



# A GUIDELINE TO DESIGN, ISSUE, QUALITY ASSURE AND RECOGNIZE THE MICRO-CREDENTIALS

“MICRO-GEAR MICRO-CREDENTIALS FOR HIGHER EDUCATION SYSTEMS OF  
GEORGIA AND ARMENIA: SOUTH CAUCASUS LIGHTHOUSE PROJECT” Project  
#101127144

Yerevan, 2025

<b>Deliverable title:</b>	WP2: D2.2. Guidelines on Micro-credentials
<b>Author:</b>	National Center for Professional Education Quality Assurance, Foundation
<b>Confirmation:</b>	Approved by the MICRO-GEAR Project Management Board
<b>Deliverable number:</b>	2.2
<b>Work package:</b>	2
<b>Lead partner:</b>	NCEQE-GEO
<b>Due date of deliverable:</b>	31 December, 2025
<b>Dissemination Level</b>	12 December, 2025
<b>Reviewed by</b>	All partners

## Document Information

Version	Date	Modified by	Modification reasons
V-1	10.10.2025	National Center for Professional Educational Quality Assurance, Foundation	Developing initial Structure of the documents
V-2	November- 2025	Discussion with Armenian partners	Micro-GEAR Project Working Meeting
V-3	December, 2025	Online discussion among Armenian partners	Working Meeting
V-5	23.12.25	National Center for Professional Educational Quality Assurance, Foundation	Final Version delivered

This project has been funded with support from the EC. This publication reflects the views of the authors only, and the EC cannot be held responsible for any use which may be made of the information contained therein.

## Contents

ABOUT THE GUIDELINE	4
1.1 Background and Rationale	4
1.2 Alignment with National Education Priorities	4
1.3 Relation to International and Regional Developments	5
1.4 Roles: Target Audience and Stakeholders	5
1.5 Structure of the Guideline	6
CHAPTER II: APPROACH TO THE MCS REGULATORY FRAMEWORK IN ARMENIA	7
2.1 Purpose of the Framework	7
2.2 Legal Context	7
2.3 Strategic Objectives for MCs	8
2.4 Coordination and Governance Mechanisms	9
CHAPTER III: SCOPE OF THE FRAMEWORK	11
3.1 Definition of MCs	11
3.2 Guiding Principles for MCs in Armenia	12
3.3 Justification and Rationale for Introducing MCs in Armenia	12
CHAPTER IV: MINIMUM INFORMATION REQUIREMENTS FOR MCS	13
CHAPTER V: GENERAL POLICIES FOR MCS	16
5.1. National Standards and Alignment	16
5.2. Inclusion in National Qualifications Framework (NQF)	17
5.3. Funding and Incentives	17
5.4. Stakeholder Involvement and Collaboration	17
5.5. Inclusivity and Access	18
5.6. Continuous Improvement and Support	18
CHAPTER VI: DEVELOPMENT, DESIGN, AND DELIVERY OF MCS	19
6.1. Needs Analysis and Stakeholder Input	19
6.2. Curriculum and Assessment Design	20
6.3. Validation and Approval of Design	21
6.4. Delivery and Instruction	22
6.5. Monitoring and Continuous Improvement during Delivery	23
6.6. Assessment and Credential Issuance	23
6.7. Integration with Existing Programs	24
6.8. Instructor and Staff Preparation	24
CHAPTER VII. QUALITY ASSURANCE	25
7.1 Alignment with the National Quality Assurance Framework	25
7.2 Roles: Provider, Employer, ANQA, MOESCS, and Other Stakeholders	26
7.3 Internal Quality Assurance of MCs	27
7.4 External Quality Assurance of MC Providers	28
7.5 Publication and Transparency of Quality Data	29
CHAPTER VIII. RECOGNITION OF MCS	30
8.1 National Recognition Principles and Procedures	30
8.2 Recognition within Formal Education Pathways	31
8.3 Recognition by Employers and Industry	32
8.4 Recognition of Cross-Border and Digital MCs	33
8.5 Use of Digital Badges and Blockchain Technologies	35
CHAPTER IX. SUPPORTS: ADVISING, TUTORING, CAREER GUIDANCE, AND ACCESSIBILITY FOR LEARNERS	37
9.1 Information Accessibility and Awareness	37

9.2 Academic Advising and Tutoring.....	38
9.3 Career Guidance and Employability Support .....	38
9.4 Digital Infrastructure for Learner Support:.....	39
9.5 Equity, Inclusion, and Learner Well-Being .....	39
9.6 Feedback and Continuous Improvement .....	40
REFERENCES	40

# ABOUT THE GUIDELINE

## 1.1 Background and Rationale

This guideline sets the framework for introducing micro-credentials (MCs) within Armenia's higher education and lifelong learning systems. It is grounded in the Law on Higher Education and Science (2025), the 2030 Education Development State Program, the 2021–2026 Government Program, and the White Paper *Advancing Micro-Credentials in Armenia* (2025).

MCs offer flexible, modular, and skills-based learning opportunities that respond to changing labour-market needs and support lifelong learning. They allow individuals to acquire targeted competences, document learning achievements through verifiable credentials, and pursue personalized learning pathways.

The guideline draws on European policy developments and international best practices to ensure that Armenian MCs are transparent, high-quality, and compatible with regional and global systems. It provides a common framework for designing, delivering, assessing, issuing, and recognizing MCs across formal and non-formal education providers.

**Purpose and Scope:** The purpose of this guideline is to ensure consistent understanding and implementation of MCs in Armenia. It outlines the standards and procedures necessary for MCs to be trusted by learners, employers, and educational institutions. The scope includes short learning experiences leading to certified outcomes, whether integrated into higher education programs or offered as standalone continuing-education modules.

By applying this guideline, stakeholders support the development of a credible and interoperable MC ecosystem that enhances lifelong learning, employability, and alignment with European practices.

## 1.2 Alignment with National Education Priorities

The introduction and institutionalization of MCs (MCs) in Armenia directly support the Armenia's national objectives in education, labour-market development and innovation agendas. The Government of Armenia has articulated, through the Law on Higher Education and Science (2025) and the 2030 Education Development State Program, a strong commitment to modernizing education, expanding lifelong learning, and enhancing labour market responsiveness.

The Law on Higher Education and Science (2025) and the 2030 Education Development State Program emphasize flexible learning pathways, lifelong learning, and stronger alignment between education and workforce needs. MCs provide a practical mechanism for realizing these priorities and translating these policy ambitions into operational reforms.

MCs contribute to these priorities by:

1. **Expanding lifelong learning** through short, flexible learning opportunities for diverse groups, including adults and working professionals.
2. **Strengthening labour-market relevance** by enabling providers to respond quickly to emerging skill needs and by involving employers in defining learning outcomes.
3. **Advancing digital transformation** through online and blended delivery and the use of digital credentials.

4. **Promoting inclusion and regional access** by lowering entry barriers and offering flexible learning pathways.
5. **Supporting European integration** through alignment with ANQF, EQF, and EHEA principles.
6. **Enhancing institutional capacity** by encouraging outcome-based design, modular curricula, and improved internal QA processes.

These functions position MCs as a practical tool for implementing national education reforms and strengthening the link between learning and employment. As well as, they build a resilient, agile, and responsive education system, fostering collaboration across public, private, and non-formal sectors.

### 1.3 Relation to International and Regional Developments

The development of micro-credentials (MCs) in Armenia aligns with ongoing European and regional initiatives aimed at promoting flexible learning, skills development, and mobility. Armenian approach is situated within a broader international and regional movement toward flexible, transparent, and competency-based learning systems. These developments — shaped by European policy initiatives, regional cooperation frameworks, and global innovations in credentialing — provide both a strategic reference point and a collaborative opportunity for Armenia. The alignment of Armenia’s MC framework with these international trends ensures that the national system remains compatible, portable, and recognized within and beyond the European Higher Education Area (EHEA).

Key European instruments and developments influencing Armenia’s framework include:

- UNESCO’s Global Convention on the Recognition of Qualifications (2019) EU Council Recommendation on MCs for Lifelong Learning and Employability (2022/C 243/02) European Qualifications Framework (EQF) and EHEA Qualifications Framework (QF-EHEA)
- European Standards and Guidelines for Quality Assurance (ESG 2015) Europass and Open Badge 2.0 frameworks
- The ETF’s South Caucasus Lighthouse Project
- EHEA and Bologna Process Commitments.

By referencing these frameworks, the guideline ensures that Armenian MCs are understood, trusted, and comparable within the broader European education and labour-market context.

### 1.4 Roles: Target Audience and Stakeholders

MCs (MCs) represent a national ecosystem reform, requiring coordination among public authorities, higher-education institutions, employers, quality-assurance bodies, and learners. Effective implementation in Armenia depends on clearly defining who is involved, what each actor is responsible for, and how cooperation is organized to ensure coherence, transparency, and sustainability.

Armenia’s system therefore adopts a multi-level governance model, in which responsibilities are distributed across policy, institutional, sectoral, and learner levels.

Primary stakeholders include:

#### 1. Public Authorities and National Regulators:

- Ministry of Education, Science, Culture and Sports (MOESCS),
  - National Centre for Professional Education Quality Assurance, Foundation (ANQA),
  - National Information Centre for Academic Recognition and Mobility (ArmEnic),
2. **Higher education institutions** (public and private)
  3. **Vocational and lifelong learning providers**
  4. **Employers and sectoral councils**
  5. **Learners** as co-designers and beneficiaries of flexible, skill-oriented learning.

## 1.5 Structure of the Guideline

This Guideline is organized as a practical, end-to-end playbook for Armenian institutions and stakeholders to design, issue, quality-assure, and recognize MCs (MCs). Its structure mirrors international good practice (ETF/EU) and Armenia’s regulatory framework so that each chapter can be used independently (as a how-to) and together (as a national operating model).

It also cross-references the ETF Guide’s core pillars—quality, transparency/portability, relevance, assessment, pathways, recognition—to ensure alignment with European approaches. This document serves as a policy recommendation on micro-credentials.

### How to use this Guideline

The document is organized into 10 chapters followed by annexes. Each chapter addresses a critical aspect of the MC framework, with practical guidance, examples, and where appropriate, tables for clarity. Readers can navigate to specific sections relevant to their role:

- **Policy makers (MOESCS, ANQA, ArmEnic):** will find guidance on regulatory framework, scope, and policy measures, using Chapters 2, 5, 7, 8 to set rules, QA expectations, recognition, and registries; annex templates standardize minimum information and evidence requirements.
- **HEIs/VET providers:** are guided on designing and delivering MCs, internal quality processes, and supporting learners, using Chapters 3, 4, 6 for definitions, minimum elements, LO/ECTS design, assessment, digital badging;
- **Employers/sector councils:** can refer to recognition and relevance of MCs, and how to engage with providers to ensure labor market alignment; using Chapters 5, 6, 8 to co-design outcomes, validate relevance, and formalize recognition/use in HR.
- **Learners and advisors:** see Chapters 3, 8, 9 for what MCs mean, how they stack, and what support/recognition to expect.

Throughout the guideline, key terms are defined, stakeholder responsibilities are clarified, and alignment to national priorities and European principles is highlighted. Examples and templates are given (see Annexes) to illustrate recommended practices, such as a sample MC certificate format and a standard template for describing an MC’s metadata. All recommendations emphasize values of transparency, quality, learner-centeredness, inclusiveness, portability, and digital recognition. Ultimately, this guideline aims to facilitate the development of a robust MC ecosystem in Armenia that enhances lifelong learning opportunities and the recognition of skills and competencies in both education and employment contexts.

# CHAPTER II: APPROACH TO THE MCS REGULATORY FRAMEWORK IN ARMENIA

## 2.1 Purpose of the Framework

The MCs Regulatory Framework for Armenia established a coherent national mechanism for the design, implementation, quality assurance, and recognition of MCs (MCs) within the lifelong-learning ecosystem.

