



Good Practices in ECVET – C4FF Approach MariePRO Project

Professor Dr Reza Ziarati
Captain Himadri Lahiry
Dr Martin Ziarati

1. INTRODUCTION

The **European Credit system for Vocational Education and Training (ECVET)** is the new European instrument to promote **mutual trust** and **mobility** in vocational education and training. ECVET is a European system of accumulation and transfer of credits between education institutions and systems across the EU and has been designed to enable the recognition of the learning outcomes by **an individual in a learning pathway** to a **qualification**. The system favours the documentation, validation and recognition of achieved learning outcomes acquired, in particular in the framework of transnational mobility, in both formal Vocational Education and Training (VET) and non-formal contexts. It is centred on the individual and based on the learning outcomes approach, **defined in terms of the knowledge, skills and competences necessary for achieving a qualification**. This enables a more accurate design of training courses answering the training needs of employees. ECVET is based on concepts and process which are used in a systematic way to establish a user-friendly **language for transparency, transfer and recognition of learning outcomes**. Some of these concepts and processes are already embedded in many qualifications systems across Europe such as ECTS (European Credit Transfer Scheme).

ECVET was introduced after the success of ECTS in the higher education sector. Like ECTS, it concerns the recognition of the learning by **an individual in a learning pathway** to a **qualification** and it has a **uniform structure** with a **set of requirements**. The success of ECTS was primarily a voluntary process, that is to say, when two or a groups of HEI (Higher Education Institutions) agreed that there was a possibility that part of their students' programmes of studies could be undertaken in another university (often in another country) then arrangements were made to apply ECTS. **It is of paramount importance to realise that every year of a degree programme study is 60 ECTS but this does not mean that any student/individual can transfer at will to any other HEI without a formal arrangement or without the acceptance by the receiving institution**. It was pertinent for ECTS to note that both the sending and receiving universities are expected to undertake a substantial amount of work to ascertain that the mobility opportunity being considered provides a series of advantages to students and would not academically or professionally disadvantage them. ECVET was initially intended to mirror ECTS in vocational schools/colleges at secondary as well as lower tertiary levels (Vocational diplomas/foundation degrees, and so forth). A review of ECVET practices, as will be seen in following examples, shows that ECVET has also provided opportunities to develop new qualifications and even new standards. The review presented in this report also provides an opportunity to learn from the examples given so that other colleges/schools and organisations providing learning and training opportunities could consider ECVET, either as a means of providing mobility for learners on existing qualifications or as a means of creating new qualifications and standards.



The formal structure and basic building blocks of ECVET are described in the following paragraphs. Before considering the structure it is worth noting that ECVET was initiated to provide opportunity for the exchange of students/learners/trainees where feasible and therefore may not be possible or desirable to apply it in some industrial applications/environments. ECVET can apply to formal and/or non-formal learning activities or experiences; in most cases an ECVET practice is developed to create opportunities for learning in another location other than the normal place of learning.

2. ECVET Formal Structure and Requirements

ECVET has a formal structure which includes the following:

- **Learning outcomes**, which are statements of knowledge, skills, and competence that can be achieved in a variety of contexts.
- **Units of learning outcomes** that are components of qualifications. Units can be assessed, validated and recognized.
- **ECVET points**, which provide additional information about units and qualifications in a numerical form.
- **Credit** that is given for assessed and documented learning of a learning outcome by a learner. Credit can be transferred to other contexts and accumulated to achieve a qualification on the basis of the qualification standards and regulations existing in the participating countries.
- **Mutual Trust and partnership among participating organisations**. These are expressed in Memoranda of Understanding and Learning Agreements.

A **Memorandum of Understanding (MoU)** forms the framework for cooperation between the competent institutions. It aims to establish mutual trust between the partners involved. In the MoU partner organisations mutually accept each other's respective criteria and procedures for quality assurance, validation and recognition of knowledge, skill and competence for the purposes of transferring **Credit**.

There is also a provision for Agreements (within an MoU or as an attachment) set up by sector based organisations (e. g. by Chambers, regional and national authorities). This should include a list of organisations such as VET providers, companies, etc., who are able to operate in the framework set up by the MoU.

