Project Title

Development of Autonomous Robots to Increase Process Efficiency and Organize Activities in Nautical Marinas with Research on the Impact on Consumer Habits, Satisfaction, and the Level of Tourist Expenditure, NPOO.C1.6.R1-I2.01-V3.0011

Short Project Description

The project aims to strengthen the Applicant and its partners through research, development, and innovation. The project leader is Marina Punat d.o.o., in cooperation with Probotica d.o.o., the Faculty of Mechanical Engineering and Naval Architecture in Zagreb, and Subjekt d.o.o. Over a 24-month research and development period, autonomous robots will be developed up to TRL7, with the objective of assessing the extent to which robotization increases the efficiency of business processes in nautical marinas, while simultaneously analyzing its impact on consumer habits, tourist satisfaction, and the level of tourist expenditure in nautical tourism. Target groups include the employees of the Applicant and Partners as well as the users of nautical marina services.

The project encompasses the following activities:

- Research and development activities – industrial research
- Research and development activities – experimental development
- Initial investment in tangible and intangible assets
- Project management
- Promotion and visibility

Objectives and Expected Results

Research and development of autonomous robots enabling automation and digitalization of the Applicant's operations will contribute to solving the outlined challenges as well as addressing specific issues of tourism defined by the call, along with key challenges of Croatian tourism. Over 24 months, the Applicant and its partners will develop an innovative robotic system specialized for marina operations, while simultaneously creating a methodology for technology transfer and knowledge sharing in process robotization, with global potential for replication in other marinas. The project will also produce guidelines for adapting marina infrastructure and business operations to ensure successful implementation of robotic systems. Planned outcomes include:

- Mobile robots conducting marina and vessel patrols (autonomous driving).
- Mobile robots supervising and photographing vessels while recording their condition (autonomous driving).
- Mobile robots monitoring risk factors using sensors, gas and smoke detectors, thermal cameras, and other safety systems, triggering alarms when necessary.
- Mobile robots delivering supplies to vessels, demonstrated through delivery of chilled drinking water to boaters.

Mobile robots managing logistics for removing goods from vessels, demonstrated through autonomous transport of waste to the recycling yard.

Investment in infrastructure, marina space, business processes, and administration to ensure seamless implementation of mobile robots and supporting software solutions.

Raising the technological capacity of the marina and its employees, achieving higher guest satisfaction, and consequently increasing marina expenditure.

The project will contribute to the achievement of the following indicators:

- Strengthening sustainability and promoting the green and digital transition of Marina Punat d.o.o.
- Increasing sales revenues of supported enterprises
- Growth in employment at the Applicant and/or partners

Sustainability

Project results will remain sustainable through several aspects. The implementation of the proposal "Development of Autonomous Robots to Increase the Efficiency of Business Processes and Organize Business Activities in Nautical Marinas, with Research on their Impact on Consumer Habits, Tourist Satisfaction, and the Level of Tourist Expenditure" is a strategically important step for Marina Punat d.o.o. and its partners. The project will establish a foundation for more competitive operations, a greater number of satisfied boaters and marina guests, enhanced recognition in its market niche, and a stronger competitive advantage. Furthermore, it will help address key challenges in the tourism sector, particularly labor shortages.

Project Value and EU Co-Financing (EUR)

- Total project value: €5,736,292.56
- Total eligible costs: €3,038,532.99
- EU contribution: €2,220,582.37

Implementation Period

01/07/2023 – 30/09/2025

Contact for More Information

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Links

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