. (Dutch organisation for internationalisation in education (NUFFIC, 2022)

The guide discusses various examples of micro-credential stacking to reveal the variety of stacking possibilities available today.

### 6.1 How Modules are "Stacked"

Micro-credentials can be stacked in different directions: 'vertically' to build on an existing level of achievement or 'horizontally' to extend knowledge and skills at the same level, or by 'adding value' by adding specific skills alongside existing qualifications. This leads to different combinations of micro-credentials. Micro-credentials can also be stacked into a broader qualification or as a part of it. Applicants who intend to stack their micro-credentials and have them recognized in higher education may face the following obstacles:

- It is difficult for higher education institutions to recognize micro-credentials of different content and structure. For example, it is difficult to transfer credits among different course providers unless the type of study is clearly defined and agreed between the parties. Even



within the same provider, it may be unclear which modules can be combined to create a broader qualification.

- If micro-credentials cover many different topics, there may be a risk that some micro-credential modules are not stackable with others.
- Institutions often have regulations regarding the maximum number of credits earned within other institutions, setting a maximum limit for transferable credits is often a major barrier to the concept of a "patchwork<sup>3</sup> qualification" made up of credits from different providers. Due to the above-mentioned reasons, micro-credentials are rarely stacked into a full qualification in higher education institutions.
- Other institutional barriers to stacking micro-credentials may include restrictions on the recognition of micro-credentials issued by multi-providers and time restrictions, which imply the establishment of certain time limits from obtaining micro-credential to enrolling in an educational programme. (Dutch organisation for internationalisation in education, 2022).

## 7. Quality Assurance of Micro-Credentials

Since there is no clearly defined approach to the volume, topic, implementation form and pace of micro-credentials, a number of steps have been taken to build trust and recognition in the formal education space, including by the European Commission, the European Training Foundation, and the quality assurance agencies of various countries.

Micro-credentials are still a novelty to many, but they have quickly gained popularity in the world's higher education sector and employment space, as internal and external micro-credential quality assurance mechanisms are established, and the scale of micro-credential recognition and implementation are being increased. Short-term qualifications are expected to become increasingly important in promoting lifelong learning and employment.

In order to establish a common European vision regarding the quality assurance of micro-credentials, with the involvement of international education organizations, various information and guidance documents have been developed, which describe various aspects of the development of micro-credentials

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<sup>3</sup> Patchwork is a technique of sewing small pieces of shaped fabrics, of mixed patterns, colours and texture, all together to create larger geometric designs.



such as their volume, quality assurance, recognition and connection to the national qualifications framework. The mentioned guidance documents **indicate that quality assurance of micro-credentials serves the following purposes:**

- Protection of applicants from low-quality micro-credential programmes;
- Ensuring compliance of micro-credentials with the requirements of employers and the labor market;
- Increasing the importance, value and reputation of micro-credentials;
- Support for the stackability and portability of micro-credentials;

**Internal quality assurance processes of micro-credentials may include:**

- Clearly establishing learning outcomes and assessment criteria;
- Using different assessment methods to measure the achievements of the learners;
- Regular reviewing and updating programmes;
- Receiving feedback from learners and employers.

In the process of external quality assurance, quality assurance agencies can carry out evaluations of HEIs and their micro-credential programmes. This process may include on-site visits, review of documents and interviews with the learners and personnel involved in the implementation of micro-credentials.

**The main elements of the micro-credentials quality assurance process are:**

- **Relevance** - micro-credentials should be relevant to the needs of the learners and employers.
- **Targeting** - micro-credentials should be designed and delivered in a way that ensures achievement of the learning outcomes by the learners.
- **Transparency** - the provider must ensure transparency of information about micro-credentials including learning outcomes, evaluation criteria and prerequisites for admission to the programme.
- **Recognition** – micro-credential must be recognized by employers and/or other providers/educational institutions.

A number of countries and organizations are developing guidelines and frameworks for quality assurance of micro-credentials. For example, the European Association for Quality Assurance in Higher Education published a report “Approaches to Quality Assurance of Micro-credentials” (Cirlan, 2023). The document provides a general overview of micro-credentials policy developments and provides information on various activities, initiatives and reports on the quality assurance of micro-credentials in the European Higher Education Area (EHEA). In particular these are:



- **Stakeholder Involvement** - quality assurance procedures should involve all relevant stakeholders, including learners, employers and professional associations.
- **Use of different methods** - to assess the quality of micro-credentials, different methods should be used in the quality assurance process, for example, document review, site visits and interviews, etc.
- **Ensuring transparency** – Quality assurance processes must be transparent and ensure accountability to all stakeholders.
- **Continuous development** - quality assurance should be a continuous process and not a one-time event.

Considering the above-mentioned best practices, higher education institutions will be able to ensure that the micro-credentials they implement are of high quality and meet the needs of learners and employers.

