

## **Description of external service in OUTPUT 1**

**External Experts for Green Hydrogen and Heat Pumps from Spain**

**In the frame of project GreenVOCnet**

**Funded by the European Climate Initiative (EUKI <https://www.euki.de/> )**

### 1. TECHNICAL DESCRIPTION

The German Hellenic Chamber of Industry and Commerce participates as a partner in the project acronymed GreenVOCnet, part of the European Climate Initiative (EUKI, <https://www.euki.de/> ). The project involves the collaboration of four countries: Germany, Greece, Spain, Slovakia.

#### **Background:**

The German Hellenic Chamber of Industry and Commerce proudly collaborates as a partner in the GreenVOCnet project, an initiative under the European Climate Initiative (EUKI). This project involves four countries: Germany, Greece, Spain, and Slovakia, all working collectively to reduce greenhouse gas emissions. The primary focus of GreenVOCnet is to cultivate professional skills in two vital climate-related technologies - heat pumps/renewable energy and green hydrogen.

#### **Objectives:**

The overarching goal of the GreenVOCnet project is to bridge the gap between academic knowledge and specialized vocational education. The project seeks to translate theoretical understanding into practical, market-oriented training programs. The initiative aims to develop courses that seamlessly integrate into the curriculum of specialized study programs offered by Vocational Schools (E.P.A.S.) in Greece, operated by the Public Employment Service (D.Y.P.A.).

#### **Scope of Work:**

In this initial phase of implementing the GreenVOCnet project, the chosen consultant by the German Hellenic Chamber of Industry and Commerce will be responsible for providing the fundamental content for shaping both thematics under the general title "**Development of Initial Technical Contents and Train-the-Trainer for Green Hydrogen and Heat Pumps**" as outlined in Annex E - Budget GreenVOCnet. The goal is to reduce gas emissions by developing professional skills in two characteristic technologies related to climate (heat pumps/renewable energy and green hydrogen), bridging academic knowledge with specialization in vocational education and translating it into market-oriented training programs.

#### 1.1. DETAILED DESCRIPTION OF EXTERNAL SERVICES

The description specifies the responsibilities and scope of work for the consultant to be hired by the Greek-German Chamber of Commerce in the context of the GreenVOCnet project. Here is a more detailed analysis of the duties:

#### **General Operational commitment:**

1. **Profound overview** about current technological development in Europe, existing VET offers and expert activities on an international level.

2. **Participation in project activities in English:** The selected consultant must be proficient in English to actively participate in various activities of the project, discussions, and communication. This specification ensures smooth collaboration within an environment where the language is English.
3. **Participation in Expert Advisory Board Meetings:** The consultant is expected to actively participate in meetings with the Expert Advisory Board, engaging with the entire project team and the responsible team shaping the core material of the course. During these meetings, the consultant is expected to provide insights and information regarding the development of the curriculum for Green Hydrogen and Heat Pumps courses.

#### Services to be Provided:

4. **Curriculum Development:** Co-create comprehensive courses covering green hydrogen and heat pumps, ensuring alignment with vocational education standards. Emphasize freedom for educators to tailor content based on their expertise.
5. **Train-the-Trainer Program:** Develop a specialized training program to equip instructors with the necessary skills and knowledge to effectively deliver the developed courses. Encourage flexibility in teaching approaches.
6. **Market-Oriented Approach:** Ensure that the training content is tailored to meet market demands and industry requirements, enhancing the employability of graduates.
7. Support of Vocational Schools to collaborate with international companies to create the necessary technical infrastructure in labs.
8. **Needs analysis and advice** on setting up workshops at the school in the above-mentioned technologies
9. **Integration into Study Programs:** Collaborate with Vocational Schools (E.P.A.S.) in Greece to seamlessly integrate the developed courses into the existing study programs. Allow teachers the freedom to decide how to embed the content within their courses.
10. **Support in the provision and creation of training materials** on an online-based learning platform
11. **Support in the procurement of materials/machinery** for setting up the workshop (contact with manufacturers, producers).

#### Platform for Material Upload:

Establish a user-friendly platform, such as Moodle or MOOC, for educators to upload and share course materials. This facilitates collaborative learning and resource-sharing among instructors.

#### Technology Accessibility:

Make new technologies virtually accessible to students, enabling remote learning. Create a brochure highlighting the curriculum features and produce a video showcasing the practical application of the technology, running remotely. This not only enhances the learning experience but also promotes the potential implementation of the curriculum in other regions, such as Athens.

