

Curriculum for Solar and Geothermal installations' workers



GSS-VET

Geothermal and solar skills - Vocational education and training

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REVISION HISTORY

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1. INTRODUCTION

At application stage, the creation of 2 curricula was planned:

- One curriculum for solar installations;
- One curriculum for geothermal installations.

However, during the discussions between experts, it became clear that a third separate curriculum as part of solar installation, specialized on photovoltaic field was needed.

A needs analysis was first carried out in the 4 countries, through workshops and surveys with companies. On the other hand, a study was also carried out concerning the already existing trainings related to those fields.

2. METHODOLOGY

According to these preliminary results, the final 3 curricula were created, following the subsequent methodology:

A template has been designed by the task leader to allow the following:

The definition of core tasks that a worker should be able to do (according to the previously developed skills catalogue);

The definition of corresponding competences and sub-competences; The weighing of those competences into 3 categories:

- Basic;
- Important;
- Essential.

Allocate a corresponding “teaching time” for each competence;



Allocate corresponding ECVET points, according to:

- the previous weighing of competences (see task 2.4), giving a coefficient of 0.5 for basic competences, 1 for important competences, and 2 for essential competences;
- the duration planned for the whole curriculum;



3. CURRICULA

3.1 Curriculum for solar installations

Title of the course	Solar Thermal Energy Systems Installer
EQF level	4 and 5
Target group	Plumbers willing to upgrade their skills on solar thermal installations
Learning Hours	110
ECVET Points	6,60

Module 1: DESIGN OF SOLAR THERMAL INSTALLATIONS				
LEARNING HOURS	THEORETICAL	50	ECVET POINTS 1,08	
	PRACTICAL	0		
	DIDACTIC NEEDS	LEARNING HOURS	ECVET POINTS	
<i>Know national regulations</i>			0,04	
<i>The learner knows about national regulations</i>	Theoretical learning online		BASIC	0,50 0,04
<i>Understand the design of the solar collectors field</i>			0,20	
<i>The learner knows basic concepts of solar parameters</i>	Theoretical learning online		BASIC	0,50 0,04
<i>The learners know the general characteristics of the installation</i>	Theoretical learning online		BASIC	0,50 0,04

<i>The learner knows different solar collectors types</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows basic concepts about the design and distribution of solar collectors</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows different methods of anchoring of solar collectors</i>	Theoretical learning online	BASIC	0,50	0,04
Understand the heat storage system				0,20
<i>The learner knows the basis of the heat storage</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows the materials used for the heat storages</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows basic concepts about the design of the storage: centralized or individual</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the heat storage</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows different connection types: series/parallel</i>	Theoretical learning online	BASIC	0,50	0,04
Understand the auxiliary system				0,08
<i>The learner knows different types of auxiliary systems</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the auxiliary system</i>	Theoretical learning online	BASIC	0,50	0,04
Know the different components of the hydraulic system				0,24
<i>The learner is able to select the pipe's material</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the heat exchanger</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the hydraulic pumps</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the expansion vessels</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the auxiliary components</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner is able to select the thermal insulation</i>	Theoretical learning online	BASIC	0,50	0,04

Know and understand the regulation and control system				0,08
<i>The learner is able to select the parameters to be controlled</i>	Theoretical learning online	BASIC	0,5	0,04
<i>The learner is able to select the regulation and control system</i>	Theoretical learning online	BASIC	0,5	0,04
Know the different measurement systems				0,16
<i>The learner knows basic concepts about thermometers</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows basic concepts about manometers</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows basic concepts about volumetric meters</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows basic concepts about energy meters</i>	Theoretical learning online	BASIC	0,50	0,04
Interpretation of schemes of solar thermal installations				0,08
<i>The learners know basic configurations of solar thermal schemes</i>	Theoretical learning online	BASIC	0,50	0,04
<i>The learner knows different types of schemes</i>	Theoretical learning online	BASIC	0,50	0,04

Module 2: EXECUTION OF SOLAR THERMAL INSTALLATIONS					
LEARNING HOURS	THEORETICAL	0	ECVET POINTS		
	PRACTICAL	40			
		DIDACTIC NEEDS	LEARNING HOURS	ECVET POINTS	
Prevention of occupational risks				0,08	
<i>The learner knows about prevention of occupational risks</i>	Practical learning in classroom	IMPORTANT	1,00	0,08	
Execution of a solar thermal installation				1,60	
<i>The learner knows about safety work on roofs</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16	

