Knowledge BYTES by INATBA

Micro-credentials: From Badge to Currency

Who Issues Them, Who Recognises Them, and What Gives Them Value

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Issue No. 7 | October 2026

Table of Contents

Abstract 3
1. From Badge to Currency: Why Recognition Matters 3
2. Who Issues Micro-credentials? Authority, Legitimacy, and Responsibility 4
3. Who Recognises Them? From Technical Verification to Institutional Acceptance 5
4. What Are Micro-credentials Worth? Understanding Their Different Forms of Value 6
5. Five Conditions for Micro-credential Value 7
6. From Verification to Trust: The Role of Blockchain and Digital Credentials 8
7. The European Approach: Building an Interoperable Ecosystem 9
8. Towards a Meaningful Currency of Skills and Trust 11
Conclusion: Beyond the Badge 12
References 13

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Abstract

Digital badges and verifiable credentials can make learning more visible and portable, but a credential that can be verified is not necessarily one that is worth accepting. This article argues that the value of micro-credentials lies less in their technological format than in the relationship between assessment, institutional legitimacy and recognition. Building on the European approach to micro-credentials, it examines who has the authority to issue them, who is willing to recognise them and what determines their value. It distinguishes technical verification from educational quality and institutional recognition, and proposes five conditions for micro-credential value: credibility, evidence, verifiability, recognition and relevance. Micro-credentials become a currency of skills and trust only when others accept them for a real purpose, so their future will be decided less by how many are issued than by the opportunities they open for learning, employment, mobility and inclusion.

Keywords: Micro-credentials; Digital Credentials; Skills Recognition; Lifelong Learning; Trust; Quality Assurance; Verifiable Credentials; Blockchain; European Learning Model; Employability.

1. From Badge to Currency: Why Recognition Matters

Digital badges have become familiar in education, training and professional development. They can mark participation in an activity, completion of a course, acquisition of a skill or a particular milestone, and their attraction is clear: they make achievements visible, easy to share and usable beyond the institution where learning took place. Visibility, however, is not the same as value. A badge on a professional profile may signal an achievement without explaining what the learner can do, how this was assessed or why another organisation should recognise it.

Nor are all badges micro-credentials. A participation badge may document attendance without certifying any assessed learning, whereas a micro-credential, as defined in the European approach, records learning outcomes assessed against transparent and clearly defined criteria [1]. The distinction matters more as education and employment move towards flexible, skills-oriented models. Issue No. 2 of Knowledge BYTES (December 2025) stressed the growing importance of transversal competencies such as critical thinking, adaptability, collaboration and ethical reasoning [2], capabilities that traditional qualifications rarely capture well. Micro-credentials can make such achievements more visible and easier to understand.

Yet a new difficulty follows. Even when learning outcomes are recorded in a digitally verifiable format, universities, employers and professional bodies are under no obligation to accept them. Issue No. 6 (September 2026) left this question open: who decides what a credential is worth, and do employers actually recognise and reward the skills it makes visible [3]? The next step, therefore, is not

to produce more credentials but to establish the conditions under which they become meaningful.

Currency is a useful metaphor here. Like money, a micro-credential needs more than a recognisable format to be accepted: its value rests on confidence in the system behind it and on the willingness of others to accept it for a given purpose. Unlike money, it has no universal exchange rate. Its value varies with context, purpose, evidence and recognition.

The currency metaphor should not be understood in financial terms. Micro-credentials are records of individual learning achievements, not transferable monetary assets. Their exchange value refers to the extent to which documented competencies are understood and accepted across educational, professional and institutional contexts. Learning may have intrinsic value even without external recognition; recognition creates additional opportunities for the achievement to be used beyond its original context.

