Ref. Ares(2026)7434998 - 30/07/2026

Scalable full-cycle marine litter remediation in the Mediterranean: Robotic and participatory solutions

SeaClear2.0

ttps://www.seaclear2.eu

D9.3
Demonstration with Evaluation in Dubrovnik, CRO
WP9 – *Demonstrations*

Grant Agreement no. 101093822

Lead beneficiary: University of Dubrovnik
Date: 20/07/2026
Type: Demonstration
Dissemination level: PU

Document information

Grant agreement no.	101093822
Acronym:	SeaClear2.0
Full title:	Scalable full-cycle marine litter remediation in the Mediterranean: Robotic and participatory solutions
Start date of the project	01/01/2023
Duration of the project	48 months
Deliverable	D9.3 : Demonstration with Evaluation in Dubrovnik, CRO
Work package	WP9 : Demonstrations
Deliverable leader	University of Dubrovnik
Delivery date	31/07/2026
Status	Draft ☐ Final ☑
Type[1]	R ☐ DEM ☑ OTHER ☐ DMP ☐
Dissemination level[2]	PU ☑ C-UE/EU-C ☐ SEN ☐
Author(s)	I. Palunko (UNIDU)
Responsible author	University of Dubrovnik
Deliverable description	Report of the demonstration made in Dubrovnik, Croatia

1 R = Document, report, DEM = Demonstrator, OTHER = Software, technical diagram, etc., DMP = Data Management Plan

2 PU = Public, C-UE/EU-C = EU Confidential under Decision 2015/444, SEN = Sensitive

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

101093822	**D9.2**: Demonstration in Dubrovnik	
	WP9: Demonstrations	**Version**: V1.0
	Author(s): I. PALUNKO (UNIDU)	**Level**: PU

Document history

Name	Date	Version	Description
I. Palunko	20.07.2026	V0.1	First draft of demo report
B. De Schutter	25.07.2026	V0.2	Internal review
R. Glunčić	26.07.2026	V0.3	Internal review
L. Bošković	26.07.2026	V0.4	Internal review
I. Palunko	28.07.2026	V1.0	Final

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

Disclaimer of warranties

This document has been prepared by SeaClear2.0 project partners as an account of work carried out within the framework of Grant Agreement no. 101093822. Neither the Project Coordinator, nor any signatory party of the SeaClear2.0 Project Consortium Agreement, nor any person acting on behalf of any of them:

- makes any warranty or representation whatsoever, express or implied, with respect to the use of any information, apparatus, method, process, or similar item disclosed in this document, including merchantability and fitness for a particular purpose, that such use does not infringe on or interfere with privately owned rights, including any party's intellectual property; or
- makes any warranty or representation whatsoever, express or implied, that this document is suitable to any particular user's circumstance; or
- assumes responsibility for any damages or other liability whatsoever (including any consequential damages, even if the Project Coordinator or any representative of a signatory party of the Project Consortium Agreement, has been advised of the possibility of such damages) resulting from your selection or use of this document or any information, apparatus, method, process, or similar item disclosed in this document.

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

TABLE OF CONTENTS

1. INTRODUCTION 6

1.1 DEMO SITES 7
1.2 STAKEHOLDER INVOLVEMENT 10
1.3 SCHEDULE 13

2. SEA TRIALS 15

2.1 ROLES 15
2.1.1 SeaCAT (SST): 15
2.1.2 Mini-Tortuga (SST/UTC/TUD): 15
2.1.3 Smart robotic grapple (TUM): 16
2.1.4 SeaDragon (CML): 17
2.1.5 SeaHawk (UNIDU): 17
2.1.6 SeaBees (UNIDU): 18
2.2 OPERATION MONITORING 18

3. SUMMARY 20

3.1 PRESS & MEDIAS 21

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

Definitions

- **Beneficiary:** A legal entity that is signatory of the EC Grant Agreement no. 101093822.
- **Consortium:** The SeaClear2.0 Consortium, comprising the list of beneficiaries below.
- **Consortium Agreement:** Agreement concluded amongst the SeaClear2.0 beneficiaries for the implementation of the Grant Agreement.
- **Grant Agreement:** The agreement signed between the beneficiaries and the EC for the undertaking of the SeaClear2.0 project (Grant Agreement no. 101093822).