<i>The learner is able to install the solar field</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to install the solar heat storage</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to install auxiliary system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to make the installation of pipes and hydraulic components</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to install the hydraulic pump</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to install the heat exchanger</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to install the expansion vessel</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to install the measurement equipment</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to make the installation of the regulation and control system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
Startup of the solar thermal installation				0,96
<i>The learner is able to carry out the cleaning of the hydraulic system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out leak tests</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to select the fluid of the primary loop</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to make the filling of the installation</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to verify the operation of safety elements</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to verify the operation of the regulation and control system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16

<i>valves</i>				
<i>The learner is able to carry out the maintenance of the safety valves</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out the maintenance of the bleeders</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out the maintenance of the filling and discharging system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out the maintenance of the temperature probes</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out the maintenance of the manometers</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out the maintenance of the auxiliary system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16
<i>The learner is able to carry out the maintenance of the regulation and control system</i>	Practical learning in classroom	ESSENTIAL	2,00	0,16

3.2 Curriculum for photovoltaic installations

Title of the course	Solar Photovoltaic Installer
EQF level	4 and 5
Target group	Electricians willing to upgrade their skills on solar photovoltaic installations
Learning Hours	100
ECVET Points	6,00

MODULE 1: AN INTRODUCTION TO PHOTOVOLTAIC TECHNOLOGY				
LEARNING HOURS	THEORETICAL	15	ECVET POINTS	
	PRACTICAL	5		
		LEARNING HOURS	ECVET POINTS	
		DIDACTIC NEEDS		
<i>Understand basic solar engineering</i>			0,48	
The trainee knows the basic concepts of solar related issues (solar irradiance, geometry, solar potential, modeling, irradiance measurements and analysis)	Theoretical learning in classroom	<i>BASIC</i>	0,50	0,05
The trainee is familiar with the different PV technologies from cell to module level	Theoretical learning in classroom	<i>BASIC</i>	0,50	0,05
The trainee is aware of the environmental benefits of PV technology	Theoretical learning in classroom	<i>BASIC</i>	0,50	0,05
The trainee is able to understand the function of every PV system component in on and off grid systems	Practical learning in classroom	<i>IMPORTANT</i>	1,00	0,11

The trainee is able to perform electrical measurements in both on-grid and off-grid PV systems	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
<i>Understand energy storage technologies and PV systems</i>				0,32
The trainee understands the basics of the various energy storage technologies	Theoretical learning online	<i>BASIC</i>	0,50	0,05
The trainee knows how batteries are coupled to PV systems and perform basic calculations	Theoretical learning online	<i>BASIC</i>	0,50	0,05
The trainee is aware of the basic safety issues related to storage technologies	Theoretical learning online	<i>IMPORTANT</i>	1,00	0,11
The trainee is able to identify potential safety risks related to batteries operating under certain conditions	Theoretical learning online	<i>IMPORTANT</i>	1,00	0,11
<i>Exhibit professionalism</i>				0,32
The trainee is able to collaborate well with other persons	Theoretical learning online	<i>IMPORTANT</i>	1,00	0,11
The trainee is able to easily communicate with other persons	Theoretical learning online	<i>IMPORTANT</i>	1,00	0,11
The trainee is a reliable and well organized person	Theoretical learning online	<i>IMPORTANT</i>	1,00	0,11

