

DELIVERABLE 3.2

Inventory of units of Learning Outcomes as an inspiration for the designing of micro-credentials

WP3 – Common Understanding

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Beyond Europe with
Micro-credentials

About BEM

The Erasmus+ project “Beyond Europe with Micro-credentials” (BEM project) is about transferring experiences from ECVET to the development of micro-credentials. The aim is to reflect these in the non-EU member states and adapt them to the respective local conditions.

With micro-credentials (MC), labour market-relevant qualifications are developed whose contents are derived from the needs of selected sectors in the countries and implemented in consultation with regional companies. MCs also focus on groups of people who have so far been insufficiently covered by the education systems (e.g. learners in structurally weak regions, single parents, unskilled workers, people with support needs, refugees). BEM MCs can be used in vocational education and training (VET), as an additional qualification or for the validation and recognition of informal learning. It is planned to develop 10 to 12 MCs per country. The developed MCs will be linked to the Europass templates and included in the multilingual "Skillsbank" maintained in Norway. This will give them an additional European added value, and they can be transferred to other countries or sectors.

The BEM project brings together VET institutes, national qualifications authorities, intermediate institutions, and VET providers (vocational schools and training centers) from eight countries. This broad project partnership enables the accreditation, documentation, recognition, or validation of MCs according to the conditions applicable in each country, thus building a bridge between education (VET and higher education) and the world of work.



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Some preliminary remarks

Since the “shift to learning outcomes” (Cedefop 2008), there has been an overwhelming amount of literature on the subject. This is a sign that the topic and the turning point it has brought about in the understanding of VET has been recognised in many EU countries. There are a huge number of articles, websites, recommendations and practical tools on how learning outcomes should be identified, recorded and described. Not all of these can be mentioned in this report. We will refer to some links that seem relevant to our work within our BEM approach.

Even if the term "inventory of learning outcomes" suggests a certain degree of completeness, we cannot guarantee this. On the one hand, this is due to the wealth of material, as many ECVET-units of learning outcomes have been developed since 2009 as part of mobility projects. They were available on various project websites which meanwhile do not exist anymore. There is no overview here. Relevant databases and websites that have systematically recorded units of learning outcomes from different sectors and application contexts (such as ADAM or those of the ECVET Secretariat) can no longer be found or have been taken offline.

To gain an initial impression of the various forms of presentation, we refer you to the database of the National Agency “Bildung für Europa” in Germany, which still provides information on ECVET today. In our research, we always concentrate on what can be used for the BEM - we therefore do not include corresponding examples from the higher education context.



Learning Outcomes – A big Step towards a European Area for Education and Employment

The Shift to Learning Outcomes

Since 2008, there has been a significant turn from the description of learning objectives towards **learning outcomes** in European education and training policies. This shift represents a fundamental change in how education and training systems are designed and evaluated, with a focus on learners' knowledge and competencies and it was expressed by the following key features:

1. Conceptual Basis:

- The focus has shifted from input factors (such as duration, location, and pedagogical methods) to **what learners know and can do** at the end of their learning process.
- Instead of emphasizing qualifications based on inputs, European countries increasingly refer to **learning outcomes** when setting objectives for their education and training systems.
- Learning outcomes are **explicitly promoted** in EU policy agendas for education, training, and employment.

2. National Qualifications Frameworks (NQFs):

- Many countries have established NQFs based on learning outcomes.
- The launch of the **European Qualifications Framework (EQF)** and the **European Credit System for Vocational Education and Training (ECVET)**, both grounded in learning outcomes, has catalyzed attention on this approach.

3. Practical Implications:

- Learning outcomes are more and more seen as an **opportunity to tailor education and training to individual needs**.
- They are meant to enhance **links to the labour market and support the recognition of non-formally and informally acquired learning outcomes**.



Learning Outcomes in VET: A European Perspective

The learning outcomes approach is in the core of European VET policy since almost two decades. The concept of learning outcomes has been widely adopted in the European Union (EU) to improve the transparency, quality and relevance of vocational education and training (VET). Learning outcomes are statements of what a learner knows, understands and is able to do after completing a learning process. They can be used to define and describe the content, level and expected results of VET programmes, qualifications, and certificates.

One of the main policy instruments that promotes the use of learning outcomes in VET is the **European Qualifications Framework (EQF)**, which was adopted by the European Parliament and the Council in 2008. The EQF is a common reference framework that links national qualifications systems and levels to a set of eight European levels, expressed in terms of learning outcomes. The EQF aims to facilitate the recognition and transfer of learning outcomes across countries, sectors and education and training systems, and to support lifelong learning and mobility of learners and workers.

