



ENQA OCCASIONAL PAPER

QUALITY ASSURANCE OF MICRO-CREDENTIALS

**Expectations within the Context of the Standards
and Guidelines for Quality Assurance
in the European Higher Education Area**

ENQA WORKING GROUP ON QUALITY ASSURANCE OF MICRO-CREDENTIALS
EDITED BY ANCA GREERE
DECEMBER 2023

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European Association for
Quality Assurance in Higher Education



European Association for Quality Assurance in Higher Education - ENQA ASBL

December 2023

QUALITY ASSURANCE OF MICRO-CREDENTIALS: Expectations within the Context of the Standards and Guidelines for Quality Assurance in the European Higher Education Area

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ENQA Working Group on Quality Assurance of Micro-credentials
Edited by Anca Greere

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Table of Contents

Foreword.....	3
Executive Summary	4
List of Overarching Recommendations.....	5
Acknowledgements	7
Chapter I. Introduction.....	8
Scope and methodology.....	8
Structure of the report	11
Target audience.....	11
Chapter II. The Rise of Micro-credentials.....	13
<i>by Maria João Manatos, Mercedes Curto and Marilena Maniaci</i>	
Various international initiatives on micro-credentials	13
Defining features of micro-credentials	15
Terminology relating to micro-credentials.....	18
Chapter III. External Quality Assurance of Micro-credentials. Mapping Existing Practices across the European Higher Education Area.....	20
<i>by Esther Huertas Hidalgo and Eduardo García Jiménez</i>	
Views of quality assurance agencies on micro-credentials	20
Arrangements for the quality assurance of micro-credentials.....	21
Challenges for the external quality assurance of micro-credentials.....	24
Conclusion.....	25
Chapter IV. The ESG and their Applicability to Micro-credentials.....	26
<i>by Anca Greere, Dagmar Provijn, Erato Ioannou, Georg Seppmann and Ulf Hedbjörk</i>	
Overarching recommendations.....	29
Considerations for the future.....	34
Part 1: Standards and guidelines for internal quality assurance	35
Part 2: Standards and guidelines for external quality assurance.....	47

Chapter V. Examples of External Quality Assurance Practices: Case Studies from ENQA Member Agencies	53
Case study by AQU Catalunya: Ex-ante EQF Level 6 and 7 accreditation of short learning programmes, by <i>Esther Huertas Hidalgo, Carme Edo and Teresa Pitarch</i>	54
Case study by HAKA Estonia: Regulatory subject-group external quality assurance of micro-credentials, by <i>Kaija Kumpas-Lenk</i>	58
Case study by Quality and Qualifications Ireland (QQI): Programme-level validation, by <i>Walter Balfe</i>	62
Case study by the British Accreditation Council (BAC): Voluntary institution-level accreditation of providers of micro-credentials, by <i>Anca Greere and Lucy Fox</i>	66
List of Main References.....	70
ANNEX I: Survey	72

Foreword

Over recent years micro-credentials have become one of the hot topics of the higher education sector. While they are nothing new in the context of lifelong learning, they have lately taken centre stage due to the policy focus on support for up- and re-skilling, flexible learning paths, and permeability between higher education and other tertiary education sectors. Questions about how best to assure the quality of those micro-credentials have naturally followed. In order to contribute to the discussions and provide concrete input to practice, ENQA formed a working group to explore if and how agencies are addressing this issue and which aspects of the ESG need specific attention when it comes to the quality assurance of micro-credentials. This publication is the result of that work.

We hope that this report may provide some practical inspiration to higher education institutions and quality assurance agencies as to how best to ensure the quality of micro-credentials within their own contexts. By anchoring the guidance provided here in the framework of the ESG, this report is intended to complement other existing and ongoing initiatives and enrich the range of resources available to higher education stakeholders. The general recommendations and specific explanations related to the ESG are intended as non-prescriptive guidance to provide support and prompt reflection as to whether micro-credentials are sufficiently covered by existing approaches or if adaptations are needed to internal and external quality assurance processes.

ENQA would like to sincerely thank all the agencies and individual staff members who took part in the working group and contributed their time and expertise. Special gratitude goes to Anca Greere of the British Accreditation Council for chairing the group and leading the writing of this report. The agency also hosted a valuable in-person meeting of the working group in London in June 2022.

Thanks are also due to all ENQA members and affiliates who contributed to the survey, both as pilot respondents to ensure its viability, and as full respondents to provide data to map existing practices.

ENQA's working groups aim to serve not just the members and affiliates that participate directly, but the whole ENQA membership and wider quality assurance community by producing an output that is accessible and helpful to all. As such, we hope that this report will prove interesting for a wide readership.

Douglas Blackstock
ENQA President

Executive Summary

The European Association for Quality Assurance in Higher Education (ENQA) is the designated stakeholder organisation of quality assurance agencies in the European Higher Education Area (EHEA). In fulfilling this role, ENQA supports its community of agencies to drive innovation in quality assurance and refine quality assurance processes in alignment with relevant developments in higher education.

Conscious of the increasing debate around the quality assurance of micro-credentials and the recurrent questions surrounding the applicability of the Standards and Guidelines for Quality Assurance in the EHEA (ESG), in 2021 ENQA established the Working Group on the Quality Assurance of Micro-credentials to closely follow developments across its membership and inform robust input to the discussions.

This report summarises the findings of the Working Group in its exploration of quality assurance dimensions related to micro-credentials. More specifically, it considers the implications of applying the ESG to the provision of micro-credentials. It also considers the arrangements that European educational sectors already have in place to guarantee the quality of micro-credential provision.

The findings outlined are primarily targeted at quality assurance bodies who are currently considering options for the quality assurance of micro-credentials based on the national, regional, and institutional realities they see within their educational sector. It may also prove particularly relevant for institutions and education providers seeking to ensure ESG alignment in this specific form of provision. Institutions and education providers can apply the information contained within the report in a two-fold approach: (1) as guidance on how to design their own processes to ensure robustness and explicit awareness of any micro-credential-specific areas for attention; and (2) as information on what to expect of external quality assurance requirements and focus on when micro-credential provision may be assessed through formal processes by respective quality agencies.

The conclusions highlight that:

- Reassurance for the quality of micro-credentials is important and should be actively sought.
- Arrangements that can facilitate reassurance are generally context-dependent and will need to consider existing quality assurance approaches.
- Capturing micro-credentials in external quality assurance processes has benefits and how this is done will depend on a multiple factors.
- Transparency, recognition, stackability, and portability must be at the forefront of demonstrating the quality of micro-credentials.
- Different models for future collaboration between stakeholders must be explored with opportunities for quality assurance agencies to revisit their remit and roles.

List of Overarching Recommendations

In the design and implementation of external quality assurance processes for micro-credentials, it is recommended that quality assurance bodies and/or regulatory authorities demonstrate that ...

- *...arrangements for the quality assurance of micro-credentials are explicitly made and communicated to education providers and other stakeholders.*
- *...where external quality assurance procedures are proposed, these are flexible and rely, where appropriate, on already existing arrangements.*
- *...where external quality review/evaluation procedures are proposed, they consider the benefits and challenges of targeted involvement of specific stakeholder profiles, as relevant to the micro-credential provision.*
- *...where internal quality assurance systems have repeatedly demonstrated their effectiveness, micro-credential external quality assurance procedures test how features specific to micro-credentials are accommodated as part of these systems.*
- *...any external quality assurance approach has to consider how micro-credentials achieve their specific objectives for upskilling, reskilling, and lifelong learning.*
- *...any external quality assurance approach places particular emphasis on stackability, recognition, and portability arrangements for micro-credentials.*
- *...information sharing is intensified for more diverse models of future collaboration between stakeholders, allowing for more agile safeguarding of such provision while reducing the burden on providers.*

In the design and implementation of internal quality assurance processes for micro-credentials, it is recommended that education providers demonstrate (to quality assurance bodies and other stakeholders) that...

- *...labour market expertise contributes to all stages of the micro-credential life cycle, including quality assurance processes.*
- *...professional collaborations and academic partnerships are intensified, particularly for the purposes of quality assurance, recognition, and stackability.*
- *...lifelong learning is integrated in a provider's mission and vision, allowing for micro-credentials to be anchored in the broader educational offer.*
- *...clear responsibilities are allocated, within any given provider, for the management and review of micro-credentials.*
- *...policies, promoted by any given provider, cover micro-credential activities in meaningful ways.*
- *...internal quality monitoring for micro-credential activity is more frequent or takes different approaches than procedures for traditional degrees.*
- *...stakeholder engagement is well calibrated and makes use of tools that render positive results as part of internal quality monitoring and review processes.*
- *...suitable procedures for recognition of prior learning and validation are in place.*
- *...information is provided on mandatory elements and, where relevant, optional elements, as highlighted by 'A European Approach to Micro-credentials'.*
- *...certification systems for micro-credentials are appropriately implemented, possibly in digital form, to improve their portability and permeability.*

The recommendations are formulated across all areas of micro-credential implementation. Some of the recommendations offer direct consideration of how external quality assurance may be organised effectively to capture micro-credentials; others look more closely at the arrangements that would be expected for the internal quality assurance of micro-credentials, in turn being scrutinised by external quality assurance.

As such, some of these recommendations are more specifically targeted towards quality assurance bodies or regulatory authorities responsible for safeguarding the quality of micro-credential-type education within

national or regional contexts. Others may be relevant to providers wishing to add micro-credentials to their portfolio, or those who are already engaged in delivering micro-credentials and who need to demonstrate alignment with recognised standards of delivery.

Importantly, synergies need to be evident between internal and external quality assurance.

Professor Anca Greere
Chair

on behalf of the ENQA Working Group on the Quality Assurance of Micro-credentials

Acknowledgements

The Working Group would like to first and foremost acknowledge our appreciation for the constant support and helpful input received from colleagues at ENQA, specifically the current director, Anna Gover, the former director, Maria Kelo, board member, Patrick Van den Bosch, senior policy and project coordinator, Elena Cîrlan, as well as secretariat members and other administrative staff.

Our thanks is also due to BAC Chief Executive, Dr Janet Bohrer, who endorsed the initial proposal to organise this Working Group and approved that the chairing role be undertaken by the British Accreditation Council, offering her support to the chair as often as necessary during the course of the Working Group proceedings.

All the members of the Working Group have graciously given their commitment and have demonstrated consistent engagement with the activities proposed, and we have been thankful for the wonderful collaboration and collegiate cooperation. During the course of our work, there have been specific activities which have claimed more of our time and effort and where we have had to distribute tasks to enable us to successfully meet our aims. Colleagues who have offered their input for these activities are listed below, with our gratitude.

Special thanks:

- for piloting the WG survey, including technical review: Manuela Brusoni (ASFOR), Mercedes Curto (ANECA), Eva Fernández de Labastida (Unibasq), Lucy Fox (BAC), Eduardo García Jiménez (madri+d), Lali Giorgidze (NCEQE), Esther Huertas Hidalgo (AQU Catalunya), Mira Huusko (FINEEC), Erato Ioannou (CYQAA), Katrin Mayer-Lantermann (GAC), Diana Morriss (BAC), Georg Seppmann (evalag), Patrick Van den Bosch (ENQA Board Member);
- for hosting and administering the WG survey: Georg Seppmann (evalag);
- for analysis of WG survey results: Reinhard Jakits (AQ Austria), Marilena Maniaci (ANVUR), Mira Huusko (FINEEC), Inese Rutka (AIC), Maria João Manatos (A3ES), Şule İtir Satoğlu (THEQC);
- for reviewing the WG report and providing helpful insights: Manuela Brusoni (ASFOR), Mercedes Curto (ANECA), Eva Fernández de Labastida (Unibasq), Anna Gover (ENQA Director), Esther Huertas Hidalgo (AQU Catalunya), Reinhard Jakits (AQ Austria), Maria João Manatos (A3ES), Lineke van Bruggen (NVAO The Netherlands).
- for hosting and supporting the WG face-to-face meeting on 16-17 June 2022, in London, United Kingdom: Janet Bohrer (BAC Chief Executive), Lucy Fox (BAC Business Development Manager) and Clare Baker (BAC Administrator);
- for hosting and supporting the online dissemination conference organised on 27 September 2022: Anna Gover (ENQA Director), Patrick Van den Bosch (ENQA Board Member), Elena Cîrlan (ENQA Senior Policy and Project Coordinator) and Julia Rozanska (ENQA Administrative Officer).

Professor Anca Greere
Chair

on behalf of the ENQA Working Group on the Quality Assurance of Micro-credentials

Chapter I. Introduction

The European Association for Quality Assurance in Higher Education (ENQA) is the designated stakeholder organisation of quality assurance agencies in the European Higher Education Area (EHEA). In fulfilling this role, ENQA supports its community of agencies to drive innovation in quality assurance and refine quality assurance processes in alignment with relevant developments in higher education.

Conscious of the increasing debate around the quality assurance of micro-credentials and the recurrent questions surrounding the applicability of the Standards and Guidelines for Quality Assurance in the EHEA (ESG), in 2021 ENQA established the Working Group on the Quality Assurance of Micro-credentials to closely follow developments across its membership and inform robust input to the discussions.

This report summarises the findings of the Working Group in its exploration of quality assurance dimensions related to micro-credentials. More specifically, it considers the implications of applying the ESG to the provision of micro-credentials. It also considers the arrangements that European educational sectors already have in place to guarantee the quality of micro-credential provision.

Aware of the fact that there are multiple European and international projects that have sought to map the educational offer of micro-credentials delivered by institutions and education providers, the Working Group did not seek to develop additional understanding of internal institutional realities, but maintained a clear focus on external quality assurance with the aim of shedding light on areas in need of attention when considering the quality assurance of micro-credentials. As such, the findings concern processes appropriate and available for creating robust quality assurance arrangements and highlight areas that need to be given suitable consideration in external review processes with the aim of ascertaining the quality of micro-credential provision.

As with any pan-European initiative, it is essential to maintain a broad approach that allows national jurisdictions to decide on the level of prescriptiveness in the quality assurance of micro-credentials. Therefore, many of the recommendations presented as part of this report identify overarching areas that require specific focus without offering detailed options for implementation. It is thus left to the discretion of relevant governments, ministries, quality assurance bodies, and individual institutions to decide on the most effective arrangements to give the reassurances needed within individual educational sectors. As such, this report sets out to identify the common denominators that can promote transferability and consistency of practices and to emphasise the cross-national potential of micro-credentials. The case studies included at the end of this report offer more detailed approaches to contextualisation and highlight individual lessons learned in specific national contexts and their endeavours to design and implement measures for external quality assurance scrutiny. The case studies have been chosen to give guidance in comparable situations.

Scope and methodology

The ENQA Working Group was convened in June 2021 following a call for expressions of interest that resulted in a number of ENQA member agencies participating in this initiative. Eighteen member organisations invested a large amount of time and effort making a detailed investigation into the phenomenon of micro-credentials with the goal of proposing workable recommendations that could serve educational stakeholders—primarily quality assurance agencies, but also regulatory bodies, governments, ministries, employers, students and learners, and even the public more generally—as they seek to maintain

the dual aspects of accountability and enhancement in quality assurance in relation to micro-credential offerings.

The Working Group was composed of 18 representative agencies drawn from across 13 countries and chaired by the British Accreditation Council. It had the following objectives:

- to map quality assurance approaches for micro-credentials across the EHEA (with emphasis on the role of quality assurance agencies in externally quality assuring such provision);
- to determine areas of specific importance in relation to the quality assurance of micro-credentials in alignment with the ESG;
- and to develop guidance on key considerations of quality assurance for micro-credentials, which could serve to support multiple stakeholder groups.

The composition of the Working Group ensured that there was a mix of members who could demonstrate different experiences with micro-credentials and, hence, could express a variety of views about their quality assurance, while also exemplifying specific contextual realities. This meant that discussions could result in well-balanced and informative outcomes, considering the diversity of educational sectors.

Some members were already quite far along on the journey of assessing the most appropriate arrangements for the quality assurance of micro-credentials within their sectors and for their provider profiles. Other members were just finding out what was happening within their own national contexts and what levels of interest were being exhibited by providers, employers, and learners in considering micro-credentials as a viable and complementary alternative to traditional education. These differences of experience can be seen in the way that some agencies have taken a regulatory approach, while others have proposed voluntary methodologies for external quality assurance. Some have exclusively worked with higher education institutions, while others have engaged with a broader portfolio of education providers. Some agencies have engaged in cross-border activity, while others have worked exclusively in national or regional contexts. Some have focussed more heavily on institutional level quality assurance arrangements, while others have taken a programme-based approach to external quality assurance or offered specialist services that revolve around specific areas of expertise. All in all, this mix proved highly beneficial and allows for the findings presented to be seen as robust and relevant across the EHEA and beyond.

1.	British Accreditation Council	BAC	UK	Anca Greere (chair)
2.	Evaluation Agency Baden-Wuerttemberg / Evaluationsagentur Baden-Württemberg	evalag	Germany	Georg Seppmann
3.	Accreditation Organisation of the Netherlands and Flanders	NVAO	Belgium (Flanders)	Dagmar Provijn
4.	Swedish Higher Education Authority / Universitetskanslersämbetet	UKÄ	Sweden	Ulf Hedbjörk
5.	The Cyprus Agency of Quality Assurance and Accreditation in Higher Education	CYQAA	Cyprus	Erato Ioannou
6.	Madri+d • Madrimasd Knowledge Foundation	madri+d	Spain	Eduardo García Jiménez

7.	The Catalan University Quality Assurance Agency	AQU Catalunya	Spain	Esther Huertas Hidalgo
8.	Agency for Assessment and Accreditation of Higher Education	A3ES	Portugal	Cristina Sin Maria João Manatos
9.	Agency for Quality Assurance and Accreditation Austria / Agentur für Qualitätssicherung und Akkreditierung Austria	AQ Austria	Austria	Reinhard Jakits
10.	Italian Association for Management Education / Associazione Italiana per la Formazione Manageriale	ASFOR	Italy	Manuela Brusoni
11.	National Agency for Quality Assessment and Accreditation of Spain / Agencia Nacional de Evaluación de la Calidad y Acreditación	ANECA	Spain	Mercedes Curto
12.	Agency for the Quality of the Basque University System / Agencia de Calidad del Sistema Universitario Vasco	Unibasq	Spain	Eva Fernández de Labastida
13.	Germany Accreditation Council / Stiftung Akkreditierungsrat	GAC	Germany	Felix Fleckenstein Katrin Mayer-Lantermann
14.	Finnish Education Evaluation Centre / Kansallinen koulutuksen arviointikeskus	FINEEC	Finland	Sirpa Moitus Karl Holm Mira Huusko
15.	Accreditation Organisation of the Netherlands and Flanders	NVAO	The Netherlands	Lineke van Bruggen
16.	National Agency for the Evaluation of Universities and Research Institutes / Agenzia Nazionale di Vautazione del Sistema Universitario e della Ricerca	ANVUR	Italy	Marilena Maniaci
17.	Academic Information Centre / Akadēmiskās informācijas centrs	AIC	Latvia	Inese Rutka
18.	Turkish Higher Education Quality Council / Yükseköğretim Kalite Kurulu	THEQC	Turkey	Sina Ercan Sule Itir Satoglu

Table I. List of ENQA agency members with participants, across the timeline of the Working Group.

The Working Group was supported by the ENQA Board and the ENQA secretariat, with the following colleagues making significant contributions across the timeline of its work: former director Maria Kelo; senior policy and project coordinator Elena Cîrlan; and board member Patrick Van den Bosch.

