



MICROBOL Working Group on Quality Assurance

Output document and recommendations

June 2021

1. Introduction

The MICROBOL project engages ministries and stakeholders involved in the Bologna Follow-up Group to explore whether and how the existing EHEA tools can be used and/or need to be adapted to be applicable to micro-credentials. For this reason, the project looks at quality assurance from the Higher Education perspective, as quality assurance (QA) is the basis for trust in Higher Education.

The first meeting of the working groups on QA, recognition and ECTS and QF focused on identifying challenges in the applicability of Bologna tools to micro-credentials, while the second meeting focused on identifying possible solutions.

This document is meant to:

- provide a comprehensive overview of the main observations and challenges emerged from the Working Group meetings held in January and May 2021;
- provide possible solutions and recommendations to overcome these challenges, highlighting the way forward for micro-credentials in general.

2. Observations and challenges in applying Bologna tools to micro-credentials

The main observations regarding quality assurance of micro-credentials highlighted in the working group (WG) meeting in January are the following:

- The **programme accreditation** procedure is **too elaborate** and cannot be scaled to be applied to micro-credentials.
- With regard to regular degree programmes there is an organised, well-defined student body that is involved in the development of curricula. For micro-credentials this might not (yet) be guaranteed because the target group of learners is very diverse and reaching all the groups might be challenging.
- A right **balance between encouraging/promoting/developing and regulating micro-credentials is needed**.
- **Different types of micro-credentials** might require different evaluation approaches – for example a stand-alone micro-credential¹ may be evaluated differently than a micro-credential that is part of a bigger degree programme and an online micro-credential could be evaluated differently than one offered in the face-to-face mode.

¹ Micro-credentials can be developed as part of a degree programme or as stand-alone learning offerings to attract students and expand the lifelong learning offer.





- Policy and information on how each higher education institution (HEI) approaches the quality of its programmes or courses need to be **transparent** and made public.
- A **framework and a set of guidelines** offering a certain European standardization, but on the other hand allow for enough **flexibility**, are needed to support HEIs, QA agencies and policymakers.
- The QA of **micro-credentials developed in partnership** between HEIs and representatives from the labour market, as well as micro-credentials produced only by the labour market representatives need further exploration.
- There is no clarity yet regarding the **frequency** of micro-credential accreditation.
- The credential (certificate) issued at the completion of a micro-credential can be in **physical (paper) and/or digital format**. Preference is given to digital format as it allows for portability and may facilitate recognition.
- Further investigation of employers' acceptance of micro-credentials would be useful.

3. Way forward

In order to support the quality assurance of micro-credentials, possible steps on the way forward are outlined below.

3.1. Awareness of and common agreement on what a micro-credential is

The very first step for having a coherent approach for the quality assurance of micro-credentials is to develop a common understanding of what a micro-credential is.

The MICROBOL project developed the following working definition:

“A micro-credential is a small volume of learning certified by a credential. In the EHEA context, it can be offered by higher education institutions or recognized by them using recognition procedures in line with the Lisbon Recognition Convention or recognition of prior learning, where applicable. A micro-credential is designed to provide the learner with specific knowledge, skills or competences that respond to societal, personal, cultural or labour market needs. Micro-credentials have explicitly defined learning outcomes at a QF-EHEA/NQF level, an indication of associated workload in ECTS credits, assessment methods and criteria, and are subject to quality assurance in line with the ESG” ([“European project MICROBOL. Micro-credentials linked to the Bologna Key Commitments”](#), August 2020, p. 7).

Later, another working definition was developed and presented in the report [“A European approach to micro-credentials”](#), the final output of the Commission's consultation group on micro-credentials:

Unlike the MICROBOL definition which refers to micro-credentials offered by HEIs or recognized by them, the following definition refers to all types of education, including non-formal and informal education.



“A micro-credential is a proof of the learning out-comes that a learner has acquired following a short learning experience. These learning outcomes have been assessed against transparent standards. The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Micro-credentials are owned by the learner, can be shared, are portable and may be combined into larger credentials or qualifications. They are under pinned by quality assurance following agreed standards”.