Micro-credential quality assurance is currently only formalized in a number of EHEA countries and, of course, the approaches are starkly different. Quality assurance may be subject to both HEIs and external providers. To increase recognition and accessibility, a kind of symbiosis of the latter, formalization of cooperation and integration of training modules/components is also possible. Thus, there are a variety of possible ways to implement quality assurance procedures. In the context of external quality, we mostly find cases where the topic of micro-credentials is integrated into the process of programme and/or institutional accreditation. In such an approach, the primary responsibility for quality assurance rests with the institution itself, which in turn provides appropriate control mechanisms in the existing programme evaluation and in the context of covering the indicators of the third mission<sup>4</sup> and lifelong learning in a broad sense. It should be noted that there is almost nowhere a specific mechanism for the evaluation of individual micro-credentials while the ESG 2015 standards and principles are flexible enough for the established quality assurance systems to take into account the specificities of the evaluation of micro-credentials of course, considering national interests and individual legal circumstances and socio-cultural characteristics. (Cirlan, 2023).

The report of the Irish Universities Association reviews the best experience of European countries in the direction of introducing micro-credentials and ensuring their quality. For example, in Ireland there is a large-scale, five-year project MicroCreds18, led by the Irish Universities Association IUA in partnership with seven universities. The aim of the project is to create a national framework for accredited micro-credentials and to “develop, pilot and evaluate the building blocks required for a transformation in lifelong learning through micro-credentials.” (Irish Universities Association (IUA), n.d.). In the Netherlands, 32 higher education institutions, including 10 universities and 22 universities of applied sciences,

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<sup>4</sup> The third mission of the university refers to the activities of the university that contribute to the social, economic and cultural development of communities.



participated in a national pilot focused on the development of a quality framework for the implementation of micro-credentials.

In the majority of countries, the discussion around micro-credentials takes place in a broader context, namely in terms of exploring, quality assurance and recognition of the future development of lifelong learning. Lifelong learning is seen as one of the most important tools in the digital and green transition. Therefore, in some countries, initiatives and projects related to micro-credentials have been developed at the systemic level and are financed at the national level by appropriate mechanisms within the framework of economic recovery, sustainability and development plans. (Cirlan, 2023).

New Zealand Qualification Authority (NZQA) has developed guidelines for micro-credential listing, approval and accreditation, according to which, in order to approve the content of the micro-credentials at the provider institutions, the institutions shall prove the observance of the following 4 criteria: 1) The micro-credential has an appropriate title and appropriate learning outcomes. Where standards are specified in the micro-credential listing details, they are included in the micro-credential. 2) Need and acceptability - there is evidence of the need for the micro-credential. It is supported by stakeholders. 3) Requirements for admission, credit recognition and transfer, recognition of prior learning, length and structure, assessment methods, and completion are clearly set out. 4) There is an effective process for regular review of the micro-credential that assesses its currency and content and updates it accordingly.

In order to deliver the approved micro-credentials, New Zealand educational institutions must meet the following accreditation standards.

- **Delivery** - The delivery approach is adequate and appropriate given the stated learning outcomes for the micro-credential and the needs of intended learners. Delivery is appropriate for the delivery modes, and for the location or situation of the intended learners.
- **Assessment** - The institution has the capability and capacity to ensure assessment materials and decisions are fair, valid, consistent and appropriate for the level, given the stated learning outcomes. There is an effective system for moderation of assessment materials and decisions.
- **Resources** - The institution has the capability and capacity to deliver the micro-credential, including suitably qualified or experienced staff, facilities, educational and physical resources, and student support services.
- **Review** - There must be adequate and effective review of the delivery of the micro-credential (including outcomes for students) and the institution's capability to provide the micro-credential. (New Zealand Qualification Authority (NZQA), 2022)





## 8. Implementation of Micro-Credentials in Higher Education, a Review of International Experience

### 8.1. New Zealand

Microcredit is part of New Zealand's education and training system. New Zealand Qualification Authority (NZQA) defines micro-credentials as small, stand-alone awards/certificates with set learning outcomes.

Micro-credentials recognise learners' skills, experience or knowledge, while meeting demand from employers, industry and communities.

Micro-credentials are listed on the New Zealand Qualifications and Credentials Framework (NZQCF). The New Zealand National Qualifications Framework has a 10-level structure and alongside standard qualifications, micro-credentials can be earned at all levels of the framework. New Zealand Qualification Authority's website offers interested persons a register of approved micro-credentials in the country, which shows the title of the micro-credentials, the level of the national qualifications framework at which the micro-credential is implemented, the number of credits to be granted, the name of the provider, the date of approval and the renewal date, the register also indicates each micro-credential's objective and learning outcomes.

Micro-credentials included in the New Zealand Qualifications Framework shall meet the following standards:

- Certify the achievement of a coherent set of skills and knowledge
- Meet a specified need
- Include an assessment
- The volume of a micro-credential is no more than 40 credits
- Can be delivered at any level on the NZQCF
- Mico-credentials quality is assured by NZQA or Universities of New Zealand
- Are delivered by NZQA-recognised education providers (New Zealand Qualification Authority (NZQA), 2023)

### 8.2 United Kingdom

In the United Kingdom, the process of recognizing micro-credentials at higher education levels is in the implementation phase. It is noteworthy that there is no unified approach to the recognition of micro-





credentials at the level of higher education. The procedures and extent of recognition depend on the vision and decision of the respective educational institution.

The Quality Assurance Agency for Higher Education in UK has published the Guidelines for the Recognition of Micro-Credentials in Higher Education, which sets out guideline principles for the granting of micro-credentials in the United Kingdom, and sets out guidelines for the recognition of micro-credential by other institutions.