The activities of the Working Group spanned 18 months (2021-2022) and included multiple meetings, an internal survey, and an ENQA-wide survey. The internal survey provided an initial snapshot of national contexts and agency preoccupations in relation to micro-credentials. This was subsequently revised and expanded for distribution to all ENQA members. Subsequent data collection and analysis further informed a detailed exploration of the ESG with the aim of highlighting specific areas of consideration for micro-credentials in relation to individual standards in Parts 1 and 2.

Preliminary findings of the Working Group were presented at the ENQA Member's Forum in Cardiff in June 2022¹. Subsequently, ENQA organised an online dissemination event exclusively dedicated to the 'External Quality Assurance of Micro-credentials' on 27 September 2022². Drawing on the findings of the ENQA Working Group on Quality Assurance of Micro-credentials, the event explored existing and prospective practices for the external quality assurance of micro-credentials in a variety of contexts across the EHEA. The event outlined a number of areas that require additional attention if micro-credentials are to be designed, delivered, and reviewed to achieve high quality results and meet the expectations of increasingly diverse profiles of learners. The event was well attended (300+ delegates) and the feedback received was used by the Working Group to refine its recommendations in view of publishing this report.

Structure of the report

The report is structured into five chapters:

- Chapter I introduces the activities of the ENQA Working Group on the Quality Assurance of Micro-credentials, highlighting the scope and methodology which underpin the current report.
- Chapter II highlights initiatives which have already explored the micro-credential phenomenon, outlines the defining features of micro-credentials and details the specific terminology which had emerged within educational sectors to describe the ramifications micro-credentials present.
- Chapter III offers the findings of a survey addressed to ENQA members regarding their educational sectors and, specifically, current practices and future intentions regarding the external quality assurance of micro-credentials. Annex I presents the survey.
- Chapter IV scrutinises the applicability of the ESG for micro-credential provision and offers insights related to areas for further consideration. The recommendations provided are of direct interest to any stakeholder with involvement in micro-credential design, delivery, monitoring and evaluation.
- Chapter V offers four case studies which exemplify options for the external quality assurance of micro-credentials, detailing how different national contexts have proposed regulatory or voluntary external quality assurance arrangements. The case studies reflect experiences by AQU Catalunya, HAKA Estonia, Quality and Qualifications Ireland (QQI) and the British Accreditation Council (BAC).

Target audience

ENQA membership covers agencies and organisations with a focus on higher education, although not exclusively. There are also agencies/organisations in the ENQA family that have broader portfolios that extend to cover further education providers, including independent and alternative providers, as part of their remit. The Working Group sought to be mindful of the variation in agency portfolios. As such, the findings are not restricted to micro-credentials solely in higher education contexts, but go beyond to capture the very nature of this educational phenomenon with its characteristics of being agile, flexible, and well-aligned with labour market needs and presented in “bite-size” educational formats. Conscious of the fact that there can be significant variation in approaches to the design, delivery, and review of micro-

¹ https://www.enqa.eu/wp-content/uploads/Draft-Programme-ENQA-Members-Forum-2022_22-June_to_publish.pdf, accessed on 11 November 2022

² <https://www.enqa.eu/events/online-dissemination-event-external-quality-assurance-of-micro-credentials-27-september-2022/>, accessed on 11 November 2022

credentials in higher education, in contrast to those offered by other types of providers, the Working Group analysed all forms of micro-credential offering in an attempt to make its findings as comprehensive as possible so that this report can have validity for all providers who are seeking to align with the quality baseline proposed by the ESG.

The findings outlined in this report are primarily targeted at quality assurance bodies who are currently considering options for the quality assurance of micro-credentials based on the national, regional, and institutional realities they see within their educational sector. In educational contexts where regulatory organisations have decided that a mechanism for the external quality assurance of micro-credentials is desirable and/or necessary, the details presented here can also serve to underpin external quality assurance methodologies, developed and implemented regionally or nationally. However, the findings are equally relevant to non-regulatory bodies proposing voluntary schemes for the external quality assurance of micro-credentials, which may have a more varied portfolio of providers spanning higher, further, or independent education.

This report may also prove particularly relevant for institutions and education providers seeking to ensure ESG alignment in this specific form of provision. It is important to understand the findings in this report in the context of the ESG and to accept that the first layer of compliance will need to be with the ESG before specificities of micro-credential quality assurance can be considered. Institutions and education providers can apply the information contained within the report in a two-fold approach: (1) as guidance on how to design their own processes to ensure robustness and explicit awareness of any micro-credential-specific areas for attention; and (2) as information on what to expect of external quality assurance requirements and focus on when micro-credential provision may be assessed through formal processes by respective quality agencies.

Chapter II. The Rise of Micro-credentials

by Maria João Manatos, Mercedes Curto and Marilena Maniaci

Micro-credentials are definitely not new. Short learning courses have long featured in the offering of numerous higher education institutions, further education providers, and alternative and independent education organisations. All of these institutions have contributed to the diversity and breadth of this phenomenon.

In recent years, there has been intense preoccupation to define, characterise and regulate micro-credentials - initiatives which have been underpinned by labour market drivers and debates about educational funding.

It is a reality that more flexible learning is appealing to a diverse set of learner profiles and interest in it continues to increase, also in the aftermath of the pandemic (Greere 2022). Many providers are now aiming to promote options for lifelong learning, either as stand-alone certifiable modules, or as courses supported by agreements with higher education providers. Policy debates are intensifying as micro-credentials gain significant focus in global and European educational settings.

Various international initiatives on micro-credentials

Recent years have witnessed increased activity related to micro-credentials. International, regional, and national approaches, alongside varied initiatives and projects have been informed by a wide range of policy makers, national and supra national regulatory bodies, and education providers. The relevance of quality assurance justifies UNESCO's definition of micro-credentials, which states that they should meet "the standards required by relevant quality assurance" (UNESCO, 2022: 6). However, the challenges of micro-credentials, particularly relating to their acceptance and recognition by employers and policy-makers, are significant and "the need for robust quality assurance and the conundrum of how to enact it when providers operate outside of the regulated education sector" is also one of them (UNESCO, 2022: 5). Consequently, UNESCO is committed to working with stakeholders from all member states in developing a universal quality framework for micro-credentials (UNESCO, 2022).

The European Commission has also acknowledged constraints in the recognition and quality assurance of micro-credentials. It undertook an extended consultation process on micro-credentials that led to a refined European definition and has informed the European roadmap for micro-credentials (European Commission, 2020a; Orr et al., 2020).

Being part of this consultation process, the Microbol project explored the use and/or adaptation of tools in the EHEA to micro-credentials. It emphasised that micro-credentials, being part of the education provision of higher education institutions, are subject to internal quality assurance mechanisms of institutions, in line with the ESG (Cirlan and Loukkola, 2020; Microbol, 2021). In this project, ultimate responsibility for ensuring the quality of micro-credentials, regardless of their life cycle or format, was considered to lie with education providers. It was suggested that external quality assurance should integrate micro-credentials into its processes and "ensure that the higher education institutions offering micro-credentials have a reliable and well-built system to monitor their quality internally" (Microbol, 2021:12).

According to the results of the Microbol project, the quality assurance of micro-credentials should thus be based on the following guiding principles, also mirroring the ESG:

- The quality assurance of micro-credentials is the responsibility of institutions and undertaken through their internal quality assurance processes.
- External quality assurance should be based on institutional evaluation and on the application of the ESG.
- Learners should be involved in quality assurance processes.
- Quality assurance policies and practices for micro-credentials should be transparent.
- Official registers of trustworthy providers at regional and national levels should be developed.
- Micro-credentials should be assessed according to the principles and procedures of the Lisbon Recognition Convention, namely through recognition agreements between education providers, at regional and cross-regional levels (Microbol, 2021).

The ‘Council Recommendation on a European approach to micro-credentials for lifelong learning and employability’ emphasises the primary role of quality assurance, as “quality is the first European principle for the design and issuance of micro-credentials” (Council of the European Union, 2022: 29). According to this European initiative, “Micro-credentials can be used to complement and enhance education, training, lifelong learning and employability ecosystems. The measures outlined in this Recommendation are aimed at strengthening opportunities for learning and employability without disrupting initial, higher education, vocational education and training (VET) systems, and without undermining and replacing existing qualifications and degrees. The measures recommend the establishment of a common European approach to the ongoing and emerging provision of micro-credentials in the European Union and set out a definition and guidance for the design, issuance and description of micro-credentials to improve their quality and transparency and facilitate their uptake”. Therefore, the quality assurance of micro-credentials is considered to play a crucial role in this form of education.

Furthermore, the Recommendation emphasises the role of external quality assurance of providers (and not individual courses) and of providers’ internal quality assurance mechanisms, which should ensure the quality of such micro-credentials, of the course leading to the micro-credential (when applicable), as well as feedback from learners and peers on the learning experience. Overall, the quality assurance of micro-credentials should be supported by increasing transparency through the application of the Bologna instruments, by European cooperation, and, consequently, through developing, more broadly, a sense of trust (Council of the European Union, 2022).

The above initiatives have taken on a prominent position in the European and global contexts and are authoritative due to the scope of their application. Other initiatives are also well worth mentioning, as they can help guide the design and implementation of micro-credentials.

Within the specific context of Massive Open Online Courses (MOOCs), the European MOOC Consortium has also developed a framework of micro-credentials that defines a set of requirements not solely based on the ESG, but also on the assumption that the quality of micro-credentials is safeguarded by the internal quality assurance processes of higher education institutions (EMC, 2019). Among other requirements, the framework defines the workload or study time and the level within the European Qualification Framework of micro-credentials, which need to be clearly set out by the provider.

Furthermore, as highlighted by the European Commission (2020b, 2022), a growing number of higher education institutions, including those involved in the Erasmus+ European Universities initiative, are already working on the definition and implementation of micro-credentials. One example is the European Consortium of Innovative Universities (ECIU), which, in recent years, has focused on micro-credentials, defining its vision and approach to the quality assurance of micro-credentials in line with the European Commission and the Microbol project (ECIU, 2020, 2021, 2022). The consortium emphasises that “European universities provide detailed, transparent, and well-developed means of assessing quality, such as through the Bologna criteria”, though “common European standards and support in micro-credential development” (ECIU, 2022: 22) and a common approach on their validation and recognition are lacking (European Commission, 2019, 2020b, 2022).

Other projects have been supporting institutions in the evaluation and recognition of micro-credentials, such as the Erasmus+ co-founded project ‘Stacking Credits and the Future of the Qualification’ (STACQ), led by the Dutch organisation for the internationalisation in education (Nuffic), which has developed an online evaluation tool based on a number of different criteria including: quality assurance; verification; level; learning outcomes; workload; testing; and identification.

Taking into consideration all these initiatives, it can be concluded that the quality assurance system that should be applied to micro-credentials is not going to be designed from scratch. On the contrary, at least at the European level, the starting point for education providers would be the application of quality standards that have been implemented in the EHEA and, particularly, those from the ESG. Keeping in mind the special features of micro-credentials, the ENQA Working Group, established in June 2021, has proposed the present report through consideration of pre-existing initiatives in order to ascertain the specificities micro-credentials demonstrate and to explore how these can be included in the application of the ESG.

Defining features of micro-credentials

Multiple definitions of micro-credentials have been offered in various initiatives. It is important to note that there is some variation with “micro-credential” being used to either mean the ‘course/programme’, i.e., the learning process, or the ‘certification’, i.e., the outcome of the learning. This is frequently made clear in context.

UNESCO³ offers the following endorsed, although not yet approved definition:

A micro-credential:

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

³ UNESCO <https://unesdoc.unesco.org/ark:/48223/pf0000381668>, accessed on 11 November 2022

The Council of Europe Recommendation⁴ offers the following definition and lists mandatory and optional characteristics in the implementation of micro-credentials:

‘Micro-credential’ means 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.

Learning experiences 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.** (our emphasis)*

The mandatory European standard elements to describe a micro-credential, as presented in the Recommendation, include:

- i) identification of the learner;
- ii) title of the micro-credential;
- iii) country(ies)/region(s) of the issuer;
- iv) awarding body(ies);
- v) date of issuing;
- vi) learning outcomes;
- vii) notional workload needed to achieve the learning outcomes (in the European Credit Transfer and Accumulation System (ECTS), wherever possible);
- viii) 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;
- ix) type of assessment;
- x) form of participation in the learning activity;
- xi) and type of quality assurance used to underpin the micro-credential.** (our emphasis)

The Microbol project⁵ indicates the following definition and characteristics and also sets out some constitutive elements:

A micro-credential is a certified small volume of learning.

⁴ [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627\(02\)](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H0627(02)) accessed on 11 November 2022

⁵ https://microcredentials.eu/wp-content/uploads/sites/20/2022/03/Micro-credentials_Framework_final-1.pdf, accessed on 11 November 2022

https://microcredentials.eu/wp-content/uploads/sites/20/2022/03/MICROBOL-framework-one-pager_final.pdf, accessed on 11 November 2022

Micro-credentials are designed to provide the learner with specific knowledge, skills, and competences that respond to societal, personal, cultural or labour market needs.

Credentials are owned by the learner, are portable, and may be combined into larger credentials or qualifications.

Micro-credentials can be earned before, during and after higher education degree programmes and as a new way to certify competences acquired earlier in life.

Constitutive elements are:

- information on the learner;
- information on the provider;
- information on the micro-credential;
- information on the learning experience;
- information on the QF level;
- form of participation;
- and access requirements.

It is important to note that the various definitions of micro-credentials reflect on multiple common features and highlight similar areas to be considered.

For the purposes of this report, the Working Group has agreed to adopt the definition of the Microbol project, considering it to be direct and clear on scope and coverage. Hence, when the term micro-credential is used in this report, it should be interpreted to mean: *a certified small volume of learning.*

Additionally, the Working Group agrees that not all micro-credentials fall under this designation in individual national contexts and, as such, this report considers all micro-credential-type education using 'micro-credentials' as an umbrella concept to cover all instances of short (certified) portable learning, forming part of an educational environment and, hence, may fall under external quality assurance arrangements now or in the future. Micro-credentials can exhibit the following characteristics. They are: modular; stackable; flexible in format; support reskilling and upskilling; and contribute to lifelong learning.

Terminology relating to micro-credentials

The micro-credential phenomenon has given rise to some newly coined terms and the reinterpretation/reuse of existing terms for which the scope may be extended or modified.

In the present report, we use the following terms with the meanings explained below⁶.

Authenticity

The *authenticity* of content and assessment is one of the main requirements that a provider of micro-credentials must commit to ensure and make verifiable to employers or other providers (together with validity, portability, stackability, and permeability). A micro-credential must contain sufficient information to check the identity of the learner, the legal identity of the issuer, and the date and location of issuance.

Digital credential/Digital badge

A *digital credential* involves the web-based verification of a learning unit's completion, including a micro-credential. A digital credential may be issued in the form of a *digital badge*, namely an image that represents and communicates the learner's achievement of set learning outcomes, skills, and/or competencies. Digital badges include verifiable metadata, which contain information about the badge issuer, the criteria of issuance, and any supporting evidence.

Ownership

The concept of *ownership* refers to the fact that the awarded micro-credentials and associated data are owned by the learner (credential-holder). They may be stored and shared easily, including through secure digital wallets based on open standards and data models, in line with the General Data Protection Regulation.

Permeability

In the context of micro-credentials, the term *permeability* defines the possibility that the acquired knowledge and competences are mutually recognised by national and international systems and higher education institutions, as well as between education and training sectors.

Portability

Portability is the potential of a micro-credential achieved or awarded by a provider to be combined with further learning units issued by another provider. Depending on whether the further learning is at the same level or at a higher level as the previous one, we can talk of *connectability* or *stackability*.

Recognition

Recognition is the process of acknowledging and accepting a statement of any type of credential. In the field of micro-credentials, it concerns both employers and other providers of education. Micro-credentials

⁶ The proposed definitions take into account those provided in the framework of previous projects and initiatives, in particular: Microbol (https://microbol.knowledgeinnovation.eu/wp-content/uploads/sites/20/2022/03/Micro-credentials_Framework_final-1.pdf, accessed on 11 November 2022); A European approach to micro-credentials, <https://education.ec.europa.eu/sites/default/files/document-library-docs/european-approach-micro-credentials-higher-education-consultation-group-output-final-report.pdf>, accessed on 11 November 2022; Credential as you go, <https://credentialasyougo.org/wp-content/uploads/2022/03/CAYG-Definitions-Working-Draft-March-13-2022-PDF.pdf>, accessed on 11 November 2022; Enhancement Themes, https://www.enhancementthemes.ac.uk/docs/ethemes/resilient-learning-communities/scottish-tertiary-education-micro-credentials-glossary.pdf?sfvrsn=c620a381_14, accessed on 11 November 2022

issued by formal education providers are recognised for academic or employment purposes based on standard recognition procedures at the institutional or programme level.

Shareability

Shareability is the property that (paper and digital) micro-credential certifications should allow the widest possible sharing with employers or education providers.

Stackability

Stackability means that micro-credentials are designed to be modular so that other micro-credentials may be added over time to build up a larger credential. This is in order to help learners move along a career pathway and/or to access further education. Stackable micro-credentials can be viewed as building blocks with each micro-credential that a learner earns having the potential to build towards another credential. If the further learning unit achieved is at the same level as the previous one, we may also talk of *connectability*.

Stand-alone micro-credentials

A *stand-alone micro-credential* (or *independent micro-credential*) is a short learning unit that is not part of a study programme, but is designed to provide value to a learner independently of a formal qualification.

Transparency

Transparency is the basis for ensuring trust in micro-credentials. This means that they have to be measurable and understandable, with clear information on learning outcomes, workload, content, level, and the learning offer in order to make it possible for learners, education and training institutions, quality assurance agencies, and employers to understand their value and content and compare them to each other.

Unbundling/Rebundling

The term *unbundling* refers to the process of disaggregating educational provision into its component parts so that they can be delivered by multiple stakeholders. *Rebundling* refers to the reaggregation of those parts into new units and structures.

Chapter III. External Quality Assurance of Micro-credentials. Mapping Existing Practices across the European Higher Education Area

by Esther Huertas Hidalgo and Eduardo García Jiménez

A questionnaire was drawn up and used to:

- i) map external quality assurance approaches that exist across the EHEA;
- ii) focus on the role of quality assurance agencies/organisations;
- iii) and determine the specific external quality assurance expectations for micro-credentials.

The questionnaire (see Annex I) was piloted among Working Group members before being extended to include ENQA members and affiliates more broadly. In total, 64 respondents from 53 agencies/organisations filled out the questionnaire.

Respondents to the questionnaire were clustered into three groups using principal component analysis for categorical data (CAPTCA):

Group 1 (n = 6). This category includes agencies/organisations without experience in the quality assurance of micro-credentials. Almost 50 % agreed about the specific (suggested) external quality assurance methodological features that could be used for micro-credentials. They also expressed very high expectations about the relevance of the ESG.

Group 2 (n = 9). This category covers agencies/organisations with experience in the quality assurance of micro-credentials. They expressed varied opinions about which specific (suggested) external quality assurance methodological features could be used for micro-credentials. They expressed moderate expectations about the ESG's relevance.

Group 3 (n = 47). This category includes agencies/organisations without experience in the quality assurance of micro-credentials. They agreed or strongly agreed about which specific (suggested) external quality assurance methodological features could be used for micro-credentials. They expressed high expectations about the ESG's relevance.

Views of quality assurance agencies on micro-credentials

Respondents indicated that micro-credentials are strongly needed, especially for lifelong learning and continuous training. However, in most countries, it is still a new concept that it is undergoing development.

