

D2.2 Initial- and Continuing VET and Higher VET: A Holistic Framework for the delivery of Micro Courses applying Competence Units leading to Micro-Credentials

Version: 2.0, 16.1.25

Harmonized standards for delivery

Courses are structured and organized in a number of **Competence Units (CUs)**.

Each CU applies standardized **Learning Outcomes (LOs)** descriptions that specify:

- **Knowledge** - a description of what the student should have knowledge about....
- **Skills** - a description of what the student will be able to do
- **Competence** - a description of what the student should be able to do

1. The training paths for **Initial VET micro courses** leading to a National Qualification or an International Diploma, applies the sequence:

Knowledge --> Skills --> Competence

2. The in-company training paths for **Continuing VET micro courses**, applies the sequence:

Which Competence is needed ? ---> To provide sufficient Knowledge + work-based Skills that let the staff acquire this competence.



Co-funded by the
Erasmus+ Programme
of the European Union

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Initial VET micro courses leading to a NQ, an International Diploma, or an International Micro Specialization Diploma

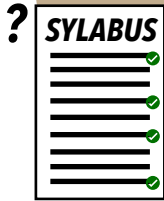


The European approach to Micro-Credentials (MCs) provides a common definition that applies across various sectors of education and the workforce. It reflects the societal mission of educational and training institutions, including higher education, vocational education and training (VET) institutions, non-formal providers, as well as employers and labor market stakeholders. MCs are designed to certify the learning outcomes of short-term learning experiences, such as short courses or training activities.

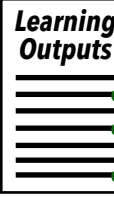
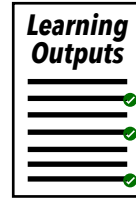
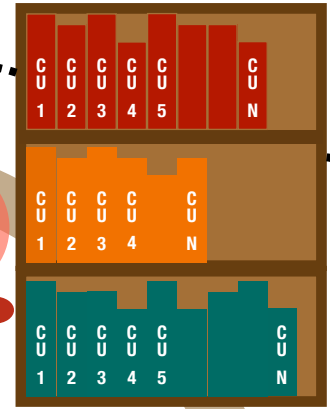
MCs provide a flexible, targeted approach that helps individuals develop their knowledge, skills, and competencies needed for personal and professional growth. An MC should document the learning outcomes a learner has achieved after completing a small volume of learning, with these outcomes assessed against clear and transparent standards.

However, without the development of common standards to ensure their quality, transparency, cross-border comparability, recognition, and portability, MCs cannot fully realize their potential within various industry production sectors. Courses leading to MCs should be designed to equip learners with specific knowledge, skills, and competencies that address both personal and labor market needs. MCs are intended to be owned by the learner, allowing them to be shared and portable across different contexts. They can function as standalone qualifications or be combined into larger credentials. They are supported by quality assurance processes, adhering to agreed-upon standards within the relevant sector or field of activity. The figure on the next page illustrates key features for how the basic VET courses could be set up, organized and delivered to the students by applying CUs leading to MCs.

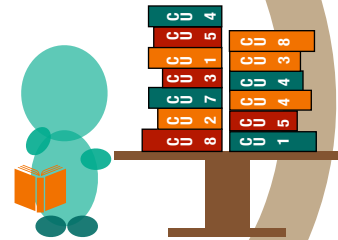
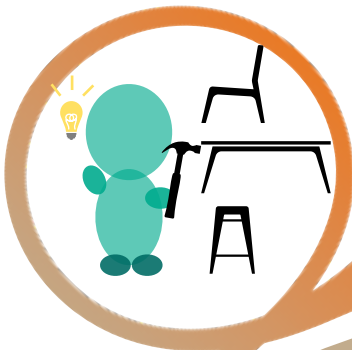
What should Initial VET micro courses focus on ?