Beneficiaries of the SeaClear2.0 Consortium are referred to herein according to the following abbreviations:

- **TU Delft**: TECHNISCHE UNIVERSITEIT DELFT
- **DUNEA**: REGIONALNA AGENCIJA DUNEA
- **Fraunhofer**: FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV
- **HPA**: HAMBURG PORT AUTHORITY
- **ISOTECH**: ISOTECH LTD
- **MDanchor**: M. DANCHOR LTD
- **Subsea Tech**: SUBSEA TECH SAS
- **TECNOSUB**: TÉCNICAS Y OBRAS SUBACUÁTICAS, SLU
- **TUM**: TECHNISCHE UNIVERSITAET MUENCHEN
- **UNIDU**: SVEUCILISTE U DUBROVNIKU
- **UTC**: UNIVERSITATEA TEHNICA CLUJ-NAPOCA
- **VEO**: VEOLIA PROPRETE
- **VLPF**: VENICE LAGOON PLASTIC FREE

Abbreviations

- **EC**: European Commission
- **WP**: Work Package
- **UAV:** Unmanned Aerial Vehicle
- **ROV:** Remotely Operated underwater Vehicle
- **USV:** Unmanned Surface Vehicle
- **LARS**: Launch And Recovery System

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

Executive summary

From 01st until 11th of June in 2026 the whole SeaClear2.0 consortium gathered in Dubrovnik, Croatia for the full system demonstration focusing on a technical demo in a nature protected mariculture environment at Bistrina Bay, and a public demo focused on a tourism-oriented use case in Lapad Bay. This document summarizes the organization, challenges and achievements during demo in Dubrovnik, Croatia.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

1. Introduction

SeaClear2.0 builds upon the achievements of the H2020-funded SeaClear project, in which several of the current partners developed the first autonomous robotic system for seafloor litter collection.

In the original system, an unmanned surface vehicle (USV) called *SeaCAT* acted as the central hub for a multi-robot setup composed of:

- an unmanned aerial vehicle (UAV) that detected litter from above and an observation ROV (Mini-Tortuga) that located litter underwater
- a collection ROV (Tortuga) equipped with a gripper tool to retrieve debris and deposit it into a basket deployed from the USV.

As the first project of its kind, SeaClear focused primarily on technological development, including hardware, perception, and autonomy algorithms. However, it was limited to seafloor debris of moderate size (up to tens of centimeters) and shallow depths (tens of meters). It could not handle floating litter or larger submerged objects, such as fishing gear, bicycles, e-scooters, tires, or other heavy marine debris.

SeaClear2.0 addresses these limitations by scaling up and extending the original concept. The upgraded system is designed to collect larger and heavier debris using an enhanced *SeaCAT2* equipped with a smart grapple, supported by a dedicated USV Tender for debris storage and transport to shore. In addition, SeaClear2.0 introduces surface-cleaning capabilities through a fleet of highly maneuverable surface robots called SeaBees that operate autonomously or in coordination with SeaCAT.

The sensor suite and autonomous intelligence of SeaClear2.0 have also been upgraded. Advanced AI algorithms enable multi-robot coordination, enhanced debris detection across surface and underwater environments, and adaptive path planning in complex or cluttered conditions. The SeaHawk, a UAV in a free-flight or in a tethered mode, continues to provide aerial situational awareness, now fully integrated with surface and underwater sensors to produce comprehensive 3D mapping of litter distribution, optimizing collection routes and efficiency.

Finally, SeaClear2.0 is designed to work synergistically with the original SeaClear system, creating a multi-layered approach to marine debris removal. SeaClear focuses on detecting

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

and collecting smaller seafloor litter, while SeaClear2.0 handles larger and surface debris, ensuring that a broad range of marine litter—from small fragments to bulky objects—can be autonomously detected, retrieved, and safely removed. This integration demonstrates a comprehensive, practical solution for autonomous marine litter management that is scalable, efficient, and environmentally impactful, see Figure 1.

During project duration many trials were conducted to test the SeaClear2.0 system as a part of the iterative development throughout the course of the project. While some tests focused on individual components and were implemented at the facilities of the respective partners working on it, some required integration of components and deployment in real-time environments. Those preparatory trial campaigns have been organized in Hamburg, Dubrovnik, and Marseille. Further developments and refinements afterwards finalized the design and functionality of the overall SeaClear2.0 system which was officially demonstrated together with the original SeaClear system in Marseilles in September 2025. Dubrovnik was the 2nd demo site planned within the project pilot and demo activities where the full SeaClear2.0 system was successfully demonstrated in a technical and in public demo.