The information collected through the survey indicated that some countries refer to micro-credentials in their national legislation (e.g., Spain), while in other scenarios micro-credentials are not explicitly referred to in the legislation, but implicitly fall under the same quality assurance system (e.g., Sweden).

The survey shows that half of the agencies/organisations (51.6 %) do not currently use a specific definition of micro-credentials, but are in the process of developing one. Moreover, 14.1 % of the agencies/organisations do not use any definition and are not intending to officially adopt one. A similar number of agencies/organisations use the European Commission (14.1 %) or the Microbol project definition (12.5 %) (as above), while a residual number of agencies/organisations have their own internal definition (3.1 %). Two such definitions were provided: (1) “a micro-credential is a unit of assessment that is smaller than a traditional programme of learning such as a degree or diploma. Micro-credentials

demonstrate that a learner has mastered a certain skill-level or demonstrated a level of achievement in a particular area. Micro-credentials are awards in the National Framework of Qualifications (NFQ) and are assigned credit (FET or HE-ECTS) and an NFQ Level” and (2) “any course which fulfils the level of learning but not the required number of credits to qualify for the title of ‘Qualification’ are to be called ‘Award’”.

Some respondents (three within institutional methodologies, i.e., institutional-level EQA; two degree programme methodologies, programme-level EQA) were of the opinion that micro-credentials could be accredited by following existing procedures, as their current legislation already allows higher education institutions to deliver certain micro-credentials. Others noted that several pilot projects are running to explore options for the quality assurance of micro-credentials (e.g., Germany).

Overall, this picture shows that the level of development for micro-credentials is quite different across the EHEA. In general, it can be stated that the micro-credential concept is quite new and different ideas are still under discussion. The requirements are undergoing development or customisation from existing requirements to be used in new contexts.

Arrangements for the quality assurance of micro-credentials

The results show that over half of respondents (54.7 %) rely on internal quality assurance arrangements in higher education institutions to cover micro-credentials fully (28.1%), or partially (26.6 %). However, this figure is not convincing, as less than half reported that their agencies/organisations (43.8 %) do not currently validate or review the recognition of micro-credentials developed by higher education institutions or other providers, and 21.9 % do not conduct recognition activities at all.

Less than half of the agencies/organisations (43.7 %) do not currently quality assure micro-credentials, but they intend to do so in the future. 23.4 % of agencies/organisations do not currently quality assure micro-credentials and do not intend to do so in the future. Currently, only 15.6 % of agencies/organisations quality assure micro-credentials and 12.5 % are developing approaches (see Figure 1).

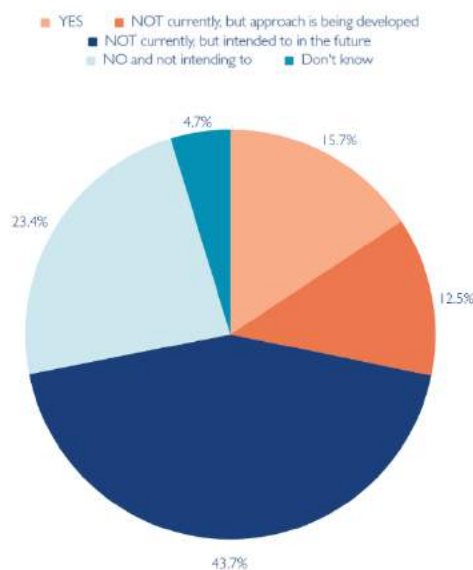


Figure 1. Percentage of agencies/organisations that externally quality assure micro-credentials or are intending to do so in the future.

Regarding expectations, 23.4 % of agencies/organisations do not know when they expect to start quality assuring micro-credentials, while 9.4 % will begin in the next 3 to 4 years, i.e., from 2025 onwards. More than half of the respondents (56.2 %) did not answer the question. This result shows that many agencies/organisations have not yet discussed micro-credential quality assurance and most of those who have discussed this are going to start in the next few years (see Figure 2).

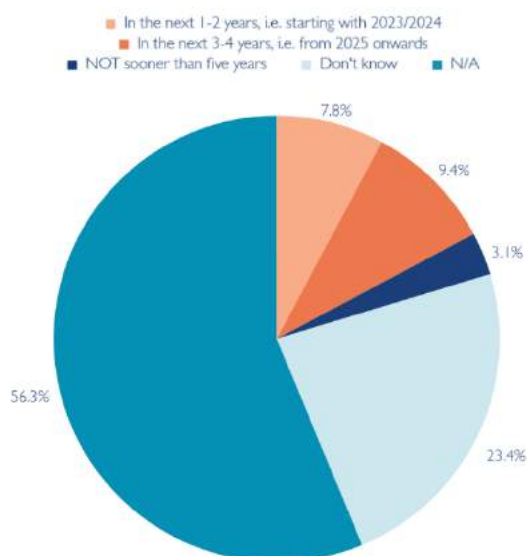


Figure 2. Expected timeframe for beginning external quality assurance of micro-credentials.

34.4 % of the agencies or organisations surveyed do not expect the quality assurance of micro-credentials to be undertaken regionally, i.e., within a region of a country, or are not clear how they would do this. 29.7 % do not expect to engage in the cross-border quality assurance of micro-credentials, while 26.7 % of agencies or organisations expect the quality assurance of micro-credentials to be undertaken nationally. More than half of the respondents (56.3 %) did not answer the question. In many European countries, quality assurance in higher education is carried out at the national level and some of the decisions concerning which agencies are involved in the quality assurance of micro-credentials may be dependent on the legal jurisdiction of the agency and its regulatory functions, if any.

More than three-quarters of the agencies/organisations (84.4 %) did not answer the question as to whether they externally quality assure micro-credentials regionally, nationally, or cross-border. Concerning the future, a minority of respondents (4.7 %) said that regional quality assurance is planned, while 6.2 % declared that national quality assurance is planned. 4.7 % of the respondents are planning for cross-border quality assurance, while the majority of respondents reported that the quality assurance of micro-credentials is not applicable to them (regionally: 87.5 %; nationally: 85.9 %; and cross-border: 87.5 %).

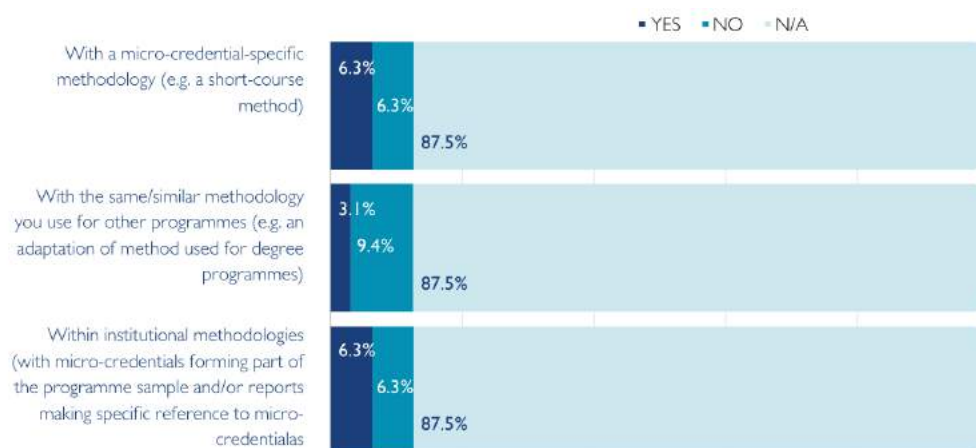


Figure 3. Quality/organisation plans for the external quality assurance of micro-credentials.

Most respondents (84.4 %) stated that the external quality assurance of micro-credentials does not apply to their higher education institutions. However, a mere 7.8 % stated that the process for the quality assurance of micro-credentials follows institutional procedures. On the other hand, 6.2 % indicated that they use the same/similar methodology that they use for other programme evaluations, while 6.2 % declared that they use a specific methodology for micro-credentials (QQI, ASFOR, BAC, and evalag). Between 7 and 10 % of respondents reported that they employ none of these methodologies (regionally, nationally, or cross-border) for external quality assurance.

Where there were no external arrangements at the time of the survey, 6.2 % of respondents indicated that external quality assurance is planned within institutional methodologies. 3.1 % are planning to use the same/similar methodology as other programme evaluation procedures, while 6.2 % of institutions are planning to use a micro-credential-specific method. It is important to note that 87.5 % of respondents neither answered positively or negatively. This may suggest that the majority of respondents do not have specific plans for the external quality assurance of micro-credentials.

Most agencies/organisations did not state whether they have developed a minimum quality threshold with specific criteria/indicators to be used as part of the external quality assurance approach for micro-credentials. A minority of respondents (6 %) reported that learning outcomes, ECTS, and staff qualifications have been defined as constituting a minimum quality threshold criterion. Regarding the future, the figures are similar: only 7.8 % are planning to use learning outcomes, 6.2 % plan to use ECTS, and 3.1 % plan to use staff qualifications. 3.1 % responded that they do not currently intend to adopt or develop a minimum threshold for the quality assurance of micro-credentials. Finally, 1.6 % answered that they do not know.

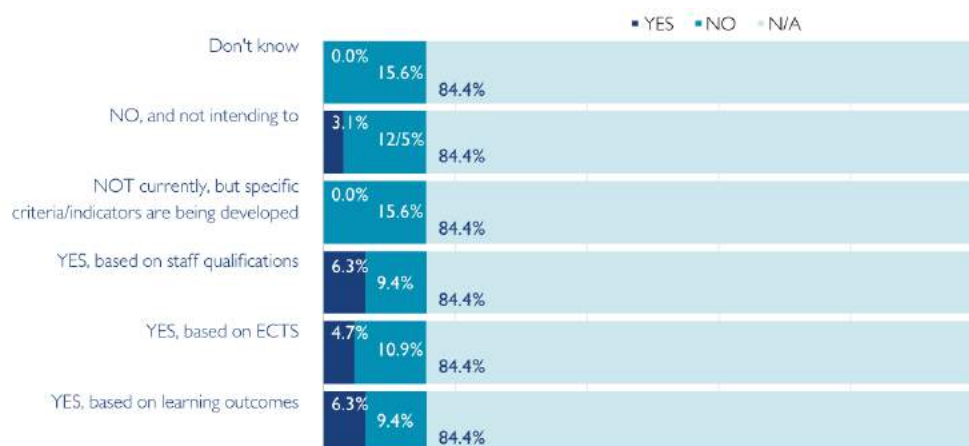


Figure 4. Minimum threshold with specific criteria/indicators for the external quality assurance of micro-credentials.

A minority of respondents stated that they train reviewers for the external quality assurance of micro-credentials (9.4 %, i.e., six agencies), while 1.7 % stated that they are not currently training experts. Furthermore, 7.8 % (i.e., five) of the surveyed agencies stated that they are planning to do so, with 4.7 % declaring that they are not intending to do so. Around 84 % responded that micro-credential training does not apply to them. These figures are similar to those on the future plans of respondents.

Challenges for the external quality assurance of micro-credentials

In general, challenges related to the external quality assurance of micro-credentials are external to quality assurance agencies/organisations and mostly linked to the need to develop specific national requirements and international agreements, alongside clear definitions and understandings of micro-credentials. The most significant challenges to externally assuring the quality of micro-credentials seem to lie in the lack of comprehensive understanding of micro-credentials in the sector, the lack of supporting national legislation or gaps in legislation, and a lack of clear definitions/descriptors to allow micro-credential quality assurance requirements to be determined. Agencies/organisations strongly agreed that these are significant challenges (48.3 %, 45.8 %, and 42.4 %, respectively). It is also worth noting that half of the agencies/organisations (more precisely, 49.2 %) strongly agreed or agreed that the absence of international agreement/collaboration on micro-credentials is a significant challenge. Another smaller challenge for the external quality assurance of micro-credentials seems to be insufficient agency/organisation resources to include micro-credentials in their external quality assurance operations; 42.1 % strongly disagreed or disagreed that this constitutes a significant challenge.

C21. In the context that you operate, what are the major challenges to externally quality assuring micro-credentials?	Mean	ADM
Lack of supporting national legislation/gap in national legislation	4.00	0.92
Lack of full understanding of micro-credentials by the sector	3.93	1.05
Lack of clear definitions/descriptors to allow for MC quality assurance requirements to be relevantly captured	3.93	0.94
Lack of reviewers with sufficient experience in micro-credentials	3.31	1.24
Insufficient agency resources to include micro-credentials in external quality assurance operations	3.0	1.16
Lack of support/collaboration with professional bodies or the labour market	3.17	0.97
Insufficient European guidance and guidelines	3.00	1.03
Insufficient collaboration/openness by institutions offering micro-credentials	3.17	0.92
Burden of external assessments/evaluations to institutions	3.40	1.08
Absence of international agreement/collaboration on micro-credentials (cross border)	3.50	1.16
Different views of government bodies and the QA-agency/organisation	3.08	1.12

Figure 57. Challenges to the external quality assurance of micro-credentials (1 to 5, strongly disagree to strongly agree).

Conclusion

The survey illustrates that the quality assurance of micro-credentials is squarely on the agenda of quality assurance agencies/organisations. Nonetheless, only a few of them have begun discussing how to proceed and the vast majority are waiting for clear guidelines or recommendations at the European and/or national/regional level.

It is important to note that all the quality assurance agencies/organisations surveyed agreed on the relevance of the ESG Part 1 (“Internal quality assurance”) and Part 2 (“External quality assurance”).

Regarding the challenges to the external quality assurance of micro-credentials, the most relevant ones are external to quality assurance agencies/organisations, including: a lack of supporting national legislation/gaps in national legislation; and a lack of clear definitions or understanding of micro-credentials by the sector. In addition, quality assurance agencies/organisations stressed their concerns about the burden that external quality assurance procedures for micro-credentials entail.

A lack of information on how quality assurance agencies/organisations will address the external quality assurance of micro-credentials, as well as a lack of experience suggests an uncertain landscape for the future. Replicating this questionnaire in a few years, or utilising a similar one informed by changes in the sector, will be helpful in giving a clear picture of the different external quality assurance approaches applied, as well as measuring the impact of this work.

⁷ ADM is average deviation (AD) to the mean (ADM) index as per Burke, M.J and Dunlap, W.P (2002). Estimating interrater agreement with the average deviation index: A user’s guide. *Organizational Research Methods*, 5: 2 (159-172).

Chapter IV. The ESG and their Applicability to Micro-credentials

by Anca Greere, Dagmar Provijn, Erato Ioannou, Georg Seppmann and Ulf Hedbjörk

This section looks at the Standards and Guidelines for Quality Assurance in the EHEA (ESG) and their applicability to the quality assurance of micro-credentials. This analysis is underpinned by a number of questions that have structured the information provided below.

Are the ESG applicable to micro-credentials?

The ESG 2015 (p. 6) explicitly state that: “the ESG apply to all higher education offered in the EHEA regardless of the mode of study or place of delivery”. For example, the text states that transnational and cross-border higher education provision would also fall neatly under the ESG. In the past, there have been a number of successful initiatives to make use of the ESG and offer an additional layer of interpretation to achieve more detailed applicability for various phenomena in higher education, e.g., online education⁸, joint-degrees⁹, and cross-border quality assurance¹⁰.

In recognition of the fast changing higher education landscape, a statement by the E4 Group¹¹ reiterated that “the European Standards and Guidelines remain valid and relevant in the current higher education landscape” and more flexible use and interpretation is encouraged (E4 statement p. 3). Micro-credentials are strongly linked to this landscape and the way that it is supporting changes in societal needs, globalisation, and technology, as well as the need for upskilling and reskilling, as demanded by the labour market. The recent COVID-19 pandemic only highlighted all of these dimensions and intensified the discussions and corresponding initiatives around micro-credentials. There has also been a clear proliferation of providers offering micro-credentials combined with increasing interest among learners to engage with such educational offers, going beyond traditional degrees towards a lifelong learning path.

The ESG continue by stating that: “In this document the term ‘programme’ refers to higher education in its broadest sense, including that which is **not part of a programme leading to a formal degree**” (p. 6, our emphasis). This has direct and immediate applicability for micro-credentials, which clearly fall into the category of an educational offering that does not lead to a formal degree by itself.

As such, the applicability of the ESG to micro-credentials is not under question in this analysis -a conclusion that was also emphasised in the Microbol project. What is of interest is the use and interpretation given to the ESG in the context of micro-credentials. This means that the consideration of micro-credentials in relation to each standard may exhibit particularities that are relevant to processes aiming to robustly quality assure micro-credentials. As with all quality assurance, the ESG constitute a generic baseline and can be adapted to specific contexts.

Answer: It is not whether they are applicable, but how this applicability manifests in the case of micro-credentials. In addition, we must determine what aspects of interpretation we attach to the different

⁸ <https://www.enqa.eu/wp-content/uploads/Considerations-for-QA-of-e-learning-provision.pdf>, accessed on 11 November 2022

⁹ <https://www.enqa.eu/wp-content/uploads/ENQA-wr-19.pdf>, accessed on 11 November 2022

¹⁰ <https://www.enqa.eu/wp-content/uploads/Key-Considerations-CBOA-EHEA.pdf>, accessed on 11 November 2022

¹¹ E4 Group is formed of: European Association for Quality Assurance in Higher Education (ENQA), European Students' Union (ESU), European University Association (EUA) and European Association of Institutions in Higher Education (EURASHE).

standards to ensure the focus is correctly placed when the ESG are used in relation to micro-credential provision. The detailed analyses presented in parts 1 and 2 that follow highlight various specificities for the quality assurance of micro-credentials.

What is the relationship of micro-credentials to higher education?

Micro-credentials are not exclusively related to higher education and to consider them only in the context of higher education would greatly diminish their potential to act as catalysts for lifelong learning within a labour market that demands, more than ever before, upskilling and reskilling opportunities.

Two aspects need to be distinguished here: (1) micro-credentials can be offered at any level on a qualification framework; and (2) micro-credentials are offered by a variety of education providers, delivering higher-education, further education, and vocational education. Therefore, there are no direct links that would ring-fence micro-credential provision to higher education; nor is there any evidence to show that micro-credentials delivered by higher education institutions are more successful than those offered by other types of education providers. In addition, of course, there are many instances of micro-credentials being offered in partnership where the academic component may be offered by an education provider while the professional component is delivered through labour market engagement.

In fact, higher education providers frequently offer micro-credentials as part of their third mission agenda, correlated to lifelong learning commitments. As micro-credentials tend to be focused on specific skills and distinct components of knowledge, they may require more agile design, approval, delivery, and review mechanisms to move in parallel with ever changing labour markets and offer state-of-the-art industry content.

Consequently, applying the same quality assurance arrangements as for higher education degree programmes may be less effective. Higher education providers may, more readily, choose to offer micro-credentials by splitting an existing degree into smaller components or selecting from among the modules of a degree and offering them as stand-alone courses (also referred to as “unbundling”). The advantages of this approach are that much of the learning material is already developed, the curriculum may already be quality assured, and, in theory, it may be easier to make them stackable so that they count towards a full degree; however, it should be noted that very few systems expect this approach to achieving a full degree to be offered. Still, each micro-credential created from such a division will need to be given individuality and/or autonomy so that it may render educational results without the other components of the degree. On the other hand, alternative providers of education may demonstrate increased agility to set up programmes, contract teaching staff, and deliver at speed, thus keeping abreast of labour market needs; however, they may face more challenges in relation to demonstrating the quality of their provision, obtaining recognition for their micro-credentials, and offering options that ensure stackability for their learners, if such options are desirable for individual learners.

