

# REAL-TIME MONITORING OF DED ADDITIVE MANUFACTURING PROCESS FOR ZERO DEFECT MANUFACTURING (REDAMP)



January 2020

## CHALLENGE

## SOLUTION

## BENEFITS



510k€ EIT Funding



System specs Feb/2020



Lab validation June/2020



Integration of systems Oct/2020

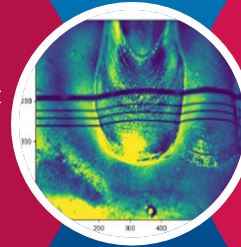


Industrial validation June/2021

AI coupling Nov/2021



Need for zero-defect production by enabling in-line monitoring and defect detection to allow for in-situ repair & to guarantee the part's suitability for demanding applications & reduce certification cost



Adapting advanced on-line monitoring and NDT techniques for early defects detection, using AI techniques allowing immediate repair to avoid material waste & provide a pathway to certification of WAAM via NDT.



Industrialisation of inline NDT for in-situ repair of defects to reduce rejection rate and material waste and the need for rework after production, contributing to zero-defect manufacturing and facilitating certification.

## MAIN PROJECT RESULTS

**1** SPIN-OFF CREATED



ALL DEFECTS > 500µm WILL BE DETECTED DURING THE PROCESS



VALIDATED FOR MATERIALS AND PROCESSES



“ This EIT grant provided us with the chance to connect research and industries that are willing to boost and innovate their manufacturing strategies ”



**JOACHIM ANTONISSEN**  
General manager GUARANTEED  
**WAAM SERVICE PROVIDER**

REDAMP project  
**AIM:** REal-time monitoring of DED Additive Manufacturing Process for zero defect manufacturing