MODULE 2: PHOTOVOLTAIC SYSTEMS

LEARNING HOURS	THEORETICAL	10	ECVET POINTS		1,01	
	PRACTICAL	10				
		DIDACTIC NEEDS	LEARNING HOURS	ECVET POINTS		
Understand grid-connected PV systems with or without battery storage				0,37		
The trainee is aware of battery storage in PV grid connected systems		Theoretical learning online		BASIC	0,50	0,05
The trainee understands the basics of battery sizing in PV grid-connected systems		Theoretical learning online		BASIC	0,50	0,05
The trainee understands the basics of sizing the PV array in grid-connected systems		Theoretical learning online		BASIC	0,50	0,05
The trainee understands major features of modules and inverters		Practical learning in classroom		IMPORTANT	1,00	0,11
The trainee can configure a PV grid-connected system with or without battery storage		Theoretical learning in classroom		IMPORTANT	1,00	0,11
Understand off-Grid PV systems with or without battery storage				0,37		
The trainee knows the basics of battery inverters and their functions		Theoretical learning in classroom		BASIC	0,50	0,05
The trainee knows the basic configurations of storage in off-grid systems		Theoretical learning in classroom		BASIC	0,50	0,05
The trainee understands the basics of battery sizing in off-grid systems		Theoretical learning in classroom		BASIC	0,50	0,05
The trainee understands the basics of sizing the PV array in off-grid systems		Theoretical learning in classroom		IMPORTANT	1,00	0,11
The trainee is able to configure an off-grid system		Theoretical learning in classroom		IMPORTANT	1,00	0,11
Understand PV system performance				0,27		
The trainee is familiar with the basic concepts of the design of a PV system		Theoretical learning in classroom		BASIC	0,50	0,05

<i>Be able to inspect PV systems</i>				1,27
The trainee is aware of the potential malfunctions of an operating PV system	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to create a checklist for a PV system inspection	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to perform a PV system inspection	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to identify, seek and suggest solutions in case of possible malfunctions	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to handle the necessary hardware to perform a PV system inspection	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to interpret the resulting measurements from a PV system inspection	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
<i>Be able to maintain PV systems</i>				1,59
The trainee is aware of basic corrective measures to avoid common mistakes during routine maintenance	Theoretical learning in classroom	<i>IMPORTANT</i>	1,00	0,11
The trainee is able to identify common mistakes and failures during routine maintenance	Theoretical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to suggest ways to avoid future mistakes and failures during routine maintenance	Theoretical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee knows how to maintain every component of a PV system	Theoretical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to understand the importance of every maintenance action	Theoretical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to setup a maintenance checklist for different types of PV systems	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to carry out the actions reported in the maintenance checklist	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21
The trainee is able to suggest appropriate corrective measures	Practical learning in classroom	<i>ESSENTIAL</i>	2,00	0,21

3.3 Curriculum for geothermal installations

Title of the course	Geothermal installer
EQF level	4 and 5
Target group	Electricians and plumbers willing to upgrade their skills on geothermal installations
Learning Hours	120
ECVET Points	6,60

Module 1: Understanding and implementation of planning geothermal systems				
LEARNING HOURS	THEORETICAL	50	ECVET POINTS 2,89	
	PRACTICAL			
	DIDACTIC NEEDS	LEARNING HOURS	ECVET POINTS	
<i>Low surface geological principles and earth heat exchange basics</i>		2,50	0,24	
The trainee knows fundamental hydrogeological & geological and physical principles	Theoretical learning online		BASIC	0,50 0,03
The trainee knows fundamentals of heat transfer and its effects	Theoretical learning online		IMPORTANT	1,00 0,07
The trainee is able to analyze basic hydrogeological & geological conditions	Theoretical learning in classroom		ESSENTIAL	2,00 0,14

<i>Design techniques and tools</i>	8,00	0,34		
The trainee knows different design techniques	Theoretical learning online Theoretical learning in classroom	ESSENTIAL	2,00	0,14
The trainee knows how design techniques are used for planning geothermal installation and their limitations	Theoretical learning online	ESSENTIAL	2,00	0,14
The trainee is able to understand and use tools for planning	Practical learning outside the school through ubiquitous learning methods	IMPORTANT	1,00	0,07
<i>Production of precise technical plans and blueprints</i>	2,50	0,28		
The trainee is able to understand & create technical plans	Practical learning outside the school through ubiquitous learning methods	ESSENTIAL	2,00	0,14
The trainee is able to read technical documents (data sheets, blue prints, ...)	Practical learning outside the school through ubiquitous learning methods	ESSENTIAL	2,00	0,14
<i>Thermal energy balance and total needs calculation</i>	8,00	0,28		
The trainee knows which parts have to be considered for thermal balances	Theoretical learning online	ESSENTIAL	2,00	0,14
The trainee knows how to calculate total needs	Theoretical learning online	IMPORTANT	1,00	0,07
The trainee is able to calculate energy needs	Practical learning outside the school through ubiquitous learning methods	IMPORTANT	1,00	0,07

