



Recommendations and Guidelines on Micro-Credentials

The report was prepared in the terms of the activities of the QUATRA – TPG A Working Group on Micro-Credentials.

Experts involved:

- dr. sc. Ana Tecilazić, QUATRA – TPG A Project Expert
- Baiba Ramiņa, TPG A on QF Co-Chair
- Gunta Kinta, QUATRA – TPG A Project Manager
- Liene Zvirbule-Jankova, QUATRA – TPG A Project Expert

With the support of the members of TPG A Working Group on Micro-Credentials:

- Ermelinda Durmishi (Albania)
- Ani Mkrtchyan (Armenia)
- Vusala Gurbanova (Azerbaijan)
- Frederik De Decker (Belgium Flanders)
- Ivana Radonova (Bulgaria)
- Slaven Zjalić (Croatia)
- Kyriacos Charalambous (Cyprus)
- Tomáš Kůst (Czech Republic)
- Janne Pukk (Estonia)
- Kristel Jakobson (ESU)
- Tilman Dorr (Germany)
- Alexia Karvouni (Greece)
- Lineke van Bruggen (The Netherlands)
- Jacek Lewicki (Poland)
- Antonela Toma (Romania)
- Tiberiu Dobrescu (Romania)
- Sheila Dunn (UK, Scotland)

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List of abbreviations

- ECTS – European Credit Transfer and Accumulation System
- EHEA – European Higher Education Area
- EQF – European Qualifications Framework
- ESG – Standards and Guidelines for Quality Assurance in the European Higher Education Area
- HE – higher education
- HEI – higher education institution
- NQF – National Qualifications Framework
- QA – quality assurance
- QF – Qualifications Framework
- QF-EHEA – Qualifications Framework of the European Higher Education Area
- QUATRA – TPG A – Qualifications Frameworks for trust, transparency and diversity – TPG A
- SWOT – strengths, weaknesses, opportunities and threats
- TPG A – EHEA Thematic Peer Group A on Qualification Frameworks
- VET – Vocational education and training



Introduction

Although the notion of micro-credentials has only recently entered the European discourse on flexible teaching and learning, lifelong learning, and employability, higher education institutions (HEI) and alternative providers have been developing and delivering small units of learning¹ for a long time. However, in order to improve the transparency and credibility of credentials awarded after a shorter learning experience, it has been widely recognised that applying the three Bologna Key Commitments² to the development and delivery of small units of learning leading to micro-credentials would enhance the concept. The greatest challenge EHEA Thematic Peer Group A on Qualification Frameworks (TPG A) faced when preparing this document was how to strike a good balance between introducing and applying certain standards and principles to micro-credentials while maintaining the flexibility necessary to preserve diversity.

In order to provide ground for the recommendations, in January 2023, TPG A Working Group on Micro-Credentials conducted a survey of TPG A members exploring the existence of smaller units of learning possibly leading to micro-credentials available in the respondent countries in higher education sector (EQF level 5-8) including adult continuing learning. The focus of the survey was analysing situation as regards inclusion of micro-credentials in the national qualifications frameworks for higher education – reviewing the potential strengths, weaknesses, opportunities and threats concerning introducing/developing/implementing the approach of micro-credentials. The results and conclusions of the survey are outlined in the Annex 1 of this document. The following main conclusions of the survey could be highlighted:

- More targeted and comprehensive regulation of micro-credentials and other forms of smaller learning units in many countries may be necessary;
- Need for a reference to the EQF/NQF or QF-EHEA level in the certificates of micro-credentials could be useful for transparency, comparability and recognition;
- Lack of uniformity in how qualifications are classified and recognised by different countries and HEIs leads to implications for the portability and comparability of micro-credentials;
- Need for a greater flexibility and responsiveness in higher education, as well as the potential of micro-credentials to meet specific skills and learning needs in the labour market are important aspects;
- Need for greater clarity and consistency in quality assurance as regards micro-credentials may be observed;

¹ The term “small units of learning” is used throughout this document to encompass various terms such as short programmes, modules, courses, training, used for organised teaching and learning (including assessment) that are distinct from degree programmes and that lead to award of micro-credentials.

² The three Bologna Key Commitments: A Three-Cycle System compatible with the QF-EHEA, Compliance with the Lisbon Recognition Convention, Quality Assurance in compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). Appendix I to the Paris Communiqué.









- Need for improved stakeholder understanding and support for micro-credentials approach was highlighted;
- Need for continued support and investment in the area concerning micro-credentials was emphasised;
- Need for increased international cooperation and coordination in the development and recognition of micro-credentials to support the development of approach to micro-credentials;
- Need to develop a more unified and widely accepted definition of micro-credentials to raise stakeholders’ awareness of micro-credentials.

This document presents recommendations and guidelines for the design and implementation of small units of learning leading to micro-credentials. The recommendations and guidelines are addressed to three different groups of stakeholders:


















- **National authorities** in the countries of the EHEA responsible for developing system-level³ policies and legislation;
- **Higher education institutions** in the EHEA designing and delivering small units of learning leading to micro-credentials (recommendations for practical use),
- **Quality assurance agencies** in the EHEA developing standards, principles, procedures or approaches to quality assurance of micro-credentials in line with Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and the system-level policies and frameworks.

The document is divided into three sections corresponding to the mentioned three target groups. The following table provides an overview of the topics covered by the recommendations and guidelines. The order of these aspects is not intentional, i.e., the aspects are not listed by their significance.

Table 1. Overview of the topics covered in the recommendations and guidelines

Topics	National authorities	Higher education institutions	Quality assurance agencies
Involvement of stakeholders			
Inclusion in the NQF			
Learning outcomes			

³ The term “system-level policy” refers to EHEA countries that have higher education policies at the national level and countries that have policies at the regional level.

Topics	National authorities	Higher education institutions	Quality assurance agencies
Assessment			
Design			
Recognition of prior learning			
Level			
Workload			
Quality			
Supplement to micro-credential			
Transparency			
Support to implementation			
Learning pathway			

1. Recommendations and guidelines for national authorities

This section presents recommendations and guidelines for system-level policies and/or legislation for national authorities in the countries of the EHEA. National authorities are recommended to consider the following 10 aspects when considering the inclusion of the micro-credentials in national qualifications frameworks. The proposed order of these aspects is not intentional as all of them have evident significance in the development of approach to micro-credentials

1. **Involvement of stakeholders.** Stakeholder involvement in the design of policies, regulations, and tools related to micro-credentials is important because it leads to shared acceptance of the concept and widespread understanding and implementation of micro-credentials. National authorities should involve HEIs and alternative providers, academic staff, students and learners, employers and business sector organisations, quality assurance agencies, ENIC/NARIC offices and other stakeholders in the design of policies and the system level legislation related to micro-credentials.
2. **Inclusion of micro-credentials in the NQFs.** National authorities should ascertain the legal or formal basis for providers to design and offer micro-credentials and the conditions under which they could be included in the NQF. If micro-credentials were included in the NQF and consequently referenced to the EQF, they could be better understood and recognised by employers, HEIs at home and abroad, and other stakeholders. However, legal frameworks should be carefully balanced not to overregulate micro-credentials because it might discourage their use and further development. Therefore, it is recommended that national authorities introduce possibilities and clear and basic rules and criteria for HEIs and possibly alternative education providers to design and offer small units of learning leading to the award of micro-credentials included in the NQF.

Moreover, national authorities should initiate a **revision of the Dublin Descriptors** from the perspective of their applicability to micro-credentials. The Dublin Descriptors outline the learning outcomes associated for the three Bologna Cycles and the Short-Cycle and have not been initially envisaged for qualifications (credentials) that are not full degrees. In order to support HEIs in developing and delivering micro-credentials, level descriptors that are not limited to full degrees should be envisaged in order to support inclusion of micro-credentials in the NQFs.

3. **Learning Outcomes.** System-level policies and/or legislation should clearly define micro-credentials as small units of learning described in terms of learning outcomes. This would, in turn ensure transparency and comparability of micro-credentials, communicate potential learners about what they will learn and be able to do when they complete the learning. Moreover, applying the learning outcomes approach may facilitate stackability of micro-credentials. System-level regulations should not prevent HEIs from offering micro-credentials as units of existing study programmes or as stand-alone units. When

alternative education providers design and offer micro-credentials, they should adhere to the same principle and apply a learning outcomes-based approach.