Its purpose is to make short, targeted learning achievements visible, portable, and quality-assured, so that they contribute to individual employability, institutional innovation, and national competitiveness.

The framework seeks to:

1. **Enable flexible learning pathways** – allowing individuals to acquire, document, and stack learning outcomes from higher, vocational, and non-formal education toward full qualifications.
2. **Institutionalize recognition of small learning units** – ensuring that learning acquired in different contexts can be validated against the Armenian National Qualifications Framework (ANQF).
3. **Promote labour-market responsiveness** – supporting rapid skills development in priority sectors such as ICT, green technologies, creative industries, and engineering.
4. **Strengthen Armenia’s integration into the European Higher Education Area (EHEA)** – ensuring comparability, quality, and cross-border recognition of Armenian MCs.
5. **Facilitate digital transformation** – through trusted, interoperable digital credentialing systems linked to Europass, Open Badge 2.0, and the European Digital Credentials for Learning (EDC) framework.

The framework provides a bridge between learning and work, empowering citizens with portable evidence of competencies and supporting institutions to diversify provision while maintaining quality and trust.

## 2.2 Legal Context

The framework is grounded by the Law on Higher Education and Science of the Republic of Armenia (2025), which introduces competency-based and outcomes-driven education principles, grants higher-education institutions greater curricular autonomy, and promotes lifelong learning and digital transformation.

Article provisions related to small units of learning, credit accumulation and transfer, and recognition of non-formal education form the legal basis for MC integration.

Complementary national policy instruments include:

- Armenia’s 2030 Education Development State Program, emphasizing flexible pathways, innovation, and lifelong learning.

- Digital Transformation Strategy (2021–2030), mandating interoperability of education data and credentialing systems.
- National Qualifications Framework (ANQF) and its alignment with the European Qualifications Framework (EQF) and QF-EHEA.
- White Paper on Advancing MCs in Armenia (2025), which is defined within the frameworks of MICRO GEAR Erasmus + project and outlines the vision and key policy directions.
- Roadmap for MC Implementation (2025–2030), defined within the frameworks of MICRO GEAR Erasmus + project, outlining phased implementation steps.

The legal framework thus establishes shared governance, where MOESCS provides strategic oversight while autonomous institutions and quality-assurance body ensure operational integrity.

### 2.3 Strategic Objectives for MCs

The Armenian framework is guided by six interrelated strategic objectives, ensuring that MCs serve both national education priorities and international commitments.

Objective	Key Outcomes	Policy/International Alignment
1. To promote lifelong learning	Establish modular pathways for reskilling and upskilling; Integrate formal, non-formal, and informal learning.	Education Development State Program until 2030; ETF Lifelong Learning Pillar.
2. To align education with labour-market needs	Co-create programs with employers and sector councils; Foster short courses addressing emerging sectors.	White Paper (2025); RA Digital Transformation Strategy.
3. To ensure transparency and portability	Adopt standardized metadata and registry structures following EU recommendations.	EU Council Recommendation (2022/C 243/02); EQF transparency tools.
4. To integrate MCs into the ANQF	Reference each MC to an NQF level, define ECTS workload and learning outcomes per QF-EHEA descriptors.	ANQF–EQF alignment; Bologna Process MICROBOL principles.
5. To advance digital and interoperability	Create a secure digital platform for issuance, verification, and learner ownership of MCs.	EDC; Europass 2.0; Open Badge 2.0 standards.
6. To engage stakeholders	Regularly include stakeholders in policy developments.	
7. To guarantee quality, trust, and recognition	Embed ESG-aligned QA; link recognition procedures to ANQA and ArmEnic systems.	ESG (2015); Lisbon Recognition Convention; QUATRA TPG A.

Together these objectives anchor the Armenian MC system in **quality, relevance, transparency, and innovation**, ensuring its long-term sustainability.

## 2.4 Coordination and Governance Mechanisms

The introduction of MCs into Armenia’s higher education and lifelong learning ecosystem requires a clear, multi-tiered, and collaborative governance architecture. Effective coordination ensures that MCs are consistent, high quality, relevant, and interoperable across institutions and sectors.

This section defines the structures, processes, and responsibilities necessary for harmonized national implementation.

MCs intersect with multiple domains — higher education, vocational training, labour-market policy, digital governance, and international recognition. Therefore, governance must ensure:

- Coherence of policy and legislation
- Consistency of QA and recognition practices
- Stable and transparent implementation mechanisms
- Stakeholder alignment and cooperation
- International compatibility and comparability

The coordination and governance of MCs in Armenia must operate within the existing legal and institutional framework defined by the Law on Higher Education and Science (2025).

Since Armenian legislation does not envision a separate “MCs committee,” the governance model for MCs relies on existing statutory bodies, institutional mandates, and established decision-making processes. Armenia’s governance model is built on shared responsibility between MOESCS, ANQA, ArmENIC, educational institutions, employers, and digital infrastructure bodies.

**Institutional Actors: Roles and Responsibilities:** The regulatory framework designates clear roles for different institutions in developing and issuing MCs:

Actor	Core Responsibilities within the MC Framework
MOESCS	Establishes policy, approves standards, maintains the National MC Registry, and ensures inter-ministerial coordination.
ANQA	Develops QA criteria and procedures for MCs; accredits or reviews providers; publishes evaluation reports.
ArmEnic	Ensures recognition of MCs nationally and internationally; maintains linkage with the Lisbon Recognition Convention.
HEIs and VET Providers	Design, deliver, and assess MCs; implement internal QA; ensure learner support and reporting.
Employers and Sector Councils	Define sectoral skill priorities, co-design learning outcomes, and validate relevance.
Learners and Civil-Society stakeholders	Participate in feedback loops and continuous improvement processes.

### Operational Governance

Level	Key Actors	Functions
<b>Policy Level</b>	MOESCS	Strategic direction, legislation, funding, cross-ministerial coordination.
<b>QA and Recognition Level</b>	ANQA, ArmEnic	External QA, recognition, international alignment.
<b>Institutional Level</b>	HEIs, VETs, Continuing-Education Centres	Program design, internal QA, learner assessment, issuance of credentials.
<b>Labour-Market Level</b>	Employers, Sector Councils, Chambers of Commerce	Validation of relevance, co-development of outcomes, recognition in HR frameworks.
<b>Learner Level</b>	Students, adult learners, professionals	Participation, feedback, and use of digital credentials for mobility and employment.

### Digital Infrastructure and Data Governance

Digital Infrastructure means to have:

- A national digital registry hosting verified MC data (title, provider, NQF level, ECTS, learning outcomes, QA status, and verification key).
- Blockchain-enabled authentication and integration with Europass/Open Badge 2.0 for cross-border portability.
- A learner-centric digital wallet providing ownership and control over credentials.
- Annual data-driven evaluation reports summarizing uptake, recognition rates, and QA outcomes to inform continuous improvement.

The Armenian MC Regulatory Framework establishes a coherent ecosystem linking legislation, governance, quality assurance, and digital innovation. It balances state coordination with institutional autonomy, embeds European standards, and enables rapid yet credible responses to labour-market change. By doing so, it transforms Armenia's higher-education and lifelong-learning landscape into an agile, transparent, and internationally interoperable system.

## CHAPTER III: SCOPE OF THE FRAMEWORK

### 3.1 Definition of MCs

Armenia has adopted a definition of MCs that is fully compatible with international frameworks while being tailored to national needs. MCs in Armenia are introduced and governed within the conceptual and legal framework established by the Law on Higher Education and Science (2025). The law refers to the national concept of “micro credential” (միկրո-որակավորում), which forms the legal basis for the development, delivery, and recognition of MCs. According to it, **“A Micro-credential is a documented and recorded credential that certifies, through assessment, specific professional knowledge and skills acquired by a learner as a result of training delivered under a non-degree educational program or through non-formal education. Such a credential may be recognized and used independently as a basis for employment in a field requiring the relevant professional knowledge and skills, as well as as a component of a qualification-awarding educational program provided that if the given MC program is accredited, ECTS credits are awarded upon its completion, and such recognition is provided for within the relevant educational program (non official translation)”**.

MCs are outcome-based, assessed, documented, and designed to support flexible learning and upskilling.

Key Characteristics of MCs in Armenia are:

Characteristic	Based on Law	Based on International Standards	Final Integrated Approach
Short duration	✓	✓	Modular and targeted
Learning outcomes-based	✓	✓	Clearly defined and measurable
Assessed	✓	✓	Uses valid and reliable assessment
Documented	✓	✓	Certificate or digital badge with required metadata
Labour-market relevance	✓	✓	Mandatory requirement
Quality assured	✓	✓	Aligned with internal and external QA
Standalone or stackable	✓	✓	May contribute to qualifications
Recognizable	Partially	Fully	Supports academic and labour recognition
Digital and portable	Not specified	✓	Added through EU-compatible metadata

## 3.2 Guiding Principles for MCs in Armenia

The national framework for MCs in Armenia is grounded in the principles established by the Law on Higher Education and Science, the structure of the Armenian National Qualifications Framework (ANQF), and international best practices in the design, quality assurance, and recognition of short learning programs.

These guiding principles ensure that MCs are trusted, transparent, portable, quality-assured, and aligned with national educational and labour-market priorities.

- 1. Transparency:** is essential for building trust between learners, education providers, employers, and recognition bodies. MCs must include complete, standardized, and accessible information about their purpose, learning outcomes, workload, level, assessment, and issuing institution. Standardized documentation and metadata ensure trust and support recognition by learners, employers, and educational institutions.
- 2. Quality:** all MCs must meet the quality assurance requirements established by Armenian legislation, institutional internal QA systems, and external evaluation procedures. Quality must be evident in the design, delivery, assessment, and certification of each MC. Quality assurance ensures that Armenian MCs are credible, internationally comparable, and trustworthy.
- 3. Flexibility:** MCs must support flexible learning pathways, allowing providers to offer short, modular, and adaptable programs in various modes (face-to-face, online, blended). Flexibility ensures access for diverse learner groups, including adults, working professionals, and vulnerable populations.
- 4. Portability:** MCs must be usable across different educational institutions and labour-market contexts, nationally and internationally. Alignment with the Armenian National Qualifications Framework (ANQF) and European standards enables stacking of MCs into larger qualifications and supports cross-border recognition.
- 5. Learner-Centered Approach:** MCs must be designed around clearly defined learning outcomes and offer accessible, supportive, and inclusive learning experiences tailored to individual needs. They should promote lifelong learning and enable learners to build personalized pathways for further study or employment.
- 6. Labour-Market Relevance:** MCs must reflect current and emerging skills needs in the economy. Close cooperation with employers, sector bodies, and industry representatives ensures that the content is practical, up-to-date, and aligned with real labour-market demands.
- 7. Stackability:** MCs must be designed to be combinable and accumulative, allowing learners to progressively build larger learning achievements over time. Clearly defined learning outcomes, credit values, and levels enable MCs to be stacked into larger units, partial qualifications, or full qualifications, where relevant. Stackability supports coherent learning pathways, progression opportunities, and sustained engagement in education and training.

## 3.3 Justification and Rationale for Introducing MCs in Armenia

MCs address national educational and labour-market priorities by offering a flexible, responsive approach to skills development. Their introduction supports:

- Implementation of education reforms
- Alignment with labour-market needs

- Expansion of lifelong learning opportunities
- Innovation in HE and VET provision
- Improved recognition and mobility
- Strengthened cooperation between education providers and employers

MCs provide a practical mechanism for supporting upskilling, reskilling, and flexible learning pathways within Armenia’s evolving educational and economic context.