KNOWLEDGE:
Should have knowledge of



COMPETENCE:
Should be able to do



SKILLS:
Will be able to do

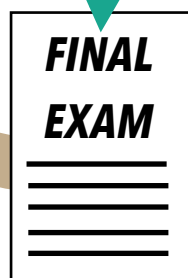
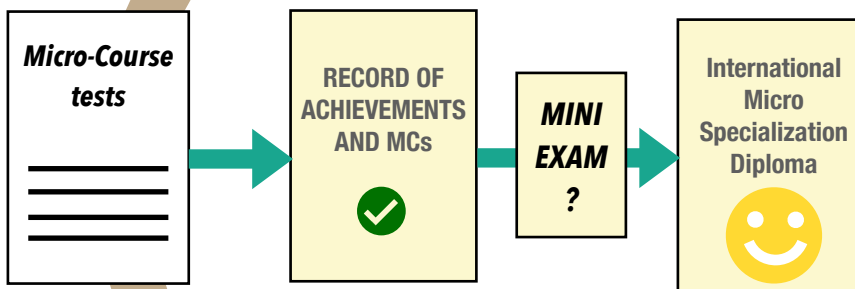
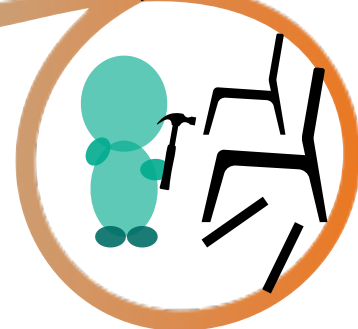


Figure 1. The structure of the Initial VET micro courses

The European Context

Basic VET education courses are usually comprehensive and several years of study (often 3-4 years) leads to a National Qualification or an International Diploma issued by European Welding Federation (EWF). These training activities mix theoretical and work-based training practices, often delivered in partnerships between public institutions and industry, or as a private and harmonized education system offered by EWF, and driven by European industry that is joining metals.

In the northern- and central part of Europe the NQ approach is common and has a strong foothold, while in the southern and eastern part of Europe the private and harmonized EWF system has a strong foothold.

Five re-structures Initial VET fish-farming courses into standardized CUs that improves the young students (age 16-20) understanding of what the required knowledge, skills and competences are in fish farming courses leading to a traditional NQ.

Adult staff from farming industry may study one or several of these CUs.

The IMiS Diploma

The Five project tests, evaluates and validates a new, harmonized basic VET system solution applying CUs leading to MCs, to provide a new **International Micro Specialization (IMiS) Diploma** in selected, specialized fish farming sectors.

This diploma is issued by providing small learning experiences organized and delivered as harmonized and standardized short training activities (the CUs) that are enhancing targeted acquisition of skills and competences. A CU leads to a standardized Micro-Credential (MC) that is easily understood and recognized by the industry, the employers, their staff, the learners, VET- and higher VET institutions.

The intention does not replace the traditional NQ or international Diplomas. The new system solution is adapted to provide and deliver competence and recognition of this, to staff in a fast changing society according to labour market needs.

The IMiS diploma is developed and issued in a partnership between VET schools providing the basic education, and farming industry providing specialized continuing training, where both apply the same harmonized standards.

Application of modern ICT tools help reducing the training delivery time while increasing the quality of the training, but without increasing the training delivery costs.

The Initial VET education delivery

The Five project develops harmonized minimum standards with specifications for how to (Figure 1):

- transfer a curriculum into a syllabus that is including and focusing towards measures for competence
 - specify Learning Outcomes (LOs) structured into
 - General Learning Outcomes (GLO) descriptions that transforms the syllabus into brief, clear and specific measurable statements addressing: KNOWLEDGE - SKILLS - COMPETENCES
 - Special Learning Outcomes (SLO) descriptions that transforms the GLO into the operational level, by specifying COMPETENCES - KNOWLEDGE - SKILLS
 - provide a system solution that let VET and Higher VET providers cooperate and collaborate about developing, sharing and using harmonized digital libraries that are applying standardized Competence Units (CUs)
 - learn to write GLO- and SLO descriptions specifying
 - KNOWLEDGE : What should students have knowledge about
 - SKILLS: What the students will be able to do
 - COMPETENCES: What the students should be able to do
-
- include work-based training practices into blended learning courses that's is combining on-site training, with on-line courses applying synchronous and asynchronous video for enhanced, flexible and cost-effective communication, cooperation and collaboration
 - structure a course into standardized CUs, each containing micro-course tests leading to Micro-Credentials (MCs) with subsequent issuing of Records of Achievements
 - combine the continuous assessment practices from the micro-course tests, with a possible mini-exam to issue the IMiS Diploma
 - prepare for a final exam leading to a National Qualification or an EWF based International Diploma
 - provide external quality assurance that is based primarily on the assessment of the providers and the effectiveness of of their quality assurance procedures
 - continuous gather learners and peers feedback during their learning experiences leading to the MC
 - assess MCs against transparent standards
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- support flexible learning pathways where it is possible to stack, validate and recognize MCs across different providers of VET and Higher VET
 - apply the new European digital wallets to store and share the MCs

Continuing VET micro-courses leading an International Micro Specialization Diploma, or a NQ or an International Diploma



Learning opportunities with a smaller training volume compared to traditional National Qualification-based courses in VET could be structured around the proposed Competence Units. These units can be quickly developed within VET to address the production industry's demand for more flexible, learner-centered training formats.