When looked at in detail, it becomes obvious that a degree of complementarity exists between the various types of micro-credential offering, i.e., those in the higher education context and those organised outside a higher education context. It thus appears sensible to promote stronger collaboration between providers offering micro-credentials, to allow for more efficient responses to management challenges and ensure that expectations of learners are more comprehensively met. Importantly, the quality that has to be

demonstrated by all education providers delivering micro-credentials and proposing to enter such collaborative relations should be comparable and well-aligned to the ESG, as a threshold.

Answer: Micro-credentials are not a unique manifestation of higher education. Each type of provider sees different kinds of challenges and benefits in offering micro-credentials. Consequently, any analysis of micro-credentials should highlight the potential for collaboration between education providers. Needless to say, if such collaborations are to be set up, all providers engaged would need to have a demonstrable alignment with the ESG so that comparability is guaranteed from the outset.

Should there be external quality assurance of micro-credentials?

Previous initiatives have all highlighted the importance of micro-credential offerings demonstrating that they are covered by a quality assurance system and have been subjected to appropriate scrutiny so that their quality can be ascertained (Council of Europe, UNESCO). This, of course, does not automatically mean that external quality assurance, specifically for micro-credentials, needs to be in place, and it does not rule out arrangements where reliance on internal quality assurance may be deemed sufficient. It also does not prescribe whether micro-credentials should be reviewed *ex ante*, *ex post*, or during delivery. It also does not prescribe whether they should be scrutinised programme by programme or evaluated by clustering or sampling that is separate to or embedded in institutional-level procedures. All such arrangements are plausible and have the potential to generate successful outcomes. However, their suitability depends on the national context within which the provider operates and the regulatory or non-regulatory requirements to which the provider responds.

Clearly, the burden of these approaches will be different for both providers and quality assurance agencies, and the choices made will be dictated by the function they play within regulatory or non-regulatory contexts, the outcomes envisaged, and the consequences attached to these outcomes. In deciding on an approach, any context will need to fully consider the level of reliance that should be placed on already existing external quality assurance processes and the findings on internal quality assurance systems that institutions may demonstrate. It is understandable that, in contexts where internal quality assurance systems are proving recurrently effective across a number of external quality assurance cycles, adding micro-credentials into the mix can be done in a very flexible manner. However, where external quality assurance processes have highlighted areas in need of development before benchmarks can be achieved, it would seem appropriate for regulators to take a more detailed approach.

Given the spread and variety of the micro-credential phenomenon, there is an increased need for stakeholder collaboration to intensify and diversify in order to resolve some of the more pressing dilemmas that micro-credentials pose, including: “how can stackability, recognition, and portability be made straightforward?”, “who should determine operational characteristics for achieving stackability, recognition, and portability?”, and “what level of interaction between higher education institutions and alternative providers, etc., is desirable?”.

Micro-credentials can lead quality assurance agencies to revisit their remit and profile. Currently, many ENQA members exclusively look after higher education. Three areas of development can be predicted: (1) development of a portfolio of external quality assurance activities beyond higher education providers; (2) development of a portfolio of external quality assurance activities beyond national contexts going on to more cross-border or transnational activity; and (3) development of the role of quality assurance

agencies to give even more support to providers, where collaboration between various types of provider could be effectively facilitated or mediated by the quality assurance agency. Any of these aspects would see quality assurance agencies demonstrate better positioning and a more proactive contribution to the promotion of quality for various emerging educational phenomena, including but not limited to micro-credentials.

Answer: The external quality assurance of micro-credentials has a number of benefits: it helps providers showcase the quality of their micro-credential provision to interested stakeholders; it allows prospective learners to assess and trust the quality of the provision; and it gives regulatory bodies the confidence to recognise micro-credentials as a form of education that is worthy of governmental/national support. Guarantees of quality provided by an external quality assurance body greatly aid conclusions about the consistency and comparability of provision across a given educational sector. Arrangements for external quality assurance are diverse and will depend on contextual and national specificities; importantly, they are an opportunity for stakeholders to engage in more collaborative ways and across more areas of development.

The conclusions highlight that:

- Reassurance for the quality of micro-credentials is important and should be actively sought.
- Arrangements that can facilitate reassurance are generally context-dependent and will need to consider existing quality assurance approaches.
- Capturing micro-credentials in external quality assurance processes has benefits and how this is done will depend on a multiple factors.
- Transparency, recognition, stackability, and portability must be at the forefront of demonstrating the quality of micro-credentials.
- Different models for future collaboration between stakeholders must be explored with opportunities for quality assurance agencies to revisit their remit and roles.

Overarching recommendations

The Working Group has formulated a number of recommendations across all areas of micro-credential implementation. Some of the recommendations offer direct consideration of how external quality assurances may be organised effectively to capture micro-credentials; others look more closely at the arrangements that would be expected for the internal quality assurance of micro-credentials, in turn being scrutinised by external quality assurance. As such, some of these recommendations are more specifically targeted towards quality assurance bodies or regulatory authorities responsible for safeguarding the quality of micro-credential-type education within national or regional contexts. Others may be relevant to providers wishing to add micro-credentials to their portfolio, or those who are already engaged in delivering micro-credentials and who need to demonstrate alignment with recognised standards of delivery. Importantly, synergies need to be seen between internal and external quality assurance. Thus, the recommendations on internal quality assurance are equally important for consideration by quality bodies in relation to their external quality assurance procedures.

In the design and implementation of external quality assurance processes for micro-credentials, it is recommended that quality assurance bodies and/or regulatory authorities demonstrate that ...

- ***...arrangements for the quality assurance of micro-credentials are explicitly made and communicated to education providers and other stakeholders.***

With micro-credentials gaining prominence in educational systems around the world, it follows that they require clear and explicit arrangements to be made to ensure the quality of such provision can be demonstrated. Irrespective of whether a quality assurance agency or regulator decides to bundle micro-credentials into existing approaches or to design separate processes, it is important that such a decision is made and communicated to all stakeholders. This will ensure that a common understanding of how micro-credential provision can demonstrate its quality results.

- ***...where external quality assurance procedures are proposed, these are flexible and rely, where appropriate, on already existing arrangements.***

The variety of micro-credentials, their agility, and their flexibility requires a similarly varied and flexible approach to their quality assurance. This needs to have the potential to rapidly identify and address any weaknesses, supporting enhancement of the individual micro-credentials and suites of micro-credentials a provider may offer. Drawing on existing arrangements allows the approach to be designed and implemented according to the principle of reasonable proportionality.

- ***...where external quality review/evaluation procedures are proposed, they consider the benefits and challenges of targeted involvement of specific stakeholder profiles, as relevant to the micro-credential provision.***

For micro-credentials, the involvement of some stakeholders may bring additional benefits, but may also entail some challenges. Industry representatives and learners are among those stakeholder groups that may require different arrangements to address engagement challenges and ensure a level of involvement that can be of benefit to the micro-credential provision. Due to the frequently specialised content of micro-credential offerings, taking into account the limited time that may be allocated for learning and teaching interactions and the profiles of learners taking micro-credentials, it may prove more difficult to secure relevant industry input and/or learner perspectives. As such, external quality assurance arrangements need to be made by weighing the benefits and challenges of directly involving industry representatives and learners, and considering how best to capture their views.

- ***...where internal quality assurance systems have repeatedly demonstrated their effectiveness, micro-credential external quality assurance procedures test how features specific to micro-credentials are accommodated as part of these systems.***

The burden of external quality assurance processes has been debated at length by quality assurance bodies, regulators, and providers, and there is broad agreement that, as far as possible, the addition of an extra administrative burden on the provider should be avoided, especially in educational systems that have already (and repeatedly) demonstrated the maturity and robustness of their internal quality assurance processes. Reliance on internal systems can be well supplemented by areas of specificity for micro-credentials. As such, where micro-credentials are being scrutinised, it is advisable to clearly delineate the elements that have already been demonstrated as part of the internal quality assurance system and which are capable of serving the micro-credential provision, as well as those that stand apart and speak to the specific features of the micro-credential on which any additional scrutiny could focus exclusively (or more prominently).

- ***...any external quality assurance approach has to consider how micro-credentials achieve their specific objectives for upskilling, reskilling, and lifelong learning.***

Micro-credentials can be characterised by their specific contribution to and their tight engagement with the labour market, thus promoting more agile upskilling and reskilling via educational settings. In designing external quality assurance processes to include or specifically address micro-credentials, it is important that agencies/regulators pay attention to the lifelong learning objectives that micro-credentials serve and aim to scrutinise their contribution (and level of attainment) to upskilling and reskilling agendas of individual learners, labour markets, and national contexts.

- ***...any external quality assurance approach places particular emphasis on stackability, recognition, and portability arrangements for micro-credentials.***

Micro-credentials can be characterised by their unique potential for stackability and portability, which implies a strong system for recognition. In designing external quality assurance processes geared towards micro-credentials, it is important that agencies/regulators incorporate scrutiny of the degree to which arrangements are made (and that are successful) to allow individuals learners, education providers, or labour market entities to recognise specific micro-credentials so that they can be stacked towards a larger qualification, in support of an individual educational journey, or transferred across a variety of contexts and made use of effectively.

- ***...information sharing is intensified for more diverse models of future collaboration between stakeholders, allowing for more agile safeguarding of such provision while reducing the burden on providers.***

It must be acknowledged that if micro-credentials are to reach their full potential, stakeholders need more agile, transparent, and proactive communication mechanisms, allowing them to transfer relevant information on their availability, quality, and outcomes. To this end, it is important that we explore additional and diverse tools to support such communication and ensure that any data collected, exchanged, and offered for stakeholder consultation is relevantly displayed and constantly updated.

In the design and implementation of internal quality assurance processes for micro-credentials, it is recommended that education providers demonstrate (to quality assurance bodies and other stakeholders) that...

- ***...labour market expertise contributes to all stages of the micro-credential life cycle, including quality assurance processes.***

Importantly, many micro-credentials serve the purpose of offering an alternative to traditional education and are meant to have direct and immediate benefits for the labour market. Micro-credentials also act to complement traditional education over time and across emerging needs and sectors with the clear purposes of upskilling and reskilling. Therefore, micro-credentials, by their nature, suggest a very close relationship with the labour market highlighting the need to develop and maintain collaboration with professional bodies and industry representatives. It thus becomes essential that labour market expertise is brought into all processes related to micro-credentials, ranging from design and approval, to teaching, learning, and assessment, and also to monitoring and review.

- ***...professional collaborations and academic partnerships are intensified, particularly for the purposes of quality assurance, recognition, and stackability.***

In some cases, and depending on the profile of the provider, recognition may be straightforward; in other cases, agreements may need to be put in place to ensure that recognition can be obtained. Ideally, the recognition of micro-credentials is two-fold with them being recognised by both labour market entities and education providers. The former will boost the employability prospects of learners and give confidence to employers; while the latter may lead to admission, articulation, integration, or stackability opportunities in higher education. Providers proactively seeking to establish professional and academic partnerships to explore recognition paths, articulation agreements, and stackability models will likely prove more appealing to prospective learners.

- ***...lifelong learning is integrated in a provider's mission and vision, allowing for micro-credentials to be anchored in the broader educational offer.***

A clear rationale for micro-credentials should come through the explicitly articulated ambitions of the provider to support lifelong learning. This does not mean that providers deciding to offer micro-credentials would change their mission or vision necessarily, but it does mean that micro-credentials should comfortably find their niche as part of the existing mission and vision, and that a lifelong learning agenda is clearly visible in the strategic actions the provider takes.

- ***...clear responsibilities are allocated, within any given provider, for the management and review of micro-credentials.***

It is important that micro-credentials are given a clear status within the management and quality assurance structures of a provider and that responsibilities for micro-credentials are delineated and explicitly allocated to staff who understand micro-credentials and can deal with their specificities.

- ***...policies, promoted by any given provider, cover micro-credential activities in meaningful ways.***

As such, policies need to highlight any areas of specificity for micro-credentials and propose procedures that can be implemented to support this educational format.

- ***...internal quality monitoring for micro-credential activity is more frequent or takes different approaches than procedures for traditional degrees.***

Providers need to ascertain the frequency and types of monitoring and review that are relevant to their micro-credential provision. This may mean taking an individual or clustered approach to micro-credential monitoring and review. Importantly, providers need to have system in place through which they can carry across findings from one programme to another and make ongoing and agile adjustments to maintain the relevance of the micro-credentials on offer, or to decide on their closure, if this becomes necessary. Explicit closure triggers a need to recognise the limited “shelf-life” of some micro-credentials and allow the provider to continuously adjust their micro-credential provision to protect its resources and meet labour market and learner expectations.

- ***...stakeholder engagement is well calibrated and makes use of tools that render positive results as part of internal quality monitoring and review processes.***

The engagement of stakeholders needs to be carefully considered and challenges recognised in relation to the different profiles of learners and labour market experts. Learners will be connected to the micro-credential provision, and hence, the provider, for less time than in the case of a traditional degree and may be less willing to engage systematically with any of the internal quality assurance mechanisms that are generally deployed by the provider. As such, other means of engagement may need to be identified to allow the provision to still benefit from the views of students, which can be particularly valuable in driving enhancement. Equally, the engagement with labour market experts needs to be more intense and occur regularly during the implementation process. The profiles of experts chosen for interaction and feedback need to align with the subject-matter of the micro-credential provision, rather than exhibit more generic areas of expertise across a broader area of converging subjects.

- ***...suitable procedures for recognition of prior learning and validation are in place.***

These procedures would take into account the specificities of micro-credentials and be applied flexibly to a wide range of applicant profiles.

- ***...information is provided on mandatory elements and, where relevant, optional elements, as highlighted by ‘A European Approach to Micro-credentials’.***

Providers should offer transparent information on the relevant elements of micro-credentials. It is important to provide learners with details about the content, qualification level, course/programme structure, assessment modalities, and potential career paths related to any micro-credential offered. In addition, this information provides an important basis for fair and efficient recognition procedures.

- ***...certification systems for micro-credentials are appropriately implemented, possibly in digital form, to improve their portability and permeability.***

Digital certification, in addition to offering greater environmental sustainability, is better suited to ensuring the authenticity, portability, “shareability”, interoperability, and verifiability of any micro-credential in a non-centralised form (that is, without requiring the intervention of the issuing institution).

Considerations for the future

From the discussions of the Working Group and the findings articulated above, the following areas can be highlighted as deserving of attention in the future. The aim is to guarantee that, if micro-credentials retain an important share in any future educational offering, robust arrangements that allow the clear demonstration of their quality are in place. Responsibility for supporting micro-credentials in the areas listed below will rest with all stakeholders and will need to be jointly agreed between agencies, governments, and providers. Models for effective collaboration that would aim to target these areas should be given sufficient attention, and should also be properly explored and extensively disseminated.

- **Lifelong learning** to be embedded more thoroughly in the consideration of quality assurance (also in the ESG).
- **Recognition, portability and stackability models** to be a focus of attention for stakeholders. Such a focus could be obtained by: (1) placing more emphasis on how stackability and recognition can be operationalised across providers/contexts, initiated by the learner or by the provider; (2) supporting more collaboration between higher education and further education, vocational education, or independent education to design and implement such models; and (3) encouraging more collaboration with agencies and regulators to promote such models. These educational models may need to embed improved knowledge of how to formulate level-appropriate learning outcomes, procedures that allow for easy mapping to the NQF/EQF, and tools that can support the recognition agenda (ECTS, diploma supplement-comparable certification).

- **Collaborative working with labour market authorities and policy makers** to ensure the relevance of micro-credentials for employability and the recognition of professional qualifications.
- **Collaborative working between educational stakeholders** to encourage engagement between agencies (also at cross-national level) and between agencies and stakeholders so as to give these agencies the opportunity to contribute to better and more efficient arrangements for quality assurance. Collaboration can be emphasised by the recognition and sharing of digital certification mechanisms, possibly through supra-national database repositories, which would also display information on the quality assurance of micro-credentials.
- **Continuous monitoring of micro-credential developments** to be undertaken both at the level of providers and in regards to external quality assurance by agencies across national contexts. This will ensure that policies and procedures for micro-credential quality assurance remain fit-for-purposes and agile.

Part I: Standards and guidelines for internal quality assurance

General considerations

The question of the applicability of the ESG to micro-credentials is not so much ‘if they apply’, but ‘how they apply’. What additional elements need to be considered to give scope to the specificities of micro-credentials and allow for them to serve the role they have crafted for themselves within the educational landscape? It is important to remember that the ESG constitute a minimum threshold of quality assurance for higher education institutions. However, the micro-credential phenomenon is broader than the remit of higher education, although interacting with it in a multitude of ways depending on the proposed set-up. In this respect, the considerations below assume that the ESG requirements in Part I are met by the provider who is seeking to offer micro-credentials and that there is now interest in ascertaining the specificities that would need to be considered for successful implementation of micro-credentials and a robust demonstration of their quality. Of paramount importance is the promotion of transparency in working with micro-credentials and engagement in a variety of collaborations that have the potential to guarantee the quality of this educational offer and safeguard the credentials issued to facilitate recognition, academic development, and professional progression.

The survey in this report concurred. Respondents found the relevance and applicability of the individual ESG: Part I as very important (all scored above a 3.5 out of 5 for applicability), with the most relevant standards considered to be 1.1, 1.2. and 1.3.; 1.4, 1.5, 1.6, 1.7, and 1.9 were considered to be of medium-level relevance; and lowest relevance/applicability was expressed for 1.8 and 1.10. However, it should be noted that a disparity in opinions was seen for 1.10. This was the most contested element in the context of applicability for micro-credentials, however, its mean score was still greater than the mid-point.

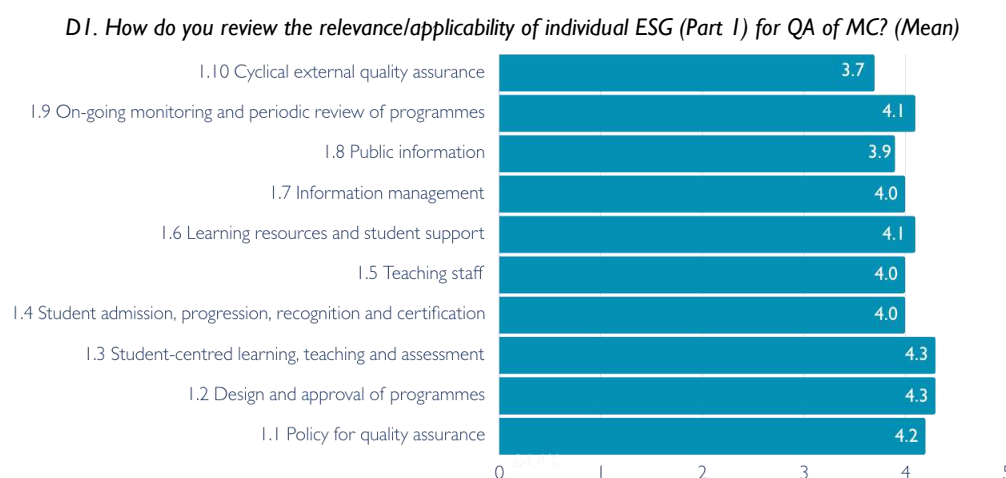


Figure 6. Relevance/applicability of the ESG (Part 1) (1 to 5 least relevant/applicable to most relevant/applicable).

The specificities of how relevance and applicability may be understood in the context of each ESG are detailed below.

1.1. Policy for quality assurance

Standard: Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders.

Standard ‘1.1 Policy for quality assurance’ is important in the context of micro-credentials, as education providers should make the micro-credentials developed and offered subject to suitable internal quality assurance processes. Therefore, micro-credentials must be explicitly considered in the internal quality management of the education provider who is developing and offering them. Accordingly, policies and processes that form the pillars of a coherent institutional quality assurance system are well adapted to incorporating lifelong learning activities, in general, and micro-credentials, in particular.