## CHAPTER IV: MINIMUM INFORMATION REQUIREMENTS FOR MCS

One of the foundational principles of MCs is **transparency** – each MC must convey clear and standard information so that learners, employers, and institutions immediately understand its value and scope. Armenia’s guidelines adopt the European standard elements for describing a MC, as recommended by the EU Council Recommendation (2022). Every MC issued under this framework must include certain minimum information elements (typically on the certificate or in an accompanying supplement), ensuring consistency and trust in what the credential represents. To ensure transparency, quality, national and international recognition, and harmonized implementation across all Armenian education and training providers, each MC must contain a standardized set of information elements.

These mandatory data fields guarantee comparability, portability, and trust in the value of the credential. The requirements below reflect the Law on Higher Education and Science, National qualifications and QA regulations, ANQA standards, ArmEnic recognition practices, and European MC metadata standards.

**Required Information Elements:** The following pieces of information are mandatory for all MCs in Armenia, aligning with European standards:

- **Title of the MC:** A clear, concise name of the MC or the learning program. The title should reflect the content and **professional area** addressed by the MC. This helps users immediately grasp the subject or skill area.
- **Identification of the Learner:** The credential should clearly indicate the name of the individual who earned it (and possibly a learner ID or national ID, if relevant). This ties the MC to its holder
- **Issuing Providers:** The name of the institution or organization that issues the MC. MCs must be issued by accredited institutions—such as universities, vocational training providers, continuing education centers or authorized training centers—that comply with the established quality assurance (QA) standards in Armenia. The provider’s information should be transparent and accessible to ensure credibility and trust. If multiple partners are involved (co-branded programs), each awarding body can be listed. This element signals the provider’s identity and credibility.
- **Country/Region of the Issuer:** Indicate that the MC is issued in Armenia (and specify the institution’s location if needed). This is useful for cross-border recognition, so foreign entities know under which national system it was awarded.
- **Date of Issuing:** The date when the MC was awarded (after the learner completed the requirements). This can be important for validity (some credentials might include an expiration, though generally MCs do not expire unless for regulated skills). It also helps verify recency of the skill.

- **Objective of the MC:** A concise statement describing the purpose and intended added value of the MC. The objective should clearly explain why the MC exists, what gap it addresses (e.g. skills development, upskilling, reskilling, specialization), and how it contributes to learners’ professional or academic development. The objective must be consistent with the learning outcomes, level, workload, and labour-market relevance of the MC and serve as a reference point for curriculum design, assessment, and quality assurance.
- **Level of Learning (NQF/EQF):** The MC should indicate the *level* of the learning experience in reference to the Armenian NQF, EQF, or QF-EHEA cycle. For instance, a MC might be labeled as “*Level 6 (Bachelor’s level)*” or “*EQF 5*”, etc., if such a determination can be made. In Armenia, since MCs can be part of formal programs, a university-issued MC will typically correspond to a certain cycle (e.g. first cycle/Bachelor or second cycle/Master). If the MC is outside the formal system, level can be indicated if the provider maps the outcomes to NQF descriptors. Including the level greatly aids recognition: it allows employers and international institutions to understand the complexity and depth of the skills (e.g. distinguishing an advanced postgraduate skill from an entry-level skill).
- **Mode of delivery:** MCs can be offered in various formats, such as **face-to-face, online, blended, or hybrid**. The delivery method must be clearly stated, including details on how learners will engage with the content, what digital tools or platforms will be used, and any specific requirements. This describes how the learning was undertaken – was it an online course, in-person training, blended learning, self-paced or instructor-led, etc. Additionally, it can specify if the learning was full-time, part-time, a workshop series, etc.
- **Volume of Learning (Workload):** The workload of a MC must be expressed in terms of learning hours and credits (e.g., ECTS). This indicates how much time a learner will need to complete the program, including both formal instruction and independent study. For consistency, the workload should align with ECTS standards, with each credit corresponding to 25–30 hours of learning.
- **Volume of Credits:** Each MC should have a credit value that reflects the learner's total workload. Credits should be calculated according to the workload and level of learning, typically following the ECTS framework. This ensures that the MC is comparable to other European qualifications and supports portability across educational systems.
- **Learning Outcomes:** MCs must clearly define their learning outcomes—the knowledge, skills, and competences a learner is expected to achieve by the end of the program. These outcomes should be measurable and aligned with professional and academic standards. The outcomes should also reflect the specific labor-market needs that the MC addresses.
- **Assessment Methods and Criteria:** MCs must include information on how learning outcomes will be assessed. This includes the types of assessments (e.g., projects, exams, portfolios), the grading criteria, and how the results will be measured and communicated to learners. Transparent and reliable assessment methods are crucial for the credibility of the MC.

- **Quality Assurance:** Each MC must meet the established quality assurance (QA) standards. This includes internal QA processes within the issuing institution and external QA evaluations. The MC must be subject to regular reviews to ensure it maintains high educational standards.
- **Recognition and Progression:** MCs should be clearly linked to potential pathways for further education or employment. If stackable, the MC should indicate how it can be accumulated to form part of a larger qualification (e.g., diploma or degree). Recognition within Armenia’s educational system and by employers should be clearly outlined, alongside any opportunities for credit transfer.
- **Accessibility and Support:** Institutions must provide appropriate support services for learners, including accessibility for adult learners, people with disabilities, and individuals in rural areas. Details on support options (e.g., tutoring, career counseling, flexible schedules) should be available to ensure the MC is accessible to a diverse range of learners.
- **Certification and Verification:** The MC should be accompanied by a certificate that includes essential information such as the title, learning outcomes, credits, and the issuing institution. In addition, the certificate should include a unique identifier or digital verification link (e.g., Open Badge or digital credential), allowing employers and other institutions to verify the authenticity of the credential.

These mandatory elements ensure that anyone reading a MC certificate or description can answer the key questions: Who earned it, What was learned, Who issued it (and under what authority), When and Where, How much learning was involved, At what level, and How it was assessed and quality-assured. This standardized set corresponds to the European Commission’s recommended standard elements, facilitating comparability. Armenian providers are expected to include all these on the certificate itself. In cases where space is limited (e.g. a paper certificate), the crucial items (learner, title, issuer, date, outcomes, etc.) should be on the certificate, and additional details like assessment method can be on a supplementary document or digital record.

**Optional (Recommended) Information Elements:** In addition to the above, the framework encourages including other relevant information where applicable:

- **Prerequisites:** If the MC had any entry requirements (e.g. “Prerequisite: at least 2 years of industry experience” or “must have completed Course X”), listing these helps contextualize the level of learners who took it.
- **Supervision and Identity Verification during Assessment:** Particularly for online courses, note how the assessment was administered – for example, “Assessment was proctored online with ID verification” or “In-person supervised exam”. This detail, while optional, further strengthens the credibility (it assures that the person named is indeed the one who completed the assessment).
- **Integration/Stackability Options:** Indicate if this MC is part of a larger set or pathway. For example, “This MC can be stacked toward the Diploma in Advanced Digital Skills” or “Stand-alone credential (not part of a sequence)”. This information helps learners and advisors see if the MC can lead to other qualifications.
- **Validity/Expiration:** Normally, MCs do not “expire” (unlike certain certifications like First Aid which expire after X years). If the MC is in a field where skills quickly become obsolete or requires periodic renewal, an expiration date or recommended refresh

period can be stated. (E.g. “Valid for 3 years from issue, after which updating is recommended.”)

- **Learner’s ID (if not already included) or certificate ID:** A unique certificate number or digital ID that can be used to verify the credential in the national registry or issuer’s database. This is helpful for authentication.
- **Digital Verification Link or Code:** If a digital credential is issued, include a QR code or link that a recruiter or institution can scan to see the online verification (for instance, linking to the national registry entry or the Europass digital credential). This is increasingly common to combat fraud and ease verification – digitally signed credentials allow instant checking of authenticity.

## CHAPTER V: GENERAL POLICIES FOR MCS

Micro-credentials (MCs) in Armenia must be developed and implemented within a coherent system that ensures consistency, transparency, and quality across all providers. The following policies establish the national parameters for design, delivery, integration, and recognition of MCs, in alignment with the Law on Higher Education and Science (2025), the Armenian National Qualifications Framework (ANQF), and relevant European standards. The relevant regulations related to the awarding of Micro-credentials will be defined through sub-legislative acts.

This chapter outlines the general policies and principles that apply to the development and govern the implementation of MCs in Armenia, covering their integration into the National Qualifications Framework (NQF), funding, and the stakeholder involvement necessary for the successful implementation and recognition of these credentials. These policies provide a coherent framework ensuring that MCs contribute effectively to national education and employment goals while aligning with European values of quality and transparency. All stakeholders should observe these policies in their planning, governance, and practices related to MCs.

### 5.1. National Standards and Alignment

All MCs issued in Armenia must adhere to nationally agreed standards to ensure comparability and credibility. This includes:

- using the standard definition and elements as described in law.
- aligning MC design with the Armenian National Qualifications Framework (where applicable) and referencing the EQF levels for international transparency. National authorities need to provide guidance on how to map MCs to NQF levels without excessive bureaucracy.
- Ensuring terminological consistency: all institutions should use the term “MC” for such offerings and apply it correctly (avoiding confusion with mere certificates or other awards). The Ministry will disseminate a common glossary to avoid inconsistent use of terms.

This policy is meant to standardize practice so that whether a MC comes from University A or a professional body, it adheres to core principles.

## 5.2. Inclusion in National Qualifications Framework (NQF)

Armenia's policy regarding the integration of MCs into ANQF will be defined through sub-legislative acts. It will either integrate MCs into the national qualification framework and support flexible learning pathways, or create a completely separate system, MCs should complement and interact with existing qualification pathways:

- The NQF needs to be updated or interpreted to allow referencing MCs as “non-formal qualifications” or “partial qualifications.” For example, some MCs might be recorded in a special section of the ANQF (as Ireland and other countries have done, where they classify MCs as minor or supplemental awards. Others might be explicitly linked as components of larger qualifications.
- Clear criteria should be set for a MC to be eligible for ANQF inclusion: e.g. it must have learning outcomes mapped to ANQF descriptors, an assessment, and quality assurance. If those are met, the MC can be assigned an ANQF level and appear in national registers, improving its visibility and recognition.
- The policy warns against over-regulation: inclusion in the ANQF is encouraged but not mandatory so far for all MCs, to avoid stifling innovative or very niche offerings.

This approach maintains flexibility while ensuring that MCs remain understandable and recognizable within Armenia and internationally.

## 5.3. Funding and Incentives

To stimulate the uptake of MCs:

- The government may provide targeted funding for MC development in priority areas.
- Support lifelong learning initiatives, including grants or vouchers for learners.
- Encourage employers co-invest in MCs by recognizing those credentials in HR processes professional development frameworks.

These incentives aim to strengthen participation in adult learning and address national skill gaps.

## 5.4. Stakeholder Involvement and Collaboration

Successful development and implementation of MCs require close collaboration among key stakeholders, including employers, sector councils, educational institutions, and learners. These stakeholders contribute valuable insights into the design and delivery of MCs, ensuring that the credentials meet the needs of both the education system and the labor market. A fundamental policy is the inclusive involvement of stakeholders in MC ecosystems. This reflects the understanding that MCs bridge education, industry, and individual learners' needs. The Ministry and institutions should:

- Consult and involve employers and industry representatives in identifying skill needs and designing MC curricula. This ensures relevance (e.g. tech companies advising on an IT MC content).

- Engage academic staff and subject matter experts in the creation and review of MCs to maintain academic rigor.
- Include learners or student representatives in feedback loops – for example, pilot offerings can gather student input to refine the format or scheduling of MCs.
- Cooperate with quality assurance agency (ANQA) and ArmEnic on quality assurance and recognition aspects.