The QAA guidelines also emphasize the importance of quality assurance for micro-credential in higher education. This indicates that the needs of individuals and employers should be taken into account when developing micro-credentials and the evaluation of micro-credential courses should be carried out with clear and transparent tools and standards.

The introduction of micro-credentials in the UK higher education system also serves to determine the upper and lower limits of their volume. A key issue in the implementation of micro-credentials is to offer students a variety of learning opportunities, within which they can study in different higher education institutions depending on the content of micro-credential and accumulate the number of credits that may correspond to a full qualification.

When developing micro-credential educational programmes, the institution must make sure that it is familiar with the legal mechanisms governing this issue in the country. The financing models of the mentioned programmes may also differ and depend on its volume in credits or the duration of study. Whereas, the micro-credentials play an important role in lifelong learning, it is possible for students to return to these types of courses periodically throughout their lives. Micro-credentials can be offered at all levels of the National Qualifications Framework.

At the level of higher education, micro-credential can be an additional, alternative or complementary component. Its importance in upskilling and reskilling indicates that micro-credentials are mostly delivered at the place of employment, although of course there are different cases as well. (Quality Assurance Agency (QAA), 2022)

The document describing micro-credentials for higher education, prepared by the British Higher Education Quality Assurance Agency, states that micro-credential is a credit-bearing against a recognised level of the Qualifications Frameworks, subject to standard quality assurance mechanisms; It is not normally an award in its own right on the Qualifications Frameworks, although there are no upper or lower limits on the amount of credit that a micro-credential carries.

The presented definition aims to recognize institutional autonomy in the direction of micro-credentials in the UK higher education sector; Ensuring sufficient flexibility for innovation and trust and protection of the reputation and authority of higher education institutions and quality awarding bodies.

The activities carried out in the higher education system of the United Kingdom show that the introduction of micro-credentials is becoming more relevant. From August 2021, two British universities, University of Huddersfield and Northumbria University, started introducing micro-credentials in the higher education system, which became the first universities in the UK to recognize micro-credentials in higher education programmes and develop quality assurance mechanisms.

According to the accumulated experience since 2021, in the UK higher education system, micro-credentials are presented in an independent form or integrated into the courses of the higher education programme. In general, providers rely on the relevant skills profiles integrated into educational courses to separate out from existing courses the hours dedicated to the skills covered by the course's educational content. The existing experience explains the prospects of using micro-credentials and badges according to the hours specified for the skills. Such an approach focuses not only on how it is possible to integrate a system of badges and micro-credentials in higher education, but also on how to explain more clearly to lecturers, students and employers the connection of education in this format to further occupational roles.

Higher education institutions take a skills-based approach to curriculum design that better matches the needs of the various stakeholders in higher education, such as the learner-earner, employers, accreditation bodies, etc. (Ward, 2021) The above opens the horizons for more flexible and personalized teaching and approaches to obtain and produce nano-qualifications, both in higher education and beyond. A skills-based approach differs from a learning outcomes-based approach in that the latter focuses on input, or skills learned, while a skills-based approach focuses on outputs, or employment roles. The employment role description provides a competency measure of what the student should master. Traditionally, the accreditation process serves to "translate" and integrate the content needed to develop industry-relevant skills into the educational programme, but today's approaches increasingly reveal a gap between the learning outcomes of educational programmes and the competencies required for employment. In order to eliminate these discrepancies, a skills-based approach was developed through the 21st century personalised learning skills taxonomy (C21). This taxonomy can also be used to support a micro-credential framework that aligns with existing competency frameworks and promotes the recognition of learning outcomes acquired within formal, non-formal education.

The skills-based approach is actively used in the field of information and communication technologies. The Skills Framework for the Information Age (SFIA) is a global framework for skills and competencies in the digital world; translated into ten languages and used by many ICT employers to assess and develop employee competencies, the SFIA has become a globally accepted common language in the digital world to define skills and competencies.

The framework defines competencies for the most in-demand professions in the world, including information and communication technologies; changes in business; digital transformation; data science



and analytics; software engineering; information and cyber security; digital product development, sales and marketing; Human resources and workforce management, etc.

Higher education institutions that use this approach, while outlining the necessary competencies for the employment market within the framework of micro-credentials, agree that in educational programmes, the learning outcomes described by Bloom's taxonomy are largely abstract and lack preciseness, they are more focused on knowledge (input) than on skills (output, performance). Accordingly, based on the experience of British universities, skills were initially identified in the learning outcomes of relevant courses, then the sectoral and transferable skills were distinguished and the number of hours needed to develop these skills in the programmes was determined. As a tool of skill-based approach, these institutions used SFIA methodology. Basis and main principles of elaboration of the methodology is detailed in the article - Using Skills Profiling to Enable Badges and Micro-Credentials to be Incorporated into Higher Education Courses<sup>5</sup> (Ward, 2021).

Several higher education institutions in the UK higher education system already have experience in implementing and recognizing micro-credentials at higher education level, namely the University of Huddersfield and Northumbria University. Institutions offer students recognition of micro-credentials completed on the LinkedIn Learning platform within the higher education programme through accreditation of prior education (micro-credential courses).

The Open University offers students micro-credentials, which can be stacked into a wider qualification.

The Chartered Management Institute (CMI) offers micro-credentials of various content to interested persons, which are recognized by employers and other professional institutions.