In order to recognise **Credit**, the competent institution in charge needs to be confident that the required learning outcomes have been assessed in a reliable and valid manner. It also needs to trust that the learner's credit does relate to the learning outcomes stated and that these are at the appropriate level.

On the basis of the assessed outcomes, the credit can be validated and recognised by another competent institution. The transfer process includes three distinct stages:



1. **The hosting institution** assesses the learning outcomes achieved and awards credit to the learner. The learning outcomes achieved and corresponding ECVET points are recorded in a learner's personal transcript.
2. **The sending institution** then recognises learning outcomes that have been acquired; this recognition gives rise to the award of the units and their corresponding ECVET points, according to the rules of the home system.
3. **Credit accumulation** is the process through which learners can acquire qualifications progressively by successive assessment and validation of learning outcomes. Accumulation of credit is decided by the competent institution responsible for the award of the qualification. When the learner has accumulated the credit required and when all conditions for the award of the qualification are fulfilled, the learner is awarded the qualification.

The following are five examples, one from each partner country in the MariePRO project (<http://www.utu.fi/en/units/cms/projects/mariepro/Pages/home.aspx>), have been provided so that partners' can learn from one another as well as for other institutions and organisations who wish to develop an ECVET practice of their own or to develop ECVET compliant new skills/competences and/or qualifications. The intention is also to tabulate a set of guidelines or a cross-referencing table showing whether the requirements of ECVET are met for any ECVET initiative/project, providing extra row(s) identifying additional key features of the practice/project.

3. Partner Examples

3.1 Italy's Example of Good Practice ECVET

Consortium of Vocational Schools to Send Students to Other Countries Primarily for Short Exchanges and Mainly to Give Recognition to a Set of Non-formal Learning Experiences

The example presented here is an initiative in Italy which has been developed to allow students from vocational schools to seek qualifications and recognition for knowledge and skills/competences gained according to ECVET requirements. The objective of the initiative is primarily for encouraging the mobility of students to other European countries. Italy's experimentation in applying ECVET is relatively new. In recent years a great deal of work has been carried out in some vocational fields, for instance, this initiative which is a consortium of vocational in the northern/central part of the country.

The initiative was instigated by the "Consorzio degli Istituti Professionali" (*Consortium of vocational schools*) which is a well established network of more than 60 vocational schools from several Italian counties embarking on mobility projects that allow young students from vocational fields to get competences abroad. The basic concept that led to these the activities is the deep conviction that the mobility opportunity provides additional value to the normal education process in one's own country in both the formal and informal learning environment encompassing: integrating and interacting in a different context from a cultural, social, professional and linguistic perspective; facing new situations, increasing personal autonomy and responsibility; improving social, linguistic and communicational skills; getting new educational and training opportunities; learning new working practices; completing their vocational training in a different learning environment, using



personal and professional skills in different situations; making choices on the basis of new information and developing new skills to respond flexibly and effectively to differing demands, and improving employability. The vocational areas in which the consortium is mostly active encompasses a wide range of subjects such as: *Business Administration; Tourism; Catering / Reception; Social Care; Fashion and Mechanic / Electronic*. The consortium has already created opportunities for the mobility of more than a hundred students, in several European countries: *Sweden; Romania, Portugal; Finland; Ireland; Germany and France*.

Key Features of the Good Practice

The key feature of the Italian project is that it is in line with the structure of the EU's ECVET model; the process involves preparing an *agreement* among the schools in the *Consortium* and *vocational schools in the different EU countries* based on ECVET practice. The consortium gives support to the schools in order to coordinate the mobility activities, which often lasts 3 weeks and involves about 10 students at a time, with one or two accompanying teachers. The consortium gives support in terms of:

- Project layout and project management, contacts with National Agency;
- Engagement of Italian and European partners and sharing of goals and methods of project development through constant contact;
- Organization of training courses for the student beneficiaries and accompanying teachers; Organisation of travel, accommodation and logistics internships, local language courses and related costs;
- Checks of insurances (accident and civil liability of partner schools) and supplementary insurance;
- Reimbursement of the beneficiaries for any travel, accommodation, transport and cultural training cost incurred during the mobility abroad;
- Production and collection of the required documentation (evidence of expenditure contracts, training projects, Europass, evaluation sheets, etc.)
- in collaboration with hosting partners; Support of beneficiaries in evaluation and documentation of experience phases;
- Reporting and relations (interim and final); Dissemination of the results of the experience.