## 5.5 Inclusivity and Access

All policies around MCs emphasize they should broaden access to education, not narrow it. Thus:

- Ensure MC offerings are available to diverse learners, including those in remote regions (via online options), those working full-time (via flexible scheduling or part-time pacing), and learners with disabilities (via accessible design).
- Encourage providers to adopt open access or low-cost models for MCs where feasible (for example, some universities might offer free MCs for basic digital skills, funded by state or grants, to boost digital literacy in the population).
- Measure and monitor who is taking MCs (gender, age, region) to ensure equity. If gaps are found, adjust outreach or support (e.g. special initiatives to encourage women into STEM MCs, etc.).

## 5.6. Continuous Improvement and Support

Lastly, national policy will support continuous improvement in this domain:

- The MOESCS will periodically review the implementation of MCs (possibly annually or biannually) and update guidelines as needed. Stakeholder feedback will be collected to refine policies.
- A knowledge-sharing platform or community of practice for MC providers will be established so institutions can share experiences, tools, and resources (for example, sharing curriculum designs or technology solutions for issuing digital badges).
- Training and capacity building: The Ministry and international partners will provide training workshops for university staff and faculty on MC design and for career/guidance counselors on advising learners about MCs. This support to implementation is crucial – guidelines on paper are not enough without building the know-how in institutions.

The general policies outlined in this chapter are designed to ensure that MCs in Armenia are credible, valuable, and aligned with both national educational frameworks and international standards. By integrating MCs into the ANQF, defining mandatory elements like learning outcomes, workload, assessment, and quality assurance, and involving key stakeholders such as employers and sector bodies, Armenia can create a system that supports lifelong learning, labour-market adaptability, and international recognition.

## CHAPTER VI: DEVELOPMENT, DESIGN, AND DELIVERY OF MCS

The development, design, and delivery of MCs (MCs) must be done in alignment with both Armenian legislation and international standards to ensure that the credentials are high-quality, relevant to the labour market, and comparable internationally. The Armenian Law on Higher Education and Science and the Armenian National Qualifications Framework (ANQF) establish key principles for MCs, while international frameworks such as the EU Council Recommendation on MCs (2022/C 243/02) and the European Higher Education Area (EHEA) guide the process in the broader European context.

Designing and delivering a MC involves a structured process to ensure the resulting learning experience is high-quality, relevant, and learner-centered. This chapter provides guidance for providers on how to develop MC courses or programs from conception through delivery. The process can be thought of in stages: **Needs Analysis** → **Curriculum Design** → **Validation/Approval** → **Delivery & Instruction** → **Assessment** → **Issuance**. We outline each stage and best practices below, along with examples and recommended tools.

### 6.1. Needs Analysis and Stakeholder Input

Successful MCs start with identifying a genuine learning need. Before designing a course, the provider should:

- **Consult Industry and Labor Market Data:** Determine the skills gaps or emerging competencies in the labor market that a MC could address. For example, if IT employers in Armenia report a shortage of data visualization skills, a MC on “Data Visualization with Python” might be warranted. Use sources like employer surveys, sector skills studies, and Armenia’s priority sector plans to inform topics. Engaging

directly with employers or sector associations through focus groups can yield specific insights (e.g. certification needs in tourism, agriculture, etc.).

- **Consider National Priorities:** Align with national development priorities (as indicated in strategic documents). For instance, if the national agenda emphasizes innovation and tech, MCs in digital literacy, AI, or cybersecurity should be prioritized; if regional development is a goal, maybe MCs for entrepreneurship in rural areas.
- **Target Learner Group Definition:** Identify who the intended learners are. Are they university students (for extra credential on top of their degree), working professionals, unemployed youth, etc.? Understanding the demographic will influence design (level, prerequisites, delivery mode). Providers should even involve a sample of potential learners in discussions – what format would suit them (evening classes, online self-paced)? Which credential would they value?
- **Benchmark Internationally:** Check if similar MCs exist elsewhere (perhaps through MOOCs or other universities) to gauge demand and get curriculum ideas. But ensure the design is tailored to local context (language, examples, local regulations if any).
- **Feasibility and Resource Assessment:** Determine if your institution has the expertise and resources to offer this MC. Do you have qualified instructors? Content already available (maybe a module that can be repurposed)? Required lab or software access if needed? If not, consider partnerships or capacity building first.

By the end of needs analysis, you should have a justification for the MC – what specific gap it fills and who benefits. Document this justification as it may be needed for internal approval and later QA reviews. As recommended by the ETF guide, consultative outreach to stakeholders is a vital first step to ensure relevance.

## 6.2. Curriculum and Assessment Design

Once the need is clear, proceed to design the curriculum. This stage involves:

- **Define Learning Outcomes:** Write 4–8 clear learning outcomes that cover the knowledge, skills, and competences the learner will gain (for a typical MC; the number can vary with size). Use action verbs and ensure they are achievable in the short timeframe.
- **Align to ANQF Level:** After defining the LOs, they should be aligned with the ANQF level targeted (e.g. at level 6 expecting more analysis, at level 4 more basic application). MCs may be delivered at various levels of complexity. Many will be at the higher education level (e.g. at Bachelor's or Master's level learning outcomes), but they could also address other levels of the NQF if appropriate. The framework allows MCs that correspond to any level of the Armenian Qualifications Framework, provided the learning outcomes can be defined and assessed at that level. For instance, an MC might certify skills at ANQF level 5 or at level 7 (postgraduate level), depending on the content. Each MC should ideally indicate its ANQF/EQF level (if applicable) to clarify the depth of learning achieved.
- **Determine Content and Scope:** Select the essential topics or modules needed to achieve those outcomes. Keep the scope focused – MCs should not try to cover too much. It's often better to narrow the topic (depth

over breadth) given limited time. Ensure content is up-to-date and, where possible, draw on practical examples or case studies (especially if catering to professionals).

- **Estimate Workload and Credits:** While there is no rigid minimum or maximum size for a MC in Armenia’s approach, they are generally characterized by a small volume of learning relative to traditional qualifications. Typically, a MC might range from a few hours to a few months of study. In credit terms, this could be anywhere from 1 ECTS credit (around 25–30 hours of student effort) up to 20–30 ECTS for larger MC. The European examples show MCs can vary greatly: some are very short courses of 1–5 ECTS, while others (often called short learning programs or “nanodegrees”) might be 15–30 ECTS. The exact workload should be transparent.

Based on content and outcomes, estimate the hours required (include time for direct instruction, self-study, practice, and assessment). Ensure this aligns with a reasonable ECTS credit if applicable. If the institution uses ECTS, stick to standard calculations (while keeping in mind adult learners might need more flexibility). Workload estimation is important for setting learner expectations and for credit alignment.

- **Select Delivery Mode:** Decide how the course will be delivered – fully online, face-to-face, or hybrid. Online delivery offers flexibility and wider reach (good for working adults or remote learners); ensure you have a suitable platform (LMS) and that instructors are trained in online teaching. Face-to-face might be chosen if the skills require hands-on practice (e.g. lab work) or if local networking is a benefit. Hybrid can combine both, which often works well (e.g. online theory, in-person practical sessions). Also decide if synchronous (live classes) or asynchronous (self-paced) or a mix. Many MCs globally leverage blended models to maximize accessibility.

- **Develop Learning Activities and Materials:** Outline the learning journey – e.g. weekly topics, readings, videos, quizzes, discussions, practical projects. For a short course, creating engaging material is key to keep learners motivated. Make use of open educational resources (OERs) if available to enrich content. Ensure materials are available in the needed language (Armenian or English) and accessible (for example, provide transcripts for videos to support varied learners).

- **Design Assessment Strategy:** The assessment must validly measure the learning outcomes. Decide on formative assessments (quizzes, assignments during the course for feedback) and summative assessment (the final graded component). Options include:

- Tests/exams (online or on-site, could be multiple-choice, short answer, etc.) - useful for knowledge-based outcomes.
- Projects or portfolios – great for skills demonstration (e.g. coding project, lesson plan creation, lab experiment report, etc.).
- Presentations – if communication or explanation is an outcome.
- Practical skill demo – for example, in a healthcare MC, performing a procedure under observation.

It is recommended to include at least one practical or applied assessment if the outcomes are skill-based. Ensure transparency by preparing assessment rubrics or criteria, so learners know how they will be evaluated. Also plan how identity verification and integrity will be ensured (especially online). For instance, consider proctoring solutions or require a live presentation to confirm the learner’s work.

- **Grading and Passing Criteria:** Decide if the MC is simply Pass/Fail or uses a grade. Many MCs might opt for Pass/Fail, but a grade can be motivating and informative. If using grades, align with institutional grading scales. Set a clear passing threshold and policy for reassessment or resubmission if a learner fails initially.

### 6.3 Validation and Approval of Design

Before launching, the designed MC should undergo an internal approval process (analogous to new program approval in universities, but streamlined):

- Prepare a brief MC Proposal document containing: rationale (from needs analysis), target learners, learning outcomes, content outline, workload/ECTS, delivery mode, staff, assessment plan, and any resource needs.
- Submit this to the relevant academic committee or curriculum council in your institution. Even if not required by external regulation, an internal review ensures academic oversight. The committee should verify that the MC meets quality standards and aligns with the institution's mission. Does it overlap with existing courses? Is the level appropriate? Are the outcomes clearly written and assessable? Such review might involve QA staff or external experts for feedback.
- Make adjustments if the committee suggests improvements. Common suggestions could be to clarify outcomes, ensure assessment matches outcomes, or adjust workload.
- Once approved, document it in the institution's program catalog (some institutions are starting to include MCs in their course catalogs or as an addendum).
- If the MC is intended to be credit-bearing and stackable, also communicate with the registrar or academic affairs about how it will be recorded (e.g. will it have a course code? will it show up on transcripts or as a certificate only?).

Additionally, for the initial accreditation purposes, initiate that process by sharing the proposal with ANQA for their feedback or clearance.

### 6.4 Delivery and Instruction

With approval, move to delivering the course:

- **Marketing/Outreach:** Announce the MC to potential learners. Use multiple channels: university websites, social media, employer networks, job portals, etc. Emphasize the outcomes and benefits. Clearly state if it's free or the tuition fee, schedule, and any prerequisites.
- **Enrollment process:** Make it easy for non-traditional learners to register. This may involve creating a short application or simply an online registration form. Ensure clarity on any prior requirements (e.g. "must have basic programming knowledge").
- **Course orientation:** At the start, provide an orientation (live webinar or document) to explain the course structure, how to use the online platform (if applicable), and the assessment timeline. Setting expectations at the outset leads to better retention.

- **Instruction:** The teaching methods should be learner-centered and active. Given many MC learners might be adults with work experience, use approaches like project-based learning, case studies, and peer discussion. Encourage interaction (through forum discussions, live Q&A sessions, group work if possible). This not only helps learning but also builds a learning community – important for motivation and networking.
- **Support:** Provide adequate support throughout. Assign a course tutor or assistant who can answer questions, especially if the main instructor has limited hours. If the MC is online, ensure technical support is available for the platform. Monitor participation and reach out to learners who fall behind (since drop-off can be an issue in short courses, a proactive approach helps).
- **Flexibility:** While maintaining structure, allow some flexibility knowing learners might be juggling other responsibilities. For instance, if self-paced, allow them to complete modules at their own speed within an overall deadline. If cohort-based, perhaps record live sessions for those who miss them. Show understanding if someone requests an extension due to work issues, etc. This flexibility is part of being learner-centered and will improve completion rates.