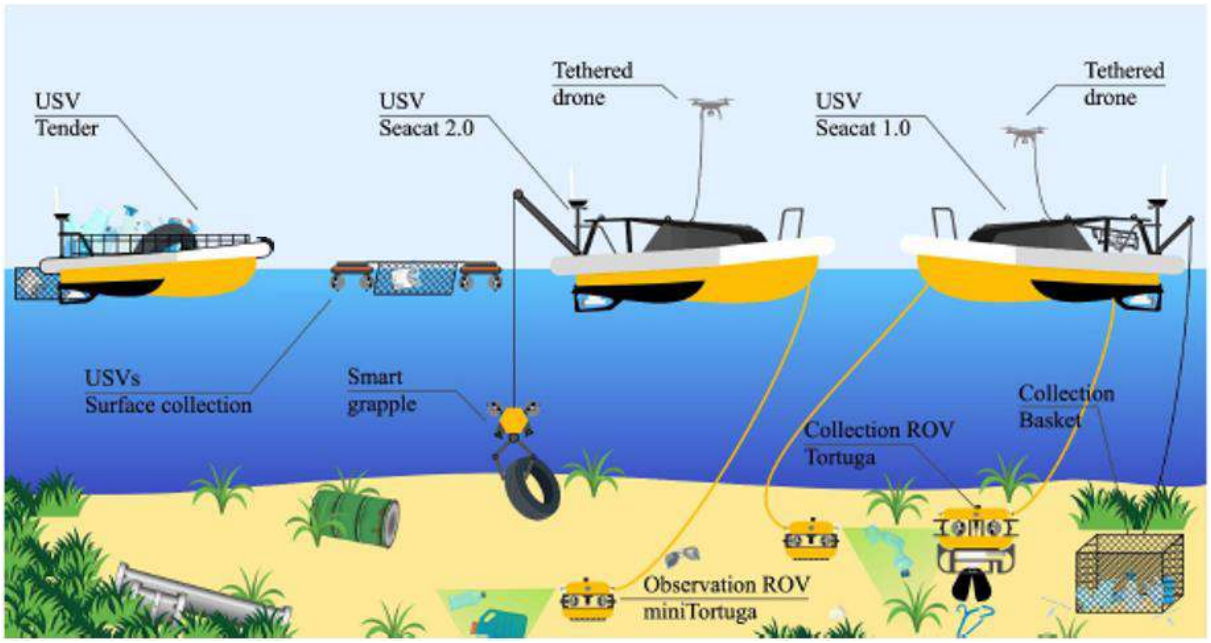


Figure 1: Concept of SeaClear 2.0 robotic system (left/middle) and the original SeaClear system (right)

1.1 Demo Sites

In Dubrovnik area the demonstrations were conducted in two separate locations, with slightly different environmental conditions.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

In ***Bistrina Bay***, the demonstration took place at the Laboratory for Mariculture, University of Dubrovnik (UNIDU) (42°52'16.2"N, 17°42'04.3"E), a research facility situated 60 km from Dubrovnik, near mariculture farms, see Figure 2. The conditions here involved relatively low currents, with a visibility of around 5m, but slightly turbid water, which negatively influences the visibility.



Figure 2. Bistrina Bay (left) and the designated demo area (right) (source: Google maps)

At Bistrina demo site the operation center was set up in front of the main building so the operators could clearly see all the robots in operation while at the same time providing efficient seating arrangements for easier communication between the operators, see Figure 3.



Figure 3: The "Operation center" at Bistrina demo site

Since the premises for the Bistrina demo are the UNIDU facility, this was the most suitable area where the preparations and final system integration for the public demo took place.

The demo site ***Lapad Bay*** (42°39'16.4"N 18°04'08.7"E) is a bay situated in the Lapad peninsula which is a residential area with public beaches, hotels and tourist attractions with no suitable on-site facilities, see Figure 4. The conditions here involved low currents, no tides and low turbidity with a visibility of around 10m.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them



Figure 4. Lapad Bay (left) and the designated demo area (right) (source: Google maps)

After acquiring the permits needed to operate autonomous systems in a public area close to the public, the operation center was set up on a dock with separate operator and non-operator areas, see Figure 5.