Micro-credentials can be part of higher education programmes leading to a formal degree, while also being related to reskilling and upskilling, and, as such, can be obtained before and after being involved in higher education programmes at other levels. Thus, higher education institutions who are developing and offering micro-credentials would benefit from having a strategy on lifelong learning, accommodating a rationale for its micro-credentials, as part of the overall institutional strategy, as well as its quality assurance policy. Both the strategy and the quality assurance policy on lifelong learning and micro-credentials would need to have a formal status and be publicly available.

Additionally, the institutional strategy and the policy for quality assurance on lifelong learning and micro-credentials would reflect the relationship between the institution’s research and the teaching and learning of the micro-credential offer. It would clarify how lifelong learning, in general, and the micro-credential offer, in particular, respond to societal, personal, cultural, and labour market needs.

As micro-credentials can be both stand-alone and part of the higher education programmes of an education provider, the institutional strategy and quality assurance policy for lifelong learning and micro-

credentials should clarify how the micro-credential offer is related to the other study programmes of the institution, how internal stakeholders are involved in their development and implementation, and how the institution provides the resources required to qualitatively develop and offer them. Separate structures within higher education institutions with a specific strategic vision and goals for lifelong learning and specific budgets would be allocated for the design and offer of micro-credentials.

Given the potentially specific and diverse learner population of micro-credentials, the combination of online, blended and face-to-face teaching would need to be explored and addressed in an institutional e-learning strategy that also fits the provision of micro-credentials. Internal quality assurance processes and procedures also need to be adapted to ensure diverse learners can get involved, as much as possible, in the design, evaluation, and updating of micro-credentials.

The flexible response to personal, societal, cultural and labour market needs requires intensified involvement of professional collaborators, professional associations, and academic partnerships. In view of this, due diligence approaches are needed along with alternative providers of micro-credentials, and the internal quality assurance of education providers will need to address the involvement of external stakeholders, especially labour market representatives, in all their variety and complexity.

Education providers developing and offering micro-credentials would benefit from having policies and processes on transparency, relevance, valid assessment, learning pathways, stackability, validation of formal and non-formal learning, recognition, student-centeredness, authenticity and information guidance of micro-credentials in line with the institutional strategy and the policy for quality assurance on lifelong learning and micro-credentials that also ensure the portability of the micro-credentials.

An institutional strategy and policy for quality assurance on lifelong learning and micro-credentials guarantees the review and revision of institutional policies, structures, processes, and resources, promoting an appropriate teaching and learning environment for a diverse group of learners, including those with specific or special educational, skilling, and upskilling needs.

Areas in focus

- institutional strategy explicitly considers lifelong learning and micro-credentials;
- micro-credential specificities are accounted for as part of internal quality management;
- options for recognition and stackability are formally considered;
- due diligence for professional collaborations and academic partnerships is applied;
- involvement of labour market and industry representatives is increased.

1.2. Design and approval of programmes

Standard: Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

Standard '1.2. Design and approval of programmes' is as applicable to micro-credentials as any other programme. It remains, however, important that micro-credentials are seen as a category of their own, with their specificities recognised and addressed. Micro-credentials can be very different in terms of content, focus, design, stakeholder engagement, and connectivity, i.e., they can be linked to other programmes or stand-alone without any reference to the education programme offer at other levels.

Existing processes for the design and approval of education programmes will need to be adapted to the specific nature of micro-credentials in such a way that their design and approval are not inhibited, remaining flexible and agile and being capable of answering the specific needs of the market, industry, personal development, or society at large without compromising quality.

During the design phase, the education provider should be transparent as to whether a micro-credential is stand-alone or based on a course, a series of courses, or modules from existing programmes, etc. Micro-credentials should be designed with clear and explicit objectives in line with the institutional strategy, with reference, where applicable, to a lifelong learning strategy, in general, and a micro-credential strategy, in particular. These should indicate how they relate to the specific needs of the market, industry, personal development, or society at large. Moreover, it should be clear whether other providers (higher education institutions, further or vocational institutions, and alternative providers), stakeholders, and learners are involved in the design and offer of the micro-credential.

The level at which micro-credentials are set on the national qualifications framework for higher education and, consequently, on the Framework for Qualifications of the European Higher Education Area, can be a challenge and therefore needs specific attention. At a minimum, it is important that micro-credentials have explicit intended learning outcomes and that the number of ECTS, where available, or the workload expressed as effort/hours is clearly defined in order to make them comparable to other courses, series of courses, and modules from existing education programmes. This improves their potential for recognition and gives broader opportunities for stacking towards a fuller qualification.

In view of flexible learning pathways, the education provider should be clear as to how micro-credentials can be stacked with credentials obtained at other educational institutions or alternative providers. The provider should also be clear about the prerequisites linked to its micro-credentials and how its own offer may fulfil the prerequisites of other credentials. Such information should be publicly available.

Processes for the design and approval of micro-credentials should guarantee that all information required for straightforward recognition is available. Information should also be provided about the mandatory elements and, where relevant, the optional elements of any micro-credential, as suggested in 'A European Approach to Micro-credentials'¹².

As with and, in some cases, more so than other programmes, the design and approval of micro-credentials requires the involvement of relevant key stakeholders, among which employers and professional field representatives, as well as recognition bodies. The education provider should also try to find ways to involve a potentially diverse learner population, accounting for its specific needs, notwithstanding the frequently limited timespan of engagement that learners of micro-credentials may have.

¹² <https://data.consilium.europa.eu/doc/document/ST-9237-2022-INIT/en/pdf>, accessed on 11 November 2022

Areas in focus

- micro-credentials fit into the wider offer of education providers, but as a category of their own;
- inclusive structures and dedicated budgets support the design and delivery of micro-credentials;
- design and approval processes of micro-credentials align with lifelong learning strategy, as applicable;
- design and approval processes inclusively engage all micro-credential-relevant stakeholders;
- design considers Bologna comparability tools (ECTS, EQF/NQF level, Learning Outcomes) to enhance recognition and portability;
- learning outcomes are well aligned with the relevant National Qualification Framework, respectively the European Qualification Framework, and with the labour market;
- clear statement on connectivity (stand-alone or not) and stackability ensures greater appeal from learners.

1.3. Student-centred learning, teaching and assessment

Standard: Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

Flexible learning for reskilling and upskilling is at the heart of lifelong learning, in general, and micro-credentials, in particular.

The lifelong learning strategy and/or micro-credential strategy of the provider, as applicable, should focus particularly on student-centred learning and teaching, and labour-market-inspired assessments to answer the needs of a diverse learner population. Learner profiling (age, career path, learning disabilities, and special requirements, etc.) is necessary early on in the design stage in order for the micro-credential programme to deliver the desired learning outcomes. Given the need for flexibility of learning and teaching paths, special attention must also be paid to the alignment or adjustment of the institution's e-learning strategy and policy on the use of Open Educational Resources. ICT and its corresponding tools, including those integrated in virtual learning environment systems, may be used to enhance student-centred learning through participation, interactivity, and encouraging learner autonomy.

Given the diversity and variation of the needs of the learner population and a variety of learning styles, the education provider should be transparent about the pedagogical and delivery methods, adapted to the specific needs of the learners where necessary.

Finally, appropriate feedback and complaints procedures would be in place for continuous follow up on micro-credentials and their alignment to particular needs of the specific student body. It is important to engage learners in a meaningful way for processes of quality assurance and enhancement. The provider would need to consider the challenges that come with less intense, less frequent or less long-lasting interaction with the learners enrolled on and completing micro-credentials.

Areas in focus

- the required information and guidance is provided to learners to allow for flexible learning paths and inclusiveness;
- assessment methods and requirements, criteria for marking, and achievement of learning outcomes are aligned and consistently applied to promote fairness, transparency, authenticity and security;
- appropriate feedback and complaints procedures support a process of continuous follow-up on micro-credentials to ensure full alignment with the needs of the student body.

I.4. Student admission, progression, recognition, and certification

Standard: Institutions should consistently apply predefined and published regulations covering all phases of the student “life cycle”, e.g., student admission, progression, recognition, and certification.

This standard is particularly relevant to micro-credentials and closely linked to their proper functioning in any education system. Processes and procedures related to admission, recognition of prior learning, and completion are considered extremely important and must be in place. Equally, validation of non-formal and informal learning requires attention across the student “life cycle”.

Admission and recognition of prior learning (formal, non-formal, informal, and experiential) should be well elaborated in line with the institutional strategy and policies on lifelong learning and micro-credentials, ensuring that learners can make progress in their academic and professional career by means of micro-credentials. Information about stackability should be available and guidance should be provided to prospective learners.

Admission requirements should be transparent and easily accessible since potential participants in a micro-credential come from varied academic and professional backgrounds.

Education providers should develop fair and transparent recognition procedures that also consider the specific and diverse needs and features of micro-credentials compared to other education providers and other educational systems. The recognition procedure should also allow for the recognition of non-formal and informal learning linked to the admission procedures for micro-credentials. Relevant stakeholders, such as formal recognition bodies and employers’ unions, etc., should be involved in the process as far as possible.

It becomes important for the provider to develop tools to collect, monitor, and act on information on student progression. If feasible, specific attention should be paid to student progression, success and drop-out rates in view of the diverse learner population. However, it is understandable that in the case of micro-credentials an institution’s ability to address drop-out rates is limited given the unique mix of interests, motivations, and personal commitments that learners may display, all of which can have an impact.

Certification systems are also important and need to be appropriately implemented, possibly in digital form, to improve the portability and permeability of micro-credentials. Certification characteristics must offer detailed (mandatory and optional) information. The Diploma Supplement, as a tool widely used in

the European Higher Education Area, may serve to guide initiatives of standardisation for the certification of micro-credentials to support consistency and recognition.

Areas in focus

- admission practices are sensitive to the profiles of micro-credential learners and emphasis is placed on the recognition of prior formal, non-formal, or informal learning;
- tools are in place to collect, monitor and act on information in respect of student progression;
- certification characteristics must offer detailed (mandatory and optional) information to facilitate recognition and stackability and, hence, increase portability and permeability; the standardisation of certification formats can support these objectives.

1.5. Teaching staff

Standard: Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.

Teaching staff would benefit from having multi-layered types of experiences and competences, individually or as a team. On the one hand, they should have experience with micro-credentials in terms of methodology and didactics, as well as skills to deal with the specific needs of non-traditional learners. On the other hand, they should also have adequate experience in the professional or disciplinary field in which the micro-credential is located. As such, it is important that providers ensure that these requirements are met early on in the recruitment process, if possible, or offer opportunities for development once recruitment is completed.

Education providers are responsible for the quality of staff teaching micro-credentials and a supportive environment that allows them to carry out their work effectively. This should be made available through the provision of: (a) opportunities for the professional development of teaching staff in lifelong-learning environments; (b) processes and mechanisms strengthening the link between education and the industry/market; and (c) encouragement for flexibility and innovation in teaching methods and the use of new technologies. This may be relevant to emerging roles such as learning designers who can offer staff methodological and digital support and training.

It must also be recognised that teaching staff engaged in delivering micro-credentials may not be full-time or permanent staff, but can be hired specifically for the one-time delivery of a micro-credential. This means that different support and/or performance monitoring mechanisms may need to be available and that continuous professional development may or may not be of interest or offered in the same way as to full-time staff. It is understandable that it can be difficult to hold a provider responsible or impose specific responsibilities in regards to support and development, where the teacher delivering the micro-credential is sourced for their unique expertise and is offered a limited service contract for a purpose exclusively related to the micro-credential.

Consequently, institutional processes for the recruitment and development of the staff are adapted, amongst others, to the specific requirements of micro-credentials and flexible towards their learning outcomes and their professional or academic orientation.

Areas in focus

- teaching staff are experienced with delivery to diverse and non-traditional learners in lifelong-learning settings and are connected to the professional environment relevant for the micro-credential;
- staff are able to demonstrate multi-layered experience and competences, which can combine professional and scholarly activities;
- opportunities for professional development remain the responsibility of the provider;
- the work of staff may be complemented by that of learning designers.

1.6. Learning resources and student support

Standard: Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

With micro-credentials, it is important to note that needs for support can vary due to the heterogeneity of learners. As such, the specific needs of the diverse learner population should be taken into account.

In addition, depending on the subject, different learning materials are required. Consequently, specific funding plays an important role that must also be covered. Therefore, resources need to be adapted to take into account the diversity of learners connected to the micro-credentials and allow for library access, e-learning, and study facilities in line with their particular needs. Education providers (especially those with a broad student body) should treat learners in micro-credential programmes as part of their student body with equal access to all infrastructure and services, enhancing their overall educational experience. However, it is understandable that learners enrolled on micro-credentials may not necessarily make use of the resources in the same way, in the same timeframes, or for the same purposes as those enrolled on degree programmes, and they may not even wish to use these resources at all if the teaching materials and guidance provided directly through the course are deemed sufficient. This does not mean that accessibility should not be offered and that, where necessary, the needs of micro-credential learners should not be accommodated.

The diverse learner population of micro-credentials should be well-informed about resources and support services available. It is important that approaches that allow learners to familiarise themselves with such services consider their specific needs and their likely interactions with the provider. Personal support in the form of tutors, counsellors and other advisers are well-acquainted with the needs of the micro-credentials' learners and are equally accessible for all. Support and administrative staff are qualified to deal with the diverse learner population and have professionalisation opportunities available to them.

Resources and personal support services are monitored as part of the quality assurance cycle to ensure that all resources and services are fit for purpose, accessible, and the information provision about them is effective. The allocation, planning, and provision of resources and human support services are flexible enough to answer the needs of the diverse learner population and the agility with which micro-credential delivery can take place.

Areas in focus

- support services are considerate of the needs of the diverse learner population and the quick turn-around required to respond to such needs;
- resources are offered in multiple formats and a variety of locations for optimal access opportunities.

1.7. Information management

Standard: Institutions should ensure that they collect, analyse, and use relevant information for the effective management of their programmes and other activities.

Information management for micro-credentials should be integrated into the overall information management system, which feeds into the internal quality assurance system of the institution. This should guarantee that the quality of the collected data is sufficiently similar to that for other programmes. It is also important to integrate relevant data specific to micro-credentials, or to adapt existing processes and procedures accordingly.

The timing of processes and procedures should be well adapted to the short cycle of micro-credential provision to ensure the timely collection of relevant information about things like learner satisfaction, learning resources, learner support availability, and career paths. Additionally, other types of information, different from that collected for degree programmes, should also be considered for collection, for instance about stackability, professional upgrading, and the “shelf life” of the credential. The collected data should be relevant, the output of the processed data should be transparent, and the data management should be robust. The information management for micro-credentials must at all times be fit for purpose and, therefore, must also be agile and based on a S.M.A.R.T. (specific, measurable, assignable, realistic, and time-related) system of indicators to capture rapid changes in learner population and relevance to scientific domains and labour market needs.

For micro-credentials, institutions may wish to establish alumni follow-up mechanisms in order to evaluate whether the micro-credentials earned have helped them achieve set goals in terms of academic and/or professional advancement. Such information may also be made available through professional and academic networks where collaborative working may generate data on usability and progression.

Special attention is paid to the profile of the learner population and the diversity of its needs. Information gathered would need to monitor progression, success, and drop-out rates, with which to determine action where necessary.

The methodology for collecting information may vary, but it is important that micro-credential learners and teaching staff are involved in providing and analysing information and planning follow-up activities, as far as reasonable.

Areas in focus

- data collection demonstrates appropriate coverage of micro-credentials;
- data analysis considers the learner profiles and the implications of the shorter timelines of likely interaction with the provider;

- post-delivery data aims to substantiate claims of recognition and usability of the micro-credentials certified.

I.8. Public information

Standard: Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to-date and readily accessible.

Transparent and easily accessible information about the micro-credential offer of an education provider is foundational to meeting internal, as well as external quality assurance requirements and assisting learners in making informed choices about the types and delivery modes of programmes.

Education providers should make information regarding their lifelong-learning strategies and activities readily available, with relevant information on their websites. Their quality assurance mechanisms for all micro-credential programmes should also be made available. Moreover, the provision of information about these micro-credentials is consistent with the information provided about other programmes delivered by the institution, but also addresses the specific nature of micro-credentials and its diverse learner population. Special attention is paid to reaching out to non-traditional learners and offering information about graduate employment or academic progression.

Education providers guarantee to provide information about mandatory elements and, where relevant, optional elements, as suggested in 'A European Approach to Micro-credentials'¹³. As changes to micro-credential provision are often more frequent and far-reaching, these are well signposted in public communication.

Areas in focus

- information publicly available allows learners to make informed choices and refers to quality assurance arrangements underpinning the micro-credential offering.

I.9. Ongoing monitoring and periodic review of programmes

Standard: Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.

Micro-credentials should be subject to ongoing monitoring and periodic review just like any other programme. As such, regular monitoring, reviewing, and revising of micro-credentials should be integrated into the institutional system of on-going monitoring and periodic review of programmes.

However, this monitoring and review should be adapted to the specific nature and life cycle of micro-credentials. Micro-credentials may be scrutinised individually (where necessary), as a clustering of programmes, or in terms of micro-credential provision as a whole. Depending on their content, the objectives of a micro-credential may be subject to frequent changes and consequently it may need to be

¹³ <https://data.consilium.europa.eu/doc/document/ST-9237-2022-INIT/en/pdf>, accessed on 11 November 2022

swiftly adapted to a fast-changing reality so as to answer the specific needs of the market, industry, scientific developments, personal development, or society generally. Processes and procedures must also be sufficiently flexible and agile so that new micro-credentials can be developed, those currently running can be adjusted, where labour market changes call for such adjustments, or those which have become irrelevant or superfluous to be closed.

Internal quality assurance is, however, a continuous process for education providers who must, therefore, keep track of the progress made since the last internal quality assurance activity. The results of such evaluation processes should be taken into consideration and used for immediate action and improvement. This is particularly true for the successful application of cross-programme adjustments and enhancements where one programme may generate changes for other programmes running in parallel or sequence - a scenario very pertinent to micro-credentials.

The regular monitoring, review, and revision of micro-credentials should, as far as possible, involve all relevant stakeholders. This may come with specific challenges as learners may not wish to be involved and industry partners may find such activities unnecessarily resource-intensive for their company/organisation.

Where other education providers are involved in the design and offer of micro-credentials, follow-up processes and procedures must be adapted accordingly to include all such stakeholders. Equally, where professional involvement by labour market representatives or governmental officials is emphasised, such involvement needs to remain consistent across the “life cycle” of the micro-credential.

The diversity of the learner population, the possible short(er) life cycle of micro-credentials, their connection to the labour market, and the possible involvement of alternative providers should all be taken into consideration to ascertain how the following features are fit for purpose and allow for timely action: (1) workload, progression, and completion; (2) effectiveness of procedures for assessment; (3) learner expectations, needs, and satisfaction; and (4) the learning environment and support services.

Areas in focus

- ongoing monitoring permits relevant changes to benefit learners on the micro-credential programme
- follow-up procedures need to be adapted to micro-credentials and consider the wider interactions with stakeholders

I.10. Cyclical external quality assurance

Standard: Institutions should undergo external quality assurance in line with the ESG on a cyclical basis.
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External quality assurance has proven beneficial in building trust between institutions and their stakeholders. It has also developed institutional confidence as regards internal quality assurance systems and what can and cannot be deemed sufficient and/or functional. Quality assurance agencies across the EHEA have recognised the need to reduce the burden on providers where possible. This can only happen through careful consideration of national contexts, the positioning of institutions on their quality journey, and arrangements that exist for external quality assurance, be they targeted at the programme or institutional level.

