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Promotional videos of Coastal Test Center based on the demonstrations of the robotic solutions 1

ABB OY and INESC TEC



Actions

	Action	Organisation	Date
Technical Manager	Requested deliverable from the Deliverable Responsible.	VTT	01.07.2023
Deliverable Responsible	Prepared draft of the deliverable.	ABB OY	26.07.2023
Technical Manager	Approved the updated draft as the first version.	VTT	26.07.2023
Quality Manager	Approved the updated first version as the second version.	UdG	28.07.2023
Project Coordinator	Approved the updated second version as the final version and sent to the European Commission.	INESC TEC	31.07.2023

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1. Introduction

In 2022, several institutions participated in comprehensive validation and demonstration activities at the Coastal Testbed of ATLANTIS, evaluating the capabilities of various autonomous underwater, surface and aerial vehicles. The tests encompassed a wide range of scenarios, pushing the boundaries of autonomous technologies in maritime operations. Notably, successful trials included the autonomous landing of UAVs on moving platforms, showcasing the precision and adaptability of UAVs during dynamic and challenging conditions. Additionally, cathodic protection measurements were efficiently conducted using an AUV equipped with a robotic arm, demonstrating the potential for remote inspection and maintenance tasks in underwater environments. Close-range navigation of AUVs around the intricate DURIOUS structure showcased the vehicles' agility and versatility in complex structures. Furthermore, aerial inspections of the DURIOUS top-side from UAVs provided valuable insights into the structure's condition and accessibility. Multi-domain mapping using USVs highlighted the capabilities of collaborative platforms in collecting diverse data for comprehensive structural assessments. Lastly, the cleaning of subsea structures using ROVs demonstrated the potential for automated maintenance operations, enhancing the efficiency and cost-effectiveness of offshore maintenance tasks. These successful validation and demonstration activities serve as a testament to the advancements in autonomous vehicle technologies, further propelling the development of cutting-edge solutions for underwater, surface and aerial applications in the maritime industry.

A video capturing some of these trials was released on the social media. This video is available at <https://www.youtube.com/watch?v=pQIzA555RkK>



Figure 1-1: Video of the Coastal Testbed: activities conducted by the consortium members during 2022.