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GREENWELD: Green Welding Certificates

Supporting Green and Digital Transition in Welding

Introduction

In today's rapidly evolving world, the digital and green transition has become imperative, so it is crucial to address key competencies such as **green, digital, and sustainable skills**. GREENWELD, recognize the importance of **identifying these skills** and **developing effective strategies** to overcome the challenges associated with them. While some sectors may experience less impact during this transition, **industries like construction, agriculture, and automotive will require workers to acquire new skills** as their sectors undergo restructuring. **GREENWELD aims to focus on welding, identifying and developing new skills required for the green transition.**

Objectives and Concrete Results

Based on the **current needs for the green transition and environment climate change**, GREENWELD identifies the necessary skills to be develop or revised and implement harmonized training in different countries, Spain, Denmark and Greece.

- **Identify and develop new green skills to integrate in Welders and Operators curriculum:** will have a focus on the **fight against climate change** as it will integrate green skills.
- **Identify and develop new learning approaches:** the new approaches will be greener and will allow to use **training innovative tools and strategies**
- Organize pilot **courses to test and assess the new curricula:** with the industrial partners will be possible to test and assess the **training curriculum addressing the market needs**
- Issue **Green Welding Certificates:** will **recognize the capabilities of the workers** using a tool to issue **digital certificates**.

Need Analysis

Current needs were identified through questionnaire surveys & desk research. Results were validated during a round table event, with participants representing the industry and training sector. What was identified is that **Green behavior and awareness** is missing from both Training procedures and syllabus and Industry personnel. **Recycling - Reuse, Energy performance improvement, emission reduction strategies, online tools, Personal impact,** are also missing from our daily mentality.



Actions

A **green policy and green welding practices** can be successfully implemented in the industrial sector. The training of welders should follow a specific structure and flow to build their capacity, and to be able to perform greener. The recommended structure for maximum effect is

Step A. Increasing green awareness

Step B. Greenweld Impact measurement Know How

For this purpose, two Competence Unit were developed, to cover the above mentioned steps, and to provide detailed knowledge and the opportunity to address the needed green skills. The topics include Welders re **Reduce, Recycle, Reuse | Waste and material reduction, to arise their Environmental mentality and Awareness** and **Knowledge of the Parameters to measure the impact of welding work | Welding Energy performance | Welding simulation equipment and green good practices** to understand the environmental impact during welding and know how good techniques and best practices to apply so they may reduce it.

Why GREENWELD?

Synergies

The common areas of Training and Industry sector, are to cross in GREENWELD. The new green skills of welders, will be apply in the Industry and Construction sector, giving the opportunity for more environmental friendly processes, during any project (e.g. not only using environmental friendly materials). The "collaboration between those two sectors, will provide also realist data, of how the green mentality may implement in Industry and also evaluate the GREENWELD effectiveness and the project results results.

Innovation

GREENWELD project's main innovation arises from the fact that it will **tackle a training need for the development of digital and green skills for the welding sector and specifically for welders**. Until now welding process is considered by many, as a non environmental friendly process, non safe for workers and environment. GREENWELD aims to find the crucial topics to change this conviction, by providing the opportunity to welders to "green" **upgrade their skills**, and bright this new green mentality to the Industry sector, through a "green" educational path.

Conclusions

Welders may do their green part during the application process. It is worth to say that for a green welding procedure it not **only welders' role critical**. **All interest parties involving in the procedure have the same, and sometimes more responsibilities, compared to the direct personnel**. Per example it is up to the Purchase Department of a Company and also on the decision-making person to invest in energy efficient equipment, so the welder to use during his work, or the Company to implement Green Procedure for reuse, recycling so the company employees to implement.

Green Welding Procedures may apply, by investing to training of Welders, for the Know How. It is estimated that the **construction sector**, which includes welding procedures, is **responsible for over 35% of the EU's total waste generation**. This why European Rules and Norms are getting more and more strict regarding environment and construction.

That gives the **green light for the new produced training material and Green Welding Practices to be implemented more and more**, in the future, as **Welders Skills will have a significant impact on the Construction procedures footprint**.



<https://greenweld.org/>

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