As for the fields of study in which the students of the British higher education institutions are offered training in the format of micro-credentials in the case of The Open University, these are leadership and management, computing and digital technologies; environment, climate change and sustainability; teacher professional development and inclusive education; Health and social welfare. For programmes corresponding to the above-mentioned fields of study, the institution has indicated on its website a list of courses that can be taken in the format of micro-credential with a workload of 10-13 hours per week and a duration of 12-13 weeks, and which can be recognized for the award of a bachelor's or master's qualification in the above-mentioned fields (Open University, 2023).

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<sup>5</sup> Using Skills Profiling to Enable Badges and Micro-Credentials to be Incorporated into Higher Education Courses <https://www.researchgate.net/publication/371020068> Using Skills Profiling to Enable Badges and Micro-Credentials to be Incorporated into Higher Education Courses

### 8.3. Ireland

A number of Irish universities offer micro-credentials as small-volume accredited courses that respond to the interests of teachers, organizations and enterprises. These micro-credential courses have been developed by partner universities of the Irish Universities Association (IUA) as a result of consultations with relevant enterprises within the framework of the "MicroCreds" project. Micro-credentials offer very flexible, compact and affordable learning opportunities for upskilling and reskilling in another field. Furthermore, on the basis of lifelong learning and professional development centers, students are advised on which micro-credential courses they should choose for upskilling and reskilling.

Part of Ireland's HEIs offer students/learners a variety of research-based and quality-assured micro-credentials, the workload of which is calculated according to the ECTS system and can be recognized at levels 7 to 9 of the Irish National Qualifications Framework. Students can take individual micro-credential courses or continue their studies, improving their knowledge and skills over time. Over time, some micro-credential programmes will offer students pathways that allow them to stack micro-credentials to obtain a broader qualification/certificate or award. (University of Galway, n.d.)

In summary, recognition of micro-credentials in UK higher education is still being introduced. However, there is a growing recognition of the importance of micro-credentials and there is a clear trend of their acceptance/recognition by employers and other institutions.

### 8.4 Estonia

The process of introducing micro-credentials has also started in the Estonian higher education system. In Estonia, micro-credentials can be delivered by formal education providers, higher education institutions, vocational education institutions, as well as private companies and public organizations.

The Estonian Ministry of Education has started a regulatory process to amend the Adult Education Act to define the learning content, delivery methods, quality and duration of micro-credentials. Micro-credentials as an opportunity to acquire and recognize short learning experiences are also included in Estonia's 2035 Education Strategy.

Estonia also launched a training credit programme in cooperation with private companies and higher education institutions. This is a service training platform, within the framework of which companies support the upskilling and reskilling of their employees, and provide future possibility of stacking the credentials for micro-qualifications. The range of training providers and users is limited, but given its



objectives, it is a good example<sup>6</sup> of a micro-credential system. Estonian Quality Agency for Education (HAKA), formerly EKKA, is responsible for ensuring the quality of micro-credentials.

If non-formal education providers want to deliver micro-credentials, they shall go through the quality assessment procedure of the group of educational programmes, which is in line with the principles of ESG. Informal providers must undergo an external quality assurance procedure on a regular basis, at least once every five years.

It should be noted that since 2018, the agency has provided external quality assurance to more than 100 non-formal providers of lifelong learning.

Institutions at the level of higher education can deliver micro-credentials if, through external quality assurance procedures, they have obtained the right to deliver an educational programme in the same educational programmes group/field. (Estonian Quality Agency for Education (HAKA former EKKA) n.d.).

The provider higher education institutions must register the micro-credential programme in the Estonian Education System, within the framework of which the formal compliance of these programmes with the specified requirements will be checked in advance. (Estonian Quality Agency for Education HAKA (former EKKA), n.d.)

For example, the University of Tartu (UT) delivers micro-credential programmes for adults and defines them as a longer, comprehensive continuing education programme based on degree-study courses. The programme offers an opportunity to acquire an additional specialisation or specific competencies in a narrow field.

The volume of a UT micro-credential programme ranges from 12 to 30 ECTS. The programmes are designed with the volume and pace of study suitable for the adult learner in mind, so that they can generally be completed in one or two semesters. The programmes are provided for a fee. Micro-credential programmes are designed to enable participants to continue their studies in a degree programme, if they wish, and to get higher education or a new degree in the field. Participants completing the programme receive a continuing education certificate from the University of Tartu.

Micro-credential degrees are designed for learners with at least upper secondary education, but many programmes have additional admission requirements. (University of Tartu, n.d.)

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<sup>6</sup> EQAVET PLA on 'Quality Assurance and micro-credentials in VET' – Background note. Virtual meeting, 8 -9 November 2022. <https://www.todofp.es/dam/jcr:f0dec5fb-ee69-464d-9d65-543dbf6dce4a/pla-background-note.pdf>



Tallinn University actively implements micro-credential programmes, the main goal of which is to proactively respond to the needs of the labor market. Micro-credential programme is continuing education programme with a comprehensive content based on one or more subjects from a degree studies programme, it is stacked with other micro-credentials, or integrated in the formal education courses for the purpose of broader qualification. Micro-credential programme can exist as a separate continuous education programme, As a rule, the micro-credential programmes offered by Tallinn University range from 6 to 30 ECTS credits and last from 1 to 3 semesters. Micro-credential programmes are delivered for a fee. The qualification requirements for enrolment in a micro-credential programme are based on the level of the micro-credential study programme according to the Estonian National Qualifications Framework. The programme provider also has the right to define additional requirements (e.g. work experience, language skills, etc.).

