

## Trainer Training in Green Technologies: Green Hydrogen and Heat Pumps



**GreenVOCnet**

Vocational Empowerment  
for a Green and Socially  
Just Transition

### 1. Basic Information about the Training

#### 1.1. Aim:

The main goal of this initiative is to strengthen the contribution of Vocational Education and Training (VET) in promoting the green transition.

At this stage, the aim of the training is to educate and train instructors and teachers in modern green technologies, specifically in the areas of Green Hydrogen and Heat Pumps.

Through the training, participating educators will be informed about:

- Technologies already in use in the market (such as heat pumps),
- Technologies that are in an early stage but are expected to play a significant role in the future (such as green hydrogen).

They will also develop their skills in digital teaching tools, with the goal of upgrading educational programs and adapting to the new demands of the labour market and the green economy.

#### 1.2. Target Groups:

A key objective of the training is to give instructors the opportunity to design and implement practical activities that can be integrated into their lessons.

The training is aimed at trainers and teachers who teach at the level of Vocational Education and Training in Greece, specifically at levels 4–5 of the European Qualifications Framework (EQF). More broadly, it concerns educators involved in Vocational Education and Training.

It is intended for individuals interested in new sustainable energy technologies, such as Green Hydrogen and Heat Pumps, so that they can integrate relevant content and practices into their educational programs, addressing the evolving needs of the labor market.

Participants will be trained in modern teaching methodologies that promote active learning, collaboration, and problem-solving.

After the training, participants will be familiar with the basic terms and principles that govern the green transition, as well as the opportunities it creates for the labor market.

#### 1.3. Time plan and duration:

The training will take place in June 2025 and will have a total duration of 3 days. The program will be structured as follows:

- **The first 3 days will consist of online training through a digital platform, supplemented by additional materials.**

- **A 1-day Wrap-Up session will be held in person in Thessaloniki.**

### JUNE

WK	SUN	MON	TUE	WED	THU	FRI	SAT
23	1	2	3	4	5	6	7
24	8	9	10	11	12	13	14
25	15	16	17	18	19	20	21
26	22	23	24	25	26	27	28
27	29	30					

#### 1.4. Training location

The initial three-day training will be conducted online via a digital platform and will also include a Wrap-Up session with physical presence at DESFA's facilities in Nea Mesimvria, Thessaloniki.

The purpose of this final in-person session is to address topics and practical applications that cannot be fully covered online, to strengthen networking among participants, and to form a group of trainers who will act as "satellites" for dissemination and knowledge transfer within the Greek education system.

#### 1.5. Implementing organisation in Greece

The training is organized by the German-Hellenic Chamber of Industry and Commerce, supported with educational materials and expertise from Spanish partners of the GreenVOCnet project.

The training is offered free of charge as part of the project's funding through the [Initiative EUKI](#) of the German Federal Ministry for Economic Affairs and Climate Action (BMWK).

In collaboration with experienced professionals from the industry, the training ensures high-quality and up-to-date content related to new Green Hydrogen and Heat Pump technologies, addressing the modern needs of vocational education and training.

## 2. Indicative training content

### 2.1 Development of digital skills:

- Use of MOOC as a training and educational tool.
- Enhancement of skills in digital teaching tools, such as digital platforms, online courses, and interactive learning tools.

### 2.2 Training in New Green Energy Technologies:

- Theoretical and practical knowledge of Green Hydrogen as a source of clean energy.
- Technologies and operation of Heat Pumps for energy efficiency and sustainable heating.

### 2.3 Adaptation to Labor Market Needs:

- Information on current labor market demands for green skills.
- Adaptation of curricula to meet the needs for environmentally responsible and technologically modern solutions in the energy sector.

## 2.4 Development of Teaching Competence in Green Technologies:

- Training in teaching new subjects related to sustainability and clean energy.
- Tools and methodologies for integrating green technologies into training programs.

## 2.5 Support for Lifelong Learning and Continuous Professional Development:

- Promotion of a continuous training approach for trainers, ensuring they remain updated on developments in green energy.
- Development of skills that foster both personal and professional growth for trainers, enabling them to respond effectively to the demands of their field.

## 3. Organizational Details:

- Participation Registration:

Registration is required via the German-Hellenic Chamber of Commerce website. Please note that available spots are limited, and a first-come, first-served policy will apply.

- Support Materials:

Participants will receive supporting materials in digital format.

- Catering:

The online training days do not include catering.

- The in-person training day will include catering for all participants.

## 4. Certificate of Attendance:

Participants will receive a Certificate of Attendance issued by the German-Hellenic Chamber of Industry and Commerce, co-signed with the logos of AICIA (Spain) and the University of Cádiz.

<b>1st day training Online</b> <b>Wednesday June 18 Ιουνίου</b> <b>10:00 – 13:00</b>	
<b>1 hour:</b> Brief Introduction, Existing Teaching Methodologies and Experiences, Successful Examples <ul style="list-style-type: none"> <li>• <b>Case Study:</b> Designing a practical exercise to explain hydraulic balancing.</li> <li>• <b>Student Project:</b> Proposal of a new activity for a topic currently being taught.</li> </ul>	
<b>2 hours:</b> Basic Principles of Thermodynamics, Heat Transfer, and Fluid Mechanics Basic Principles of Electricity, Electronic Systems.	
<b>2<sup>nd</sup> day training Online</b> <b>Thursday June 19 2025</b>	
<b>Path: Heat Pumps</b> <b>10:00 – 13:00</b>	<b>Path: Green Hydrogen</b> <b>14:00 – 17:00</b>
<b>2 h:</b> F-Gas Regulations, RSIF Safety Regulations for refrigeration installations	<b>2 h:</b> Hydrogen Production Processes
<b>2 h:</b> Advanced Refrigeration and Air Conditioning Cycles using natural refrigerants.	<b>2 h:</b> Hydrogen Transportation Processes
<b>3<sup>rd</sup> day training Online</b> <b>Friday June 20 2025</b> <b>10:00 – 14:00</b>	
<b>2 h:</b> Presentation of Virtual Labs: Digital resources: theoretical and experimental, Digital platform for lab data, Virtual reality, Remote-access lab equipment, Simulation tools, Computational tools or equation solvers (e.g., EES or digital problem notebooks) MOOCs developed as part of the project, available for general use <ul style="list-style-type: none"> <li>▪ <b>Case Study:</b> Use of a computational application to design and calculate a freezing tunnel</li> <li>▪ <b>Student Project:</b> Proposal of an activity requiring the use of a digital resource (lab data, simulation tools, etc.)</li> </ul>	
<b>2 h:</b> Preventive and Predictive Maintenance	<b>2 h:</b> New Applications of Hydrogen: Mobility, heat and electricity production, self-consumption
<b>4<sup>th</sup> day training in presence at DESFA premises</b> <b>Thursday June 25 2025</b> <b>11:00 – 16:00</b>	
<ul style="list-style-type: none"> <li>▪ <b>1 h:</b> Guided Tour at DESFA facilities</li> <li>▪ <b>2 h:</b> Electronic Components (PLCs, frequency converters), Automated Control Systems</li> <li>▪ <b>1 h:</b> Round Table discussion «From Training to Teaching: Designing the Next Step»</li> </ul>	