> **A micro-credential becomes a meaningful currency of skills when its learning outcomes are understood, its evidence is trusted, and its achievements are recognised and valued by others.**

2. Who Issues Micro-credentials? Authority, Legitimacy, and Responsibility

Educational credentials have traditionally been issued by universities, schools, vocational education and training (VET) institutions and other formally recognised bodies. Micro-credentials widen this circle. Under the Council Recommendation of 16 June 2022, they may be designed and issued by many types of provider, including education and training institutions, employers, social partners and other stakeholders [1]. This openness invites innovation: industry associations can build sector-specific pathways, employers can document workplace learning, training organisations can recognise specialised competencies and universities can offer flexible learning alongside their degrees.

But the ability to issue a credential is not the authority to award an officially recognised qualification. A technically valid credential does not, by itself, carry academic credit, confer a professional entitlement or acquire official status. It also helps to separate four roles that are easily conflated: the organisation that designs and delivers the learning, the body that assesses it, the awarding body that takes responsibility for the achievement, and the technology provider supporting issuance or verification. One organisation may perform several roles, or they may be distributed across different organisations. A technical provider may issue a digital record on behalf of the responsible awarding body without thereby acquiring that body's academic or professional authority. What matters is clear accountability for every claim.

The European approach supports this through common standard elements, including the awarding body, learning outcomes, workload, form of assessment and type of quality assurance [1]. These make it easier to understand what a micro-credential represents, but the Recommendation is explicit that using them does not in itself imply official validation or recognition [1]. That is the crucial point.

> **Issuance creates a documented claim about learning. It does not automatically create an obligation for others to accept that claim.**

For issuers, credibility therefore depends on more than technical capacity. It requires transparent assessment procedures, qualified assessors, reliable evidence, proportionate quality assurance and clear accountability: an issuer must be able to explain not only what it has awarded, but why the achievement deserves confidence. Without these, a growing market for short learning experiences risks producing credentials that are abundant but hard to tell apart.

3. Who Recognises Them? From Technical Verification to Institutional Acceptance

Who recognises a micro-credential? Recognition depends on its intended use. A university may consider it for academic progression or credit transfer; an employer for recruitment or professional development; and a professional association for continuing development or certification. These decisions are not interchangeable. In every case, the receiving organisation must understand what was learned, how it was assessed and whether it meets its own requirements.

Recognition is distinct from verification. Verification asks whether a credential is authentic, unaltered, attributable to the named issuer and still valid. Recognition asks whether its achievement meets the receiving organisation's requirements. A university may authenticate a credential yet decline to award credit; an employer may verify course completion but seek further evidence of workplace competence. Both decisions reflect legitimate institutional responsibilities, not necessarily a failure of the credential.

The W3C Verifiable Credentials Data Model v2.0 makes the same distinction explicit: the verifiability of a credential "does not imply the truth of claims encoded therein", and verifiers apply their own rules before relying on them [4]. Recognition therefore rests on institutional agreements, transparent criteria, shared terminology and confidence in assessment practices. Without them, a credential may be portable without its value being transferable. This matters especially for cross-border mobility: a learner can present the same digital credential in several countries, yet its educational or professional consequences may differ in each.

> **Portability enables a credential to travel. Recognition determines what it can achieve when it arrives.**

4. What Are Micro-credentials Worth? Understanding Their Different Forms of Value

The third question concerns value. Micro-credentials are usually discussed in terms of employability and labour-market responsiveness, but their value cannot be reduced to a single economic indicator. At least six forms of value can be distinguished.

- **Educational value:** Arises when a micro-credential contributes to further learning, supports progression through an educational pathway, or provides evidence that can be considered for academic recognition.
- **Professional value:** Arises when the achievement helps employers understand relevant competencies, identify professional development needs, or make informed decisions concerning recruitment and responsibilities.
- **Economic value:** May emerge when recognised competencies contribute to improved employment prospects, professional advancement, or greater productivity. Such benefits are possible outcomes, not automatic consequences of receiving a credential.
- **Social value:** Becomes particularly important when micro-credentials make previously unrecognised learning visible, including competencies acquired through volunteering, community participation, informal activities, and professional experience.
- **Mobility value:** Concerns the usefulness of credentials across different organisations, occupations, sectors, and countries.
- **Cumulative value:** Emerges when individual micro-credentials can contribute to broader learning pathways or recognised qualifications, where the applicable rules permit such progression.

