P4ELECS
Platform for Electrification Skills & Competences

Quicksheet for the P4ELECS project

How to develop Micro-credentials?

Co-funded by the European Union

About

A micro-credential is the record of learning outcomes acquired following a small volume of learning (typically 1 to 30 ECTS). It is a flexible way **to validate specific knowledge and skills** that respond to the rapid developments in the electrification sector and in the context of P4ELECS specifically.

Key Characteristics

- Target Group: EQF levels 4 to 7.
- Ownership: The learner owns the credential; it is portable and shareable via digital wallets.
- Quality Assurance: Always underpinned by agreed standards (ESG/EQAVET).

Micro-credentials vs. Open Badges

Choose the right format:

- Micro-credentials: Formal learning, assessed by recognized institutions, high labor market value, and "stackable" towards degrees.
- Open Badges: Versatile visual representation of skills, also suitable for informal learning (workshops, volunteering). Ideal for a broader portfolio.

Benefits

For VET in higher education

- Flexibility: Respond faster to technological trends than full degree programs.
- New Target Groups: Attract working professionals looking for "bite-sized" upskilling.
- Collaboration: Strengthen ties with industry through the co-creation of education.

For Business

- Rapid Response: Immediate solution to the "skills gap" in the green and digital transition.
- Efficiency: Employees can be trained specifically on high-value, targeted skills.

For the Learner

- Recognition: Formal recognition of skills without the commitment of a multi-year study.
- Portability: Easily showcase skills to employers across the EU via Europass.

P4elecs Micro-Credentials step by step

BEFORE

Preparation & Policy

P4Elecs Quality Check:

- Does a "Building Block" (BB) align with an existing Unit Learning Outcome (ULO)?

Internal Policy Audit (CRITICAL):

- Check if your institution has the legal right to award credits at the relevant EQF level.
- Verify if the credential aligns with the organization's procedure and quality policy for micro-credentials

DESIGN

Attention!

Follow the P4ELECS template. Down here you find extra information!

Step 1: Define Learning Outcomes via ELM

Use the European Learning Model. Ensure outcomes are measurable and relevant to electrification labor market demands.

ELM is a kind of **a “universal translator”** or a common digital language for education. It offers a standard way to describe a course (Title, Outcomes, Credits) so that computers and schools across the EU can read and understand the certificate instantly. It ensures that your data is "machine-readable."

Step 2: Assign Workload

For electrification training (VET), ensure the workload includes practical lab time or simulator hours. It is more than time spent in a classroom.

Calculation: Total hours ÷ 25 (or 30) = Number of ECTS credits.

Step 3: Map to ESCO

ESCO (European Skills, Competences, Qualifications and Occupations) is a massive **European dictionary of skills and jobs.** By linking your course to ESCO, you use the same words that recruiters use when they search for candidates.

Example: Don't just say "Battery stuff." Use the ESCO term "Maintain energy storage systems."

Link your learning outcomes to ESCO skills to increase visibility for recruiters.

Step 4: Mode of Learning

Specify if the course is online, blended, or face-to-face.

VALIDATION

Step 5: Assessment Validation (The Proof)

To be a real micro-credential, you need proof that the learner learned.

Robust & Tamper-proof: The test must be fair and impossible to cheat on.

Practical VET: For electrification (EQF 4-5), we prefer practical demonstrations. Can the learner actually wire the circuit, or do they just know the theory?

Step 6: Digital Issuance through the EDC Infrastructure

We no longer send PDFs that can be photoshopped. We use the European Digital Credentials for Learning (EDC). It is **a free EU tool that generates a secure file**. This file is digitally signed by your school, making it 100% fraud-proof. It can be read by "automatic verification" tools used by HR departments.

Step 7: Stackability

One of the biggest benefits is stackability. Imagine micro-credentials as Lego bricks. Clearly state if this brick can be combined with others to eventually **build a larger qualification** (like a full "Electric Vehicle Technician" certificate) within the P4Elecs framework.

TOOLS & RESOURCES

TOOL	WHAT IS IT FOR?	WHY USE IT?
Europass EDC	Issuing the certificate	To make sure your certificate is secure and digital.
ELM Builder	Writing the course description	To make sure your course "speaks" the same language as the rest of the EU.
EQF Portal NQF portal	Checking levels	To see how a Level 5 in Belgium compares to a Level 5 in Ireland.
ESCO Portal	Finding the right words	To use the official names for skills so employers can find your students.

Council Recommendation (2022): The official EU "rulebook" for micro-credentials.
Cedefop VET Paper (2024): A guide specifically for vocational and technical schools.
P4Elecs WP2 Guidelines: Our project's own internal quality standards.