Insofar as providers may have demonstrated their robust understanding of the specificities of micro-credentials and provide the relevant internal quality assurance arrangements to cater for this specific form of education, reliance on internal quality assurance systems, for such providers that have undergone an appropriate accreditation process, is a viable alternative to further detailed scrutiny by an external quality assurance body. Capturing micro-credentials in existing institutional-level external quality assurance (via sampling, for example) is also a possible alternative that can satisfy the concerns that have been expressed, sometimes by national governments. Whether micro-credentials would be looked at through a discipline-specific lens or from a management and quality assurance perspective is a matter of contextual necessity and could involve an express request by individual providers.

Benefits of the external quality assurance of micro-credential provision can be envisaged in both regulatory and voluntary perspectives. Such arrangements may focus on disciplinary relevance or management suitability by scrutinising the micro-credential provision at programme, programme cluster, or institutional level. Accreditation or review methodologies may be specific to micro-credentials, or may offer an add-on badge. These may be the result of an adapted programme-level procedure, or micro-credentials may be embedded within existing institutional protocols. Irrespective of the methodological approach, it is important that efforts are made to allow providers to demonstrate, via external scrutiny and as they may wish or may be required to do so, the quality of their micro-credential provision.

Regarding the cyclical basis of external quality assurance, a provider's micro-credential offering would benefit from being captured in external quality assurance arrangements at intervals which are deemed relevant. The portfolio of individual programmes is likely to change across these intervals, with micro-credentials being more flexible and agile so as to answer the specific needs of the market, industry, scientific developments, personal development, or society at large. As such, it would be important to decide how such change is managed and how quality would remain in view across the life cycle of individual micro-credentials, as well as the life cycle of the micro-credential offering as a whole. National contexts would decide how best to design external quality assurance requirements to ensure they are aimed at the correct organisational level to avoid placing unnecessary administrative burden on providers, while maintaining the robustness of their evaluation and the validity of their re-assurances to all stakeholders.

Importantly, any form of external quality assurance of micro-credentials may wish to facilitate the stackability, portability, and recognition of the micro-credential programmes, as relevant.

Areas in focus

- external quality assurance arrangements and their cyclical patterns are a matter for national contexts;
- a variety of external quality assurance arrangements can be set up to give re-assurances about micro-credential provision;
- reliance on internal quality assurance systems to relevantly cover micro-credentials should not be ruled out, depending on the robustness of quality demonstrations made previously by providers and the overarching characteristics of the educational sector.

Part 2: Standards and guidelines for external quality assurance

General considerations

Each standard for external quality assurance in the ESG: Part 2 has shown applicability to recently developed quality assurance processes that target a range of developments in higher education, for example, joint programmes, cross-border set-ups, and e-learning. Various methodological approaches demonstrate that some standards may need particular attention in terms of how they are applied to external quality assurance processes to maintain an optimal level of implementation. This reconfirms the conclusion that the ESG, as a basis for quality assurance, are applicable, although sometimes there is a need to determine an additional layer of specificities that might require attention.

How the external quality assurance of micro-credentials can be undertaken opens up new perspectives. For instance, with the development and integration of micro-credentials, higher education, in some contexts, is becoming more explicitly geared towards supporting working life and lifelong learning. However, in others it is intensifying existing links with the professional/vocational sector. As such, in the national context, the mainstreaming of lifelong learning initiatives should be taken into account in external quality assurance.

The results of the survey indicated that respondents found the relevance and applicability of the individual standards of the ESG: Part 2 to be either very important or important (the applicability of all factors rated above a 3 out of 5), with the most relevant standards considered to be 2.1, 2.2., and 2.5; a median position for 2.4; and lowest relevance/applicability ratings for 2.6 and 2.7. However, it should be noted that a disparity of opinions was observed for 2.7. Opinions about it were somewhat contested in the context of applicability for micro-credentials, but it was still awarded a mean score of 3.4 out of 5.

D3. How do you view the relevance/applicability of individual ESG (Part II) for QA of MC? (Mean)

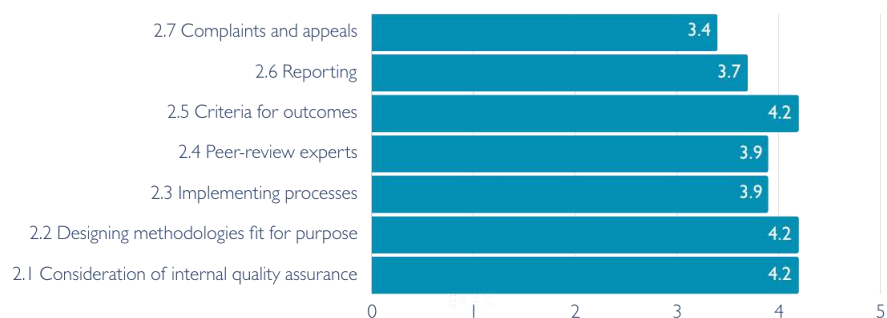


Figure 7. Relevance/applicability of the ESG (Part 2) (1 to 5 least relevant/applicable to most relevant/applicable).

The specificities concerning how relevance and applicability may be understood in the context of each of the ESG are detailed in the following.

2.1. Consideration of internal quality assurance

Standard: External quality assurance should address the effectiveness of the internal quality assurance processes described in Part I of the ESG.

The growth in micro-credentials testifies to the increased complexity of higher education and the growing diversity of expectations related to higher education institutions. These short qualifications carry a strong link to working life and promote a modular view of higher education. Thus, micro-credentials invite a holistic, flexible, and general approach to external quality assurance, which extends beyond the use of the ESG: Part I as a means of evaluating compliance.

Due to the specific character of micro-credentials, each standard from Part I should be considered separately in terms of both its concrete and specific applicability to such short learning volumes. Above all, micro-credentials strongly reference professionally usable qualifications and special attention needs to be paid to this aspect.

Areas in focus

- special features related to micro-credentials are taken into account when developing and implementing an internal quality assurance system, including: the content-related and often skills-focused reference of micro-credentials, the different actors and institutions involved as collaborators; and the fast-moving nature of these short modules.
- external quality assurance considers the specific characteristics of micro-credentials in regular procedures, such as innovation in teaching and learning processes, the stackable and/or stand-alone character of micro-credentials, and their link to working life and lifelong learning.

2.2 Designing methodologies fit for purpose

Standard: External quality assurance should be defined and designed specifically to ensure its fitness to achieve the aims and objectives set for it, while taking into account relevant regulations. Stakeholders should be involved in its design and continuous improvement.

Different approaches may need to be developed for systems where external quality assurance procedures focus on internal quality assurance processes, accommodating micro-credentials, and systems in which programme evaluation is the main focus of external quality assurance. External quality assurance procedures focused on institutions appear to be more applicable and less burdensome than procedures targeted at single micro-credentials, but this depends on the context, the pre-existing quality assurance regime, and the spread of micro-credential implementation.

In an institutional approach, external evaluations consider how the quality of micro-credentials is addressed by the internal quality assurance system under review. For a programme evaluation model, however, designing specific methodologies for the external quality assurance of micro-credentials runs the risk of increasing workload and costs for limited benefit and consequently may present challenges for education providers, as well as quality assurance agencies.

The ESG state that the system for external quality assurance may operate in a more flexible way if institutions are able to demonstrate the effectiveness of their own internal quality assurance. Accordingly,

quality assurance targeting micro-credentials should be able to assess the quality processes of institutions offering lifelong learning training with and without formal qualifications, and addressing the diversity of provision to which micro-credentials may contribute.

Increasingly, micro-credential design and delivery arrangements may involve collaboration and partnerships between different types of education providers. It is important for agencies to consider how such cooperation is quality assured and if accredited providers have the processes in place to safeguard the quality of provision offered in partnership with third party providers.

It should also be noted that, in the case of micro-credentials, some providers may be ‘non-traditional’ education institutions or professionally-based institutions. Agencies may wish to consider the possibility of extending their procedures to relevant providers and ensure there are options for such providers to demonstrate the quality of their micro-credentials. Undoubtedly, this choice should be considered by taking into account the sustainability of the additional workload and resources required for such extension.

Irrespective of what quality assurance arrangements are made, labour market stakeholders play an important role in the case of micro-credentials, as they have strong links to vocational applicability and relevance. Their perspectives should therefore be taken into account in quality assurance procedures. Additionally, varied modes of delivery may dictate the need for the implementation of different procedures. For example, where micro-credentials are offered online, an appropriate assessment practice for this must be explicitly developed.

Areas in focus

- external quality assurance of micro-credentials takes into account the characteristics and specific challenges of micro-credential provision
- micro-credentials may be integrated into institutional quality assurance evaluations or may be dealt with from a programme perspective, depending on context
- evaluations consider the strong connection of micro-credentials to professional competencies, upskilling, reskilling and lifelong learning in general, as well as their often shorter lifespan
- labour market stakeholders are closely involved in the design of evaluation procedures
- in developing fit-for-purpose methodologies for the external quality assurance of micro-credentials, agencies consider the sustainability of such processes within the context of their mission, strategy and existing, or projected, capabilities.

2.3. Implementing processes

Standard: External quality assurance processes should be reliable, useful, pre-defined, implemented consistently, and published. They include: a self-assessment or equivalent; an external assessment normally including a site visit; a report resulting from the external assessment; a consistent follow-up.

Overall, the decision as to how micro-credentials are tackled in external quality assurance processes is dependent on context and pre-existing arrangements, as well as whether these existing procedures can accommodate the additional burden of micro-credentials or may require separate arrangements. If micro-credentials are to be scrutinised under existing institutional arrangements (for example, via sampling

or clustering), it is important to determine the size of the provision identified for scrutiny and the level of attention expected. For agencies to be able to successfully embed micro-credentials in existing processes, it is important to clearly communicate expectations with providers concerning micro-credential provision so that it can be relevantly covered in both the self-assessment and site visit stages.

Self-assessment

Particular emphasis should be placed on a clear presentation of micro-credentials, which takes into account their context or the institution offering them. Micro-credentials must be clearly described in terms of their position and function in the teaching offer, in particular, if they are part of larger programme packages.

The self-assessment report, where required, or provider documentation may make specific reference to micro-credentials by describing, for example:

- the role and function of micro-credentials in the institutional offering, with reference to the educational strategy;
- the profiles and experience of teaching and support staff, being applicable also to staff from external providers;
- and the description of the micro-credential including its learning outcomes, competences, type of study, design, assessment, and number of ECTS or similar credits, etc.

External evaluation/site visit

External quality assurance should consider in what way micro-credentials can be integrated in the site visit. Where micro-credentials are part of larger programmes, there should be opportunities to look at examples of micro-credentials specifically. Interviews should include representatives of all stakeholders involved. The same conditions should apply to digital interviews, in order to make sure that external experts can obtain a true impression of short learning units.

Areas in focus

- if the micro-credential methodology is integrated in institutional-level procedures, details related to micro-credentials are included as for any other type of provision;
- particular attention is given to the description of the provisions of micro-credentials in the institution's self-assessment report or in documents provided as evidence;
- the role and function of micro-credentials in the general offering of the education provider and their contribution to the institutional profile is made transparent;
- stakeholder interviews relevantly cover the micro-credential provision.

2.4. Peer-review experts

Standard: External quality assurance should be carried out by groups of external experts that include (a) student member(s).

Micro-credentials are a special case compared to traditional study programmes. Where micro-credentials are a particular feature or priority of the provider under scrutiny, and if the external quality assurance process requires specific reporting on such micro-credentials, it would be advisable for the agency to bring in experts familiar with their specific features, while also having previous knowledge and experience in the quality assurance of traditional education. As such, guidelines for the criteria and selection of experts, as well as post-recruitment preparation and training of external experts would benefit from a clear focus on micro-credential specificities. Experts would likely have experience in design of short programmes and be familiar with the particular features of micro-credentials. They should have practical experience in teaching shorter units of learning and have competence-oriented learning and teaching experience. Similarly, any student members involved in the process should have experience of short courses and micro-credentials.

Country-specific differences should be considered in cross-border external quality assurance procedures. In some national contexts, micro-credentials and lifelong learning are already natural parts of higher education teaching and learning, while in others higher education is gradually opening up to such aspects.

Areas in focus

- experts are familiar with the particular features of micro-credentials and have practical experience with shorter professionally-oriented units of learning;
- student experts have experience of micro-credentials or similar modular learning provision;
- if applicable, the expert panel has knowledge related to the discipline, sector, or labour market domain to be assessed;
- as necessary, preparation and training would cover specificities of micro-credentials and their integration in the process promoted.

2.5 Criteria for outcomes

Standard: Any outcomes or judgements made as the result of external quality assurance should be based on explicit and published criteria that are applied consistently, irrespective of whether the process leads to a formal decision.

Depending on the national context and the model for external quality assurance applied, micro-credential-specific criteria may need to be adequately reflected. Importantly, criteria related to recognition or stackability arrangements may need to be explicit.

As with other methodologies, all relevant stakeholders would be involved in developing criteria for the quality assurance of micro-credentials in institutional reviews, programme evaluations, or other external quality assurance activities. Before engaging in external quality assurance activities, the agency would make the criteria publicly available.

Areas in focus

- specific criteria for external quality assurance procedures of micro-credentials may be decided on.

2.6 Reporting

Standard: Full reports by the experts should be published, clear, and accessible to the academic community, external partners, and other interested individuals. If the agency takes any formal decision based on these reports, the decision should be published together with the report.

Reporting and publishing should follow the same procedures as other external quality assurance processes.

If micro-credentials are scrutinised as part of broader institutional processes, reports may embed evaluative statements about the micro-credential provision, explicitly devote a section to the micro-credential provision, give individualised judgements on the micro-credential provision, or bundle the findings about the micro-credential provision under more general statements applicable to the provider.

2.7 Complaints and appeals

Standard: Complaints and appeals processes should be clearly defined as part of the design of external quality assurance processes and communicated to the institutions.

Complaints and appeals processes are independent of the structure of the evaluated institution, programme, or type of qualification, as well as being accessible in the context of micro-credentials.

Chapter V. Examples of External Quality Assurance Practices: Case Studies from ENQA Member Agencies

This report aims to identify common denominators in the external quality assurance of micro-credentials to promote the transferability and sustainability of practices. As such, the case studies here represent lessons learned in specific national contexts when designing and implementing external quality assurance arrangements, while also serving as guidance for comparable situations.

The four case studies offer different responses to different demands (i.e., regulatory versus voluntary), as well as different experiences and approaches to the external quality assurance of micro-credentials. The case studies span four national/regional contexts (Spain, Estonia, Ireland, and the United Kingdom) where there are already clear approaches designed and being piloted, or already implemented for the external quality assurance of micro-credentials.

The Catalan University Quality Assurance Agency (AQU Catalunya) case study outlines the response to specific regional labour market demands at bachelor's and master's degree levels. The need for upskilling and reskilling, alongside the subsequent proliferation of short learning programmes at bachelor's and master's levels, convinced the government and the AQU Catalunya in 2021 to develop an *ex-ante* accreditation methodology for short learning programmes at levels 5 and 6 of the European Qualification Framework (EQF) in fields relevant to the regional labour market.

The case study from the Estonian Quality Agency for Education (HAKA) specifically targets the quality assurance of micro-credentials offered within the context of non-formal education. Since 2022, HAKA has been piloting the quality assurance of study programme groups among 120 non-formal education institutions. These institutions can only offer micro-credentials in a certain study programme group after they pass the quality assessment for that group.

Quality Qualifications Ireland (QQI) presents an example of the external evaluation of micro-credentials aimed at responding to specific training needs during the pandemic, which has subsequently expanded. QQI developed a process for documenting and evaluating micro-credentials comprised of a module or modules taken from previously validated programmes. The initiative was piloted, evaluated, and has now been mainstreamed and extended to new programmes.

The British Accreditation Council (BAC) has proposed a voluntary scheme for accreditation of any type of education provider offering micro-credentials, be they UK-based or international. This scheme targets institutional level accreditation and focuses on quality assurance mechanisms applied specifically to micro-credentials by providers, rather than proposing programme-level or subject-specific scrutiny. Individual micro-credentials are used for sampling during the inspection process. If successful, the provider is accredited for a cycle of four years during which it can make any changes to its micro-credential provision so long as the key criteria continue to be met. The current version of the scheme is being piloted until early 2023 with a view to being rolled out fully after relevant adjustments are made in response to stakeholder feedback.

Case study by AQU Catalunya: *Ex-ante* EQF Level 6 and 7 accreditation of short learning programmes

By Esther Huertas Hidalgo, Carme Edo and Teresa Pitarch

Abstract

This case study takes place in Catalonia, Spain. This is a pioneering project, which has the active and direct participation of universities, the professional sector, and the government separated into three differentiated departments: university, employment, and continuous training.

In Spain, the training for employment has been established at levels 3 to 5 on the EQF. However, the real nature of the labour market requires, in many cases, lifelong learning at levels 6 or 7 of the EQF. These are unexplored training levels for the Catalan Public Employment Service, which has historically only managed training at EQF level 4.

AQU Catalunya designed and successfully implemented a methodology to carry out the *ex-ante* accreditation of short learning programmes (SLP), published in 2021. Previously, in 2020, the Agency developed a pilot project to test the methodology. SLPs provide targeted and specialised training and offer a gateway between the higher education system and the professional training system.

The Quality Assurance Agency

The Catalan University Quality Assurance Agency (AQU Catalunya) is the primary body for the promotion and assurance of quality in the Catalan higher education system. AQU Catalunya is entrusted with the assessment, accreditation, and certification of quality in universities and higher education institutions in Catalonia (Spain).

The main activities of AQU Catalunya are programme and institutional reviews; assessment of teaching staff; knowledge generation; and internationalisation.

AQU Catalunya is a full member of ENQA and was one of the first three agencies to be included in EQAR. AQU Catalunya is also a member of the Network of Spanish Quality Assurance Agencies and of INQAAHE, whose secretariat is hosted by the agency.

The Initiative

AQU Catalunya designed and successfully implemented a methodology to carry out the *ex-ante* accreditation of short learning programmes (SLP), published in 2021. Previously, in 2020, the agency developed a pilot project to test the methodology.

This is a pioneering project, which also has the active and direct participation of universities, the professional sector, and the government separated into three differentiated departments: university, employment, and continuous training.

SLPs provide targeted and specialised training and constitute a gateway between the higher education system and the professional training system. The goal is to align, as far as possible, SLPs developed and delivered by higher education institutions with the needs of the labour market and to reflect on the strengths and drawbacks of external assessment of SLPs.

This project exemplifies how quality assurance agencies might establish alliances in order to tackle a global challenge locally. It responds to the Sustainable Development Goal (SDG) 17 “HEIs responsiveness to labour markets’ demands” (SDG17) and SDG4 “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”.

The Context

Traditionally, professional training has been circumscribed to levels 3-5 of the European Qualifications Framework (EQF). However, the increasing need for upskilling and reskilling has resulted in proliferation of SLPs at level 6 (bachelor) and level 7 (master) of the EQF. These are previously unexplored training levels for the Catalan Public Employment Service, which has historically only managed training at EQF level 4.

The initiative of implementing validation (evaluation of the design) of SLPs was led by the Catalan government and was designed in collaboration with the Catalan Public Employment Service and the Catalan Continuous Training Consortium, since the approved programmes will be included in the Spanish Catalogue of Professional Qualifications.