Upon the successful completion of the micro-credential programme, a graduate receives a certificate of completion of continuing education. In order to obtain the certificate, a positive result in all modules is required.

Micro-credentials can be counted towards the completion of a degree programme, if the learning outcomes are relevant to the aim of the programme. (Tallinn University n.d.)

493 people enrolled in 58 micro-credential programmes offered by Tallinn University in 2022, and 398 in Spring 2023. As of fall of 2023, 70 micro-credential programmes are offered. (Reinman & Mannik, 2023)

## 9. Experience at the National Level in the Direction of Introduction of Micro-Credentials in Higher Education

It should be noted that in Georgia, work on the introduction of the micro-credentials system in higher education began in 2020 at the initiative of LEPL National Center for Educational Quality Enhancement. From this period the Center was involved in the project of the Bologna Process Implementation Group's (BICG) Thematic Peer Group A on Qualifications Framework (TPG C on QA) - "MICROBOL - credentials linked to the Bologna Key Commitments". The project was implemented by the European Commission's financial support and aimed at supporting the introduction of a micro-credentials system in higher education in line with the key commitments of the European Higher Education Area. The MICROBOL





project brought together European ministers responsible for education and stakeholders in the Bologna Follow-up Group to discuss whether and how the existing Bologna tools can be used and/or need to be adapted to be applicable to micro-credentials. Within the framework of the MICROBOL project, the definition of micro-credential terms, the general principles of micro-credential's recognition and quality assurance have already been established. In addition, an analysis of the existing experience of micro-credentials at the national level was prepared. The MICROBOL project recommends that national governments should determine whether legislative changes are needed, plan for appropriate changes, collaborate with other countries to share experiences, encourage the development of micro-credentials and take into account the institutional autonomy of educational institutions to create a variety of micro-credential courses.

Work in the direction of raising awareness regarding micro-credentials and supporting their effective delivery continued within the framework of Bologna thematic working groups. Since 2022, the Center has also been involved in the work of the Micro-credentials quality assurance working group, which was initiated within the framework of the project "Implementation and innovation in quality assurance through peer learning" (IMINQA) implemented in partnership with the European Association for Quality Assurance in Higher Education (ENQA). The preparation of the following supporting documents was envisaged within the framework of the project: desk research; internal quality assurance guide; external quality assurance guide; and key recommendations to help other providers outside of higher education effectively develop and formalize micro-credentials.

On May 20, 2022, the Qualifications Development Department of the Center participated in the workshop organized by the European Training Foundation (ETF). The purpose of the meeting was to share the conceptual framework of micro-credentials developed by the Foundation and to develop a guidance document on micro-credentials that includes aspects of recognition and quality assurance of micro-credentials.

Commissioned by international organizations, the European Training Foundation (ETF), the Knowledge Innovation Center (KIC) prepared a guide to design, issue and recognize micro-credentials. This guide aims to accelerate the flexibility and responsiveness of learning systems within the European Training Foundation's partner countries.

It has been prepared as part of ETF's thematic support for the qualifications systems of ETF partner countries. The document discusses the experience of Georgia as well.

From 2020, issues related to the development of micro-credentials are actively on the agenda of the Thematic Peer Group A on Qualifications Framework (TPG A on QF). It should have noted that Georgia has been the co-chairing country of the mentioned working group since 2021.

## 9.1. Measures Implemented at the National Level

In order to receive feedback from interested parties and take into account the main recommendations of Bologna, the Center has implemented a number of activities related to the introduction of small credit

programmes and the recognition of their learning outcomes within the framework of formal education. To ensure this, in 2021 the Center conducted a survey aimed at assessing the collective expectations and attitudes of the target audience regarding the introduction of micro-credentials, as well as gathering information about existing practices. According to the results of the research, the majority of respondents considered it necessary to include micro-credentials in the legal framework, preferred the use of ECTS credits (instead of hours) to measure the volume of the programme, and considered the use of external quality assurance mechanisms important in this process. Almost half of the respondents noted the need to reflect the small-credit programmes in the framework of national qualifications. At this stage, such programmes are implemented by only a small part of the respondents (15%), although the majority (93%) expect that the demand for micro-credentials will increase in the future. (LEPL - National Center for Educational Quality Enhancement, 2021).

As for the formalization of micro-credentials, the surveyed institutions identified the following challenges:

- Improvement of the relevant legal framework;
- Absence of activity experience;
- Less employers' involvement/low demand on the employment market;
- Low public awareness;
- Possibilities of recognition of learning outcomes achieved within the framework of non-formal education within the framework of formal education.

It is important to note that Georgia already has an experience in the development of micro-credentials in the field of formal education. From 2019, within the framework of vocational education, vocational training and retraining programmes are implemented, which are an excellent means of lifelong learning and can be considered as micro-credentials in professional development. These programmes help the interested individuals to master a new profession or upgrade their skills within an existing profession in a short period of time and enter the labor market. The minimum and maximum duration of programmes are not defined at the system level, although in common practice their average duration varies from one to six months. Admission requirement of training programmes is to have a minimum basic education, the minimum age is determined by the specifics of the programme, while the maximum age is not limited. Vocational training and retraining programmes after completion of which the graduate is granted a state-recognized certificate, are ensured by quality assurance mechanisms corresponding to international





standards (authorization of programmes is carried out), and are reflected in levels 2, 3, 4, 5 of the National Qualifications Framework.