This training can be described as both lifelong and "life-wide," as it occurs in various settings such as at the workplace, at home, among employed individuals, and even those currently unemployed but seeking to qualify for a job. The use of MCs enables the targeted, flexible acquisition and recognition of knowledge, skills, and competencies to meet the evolving needs of the labor market. Importantly, MCs do not replace traditional qualifications; rather, they should complement them and offer lifelong learning opportunities for all. Due to their flexibility, MCs can be designed and delivered by a wide range of providers in both formal, non-formal, and informal learning environments.

There is an ongoing discussion in Europe about establishing common definitions and standards for MCs to describe and recognize them effectively. This raises concerns about their value, quality, recognition, transparency, and "portability." Portability refers to the transferability of MCs between and within education and training sectors, across labor markets, and across countries. These concerns currently hinder trust, understanding, broader acceptance, and uptake, which in turn limits the potential of MCs to support flexible learning and career pathways.

The new continuing in-company VET micro-course curriculums will offer shorter learning opportunities compared to traditional national qualifications, allowing them to be transferable into MCs. The figure on the next page illustrates key features for how continuing VET micro-courses could be set up, organized and delivered to the students as CUs leading to MCs.

**Which competences are needed
in Continuing VET micro courses?**

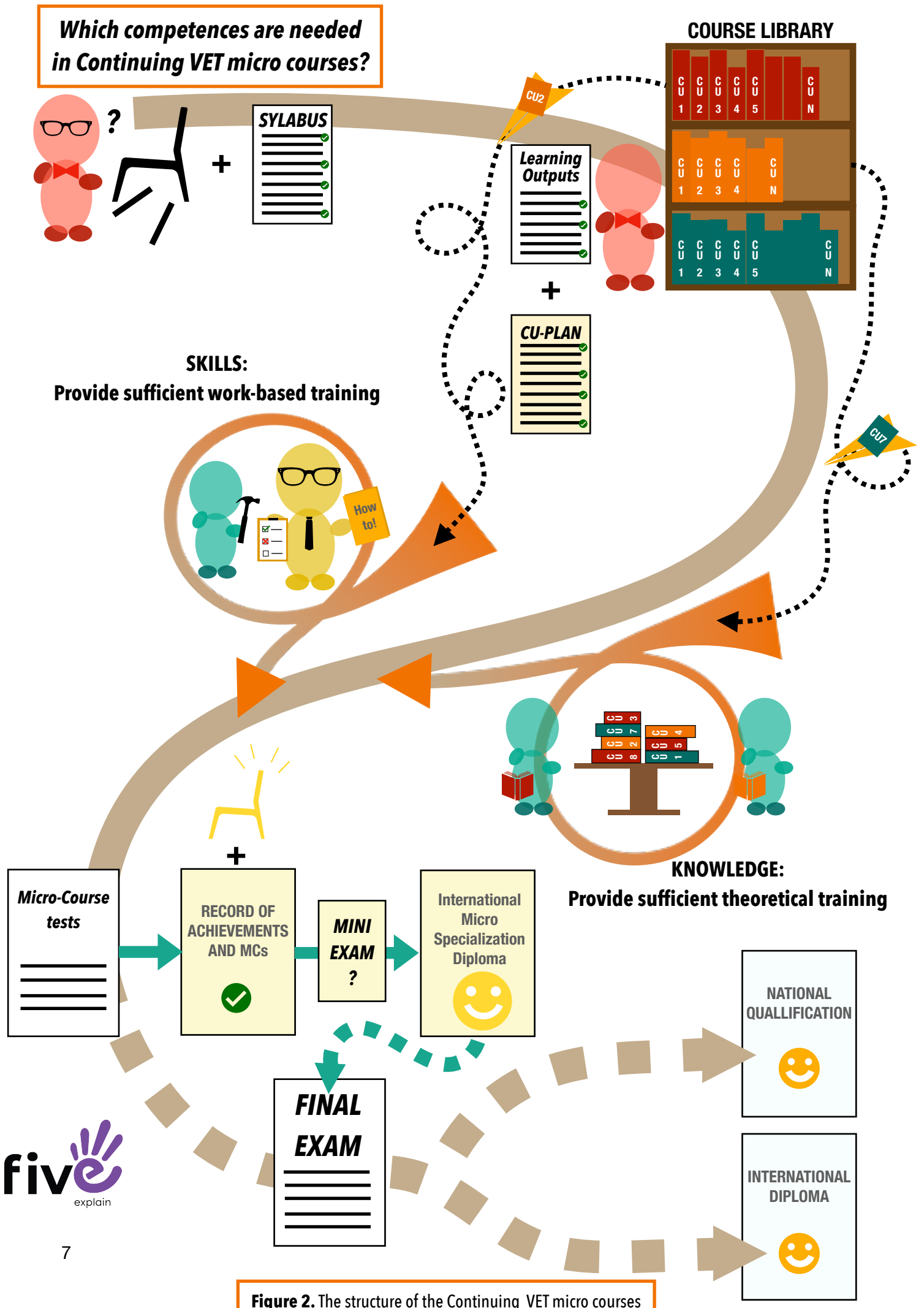


Figure 2. The structure of the Continuing VET micro courses

The European Context

Continuing VET education courses creates opportunities for workers and staff to attain skills, improve competences and advance their careers. Continuing VET education is a more formal part of the professional development and refers to different avenues for staying current with industry regulations, exploring new technological advancements, and enhancing skills and competences. Professional development is a broader term that covers various methods by which employees can acquire and improve skills for use in the workplace.

Continuing education options include self-paced online courses, classes provided by professional organizations, and degree programs offered by VET and higher VET colleges, or specialized degree programs offered by universities. Employees who pursue continuing education often do so to qualify for a job or secure a raise, while others take courses for personal enrichment and enjoyment.

Continuing VET education lets staff build a professional network, get an option to earn more money, to increase their creativity or confidence, and to learn and acquire new skills and competences. The staff will bring the new competences to their workplace.