Figure 5. Lapad Bay, public demo operator (grey tents) and non-operator area (white tents) set up

The demonstration site was fully accessible to the public, with operators and robots functioning in close proximity to beachgoers and visitors in the surrounding public areas. On the day of the public demonstration, a team of professional divers provided support to the team. The divers were responsible for clearly marking the designated testing zone at the public beach using floating buoys, ensuring that swimmers from adjacent beach areas do not enter the zone and risk injury from the autonomous robots, see Figure 6.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them



Figure 6. Designated testing area set up by divers during the public demo day in Lapad

Within two hours, the team had successfully established the operator and stakeholder area, after which the system was fully prepared for the public demonstration. As the beach area was inaccessible to a crane, the two catamarans, SeaCat and SeaDragon, had to be towed by speedboats from an alternate location where crane-based launching was possible (see Figure 7).



Figure 7. Launching and towing of SeaCat and SeaDragon to the demo location

1.2 Stakeholder involvement

The Community of Practice (CoP) of the Dubrovnik-Neretva pilot site consists of stakeholders who share an interest in the same topic and contribute to achieving the pilot's objectives. It

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

includes public authorities (such as port, regional, and local authorities), NGOs, researchers, divers and other interested community members involved in or affected by marine litter management.



Figure 8. Workshop for the stakeholders and members of the CoP

From the outset, the SeaClear project attracted considerable interest from both the public and potential stakeholders. During the 2026 demonstrations in Dubrovnik, the team chose to engage the press, the public, and stakeholders directly by organizing a public demonstration in Lapad Bay.



Figure 9. Stakeholders and press during public demo in Lapad Bay

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

Setup for the demonstration began at 07:00, with the public demonstration for stakeholders commencing at 12:00. While the technical team prepared the system for the demo, a stakeholder workshop was held nearby (see Figure 8). Organized by ISOTECH, the workshop gathered key stakeholders to share knowledge and discuss integrated strategies for marine litter management, emphasizing how combining technological innovation with stakeholder engagement and cross-sector collaboration can maximize environmental impact. Following the workshop, representatives from the stakeholder community and the CoP attended the public demonstration of the SeaClear2.0 system, see Figure 9. Alongside members of the CoP, public demonstration was attended by consortium members from the BEHAVE project, funded by the Interreg Europe Programme.

As numerous onlookers gathered near the system and asked questions during the morning setup, a group of preschool children also visited the site, where UNIDU team members provided them with a detailed explanation of the system. The children had the opportunity to watch all the SeaClear2.0 robots in operation, see Figure 10.



Figure 10. Preschool kids being introduced to the SeaClear2.0 system by UNIDU team

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

1.3 Schedule

The overall schedule of the Dubrovnik demonstrations spanned a total of 11 days, carefully organized to balance technical preparation, system integration, and demonstration activities.

The first six days in Bistrina were dedicated to preliminary tests and final system integration, ensuring that all equipment was correctly installed, calibrated, and fully operational. During this period, the team verified subsystem functionality, conducted troubleshooting as needed, and progressively refined the setup to guarantee reliability for the demonstrations.

The subsequent three days were dedicated to full system demonstrations, with one day allocated to each demo site. Half a day was set aside for transporting all equipment from Bistrina to Dubrovnik, as the 60 km distance between the two locations required significant time and logistical coordination. These demonstrations were designed to showcase the system's performance in real operational settings — both at the Bistrina site, a mariculture area, and at Lapad, a public beach in a popular tourist location. The public demonstration in Lapad presented particular challenges, since the SeaClear2.0 system had never been tested there before. The system and operator stations had to be set up quickly in an area not designed for large-scale robotic testing, all while being observed by numerous bystanders, passersby, and beachgoers along Lapad Bay

These two sites of the Dubrovnik demo allowed partners and external stakeholders to observe performance, validate operational procedures, and evaluate the system’s adaptability in different environments.

The final day of the schedule was reserved for the consortium meeting, during which all project partners convened to discuss the overall outcomes of the tests and demonstrations. This meeting provided an opportunity to share insights, identify lessons learned, assess the system’s readiness, and discuss potential improvements or next steps for future deployments.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

Date (2026)	**Activities**
June 01–06 (Mon–Sat)	Installation & preliminary tests at Bistrina - UNIDU
June 08 (Mon)	Technical demo at mariculture site Bistrina – UNIDU
June 09 (Tue)	Final testing and equipment packing to be transferred to Dubrovnik from Bistrina & consortium social/networking event - UNIDU & DUNEA
June 10 (Wed)	Workshop, lunch/networking event, public demo at tourist site Lapad Bay & official consortium dinner – UNIDU & DUNEA & ISOTECH
June 11 (Thu)	Consortium meeting – UNIDU & DUNEA

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

2. Sea trials

The sea trials focused on demonstrating our prototype of the robotic system designed for the detection, classification, and collection of underwater and surface litter in an operational environment to showcase high level of system readiness.