4. **Recognition of prior learning.** System-level policies and/or legislation should support the recognition of prior learning practices of HEIs and possibly alternative education providers in applying recognition of prior learning and awarding micro-credentials based in whole or in part on recognition of prior learning. At the national level, policies could develop incentives and funding opportunities for citizens to have their skills and knowledge acquired outside a formal education system recognised.
5. **NQF level.** Describing small units of learning leading to micro-credentials in terms of learning outcomes would make it possible to assign an NQF level (or EQF or QF-EHEA level if relevant) to micro-credentials. This would allow a better transparency of achieved level of skills and knowledge and recognition of micro-credentials.
6. **Quality.** Surveys and discussions around micro-credentials have demonstrated that a lack of adequate quality assurance criteria, procedures and practices may come as one of the main hindering factors to the inclusion of micro-credentials in the NQFs. Micro-credentials need to meet the standards required by relevant quality assurance, institutional or programme accreditation arrangements, existing in the system. National policy and/or legislation should support procedures in which HEIs, and possibly alternative education providers, can develop internal quality assurance procedures based on ESG that can be effective in ensuring the achievement of intended learning outcomes.
7. **Supplement to micro-credentials.** System-level policy and/or legislation should establish a supplement to micro-credentials that serves as a complement to a credential/award earned upon completion of a small unit of learning. This should be provided in the same manner as the Diploma Supplement, but should be shorter and simpler. A micro-credential supplement should include all the basic information about the micro-credential such as: issuing institution, title of the micro-credential, NQF level (EQF or QF-EHEA level where appropriate), mode of delivery, learning outcomes, ECTS-credits, grade (if appropriate), indications on the QA arrangements, information on how to obtain confirmation of the validity of the document, the legal basis for issuing the micro-credential. National authorities should provide for appropriate digital forms for issuing micro-credential supplements. A micro-credential supplement could include the standard European elements describing a micro-credential according to the Council Recommendation on a European approach to micro-credentials (Annex I, 16.06.2022)⁴.
8. **Transparency.** National authorities should promote transparency in the rules and regulations applied by higher education institutions and possibly alternative education providers offering programmes leading to micro-credentials, clearly explaining all options, conditions, rules and procedures related to micro-credentials. Furthermore, the

⁴ Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability (2022/C 243/02). Available: [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)).



national authorities should envisage developing public registers of micro-credentials, where possible.

9. **Support to implementation.** National authorities should support HEIs and possibly alternative education providers in the development and delivering micro-credentials. Implementation support may include, but is not limited to, the following aspects:
 - Adoption of strategic goals related to micro-credentials in system-level strategies and policies;
 - Removing legal barriers in legislation and creating a legal framework that supports further developments in this area;
 - Defining micro-credentials and ensuring terminological consistency and uniform use of the term at the system level;
 - Establishing standards and principles for the design and delivery of micro-credentials by different types of providers;
 - Creating funding opportunities for citizens to engage in lifelong learning through micro-credentials.
10. **Learning pathway.** National authorities should promote different learning pathways for learners to follow through the accumulation of micro-credentials. The national authorities should consider whether system-level regulations should include barriers to the use and stacking of micro-credentials to earn a full degree.

2. Recommendations and guidelines for higher education institutions

Higher education institutions should consider these recommendations and guidelines when designing and delivering small units of learning leading to micro-credentials as well as integrating them into their internal quality assurance systems. These guidelines are conditioned by the respective quality assurance systems in the EHEA countries. The following considerations and recommendations, which are arranged in 11 steps without any intentional order, are applicable to micro-credentials when provided by HEIs, irrespective of their type, volume, profile, level or their scope. These recommendations and guidelines are intended to be for a practical use and implementation.

Although these recommendations and guidelines are intended for HEIs, they may be applied by alternative providers, as well. However, although alternative providers may design and deliver small units of learning leading to micro-credentials at levels that are associated with higher education and although the providers might have comprehensive internal quality assurance systems compliant to ESG and externally evaluated by an EQAR-registered agency, micro-credentials awarded by the alternative providers cannot be considered part of a higher education system.

1. **Involvement of stakeholders.** Involving various stakeholders in the design, delivery, monitoring, quality assurance, and use of micro-credentials is important because their engagement may increase the relevance of micro-credentials to the broader labour market and societal needs. **Employers** should be consulted when researching the needs and requirements of the labour market and determining the profile of learners intended for specific micro-credentials that would meet those needs. Given the specific features of micro-credentials such as their short duration, HEIs should take steps to ensure an involvement of **current learners** as key internal stakeholders whose feedback could form a basis for improvements and future developments of micro-credentials. **Academic and teaching staff** involved in the delivery of study programmes may be consulted on issues related to micro-credentials, as this could bring a broader perspective to specific learning design, increase trust and facilitate recognition. **Alumni** represented by graduates from study programme and learners with micro-credentials should be consulted via regular monitoring and provide useful inputs to further developments of micro-credentials.
2. **Learning outcomes.** Micro-credentials are small units of learning that should be described in terms of learning outcomes irrespectively whether they are offered as units of existing study programmes or as stand-alone courses. HEIs should determine the appropriate approaches to learning, teaching and assessment to ensure that the intended learning outcomes are achieved. Different European, national, regional or institutional manuals and guidelines for designing, using, developing, assessing, and monitoring learning outcomes might be used by higher education institutions.
3. **Assessment.** Micro-credentials should be awarded based on an assessment of learning outcomes and standards defined at the system level. The standards should be used to

support the assurance of the quality of micro-credentials and should allow a certain flexibility in approach.

4. **Design.** There should be flexibility in designing small units of learning possibly leading to micro-credentials and open diverse possibilities of linking them with modules or individual learning outcomes. These small units of learning should be adapted to diverse individual learners' needs supporting upskilling and reskilling. If micro-credentials are designed for online delivery, this aspect should be addressed in curriculum design.
5. **Recognition of prior learning.** Existing skills and knowledge should be valued so that nobody should learn again what they already know. Micro-credentials could be used to support the recognition of skills and knowledge gained outside of a formal education system. HEIs could use their existing arrangements and procedures for recognition of prior learning to incorporate micro-credentials.

Moreover, micro-credentials issued by alternative providers cannot be automatically recognised as those that are part of a higher education system, HEIs should establish institutional frameworks to recognise credentials offered by alternative providers using their arrangements for recognition of prior learning.

6. **NQF level.** The micro-credentials could be positioned on the levels of the NQF or EQF, or QF-EHEA respectively, depending on the system-level regulations. The basic principle for levelling micro-credentials could be identifying the appropriate level by applying the level descriptors of the NQF levels. If micro-credentials are described with learning outcomes that are on different levels, HEIs (or alternative providers) should identify the level that could be allocated to the majority of learning outcomes or take the average of learning outcomes' levels. Assigning level to micro-credentials is important in order to enhance employability and make academic recognition easier. However, HEIs should explain to learners that although a level has been assigned to a micro-credential, the awarded certificate should not be confused with a full degree, i.e., Short-Cycle, Bachelor, Master, or Doctor.
7. **Workload.** Micro-credentials should be expressed in credits that can be accumulated and transferred (ECTS credits) so that micro-credentials could be compared, shared and, finally, portable. The ECTS Users' Guide could be used when allocating ECTS credits to small units of learning.
8. **Quality.** Micro-credentials need to meet the standards required by relevant system of quality assurance, institutional or programme accreditation arrangements, existing in the country. Internal quality assurance processes related to micro-credentials need not only to meet the requirements of the ESG and national criteria, but also need to consider the specific characteristics of micro-credentials. In cases when they are part of the formal system, micro-credentials need to adhere to the same principles and standards that apply to full qualifications and degree programmes. HEIs should ensure monitoring of the implementation of micro-credentials and take appropriate measures to improve the delivery. Although quality assurance of micro-credentials is primarily HEI's responsibility, they may be supported by optional external quality assurance agencies.

9. **Supplement to a micro-credential.** Description of learning outcomes in a micro-credential supplement, in the same manner as it is in the Diploma Supplement but shorter and simpler, or other documents could be useful for recognition purposes to provide additional information about a credential.

A supplement to micro-credentials should include all the basic information about the micro-credential such as: issuing institution, title of the micro-credential, NQF level (EQF or QF-EHEA level where appropriate), mode of delivery, learning outcomes, ECTS-credits, grade (if appropriate), indications on the QA arrangements, information on how to obtain confirmation of the validity of the document, the legal basis for issuing the micro-credential. The supplement should include the European standard elements to describe a micro-credential according to the Council Recommendation on a European approach to micro-credentials (Annex I, 16.06.2022)⁵.