Another key policy initiative that supports the implementation of learning outcomes in VET is the **European Credit System for Vocational Education and Training (ECVET)**, which was also adopted by the European Parliament and the Council in 2008. ECVET was meant to be a technical framework that enables the accumulation and transfer of credits for learning outcomes achieved in different contexts, such as formal, non-formal and informal learning. ECVET is based on the principle that VET qualifications can be described as a set of units of learning outcomes, which can be assessed, validated and recognised independently.



Understanding Learning outcomes and units of learning outcomes

Definitions:

According to the ECVET recommendation of 2008 **learning outcomes** refer to the statements that articulate what a learner is expected to know, understand and be able to demonstrate after completing a learning process. They serve as the basis for defining and evaluating the quality and relevance of education and training in various contexts, such as qualifications frameworks, curricula, assessment standards and recognition of prior learning. An example of a context that employs learning outcomes is the European Qualifications Framework (EQF), which defines the levels of knowledge, skills and competences that learners can attain in different qualifications. Learning outcomes also facilitate the transparency and mobility of learners within and across countries, sectors and institutions. An example of a tool that utilises learning outcomes is the Europass portfolio, which presents the skills and qualifications of individuals in a coherent and comparable manner.

In the ECVET approach Learning outcomes are **bundled into units**, which are understood as **components of a qualification**. An ECVET unit of learning outcomes (ULO) consists of a **coherent set of knowledge, skills and competence that can be assessed and validated**. A unit can be the **smallest part of a qualification or a larger part of a qualification** that can be combined with other units to form a full qualification. A unit can also be used for the recognition of prior learning or for credit transfer between different qualifications or education systems. The piloting of ECVET (2008-2018) showed that the use of learning outcomes and of units of learning outcomes in VET also posed some challenges. Some of the main challenges included:

- Defining **clear, relevant and consistent learning outcomes** that reflect the needs of learners, employers and society, as well as the diversity of VET contexts and practices. This challenge involves identifying the knowledge, skills and competences that are essential for performing a certain occupation or profession, as well as for personal development, social inclusion and active citizenship. It also involves ensuring that the learning outcomes are formulated in a way that is understandable, measurable and comparable across different settings and levels. To address this challenge, it is important

to involve all relevant stakeholders, such as employers, social partners, sectoral organisations, education and training providers, learners and experts, in the definition and description of learning outcomes. It is recommended to use existing tools and frameworks, such as occupational standards, sectoral qualifications frameworks, European tools (e.g. EQF, ECVET) and international classifications (e.g. ISCED), to ensure consistency and comparability of learning outcomes.

- Developing **valid, reliable and feasible methods and tools for assessing, validating and recognising learning outcomes** achieved in different settings and modes of learning. This challenge involves designing and implementing assessment methods and tools that can capture the complexity and diversity of learning outcomes, as well as ensure their quality, reliability and validity. It also involves establishing procedures and mechanisms for validating and recognising learning outcomes acquired through non-formal or informal learning, such as work experience, volunteering or self-study. To address this challenge, it is important to adopt a learner-centred approach to assessment, which focuses on what the learner can do rather than how they learned it. It is also important to use a variety of assessment methods and tools, such as portfolios, simulations, interviews or tests, that are appropriate for the type, level and context of learning outcomes.
- Ensuring the **quality assurance of VET programmes, qualifications and certificates based on learning outcomes**, as well as the trust and confidence among stakeholders involved in VET. This challenge involves establishing and implementing quality standards and criteria for VET programmes, qualifications and certificates that are based on learning outcomes, as well as ensuring their relevance, consistency and comparability across different providers, sectors and countries. It also involves building trust and confidence among learners, employers, education and training providers, certification bodies and policy makers, in the value and recognition of learning outcomes-based VET. It is important to promote transparency and communication of VET programmes, qualifications and certificates based on learning outcomes, using tools such as Europass, the European Skills Passport or the European Qualifications Passport for Refugees.
- Providing adequate **guidance, support and training for VET teachers, trainers, assessors and validators** to develop their competences in using learning outcomes approaches. This challenge involves developing and updating the professional

competences of VET teachers, trainers, assessors and validators to design, deliver and evaluate VET programmes, qualifications and certificates based on learning outcomes. It also involves providing them with appropriate guidance, support and training opportunities to acquire and apply these competences. It is also important to provide them with access to quality and relevant professional development programmes, resources and networks, such as the European Training Foundation's (ETF) Teacher Training Platform, the European Centre for the Development of Vocational Training's (Cedefop) Toolkit for Teachers and Trainers or the European Association of Institutions in Higher Education's (EURASHE) Community of Practice.