### Project Phases:

1. **Needs Assessment:** Identify specific requirements and skills gaps in the targeted industries.
2. **Content Development:** Create detailed and relevant course materials for green hydrogen and heat pumps.
3. **Train-the-Trainer Program:** Develop a training program for educators to deliver the courses effectively.
4. **Pilot Implementation:** Conduct a pilot phase to test and refine the developed materials and training program.
5. **Integration:** Collaborate with Vocational Schools to integrate the courses into the curriculum.

### Expected Outcomes:

- Enhanced professional skills in green hydrogen and heat pumps.
- Industry-aligned training programs.
- Increased employability of vocational school graduates.
- Contribution to the reduction of greenhouse gas emissions through skilled workforce deployment.

### Expected deliverables under external service provided:

- I. **Preparation and co-creation of a Detailed Study and Report:** This involves an extensive task where the consultant will conduct a thorough analysis and create a comprehensive report. The consultant will be supported by the local experts and the project team. The report will cover the following aspects:
  - a. Integration into Specialization: Determination of the specialization in which the Heat Pumps course will be incorporated into the Vocational Education and Training (VET) program.
  - b. Integration into Semester: Identification of the appropriate semester or phase within the curriculum for the optimal integration of the course.
  - c. Duration Determination: Definition of the duration or scope of the course, describing the required time for effective teaching and learning.
  - d. Technical Knowledge Objectives: Identification and description of the technical knowledge and skills targeted by the Heat Pumps course.
  - e. Knowledge Transfer Verification Method: Specification of a method or process for the successful transfer of technical knowledge and experience from the course to students. This may include assessments, practical demonstrations, or other evaluation methods.
- II. **Long-Term Sustainability:** This includes planning for continuous improvement, updating educational materials, and maintaining relevance in a rapidly evolving field such as heat pump technology (future trends and market demands, feedback mechanisms, cultural and regional considerations).

## 2. TIMELINE

The present subcontract is scheduled to commence in March 2024, and its expected duration will extent until the end of Project Green VOCnet, namely March 2026.

It is noted that in the event of a possible extension of the project's duration, the time for providing the above services will be extended accordingly, under the mutual agreement of both parties.

## 3. BUDGET

The subject of the contract is part of the GreenVOCnet project, which is incorporated into the European Climate Initiative (EUKI, [link](#)), and the current contract is financed through the EUKI Program.

The estimated value of this contract is in the amount of 19,500.00 €.

Type of service	Estimated expense ( €)
Net Amount	19,500.00 €
Total	19,500.00 €

## APPENDIX I

### Brief Project Description

The **GreenVOCnet** project is part of the European Climate Initiative (EUKI, <https://www.euki.de/>). The EUKI is a project funding instrument of the German Federal Ministry of Economics and Climate Action (BMWK). The overarching goal of the EUKI is to promote climate co-operation within the European Union (EU) in order to reduce greenhouse gas emissions.

**GreenVOCnet addresses** the challenges of skills shortages and the lack of technical expertise in innovative green technologies as a barrier for local economies.

The project is being implemented in Spain, Greece and Slovakia and coordinated by the **German research institute FIAP e.V.** Implementing partners are the **German-Hellenic Chamber of Industry and Commerce** (Greece), **Pedal Consulting** (Slovakia), **AICIA** (Spain). A broad network of companies, vocational schools and institutional partners supports the project in the implementation regions. The aim is to reduce emissions by developing vocational skills in two exemplary climate-relevant technologies (heat pumps/renewable energies and green hydrogen) by linking academic know-how with expertise in vocational training and translating it into market-oriented, practical training programmes.

As part of GreenVOCnet, two market-oriented certified training programmes in the two selected technologies will be developed in collaboration with an international advisory board of experts and adapted to the needs of the regional markets. A targeted process model for the development of new services in the green technology fields will open up potential for new companies and the labour market and thus strengthen the acceptance of the technologies among consumers. A particular focus is on motivating women to enter technical, climate-relevant occupational fields and on strengthening the attractiveness of vocational training.

The requirements for the training courses and the target groups are defined with the partner organisations and local stakeholders in the respective regions before the training courses are developed and piloted in order to ensure needs-based and market-oriented implementation. Together with the advisory board and the local networks, the training courses are continuously evaluated, revised if necessary and finally certified.

The process model for developing new services is trialed during the training courses.

To ensure sustainability and achieve the greatest possible impact, the transferability of the results to other European regions is continuously considered and dialogue with other European countries is initiated from the start of the project.