The proposed EU Standard of constitutive elements of micro-credentials are: identification of the learner; title of the micro-credential; country/region of the issuer; awarding body; date of issuing; notional workload needed to achieve the learning outcomes (in ECTS, wherever possible); level (and cycle, if applicable) of the learning experience leading to the micro-credential (EQF and/or national qualifications framework; Overarching Framework of Qualifications of the European Higher Education Area); learning outcomes and form of participation in the learning activity (online, onsite or blended, volunteering, work experience). Possible other proposed elements are: prerequisites needed to enroll in the learning activity; type of assessment (testing, application of a skill, portfolio, recognition of prior learning, etc.); supervision and identity verification during assessment (unsupervised with no identity verification, supervised with no identity verification, supervised online or onsite with identity verification); quality assurance of the credential and, where relevant, of the learning content; grade achieved and integration/stackability options (standalone, independent micro-credential / integrated, stackable towards another credential).

This definition and proposed standard of constitutive elements of micro-credentials are a starting point to explore to what extent we can enhance academic recognition of micro-credentials and contribute to inclusiveness of higher education.

Recommendation: support the development of a shared vision of what a micro-credential is, enhance awareness of the importance the European standard may have for the quality of micro-credentials, contribute to micro-credential implementation and develop good practices in cooperation with different stakeholders at national and European level.

3.2. Internal and external quality assurance

The implementation of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) varies among different countries, agencies and institutions, depending on how they are interpreted and applied. The primary responsibility for the quality of provision lies with the higher education institutions, while the quality assurance agencies' role is to support higher education institutions in developing policies and processes for quality assurance and to ensure the public and stakeholders about their effectiveness. The ESG apply to all higher education offered in the EHEA, in whatever format, duration or mode of delivery and institutions are expected to include all education provision into their internal quality assurance mechanisms.

Translated to the context of micro-credentials, this division of tasks firmly places responsibility for assuring the quality of provision with the education providers. They are expected to put in place



quality assurance processes corresponding to the expectations laid down in Part 1 of the ESG, including for any micro-credentials they provide regardless of their lifecycle and whether they are part of a degree programme or provided as a stand-alone offering. It is the responsibility of the institution to also “consistently apply pre-defined and published regulations covering all phases of the student “life cycle”, [...] e.g. certification.” (standard 1.4, p. 13) This responds to the need to assure the quality of certification received by a learner. This distribution of tasks was confirmed and agreed on in the course of the working group discussions.

As the procedures for programme level evaluation are extensive, it may be difficult to apply them to micro-credentials which are smaller volumes of learning. In some countries, programme level evaluation is linked to study fields/scientific fields. In that case it could also be a solution to evaluate all programmes (full or short) within a certain study field together. The focus of external quality assurance should be on the institutional approach to micro-credentials and their explicit inclusion into (existing) processes. Therefore, QA agencies should explicitly address also internal QA of micro-credentials in the external QA processes, and develop criteria, such as institutional policy, transparent information on recognition issues, use of ECTS, description of learning outcomes, appropriate assessment methods, etc. The external QA should ensure that the higher education institutions offering micro-credentials have a reliable and well-built system to monitor their quality internally (as, presumably, happens for full degree programmes).

If the institution offers stand-alone micro-credentials (whether or not in collaboration with industry) more elaborate QA procedures might be needed than for micro-credentials being part of a regular degree programme.

Recommendation 1: All micro-credentials should be subject to internal QA, independently of the external QA approach. However, the application of programme level evaluation procedures should not be encouraged for each micro-credential course, as these procedures are too elaborate for small volumes of learning like micro-credentials. The institutional evaluation approach is better fit to cover also micro-credentials.

Recommendation 2: Design a set of “key considerations” for (internal) QA of micro-credentials² in collaboration with various stakeholders and providers.

3.3 Learner involvement

When developing policies related to micro-credentials, it is assumed (as this should be a normal procedure in case of all types of learning provision in higher education) that learners³ are involved as

² Along the lines of the report [Considerations for QA of e-learning provision](#) (Huertas et al., 2018). This report assesses what specific issues should be considered for e-learning in light of the requirements of each ESG standard (Part 1 and 2) and suggests guidelines.