## 10. Recommendations for the Implementation of the Optimal System of Micro-Credentials in the Higher Education of Georgia

The review of international practice in the direction of introducing micro-credentials at the level of higher education reveals that the experiences in some cases are diametrically different from each other. If, on the one hand, in some countries, there is high trust in higher education institutions and they fully entrust the quality assurance of micro-credentials to the institutions, on the other hand, there are countries in which micro-credentials are subject to external quality assurance at all levels of education.

Considering that the mechanisms of recognition of informal education in Georgia were created relatively recently (confirmation of competence in the subsystem of vocational education and externship in the subsystem of general education) and there is practically no similar experience at the level of higher education; At the first stage, it is suggested to start piloting the introduction of micro-credentials in educational institutions corresponding to specific criteria, as it happened in several European countries. After that, by observing the existing practice and identifying the challenges, it will be possible to introduce micro-credentials on a large scale in the higher education system.

Piloting the process and accumulating some experience will contribute to the formation of a quality culture in the direction of development and implementation of micro-credentials. At the initial stage, it is advisable to take into account the New Zealand model, which provides for the involvement of the National Center for Educational Quality Enhancement in the external quality assurance process of micro-credentials.

The range of credits varies from country to country, in some countries there is only an upper limit, which in some cases is 40-45 credits. However, taking into account the specifics of the higher education system of our country, in order to establish realistic, measurable and achievable learning outcomes within the framework of the micro-credentials and to measure and evaluate the achievement of the learning outcomes with appropriate mechanisms, it is recommended that the minimum volume of micro-credential be determined by no less than 1 ECTS credit, and the maximum volume by no more than 30 ECTS credits, which, according to the Order N3 of the Minister of Education and Science of Georgia of January 5, 2007, "On approval of the rule of calculation of higher education programmes with credits", is half of the full workload of one academic year.

Furthermore, it is suggested at the first stage to define the range of study areas in which micro-credential programmes will be implemented in pilot mode and which will be recognized at a specific level of formal





introduced in the pilot mode, at the first stage they were introduced in the following fields of higher education: information and communication technologies (ICT) (programming, cyber security, cloud computing, digital transformation, etc.; business and management (business administration, project management, marketing, etc.).

Also, taking into account the existing experience, in order for the development and implementation of micro-credentials to serve the training of persons with competence corresponding to the requirements of the labor market, and at the same time, in order for the development of micro-credential programmes not to have a spontaneous character, it is appropriate to determine the prerequisites for the design, delivery and admission to micro-credentials in a specific field.

In Georgia, as well as in many European countries, it is recommended that the applicant for admission to the programme should have at least a complete general education certificate or its equivalent. The provider institution shall have the right to define higher or other additional requirements for enrollment in the micro-credential programme than those defined by the legislation.

In order for micro-credentials to be used to deepen communication and cooperation between higher education institutions and the actors of the employment market, in order to obtain the right to implement it, the institution, in cooperation with the relevant employer, must present a reasoned position on why it is necessary to design and deliver a micro-credential programme in a specific field of study. The mentioned reasoning should be supported by the conducted market research and the results of the survey of the employers operating in the field. The effectiveness of the mentioned solution is confirmed by the experience of New Zealand; the partnership of a HEI with employers and consideration of the employer's requirements in the developed micro-credential programme is a guarantee of the interest of the applicants and the sustainability of the programme.

## 11. Recommendations for the Legal Regulation of the Introduction and Implementation of Micro-Credentials in the Higher Education System of Georgia

In order to introduce the micro-credential system in the national legislation, the concept of micro-credential, its provider entities, as well as the mechanisms of micro-credential's recognition and quality assurance shall be defined at the legislative level.

There are two possibilities for introducing the micro-credential system: a) a provider shall be only a higher education institution and b) the provider shall be the HEI as well as a legal entity that does not have the



status of a higher education institution (hereinafter - an external provider). Also, recognition of micro-credential can be done at the central level (by the NCEQE)<sup>7</sup>, or at the level of the institution (directly by the provider Higher Education Institution ).

However, after selecting the appropriate alternative from the above-mentioned alternatives, it is possible to define further regulations at the legislative level. This document discusses the need for further legislative regulation in case of both alternatives.

### 11.1 Definition of the Concept of Micro-Credentials and the Provider Entities

According to the legislation, both the HEI and an external provider may be designated as a provider of a micro-credential. For this purpose, an amendment shall be made to the Law of Georgia "On the Education Quality Improvement"<sup>8</sup>. Furthermore, the concept of micro-credential shall be defined both in the Law of Georgia on "Higher Education" and in the Law of Georgia<sup>9</sup> "On Education Quality Improvement"<sup>10</sup>. In addition, when defining the concept of micro-credential, it is recommended to define the minimum and maximum volume of micro-credential (proposed volume: Minimum 1 credits Maximum 30 credits)<sup>11</sup>, admission prerequisites and its role for the purposes of educational programme.

### 11.2 External Mechanisms of Quality Assurance

The following can be proposed as an external quality assurance mechanism:

#### a) Accreditation of a micro-credential

<sup>7</sup> See chapter 4 for detailed regulations regarding recognition.