<i>Optimal architecture selection (horizontal/vertical, closed/open loop, direct/indirect)</i>	2,50		0,31	
The trainee knows the characteristics and differences between the geothermal systems	Theoretical learning online	ESSENTIAL	2,00	0,14
The trainee is able to design a geothermal installation	Theoretical learning online	BASIC	0,50	0,03
The trainee is able to choose the suitable system according to the given conditions	Practical learning outside the school through ubiquitous learning methods	ESSENTIAL	2,00	0,14
<i>Knowledge of HVAC and building distribution systems</i>	8,0		0,38	
The trainee knows the different components and characteristics of the HVAC	Theoretical learning online	BASIC	0,50	0,03
The trainee knows the different components and characteristics of building distribution systems	Theoretical learning online	IMPORTANT	1,00	0,07
The trainee is able to identify and describe how HVAC and building distribution components work together	Practical learning outside the school through ubiquitous learning methods	ESSENTIAL	2,00	0,14
The trainee is able to install different components of HVAC	Practical learning in classroom	ESSENTIAL	2,00	0,14
<i>Geothermal heating - Heat pump's structure and types of geothermal heat pumps</i>	10,0		0,52	
The trainee knows the working principle of heat pumps and their components	Theoretical learning online	ESSENTIAL	2,00	0,14
The trainee knows different types of heat pumps	Theoretical learning online	BASIC	0,50	0,03
The trainee is able to install different types of heat pumps	Practical learning in	ESSENTIAL	2,00	0,14

	classroom				
The trainee is able to bring heat pumps into service	Practical learning in classroom	ESSENTIAL	2,00	0,14	
The trainee is able to assess if the system is running properly	Practical learning outside the school through ubiquitous learning methods	IMPORTANT	1,00	0,07	
<i>Knowledge of the worldwide state of the art in geothermal applications and legislation</i>			2,5	0,28	
The trainee knows the regulation and legislation of geothermal systems and how to apply for installation permissions	Theoretical learning online	ESSENTIAL	2,00	0,14	
The trainee knows the state of the art and the future trends of geothermal applications	Theoretical learning online	BASIC	0,50	0,03	
The trainee is able to find information about the state of the art and information on new developments	Theoretical learning online	BASIC	0,50	0,03	
The trainee is able to assess the risks & advantages or disadvantages of the products	Theoretical learning in classroom	IMPORTANT	1,00	0,07	
<i>Drilling techniques, reliable and effective restoration</i>			6,0	0,28	
The trainee knows the basic concept of drilling	Theoretical learning online	Theoretical learning in classroom	IMPORTANT	1,00	0,07
The trainee knows the quality standards of drilling	Theoretical learning online	Theoretical learning in classroom	IMPORTANT	1,00	0,07
The trainee is able to evaluate the interdependence between drilling and (heatpump)systems above the surface	Practical learning	Practical learning in	IMPORTANT	1,00	0,07

	outside the classroom school through ubiquitous learning methods			
The trainee is able to identify the optimal output of the well	Practical learning outside the classroom school through ubiquitous learning methods	Practical learning in classroom	IMPORTANT	1,00 0,07

Module 2: Installation of geothermal systems					
LEARNING HOURS COURSE	THEORETICAL	30	ECVET POINTS		
	PRACTICAL		1,38		
	DIDACTIC NEEDS	LEARNING HOURS	ECVET POINTS		
"Heat exchanger - heat pump - distribution" coupling and mounting		8	0,28		
The trainee is able to couple and mount "heat exchanger - heat pump - distribution"	Practical learning in classroom		ESSENTIAL	2,00	0,14
The trainee knows common mistakes and how to avoid them	Practical learning in classroom		ESSENTIAL	2,00	0,14
Building distribution system installations (fun coils, etc.)		6	0,21		
The trainee knows the types of heating & cooling distribution systems and their fields of application	Theoretical learning online		ESSENTIAL	2,00	0,14
The trainee is able to optimize (existing) systems according to heat pumps	Practical learning in classroom		IMPORTANT	1,00	0,07
Techniques for maximizing effectiveness		6	0,41		
The trainee knows all the parameters which influence the effectiveness	Theoretical learning online		ESSENTIAL	2,00	0,14
The trainee is able to detect the parameters which are important for the installed system	Practical learning outside the school through ubiquitous learning methods		ESSENTIAL	2,00	0,14
The trainee is able to change the parameters for maximizing effectiveness	Practical learning in classroom		ESSENTIAL	2,00	0,14