³ By ‘learners’, the authors of this document understand any student or learner enrolled in a micro-credential. These may be both traditional and non-traditional students. The authors opted for the use of the word learner for reasons of





representatives in the governing bodies of the institution and when institutional consultations take place.

However, when the target group of learners is very diverse, reaching all groups might be challenging and because micro-credentials are shorter than traditional study programmes, it might be also challenging to get learners involved in quality assurance processes.

In this context a distinction between traditional and non-traditional students' involvement needs to be made. The former group can be more easily involved in micro-credential design, approval and internal QA processes than the later. Therefore, it should be acknowledged that the engagement of the non-traditional students in the quality assurance processes could be complicated and maybe even more in the case of stand-alone micro-credentials.

Recommendation: Include learners in all steps of the development, implementation and quality assurance process of micro-credentials (i.e. in the designing and improvement phases by conducting students' needs analysis and considering potential students' and alumni' feedback).

3.4 Transparency of information

The quality of a micro-credential represents one of the main elements to be considered in recognition procedures. It is relevant that HEIs provide transparent information about the quality assurance policies and processes applied to the micro-credentials they award.

To further enhance transparency, the concept of a 'supplement' or supplementary information on a micro-credential, could facilitate a better understanding of its worth and subsequently its recognition and lead to the creation of a shared (and commonly recognized) format. A model certificate, such as the EU-standard⁴ could be considered with some elements being obligatory and some advisory.

The supplement should also include information regarding learning outcomes and the recognition of the awarded credits within the same institution (providing thus an indication of the internal value given to the micro-credential).

Ensuring transparency of information contributes to building trust in micro-credentials and may lead to lesser need for external quality assurance procedures as data would be easily collected and used for recognition.

inclusion, clarity and readability. When the term 'student' is used in this document, it follows the same definition as in the 2015 ECTS Users' Guide to encompass all learners in higher education institutions (whether full-time or part-time, engaged in distance, on-campus or work-based learning, pursuing a qualification or following stand-alone educational units or courses)." (p. 11)

⁴ <https://op.europa.eu/en/publication-detail/-/publication/7a939850-6c18-11eb-aeb5-01aa75ed71a1> (p. 13)



Recommendation: HEIs should provide information on the quality assurance mechanism for awarded micro-credentials. In particular, this should be included on the HEIs' websites and in the micro-credential.

3.5 Legislation

Legislation can facilitate as well as hinder the development of micro-credentials. For example, in some countries, the legislation allows only the delivery of micro-credentials by institutions that offer full degree programmes in the particular study field as this is considered a quality indication, while in other countries the digital mode of delivery presents a legal issue. Furthermore, stackability of micro-credentials could as well present an issue in certain countries.

The QA procedures are different depending on the division of competences in the national system. It is always important to explore whether a change in legislation is needed or not and to consider the necessary prerequisites for HEIs to offer high quality micro-credentials including legislation, regulations around qualifications, funding, student guidance, etc.

Recommendation: National governments should explore whether a change in legislation is needed, and if this is the case, plan the relevant changes, exchange information with other countries and explore good practices and experiences at international level while providing support to higher education institutions and encourage the development of micro-credentials and consider institutional autonomy to allow for diversity and creativity.

3.6 Register and catalogues of providers and micro-credentials

Quality and quality assurance are central elements for other aspects, like recognition. A register of trustworthy providers could be a useful tool for supporting acceptance and recognition of micro-credentials. Being listed in the register should become a de-facto 'label' of adherence to the ESG and the European framework for micro-credentials.

This register could also include alternative providers, if they deliver micro-credentials on higher education level, that are evaluated by an EQAR-registered QA agency. The evaluation process should be based on the ESG with fit-for-purpose and flexible procedures could be developed.

At European level, DEQAR could serve as the register of providers, since its scope is to cover all providers and provision aligned with the ESG. At national and regional level, existing registers might be extended or specific ones could be created⁵.

For learners, catalogues of existing micro-credentials, offered by registered providers, are an important source of information and can help them navigate the diverse offer across Europe.

⁵ In addition to registering providers, some countries may wish to establish registers of micro-credentials in the sense of 'micro-qualifications' that providers can award, as is already the case in some countries. Such registers can stimulate transparency, recognition and employability. They should, however, leave room for innovation and experimentation by learners and providers.





