PROJECT

MAGICIAN

iMmersive leArninG for ImperfeCtion detectIon and repAir through human-robot interactioN

The main objective of MAGICIAN will be to develop robotic solutions which will identify and repair defects in manufacturing products autonomously to improve workers' safety and make production processes more efficient. By putting the human in the focus of MAGICIAN activities, the project seeks to contribute to a trust and safety-based transition towards human-robot collaboration in manufacturing.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission. Neither the European Union nor the granting authority can be held responsible for them. N 101120731

11	7	€8,3 M	4
PARTNERS	COUNTRIES	TOTAL BUDGET	YEARS

IN ONE CLICK		
Coordinator	**Programme**	**Period**
Università degli Studi di Trento	HORIZON EUROPE	2023-2027
Sector	**Web**	
Robotics	https://cordis.europa.eu/project/id/101120731	

01

Objectives

MAGICIAN will take on the challenge producing a modular automation solution in which robots are used to detect and rework production defects before the last production phases commence and the aesthetics of the product is finalised. The project will produce two robotic solutions, one for defect analysis (the SR) and one for the defects' rework (the CR). The SR and the CR can be used separately, with the humans remaining in charge of some of the activities, or in combination, with the CR operating on the defects identified by the SR.

02

Solutions

The project will produce two robotic solutions, one for defect analysis (the SR) and one for the defects' rework (the CR.. The solution will be developed adopting a human-centered approach, which will allow us to evaluate the impact of the innovation on the production processes and remove the most important asperities along this path. The effectiveness of the solution will be tested on a use-case, and its generality proven by recruiting additional contributors and use-cases through a FSTP scheme.

03

Impacts

MAGICIAN will generate research and human-centred processes in automation/robotics that considers effects and potential impacts on the workers and society. The impacts will be: Scientifically, new robotics components and interfaces advance industrial capabilities; Technologically, improved collaboration boosts productivity and quality; Societally, the enhancement of working conditions and revitalizing industrial districts.