

# ENERGYEDUCATION

www.energyeducation.eu

## FINAL NEWSLETTER

june 2021

After two and a half years of successful cooperation between the 7 project partners from 6 European countries (Basque Country, Germany, Netherlands, Sweden, Norway and Switzerland), our Erasmus+ project finally comes to its end. However, we became a very close partnership and look forward to continuing our collaboration in the future.

**But what are the benefits of this project for you?**

**Become an expert in ECVET principles and set up your EU partnership's qualification description:**

The reference framework ECVET makes qualification more understandable across the EU and promotes the recognition of learning achievements of VET learners in different countries. Our project provides you with an online course, designed by our partner from Norway NTIMMM, that includes examples and templates which you can use, when setting up a new qualification description.

Find more information on our webpage:

[https://ilias.fh-muenster.de/ilias/goto\\_Bibliothek\\_cat\\_513580.html](https://ilias.fh-muenster.de/ilias/goto_Bibliothek_cat_513580.html)

**Check the *Smart Energy Manager Skills* of your VET learners on Skillsbank:**

The partnership produced an ECVET based qualification matrix that includes a detailed breakdown of learning outcomes into knowledge, skills and competence of some tasks that a "Smart Energy Manager" should be able to do. Through the Skillsbank, VET learners and teachers can evaluate the learning outcomes in a given area.

Find more about it here: <https://skillstools.eu/skillsbank/>

**You want to know what exactly entails Smart Energy Management?**

The partnership carried out an analysis, based on expert interviews and their knowledge, and produced a broader definition of SEM that fits a larger number of training and careers.

Download the Definition from our webpage: [www.energyeducation.eu](http://www.energyeducation.eu)

**You want to teach your students in Smart Energy Management topics?**

Then use our SEM Toolkit that includes modules in a MOOC format about UX design, thermal installations, lighting and energy mapping.



### Online ECVET training guide

Co-funded by the Erasmus+ Programme of the European Union		Energyeducation		ENERGYEDUCATION	
Energyeducation EQF Level: 4		ECVET Points: (if applicable)		ECTS Credits: (if applicable)	
EQF (ISC) Level		ES	NL	SE	NO
		5	4	5	4
Aggregated Units of Learning Outcome		Energyeducation - U1		Introduction to Smart Energy Management	
		Energyeducation - U2		Design and Analysis of Smart Energy Measurement Systems	
		Energyeducation - U3		Implementation of Smart Energy Management Systems	
		Energyeducation - U4		Smart Lighting	
		Energyeducation - U5		UX design	
Energyeducation - U1 Introduction to Smart Energy Management		Training Module Code		Competence	
				Knowledge	
				Skills	
1.1: Climate change and the need to save energy		1/1 1/3		Is able to understand the importance of saving energy	
				Brings together climate change with the own living basics	
				Identifies CO2 sources and has an understanding of how to reduce the CO2 emissions	

### Qualification matrix Smart Energy Management.



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<b>DEFINITION</b>
<b>What is Smart Energy Management?</b>
Smart Energy Management helps to save energy in transformation, storage, distribution and consumption units by strategically influencing user behaviour and energy flows through the intelligent interaction of sensors, actuators, controllers and user interfaces.
<b>QUALIFICATION DESCRIPTION</b>
<b>Knowledge</b>
An SEM expert has basic knowledge ...
... about energy transformation, energy storage, energy distribution and energy consumption units.
to understand the function of Smart Energy Management Systems (hardware/software) through the interaction of sensors, actuators, controllers, communication technologies, user interfaces and user behaviours.
... of strategies to save energy.
... on data protection legislation, energy legislation and sustainability regulation at regional, national, European and international level.

### Definition of Smart Energy Management Expert.

## 0. INTRODUCTION



Introduction  
Watch before you start!



Introduction for Learners  
Read before start!  
docx 142,5 KB Version: 2 25. Feb 2021, 09:33



Introduction for Learners  
Watch before you start and learn how to use this online learning tool

## 1. PROBLEMATIC SITUATION



Smart Energy Manager (Energy Manager)

### Online SEM toolkit



## Energyducation competition Teacher support material

Above: VET learner's competition

Below: PBL Handbook

Changes in student's mentality	
The student shifts from...	to...
...considering that a teaching material exclusively is the written text that the teacher offers	...be prepared to handle multiple and varied sources of information. That includes assessing the reliability of sources
...waiting for the teacher to turn the information into knowledge for him/her	...perform active work to convert information into knowledge, creating their own elaborations.
...considering the classroom as the only place where they can learn	...consider the educational context as something that does not end in the classroom or in the faculty.
...considering the teacher exclusively as the figure from which one will learn	...consider his/her classmates as people one can also learn from and whom he / she can also teach.
...considering that the result of learning is based on knowledge	...consider that the result of his/her learning is not only based on knowledge, but also based on skills and competence (attitudes, methods, information search skills).
...thinking that they learn only to pass the exam	...understand that <u>they</u> the learning will never end, and that developing the <u>ability to learn</u> to learn will condition their capacity to adapt to future situations.
Traditional role	New role



There is even a general introduction module to SEM that can be implemented in almost all technical VET training.

The Toolkit is placed on the ILIAS platform of our partner MSVE, but can be exported as SCORM and transferred to your own LMS or reproduced in other systems using artifacts from the LMS ILIAS. All toolkits were produced in basic English and include lesson plans for each module. Find more information under: [https://ilias.fh-muenster.de/ilias/goto\\_Bibliothek\\_crs\\_542294.html](https://ilias.fh-muenster.de/ilias/goto_Bibliothek_crs_542294.html)

### How to run a VET learners' competition about Energy Efficiency

Thanks to our cooperation with myclimate, supported by the Swiss Agency movetia, our partnership experienced a very well organized student competition, in which about 100 students (6 classes) from four different countries worked on the challenge to provide innovative and sustainable solutions for the energy efficiency of a school building. You find extended support materials for teachers and learners to run this competition on our webpage: [www.energyducation.eu](http://www.energyducation.eu)  
Don't forget to have a look at the "smart" competition winners!

### Project based learning methodology: Just another theory far from your everyday practice?

Our partnership worked on a PBL Handbook that focuses exactly on the challenge of implementing this methodology in your teaching practice: How to reorganize your teaching schedule, how to understand the new role of you as teacher, how to adapt spaces and classrooms for promoting collaboration or how to evaluate joint student projects fairly. The Handbook also provides a chapter about using ECVET principles in PBL and four case studies from our partnership that gives you a very practical example of good practice.

The Handbook is less a theoretical framework than much more a guide or manual with a lot of templates, tools and examples.

The Handbook is for download from our webpage in English and in the partner languages: DE, NL, ES, SE

### You want to learn more about the Energyducation project?

- three VET schools: CIPF Ursubil LHII from the Basque Country, Alfa College from the Netherlands and Lulea Kommun from Sweden
- one University: Münster School of Vocational Education from Germany
- one foundation: ZubiGune Foundation from the Basque Country
- one consulting company: NTIMMM from Norway
- one NGO: myclimate from Switzerland

Find out more on our webpage:  
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