HEIs could explore how to offer digital badges and digital credentials, as well as digital micro-credential supplements to support efficiency and transparency.

10. **Transparency.** HEIs should include programmes leading to micro-credentials in course catalogues, clearly explaining all the opportunities, conditions, rules and procedures in relation to micro-credentials. Description of micro-credentials should be easily available online for all users.

Enhancing transparency and promoting clear communication about all relevant information concerning micro-credentials is very important. It is in particular crucial for the reason of opening up the opportunities for alternative providers to design and deliver micro-credentials while complying to the same standards and principles as HEIs. Nevertheless, communication should be clear and transparent about the differences between micro-credentials awarded by HEIs, which belong to a HE system, and those awarded by alternative providers outside the higher education system.

HEIs as well as alternative providers should keep the all the records and store all the data as regards micro-credentials in the same manner as they keep data on students and graduates of degree programmes. This is important for reliability of credentials awarded, verification of credentials whenever required and for improving transparency and trust between the stakeholders.

11. **Learning pathway.** HEIs may develop and use micro-credentials to attract a wide variety of learners such as adult learners, working professionals and all those who for various reasons seek for upskilling and reskilling opportunities without necessarily following a full programme and achieving a degree. HEIs should make available guidance for learners regarding micro-credentials because these learners may come with different backgrounds and not be necessarily familiar with approaches common for higher education.

⁵ Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability (2022/C 243/02). Available: [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)).



3. Recommendations and guidelines for quality assurance agencies

The following recommendations and guidelines are intended for quality assurance agencies operating in the EHEA when developing their standards, principles, procedures or approaches to internal and external quality assurance arrangements related to micro-credentials that are in line with ESG and the system level policies and frameworks in respective countries in the EHEA. The recommendations are organised according to eight aspects listed below; the order of these aspects is not intentional.

1. **Involvement of stakeholders.** Stakeholders' involvement in the design and delivery of micro-credentials should be included in the institutional standards of internal quality assurance systems and in the external evaluation of micro-credentials, where appropriate. QA agencies should involve stakeholders such as HEIs and/or alternative providers, academic staff, students and learners, employers, national authorities and other relevant stakeholders in the design and review of quality assurance frameworks and standards that should incorporate specific approaches to quality assurance of micro-credentials.
2. **Learning outcomes and assessment.** Internal and external QA standards should include the description of micro-credentials in terms of learning outcomes, whether offered as units of existing degree programmes or as stand-alone units. QA agencies should verify, as appropriate, that HEIs have established the appropriate approaches to learning, teaching, and assessment to ensure that the intended learning outcomes are achieved.
3. **NQF level.** Internal and external quality assurance measures should ensure that micro-credentials are positioned at NQF levels (or EQF or QF-EHEA respectively) in accordance with the appropriate national and European learning outcome descriptors.
4. **Workload.** Internal and external QA arrangements should ensure that micro-credentials are expressed in credits that can be accumulated and transferred (ECTS credits) so that micro-credentials are comparable, shareable, and ultimately transferable. The allocation of ECTS credits should be regularly monitored and reviewed, as provided for in the internal quality assurance systems.
5. **Recognition of prior learning.** If micro-credentials are used to support the recognition of skills and knowledge acquired outside a formal education system, appropriate internal and external quality assurance arrangements should include these procedures.
6. **Quality.** Internal and external QA arrangements should ensure that micro-credentials meet the standards in force in the national system. If they are part of the formal system, micro-credentials must conform to the same principles and similar standards that apply to full qualifications and degree programmes. This should not require HEIs nor the QA agencies to apply the same procedures to quality assurance of micro-credentials as they apply to study programmes. In cases when micro-credentials are offered by alternative providers outside the HE systems, QA agencies should establish standards and procedures that can be applied to these alternative providers.



7. **Transparency.** QA agencies should publish the rules and procedures, criteria, and standards that apply to providers of small units of learning leading to micro-credentials, as well as any results of possible external quality assurance processes. The publication could take the form of specific thematic reports, which are easily accessible and understandable to a wider public.
8. **Support to implementation.** Quality assurance agencies should assist HEIs in integrating QA of micro-credentials into existing internal quality assurance procedures and in adapting their existing internal quality assurance practices to the specific characteristics of micro-credentials. In addition, QA agencies should facilitate alternative providers in developing their internal quality assurance systems in accordance with the ESG. This support can take the form of peer-learning events or expert participation in workshops and training offered by quality assurance agencies or other providers.

Annex 1. Results of survey on micro-credentials in QFs

The methodology of study

In terms of the survey, TPG A Working Group on Micro-Credentials explored the existence of smaller units of learning possibly leading to micro-credentials available in the respondent country in higher education sector (EQF level 5-8) including adult continuing learning. The focus of this survey, following the purpose of the TPG A, was analysing situation as regards inclusion of micro-credentials in the NQFs for higher education, while the issues concerning micro-credentials in terms of quality assurance and recognition of qualifications are explored by other TPGs.

In December 2022, the Working Group created the SWOT analysis template to be completed by the members of the Working Group on micro-credentials (see Annex 2). The SWOT analysis explored the countries' strengths, weaknesses, opportunities and threats in introducing micro-credentials in qualifications framework and helped gathering evidence for further study of micro-credentials in the context of qualifications frameworks. The SWOT analysis was completed by 14 respondent countries – Armenia, Azerbaijan, Belgium Flanders, Bulgaria, Croatia, Czech Republic, Cyprus, Estonia, Germany, Greece, The Netherlands, Poland, Romania, UK – Scotland.

In January 2023, based on the results of this analysis, the Working Group created a questionnaire which focused on the inclusion of micro-credentials in the national qualifications frameworks for higher education (see Annex 3). The first four questions clarified the countries' situation of smaller units of learning regarding national regulation. Questions five and six explored the countries' HEI practices of allocating EQF/ NQF to micro-credentials and questions from seven to ten focused on respondents' evaluation of SWOT analysis aspects (strengths, weaknesses, opportunities, threats).

The online questionnaire was sent to all the TPG A member countries (in total 28 countries) and 21 questionnaire was completed (deadline for submission was 30 January 2023) by members of TPG A representing 20 countries (2 respondents represented Belgium – Flanders, in this description marked as “A” and “B”). The survey participants represented the following education systems: Albania, Andorra, Armenia, Austria, Azerbaijan, Belgium – Flanders (A and B), Bulgaria, Croatia, Cyprus, Georgia, Germany, Greece, Hungary, Latvia, Malta, The Netherlands, North Macedonia, Poland, Romania, and UK – Scotland.

The results of survey

First the survey clarified what **types of certificates/diplomas certifying smaller units of learning** are available in the respondent's country in order to explore the variety of available qualifications in the context of micro-credentials. The respondents could select several options (see Table 1). According to the results of the survey, the majority countries (19) have certificates/diplomas certifying the unit of learning supplementary to a formal education programme (upskilling/reskilling short courses), fewer countries (12) have

certificates/diplomas certifying the unit of learning within a formal education programme (module, part of a qualification).

Table 1. Types of certificates/diplomas certifying smaller units of learning available in the respondent country

	Certificate/diploma certifying learning <u>within</u> a formal education programme (module, part of a qualification)	Certificate/diploma certifying learning <u>supplementary</u> to a formal education programme (upskilling/reskilling short courses)	Other
Frequency	12	19	4
Countries	AM, AT, BE-FL A, BE-FL B, CY, GB-SCT, GR, HR, HU, LV, MT, NL	AL, AD, AM, AT, AZ, BE-FL B, CY, DE, GB-SCT, GE, GR, HR, HU, LV, MT, MK, NL, PL, RO	AD, BG, GB-SCT, GE

Four respondents chose “Other reply” – AD, BG, GB-SCT and GE. In the case of AD and GB-SCT, stand-alone certificates are awarded for informal learning programmes. BG pointed out that the practices of awarding certificates for smaller units of learning have not been established. GE described the situation in the country when VET sector programmes may be implemented by HEI:

“The Georgian Law on VET Education adopted in 2018 created possibility of implementing VET Training/Retraining vocational training programmes. Implementation such programmes started in 2019. Vocational training programme prepares a person to perform individual tasks and obligations related to the profession. Vocational retraining programmes aim to acquire and/or develop competencies to carry out professional activities in the same field. The mentioned programmes are microcredits in terms of their purpose. VET training/retraining programmes can be implemented by HEIs.”