## 6.5 Monitoring and Continuous Improvement during Delivery

Treat the first (and every) run of a MC as an opportunity to learn and improve:

- **Collect feedback** at various points. A quick mid-course survey can gauge how learners are finding the pace and content – you might adjust on the fly if needed (e.g. provide extra revision on a topic that many struggled with in a quiz).
- **Observe assessment results** – if everyone did poorly on a certain quiz question, maybe that material needs clarifying.
- **Keep a reflective log as instructor:** note what worked and what didn't (e.g. "Week 3 content too heavy, split into two weeks next time" or "the project rubric needs refinement"). These notes will be invaluable for future iterations and for QA reporting.
- For any significant issues that arise (technical glitches, low attendance, etc.), try to address immediately and also note them to find long-term fixes (e.g. maybe an in-person session is hard for working folks to attend; next time do it as a Saturday workshop or online evening session).

## 6.6 Assessment and Credential Issuance

As learners complete the course:

- Conduct the final assessment as planned, ensuring fairness and academic integrity. If using online exams, ensure proctoring or honor codes are implemented; if projects, use plagiarism checks if relevant. Grade the assessments promptly and accurately. If multiple evaluators are involved, standardize grading with rubrics or calibration meetings. Determine the final results: who has met the requirements to earn the MC. Communicate results to learners individually, along with any constructive feedback

(especially if someone failed – ideally give them guidance on whether they can retry or what to improve).

- **Issuance of Certificates:** For those who passed, issue the MC certificate (and supplement). Under Armenian law, each MC must result in the issuance of a formal certificate that confirms the learner’s achievement. The certificate must include detailed information about the learner’s learning outcomes, credits, and provider. If digital, generate the files or credential links. If physical, prepare printed certificates (perhaps handed out in a small ceremony or mailed). Ensure each certificate has a unique identifier and is recorded in the institution’s records.
- **Register the issuance in the national MC registry** (or your institutional database that will feed into it). This means inputting the key data about the credential and the recipient. This registration makes the credential verifiable to third parties and contributes to national statistics.
- **Encourage learners to claim/add their credential to their profiles** (e.g. “Add this to your LinkedIn, share it with your employer, etc.”). Also guide them on how to use the digital verification if they need to show it (e.g. provide a link or code they can give to others).

## 6.7 Integration with Existing Programs

Many MCs will be new standalone offerings, but some may be extracted from or later integrated into existing programs:

- If designing a MC from an existing course/module (e.g. turning a semester course into a MC), ensure that doing so doesn’t dilute the parent program’s integrity. Coordinate with department heads so that content and scheduling align and decide whether the MC learners will join regular classes or have separate sessions.
- Conversely, if a MC may become part of a degree (stackable), design it to be equivalent in rigor to degree courses. That way, if a student uses it for credit, it matches the learning outcomes of the portion of the degree it substitutes. Document mapping of MC outcomes to the degree program outcomes where relevant.
- Be clear in information whether the MC corresponds to any existing course (some institutions label MCs with the same code/title as an elective course if it’s dual-purpose). Transparency avoids confusion among learners and faculty.

## 6.8. Instructor and Staff Preparation:

Ensure those teaching or facilitating MCs are prepared for potentially a different audience or format:

- Provide pedagogical training especially for online teaching if needed (short workshops on online engagement, using Zoom or LMS features, etc.).
- Emphasize a mindset of teaching adult learners – more practical examples, respecting that learners bring prior knowledge, facilitating peer learning, etc.

- If industry experts are co-teaching (common for MCs to have guest lecturers), brief them on instructional best practices and how their sessions fit into the learning outcomes.

Developing and delivering MCs is an agile but responsible process. By following the steps of needs analysis, careful design, internal validation, and employing engaging delivery methods, providers will create MCs that are both educationally sound and highly valued by learners and employers. The focus should always remain on the learning outcomes and how to best enable learners to achieve them in a short time, while maintaining the standards that ensure credibility of the credential they earn.

## CHAPTER VII. QUALITY ASSURANCE

A robust quality assurance (QA) system is essential to ensure that MCs issued in Armenia are trusted, comparable, and aligned with national and international standards. Although MCs are shorter, more flexible learning units, their quality requirements must correspond to those applied to higher education programs, as required by the Law of the Republic of Armenia on Higher Education and Science.

According to the Law, any educational program offering credits—including MCs—falls under the national quality assurance and programme accreditation framework. Therefore, MCs that assign credits and are intended for recognition within the formal education system must undergo QA in accordance with the existing accreditation mechanisms implemented by ANQA (National Center for Professional Education Quality Assurance). This ensures that MCs are not treated as “lighter” or “informal” learning activities, but as quality-assured, outcome-based educational offerings integrated within the national qualification system.

In Armenia, QA for MCs integrates two complementary layers:

- 1. Internal quality assurance at the provider level**
- 2. External quality assurance through programme accreditation, as defined in national legislation**

This dual-layered system ensures that MCs maintain academic integrity, labour-market relevance, and learner-centered design consistent with both national expectations and European standards (ESG).

This chapter outlines how QA should apply to MCs in practice, drawing on the ESG (Standards and Guidelines for Quality Assurance in the EHEA), European recommendations on MCs, and Armenian legislation.

## 7.1 Alignment with the National Quality Assurance Framework

MCs must be fully aligned with the National Quality Assurance Framework of Armenia, which is based on the Law on Higher Education and Science, The Armenian National Qualifications Framework (ANQF), ANQA’s institutional and programme accreditation regulations and standards, The ESG – European Standards and Guidelines for Quality Assurance in the EHEA, European guidelines on MCs (2022 Council Recommendation, MICROBOL, QUATRA, QA-Fit). **Key Alignment Principles are:**

- **Programme Accreditation Requirement:** Any MC that awards credits must go through programme accreditation according to national legislation.
- **Outcome-Based Design:** Learning outcomes must be clearly defined, measurable, and mapped to ANQF descriptors.
- **Consistency with Higher Education Standards:** MCs must follow the same quality standards applied to degree and non-degree programs.
- **Integration into Institutional QA:** Providers must include MCs in their existing internal QA processes.
- **Proportionality:** While QA must be rigorous, processes may be streamlined to reflect the short and flexible nature of MCs.
- **Transparency:** Minimum information requirements must be published to allow learners and employers to evaluate the quality and relevance of each MC.

## 7.2 Roles: Provider, Employer, ANQA, MOESCS, and Other Stakeholders

Quality assurance requires clear distribution of responsibilities among all actors involved in the design, provision, evaluation, and recognition of MCs.

- 1. ANQA (National Center for Professional Education Quality Assurance)** is the national body responsible for ensuring the independent external quality assurance of MCs. ANQA's responsibilities include:
  - Establishing regulatory frameworks for the QA of MCs
  - Developing appropriate criteria and standards
  - Conducting programme and institutional accreditation for MCs awarding credits
  - Evaluating institutional QA practices related to MCs during institutional accreditation
  - Ensuring alignment with ESG and national QA standards
  - Providing recommendations for improvement
  - Maintaining public registers of accredited programs
  - Providing capacity-building and methodological guidance.
- 2. MOESCS (Ministry of Education, Science, Culture and Sport)** ensures strategic governance and alignment with national priorities. It is responsible for:
  - Establishing regulatory frameworks for MCs
  - Ensuring legal consistency with ANQF, ANQF, and national education policies
  - Approving changes to accreditation rules when necessary
  - Overseeing implementation at system level
  - Ensuring the national database/registry of MCs operates effectively.
- 3. Higher Education Institutions / Authorized Providers** remain the primary guarantors of quality and are responsible for:
  - Conducting internal QA (approval, monitoring, evaluation)
  - Ensuring staff qualifications and adequate learning resources
  - Conducting self-evaluation for programme accreditation
  - Publishing complete and transparent information
  - Collecting and using feedback for continuous improvement.
- 4. Employers' and Sector Bodies'** role reinforces the labour-market relevance of MCs. They contribute by:
  - Identifying labour-market needs
  - Participating in curriculum design and review
  - Evaluating the relevance of learning outcomes
  - Providing work-based or practice-based learning environments
  - Supporting recognition of MCs in hiring and promotion.
- 5. Learners'** perspectives are essential for learner-centered QA. They contribute by:
  - Providing feedback on content, delivery, workload, and relevance

- Engaging in assessment processes honestly and responsibly.

### 7.3 Internal Quality Assurance of MCs

**Internal Quality Assurance (Provider Level):** Internal QA is the first line of defense in ensuring quality. Each institution or provider offering MCs should integrate them into its internal QA system. MC should meet the same quality criteria as other programs, just scoped to their size. The same internal QA processes as for other programs, including collecting learner and external feedback, and regularly reviewing the courses should be applied. If an institution treats MCs with a “small but serious” mindset – not bypassing any QA steps – the credibility of the credentials will be strong.

- **Design and Approval:** As described in Chapter 6, a formal internal approval process for new MCs is essential. This mirrors ANQA Programme accreditation (PA) criteria 1 and 2, Institutional accreditation (IA) criterion 3, as well as ESG Standard 1.2 (Design and approval of programs) – even short courses should be scrutinized to ensure they have clear outcomes, coherent content, appropriate resources, etc. A committee or at least a peer review by senior faculty should confirm the academic soundness of the MC before launch.
- **Qualified Teachers:** Ensure that those teaching MCs are qualified and supported. ANQA PA criterion 4, IA criterion 5, as well as ESG 1.5 (Teaching staff) applies – instructors should have appropriate expertise in the subject and, if needed, pedagogical training for short course delivery or online methods.
- **Learning Resources & Support:** Even for short courses, adequate learning resources (e.g. access to labs, libraries, e-learning materials) and student support (academic guidance, IT support) should be provided (ANQA PA criterion 5, IA criterion 7 and ESG 1.6. For example, if offering an online MC, make sure the platform is stable and someone is available to help students with technical issues.
- **Student-Centered Learning:** MCs often attract diverse learners, so ANQA PA criterion 2, IA criterion 3 and ESG 1.3 (student-centered learning) is particularly relevant. Providers should be flexible to learner needs, as mentioned (e.g. offering recorded lectures, options for remediation, etc.), and treat learners as active participants. Encourage feedback and adapt accordingly – that is part of internal QA (using feedback to improve teaching).
- **Assessment Quality:** ANQA PA criterion 2, IA criterion 3 and ESG 1.3 and 1.9 (learning assessment) – ensure assessments in MCs are valid, reliable, and fair. Use internal moderation if multiple assessors (e.g. two instructors cross-check grading standards). Ensure transparency in criteria as earlier noted. Even if MCs might sometimes be more practically oriented, upholding academic integrity is key. For online assessments, internal QA includes verifying identities or using plagiarism detection as appropriate.
- **Collect Feedback:** After each MC run, collect learner feedback (surveys, focus groups). Also gather input from instructors and any external partners (like guest lecturers or employers involved). ANQA PA criteria 2 and 6, IA criteria 3 and 10, as well as ESG 1.7 emphasizes that institutions should ensure feedback mechanisms and evaluate programs. A short post-course survey can ask about content relevance,

teaching effectiveness, difficulty level, etc. In the MC context, response rates might be higher than in long programs because learners can reflect on the whole experience immediately. The results of the feedback must be analyzed, and accordingly based on the identified issues improvement actions must follow.

- **Analyze Outcomes:** Internal QA should review key outcomes: completion rates, pass rates, learner satisfaction, perhaps even initial indications of impact (did learners report using the skill at work?). If a MC sees very low completion or poor satisfaction, internal QA flags it for action. Conversely, high demand or great feedback might prompt scaling up the offering.
- **Continuous Improvement:** Based on feedback and outcome data, make adjustments for future iterations (closing the QA loop). Document changes in a brief report or annual review. For instance, a department might have an annual MCs QA meeting to go over all the MCs run that year, discuss what to improve, and update course designs. Such periodic reviews align with ANQA PA criterion 6, IA criterion 10 and ESG 1.9 (ongoing monitoring and periodic review of programs).
- **Role of the Internal QA Unit:** If the institution has a quality assurance office or unit, that unit should include MCs in its remit. They might adapt existing QA forms to MCs or create a lighter-weight QA checklist specifically for MCs (ensuring the core elements are present). They can also train faculty on quality aspects unique to MCs (like how to ensure equivalent rigor in a short course).