Furthermore, the vocational school has to follow other steps that appear to be less "technical" but far more important in terms of education and that make the experience really effective; for instance, it has to:

- Identify a contact person of the project who attends all the meetings and fulfils all the procedures for the best realisation of the project;
- Choose the most suitable participants and an accompanying teacher with a good command of the English language who takes an active role in the fulfillment of the project (Europass procedure, report instructions, formal sheets);
- Promote the mobility experience as a useful learning opportunity to improve linguistic competences and to learn to work in an international context;



- Recognise the mobility experience as an integral part of the curriculum; Identify all the tools to receive the most reliable feedback of the mobility experience (through logbooks, evaluation sheets, skill certifications);
- Provide a copy of all the bureaucratic files;
- Guarantee the linguistic training of the students and support them with the mobility documentation; Get in touch with the Consortium in all the different stages of the mobility activities,
- Answering promptly to its request in case of need and following scrupulously all the Consortium's requirements as set in the Agreement.

3.2 Malta's Example of Good Practice ECVET

Creating a Transnational New Qualification for Pilots Working in Sea Ports and Applying ECVET Practice in Collaboration with Several European Countries to Enable Recognition of the Qualification in These Countries

The Maltese report concerns the development of a framework that aims at having a transparent recognition of the maritime pilots qualifications under the ECVET and EQF, a qualification focused on Risk Prevention and Environmental Protection, referred to as CERTIPILOT. Their report illustrates that the CERTIPILOT project concerns the Maritime Pilot profession in Malta. The report gives a background on the use of competences in the EU – ECVET and EQF, the relevance of competences for Maritime Pilots Qualifications and the skills portfolio for inclusion in the Europass CV. The report also shows how the Learning Outcome approach is applied to the CERTIPILOT qualification.

Starting from the A960 Recommendation of the IMO, CERTIPILOT links the training undertaken by pilots along their career with the European educational system without introducing new standards or new courses. After following the career development path which is common to Master and officers, Pilots' training needs become more specifically linked to the task of manoeuvring vessels in ports, but there is no system in place to make it possible to assess the competences and the levels related to these competencies. CERTIPILOT fills this gap, in particular in relation to the use of technology in VET and environmental protection.

The project has created a comprehensive framework enabling Pilots' Associations and National Educational Authorities to assess pilots' qualification levels as well as the levels of training undertaken, both internally and abroad; and to facilitate mutual qualification recognition. Thanks to CERTIPILOT it is possible, for the first time, to take formal, informal and non-formal learning into consideration when assessing a Pilot's training record. This innovative aspect is relevant to the profession, as the qualifications of Pilots are strongly linked with their experience gained through work as well as with testing carried out using the technology available. The solution was proposed by the end users of the service in a bottom up approach. Moreover, the issue of recognition of qualifications is addressed in a holistic manner, i.e. not focusing on just one specific training programme. In terms of comparison with existing solutions as it has to be noted that CERTIPILOT focuses, for the very first time, on Maritime Pilots. Also for the first time, EUROPASS is applied to the Pilots' profession.



The project involved the Turkish Maritime Pilots Association is the organisation representing the interest of all Turkish Maritime Pilots. The Association also organises training sessions and CPD courses for its members. Another partners was the Colegio Oficial Nacional de Practicos de Puerto from Spain established under National Law to act as supervisor for all Spanish Pilots. The latter partner represents Maritime Pilots' interests and carries out activities of general interests such as negotiations with relevant authorities and the training and selection of Maritime Pilots. The Colegio cooperates with the Spanish Government to safeguard the maritime sector and the environment. The fourth partner was CSEL s.r.l., a recognised training provider that delivers vocational training in Italy. The organisation's experience and knowledge of the European VET system was invaluable when it came to integrating the technical experience and skills of the Maritime Pilots within a framework that balances the needs of the profession with the requirements of ECVET and EQF.