As regards **national regulation for smaller units of learning in higher education** in terms of national qualifications framework, the majority of respondents – nine respondent countries (AM, AT, BG, CY, DE, GE, MK, NL, RO) confirmed that there were no legal provisions to cover regulation for smaller units of learning. In a similar number of respondent countries – seven countries (AD, AZ, BE-FL A, GR, HR, HU, LV) – smaller units of learning were included in general legal framework; thus, no specially targeted regulations have been adopted to stipulate smaller units of learning. However, two countries (AL, MT) have adopted specific laws and regulations on smaller units of learning.

Four respondents (PL, BE-FL B, GB-SCT, HR) chose the answer “Other reply”, PL stating that smaller units of learning could be offered by HEIs in the form of courses (extra-curricular achievements). BE-FL B confirmed that some smaller units of learning were included in the national qualifications framework. HR pointed out that special guidelines for adoption of

programmes for the acquisition of smaller units of learning (lifelong learning programmes) have been issued to all HEIs. GB-SCT described the situation regarding the regulation on micro-credentials in the national qualifications framework:

“There is no overall legislation or regulation covering smaller units of learning in Scotland. Parts of the education system may be subject to regulation and the nature of that regulation will differ depending on the sector. The NQF in Scotland (SCQF) is not a regulatory framework and does not have any legislation attached. The Quality Assurance Agency for HE is a UK-wide agency and has produced a Characteristics Statement for micro-credentials, covering higher education micro-credentials only. A national tertiary education network is currently working on a good practice guide for Scotland.”

As the evidence to the **existing legislation regarding smaller units of learning**, 11 countries listed their legal acts, providing information in English and their original language and if possible – links to the websites. See the list of examples of legal acts summarised in Table 2 below. In eight respondent countries, the existence of such legal acts has not been reported.

Table 2. Examples of legal acts regulating smaller units of learning

Country	Titles of legal acts regulating smaller units of learning
Albania	Decision of the Council of the Ministers (Nr. 427, datë 26.6.2019) <i>Për miratimin e kritereve dhe të procedurave për përfshirjen e kualifikimeve për të nxënit gjatë gjithë jetës, sipas niveleve të kornizës shqiptare të kualifikimeve, për arsimin dhe formimin profesional</i> https://qbz.gov.al/eli/vendim/2019/06/26/427/cc783e87-cb35-41a5-9f3b-6d7feebc5615
Andorra	Law 14/2018, 21st June, on Higher Education (<i>Llei 14/2018, del 21 de juny, d'Ensenyament superior</i>) – Law on HE allows HEIs to offer smaller units of learning. https://www.bopa.ad/bopa/030044/Pagines/CGL20180712_09_46_25.aspx Law 20/2021, 15th July, which creates the NQF (<i>Llei 20/2021, del 15 de juliol, de creació del Marc andorrà de qualificacions</i>) – the NQF gives space to allocate smaller units of learning prior approval of a Commission of experts. https://www.bopa.ad/bopa/033087/Pagines/CGL20210729_10_26_31.aspx
Azerbaijan	National Qualifications Framework for Lifelong Learning of the Republic of Azerbaijan (<i>Azərbaycan Respublikasının ömürboyu təhsil üzrə Milli Kvalifikasiyalar Çərçivəsi</i> , 2018) https://e-qanun.az/framework/39622

Country	Titles of legal acts regulating smaller units of learning
	<p>Rule on the content, organisation of additional education and the issuance of a relevant document to persons who have studied in any direction of additional education (<i>Əlavə təhsilin məzmunu, təşkili və əlavə təhsilin hər hansı istiqaməti üzrə təhsil almış şəxslərə müvafiq sənədin verilməsi</i>, 2010)</p> <p>https://e-qanun.az/framework/20045</p>
<p>Belgium – Flanders</p>	<p><i>Decree of the Flemish Government codifying the decree provisions on higher education (Besluit van de Vlaamse Regering tot codificatie van de decretale bepalingen betreffende het hoger onderwijs)</i></p> <p>https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14650</p> <p>Codified Higher Education Decree (<i>Codex Hoger Onderwijs</i>)</p> <p>https://codex.vlaanderen.be/Zoeken/Document.aspx?DID=1023887&param=inhoud&ref=search</p> <p>Decree on the Qualifications Structure (<i>Decreet betreffende de kwalificatiestructuur</i>)</p> <p>https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14111</p>
<p>Croatia</p>	<p>Law on Higher Education and Scientific Activity (Article 57) (<i>Zakon o visokom obrazovanju i znanstvenoj djelatnosti</i>) – available only in Croatian.</p> <p>https://narodne-novine.nn.hr/clanci/sluzbeni/2022_10_119_1834.html</p>
<p>Greece</p>	<p>The recently adapted law 4957/2022</p> <p>https://www.kodiko.gr/nomothesia/document/807164/nomos-4957-2022</p>
<p>Hungary</p>	<p>Act LXXVII of 2013 on adult education (13. C §)</p> <p>https://net.jogtar.hu/jogszabaly?docid=a1300077.tv</p> <p>Act CCIV of 2011 on national higher education (as of 1 Sept 2023: 42. § (1) b)</p> <p>https://net.jogtar.hu/jogszabaly?docid=a1100204.tv&timeshift=20230901</p>
<p>Latvia</p>	<p>Law on higher education institutions (<i>Augstskolu likums</i>, 1995)</p> <p>EN: https://likumi.lv/ta/en/en/id/37967-law-on-higher-education-institutions</p> <p>LV: https://likumi.lv/ta/id/37967-augstskolu-likums</p> <p>Vocational Education Law (<i>Profesionālās izglītības likums</i>, 1998)</p> <p>EN: https://likumi.lv/ta/en/en/id/20244-vocational-education-law</p> <p>LV: https://likumi.lv/ta/id/20244-profesionalas-izglitibas-likums</p>
<p>Malta</p>	<p>Referencing Report. Malta Further and Higher Education Authority</p> <p>mfhea.mt</p>

Country	Titles of legal acts regulating smaller units of learning
Poland	<p>Act of 20.07.2018 Law on Higher Education and Science, consolidated text Journal of Laws of 2022 items 574, 583, 655, 682, 807, 1010, 1079, 1117, 1459, 2185 (<i>Ustawa z dn. 20.07.2018 Prawo o szkolnictwie wyższym i nauce, t.j. Dz. U. 2022 poz. 574, 583, 655, 682, 807, 1010, 1079, 1117, 1459, 2185</i>)</p> <p>https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20220000574/U/D20220574Lj.pdf</p>
Romania	<p>National Education Law No 1/2011 (<i>Legea educației naționale Nr.1/2011</i>)</p> <p>https://legislatie.just.ro/public/detaliidocument/125150</p> <p>Ministry Order No 4750/2019/ regarding the approval of the Methodology for organising and registering postgraduate programmes by higher education institutions</p> <p>https://legislatie.just.ro/Public/Detaliidocument/222254</p>

Regarding the **plans of introducing legal provisions for smaller units of learning**, ten countries (AD, AL, AZ, BE-FL A, BE-FL B, GR, HR, HU, LV, MT) did not answer this question, which indicates that respondents may lack information in this field and perhaps national discussions have not closed about approaches for legal provisions of micro-credentials. The greatest number of respondents – five countries (AM, BG, CY, PL, RO) plan introducing legal acts in the context of recognition, three countries (AM, GE, PL) plan providing regulations for smaller units in the NQF and other three (AM, MK, PL) – regulation of higher education quality assurance for smaller units of learning. Four countries (AT, DE, GB- SCT, NL) replied that they did not plan introducing legal provisions in any of the mentioned fields.

There were few unequivocal answers from respondents when asked about **EQF/NQF or QF-EHEA level allocated to micro-credentials by HEI**. The question aimed to gain additional information about the implementation of the legislation to understand better existing practices in the respondent countries. The majority of the respondents – seven countries (AZ, CY, DE, HR, LV, NL, PL) mentioned that “partly (depends on provider and/or sector, qualification)” HEIs included reference to the EQF/NQF or QF-EHEA level in the certificate/diploma for smaller units of learning. Rather large number – six respondents (AD, AL, BE-FL A, BE-FL B, GB-SCT, GE) selected “Other”. AD described the current situation illustrating the intended reforms:

“HEIs do not allocate the EQF/NQF level to smaller units. However, the NQF Law allows HEIs to register smaller units in a National Catalogue. All smaller units registered in the National Catalogue will have a reference to the EQF/NQF. To answer properly to this question, I would say: No, but legal framework allows HEIs to do so and in the coming years (when the national catalogue is created) HEIs will do it.”