- Promoting **awareness, understanding and acceptance of learning outcomes** among all VET stakeholders, especially learners and employers. This challenge involves raising awareness and understanding of the benefits and implications of using learning outcomes in VET among all VET stakeholders, especially learners and employers, who are the main beneficiaries and users of VET programmes, qualifications and certificates. It also involves encouraging their acceptance and recognition of learning outcomes-based VET, as well as their involvement and participation in its development and implementation. To address this challenge, it is important to disseminate information and good practices on using learning outcomes in VET, using channels such as websites, newsletters, publications, events or social media. It is also important to engage learners and employers in dialogue and consultation on defining, describing and applying learning outcomes in VET, as well as to provide them with feedback and recognition mechanisms, such as certificates, badges or testimonials.

The EU has been providing various forms of support to its member states and other countries participating in its education and training policies to address these challenges and to facilitate the use of learning outcomes in VET. Some examples of this support are:



- ✓ **Developing common principles, guidelines and tools for defining, describing and applying learning outcomes in VET**, such as the EQF Recommendation¹, the ECVET Recommendation², the European Guidelines for Validating Non-formal and Informal Learning³ and the Europass documents⁴.
- ✓ **Funding projects and networks** that promote the exchange of experiences and good practices on using learning outcomes in VET through programmes such as Erasmus+, Cedefop and ETF.
- ✓ Cedefop has carried out **several studies** mapping and analysing the use of learning outcomes for different purposes⁵.
- ✓ Providing **technical assistance, peer learning and policy advice** to countries on developing and implementing national qualifications frameworks based on learning outcomes through initiatives such as EQF Advisory Group, ECVET Users' Group, Cedefop ReferNet and ETF Torino Process.

¹ [EUR-Lex - 32017H0615\(01\) - EN - EUR-Lex \(europa.eu\)](#)

² [Draft Proposal for a EP and Council Recommendation on ECVET \(europa.eu\)](#)

³ [European guidelines for validating non-formal and informal learning - Publications Office of the EU \(europa.eu\)](#)

⁴ [Home | Europass](#)

⁵ (1) <https://www.cedefop.europa.eu/en/projects/european-credit-system-vocational-education-and-training-ecvet>, (2) <https://www.cedefop.europa.eu/en/news/ecvet-toolkit>, (3) <https://www.cedefop.europa.eu/en/about-cedefop/public-procurement/europass-ecvet-and-egf-documentation-validation-and-certification>; (4) [Using learning outcomes.pdf](#); (5) [using learning outcomes to compare the profile of vet qualifications - a global approach cedefop unesco november 2017.pdf](#); (6) [cedefop inventory LO in Europe.pdf](#) (7) [Defining, writing and applying learning outcomes | CEDEFOP \(europa.eu\)](#)

Examples

The ECVET recommendation 2008⁶ is a European policy document that aims to facilitate the recognition and transfer of learning outcomes acquired in different vocational education and training (VET) systems. It proposes **a common framework and methodology for describing, assessing and validating learning outcomes, based on units of learning outcomes, credit points and personal transcripts.**

Since its adoption, many projects and experiences have been carried out to implement and test the ECVET principles and tools in various contexts and sectors. For example, the **ECVET-TOUR** project ([WBL-Toolkit: ECVET-TOUR: Competence Matrices for Cook and Commercial Assistant](#)) applied ECVET to the tourism sector, creating a common European qualification profile for cooks and commercial assistants and developing an online tool for documenting and validating their competences.

Other projects – particularly with promoters and/or partners working in company-based VET systems - investigated the question of the extent to which the European ECVET approach is capable of implementation from a strong WBL- perspective and which of its aspects are suitable for the facilitation of cross-border mobility⁷.

- SME Master plus linked elements of ECVET with the tradition of journeymen and used these to “internationalise” master craftsman training
- In CREDCHEM, the piloting of ECVET served as the impetus for the establishment of a permanent mobility network for the chemical sector

⁶ [Draft Proposal for a EP and Council Recommendation on ECVET \(europa.eu\)](#)

⁷ Christiane Eberhardt (Eds.): ECVET AS A VEHICLE FOR BETTER MOBILITY? MOVING FROM RECOMMENDATION TO PRACTICE. Experiences and results gained from the pilot projects SME Master Plus, AEROVET, CREDCHEM and VaLOGReg (2009-2012), Federal Institute for Vocational Education and Training, Discussion Paper 134). URL: [BIBB / ECVET as a vehicle for better mobility? Moving from Recommendation to practice](#)

- The AEROVET Project focused on training within a sector which is already aligned and regulated along European lines, the European aviation industry and
- VaLOGReg examined opportunities and routes for how ECVET can be used to improve mobility in border areas (cf BIBB 2013).