In the first instance, Catalonia focused on the regional need to improve the training of the workforce in the field of ICT. As a consequence, higher education institutions have designed more than thirty SLPs in the ICT field, which were reviewed by AQU Catalunya.

Currently, interest is focused on the automotive sector and renewable energy and it is expected that new fields will be included in subsequent years. This will increase the number of SLPs designed by higher education institutions included in the Catalogue of Professional Qualifications.

The Guide to the *ex-ante* accreditation of short learning programmes¹⁴ defines the characteristics of SLPs as follows:

- Targeted at level 6 (Bachelor’s) or 7 (Master’s) of the EQF.
- ECTS between 4 and 30.
- ECTS credits earned are recognised in accredited programmes.
- Providers: Catalan higher education institutions.
- The programme must meet the needs of the labour market.
- Addressed to non-traditional students.

The assessment dimensions are as follows:

1. Programme description: university, name of SLP, EQF level, relationship with the professional family, ECTS, mode of delivery, and offer.
2. Justification: relevance of the programme to the labour market and potential of the institution to deliver the programme.
3. Aims and learning outcomes (level, relevance according disciplinary field).
4. Access, admission, and support of students.

¹⁴ <https://www.aqu.cat/en/doc/Universitats/Metodologia/Ex-ante-accreditation-of-short-learning-programmes>, accessed on 11 November 2022

5. Study programme (planning): structure of the curriculum, coherence between intended learning outcomes, mode of delivery, and teaching and assessment activities.
6. Teaching staff and support staff: suitability and sufficiency.
7. Material resources and services: suitability and sufficiency.
8. Expected results: academic results, student satisfaction, and employability.

Challenges, Benefits, and Lessons Learned

Three major challenges were identified.

1. The need to devise a more scalable procedure that allows the accreditation of programmes to be undertaken in an aggregated way so as to avoid the external assessment of each programme individually. There is a need to put in place institutional assessment systems that are focused on internal quality assurance systems.
2. Adapting criteria and standards initially designed for highly regulated programmes and full-time students to new programmes that focus on employability and on students with completely different profiles. Two dimensions were identified, with associated problems:
 - a) The conditions for access to SLPs. According to the standards designed, students are required to have achieved a qualification of at least the preceding level of education (for example, they cannot access an EQF level 7, or master's level programme if they have not achieved EQF level 6). This is a constraint that hinders access by professionals in the sector in need of reskilling who do not currently hold university degrees.
 - b) The balance between academics and professionals. Universities organise programmes primarily from an academic perspective and programmes are taught mainly by full-time university lecturers and researchers, while the professional sector calls for greater involvement of professionals. AQU's methodology defines the maximum and minimum percentages of commitment for the SLP according to each profile, as well as the tasks to be carried out, which addresses this concern. However, it will probably be necessary to establish different criteria according to the type of SLP, i.e., programmes accredited with specific requirements that would be provided by universities, while others without external assessment would be provided by other, non-formal educational institutions.
3. The need to design systems in which other higher education providers that are already involved in the market may also participate. Their clearly different characteristics should not prevent them from also being able to secure accreditation for programmes according to the same quality criteria.

Recommendations

The experience of running this project allowed AQU Catalunya to reflect on the strengths and the drawbacks of the assessment of SLPs. Among the strengths, it is worth noting that AQU Catalunya is well placed to develop an answer to societal need. External assessment ensures the recognition of SLPs by higher education institutions. Moreover, it ensures quality and increases trust in these programmes. Due to the workload associated with the external review of these programmes and their short life expectancy (as they need to adapt very quickly to market needs), it appears reasonable to look for another strategy that is more focused on the institution's internal quality assurance system. On the other hand, during the

process it became evident that there is a need to strengthen connections and establish a common language between all actors involved.

Resources

AQU Catalunya (2021). Ex ante accreditation of short learning programmes (SLP). AQU Catalunya. Barcelona (Spain). <https://www.aqu.cat/en/About-us/What-we-do2/News/news/Guide-for-ex-ante-accreditation-of-short-learning-programmes-published>

Case study by HAKA Estonia: Regulatory subject-group external quality assurance of micro-credentials

By Kaija Kumpas-Lenk

Abstract

A quality assurance system for micro-credentials is currently under development in Estonia. In this case micro-credentials are defined as certified small volumes of learning (5-30 ECTS) that provide flexible and targeted paths for self-development. The definition of micro-credentials is inspired by the recommendation for a European approach to micro-credentials and outcomes from the Microbol project. In Estonia, micro-credentials can be offered by formal and non-formal education institutions, and thus a flexible, fair, and comparable approach for quality assurance is being sought by the ministry and quality agency in discussion with other stakeholders. Currently, proposed amendments to the law foresee that, to have the right to offer micro-credentials, providers need to undergo an assessment of study programme groups. The study programme groups are agreed according to the Classification of Education Fields of Education and Training (ISCED-F). According to the amendments, formal educational institutions and non-formal educational institutions have to follow different paths to gain the right to offer micro-credentials. Formal educational institutions undergo regular quality assessments and are awarded the right to offer micro-credentials via this route.

This case study outlines a proposal for the quality assurance of micro-credentials offered by non-formal education institutions, given that formal education institutions already undergo regular quality assessments.

The Quality Assurance Agency

The Estonian Quality Agency for Education (HAKA) is the competent authority in Estonia for the quality assessment of educational institutions, covering higher education, vocational education, continuing education, and general education (7-18 years). HAKA also conducts cross-border quality assurance for which it has developed specific standards and procedures that align with the ESG.

HAKA has conducted quality assessment in continuing education since 2017. In 2017, HAKA developed requirements and procedures for the cross-border accreditation of study programmes in continuing education to assess the quality of a one-year continuing education study programme in Tajikistan. Due to the parameters of this programme, it could be considered a micro-credential, thus, we may say that this was the agency's first pilot of assessing a micro-credential.

Subsequently, in 2018 the Ministry of Education and Research assigned HAKA to develop a quality assessment system for continuing education in Estonia. Since then, more than a hundred non-formal education institutions have been assessed.

These experiences provided the basis for developing and piloting a quality assessment system for micro-credentials in 2022.

The context

In Estonia, continuing education can be offered by formal and non-formal education institutions. Pursuant to the legal framework, formal education institutions (18 higher education and 31 vocational education institutions) undergo regular quality assessment. Although, the Adult Education Act regulates the offering of continuing education, it does not include a quality assessment system for continuing education. Therefore, non-formal education institutions (public organisations, private companies, and professional organisations, etc.) are currently outside the purview of any legal quality assessment system. The market

for non-formal education institution is extensive—approximately 1,400 providers have been registered in the Estonian Education Information System. Currently, 80 % of continuing education in Estonia is provided by non-formal education providers.

HAKA has made use of its experience of assessing the quality of continuing education institutions who also offer micro-credentials. The assessment of continuing education institutions in Estonia from 2019 to 2022 showed that institution-based quality assessment was not as effective as it was hoped. The main issue was that while some providers were found to offer excellent programmes, the quality of teaching and learning in some study programme groups, but the same institution may be much lower in another study programme group. In such cases, the institution did not pass the quality assessment.

The institution-based assessment procedure did not allow for the demonstration of quality in the study programme groups in which the institutions did well. Therefore, in developing the quality assessment system for micro-credentials a different approach was sought. As a result of discussion and analysis, it was agreed that if a provider wishes to offer micro-credentials, it needs to undergo assessment of the study programme group in which the micro-credential will be offered. This would not apply to formal educational institutions because they are already regularly assessed. As such, HAKA focused on designing a model for non-formal providers that would be fair and fit a variety of profiles.

The initiative

HAKA's quality assessment of non-formal education providers has shown that the quality of continuing education varies greatly. It was found that half of the providers that assessed were not able to meet the minimum requirements. It is evident that there is a need for continuous quality assessment. This has resulted in an identified need to change the Adult Education Act. The new act deals with the quality assessment of continuing education and micro-credentials. Micro-credentials can be worth 5-30 ECTS and ought to be certified small volumes of learning that respond to societal, personal, cultural, or labour market needs. This definition of micro-credentials is inspired by the recommendation on a European approach to micro-credentials and outcomes from the Microbol project.

According to the amendments, all providers of continuing education may issue micro-credentials. To do so they should complete a process that is focused on assessing the quality of a study programme group. The study programme groups are agreed upon according to the Classification of Education Fields of Education and Training (ISCED-F).

Formal education institutions may offer micro-credentials in the study programme group in which they already have the right to conduct formal education. Formal educational institutions also undergo regular quality assessments. Non-formal educational institutions must undergo quality assessment in the study programme group and only after having passed the assessment can they offer micro-credentials in that study programme group.

Institutions having the right to offer micro-credentials must register each individual micro-credential programme with the Estonian Education Information System. After the Ministry of Education and Research has checked its formal compliance with the requirements, the micro-credential is published in the register and can be offered to the public. Each micro-credential is eligible for five years before being reassessed.

The quality assessment model of study programme groups for non-formal educational institutions is new and a short description is provided below.

The assessment criteria and procedure for the study programme groups are driven by the ESG, focused on being student-centred, and teaching skills that are relevant to the labour market.

There are four assessment areas: 1) study programme and study programme development; 2) learning and teaching; 3) teaching staff; and 4) resources.

HAKA forms an assessment panel of 2-4 experts. The aim is not to assess all the programmes in one study programme group, but rather HAKA proposes the use of a sample that aims to cover a variety of courses in the study programme group, for example, short courses and long courses, courses that end with assessment, and courses that are of different levels (e.g., beginners, advanced). The assessment follows the traditional logic: the provider of non-formal education first compiles a self-assessment report for the study programme group under assessment, followed by an online assessment visit giving the expert panel an opportunity to interview representatives of all major stakeholders and the drawing up of the assessment report. Finally, the HAKA Quality Assessment Council for Continuing Education makes the decision to accredit the programme for five years, to accredit it with secondary conditions, or not to accredit.

Currently, HAKA is piloting the quality assessment of study programme groups among 120 non-formal educational institutions.

Challenges, benefits, and lessons learned

The pilot started in June 2022 and only a few non-formal educational institutions have so far undergone assessment. As such, we can only reflect on this limited experience.

The main challenges and lessons learned are:

- Communication is key. Non-formal education providers expressed uncertainty because the process is so new.
- The assessment process needs to be short, flexible, and clear because the study programmes are compact, fast changing, and the expectation is to have results that reflect the actual situation. For example, the system is flexible for formal educational institutions who do not need to have multiple quality assessments. For non-formal educational institutions, it takes about two months to assess one study programme group. The institution can decide in which study programme group it wishes to offer micro-credentials. The standards and guidelines are public and HAKA offers seminars for providers to introduce them to the assessment criteria and procedure.
- The main benefits are:
- Students have the opportunity to choose courses that have been assessed and for which the learning can be recognised.
- Quality culture in continuing education is improving.

Recommendations

- Involve all relevant stakeholders in designing the process and pilot the assessment model. The feedback from continuing education institutions has helped us to develop a model that is also relevant for an institution's development as a whole. Ownership in this process is important for the institutions.
- Take the target group into account and try to avoid "educational jargon". For example, non-formal education providers who are practitioners and offer high quality speciality programmes (e.g., welding), but have no experience in quality assurance, may face difficulties in understanding the process.
- The quality of continuing education is uneven. In our experience it is difficult to ensure that a small non-formal training institution can assure high-quality training in every possible field. Therefore, the approach of assessing field specific expertise is essential.

Resources

“Guidelines for the Accreditation of Study Programmes in Continuing Education” (https://haka.ee/wp-content/uploads/Continuing_education_accreditation_guidelines.pdf, accessed on 11 November 2022)

More about our cross-border assessment of continuing education: “Assessment of Continuing Education in Tajikistan” (<https://haka.ee/en/assessment-continuous-education-tajikistan/>, accessed on 11 November 2022)

“Quality assessment of study programme groups” (<https://haka.ee/en/qa-study-programme-groups/>, accessed on 11 November 2022)

Case study by Quality and Qualifications Ireland (QQI): Programme-level validation

By Walter Balfe

Abstract

This case study describes the actions taken by QQI in conjunction with a number of higher education providers of QQI awards to introduce a streamlined process for the validation of short programmes, informally termed micro-credentials.

QQI had the advantage of having an existing process to validate programmes including small ones. This was common for programmes of all sizes, i.e., those leading to major awards (degrees), special purpose and minor awards (diplomas and certificates).

Being a 'one size fits all' process, applicable to programmes leading to major awards as well as to smaller awards, the focus was disproportionately small programme 'heavy'. It was relatively straightforward to identify how the documentation and evaluation processes could be proportionately reduced to reflect: (a) the scale of micro-credential programmes; (b) the origin of programmes, i.e., with most coming from already validated degrees; and (c) the applicability of the validation criteria to programmes of different sizes.

The revisions to the process were designed to make the documentation and evaluation more proportionate and agile. The streamlined process was piloted, evaluated and is now mainstreamed. It is important to note that it deals with programme level approval, rather than institutional.

The quality assurance agency

QQI is a state agency that has responsibility for quality assurance and qualifications in Irish further and higher education and training. It is responsible for the National Framework of Qualifications¹⁵ and, as an awarding body (for private independent providers), validates programmes and makes awards/qualifications at all 10 levels of the framework.

The initiative

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Being a 'one size fits all' process, applicable to programmes leading to major awards as well as to smaller awards, the focus was disproportionately small programme 'heavy'. It was relatively straightforward to identify how the documentation and evaluation processes could be proportionately reduced to reflect: (a) the scale of micro-credential programmes; (b) the origin of programmes, i.e., with most coming from already validated degrees; and (c) the applicability of our validation criteria to programmes of different sizes.

¹⁵ <https://www.qqi.ie/what-we-do/the-qualifications-system/national-framework-of-qualifications>, accessed on 11 November 2022

The revisions to the process were designed to make the documentation and evaluation more proportionate and agile. The streamlined process was piloted, evaluated, and is now mainstreamed. It is important to note that it concerns programme level approval, rather than institutional.

QQI has validated small (i.e., 10 ECTS and above) programmes for many years. These could lead to standalone *special purpose awards/qualifications* or *minor awards*, which were embedded in or tied to a major award programme (e.g., bachelor/master, etc.). The validation process for these programmes was the same as for major award programmes. This fact was seen as an impediment to development by providers.

QQI provided new streamlined validation templates and a remote, desk-audit based evaluation by independent SMEs.

The core principles and criteria for QQI validation¹⁶ were retained. The application of the criteria is focused on aspects relating to currency, coherence, learning environment, and the teaching and learning approach, etc. This is to reflect the difference between a programme for undergraduates and those for mature students who are accessing the programme for very specific purposes, usually remotely.

In time the process evolved to include new programmes, i.e., not taken from previously validated degree programmes. The evaluation here was proportionately more detailed, but the principles of the streamlined process were retained.

QQI did not encourage 'stackability', as the original focus was on programmes already linked to a major programme and towards which micro-credentials could be used as credit. To date there has been no demand for brand new major awards created through a series of stackable micro-credentials. If QQI were to receive such a demand, it would seek a top-down view of the large programme, in addition to a bottom up perspective.

A related initiative by the Irish University Association¹⁷ is designed to facilitate approval of micro-credentials in that sector where NFQ awards are made by universities, rather than QQI.

The objectives of the initiative were:

- To facilitate speedier programme development and evaluation for short programmes leading to QQI awards.
- To validate as special purpose awards, modules taken from programmes leading to major awards.
- To introduce desk audit evaluation by subject matter experts.
- To retain the fundamentals of the QQI validation process, i.e., compliance with QQI criteria, independent evaluation, governance, and publication of reports.

While initially intended for modules of existing programmes, the initiative was subsequently extended to new programmes. If these are already within the provider's approved scope, i.e., the range of disciplines

¹⁶ <https://www.qqi.ie/what-we-do/quality-assurance-of-education-and-training/validating-qqi-award-programmes/i-want-to>, accessed on 11 November 2022

¹⁷ Lynn Ramsey, Irish University Association "Microcredentials and Microqualifications" <https://www.qqi.ie/sites/default/files/2022-10/12.20-12.45> accessed on 11 November 2022

already validated, QQI reserves the right in such a case to request more information or move from 'desk audit' to site visit.

The context

The initiative was prompted by the need, during the acute phase of the pandemic, to responsively approve new short programmes designed to meet skills needs.

Government identified gaps in the programme offering and provided potential funding. Providers with the capacity to offer appropriate programmes needed QQI approval if such programmes were to lead to recognised qualifications on the NFQ.

In response to the pandemic conditions, and the need for rapid programme development and validation to meet sudden training needs, QQI worked with a defined group of institutions to establish a fair and valid process for documenting and evaluating small (5 ECTS minimum) programmes comprising a module or modules taken from previously validated programmes.

A joint working group was established to design, refine, and pilot the process under the oversight of QQI. The institutions presented programmes of different sizes for validation, all valued at between 5 and 30 ECTS. Most comprised one or more modules taken from previously validated programmes. The focus for evaluation here was on the coherence and value of this 'micro-credential' as a stand-alone award where the programme would be delivered online.

QQI coordinated activities with the other government agency involved in the initial initiative, i.e., a funding programme driven by the COVID-19 emergency. However, after this original imperative, it was decided there was no reason not to mainstream and maintain the approach post pandemic.

Challenges, benefits, and lessons learned

The piloted process was evaluated by QQI. The participating providers and evaluation panels were all surveyed to gather their feedback. This was almost entirely positive, but there were improvements identified by both sides, which were subsequently incorporated:

- The panels required more detailed information about the indicative content of the proposed programmes.
- The providers sought to extend the process to include a broader range of programmes than that originally envisaged.

This was an incremental process of discussion, evaluation, and improvement. QQI's programmes and Awards Executive Committee provided governance.

The process is now mainstreamed, i.e., it is no longer confined to the context that motivated the initiative. Institutions now regularly apply for validation of these micro-credentials—the process is no longer seen as experimental, nor tied to emergency pandemic context.

Recommendations

This process is quite specific to QQI and builds on existing policy and QA infrastructure, i.e., there were no new policy implications or quality assurance requirements required.

We recommend that micro-credentials be subject to the same evaluative criteria as larger programmes, but that processes be proportionate to programme scale (credit size and level).

Resources

“Core principles and criteria for QQI validation” <https://www.qqi.ie/what-we-do/quality-assurance-of-education-and-training/validating-qqi-award-programmes/i-want-to>, accessed on 11 November 2022

Lynn Ramsey, Irish University Association “Microcredentials and Microqualifications” <https://www.qqi.ie/sites/default/files/2022-10/12.20-12.45> accessed on 11 November 2022

National Framework of Qualifications, <https://www.qqi.ie/what-we-do/the-qualifications-system/national-framework-of-qualifications>, accessed on 11 November 2022

Case study by the British Accreditation Council (BAC): Voluntary institution-level accreditation of providers of micro-credentials

By Anca Greere and Lucy Fox

Abstract

This case study describes the micro-credential accreditation scheme launched by the British Accreditation Council, initially as a pilot, in the autumn of 2022. The MC Scheme invited UK-based and international providers to engage with BAC if they were seeking to demonstrate to their stakeholders, via an external quality assurance body, the quality of their micro-credential provision.

The MC Scheme is presented as an institutional, rather than programme-based scheme. It focusses on quality assurance arrangements employed by the provider to maintain and enhance its micro-credential provision. BAC accreditation is voluntary, with accreditation being awarded for a period of four years.

The quality assurance agency

The British Accreditation Council (BAC) is a charity and not-for-profit limited company established in 1984. It provides a voluntary system of quality assurance and accreditation for the independent further and higher education and training sector in the UK and internationally.