AL explained that the inclusion of EQF/QF-EHEA in the certificate/diploma was not still implemented. BE-FL A stated that the QF level could also be allocated to the qualification of which the smaller units of learning were constituent. BE-FL B clarified that the level could be or could not be allocated depending on whether the smaller units of learning were part of accredited programme or not. GE assured that VET training/retraining programmes implemented by HEIs might correspond to the level 2, 3, 4 or 5 of the Georgian NQF. However, GB-SCT pointed out that SCQF Database automatically allocated EQF level to all the programmes.

Only three countries (HU, MT, RO) responded affirmatively – HEIs allocate the EQF/NQF or QF-EHEA level to smaller units of learning – and four respondents (AM, AT, GR, MK) answered negatively. Two countries did not reply to this question. Please see the summary of the results for this question in Table 3 below.

Table 3. Allocation of EQF/NQF or QF-EHEA level to smaller units of learning

Replies	HEIs allocate the EQF/NQF or QF-EHEA level to the <u>provided micro-credentials</u>	HEIs include reference to the EQF/NQF or QF-EHEA level in the <u>certificate/diploma</u> of awarded micro-credentials
Yes	3 (HU, MT, RO)	3 (HU, MT, RO)
Partly (depends on provider and/or sector, qualification)	7 (AZ, CY, DE, HR, LV, NL, PL)	6 (AT, DE, LV, NL, PL, HR)
No	4 (AM, AT, GR, MK)	6 (AM, AZ, CY, GE, GR, MK)
Other	6 (AD, AL, BE- FL A, BE- FL B, GB-SCT, GE)	5 (AD, AL, BE- FL A and B, GB – SCT)
N.A.	2 (BG, RO)	2 (BG, RO)

Regarding the **inclusion of reference to the relevant EQF/NQF or QF-EHEA level in the certificate/diploma of smaller units of learning**, more negative answers were collected. The most respondents answered either “No” or “Other”). Reference to the EQF/NQF or QF-EHEA level in the certificate/diploma of smaller units of learning is not included in AM, AZ, CY, GE, GR, MK. Meanwhile, respondents who selected “other” provided following clarifications. AD pointed out that in future HEIs would have to include reference to EQF/NQF level in the diplomas when national qualifications register was functional. AL confirmed that inclusion of reference to EQF/QF-EHEA level was not included in certificates/diplomas. BE-FL A and B mentioned the same arguments as in the previous question. GB-SCT stated that the option to include EQF levels was open to all owners of SCQF credit rated learning; however, very few providers used this opportunity, as it was not necessary to include EQF level on the certificate. Similar number of countries – six countries (AT, DE, HR, LV, NL, PL) chose the answer “Partly”. Only three respondent countries (HU,

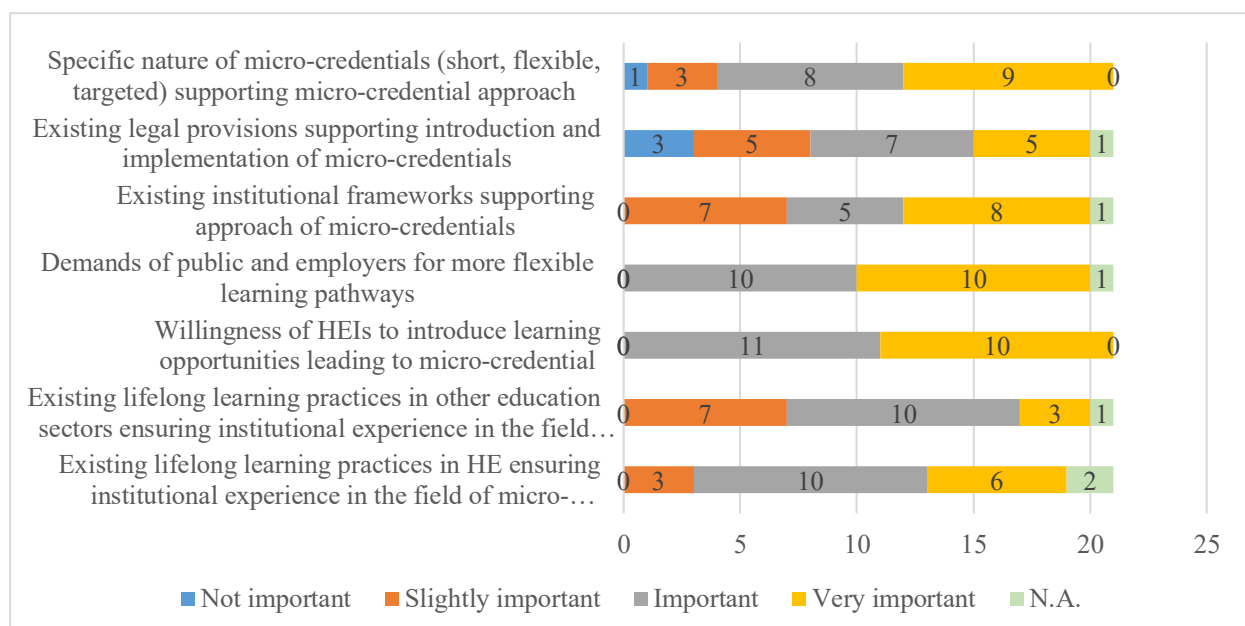
MT, RO) confirmed such practice. See overview of the answers to this question in the Table 3 above.

The next set of survey questions were developed on basis of SWOT (strengths, weaknesses, opportunities and threats) analysis conducted by the members of WG on micro-credentials prior this survey. The respondents were given a list of SWOT aspects, and they had to evaluate how great impact these aspects have on the implementation of micro-credentials in their countries in 4-point scale (not important – 1, slightly important – 2, important – 3, very important – 4). In majority cases, the respondents selected 3 or 4; therefore, for more general illustration of the results, positive (3-4) and negative (1-2) replies were counted together respectively.

The first question clarified the main **strengths** promoting development or introduction of the approach of micro-credentials (see Figure 1). According to the results of survey, as the most significant strong internal aspects could be named (most respondents chose 3-4):

1. Willingness of HEIs to introduce learning opportunities leading to micro-credential (100% of valid replies);
2. Demands of public and employers for more flexible learning pathways (100% of valid replies);
3. Existing lifelong learning practices in HE ensuring institutional experience in the field of micro-credentials (84.2% of valid replies);
4. Specific nature of micro-credentials (short, flexible, targeted) supporting micro-credential approach (81% of valid replies).

Figure 1. Main strengths (internal elements) that help the respondent country introducing/developing/implementing the approach of micro-credentials (frequencies)



Comparatively less important strong aspects in the context of micro-credentials are listed below (more respondents selected 1-2):

1. Existing legal provisions supporting introduction and implementation of micro-credentials (40% of valid replies);
2. Existing institutional frameworks supporting approach of micro-credentials (35% of valid replies);
3. Existing lifelong learning practices in other education sectors ensuring institutional experience in the field of micro-credentials (35% of valid replies).

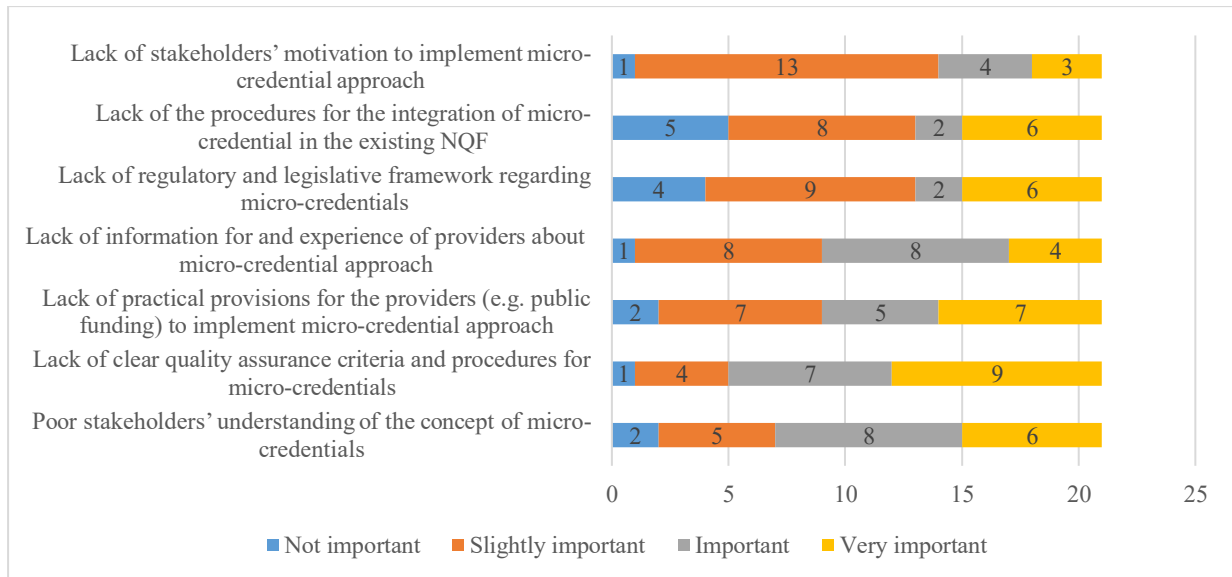
The respondents mentioned the following additional strengths (quotes from the survey):