The IMiS Diploma

The Five project tests, evaluates and validates a new, harmonized continuing VET system solution applying CUs leading to MCs, to provide a new **International Micro Specialization (IMiS) Diploma**. This includes applying VET in selected, specialized fish farming areas, and VET that addresses the European standard that regulates the fabrication and assembly of steel and aluminium structures (EN1090), which are recognized by the Construction Products Regulation.

This diploma is issued by providing small learning experiences organized and delivered as harmonized and standardized short training activities (the CUs) that are enhancing targeted acquisition of skills and competences. A CU leads to a standardized Micro-Credential (MC) that is easily understood and recognized by the industry, the employers, their staff, the learners, VET- and higher VET institutions.

The new system solution is adapted to provide and deliver competence and recognition of this, to staff in a fast changing society according to labour market needs. By taking a final exam, the IMiS diploma could be extended and transferred into a traditional NQ or an international Diploma.

The IMiS diploma is developed and issued by providers of specialized continuing training that is applying the same harmonized standards.

Application of modern ICT tools help reducing the training delivery time while increasing the quality of the training, but without increasing the training delivery costs.

The Continuing VET micro course delivery

The Five project develops harmonized minimum standards with specifications for how to (Figure 2):

- transfer a curriculum into a syllabus that is including and focusing towards measures for competence
- specify Learning Outcomes (LOs) structured into
 - General Learning Outcomes (GLO) descriptions that transforms the syllabus into brief, clear and specific measurable statements addressing the required Competences, to be supported by descriptions of provision of sufficient Knowledge and Skills
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- combine the continuous assessment practices from the micro-course tests, with a possible mini-exam to issue the IMiS Diploma
- prepare for a final exam leading to a National Qualification or an EWF based International Diploma
- provide external quality assurance that is based primarily on the assessment of the providers and the effectiveness of their quality assurance procedures
- continuously gather learners and peers feedback during their learning experiences leading to the MC
- assess MCs against transparent standards
- inform HR responsible for developing CU-plans supporting industrial companies development of their staffs skills and career plans
- support flexible learning pathways where it is possible to stack, validate and recognize MCs across different providers of VET and Higher VET
- apply the new European digital wallets to store and share the MCs