## 7.4 External Quality Assurance of MC Providers

External QA provides validation that providers are maintaining standards. Armenia should leverage existing QA structures to cover MCs:

- **Institutional Accreditation:** During institutional accreditation or re-accreditation, ANQA should evaluate how the institution manages MCs as part of its portfolio. Do they have appropriate policies for the development, approval, assessment and monitoring? Are staff competent? Are outcomes achieved? External reviewers might interview those responsible for MCs and review evidence (like program descriptions, student feedback, etc.). ESG Part 1 expectations would be checked in this context for MCs too. For example, reviewers will want to see that the institution's internal QA (as above) is actually implemented for MCs.
- **Programme (MC) Accreditation:** If a MC program is substantial (especially if it carries ECTS and is intended to be stackable into degrees), it should undergo initial and program accreditation by ANQA. The Law indicated that *accredited MC programs that assign ECTS credits* are subject to national QA/accreditation. This could mean:
  - The provider submits an application outlining the MC's content, outcomes, assessment, etc.
  - The provider prepares self-evaluation report and submits to ANQA. The SER would convince that learning outcomes are well-defined and aligned with NQF if claiming a level, workload, assessment is clearly defined, the content and staff are adequate, monitoring and improvement records are in place, QA processes are in place, continuous improvement actions are in place etc.

- ANQA evaluates it via desk- review and a site-visit if needed (though likely streamlined) and prepares an expert report.
- If MC programme meets criteria, the program is accredited/approved for a certain period and registered in the State Accreditation Register and National Register of Qualifications.

This approach treats MCs like to short programs. All MCs intended for credit recognition likely should be accredited to assure other institutions of their quality.

**External QA Standards:** External QA should be fit-for-purpose. The EU principle says MCs' external QA should largely focus on the provider's internal QA effectiveness. In other words, accreditors check that the institution has robust processes for MCs rather than micromanaging each course's content. That said, the external QA body might sample some MCs to see how they were developed and delivered as evidence of the institution's capability.

**Use of ESG and Other References:** Quality assurance agency should ensure that MCs offered by HEIs meet ANQA criteria and ESG standards like any program. For alternative providers , QA can refer to relevant standards (for example, vocational training QA standards).

**Registers of Trusted Providers:** A possible element of QA ecosystem is maintaining a list of providers or courses that are quality-assured. QA agency should publish a registry of accredited MC providers/programs. This list could interface with the issuance registry so that whenever a credential is verified, one can see if the provider was accredited. In order to ensure automatically validated credentials, they can be included in the DEQAR register as well.

**Peer Review and Exchange:** Given MCs are new, QA agency may use a more collegial approach initially: engaging in dialogue with institutions, sharing good practices across institutions, maybe organizing a peer-review workshop specifically on MCs. The aim is capacity building as well as accountability.

**International QA Collaboration:** MCs might involve cross-border provision (e.g. an Armenian university uses a foreign MOOC as part of its MC). ANQA may collaborate or at least communicate with foreign quality bodies in such cases, possibly recognizing each other's evaluations. Also, since MCs are part of the Bologna agenda, ANQA may likely engage with the European Association for Quality Assurance (ENQA) and others to stay updated on QA guidelines specifically for MCs, adjusting Armenian criteria accordingly.

## 7.5 Publication and Transparency of Quality Data

Transparency is essential to ensure trust and recognition of MCs. QA itself should be transparent. Providers must publicly share complete and accurate information on how their MCs are quality-assured and any outcomes of QA. They might even share summary reports or statistics (how many took it, pass rates, satisfaction). This aligns with ANQA PA criterion 6 , IA criteria 8 and 10 and ESG 1.8 (public information) and builds trust externally. Employers or learners seeing such statements know the provider takes QA seriously. Besides publishing the outcomes of the external QA, it is important to publish information, including:

- **Program-Level Information** (description, purpose, learning outcomes, workload and credits, ANQF level, entry requirements, mode of delivery, assessment methods, etc.)
- **Quality Assurance Information** (accreditation status, internal approval and monitoring procedures, summary of recent improvements, learner feedback results)
- **Issuance and Verification** (MC certificates or digital badges must include provider information, learning outcomes, credit value, verification link or unique digital identifier).

## CHAPTER VIII. RECOGNITION OF MCS

The following chapter addresses the recognition of MCs across all education sectors – higher education, vocational training, and non-formal learning – in both domestic and cross-border contexts. They emphasize alignment with national laws and regulations, where applicable, to ensure MCs are credible, transferable, and recognized by all stakeholders.

### 8.1 National Recognition Principles and Procedures

National authorities should establish clear principles and procedures for recognizing MCs within their education and training systems. By implementing these principles, countries create a coherent national ecosystem where MCs are recognized and can be portable. While approaches currently vary by country (with some at a nascent stage and others, like Australia or Malaysia, already issuing national MC frameworks), there is a clear trend toward integrating MCs into policy. Aligning with this guideline will promote consistency, learner trust, and smoother recognition of MCs nationwide.

Key guidelines include:

- **Alignment with Qualifications Frameworks:** Map MCs to the ANQF (and by extension to regional frameworks like the EQF where relevant) to ensure their level and outcomes are comparable to traditional qualifications. Assigning an ANQF/EQF level to each MC enhances its portability and recognition, making it easier for other institutions and employers to understand its value. However, it should be made clear that a MC at a given level is not a full degree qualification.
- **Legal and Regulatory Backing:** Where possible, integrate MCs into national education laws or regulations to formalize their status. Legal recognition provides a basis for consistency across institutions. National agencies or qualification authorities should issue guidelines or criteria for MC programs in line with existing frameworks.
- **Quality Assurance Standards:** Apply the same rigorous quality assurance (QA) standards to MCS as those used for traditional programs. Internal QA processes (and

external accreditation if applicable) must ensure that MCs meet the national criteria and the Standards and Guidelines for Quality Assurance (in higher education, for example). In practice, this means vetting the content, assessment, and outcomes of MCs so they are trustworthy. If MCs become part of the formal system, they should adhere to the same principles and standards as degrees or certificates. Regular monitoring and review of MC offerings is advised to maintain their quality and relevance.

- **Credit and Transferability Procedures:** Develop procedures to credit learning from MCs within the broader education system. Many MCs are credit-bearing (e.g. carrying a few ECTS credits in Europe or equivalent units) to allow stacking and transfer. National guidelines should encourage institutions to recognize credits from certified MCs toward degrees or other formal qualifications where appropriate. Having a credit transfer framework (such as a national credit bank or registry) helps learners accumulate MCs and have them recognized across institutions. Clear credit transfer policies prevent duplication of learning and facilitate lifelong learning paths.
- **Transparency and Information Requirements:** Ensure each MC comes with a transparent description (a credential supplement) detailing the learning outcomes, credit value, level, issuing body, date, and the QA or accreditation info. Comprehensive information allows credential evaluators – whether academic or professional – to properly assess and recognize the MC. All providers (including alternative providers beyond formal education) should maintain records of issued MCs just as higher education institutions do for diplomas, ensuring verifiability and trust in the credential.

## 8.2 Recognition within Formal Education Pathways

For MCs to bridge into formal education pathways, educational institutions should establish mechanisms to recognize and credit them toward academic programs. This ensures that learners can move between short-term courses and traditional education seamlessly. Formal education providers should treat MCs as an adjunct to, or component of, traditional qualifications. Through credit recognition, Recognition of Prior Learning, and curricular integration, MCs can enhance formal education by providing flexible, targeted learning opportunities without losing academic rigor. This approach also supports lifelong learning – allowing learners to step in and out of education, collecting MCs that eventually contribute to higher awards. It is crucial that faculty and academic governance bodies support these measures, ensuring that recognized MCs maintain the integrity of the academic programs they feed into. Key guidelines for formal education recognition include:

- **Credit-Bearing MCs:** Wherever feasible, design MCs to carry academic credit (e.g. assign a credit value using the standard credit system in the country). Having a credit value allows an MC to be counted toward a degree or certificate, making it more than just a standalone certificate. For example, universities might offer MCs worth 5–15 credits that could be applied to elective requirements in a degree program. Clear articulation of credit hours or ECTS in the MC documentation is crucial for academic recognition.

- **Stackability and Pathways:** Encourage the use of “stackable” MCs – multiple MCs that can accumulate into larger qualifications or exemptions. Formal programs can be unbundled into smaller modules (MCs) that learners earn over time and later combine into a diploma or part of a degree. Institutions should clearly define which MCs (or combinations of them) are acceptable for credit transfer into their programs. This creates flexible pathways: learners might earn a series of MCs (for instance, in specific skill areas) that equate to a semester of coursework, thereby shortening the time to a qualification.
- **Recognition of Prior Learning (RPL):** Leverage existing RPL policies to evaluate MCs attained outside the institution. HEIs can use their RPL procedures to grant credit or advanced standing for relevant MCs a student has earned externally. For example, if an incoming student presents a verified MC in a subject, the university’s RPL committee could assess it and waive a corresponding course requirement. Clear criteria should be set for when an external MC is equivalent to a course (considering content, level, and outcomes). This enables non-formal and vocational learning via MCs to be bridged into formal programs.
- **Institutional Frameworks for External MCs:** Each institution should establish an internal framework or policy for recognizing MCs issued by alternative providers (industry platforms, online providers, etc.). Since such external MCs are not automatically part of the higher education system, having a formal review process is important. Institutions might require that the external MC comes from a quality-assured provider or meets certain standards (e.g. taught by qualified instructors, includes assessment). Once vetted, the institution can formally record the MC in the student’s transcript or credential registry. This practice prevents dismissal of valuable learning simply because it was acquired outside academia and instead integrates lifelong learning achievements into the formal record.
- **Embedding MCs in Curricula:** Universities and colleges are encouraged to embed MCs within degree programs. This can mean offering MCs as optional modules or as additional certifications concurrent with a degree. By embedding MC opportunities institutions make their graduates more adaptable and skilled. Studies indicate students are substantially more likely to enroll in a program that includes credit-bearing MCs, seeing them as boosting career readiness.

### 8.3 Recognition by Employers and Industry

Recognition of MCs in the labor market is vital for their success. Employers and industry bodies need to understand and trust MCs so that they count in hiring decisions, employee development, and professional advancement. The following aspects help strengthen employer recognition of MCs:

- **Industry Relevance and Design:** Involve employers and industry experts in the design of MCs to ensure the skills and competencies being certified are directly relevant to workplace needs. MCs should target specific, in-demand skills (technical abilities, soft skills, etc.) that employers are seeking. When an MC’s learning outcomes align with industry standards or job competencies, employers are more likely to

recognize its value. Many governments encourage aligning MC offerings with industry needs as a policy objective, which in turn boosts employer acceptance.