- Many higher education institutions in Georgia have lifelong learning centres, within the framework of which HEIs develop short training and retraining programmes. These programmes are not recognised by the state, nor are state certificates issued for them. Also, these programmes are not recognised at the undergraduate or graduate level. We think that this experience is our strong point for the formal introduction of microcredit.
- Good connections HEIs – Industry/Stakeholders supported through the CROQF; partial qualification recognized in the CROQF.
- Interoperability, extra skills can be easily acquired even within an institution, expanding knowledge base, additional knowledge elements. A higher education institution appears on the market with a wider range of courses, attractive to its own and future students; a highly popular form internationally. The integration of the individual learning account would also define the range of trainings that can be financed by it, among which one would classify trainings that issue micro-certificates. In addition, it would also mean a kind of quality seal on the market for the trained.
- The SCQF (NQF) already enables small pieces of learning (minimum of 10 hours) to be included on the Framework and allocated a level and credit points.

When asked about the **weaknesses** (internal elements) that hinder the countries from introducing or implementing the approach of micro-credentials, the respondents provided more varied opinions (see Figure 2). The majority of respondents as the most important named the succeeding aspects (replied 3-4):

- Lack of clear quality assurance criteria and procedures for micro-credentials (76.2% of valid replies);
- Poor stakeholders' understanding of the concept of micro-credentials (66.7% of valid replies);
- Lack of practical provisions for the providers (e.g., public funding) to implement micro-credential approach (57.1% of valid replies);
- Lack of information for and experience of providers about micro-credential approach (57.1% of valid replies).

Figure 2. Main weaknesses (internal elements) that hinder the respondent country introducing/developing/implementing the approach of micro-credentials (frequencies)



Lesser meaning was attributed to the following aspects (the respondents chose 1-2):

- Lack of stakeholders' motivation to implement micro-credential approach (66.7% of valid replies);
- Lack of regulatory and legislative framework regarding micro-credentials (61.9% of valid replies);
- Lack of the procedures for the integration of micro-credential in the existing NQF (61.9% of valid replies).

Five respondents also mentioned other weaknesses they considered important:

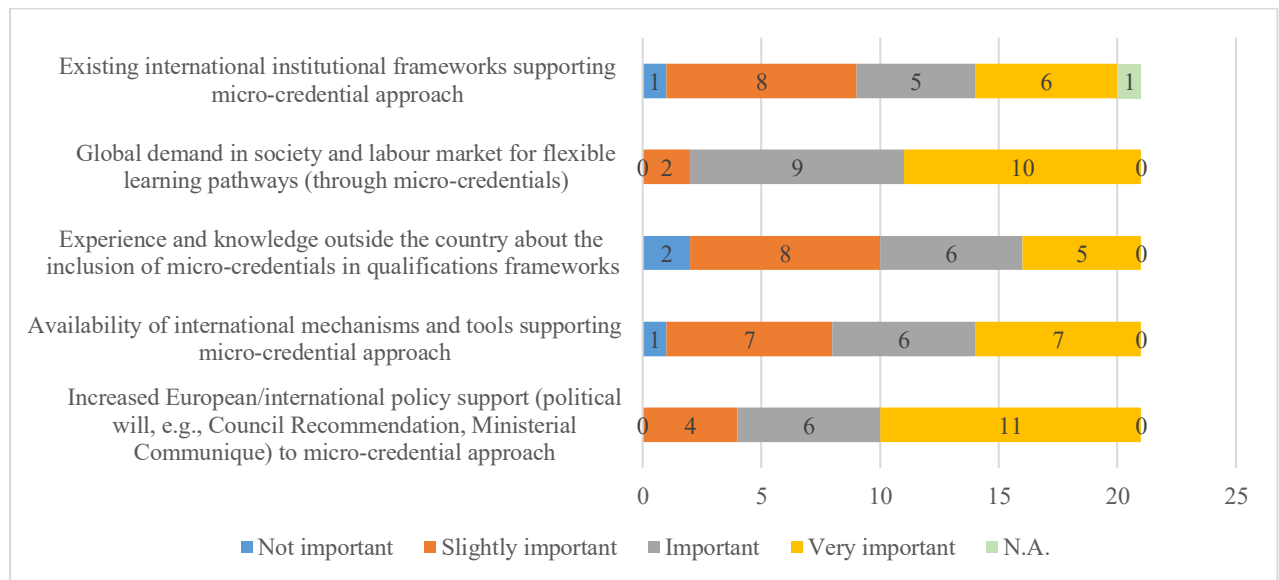
- Although there are several weaknesses that hindered introducing micro-credentials in the legal framework, higher education institutions started introducing several micro-credentials.
- Not understanding the importance of micro-credentials by providers.
- Partial qualifications are not sufficiently recognised in labour market.
- It causes a counterproductive effect, and in the longer term the proportion and number of people with higher education will decrease. Possible withdrawal of pupils/students from vocational training and adult training into higher education. Access to an easier "recognition"/certificate can also cause dropouts in the training.
- Lack of consistency in the use of term by education, employer and skills agencies.

Regarding the **opportunities** which describe the external elements helping the country to introduce or implement the approach of micro-credentials, the respondents also selected more varied answers (see Figure 3) comparing to the question about strengths. According to the

survey, the vast majority of respondents believed that the most significant aspects (replied 3-4) were:

- Global demand in society and labour market for flexible learning pathways (through micro-credentials) (90.5% of valid replies);
- Increased European/international policy support (political will, e.g., Council Recommendation, Ministerial Communique) to micro-credential approach (81% of valid replies).

Figure 3. Main opportunities (external elements) that help the respondent country introducing/developing/implementing the approach of micro-credentials (frequencies)



However, more aspects were considered less important (the respondents replied 1-2):

- Experience and knowledge outside the country about the inclusion of micro-credentials in qualifications frameworks (47.6% of valid replies);
- Existing international institutional frameworks supporting micro-credential approach (45% of valid replies);
- Availability of international mechanisms and tools supporting micro-credential approach (38.1% of valid replies).

Three respondents added other opportunities important for implementing micro-credential approach:

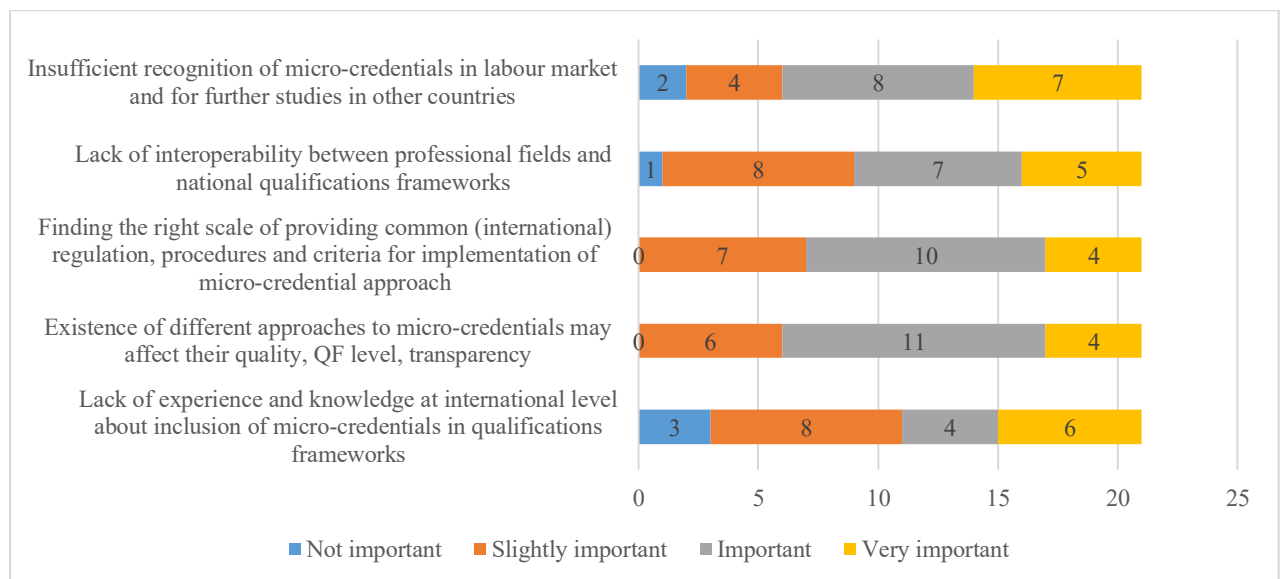
- Increased interest (including from policy makers) in lifelong learning;
- Availability of EU funds and peer learning mechanisms;
- Well-designed micro-certificates can be used as part of targeted measures to ensure inclusion and access to education and training for a wider range of learners. The wider