These forms overlap but are not interchangeable. A specialised digital micro-credential may matter to an employer without carrying academic credit; an academically recognised one may support progression without immediate employment benefits. Cedefop's research indicates that perceived exchange value and learner trust depend on socioeconomic background, learning and work trajectories, and national education and training arrangements [5]. Value is therefore neither universal nor determined solely by issuer reputation. It also depends on assessed competence, the receiving organisation's requirements and the opportunities available to the learner.

The question, then, is not simply whether a micro-credential has value, but for whom, for what purpose, under which conditions and with what demonstrable consequences.

This perspective also guards against an excessive focus on volume. Spain provides an illustrative example. Its national Plan Microcreds established a EUR 50 million fund to support university micro-credentials, including provision, financial

assistance for vulnerable learners and cooperation with productive sectors [6]. At institutional level, the University of Salamanca reported 1,345 certificates issued through the programme during the 2025–2026 academic year, within a wider total of 1,574 micro-credential certificates issued through different funding arrangements [7]. These figures demonstrate the scale of activity, but do not, by themselves, establish the extent to which employers or other institutions have recognised the achievements. A mature ecosystem should therefore complement issuance statistics with indicators of educational progression, professional use, recognition and opportunities created for credential holders. Empirical evidence points in the same direction: on a large online labour platform, each additional micro-credential raised workers' earnings by around 9% in the following weeks, mainly by reducing employer uncertainty, but the returns diminished with each additional credential and appeared only when the credential matched the type of work [8].

5. Five Conditions for Micro-credential Value

To connect these dimensions, this article proposes five conditions that influence the potential value of a micro-credential. The framework is an analytical proposal, not an established European standard. Its purpose is to help issuers, educational institutions, employers and policymakers distinguish the characteristics of a credential from the outcomes it may generate.

a) Credibility: Who stands behind the credential?

Credibility concerns the legitimacy, accountability and quality assurance of the issuing and awarding organisations. Anyone relying on the credential must be able to identify the responsible institution and understand the procedures behind its claims. Reputation helps, but transparent governance and sound assessment matter just as much.

b) Evidence: What has actually been demonstrated?

A micro-credential should state specific learning outcomes supported by appropriate assessment. Attendance, participation, knowledge acquisition and demonstrated competence are different achievements and should not be presented as equivalent. Evidence may come from examinations, practical tasks, portfolios, projects or workplace demonstrations, and its strength should be proportionate to the competence claimed. This matters most for transversal competencies, which often require observation in authentic situations or structured evaluation against explicit criteria.

c) Verifiability: Can the credential be authenticated?

Verifiability concerns the technical ability to confirm a credential's origin, integrity and status, supported by digital signatures, electronic seals, interoperable data formats and trusted infrastructures. It reduces uncertainty about the authenticity

of the record, but on its own it says nothing about the educational validity of the assessment behind it.

d) Recognition: Will others accept the achievement?

Recognition concerns whether institutions, employers, professional bodies or other organisations understand and accept the credential, through academic decisions, institutional agreements, professional standards or employers' own criteria. A credential that is never recognised may still have personal or formative value, but its ability to work across organisational boundaries is limited.

e) Relevance: Does it serve a meaningful purpose?

Relevance connects learning outcomes with real educational, professional or social needs. A credential may be technically valid and rigorously assessed, yet of little practical use if its content does not match the learner's goals or the needs of those who might recognise it. Relevance also shifts over time as technologies, occupations and institutional requirements change.

Taken together, the five conditions allow micro-credentials to be analysed without reducing quality to a single dimension, and they reveal a basic relationship:

> **Credibility and evidence support confidence in the achievement; verifiability supports confidence in the digital record; recognition and relevance determine its practical usefulness.**

The framework does not imply that these conditions produce a fixed or measurable monetary value. It is not an empirically validated scoring instrument; rather, it identifies factors that may enable a micro-credential to be trusted, accepted and used.

