VR-based welding simulation

CHALLENGE
Welding is a potentially dangerous and unhealthy manufacturing process due to the high temperatures involved, the release of gas and fumes, and the risk of fire and explosion. It is therefore important to properly train the people who will perform this type of task. Furthermore, there is a great demand in Europe for qualified welders. Welding is named as the fifth occupation with the greatest need in the Analysis of Scarcity and Surplus of Occupations 2020 published by the European Commission.

SOLUTION
Welding simulation and training system using Virtual Reality: (I) Immersive industrial scenario; (II) Tracking user movement; (III) Evaluation of technical aspects of the welding process, such as welding torch angle, welding temperature and energy transfer.

APPLICATION
Welding cells; Production lines.

TECHNOLOGIES
Advanced Automation, Control & Industrial Robotics

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