



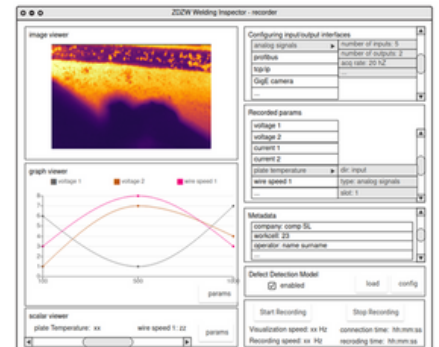
WELDING PROCESS MONITORING

Online welding defect detector, enabling early detection of potential flaws during welding operations, leading to significant time and material savings

SOLUTION DESCRIPTION

This solution caters specifically to **welding SMEs** with a notable expertise in automation but a moderate level of digitalization. It aids SMEs in monitoring their systems and leveraging advanced data analysis techniques for effective data modeling. This facilitates the **creation of an online defect detection system, alerting users to possible defects during welding processes.**

For this solution, a software and hardware system are installed within welding facilities to gather real-time data from the welding process. In the subsequent stage, the collected dataset undergoes analysis and correlation with Non-Destructive Testing (NDT) information. This analysis aids in the **creation of predictive models for online defect identification.**



MAIN BENEFITS

- ▶ Enables an early actuation on defect correction, reducing waste on reworking time and scrap
- ▶ Easy to add new sensor and communication protocols
- ▶ Offers a powerful tool to analyze the real welding process
- ▶ Can be adapted to different welding processes

PRODUCT OWNERS:



The ZDZW project has received funding from the European Union's Horizon Europe programme under grant agreement No 101057404.