Figure 1. Five conditions for micro-credential value (conceptual framework; not a scoring instrument).

CREDIBILITY Who stands behind it?	**EVIDENCE** What was demonstrated?	**VERIFIABILITY** Can it be authenticated?	**RECOGNITION** Will others accept it?	**RELEVANCE** Does it serve a purpose?

6. From Verification to Trust: The Role of Blockchain and Digital Credentials

Blockchain and distributed ledger technologies can support credential verification, decentralised identifiers and reliable checks on certain records. Issue No. 4 (February 2026) emphasised that moving from pilots to operational infrastructure also requires governance, stakeholder coordination, ethics and accountability [9]. The same applies to micro-credentials. A blockchain may make a record tamper-evident, but it cannot determine whether learning was properly assessed or whether an awarding body deserves recognition. Technology can protect a claim from alteration; it cannot make an unsupported claim educationally trustworthy.

The W3C Verifiable Credentials model describes issuers, holders and verifiers exchanging machine-verifiable credentials [4]. Depending on the implementation, trust may use digital signatures, electronic seals, decentralised identifiers or trusted registries. Blockchain is possible, not mandatory. The infrastructure should be chosen according to its intended use, governance arrangements, regulatory requirements and proportionality.

Blockchain-based trust infrastructures can support an additional dimension of credential verification: establishing whether the issuer is associated with a recognised institutional or quality assurance framework. The European Blockchain Services Infrastructure (EBSI), operated by Europeum-EDIC, provides a relevant example [10]. Within the EBSI ecosystem, the European Quality Assurance Register for Higher Education (EQAR) enables the issuance of verifiable credentials based on external quality assurance results recorded in its DEQAR database, including results with official status in the relevant national systems [11]. Such credentials can help verifiers establish the provenance and status of quality assurance information associated with an institution. They do not, however, independently demonstrate that a particular learning assessment was valid or that an individual micro-credential deserves recognition. The distinction between institutional assurance, credential authenticity and educational assessment therefore remains essential.

The learner's position also matters. Digital credentials help individuals store and share their achievements, but greater interoperability brings privacy risks if personal data is disclosed unnecessarily or if credential use enables tracking. Trustworthy systems therefore need data minimisation, access controls, privacy-preserving verification such as selective disclosure, and clear responsibilities throughout the credential lifecycle. As Issue No. 6 argued, verifiable data can underpin trustworthy learning environments in an increasingly AI-enabled education landscape [3].

> **A trustworthy micro-credential ecosystem needs both technological assurance and institutional confidence. Neither can substitute for the other.**

7. The European Approach: Building an Interoperable Ecosystem

Europe offers a distinctive policy and technical context for micro-credentials. The Council Recommendation of June 2022 established a common definition, standard elements and principles intended to support quality, transparency and recognition across different education and training systems [1]. Nevertheless, implementation remains uneven. The European Commission's progress report, published in December 2025, examined developments across the 27 EU Member States and three associated countries, identifying continuing challenges in the adoption of common approaches, quality assurance and recognition [12]. An

OECD review published in September 2026 similarly discusses fragmentation and the importance of coherent approaches linking provision, quality and recognition to learner and labour-market needs [13]. These findings reinforce the need to move beyond technical issuance towards an ecosystem of trust and recognition.

The European Learning Model (ELM) provides a multilingual semantic structure for describing learning opportunities, qualifications, outcomes and credentials [14]. Without compatible descriptions, credentials may move between systems while remaining difficult to interpret. European Digital Credentials for Learning (EDC) use this model to issue, share, store and verify digitally sealed learning records, including micro-credentials [15]. The EQF, ESCO and DigComp can improve transparency when applied appropriately; alignment with these frameworks does not, however, confer official recognition or academic credit.

The European Digital Identity framework established by Regulation (EU) 2024/1183 introduces an additional dimension to the exchange of digital credentials [16]. European Digital Identity Wallets are intended to enable individuals to manage and selectively share identity information and electronic attestations of attributes, potentially including educational and professional qualifications. The regulatory framework provides for Member States to make wallets available by the end of 2026, although national implementation schedules differ [17]. Germany, for example, has announced an initial launch of its government-backed wallet, d-you, for 2 January 2027 [18].