2.1 Roles

2.1.1 SeaCAT (SST)

The autonomous surface vehicle served as the core platform, providing power and computational support for the other robots. It conducted initial bathymetric scans to create detailed seafloor maps and coordinate the deployment of the ROV, UAV, and smart grapple. The SeaCat 2.0 performing in both demos, technical and public, is shown in Figure 11.



Figure 11. SeaCAT 2.0 on Bistrina during the technical demo (left) and in Lapad during the public demo (right)

2.1.2 Mini-Tortuga (SST/UTC/TUD)

This remotely operated underwater vehicle mapped underwater debris using camera and sonar data, assisting in locating litter for retrieval. Figure 12 shows the miniTortuga performing mapping and its retrieval on the SeaCat LARS. In Figure 13 the results of the detection and mapping during Dubrovnik demo with the miniTortuga are shown.



Figure 12. MiniTortuga during the Dubrovnik demo

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

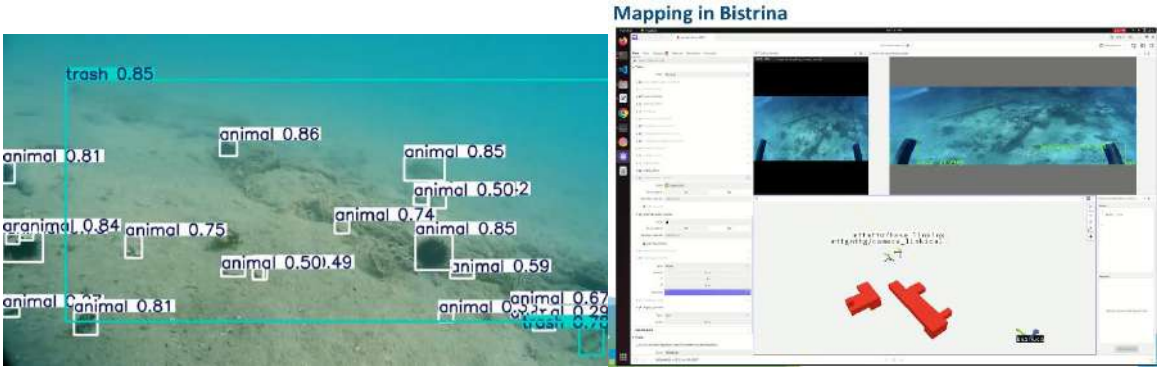


Figure 13. Detection and mapping results during the Dubrovnik demo

2.1.3 Smart robotic grapple (TUM)

Guided by pre-identified debris locations, the grapple autonomously grasps and lifts heavy items, successfully collecting objects such as tires and placing them on the tender platform. Figure 14 shows the SmartGrapple collecting various large-scale debris during the Dubrovnik demo. Visual servoing, an essential part of the SmartGrapple software architecture, performance during the Dubrovnik demo is shown in Figure 14.



Figure 14. SmartGrapple collecting litter on Bistrina during the technical demo (left), in Lapad during the public demo (right), and visual servoing (bottom)

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

2.1.4 SeaDragon (CML)

Acting as a mobile tender, the SeaDragon automatically docks to SeaCAT to collect recovered litter and transport it autonomously to shore. Its performance during the Dubrovnik demo is shown in Figure 15.



Figure 15. SeaDragon docking and collecting litter from the Smart Grapple in Bistrina during the technical demo (up) and in Lapad during the public demo (down)

2.1.5 SeaHawk (UNIDU)

The SeaHawk aerial drone provided aerial observation, detected surface litter, and relayed real-time mapping data to coordinate collection activities. SeaHawk operates in two modes: tethered mode and free-flying mode, see Figure 16.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them



Figure 16. SeaHawk in tethered mode in Bistrina during the technical demo (left) and in free-flying mode in Lapad during the public demo (right)

2.1.6 SeaBees (UNIDU)

These unmanned surface vehicles removed floating debris using nets, operating autonomously based on the UAV's detection data, see Figure 17.