Key Features of the Good Practice

The project is applied to an existing profession relating to an area which currently does not require a formal qualification - different to the examples provided by other partners. The aspects of good practice apparent from CERTIPILOT are the framework it has developed which allows for formal and informal learning and assessment leading to a qualification for Pilots working in sea ports. It has filled a gap in gathering all the necessary competences for the profession and created an opportunity for other countries to become involved with a view to establish a common qualification in the future. The interaction and involvement of other countries will itself help in comparing practices and adopting food practices.

3.3 Finland's Example of Good Practice ECVET

Implementation of the National ECVET System as an Integral Part of the National Upper Secondary VET Curriculum/Qualification Reform Concerning All VET Qualifications Requirements; Concerning All Students Whether Continuing or Beginning Their Studies

The Finnish VET reform process has been based on the principles of the ECVET Recommendation, i.e. learning outcome-based approach; all qualifications have been divided into units of learning outcomes, and ECVET credit points have been calculated on the basis of the relative importance of the unit of learning outcomes to the overall qualification. The process is aiming towards more comprehensive acknowledgement of skills and competences, and the use of ECVET tools, including MoU, Learning Agreement, ECVET guides and so forth.

To develop a system for ECVET practice in Finland and to test the system a 3-phase national pilot project, FINECVET, was initiated. In the first two phases of the project, the ECVET system was tested with 9 vocational qualifications. The third phase of the project extended the and continued with 8 vocational qualifications and included 4 further vocational qualifications, and 3 specialist vocational qualifications. Piloting therefore was widespread and focused on the different stages of the ECVET process and generated implementation models for both, activities and documentation.



Key Features of the Good Practice

The Finnish practice is based on the EU's ECVET model and clearly shows that it is a national scheme applied to several qualifications. What is interesting it has also been applied in on-the-job training which may have an international appeal. This concerned efforts made by the maritime actors to improve the difficult situation in arranging on-board training periods; a maritime Apprentice Mill (Harjoittelumylly) was established in the autumn 2012. The Apprentice Mill serves as a link between maritime institutes and ship-owners. The most important task of the mill is to co-ordinate training places and inform the educational institutes and ship-owners of the seafaring apprentice situation. The activities of the mill gather together all the Finnish maritime institutes. There are altogether 85 vessels under the Finnish flag that take students in; the smaller ones take only one student at a time, and the larger vessels take one for the deck and another for the engine department. In addition, cruise ships can take an electrician student, as well.

The ECVET initiative is hence a national initiative enforced by legislation with support from key stateholders. Its strength is its transparency which include all core national curricula for all VET qualifications including maritime. This create a an opportunity for a uniform practice throughout the country and assessed and evaluated on a national basis. Its key feature is also the fact that it is student-oriented providing individual study paths to enhance learning and providing opportunity for tighter cooperation among MET institutes and the shipping industry.

3.4 United Kingdom's Example of Good Practice ECVET

Developing a transnational ECVET Curriculum and Qualification for a New Set of Design Knowledge and Skills/Competences Encouraging Continuous Professional Development and Seeking International Recognition

The ECVET initiative in the UK presented here is based on the development of a new skills for designing a curriculum for Wind Farm Support Vessels (WFSV) with a view to ensure it complies with the requirements of the European Credit system for Vocational Education and Training framework (ECVET) and at the same time ensuring the requirements of the Royal Institution of Naval Architects for their Initial and/or Continuing Professional Development (RINA's IPD/CPD). The practice in the UK is based on EU's ECVET norm but the recognition by RINA, a respected professional institution, with worldwide recognition under the Washington Treaty, is a novel aspect of this initiative.