The European Commission's study on the sustainability and business models of the EUDI Wallet ecosystem examines possible economic incentives, responsibilities and services for actors involved in issuing and verifying digital attestations [19]. Educational credentials are a potential use case, but the existence of a digital identity infrastructure does not establish the economic viability of issuing services or guarantee the recognition of learning achievements. The challenge remains connecting technical interoperability and institutional trust with practical decisions made by educational institutions, employers and professional bodies.

The European opportunity lies in connecting these different layers while preserving the responsibilities of competent educational authorities, professional bodies, employers, and other recognising organisations.

> **A common digital language can make learning understandable across borders. Trust infrastructures can make credentials easier to authenticate. Recognition systems must still determine the consequences of accepting them.**

8. Towards a Meaningful Currency of Skills and Trust

If micro-credentials are to become a meaningful currency of skills, their development must reach beyond issuing platforms and credential repositories. The central task is to build relationships of trust between learners, issuers, educational institutions, employers and other recognising organisations.

Consider a professional who has learned to manage uncertainty through years of project work, although conventional certificates rarely capture this competence. An evidence-based assessment could record performance against transparent criteria in a micro-credential. Interoperable issuance would make it easier to share and verify, but employers would still need to judge the assessment's relevance. This example links recognition of prior learning with digital credentialing: micro-credentials can make learning acquired in formal, non-formal and informal settings visible, while identifying competencies, evaluating evidence and determining recognition remain human and institutional responsibilities.

This matters as artificial intelligence reshapes work. Adaptability, critical judgement and collaboration may become increasingly important as routine tasks are automated. Nevertheless, micro-credentials should not fragment education into disconnected skills or displace broader intellectual, ethical and social purposes. Cedefop cautions against replacing holistic education with short learning built around reduced skill sets, while acknowledging the flexibility micro-credentials can provide [20]. Critics go further, arguing that micro-credentials may shift the costs of preparing for work onto individuals and reinforce precarious employment rather than widen inclusion [21]. They should enrich lifelong learning, not multiply isolated certificates.

For this reason, a sustainable ecosystem requires coordinated action.

Educational institutions and training providers need transparent learning outcomes, credible assessment, and appropriate quality assurance.

Employers need opportunities to communicate their competence requirements and participate in the development of recognition practices without reducing education exclusively to short-term labour-market demands. Recognition delivers its fullest value when employers provide opportunities for people to apply their skills, take on responsibilities and progress.

Policymakers and professional organisations need frameworks that support interoperability, inclusion, accountability, and fair access.

Technology providers need to prioritise standards, accessibility, security, portability, and the long-term interests of credential holders.

Finally, learners need reliable information about what a credential represents, who may recognise it, and what benefits it can realistically provide.

Such an ecosystem should be judged not by issuance volumes but by evidence of recognition, use, progression and inclusion. The ultimate test is whether

micro-credentials improve people's opportunities to learn, demonstrate their competencies, move between contexts and take a fuller part in society.

Conclusion: Beyond the Badge

Micro-credentials can reshape how learning is documented and recognised. Their importance lies not merely in digitisation, but in connecting demonstrated competencies with organisations that value them. The European approach establishes common descriptive foundations, while interoperable credentials support portability and verification. Blockchain and other trust technologies can protect records but cannot replace sound assessment, institutional responsibility and recognition.

The five conditions proposed here—credibility, evidence, verifiability, recognition and relevance—explain why technical validity does not ensure practical value. Success should be measured less by issuance volume than by reliable achievements, opportunities and use. The decisive question is not whether credentials can be issued and verified, but whether institutions can make them genuinely useful.

> **Technology can make a credential verifiable. Quality assurance can support the credibility of its claims. Meaningful recognition gives those claims exchange value beyond the issuing context.**

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