

Economically welding in a healthy way

Purpose and Objectives

The ECONWELD Project came into being as a joint effort to stop the perceived downward spiral in which the welding activity is currently heading.

Significant Achievements

With the Project now in its final stage, important achievements have been reached:

Innovative Welding Tools:

1. An aspiring welding torch, capable of capturing the fumes from the welding activity, while also providing increased productivity;
2. A remote controlled extensible hydraulic arm;
3. An innovative ventilation concept for welding helmets allowing for an increase of air flux efficiency and reduced discomfort for the welder

Software Development:

1. A cost calculation software (COSTCOMP) allowing for estimations of costs and cost comparison between different welding process / practical procedures.
2. A virtual welding tool (Viweld) for support in the decision-making process in terms of welding fumes and ergonomics issues;

Partners:

EFW (PT) / NIL (NL) / MHTe (HU) / RIPH (PL) / DVS-FV (DE) / ValkWelding (NL) / Inovamais (PT) / Almor (UK) / Jesva (CZ) / ETP (SK) / Aspirmig (IT) / IIS (IT) / IR JB van den Brug (NL) / MS di Mauro Sala (IT) / Plasma Team (IT) / DIMEL (IT) / CFD Engineering (IT) / IST (PT) / IS (PL)



Fig. 1 – Ergonomic Research under the Econweld Project

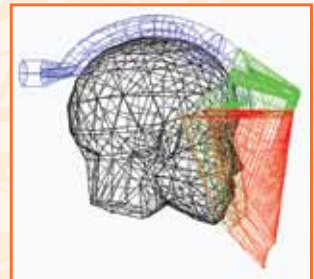


Fig. 2 – CAD Modelization of Welding Helmet with new Ventilation System



Fig. 3 – Innovative Welding Torch



Fig. 4 – Welding Arm improving Welding Process