Key Features of the Good Practice

The process of professional development whilst being continuous during a career, it is often considered as two stages: Initial Professional Development (IPD) and Continuing Professional Development (CPD). The work carried out to seek accreditation for WFSV curriculum and qualification from the Royal Institution of Naval Architects (RINA) should be considered a key feature of this initiative. Given the equal level of intended professional engagement in the design process between naval architects and marine designers, the WFSV's IPD/CPD training course learning outcomes and its mapping against RINA IPD development objectives for naval architects, the initiative was highly challenging. In addition to the Accreditation of WFSV's IPD/CPD courses by an



international chartered professional body such as RINA, the opportunity for WFSV to support vertical and horizontal mobility of higher education and VET in the long run necessitated the implementation of ECVET into this mapping process so that both RINA and ECVET requirements are met. It is also very important to note that the formal assessment of the WFSV course is implemented through the academic partners of WFSV and is ensured that the assessment meets the ECVET requirements.

Cross-referencing two sets of requirements was also a key methodology in ensuring two totally separate sets of requirements are satisfied. The project involved some 6 European partners and currently the curriculum/qualification is being evaluated in these partner countries. The cross-referencing technique also helped in deciding a right balance between marine engineering design and naval architecture.

4. A System for Compliance with ECVET Requirements – C4FF's Cross-Referencing Table

The MariePRO project partners will produce a table with 4 Columns and 11 Rows. The first Column will list the compliance requirements. The second and third Columns require a 'Yes' or 'No' respectively to indicate if a requirement is present or not. The final Column is Recommendation if there is a shortfall, namely, if any of the requirements/criteria are missing. Since there are 11 requirements for compliance then there are 11 rows.

ECVET Compliance Requirement and Criteria :

- **Content and assessment of Units of Learning Outcomes** are about 'ability to do'.
 - **Learning Outcomes** are statements of knowledge, skills, and competence that can be achieved in a variety of contexts.
 - **Learning Units of learning outcomes** are components of qualifications; units can be assessed, validated and recognised.
 - **ECVET points** provide additional information about units and qualifications in a numerical form.
- **Credit** is given for assessed and documented learning of a learning outcome of a learner where credit can be transferred to other contexts and accumulated to achieve a qualification on the basis of the qualification standards and regulations existing in the participating countries.
- **Mutual Trust and partnership among participating organisations** are expressed in Memoranda of Understanding (MoU) and Learning Agreements.

A **Memorandum of Understanding (MoU)** forms the framework for cooperation between the competent institutions. It aims to establish mutual trust between the partners involved. In this MoU partner organisations mutually accept their respective criteria and procedures for quality assurance, validation and recognition of knowledge, skill and competence for the purpose of transferring **Credit**.

NB:



1. If there is also a provision for Agreements (within an MoU or as an attachment) set up by sector based organisations (e. g. by Chambers, regional and national authorities), this should include a list of organisations such as VET providers, companies, etc., who are able to operate in the framework set up by the MoU.
2. It is mandatory to recognise **Credit**; the competent institution in charge needs to be confident that the required learning outcomes have been assessed in a **reliable** and **valid** manner; and also trust that the learner's credit does concern the learning outcomes expected and these are at the **appropriate level**.

- **The hosting institution** assesses the learning outcomes achieved and awards credit to the learner. The learning outcomes achieved and corresponding ECVET points are recorded in a learner's personal transcript

- **The sending institution** recognises learning outcomes that have been acquired; this recognition gives rise to the award of the units and their corresponding ECVET points, according to the rules of the home system.

- **Credit accumulation** is a process through which learners can acquire qualifications progressively by successive assessment and validation of learning outcomes; accumulation of credit is decided by the competent institution responsible for the award of the qualification. When the learner has accumulated the credit required and when all conditions for the award of the qualification are fulfilled, the learner is awarded the qualification.

- **Any Other Novel Feature where any other requirement also need to be complied with**

5. Conclusions

The report presented here gave the key requirements of any EU compliant ECVET scheme. Five different examples were considered identifying their key features. A system for cross-referencing of ECVET schemes were developed to ensure compliance with all aspects of ECVET system. An additional indicator was added for any additional features to be included when any other set of requirements also expected to be satisfied.