- **Employer Awareness and Communication:** Increase awareness among employers about what each MC signifies. Each MC should come with a clear description of the skills mastered or tasks the holder can perform. Employers often face confusion due to the vast variety of credentials. To address this, standardize the information presented (via digital badges or certificates) – including issuing institution, verification of authenticity, skill descriptors, and even evidence of work (projects, assessments). Effective communication and transparency (for example, providing employers with access to an online credential profile or portfolio) will build trust in MCs and dispel uncertainty about their rigor.
- **Validation and Quality Signals:** Emphasize the quality assurance and recognition status of MCs to employers. Employers are far more inclined to value “recognized, credit-bearing” MCs issued by reputable institutions. This willingness increases when the MC is backed by academic credit and formal recognition, as it signals higher credibility. Highlighting that an MC was earned from an accredited education provider or under a nationally- recognized framework can reassure employers of its validity. Where possible, link MCs to industry certification standards or have industry endorsements.
- **Incorporation into HR Processes:** Encourage employers to formally incorporate MCs into their hiring, upskilling, and promotion criteria. For example, organizations can update job posting templates to explicitly mention relevant MCs or accept them as evidence of skills (in lieu of or alongside traditional degrees). Additionally, employers note that MC holders often help fill skill gaps and improve workforce quality. Companies can also use MCs for the continued professional development of their staff – by offering or recognizing MCs for upskilling programs, employers create a culture of lifelong learning in the workplace. Notably, some employers are even willing to offer higher starting salaries to candidates who have earned relevant MCs, given the demonstrated proficiency in key skill areas.
- **Partnerships and Talent Pipelines:** Foster partnerships between educational providers and industry to co-develop and recognize MCs. If employers co-create MC curricula or standards), they will have greater trust in and awareness of those credentials. Such collaboration can also establish talent pipelines: learners earning industry-developed MCs become prime candidates for hiring. Education providers should seize this opportunity to ensure their MCs have direct industry buy-in, which in turn guarantees recognition and usefulness in employment contexts.

Employers are increasingly receptive to MCs, seeing them as a way to verify specific skills and reduce training costs, but widespread recognition depends on clarity, quality, and relevance.

## 8.4 Recognition of Cross-Border and Digital MCs

MCs should be portable across borders so that skills gained in one country (or online through global platforms) are recognized in another. Cross-border recognition is challenging due to differing education systems, but adopting common standards and

cooperative frameworks can facilitate international acceptance of MCs. Key aspects for cross-border and digital recognition include:

- **International Standards and Transparency:** Utilize internationally agreed-upon definitions and standard elements when describing MCs. A common approach – such as that recommended by the European Commission in 2022 – ensures that key information (learning outcomes, workload/credit, level, issuer, etc.) is consistently presented. When all credentials share a transparent format, it is easier for foreign institutions or employers to interpret them. Without such common standards for quality, transparency, comparability and portability, MCs cannot reach their full potential globally. Thus, aligning with frameworks like the UNESCO Open Badges standard or the EU’s Europass Digital Credentials format can greatly aid cross-border understanding.
- **Integration into Qualifications Frameworks:** Encourage mapping of MCs onto regional or global qualifications frameworks. For instance, placing an MC at an EQF level (European Qualifications Framework) provides an immediate reference for institutions across Europe to gauge its level. Similar integration into other regional frameworks (such as the ASEAN or Commonwealth frameworks) should be pursued. When MCs are clearly positioned in these frameworks, recognition authorities can more readily assess them akin to partial qualifications. This also supports credit transfer internationally, where, for example, a MC earned via an online course in one country could be credited by a university in another country because both align it to a shared framework level.
- **Bilateral and Regional Recognition Agreements:** Leverage existing recognition conventions and agreements to include MCs. UNESCO’s global and regional Recognition Conventions (e.g. the Lisbon Recognition Convention for Europe, and new global convention adopted in 2019) provide a foundation for recognizing foreign qualifications. These conventions, while traditionally focused on degrees, underscore principles (like fairness and transparency in recognizing studies) that can extend to MCs as components of someone’s learning. Countries should cooperate to update or clarify these agreements to explicitly cover MCs and other short learning experiences. Regional bodies (such as the European Higher Education Area, ASEAN, African Union, etc.) are already exploring coordinated approaches – for instance, a UNESCO study recommends a regional framework of minimum standards for MCs in Latin America. Such frameworks aim to balance harmonization with local relevance, enabling trust in each other’s MCs without forcing identical systems.
- **Cross-Border Quality Assurance:** Establish mechanisms for quality assuring cross-border and online MCs. One country’s regulatory system might not automatically recognize a MC issued abroad by a private platform. To address this, nations can designate credential evaluation services or ENIC-NARIC centers (in Europe) to evaluate MCs from abroad, similar to foreign degree evaluations. Another approach is trusted provider lists or credentials registries: for example, the creation of a global or regional credential registry where verified providers list their MCs, giving others confidence in their legitimacy. Additionally, mutual recognition arrangements between institutions (e.g. university alliances) can allow members to accept each other’s MCs for credit or hiring. Ultimately, enhancing interoperability between

national systems (through shared QA guidelines and digital verification methods) is critical for cross-border recognition.

- **Digital Credentials and Verification Across Borders:** Since many MCs are issued digitally (often by international platforms like Coursera, edX, etc.), ensure that the digital credential itself is verifiable globally. Using digital signatures or blockchain (see next section) can allow instant verification of authenticity anywhere in the world. Tools like the Europass Digital Credentials Infrastructure (EDCI) in Europe issue digitally signed credentials that any employer or institution globally can verify online. Learners should be encouraged to use digital wallets or profiles (such as LinkedIn, Open Badge passports, etc.) to share their MCs when going abroad. If the credential meets a recognized standard (for example, an Open Badge containing machine-readable metadata about its issuer and learning outcomes), this goes a long way in securing trust across borders. In summary, embracing digital verification standards ensures that a MC earned in one country can be independently validated in another, which is a prerequisite for recognition.

## 8.5 Use of Digital Badges and Blockchain Technologies

Digital badges and blockchain technologies are powerful enablers for the recognition of MCs. They provide the technical infrastructure to issue, share, and verify credentials in a secure and transparent manner. The following guidelines highlight how to utilize these tools to support MC recognition:

- **Digital Badges for MCs:** A digital badge is a visual representation of a MC that is embedded with rich metadata. Badges are commonly used for MCs because they are easily shareable and instantly verifiable online. Each badge contains information such as the issuer (who awarded it), the criteria for earning it, the level or skill attained, and evidence of achievement. This metadata provides context and trust – for example, a badge might say “Awarded by XYZ University for completing Data Analytics Fundamentals (10 credits, EQF level 5) with an assessment score of 85%”. Because of this, digital badges ensure transparency and credibility in what a learner has done. Education providers should issue MCs in the form of open digital badges compliant with widely accepted standards (such as Mozilla’s Open Badges standard), which guarantees that all the relevant data is embedded and can be read by different platforms. An open standard badge from one platform can be added to a learner’s profile or portfolio and later verified by employers or other institutions with a simple click.
- **Real-Time Verification & Authenticity:** One of the biggest advantages of digital credentials is the ease of verification. Digital badges can be verified in real-time through a unique URL or QR code, and many systems now leverage blockchain backends for this purpose. What this means is that when an employer or institution wants to check the validity of a MC, they can do so instantly by visiting the badge’s link or scanning its code, which will confirm the issuer and that it hasn’t been tampered with. In several implementations, the credential’s record is stored on a blockchain (or a secure ledger), providing a tamper-proof, immutable record of the achievement. The use of blockchain technology adds an extra layer of security – each credential is cryptographically signed and cannot be altered or forged. This is especially useful for cross-border scenarios where a relying party may not be familiar with the issuing

institution; the blockchain verification assures them the credential is authentic. Education and training providers are advised to use platforms that support such secure verification methods. In practice, this eliminates the need for manual certificate checks or intermediaries, simplifying recognition.

- **Security and Fraud Prevention:** By recording MCs on blockchain or similar distributed ledgers, issuers can prevent fraud. Each credential, once issued, gets a unique digital signature on the blockchain, creating an audit trail. This ensures that anyone reviewing the credential can trust it has not been revoked or altered. For learners, this means their earned MCs are safe from loss or misrepresentation – they own a digital proof that is as good as a notary stamp. For employers/educators, it dramatically reduces the risk of accepting a falsified certificate. Blockchain-secured credentials are trusted credentials, which will accelerate acceptance of MCs in academic and hiring decisions.
- **Portability and Lifelong Access:** Digital badges and blockchain credentials give learners lifelong ownership of their achievements. Instead of being tied to a paper certificate or a single institution's records, the credential lives in the learner's digital wallet or online profile. Learners can carry these digital badges from one opportunity to the next, sharing them on professional networks (like LinkedIn) or applications. Because they are portable, MCs earned in various contexts (university, online course, employer training, etc.) can be compiled by the individual into one place, showcasing a holistic picture of their skills. Portability is enhanced by interoperability standards – for instance, multiple universities and platforms accepting the same badge standard means the learner doesn't need to juggle different formats. We encourage the use of credential wallets and platforms (some are blockchain-based) that aggregate a person's MCs, making it easy for them to be presented for recognition when needed.
- **Stackability and Pathways via Technology:** Digital credentialing systems support the stacking of MCs. Because each badge is data-rich, platforms can recognize when a learner has accumulated a set of badges that fulfill a larger qualification pathway. This can trigger the award of a larger credential or simply help the learner and institutions track progress. For example, if a professional earns five distinct MCs in project management (each represented by a badge), a platform might denote that collectively they amount to an advanced certificate, or the learner can demonstrate a comprehensive skill set. Digital badges are inherently stackable, allowing individuals to accumulate multiple badges that together showcase a broader competency profile. This technological capability reinforces academic and employer recognition: it's easy to see not just one MC, but the collection someone has earned, giving a fuller picture of their expertise.
- **Efficiency in Credential Processing:** Embracing digital badges and blockchain makes the administration of recognition more efficient. Credential evaluators no longer need to await mailed transcripts or certificates; they can verify achievements online instantly. This speed is critical in fast-moving job markets. Moreover, since verification can be automated (a system can check a blockchain or badge URL programmatically), integrating MC checks into recruitment or admissions software becomes feasible. The efficiency gains free up time for deeper evaluation of the actual skills and fit of the candidate, rather than chasing paperwork. Institutions

should update their recognition procedures to make use of these digital verification tools, as it both reduces bureaucracy and improves security.

## CHAPTER IX. SUPPORTS: ADVISING, TUTORING, CAREER GUIDANCE, AND ACCESSIBILITY FOR LEARNERS

For MCs to truly empower learners, it is not enough to create and offer them; learners must be aware of these opportunities, understand their value, be able to access them easily, and receive guidance on how to utilize them for their personal and professional development. High-quality learner support is essential for the effective implementation of MCs. Given that MCs attract diverse groups of learners, including adults, working professionals, unemployed individuals, rural learners, and returning students, providers must ensure that appropriate support mechanisms are systematically integrated into the design, delivery, and recognition of each MC. This chapter outlines the minimum support services that all recognized MC providers in Armenia must guarantee. Chapter 9 focuses on the systems and services that should be in place to support learners at all stages of their MC journey: from discovering relevant MCs, through the learning process itself, to

leveraging earned MCs in further education or employment.

## 9.1 Information Accessibility and Awareness

A critical first step is ensuring learners (and the public at large) can easily find information about available MCs:

- **National MCs Portal:** The Republic of Armenia should establish (or integrate into an existing education portal) a one-stop online platform listing all recognized MC offerings in the country. This portal should allow searching by field, provider, level, workload, etc. Each MC entry would show the key details (outcomes, credits, level, issuer, etc.) and link to the provider's page for enrollment. Such a portal could be linked with the national qualifications register and updated by providers regularly. The goal is to give potential learners a clear catalogue of opportunities.
- **Clear Communication of Value:** Marketing materials and course descriptions should explicitly state why a learner might want this MC. Emphasizing outcomes, recognition, and success stories will help learners see the tangible benefits. Aligning with European principles, MCs should be measurable, comparable, understandable – which in practice means avoiding jargon and making sure descriptions are plain-language and focus on skills gained.
- **Leverage Multiple Channels:** In addition to the portal, information should be disseminated through university outreach, social media, job fairs, public employment services, etc. Since MCs target also those beyond traditional students, presence in community centers, libraries, and online forums is important. The Ministry can run public awareness campaigns highlighting lifelong learning via MCs, perhaps featuring testimonials (e.g., a short video of a learner who got a better job after a MC).
- **Integration with Europass and Digital Profiles:** Encourage learners to maintain an updated profile on Europass (or similar platforms) where their MCs can be displayed. The European Commission's Europass platform allows individuals to store digital credentials and share them. If Armenian learners use such tools, they become more conscious of MCs as part of their professional portfolio. Guidance on how to add MCs to CVs or LinkedIn should be part of the support (for example, career centers can show learners how to list and describe their MCs to employers).
- **Transparency on Pathways:** Where MCs are part of larger pathways (e.g., part of a series or stackable to a degree), this should be clearly explained to learners *before* they enroll. Visual roadmaps can help – for instance, an infographic showing that if you take MC A, B, and C (each 5 ECTS), you can then get an advanced certificate or skip some part of a longer program. Laying out these pathways helps learners plan their education strategically, rather than taking standalones that don't add up.