<sup>8</sup> It is also possible to make changes to the Law of Georgia "On Higher Education". However, the aforementioned does not carry a mandatory burden, because the definition of provider entities and the definition of the concept of micro-credentials will be defined in the Law of Georgia on "Education Quality Improvement", and the definition of the concept of micro-credential will also be defined in the Law on Higher Education. According to the systematic interpretation of these acts, it will be determined that the HEI is authorized to implement the micro-credential awarding component.

<sup>9</sup> The act, in accordance with its scope of regulation, applies only to higher education institutions

<sup>10</sup> The act, by its nature, regulates the mechanisms of ensuring the quality of education and is not limited only to higher education institutions

<sup>11</sup> Determining the minimum and maximum volume of micro-credential is recommended for the flexibility of its further calculation by the providers. In addition, although the legislation of individual countries (e.g. New Zealand) has a higher upper limit of micro-credential (40 credits), however, according to the national legislation (Rule of Calculation of Higher Education Programs with Credits" approved by the Order No. 3 of the Minister of Education and Science of Georgia as of January 5, 2007), the average semester load is 30 credits, therefore it is recommended that the maximum number of micro-credential does not exceed 30 credits. This reasoning is supported by the fact that, according to Article 6(4) of the Classifier of Fields of Study defined in the second annex of the order of the Minister of Education, Science, Culture and Sports of Georgia of April 10, 2019 No. 69/N "On the approval of the National Qualifications Framework and the Classifier of Fields of Study", the minimum volume of the minor programme is 30 credits and shall not exceed 60 credits. By its nature, micro-credentials are not a minor





When introducing the micro-credential system, in the case of introducing accreditation as an external quality assurance mechanism, amendments should be made to the Law of Georgia on "Education Quality Improvement" and the Law of Georgia on "Higher Education". Considering that micro-credential does not constitute an educational programme in accordance with the content of the educational programme defined<sup>12</sup> by the law of Georgia on "Higher Education", the changes may also affect the relevant subordinate acts.

Considering that an accreditation is considered as an external mechanism of quality assurance for the delivery of a micro-credential, it is possible to accredit the micro-credential with the existing accreditation standards<sup>13</sup>, as well as to approve new, adapted, accreditation standards. In the first case (applying the existing accreditation standards for micro-credentials), changes should be made to the existing legal act<sup>14</sup>, and in the second case, the "adapted" standards may be approved by an independent legal act (e.g. by the order of the Minister of Education and Science of Georgia), or by making appropriate changes to the existing legal act.

The micro-credential accreditation procedure can be carried out for both micro-credential provider entities (both HEI and external providers).

In case of implementation of the above-mentioned external mechanism of quality assurance, it may be necessary to make changes related to authorization in the Law of Georgia on "Education Quality Improvement". In particular, according to the current legislation,<sup>15</sup> "the following shall not be subject to authorisation: which is not part of the qualification awarding educational programme; Which is neither directly nor indirectly related to the educational programme awarding the qualification and has an independent learning outcome;" Due to the fact that, at the legislative level, it is assumed that the micro-credential provider entity may be an external provider that does not have the status of an educational

<sup>12</sup> In order to qualify as an educational programme, the programme must result in one of the levels determined by the national qualification framework

<sup>13</sup> see: Order №65 / N of the Minister of Education and Science of Georgia of May 4, 2011

<sup>14</sup> Order No. 65/N of the Minister of Education and Science of Georgia dated May 4, 2010 "On the Approval of the Regulation for the Accreditation of Educational Programmes and the Fee for the Accreditation of Educational Institutions."

<sup>15</sup> In accordance with Article 8(4) of the Law of Georgia "Education Quality Improvement," the following shall not be subject to authorization:

a) Entity which carries out such educational activity:

a.a) Which is not accompanied by the issuance of the document certifying qualification;

a.b.) Which is not a part of the educational programme conferring qualification;

a.c) Which is neither directly nor indirectly related to the programme conferring qualification and has independent learning outcomes;

a.d) Which is not ending with conferring qualification;

b) Individual educational activities of a natural person, including those in the field of vocational training.





institution (therefore, does not have an authorization), and micro-credentials, by their essence, are at least indirectly related to the educational programme granting qualifications and have independent learning outcome, this issue can be regulated in the following manner: In Article 8, Paragraph 4 of the Law of Georgia “Education Quality Improvement” an entry shall be added, according to which, the micro-credential provider entity shall not be subject to authorization, despite its activities that do not fit into the exceptions defined by Article 8, Paragraph 4. By adding this formulation in the law, another exception will be added in paragraph 4 of Article 8, according to which the entity shall not be subject to authorization;

b) Evaluation of a micro-credential’s delivery and/or recognition mechanism (internal quality assurance mechanism) within the framework of authorization standards by micro-credentials’ provider/recognizing HEI.

