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AI-powered Zero Defects philosophy

Generated funding:
EUR 534 382

Challenge:
Production efficiency

Partners:
Sonae, FEUP University of Porto,
INESC-TEC, MS University of Patras,
Innowave



Powered by:



THE PROJECT

The idea

Zero Defects 4.0 is a data-driven Decision Support System that improves manufacturing decision making to ensure an improved and consistent level of product quality (towards zero defects), while generating higher production efficiency and more agile and cost-efficient product development.

Inspiration

The use of AI and Decision Support Systems, powered by advanced data analytics, predictive models and recommendation engines, is increasingly common in sectors such as retail or advanced manufacturing industries, not in traditional and process-based industries such as wood-based panels. This project aims to help close this gap.

Unique selling points

Thanks to our partners' deep expertise, we deliver a solution that will empower shop floor staff to better perform their jobs through AI-guided operational decisions and enable manufacturing companies to ensure consistent product quality.

Societal impact

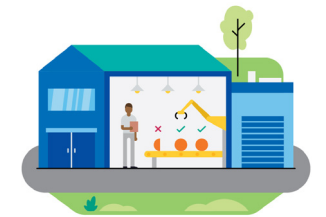
In addition to higher quality within end products, furniture and flooring equipment, the project will enable the recovery of 613 tons of wood and 64 tons chemicals and paraffin annually, thereby improving the sustainability of wood-surfaced panel production.

 sonaearauco.com

 [sonaearauco](https://www.linkedin.com/company/sonaearauco)

Main product:
Zero Defects 4.0

Aim:
To ensure an improved and consistent level of product quality and better product development



**SONAE
ARAUCO**
Taking wood further

EIT Community support

EIT Manufacturing allowed us to seize the right opportunity, join forces, and drive this project forward.

THE NOMINEE

The beginning

This project is part of a bigger plan to transform, digitize and connect all of Sonae Arauco's operations and drive further innovation. In the future, we see manufacturing as a smart, connected, agile and data-driven process.

Partnerships & Teamwork

The solution is based on knowledge and developments in Decision Support Systems from LMS and INESC-TEC, Artificial Intelligence and Machine Learning from FEUP and LMS, and IoT architecture systems from InnoWave and INESC-TEC. InnoWave is the technology up-taker (business owner), ensuring that project developments are taken to the market. Sonae Arauco, a linked third party of Sonae, acts as an industrial end-user.

Rewarding moments

Continuing with the implementation of the project despite the unexpected challenges caused by COVID-19, proved the commitment and value of all project partners. For a project leader, this was a comforting and rewarding moment.

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