German-speaking readers can find a list of ECVET- units of learning outcomes that were developed in a large number of sectors between 2008 and 2018 on the NA website at BIBB⁸.

These projects and experiences have provided valuable insights and feedback on the benefits and challenges of applying ECVET to different types of VET programmes, qualifications and mobility schemes. Some of the benefits include increased transparency and comparability of VET qualifications, improved mobility opportunities and recognition of prior learning, enhanced cooperation and trust among VET stakeholders, and better alignment of VET with labour market needs. Some of the challenges include the complexity and diversity of VET systems and qualifications, the lack of awareness and understanding of ECVET among VET actors, the need for adequate resources and support for ECVET implementation, and the difficulty of measuring the impact of ECVET on learners' outcomes and careers.

⁸ [NA beim BIBB: Lernergebniseinheiten A-Z \(na-bibb.de\)](http://na.beim.BIBB.de/Lernergebniseinheiten-A-Z)

1. Units of learning outcomes.

= component of a qualification, consisting of a coherent set of **knowledge, skills and competence** that can be **assessed and validated**.

It consists of

- the generic **title of the unit**,
- the **generic title of the qualification** (or qualifications) to which the unit relates, where applicable,
- the **reference of the qualification** according to the EQF level and, where appropriate, the national qualifications framework (NQF) level
- the **learning outcomes** contained in the unit,
- the **procedures and criteria for assessment** of these learning outcomes,
- the **ECVET points** associated with the unit,
- the **validity in time of the unit**, where relevant.

<https://www.em-eu.eu/media/1343/ecvet-manual-for-emeu-final.pdf>,

Inventory of LO:

<https://www.na-bibb.de/erasmus-berufsbildung/mobilitaet/lernergebnisse-und-qualitaet/lernergebniseinheiten-a-z>

<https://eurspace.eu/ecvet/pedagogicalkit/framework-for-defining-learning-outcomes-knowledge-skills-competence/>

Source: PPP at the BEM Podgorica Meeting, October 2023



A unit of Learning outcomes and a micro-credential: same same but different? The BEM understanding of a micro-credential

ECVET units of learning outcomes proved to be particularly successful in the implementation of mobility phases abroad. They guarantee the sending organizations that the learners abroad acquire the learning outcomes that are part of their training that they would also acquire at home. For the receiving organization, the unit specifies the learning outcomes to be acquired and assessed during the stay abroad, although it is left to the receiving institution to determine the didactic pathway to this itself.

Learning outcomes defined as a statement of what a learner is expected to know (**knowledge**), understand (**competence**, in the sense of responsibility and autonomy) or be able to do (**skills**) are independent from a didactical perspective. Neither the venue, nor the learning environment or the length of the learning process are taken into consideration.

The concept of BEM-micro-credentials is very much linked to that open concept: A BEM micro credential describes the learning outcomes **of a skill/small competence** that is currently needed in the labour market, or more precisely: in a partner company. The learning outcomes are the result of collaboration with business practice: the company's current needs are 'translated' into learning outcomes.

Analysing the occupational activities that are to be bundled in the Micro-credential

- Tying bonds with local/regional companies and convincing them for a cooperation (presenting the win-win, signing Mou)
- Identifying the skills need of the company
- Observing the workplace were the skills are needed describing the application context for the micro-credential
- Identifying typical work tasks (TPT) and routines that are characteristic/typical for the skills/the job

Source: PPP at the BEM-Skopje-meeting, April 2024

The micro-credential describes what is needed and provides information on how to check/assess whether the learning outcomes are achieved. **In this sense, it is a 'mini-standard' for a mini-competence.** It is up to each company, training provider and vocational school to decide how the learning outcomes of a micro-credential are provided. This makes the micro-credential applicable and usable across national borders. Time/duration and learning processes can vary depending on the target groups.

All information is presented on a standardised template.



BEM MC template

- title of the micro-credential
- Target group or purpose (for whom? Function?)
 - the generic title of the qualification (or qualifications) to which the unit relates, where applicable,
 - fields of application, typical work tasks
 - the learning outcomes (personal and job-related)
 - the procedures and criteria for assessment of these learning outcomes,
 - the validity in time of the unit, where relevant.



Source: PPP at the V`BEM-Skopje meeting, April 2024

The template development (including assessment criteria) is described in detail in **Deliverable 3.6**.