Switching, controlling and operating electric parts of the systems	10			0,48
The trainee knows all electrical parts of the system and how to operate them	Theoretical learning online	ESSENTIAL	2,00	0,14
The trainee knows what to take into consideration concerning safety and effectiveness	Theoretical learning online	ESSENTIAL	2,00	0,14
The trainee is able to wire the electrical parts	Practical learning outside the school through ubiquitous learning methods Practical learning in classroom	ESSENTIAL	2,00	0,14
The trainee is able to assess malfunction and to resolve problems	Practical learning in classroom	IMPORTANT	1,00	0,07

Module 3: Supervise and maintain geothermal installation				
LEARNING HOURS	THEORETICAL	40	ECVET POINTS	
	PRACTICAL		2,34	
	DIDACTIC NEEDS	LEARNING HOURS	ECVET POINTS	
Formulated and reliable maintenance (Heat pump)		6,0		0,41
The trainee knows which parts need to be maintained	Theoretical learning in classroom		ESSENTIAL	2,00 0,14
The trainee knows the standard maintenance procedures	Theoretical learning in classroom		ESSENTIAL	2,00 0,14
The trainee is able to maintain the system according to guidelines	Practical learning in classroom		ESSENTIAL	2,00 0,14

Formulated malfunction investigation and repair (Heat pump)	14,0		0,55		
The trainee knows the common mistakes and malfunction	Theoretical learning online	Theoretical learning in classroom	ESSENTIAL	2,00	0,14
The trainee knows how to investigate systematically for malfunction	Practical learning outside the school through ubiquitous learning methods	Theoretical learning in classroom	ESSENTIAL	2,00	0,14
The trainee is able to find solutions for malfunction	Practical learning outside the school through ubiquitous learning methods	Practical learning in classroom	ESSENTIAL	2,00	0,14
The trainee is able to repair the broken parts	Practical learning in classroom	Practical learning outside the school through ubiquitous learning methods	ESSENTIAL	2,00	0,14
Maintenance and repair of system components (non heat pump)	14,0		0,89		
The trainee knows which parts need to be maintained	Theoretical	Theoretical	ESSENTIAL	2,00	0,14

	learning online	learning in classroom			
The trainee knows the standard maintenance procedures	Theoretical learning online		ESSENTIAL	2,00	0,14
The trainee is able to maintain the system according to guidelines	Practical learning in classroom		ESSENTIAL	2,00	0,14
The trainee knows the common mistakes and malfunction	Theoretical learning online		ESSENTIAL	2,00	0,14
The trainee knows how to investigate systematically for malfunction	Theoretical learning online		IMPORTANT	1,00	0,07
The trainee is able to find solutions for malfunction	Practical learning in classroom		ESSENTIAL	2,00	0,14
The trainee is able to repair the broken parts	Practical learning in classroom		ESSENTIAL	2,00	0,14
<i>Energy audits principles and classification/quality control</i>	3,0				0,24
The trainee knows the principles of the energy audits	Theoretical learning online	Theoretical learning in classroom	BASIC	0,50	0,03
The trainee knows the quality control systems	Theoretical learning online	Theoretical learning in classroom	BASIC	0,50	0,03
The trainee is able to survey, measure and calculate the energy use	Practical learning outside the school through ubiquitous learning methods		BASIC	0,50	0,03
The trainee is able to assess the efficiency and find ways to improve it	Practical learning outside the school through ubiquitous learning methods		ESSENTIAL	2,00	0,14

<i>Relevant chemicals, properties of substances and their interactions; danger signs</i>			3,0		0,24	
The trainee knows all the chemicals and substances used for the system	Theoretical learning in classroom	BASIC	0,50		0,03	
The trainee knows a proper risk assessment and safety measurements	Theoretical learning in classroom	IMPORTANT	1,00		0,07	
The trainee is able to identify risks and knows how to avoid them	Practical learning in classroom	IMPORTANT	1,00		0,07	
The trainee is able to suggest appropriate safety measurements	Practical learning in classroom	IMPORTANT	1		0,069	

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4. CONCLUSION

Thanks to the methodology described above, three comprehensive curricula have been created, which pave the way for WP3 and WP4, namely the creation of the teaching methodology, as well as the training contents.