range of students includes disadvantaged and vulnerable groups. Higher education becomes more accessible to citizens, a closer relationship with the labour market develops, and the image of family-friendly higher education is strengthened. Labour market retraining, unifying labour market expectations, and their traceability.

The last question covered the main **threats** (external elements) that hinder the countries from introducing or implementing the approach of micro-credentials. The results are summarised in Figure 4 below. The replies to this question were more negative (more respondents chose 1-2) comparing to other SWOT categories; thus, the proposed list of threats were not considered as crucial. As the most important aspects were mentioned (replied 3-4):

- Existence of different approaches to micro-credentials may affect their quality, QF level, transparency (71.4% of valid replies);
- Insufficient recognition of micro-credentials in labour market and for further studies in other countries (71.4% of valid replies);
- Finding the right scale of providing common (international) regulation, procedures and criteria for implementation of micro-credential approach (66.7% of valid replies).

Figure 4. Main threats (external elements) that hinder the respondent country introducing/developing/implementing the approach of micro-credentials (frequencies)



As less significant threats (replied 1-2) were named:

- Lack of experience and knowledge at international level about inclusion of micro-credentials in qualifications frameworks (52.4% of valid replies);
- Lack of interoperability between professional fields and national qualifications frameworks (42.9% of valid replies).

One respondent pointed out such additional threats as:

- Its implementation may be difficult due to the multifaceted nature of quality assurance.
- The micro-credential market may be fragmented due to unclear education systems and the diversity of service providers.

In conclusion of the survey, five respondents provided their comments about micro-credentials in the context of qualifications frameworks. The comments are summarised in the Table 4 below.

Table 4. Comments about micro-credentials in the context of qualifications frameworks

Country	Comments (quotes)
Germany	The formal issue of referencing micro-credentials to qualifications frameworks is, at least for the time being, not seen as a topic of major importance in Germany. The focus is rather on how to use micro-credentials as certificates that document the acquisition of competences or the expansion of already acquired skills (upskilling and reskilling). It is hoped that micro-credentials can contribute to satisfying the demands of labour markets and solving the challenges of the shortage of skilled workers by offering short and selective learning opportunities.
Austria	Concerning legal provisions in terms of micro-credentials we have to underline that offering micro-credentials is already possible within the legal framework of all four higher education sectors. Concerning EQF levels, Austria has no higher education programmes within level 5 within its respective NQF.
Croatia	Since the qualification frameworks in different countries differ, it would be useful to continue to offer peer learning activities in which it is possible to see how different countries implement the Council's Recommendation.
Hungary	The EQF-NCP project involves the preparation of a comprehensive study showing the current domestic situation of micro-certificates in the field of higher education, adult education and vocational training. Within this framework, the key points of the study will be defined by the invited experts and representatives of specialised fields during three workshops. We will organise a conference on the topic in October 2023 (100 people). In the project, a recommendation can be made as to what the optimal conditions would be for organising the micro-certificates into a framework.
UK – Scotland	It will be key to recognise the importance of a commonality of approach to micro-credentials across countries to allow inter-operability and recognition across borders whilst balancing this with the need for countries to develop approaches to micro-credentials that are appropriate to their own qualifications framework(s), education system, landscape and economic priorities.

The respondent countries in their comments provided overview of the national diversity and challenges in terms of micro-credentials. In general, tendency to promote national debate about strengthening or introducing approach to micro-credentials may be observed.

Conclusions of the study

To summarise, the input of the respondents has been extremely valuable in gaining more thorough understanding of the current landscape of micro-credentials in regard to qualifications frameworks in HE, as well as potential impact of micro-credentials on education and workforce.

After analysing the results of the survey, general consensus may be observed among respondents that including micro-credentials in the National Qualifications Framework would be beneficial for both individuals and employers. The majority of respondents believe that micro-credentials provide a valuable means of demonstrating specific skills, knowledge and competences, and, furthermore, if micro-credentials were included in the NQF, a more standardised and transparent system of credentials could be established promoting the quality of qualifications. However, in most systems micro-credentials are not yet integrated in NQFs; hence, they cannot be compared to the EQF or QF-EHEA, as well.

The respondents also highlighted the potential benefits of including micro-credentials in the NQF in terms of facilitating lifelong learning and career advancement. Micro-credentials offer a more agile and accessible alternative to traditional qualifications. However, majority of the respondents expressed concerns about the potential challenges of implementing a system of micro-credentials integrated within the NQF. These concerns included issues as regards quality assurance and recognition, as well as the need for greater collaboration between education providers and employers.

Overall, having gathered and analysed all the data provided by the TPG A counties, the following conclusions were drawn:

- Slightly more respondent countries provide certificates or diplomas certifying smaller units of learning within a formal education programme than supplementary to a programme, but in great number of cases both situations are possible.
- The majority of countries surveyed either lack specific legal provisions for regulating smaller units of learning, or include these provisions within the broader legal framework of the country. This suggests that more targeted and comprehensive regulation of micro-credentials and other forms of smaller learning units in many countries may be necessary.
- Rather significant part of the countries, which do not have national regulation for smaller units of in higher education, did not reply in which fields they planned introducing the legal provision and given answers were varied. However, slightly more respondents mentioned that they intended introducing legal provision for recognition of smaller units of learning. Thus, the respondents may lack clear

information or the debate about the national intentions as regards legislation on micro-credentials is still ongoing.

- The majority of respondent countries reported that HEIs, when developing and providing smaller units of learning, only partially allocate the EQF/NQF or QF-EHEA level to smaller units of learning, depending on the specific qualification or provider. Additionally, most countries indicated that higher education institutions either do not include a reference to the EQF/NQF or QF-EHEA level or only partially include such reference in the certificate or diploma for smaller units of learning. These findings suggest that a lack of uniformity in how qualifications are classified and recognised by different countries and HEIs may exist, which may have implications for the portability and comparability of micro-credentials.
- The respondent countries consider the willingness of HEIs to introduce learning opportunities that lead to micro-credentials, the demand of the public and employers for more flexible learning pathways, and the specific nature of micro-credentials (i.e., short, flexible, targeted) as important strengths for the implementation of micro-credentials. Thus, several factors drive the adoption and recognition of micro-credentials, including the need for a greater flexibility and responsiveness in higher education, as well as the potential of micro-credentials to meet specific skills and learning needs in the labour market.
- Regarding the internal elements that hinder the introduction or implementation of micro-credentials, the respondents provided diverse opinions. However, the majority of respondents identified several key weaknesses as the most important – the lack of clear quality assurance criteria and procedures for micro-credentials, poor stakeholder understanding of the concept of micro-credentials, the lack of practical provisions for providers to implement the micro-credential approach, and the lack of information and experience among providers regarding micro-credentials. Several barriers should be addressed to have a successful implementation of micro-credentials, including the need for greater clarity and consistency in quality assurance, as well as the need for improved stakeholder understanding and support for this emerging micro-credential approach.
- Interestingly, the respondents attributed lesser importance as weaknesses to the lack of regulatory and legislative framework regarding micro-credentials, as well as the lack of procedures for the inclusion of micro-credentials into existing NQFs. While these results suggest that the lack of a clear regulatory and legislative framework may not be a significant barrier to the implementation of micro-credentials in some countries, yet the lack of such frameworks may still pose challenges for the recognition and acceptance of micro-credentials in other contexts.
- The vast majority of respondents considers that global demand in society for flexible learning possibilities and increased European policy support towards introducing micro-credentials are important opportunities that could help their countries implementing the approach to micro-credentials. Hence, a growing awareness of the

potential benefits of micro-credentials may be observed as a flexible and targeted approach to learning, and that there is a need for continued support and investment in this area.