Institutions are assessed through one of the six specialised accreditation schemes, which have been designed to recognise the diverse and distinctive nature of different types of organisations. For example, BAC-accredited providers range from short course training providers all the way to online learning and higher education institutions. Therefore, BAC has a unique position in the sector, bridging the gap between vocational-type training and further and higher education providers. As a result, it has developed an expertise in the quality assurance of such organisations.

The context

The design, delivery, and quality assurance of micro-credentials is currently at the forefront of educational developments, focusing on promoting lifelong learning under more inclusive, more flexible, and more diverse policies. Having taken on the role of chairing the ENQA Working Group on the Quality Assurance of Micro-credentials, BAC has had significant involvement and insight into developments in this area. This role on the working group, combined with BAC's strategic aim to be more active in the quality assurance community, and its unique expertise coming from a diverse provider base, means that it was well placed to develop an accreditation scheme for providers of micro-credentials. The existing schemes, such as those for providers of short courses and those offering online delivery, were adapted to enable BAC to produce a pilot scheme in a relatively short amount of time.

It was important that BAC developed a position by which it could support its providers and other providers not previously accredited by the organisation to demonstrate their understanding and implementation of internationally-driven requirements, responding to stakeholder expectations about the design, delivery, and review of micro-credential provision.

The initiative

BAC objective was to create an accreditation scheme for micro-credential providers that was suitable to launch for a pilot. The scheme had to fit in with the existing suite of schemes and not deviate from their Common Quality Framework¹⁸, whilst recognising the particular characteristics of providers that offer micro-credentials, for example, for the upskilling and reskilling of participants, or as part of articulation agreements with the possibility of being recognised and stacked towards a larger degree.

The aim of the scheme is to assess the robustness of the management and quality assurance arrangements for micro-credentials. The scheme does not result in a discipline or subject-specific evaluation and no judgement on the discipline or subject content is issued. Rather, the scheme focuses on the provider's capacity to design, develop, deliver, and review its MC provision and maintain its currency, validity, and accuracy, or initiate timely closure procedures, as necessary.

In designing the scheme, BAC consulted a number of reference points, including UNESCO characteristics and Council of the European Union descriptors, while also considering the outcomes of the ENQA Working Group on the Quality Assurance of Micro-credentials. The proposed eligibility criteria and standards align with the specificities highlighted by these authoritative bodies.

The Scheme uses eligibility criteria as an initial filter to decide if the MC Scheme is suitable to the provision being described. In this process, the provider may choose to apply for MC accreditation before, after, or during the delivery of its MC provision; it may request a single-course accreditation (for one MC only) or a multi-course accreditation (for a suite of MC courses). Irrespective, the courses composing the provision under scrutiny must meet the following characteristics from onset:

- Notional workload for the MC: 100-1000 hours.
- Form of participation (online, blended, or face-to-face, etc.) is identified.
- Learning outcomes are explicit.
- Information on recognition, articulation, or stackability opportunities is provided where relevant.
- Mechanisms for the identification of the participant are applied.
- Assessment types are clearly outlined.
- Certification is issued on achievement of the learning outcomes.

The Scheme seeks to determine compliance within four standard areas: (1) Management, staffing and administration; (2) Teaching, learning and assessment; (3) Participant support; (4) Facilities. The indicators under each minimum standard are designed to ensure that the specific features of micro-credentials are fully in focus by outlining the following requirements, which also constitute areas of scrutiny during the inspection process:

- Connection to lifelong learning.
- Policy specificity for MC-related activities.
- Recognition and stackability arrangements, if available.
- Design and planning processes (if modules of larger degree, what adjustments).
- Agility in monitoring and review.
- Closure triggers and their efficiency.

¹⁸ BAC Common Quality Framework; <https://www.the-bac.org/wp-content/uploads/2022/09/Common-Quality-Framework.pdf>, accessed on 11 November 2022

- Transparency on prerequisites for enrolment.
- Ability to cater to diverse groups of learners.
- Arrangements for intense engagement with the labour market, for all MC stages.
- Flexibility on staffing arrangements and appropriateness of appraisal procedures.

Challenges, benefits, and lessons learned

The piloted process gives BAC the opportunity to test its approach on the minimum standards proposed and come to reasonable operational arrangements, which have the capacity to keep the burden on the provider low and use the resources of the agency most effectively.

BAC is exploring how an add-on version of the scheme might work for those providers who are already BAC-accredited under a different scheme and where there is some overlap in the demonstration of quality that needs to be made.

Operationally, it was agreed that the timeline would be less extensive than for other BAC schemes without reducing the robustness of the process. The pilot stage will see BAC test a variety of timelines to come to the best possible option.

In terms of the inspection teams, it was agreed that inspectors with a quality assurance background would continue to be employed and there would be no attempt to form teams on requirements of subject-level expertise, given that the MC Scheme does not propose a subject-specific judgement. Inspectors who are invited to contribute to the MC Scheme will be specifically trained.

One year into the pilot, BAC can reveal that the main challenges concern ensuring that there is a clear understanding of what can be classed as MC provision and the adjustments needed to move providers who already hold accreditation onto the MC Scheme or where MCs need additional specific accreditation, depending on the specificity, volume, and prominence of MC provision. Interactions with providers on specific MC course eligibility descriptors have demonstrated the importance of presenting a detailed definition with specified characteristics that can guide scoping discussions.

The voluntary nature of the process means that BAC is in a position to make any type of adjustment that it deems relevant without having to respond to explicit regulatory constraints.

Recommendations

For agencies looking to set up an external quality assurance process focusing on MC provision, it is important:

- To decide whether the process would take an institutional or programme-specific approach and if scrutiny will be of quality assurance mechanisms or also appropriateness of subject-specific curricular structure and content.
- To acknowledge and relevantly consider the regulatory context it operates under and if there are any specific requirements it needs to abide by.
- If possible, to organise a piloting stage, which will give valuable information on future implementation.

- To ensure clarity on descriptors that build up the MC definition to allow providers to decide whether what they are offering qualifies and/or to take concrete action towards morphing the provision it has into MC provision, if it so decides, at a strategic level.
- To design the scheme to boost the role of MC within the educational landscape and allow them to better fulfil aims, such as widening participation, lifelong learning, and upskilling-reskilling.
- To propose an outcome from the scheme to give necessary assurances to allow other stakeholders to relevantly evaluate the potential of stackability and recognition of MC provision.

Resources

BAC “Micro-credentials Scheme Document. Pilot Phase.” <https://www.the-bac.org/wp-content/uploads/2022/10/MC-Scheme-Document.pdf>, accessed on 12 December 2022

BAC Common Quality Framework; <https://www.the-bac.org/wp-content/uploads/2022/09/Common-Quality-Framework.pdf>, accessed on 11 November 2022

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This survey is part of the activities undertaken by the ENQA Working Group on the “Quality Assurance of Micro-credentials - Expectations within the context of the European Standards and Guidelines (ESG)”. The Working Group has been set up:

- (1) to map quality assurance approaches for micro-credentials across the European Higher Education Area (EHEA), focusing on the role of external quality assurance and representative quality assurance bodies;
- (2) to determine specific external quality assurance expectations for micro-credentials;
- (3) to ensure alignment for ESG applicability in quality assuring micro-credentials; and
- (4) to develop guidance on key considerations of quality assurance for micro-credentials, which can support institutions in ensuring ESG alignment of this specific form of provision, and can also serve to underpin methodologies/approaches to be developed and implemented by ENQA member agencies in individual national contexts.

There is increasing European and global interest regarding micro-credentials which prompts the debate about quality, in general, but also quality assurance, more specifically, for this form of education. Micro-credentials have gained significant focus in European (both EHEA and European Union) education policies over the past few years, with a number of working groups, initiatives and projects dealing with their integration into existing frameworks (ECTS, qualification frameworks, recognition, quality assurance).

Micro-credentials are designed to be learner-centred, modular, stackable, portable, with flexible formats and this form of education, in particular as part of continuous professional or personal development (i.e. re-skilling and up-skilling) is increasingly appealing, especially to more mature students with employment and/or family commitments. It is therefore important that the quality of education in this form is scrutinised in a comparable way to other qualifications to ensure that student teaching, learning and assessment experiences are equivalent in quality to more standard-type qualifications.

‘Micro-credentials’ is used here as an umbrella concept to cover all instances of short (certified) portable learning units which forms part of an educational environment and, hence, may fall under external quality assurance arrangements now or in the future.

The European Commission defines a micro-credential as “the record of the learning



Section A: General Information

A1. Please fill in the following.

Please note that we will not name the contact person while reporting on the survey outcomes, unless explicit permission is given. However, we would like to be able to contact you while we finalise the analysis in case there are any questions or follow-up actions the Working Group may wish to propose.

Agency/Organisation (in English)	<input type="text"/>
Acronym in use (in English)	<input type="text"/>
Country	<input type="text"/>
Contact person	<input type="text"/>
Job title	<input type="text"/>
Email	<input type="text"/>

A2. IMPORTANT! Please indicate below if you give ENQA permission to name your agency/organisation in published materials derived from this survey.

- Yes, I give permission for my agency/organisation to be named in published materials derived from this survey. ☐
- No, I do not give permission; the agency/organisation should be referred to anonymously. ☐
- I do not have authority to grant or deny permission; the agency/organisation should be formally approached before publication. ☐

A3. Please make ENQA aware of any other limitations regarding the use of the information collected through this survey. If none apply, please mark as non-applicable (i.e. N/A)

Section B: About Your Agency/Organisation

B1. Do you conduct assessments/evaluations for?

- Regulatory purposes (compulsory for the institution) ☐
- Non-regulatory purposes (voluntary for the institution) ☐
- Both, regulatory and non-regulatory purposes ☐



B2. Do you conduct assessments/evaluations at?

Institutional level (schools/departments and/or research institutes included) ☐

Programme level (including clustering of programmes, joint programmes, short courses and others) ☐

Both institutional and programme level ☐

B3. Do you conduct assessments/evaluations for

Higher education ☐

Further education ☐

Vocational/professional education ☐

Other (i.e., short courses, thematic analysis, research activities, personnel evaluation) ☐

B4. Please specify "other"

B5. What is the status of your agency/organisation?

A national agency ☐

A regional agency ☐

A professional association which conducts QA activity (in e.g. dental education, social sciences, chemistry) ☐

A non-governmental organisation which conducts QA activity ☐

Other ☐

Other



Section C: Your Agency's Views on Micro-credentials

C1. Does your agency/organisation use a specific definition for micro-credentials?

YES, EU Commission definition ☐

YES, the Microbol definition ☐

YES, our agency's/organisation's own definition ☐

NOT currently, but definition is being developed ☐

NO, we have not officially adopted one ☐

Don't know ☐

C2. Please indicate below the definition your agency/organisation uses.

C3. Please outline below any key descriptors/features that your agency/organisation associates with micro-credentials. If none specifically associated, please mark as non-applicable (i.e. N/A).

C4. In the context that you operate in, are there national requirements for external quality assurance of micro-credentials? (please mark as many as relevant)

YES, provided by the government ☐

YES, provided by the national QA agency/ QA organisation ☐

YES, provided by the sector/institutions/organisations offering micro-credentials ☐

YES, provided by other organisations (e.g. standardisation, organisations) ☐

NOT currently, but national requirements are being developed by government ☐

NOT currently, but national requirements are being developed by the national QA agencies/QA organisations ☐

NOT currently, but national requirements are being developed by the sector/institutions/organisations offering micro-credentials ☐



NOT currently, but national requirements are being developed by other organisations (e.g. standardisation, professional bodies) ☐

NO, none provided ☐

Don't know ☐

C5. Please provide additional details or clarifications, if necessary.

C6. In the context that you operate, is there reliance on internal quality assurance arrangements in institutions to cover micro-credentials? (i.e. do you rely on accredited/licensed institutions to quality assure micro-credentials through their own internal systems)

YES, full reliance ☐

YES, but only partial reliance ☐

NO, no reliance ☐

Don't know ☐

C7. Please provide additional details or clarifications, if necessary.

C8. Does your agency/organisation currently validate/review the recognition of micro-credentials developed by HEIs/other providers?

YES ☐

NOT currently, but approach is being developed ☐

NOT currently, but intending to in the future ☐

NO, and not intending to ☐

NO, agency/organisation not conducting recognition activities, at all ☐

Don't know ☐



C9. Please provide additional details or clarifications, if necessary.

C10. Does your agency/organisation currently quality assure micro-credentials? (please respond in relation to external quality assurance only)

YES ☐

NOT currently, but approach is being developed ☐

NOT currently, but intending to in the future ☐

NO, and not intending to ☐

Don't know ☐

C11. When would you expect this to happen?

In the next 1-2 years, i.e. starting with 2023/2024 ☐

In the next 3-4 years, i.e. from 2025 onwards ☐

Not sooner than 5 years ☐

Don't know ☐

C12. Would this be expected to be applied...

Regionally? ☐

Nationally? ☐

Cross-border? ☐

Don't know ☐

C13. How do you externally quality assure micro-credentials?

Regionally ☐

Nationally ☐

Cross-border (i.e. your agency/organisation operating beyond the regional/national border) ☐

Don't know ☐

C14. How do you plan to externally quality assurance micro-credentials?

Regionally ☐

Nationally ☐

Cross-border (i.e. your agency/organisation operating beyond the regional/national border) ☐



Don't know ☐

C15. How do you externally quality assure micro-credentials? (please mark as many as relevant)

within institutional methodologies (with micro-credentials forming part of the programme sample and/or reports making specific reference to micro-credentials)? ☐

with the same methodology you use for other programmes (e.g. an adaptation of official degrees' accreditation procedure)? ☐

with a micro-credential-specific methodology (e.g. a short course inspection scheme for providers)? ☐

Don't know ☐

C16. How do you plan to externally quality assurance micro-credentials?

within institutional methodologies (with micro-credentials forming part of the programme sample and/or reports making specific reference to micro-credentials)? ☐

with the same methodology you use for other programmes (e.g. an adaptation of official degrees' accreditation procedure)? ☐

with a micro-credential-specific methodology (e.g. a short course inspection scheme for providers)? ☐

Don't know ☐

C17. Have you developed a minimum quality threshold with specific criteria/indicators that you use as part of the external quality assurance approach for micro-credentials?

YES, based on learning outcomes ☐

YES, based on ECTS ☐

YES, based on staff qualifications ☐

NOT currently, but specific criteria/indicators are being developed ☐

NO, and not intending to ☐

Don't know ☐

Other ☐

Other

C18. Do you plan to develop a minimum quality threshold with specific criteria/indicators to be used as part of your external quality assurance approach for micro-credentials?

YES, based on learning outcomes ☐

YES, based on ECTS ☐

YES, based on staff qualifications ☐

NOT currently, but specific criteria/indicators are being developed ☐



NO, and not intending to ☐

Don't know ☐

Other ☐

Other

C19. Do you train reviewers specifically for external quality assurance of micro-credentials?

YES, as a specific training session ☐

YES, as part of other training sessions ☐

NOT currently, but intending to in the future ☐

NO, and not intending to ☐

Don't know ☐

C20. Do you plan to train reviewers specifically for external quality assurance of micro-credentials?

YES, as a specific training session ☐

YES, as part of other training sessions ☐

NOT currently, but intending to in the future ☐

NO, and not intending to ☐

Don't know ☐

C21. In the context that you operate, what are the major challenges to externally quality assuring micro-credentials? (Please rate from 1 to 5, from Strongly Disagree to Strongly Agree)

	1 Strongly Disagree	2	3	4	5 Strongly Agree
Lack of supporting national legislation/gap in national legislation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of full understanding of micro-credentials by the sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of clear definitions/descriptors to allow for micro-credentials quality assurance requirements to be relevantly captured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of reviewers with sufficient experience in micro-credentials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient agency resources to include micro-credentials in external quality assurance operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of support/collaboration with professional bodies or the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	1 Strongly Disagree	2	3	4	5 Strongly Agree
Insufficient European guidance and guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient collaboration/openness by institutions offering micro-credentials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Burden of external assessments/evaluations to institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Absence of international agreement/collaboration on micro-credentials (cross border)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Different views of government bodies and the QA-agency/organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C22. Do you see any other challenges?

C23. In the context that you operate, to strengthen/develop/implement external quality assurance for micro-credentials, what tools would be useful? (Please rate from 1 to 5, from Strongly Disagree to Strongly Agree)

	1 Strongly Disagree	2	3	4	5 Strongly Agree
Lack of supporting national legislation/gap in national legislation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of full understanding of micro-credentials by the sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of clear definitions/descriptors to allow for micro-credentials quality assurance requirements to be relevantly captured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of reviewers with sufficient experience in micro-credentials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient agency resources to include micro-credentials in external quality assurance operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lack of support/collaboration with professional bodies or the labour market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient European guidance and guidelines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insufficient collaboration/openness by institutions offering micro-credentials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Burden of external assessments/evaluations to institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Absence of international agreement/collaboration on micro-credentials (cross border)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Different views of government bodies and the QA-agency/organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



C24. Do you see any other tools as useful?

DO YOU SEE ANY OTHER TOOLS AS USABLE?

Section D: Micro-credentials and the ESG

D1. How do you view the relevance/applicability of individual ESG (Part I) for the quality assurance of micro-credentials?

	1 Least relevant/applicable	2	3	4	5 Most relevant/applicable
1.1 Policy for quality assurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Design and approval of programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Student-centred learning, teaching and assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Student admission, progression, recognition and certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Teaching staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Learning resources and student support	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Information management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Public information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9 On-going monitoring and periodic review of programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Cyclical external quality assurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D2. Is there anything specific you think should be highlighted in relation to micro-credentials when discussing the relevance/applicability of the individual ESG (PartI)? (You may wish to detail your answers for the previous question and/or add comments on whether individual ESG are helpful in supporting the development of micro-credentials or whether they may generate any specific challenges)

1.1 Policy for quality assurance	
1.2 Design and approval of programmes	
1.3 Student-centred learning, teaching and assessment	
1.4 Student admission, progression, recognition and certification	



1.5 Teaching staff	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.6 Learning resources and student support	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.7 Information management	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.8 Public information	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.9 On-going monitoring and periodic review of programmes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1.10 Cyclical external quality assurance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

D3. How do you view the relevance/applicability of individual ESG (Part II) or the quality assurance of micro-credentials?

	1 Least relevant/applicable	2	3	4	5 Most relevant/applicable
2.1 Consideration of internal quality assurance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.2 Designing methodologies fit for purpose	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.3 Implementing processes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.4 Peer-review experts	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.5 Criteria for outcomes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.6 Reporting	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.7 Complaints and appeals	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

D4. Is there anything specific you think should be highlighted in relation to micro-credentials when discussing the relevance/applicability of the individual ESG (PartII)? (You may wish to detail your answers for the previous question and/or add comments on whether individual ESG are helpful in supporting the development of micro-credentials or whether they may generate any specific challenges)

2.1 Consideration of internal quality assurance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.2 Designing methodologies fit for purpose	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.4 Peer-review experts	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.5 Criteria for outcomes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.6 Reporting	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.7 Complaints and appeals	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



D5. Would your agency/organisation be willing to offer an example of practice in relation to the quality assurance of micro-credentials? (The Working Group will then consider how best to incorporate this in its final publication)

YES ☐

NO ☐

Don't know/Cannot answer ☐

D6. What would your suggested topic be? Please provide a brief description below. You will, then, be contacted separately to provide further detail, as relevant.

D7. Is there anything else that you may wish the Working Group to be aware of?

Thank you for completing this survey!

An analysis will now be conducted and the outcomes will be shared with the participant agencies/organisations.



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