

GREEN CIRCLE BRIEFING REPORT: TOWARDS A SUSTAINABLE AND INTEROPERABLE MODEL FOR GREEN SKILLS MICRO- CREDENTIALING IN THE CONSTRUCTION SECTOR



Europe's construction sector is at a critical juncture, driven by the need to meet the sustainability and energy efficiency goals of the European Green Deal. A significant barrier to this transition is the skills gap, as the sector's workforce requires rapid upskilling and reskilling in new green technologies and practices. While micro-credentials have emerged as a flexible and targeted solution to address this challenge, their potential is hampered by a fragmented and inconsistent landscape across Europe, creating obstacles to recognition, portability, and trust.

This briefing presents the key findings and policy recommendations from the Green Circle project's Deliverable D3.1: "Report for a sustainable model for Green Skills micro-credentialing in Construction sector." The report proposes a comprehensive, multi-dimensional taxonomy designed to classify green skills micro-credentials in the construction sector.

Key Recommendations

1. Endorse and encourage the adoption of the proposed Green Circle taxonomy as a common reference framework for classifying micro-credentials in the construction sector and related industries.
2. Embed the taxonomy within existing European tools like the EQF, ECTS, ELM, and Europass to ensure seamless interoperability.
3. Launch national and regional pilot projects to test the taxonomy in practice, creating a repository of use cases and promoting stakeholder adoption.
4. Fund training and guidance materials for providers, employers, and learners, while supporting the integration of the taxonomy into digital credentialing platforms.

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Current Training Landscape

- Portugal, Spain, Greece: Training is based on traditional qualifications and long programmes. Short courses and MCs are rare, poorly integrated, and lack thematic continuity.
- Germany: Some MCs are already implemented (e.g., specialised certificates, licences) and support career progression.
- Common Gap: Existing training is often regulatory, introductory, and disconnected from real-world resulting in an Inconsistent and Fragmented Micro-Credential Ecosystem
- The construction industry is undergoing a transformation. The demand for a workforce capable of implementing energy-efficient designs, using sustainable materials, and managing complex green construction processes is growing exponentially. However, traditional, long-form education and training pathways are often too slow and rigid to adapt to these rapidly evolving needs.
- While promising, the growth in micro credentials has led to a fragmented and opaque ecosystem. The Green Circle project's earlier analysis revealed significant inconsistencies across Europe.

Key findings included:

- Micro-credentials are often offered without standardised formats, learning outcomes, or assessment methods. They are frequently delivered in non-formal or informal settings with little official validation.
- Many micro-credentials are not linked to national qualification frameworks (NQFs) or the European Qualifications Framework (EQF), making it difficult for employers and institutions to understand their value and for learners to use them for career progression.
- Without clear, comparable information on level, workload, and content, micro-credentials are rarely transferable across borders or even between different employers or institutions within the same country.

This lack of a shared framework creates a "Tower of Babel" effect, where the solution designed to bridge the skills gap is itself hindered by complexity. Stakeholders consistently highlighted that the absence of a unified taxonomy is a primary impediment to the effective recognition and mobility of green skills in the sector.

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The Green Circle Taxonomy – A Framework for Clarity and Trust

To address this critical challenge, the Green Circle project has developed a practical and structured taxonomy. It is designed to create a common language for describing, comparing, and connecting micro-credentials. The taxonomy is built on a multi-dimensional approach, focusing on seven core dimensions:

1. **EQF Level (Indicative):** The framework uses the EQF (levels 3 to 6) as its central organising axis. This provides a clear and universally understood indicator of the complexity and depth of the learning outcomes.
2. **Learning Volume & Credit Equivalence:** It provides guidance on translating learning hours (workload) into recognised systems like ECTS, CPD units, and ISO 17024-aligned schemes, thus supporting comparability across formal and non-formal education.
3. **Type of Learning Outcomes:** It captures the nature of the skills gained by distinguishing between cognitive (theoretical knowledge), technical (practical application), and transversal (e.g., digital, problem-solving) outcomes.
4. **Mode and Context of Delivery:** It classifies micro-credentials by how they are delivered (online, blended, face-to-face, work-based) and the context in which they are issued (formal, non-formal, informal).
5. **Assessment Characteristics:** It categorises assessment methods from simple participation to rigorous competency-based assessments (e.g., ISO/IEC 17024), offering transparency on the credential's credibility and value.
6. **Recognition and Portability:** It identifies who recognises the credential (institutionally, professionally, or by employers), clarifying its usability for career advancement or licensing.
7. **Pathway Function:** It defines the credential's role in a learning pathway, such as being standalone, stackable, bridging, or specialisation-focused.

The taxonomy is directly linked to European frameworks such as the European Qualifications Framework (EQF), the European Credit Transfer and Accumulation System (ECTS), the European Learning Model (ELM), and the ESCO classification. This alignment ensures that micro-credentials classified under this system can be easily understood, shared, and verified using existing European tools like Europass and the European Digital Credentials Infrastructure.

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Policy Implications and Recommended Actions

This taxonomy offers a tangible and practical tool to operationalise the Council Recommendation on a European Approach to Micro-credentials. Its adoption can unlock the full potential of micro-credentials to support the green and digital transitions in the construction sector.

Recommended actions

- **Promote and Endorse the Taxonomy:** Publicly endorse the Green Circle taxonomy as a best-practice model for classifying and regulating micro-credentials in the construction sector, encouraging relevant authorities and stakeholders to adopt it.
- **Integrate into National and EU Funding Schemes:** Use the taxonomy as a prerequisite for EU and national co-financed upskilling programmes. This would incentivise providers to design and describe their micro-credentials in a transparent, comparable way.
- **Support National Piloting and Use Cases:** Fund pilot projects to test and validate the taxonomy in diverse national and regional contexts. This will help identify best practices for its implementation and generate a repository of examples for other stakeholders.
- **Develop Training and Guidance Materials:** Finance the creation of user-friendly guidance documents, training materials, and workshops to help training providers, employers, and credential developers understand and apply the taxonomy effectively.
- **Facilitate Digital Integration:** Encourage and support the integration of the taxonomy into digital credentialing platforms and national qualification registers, ensuring its metadata fields are compatible with ELM and Europass for seamless digital interoperability.

The Green Circle taxonomy represents a crucial step towards a cohesive and effective micro-credential ecosystem for green skills in the construction sector. It provides the necessary structure to build trust, enhance transparency, and ensure the portability of these valuable learning experiences.

By adopting this framework, EU and national policymakers can provide the much-needed clarity that will empower learners, employers, and training providers. This will accelerate the upskilling and reskilling of Europe's construction workforce, ensuring it is equipped with the necessary green skills to successfully and sustainably deliver on the ambitious goals of the European Green Deal.

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