- When defining the possible threats that prevent their countries from introducing approach of micro-credentials, a number of respondents mentioned too many and different approaches to micro-credentials and difficulty to find a common (international) regulation and procedures for implementing micro-credentials. Specifically, many respondents expressed concern about the multitude of different approaches to micro-credentials, which complicates establishment of common standards and ensuring consistency and comparability across different credentials. These findings highlight the need for increased international cooperation and coordination in the development and recognition of micro-credentials, in order to address these challenges and ensure that micro-credentials are able to achieve their full potential as a flexible and targeted credentialing approach.
- The term of micro-credentials still requires additional discussions. The results of the survey indicate that different countries use various terms to refer to micro-credentials, such as “microcredits” and “micro-certificates”. Therefore, a greater clarity and consistency in the use of terminology related to micro-credentials should be promoted in order to facilitate communication and understanding across different contexts and stakeholders. Further research and dialogue among TPG A Member Countries is needed to develop a more unified and widely accepted definition of micro-credentials, and to raise awareness of their potential benefits and use.
- In conclusion, the results of survey highlight both the opportunities and challenges associated with the implementation of micro-credentials in higher education. On the one hand, significant interest and willingness among HEIs to introduce micro-credentials was noted, driven by factors such as the demand for more flexible and targeted learning pathways, and the specific nature of micro-credentials. On the other hand, a number of internal and external factors can hinder the development and implementation of micro-credentials, including the lack of clear quality assurance criteria, poor stakeholders’ understanding of the concept of micro-credentials, and the need for practical provisions and funding to support their implementation.

Annex 2. Initial questionnaire on micro-credentials

Please fill in the table below regarding the context of your country **by 14 November 2022**. Please consider the internal and external aspects in terms of qualifications framework for higher education.

The results of this survey will be used to prepare more detailed questionnaire to be disseminated to TPG A members.

Thank you for your contribution!

	<i>Which aspects <u>help</u> your country introducing/developing/implementing the approach of micro-credentials</i>	<i>Which aspects <u>hinder</u> your country introducing/developing/implementing the approach of micro-credentials</i>
<i>Internal aspects and/or elements</i>	Strengths	Weaknesses
	Please provide 3-5 examples. <ul style="list-style-type: none"> • Example • Example • Example 	Please provide 3-5 examples. <ul style="list-style-type: none"> • Example • Example • Example
<i>External aspects and/or elements</i>	Opportunities	Threats
	Please provide 3-5 examples. <ul style="list-style-type: none"> • Example • Example • Example 	Please provide 3-5 examples. <ul style="list-style-type: none"> • Example • Example • Example

Annex 3. Questionnaire on micro-credentials in QFs

*In terms of this questionnaire, TPG A Working Group on Micro-Credentials explores the existence of **smaller units of learning** possibly leading to micro-credentials available in your country in higher education sector (EQF level 5-8) including adult continuing learning. The focus of this survey, following the purpose of the TPG A, is analysing situation as regards inclusion of micro-credentials in the national qualifications frameworks for higher education, while the issues concerning micro-credentials in terms of quality assurance and recognition of qualifications are explored by other TPGs.*

Country: _____

1. What types of certificates/diplomas certifying smaller units of learning are available in your country? You can select several options.
 - a. Certificate/diploma certifying the unit of learning within a formal education programme (module, part of a qualification)
 - b. Certificate/diploma certifying the unit of learning supplementary to a formal education programme (upskilling/reskilling short courses)
 - c. Other
2. What situation do you have as regards national regulation for smaller units of learning in higher education in terms of national qualifications framework?
 - a. Legal provisions about smaller units of learning are included in general legal framework
 - b. Specific laws and regulations have been approved to stipulate smaller units of learning
 - c. No legal provisions cover regulation for smaller units of learning
 - d. Other
3. If yes, please list the titles of legal acts (with links, also in original language, if possible):
4. If you do not have national regulation for smaller units of learning in higher education, in which fields do you plan introducing the legal provision?
 - a. Legal provision for inclusion of smaller units of learning in the national qualifications framework
 - b. Legal provision for regulation of higher education quality assurance for smaller units of learning
 - c. Legal provision for recognition of smaller units of learning
 - d. There are no plans introducing legal provisions in any of above-mentioned fields
 - e. Other fields
5. When higher education institutions develop and provide smaller units of learning, do they allocate the EQF/NQF or QF-EHEA level to these qualifications?
 - a. Yes
 - b. Partly (depends on provider and/or sector, qualification)
 - c. No
 - d. Other

6. Do higher education institutions include reference to the EQF/NQF or QF-EHEA level in the certificate/diploma for smaller units of learning?
- Yes
 - Partly (depends on provider and/or sector, qualification)
 - No
 - Other

7. In your opinion, what are the main **strengths** (internal elements) that help your country introducing/developing/implementing the approach of micro-credentials? Please evaluate each aspect from 1-4 (1 – not important, 4 – very important):

	Not important	Slightly important	Important	Very important
Existing lifelong learning practices in HE ensuring institutional experience in the field of micro-credentials	1	2	3	4
Existing lifelong learning practices in other education sectors ensuring institutional experience in the field of micro-credentials	1	2	3	4
Willingness of HEIs to introduce learning opportunities leading to micro-credential	1	2	3	4
Demands of public and employers for more flexible learning pathways	1	2	3	4
Existing institutional frameworks supporting approach of micro-credentials	1	2	3	4
Existing legal provisions supporting introduction and implementation of micro-credentials	1	2	3	4
Specific nature of micro-credentials (short, flexible, targeted) supporting micro-credential approach	1	2	3	4

If necessary, please name any other important strengths (internal elements):

8. In your opinion, what are the main **weaknesses** (internal elements) that hinder your country introducing/developing/implementing the approach of micro-credentials? Please evaluate each aspect from 1-4 (1 – not important, 4 – very important):

	Not important	Slightly important	Important	Very important
Poor stakeholders' understanding of the concept of micro-credentials	1	2	3	4
Lack of clear quality assurance criteria and procedures for micro-credentials	1	2	3	4

Lack of practical provisions for the providers (e.g. public funding) to implement micro-credential approach	1	2	3	4
Lack of information for and experience of providers about micro-credential approach	1	2	3	4
Lack of regulatory and legislative framework regarding micro-credentials	1	2	3	4
Lack of the procedures for the integration of micro-credential in the existing NQF	1	2	3	4
Lack of stakeholders' motivation to implement micro-credential approach	1	2	3	4

If necessary, please name any other important weaknesses (internal elements):

9. In your opinion, what are the main **opportunities** (external elements) that help your country introducing/developing/implementing the approach of micro-credentials? Please evaluate each aspect from 1-4 (1 – not important, 4 – very important):

	Not important	Slightly important	Important	Very important
Increased European/international policy support (political will, e.g., Council Recommendation, Ministerial Communique) to micro-credential approach	1	2	3	4
Availability of international mechanisms and tools supporting micro-credential approach	1	2	3	4
Experience and knowledge outside the country about the inclusion of micro-credentials in qualifications frameworks	1	2	3	4
Global demand in society and labour market for flexible learning pathways (through micro-credentials)	1	2	3	4
Existing international institutional frameworks supporting micro-credential approach	1	2	3	4

If necessary, please name any other important opportunities (external elements):

10. In your opinion what are the main **threats** (external elements) that hinder your country introducing/developing/implementing the approach of micro-credentials? Please evaluate each aspect from 1-4 (1 – not important, 4 – very important):

	Not important	Slightly important	Important	Very important
Lack of experience and knowledge at international level about inclusion of micro-credentials in qualifications frameworks	1	2	3	4
Existence of different approaches to micro-credentials may affect their quality, QF level, transparency	1	2	3	4
Finding the right scale of providing common (international) regulation, procedures and criteria for implementation of micro-credential approach	1	2	3	4
Lack of interoperability between professional fields and national qualifications frameworks	1	2	3	4
Insufficient recognition of micro-credentials in labour market and for further studies in other countries	1	2	3	4

If necessary, please name any other important threats (external elements):

11. Any other comments about micro-credentials in the context of qualifications frameworks.