## 9.2 Academic Advising and Tutoring

MC providers must ensure that learners receive adequate academic guidance throughout the learning process.

- **Academic Advising:** providers should offer advising services that help learners understand program expectations, select suitable MCs, and plan learning pathways. As well as they should assist learners in understanding credit accumulation, stacking

options, and opportunities for further study. And provide guidance on institutional policies, assessment requirements, and available support services.

- **Tutoring Support:** providers must offer tutoring or academic support to help learners engage with course content and meet learning outcomes. They should provide tutoring in flexible formats, including online, face-to-face, and group sessions. Provider should ensure tutors are trained in outcome-based approaches and adult learning principles.

### 9.3 Career Guidance and Employability Support

MCs must support learners in achieving improved employment outcomes and career advancement.

Providers are expected to:

- Offer career counseling that explains the labour-market relevance of each MC and its associated skills.
- Provide guidance on job search strategies, emerging occupational trends, and opportunities for progression in the labour market.
- Develop partnerships with employers to ensure alignment between MCs and real labour-market needs.
- Facilitate employer engagement through guest lectures, networking, mentorship, internships, or work-based learning where applicable.
- Maintain job placement or employment support services when relevant to the target group of the MC.

### 9.4 Digital Infrastructure for Learner Support:

- **Learning Management Systems (LMS):** A robust LMS is vital. It should be user-friendly and accessible from various devices. The LMS can also incorporate some AI tutoring or adaptive learning to support students (e.g., quizzes that adapt to learner level).
- **Learner Portals:** If the MC system grows, having a dedicated learner portal where individuals can track all their MCs, progress, and maybe plan future ones would be beneficial.
- **Integration with Credential Wallets:** Ensure that once a learner completes a MC, the digital certificate is easy for them to retrieve and share. If integrated with Europass or other wallets, support them in linking those accounts. Possibly, the national portal can also double as a personal credential vault for users (with proper security).

### 9.5 Equity, Inclusion, and Learner Well-Being

We should reiterate that learner support must focus on inclusivity:

- **Cost Support:** If cost is a barrier for learners with financial needs, provide information on scholarships or installment payment options. Reduced fees or flexible payment plans for specific groups, such as unemployed individuals or working adults. Suggest incentives for employers to co-finance MC training for employees, including through

corporate training programs or co-funded schemes. Another mechanism is the collaboration with government agencies, donor programs, and NGOs to support participation in priority skill areas.

- **Language Support:** While many MCs might be in Armenian or English, consider support for those not fluent. Could materials be bilingual? Or provide language support alongside (e.g. glossaries, translation of key terms).
- **Mentor/Buddy for Non-traditional Learners:** If someone hasn't studied in a long time, pair them with a mentor (maybe a student assistant or a peer who is more comfortable) to get used to online systems and study habits for the first few weeks.
- **Equal access:** Ensure equal access and non-discrimination in the provision of MCs. Minimum expectations include:
  - Ensuring inclusive learning environments free of discrimination based on gender, disability, age, socioeconomic background, or ethnicity.
  - Providing psychosocial support where relevant, including access to counseling or referral services.
  - Designing MCs with consideration for rural learners, refugees, displaced persons, and other vulnerable groups.
  - Offering preparatory or bridging modules for learners who need foundational knowledge before entering a MC.

## 9.6 Feedback and Continuous Improvement

To maintain high standards in learner support, providers must implement mechanisms for monitoring and continuous enhancement. Let learners voice what additional support they need.

- Collect regular feedback from learners regarding academic support, technical provisions, career guidance, and overall satisfaction.
- Use feedback to improve course design, delivery methods, accessibility features, and support services.
- Consult employers, sector bodies, and labour-market representatives to ensure ongoing relevance and alignment with skill needs.
- Include learner success indicators—completion rates, progression, employability outcomes—within internal quality assurance processes.

## REFERENCES

1. **Law of the Republic of Armenia on Higher Education and Science (2025)** – The national law establishing the legal framework for higher education, including provisions defining MCs and their role as non-formal qualifications in continuing education or non-degree awarding qualification..

2. **Education Development State Programme of Armenia until 2030 (2020)** – Government plan outlining strategic priorities for education reform, which includes the introduction of MCs as part of lifelong learning and the development of complementary short-term courses.
3. **National White Paper: Advancing MCs in Armenian Higher Education System (2025)** – A policy document (MicroGEOAR project) summarizing international practices and recommendations for Armenia. It provides definitions, institutional roles, quality assurance considerations, and strategic objectives for MCs in Armenia.
4. **National Roadmap for MCs (2025)** – A roadmap document (MicroGEOAR project) detailing phased implementation steps for integrating MCs into Armenia’s education system, including stakeholder engagement, capacity building, digital infrastructure, and monitoring phases (content referenced in Chapter 2 and 5).
5. **European Training Foundation (ETF) – “Guide to Design, Issue and Recognize MCs” (2023)** – Comprehensive guide prepared by Knowledge Innovation Centre for ETF, offering design principles, quality measures, and recognition strategies for MCs. Sections used include quality assurance recommendations, transparency and portability (standard elements and digital credentials), relevance to learners and labor market, assessment practices, and policy-level recommendations.
6. **Council of the European Union Recommendation of 16 June 2022 on MCs for Lifelong Learning and Employability (2022/C 243/02)** – Key EU policy defining MCs and recommending actions for Member States. Annex I of this recommendation provides the *European standard elements to describe a MC*, which Armenia’s framework has adopted. Annex II outlines principles on quality, transparency, etc., which informed Chapters 5, 7, and 8
7. **Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) (2015)** – While not quoted directly, ESG Part 1 standards (on program design, student-centered learning, assessment, etc.) underpin QA practices recommended in Chapter 7. References to ESG alignment are made, for example ensuring internal QA for MCs uses ESG principles.
8. **European Qualifications Framework (EQF) and QF-EHEA** – European frameworks for levels of qualifications. These are referenced in terms of assigning levels to MCs for transparency and ensuring MCs can be related to NQF/EQF levels for recognition.
9. **ENIC-NARIC Networks – Recognition of MCs (2023)** – Emerging guidelines and discussions from European recognition centers (as referenced via EHEA Bologna documents and other sources) on how MCs should be recognized across borders, influencing Chapter 8.
10. **EHEA TPG A “Recommendations and Guidelines on MCs” (2023)** – A document by the Bologna Process working group on Qualifications Frameworks (QUATRA) providing recommendations for national authorities. It covers stakeholder involvement, NQF inclusion, learning outcomes approach, stackability, QA, supplements, transparency, support to implementation, and learning pathways. These inputs guided policy points in Chapters 5, 6 and 8 (e.g., involving stakeholders, not overregulating, providing supplements, promoting stacking).

11. **MicroGEOAR Research Report – “Analysis of Existing MC Practices in HE of Georgia and Armenia” (2024)** – A project report surveying MC perceptions and legislative context in Armenia and Georgia. Used for insights on draft law definitions and current challenges such as recognition of non-HEI providers and stackability.
12. **ETF Case Studies on NQF and MCs** – Examples cited from ETF guide on how countries like Ireland, New Zealand, Namibia, and Georgia integrate MCs into NQFs, informing the discussion in Chapter 5 on NQF inclusion.
13. **Europass and European Digital Credentials (2023)** – European Commission’s digital credentials framework. References from the ETF guide highlight how Europass supports digitally signed MCs and authenticity checks, which influenced recommendations in Chapters 5, 8, and 9 regarding digital verification and use of wallets.
14. **ACQF (African Continental Qualifications Framework) MCs Handbook (2024)** – Provided a definition citing the European Commission 2022 definition which was used in Chapter 2 to align Armenia’s definition with international terminology.
15. **Knowledge Innovation Centre, Camilleri & Hudak (2018)** – Provided the typology of MCs (skill credential vs learning unit vs short program), which informed understanding of MC sizes and contexts in Chapter 3.
16. **Lisbon Recognition Convention (1997) and UNESCO Global Convention (2019)** – Underlying international treaties on recognition of qualifications referenced conceptually in Chapter 8 to frame fair recognition of MCs, though not cited line-by-line.
17. **Industry and Employer Feedback Reports** – Although not individually cited, insights from Armenian IT sector and other employers as gathered in national workshops (per White Paper references) underpin the emphasis on labor market needs, e.g., Chapter 2 and 6 mention aligning with priority economic sectors and employer co-design.
18. **QQI (Quality and Qualifications Ireland) resources on MCs (2021)** – Mentioned in ETF guide context, providing an example of a national QA agency incorporating MCs, supporting discussion in Chapter 7 on external QA perspectives.
19. **Cedefop “Microcredentials: Global Approaches” (2022)** – Provided context on how MCs are viewed in VET and by employers (e.g., German and Slovenian perspectives on keeping regulation minimal and focusing on employer needs), which influenced Chapter 5 and 8 content on not overregulating and on employer preferences for flexibility.
20. **Sustainable Development and Lifelong Learning Policy Reports (various)** – These indirectly support the narrative that MCs contribute to social mobility and continuous upskilling, aligning with Armenian strategic aims and used as rationale in Chapter 2 and 5.
21. **Arqus Alliance, Report on National Regulations on Microcredentials** – overview of European national frameworks (legal provisions, QA, credit transfer).
22. **EHEA (2023), TPG A Recommendations on MCs** – guidelines for integrating MCs into NQFs, quality assurance, and recognition practices.
23. **Inside Higher Ed (2025), Survey on Employer and Student Support for Microcredentials** – evidence of employer hiring preferences and student demand for embedded MCs.

24. **Higher Ed Dive (2023), Employer Perceptions of Alternative Credentials** – highlights employer benefits (filling skill gaps) and concerns (quality, relevance) regarding MCs.
25. **UNESCO IESALC (2025), MCs in LAC: Toward a Common Framework** – stresses integrating MCs into national systems and using UNESCO recognition conventions for cross-border recognition.
26. **European Commission (2022), Council Recommendation on a European Approach to MCs** – defines standard elements and principles to ensure quality, transparency, and cross-border comparability of MCs.
27. **Commonwealth of Learning (2025), MCs for Mobility and Stackability** – examples of national frameworks (Australia, Malaysia) and emphasis on credit transfer and stakeholder support for MC recognition.
28. **University of Texas at Austin (2025), Digital Badging Initiative** – describes features of digital badges (metadata, verifiability via URL/blockchain, shareability, stackability) that enhance recognition.
29. **DoxyChain (2024), The Power of MCs on Blockchain** – explains how blockchain secures credentials and streamlines verification (tamper-proof records, no intermediaries).
30. **European University Alliance** – provides information on how different countries apply national Regulations On Micro-credentials (2023)
31. **Micro-credentials: Towards qualification recognition, mobility and stackability (2025)**
32. **Digital badging initiatives (2025)** – The university of Texas at Austin