Catalogues could aggregate information from providers at different levels – regional, national, European, sectoral, etc. – and should also include information on accumulation and stackability of credentials.

Recommendation: develop official registers of micro-credential providers at national/regional levels, or incorporate them into existing registers.

Recommendation: ensure the inclusion of micro-credential providers in DEQAR, based on quality assurance in line with the ESG.

Recommendation: promote the development of clear and transparent catalogues of existing micro-credentials, offered by registered providers.

3.7 Digitalisation

There is a general agreement that original micro-credentials (certificates) should be issued in digital format and be learner-owned. Depending on the national regulatory framework and the level of development of digital infrastructures, micro-credentials can also be issued in paper format.

Digital credentials can facilitate portability, transparency, reliability of information and verification of authenticity, and as such support a fast and fair recognition process and enhance stackability.

Digitalisation of micro-credentials should take into account the main agreed principles of the international community in the field, such as, but not limited to, user-centricity, inclusion and accessibility, subsidiarity and proportionality, openness, data protection by design and by default, interoperability, transparency, etc.

This is particularly relevant for micro-credentials taking into consideration the large number of such certificates. It would be also relevant to explore synergies with existing initiatives, such as Europass.

Concerning the digital provision of micro-credentials, internal QA needs to consider the following particular aspects: appropriateness of digital tools, digital learning materials, pedagogies and assessment methods and support systems for students. Additional guidance to address the digital modes of delivery might be needed (for example teaching staff trained for using digital tools).⁶

Recommendation 1: encourage digitally awarded and user-controlled credentials, as a means to support portability, transparency and reliability of information and verification of authenticity.

Recommendation 2: explore if and how additional aspects need to be considered in the quality assurance of digitally-delivered micro-credentials.

⁶ Specific guidance on e-learning has been provided by ENQA in the report [Quality Assurance of E-learning](#).





3.8. Alternative providers

Partnerships with alternative providers, including companies, should be encouraged, as this might increase the relevance of the micro-credentials for the labour market. Especially for micro-credentials that focus on upskilling/reskilling the labour force.

Recommendation: explore in collaboration with alternative providers (including companies) if and how QA procedures should be adapted for the provision of micro-credentials in partnerships.

3.9. Peer exchange and support, involvement of all actors, guidelines

Exchange of experiences and practices at European, national and regional level, inputs from experts and students, occasions to share information on legislative and policy development are essential for the uptake and development of micro-credentials both at national and international level. The Bologna Process can facilitate this by including micro-credentials in the peer support groups' agendas.

A guidebook including a set of guidelines, good practices and recommendations on how to organize, develop and ensure the quality of micro-credentials could be developed within the EHEA. Such a guidebook should especially focus on supporting HEIs in:

- the provision of micro-credentials
- further development of a quality culture
- development of transparent policy and QA procedures
- contributing to the development of database/register for micro-credentials

The proposed framework by the MICROBOL project should give certain guidance in order to facilitate transparency. On the other side, the proposed framework should be open and flexible enough to allow for experimentation, innovation and adjustments in response to the rapid changes in the knowledge society.

Furthermore, it is important that all the relevant stakeholders (HEIs, QA agencies, ministries, students, employers) are involved and aware of the discussion about quality assurance of micro-credentials, and work together to set up a common approach to the quality assurance of micro-credentials.

Recommendation 1: create opportunities for peer support and exchange of practices among stakeholders at national and international level.

Recommendation 2: a guidebook including a set of guidelines, good practices and recommendations for HEIs should be developed.





Recommendation 3: support the development of a clear policy framework with transparent standards, while at the same time supporting the increased development of micro-credentials in co-creation with all stakeholders.

4. Reference materials

- Materials of the kick-off meeting: [report](#) and [presentations](#)
- Desk research: “[European project MICROBOL. Micro-credentials linked to the Bologna Key Commitments](#)”
- Survey Report “[Micro-credentials and Bologna Key Commitments. State of Play in the European Higher Education Area](#)”
- Outcome of the first meeting of working groups held in January 2021 (see above and see the minutes of each group: [QF&ECTS](#), [Recognition](#), [QA](#))

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