Evaluation of a micro-credential’s delivery and/or recognition mechanism within the framework of authorization standards by micro-credentials’ provider/recognizing HEI can be an external quality assurance mechanism for the introduction of a micro-credential. In addition, this mechanism can be introduced in the following cases:

a) Micro-credential provider is a HEI- in this case, the micro-credential delivery and recognition mechanism<sup>16</sup> will be evaluated and implemented within the framework of the authorization standards. In addition, it is advisable to deliver a micro-credential within the framework of the programme accredited by the HEI.<sup>17</sup>

For the purposes of this process, it is recommended to reflect micro-credentials in the National Qualifications Framework<sup>18</sup> approved as the first annex of the order of the Minister of Education, Science, Culture and Sports of Georgia 69/n of 10 April 2019 “On the approval of the National Qualifications Framework and the Classifier of Fields of Study“, in the rule of calculation of higher education programmes with credits approved by the Order N3 of the Minister of Education and Science of Georgia from January 5, 2007 and in the authorization standards of educational institutions approved by the order of the Minister of Education and Science of Georgia No. 99/N of October 1, 2010. These amendments will contribute to the introduction of micro-credentials and the definition of a uniform practice at the stage of its implementation.

<sup>16</sup> It is possible for the HEI to be the provider of micro-credential, although this does not exclude the need for a micro-credential recognition mechanism in the HEI (for example, in the case of recognition of a micro-credential of another HEI/external provider).

<sup>17</sup> e.g., On the basis of the accredited business administration bachelor's programme, a micro-credential covering accounting issues was developed, which is completely derived and based on the accredited programme.



After the entry into force of the legislative changes focused on the introduction of micro-credentials, it is appropriate to define additional legal regulations for the purpose of updated regulation (for evaluation of the mechanism of delivery and/or recognition of micro-credential within the framework of authorization standards), for application on already authorized HEI (or for determining the external mechanism of alternative quality assurance for such HEI before reauthorization).

b) The micro-credential provider is an external provider - the micro-credential recognition mechanism (internal quality assurance mechanism) by the micro-credential recognising HEI is evaluated within the framework of the authorization standards of the HEI. In this process, it is possible to sign a contract between the HEI and the external provider.<sup>19</sup> Accordingly, changes will be made in the authorization standards of educational institutions approved by the order of the Minister of Education and Science of Georgia dated October 1, 2010 No. 99/N. As part of this external quality assurance mechanism, the external provider does not go through the external quality assurance process independently. However, the limitation of the flexibility of recognition of micro-credential may be considered as a drawback of this process.

### 11.3 Internal Quality Assurance Mechanism

The existence of an internal mechanism for ensuring the quality of micro-credential delivery will facilitate the introduction process of micro-credentials by the providers.

In addition, in order to reflect the internal mechanism<sup>20</sup> of quality assurance at the legislative level, changes should be made in the authorization standards of educational institutions approved by the order of the Minister of Education and Science of Georgia dated October 1, 2010 No. 99/N.

### 11.4 Recognition of a Micro-Credential

For the effective implementation of micro-credentials, it is important to have a recognition mechanism. Micro-credentials can be recognized at the following levels:

**a) At the central level** - micro-credential will be recognized by the LEPL National Center for Educational Quality Enhancement. In the national legislation, there is an analogue of a similar system in the context of recognition of education received abroad/confirmation of the authenticity of an educational document issued in Georgia. In these cases, an amendment shall be made to the law of Georgia "Education Quality

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<sup>19</sup> A similar regulation is provided by the authorization standards, under the standard of material, financial and informational resources (agreement concluded with a practice/research-scientific facility).

<sup>20</sup> This can be expressed in the rules for developing micro-credential, offering it to students, evaluating and recognizing it, as well as in the evaluation mechanisms of the micro-credential delivery process.



Improvement" and on the basis of this, an independent legal act describing the regulatory issues of micro-credential recognition shall be issued or it shall be integrated in the order of the Minister of Education and Science of Georgia of October 1, 2010 No. 98/N On the rule for Verification of Authenticity of Educational Documents Issued in Georgia and Recognition of Education Received Abroad and Approval of Fees.

**b) At the level of the institution** - for the purposes of recognition, the decision of the competent body of the directly recognizing institution (HEI/external provider) will be sufficient. In this case, the process will be defined directly by the institution and checked by an external quality assurance mechanism.<sup>21</sup> For this purpose, appropriate changes should be made in the authorization standards of educational institutions approved by the order of the Minister of Education and Science of Georgia dated October 1, 2010 No. 99/N.

In addition, it is important to define the features of recognition. In particular, the recognition mechanism at the level of the institution should provide for the recognition of the micro-credential delivered by the external provider for the purposes of the HEI programme,<sup>22</sup> as well as the possibility of recognizing the micro-credential awarded within the framework of the HEI programme for the purposes of another programme of the same HEI<sup>23</sup>. In addition, it is suggested to determine at the legislative level the maximum volume of micro-credentials recognized by the HEI within the educational programme (recommended volume: Max. 30 credits). This limitation will reduce the probability that a large part of the learning outcomes determined by the educational programme will be realized at the expense of recognition of micro-credentials.

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<sup>21</sup> e.g., Evaluation of micro-credential delivery and/or recognition mechanism (internal quality assurance mechanism) within the framework of authorization standards by micro-credential provider/recognizing HEI.

<sup>22</sup> For instance, The Training Center Course - "Management" will be recognized by HEI for the purposes of the Business Administration Programme

<sup>23</sup> For instance, HEI has developed a micro-credential awarding programme on the basis of the law programme (e.g. banking law or personal data protection), which was completed by a student of the business programme. If this student transfers to a law programme at another university in the future, recognition of this knowledge may be discussed.



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