Figure 17. SeaBees collecting litter with SeaHawk providing the surface litter location in real-time in Bistrina during the technical demo (left) and collecting litter in Lapad during the public demo (right)

2.2 Operation Monitoring

For coping with the demand of future end-users of the SeaClear2.0 system, the team has developed a master governor "Maestro" where the marine operation can be monitored and controlled remotely, as seen in the snapshot in Figure 18. On the SeaClear2.0 Maestro system, the user interface plotted in real-time the same trace that could have been seen also in the operator application.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

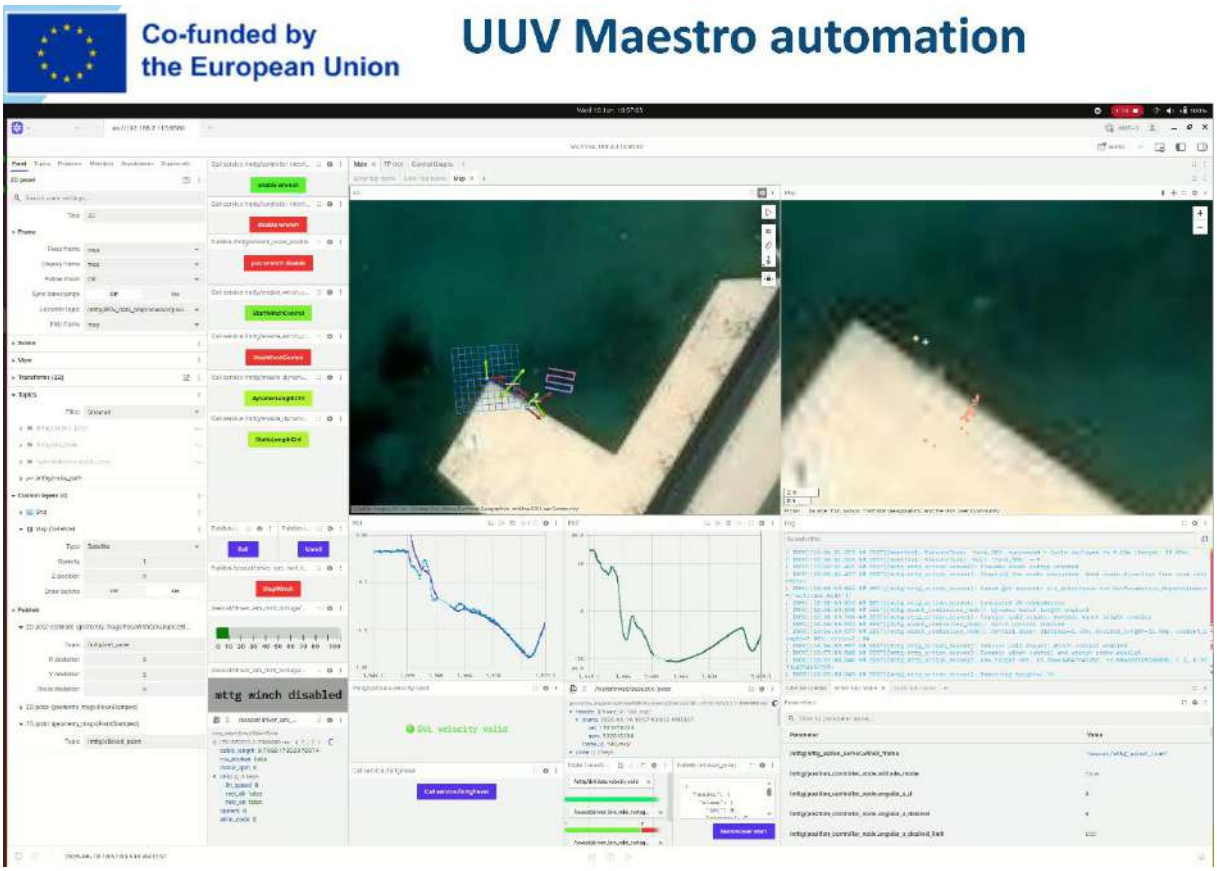


Figure 18. Unmanned system Maestro automation.

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

3. Summary

In summary, the ten-day demonstration and consortium meeting activities of the SeaClear2.0 project on developing robots for autonomously cleaning marine litter showcased significant progress and achievements. The demonstrations of large-scale robotic systems like SeaClear 2.0 require involvement of a lot of teams members, from the technical partners but also of the non-technical partners contributing with soft-activities which are the essential part of every demo, see Figure 19. The demonstrations of this scale are important parts of the project because they show high-level of coordination and cooperation of team members in different situations, locations and operational environments. With Dubrovnik demo, the SeaClear team showed another successful cooperation during demo campaigns even in challenging setup in public area like it was during the public demo in Lapad.

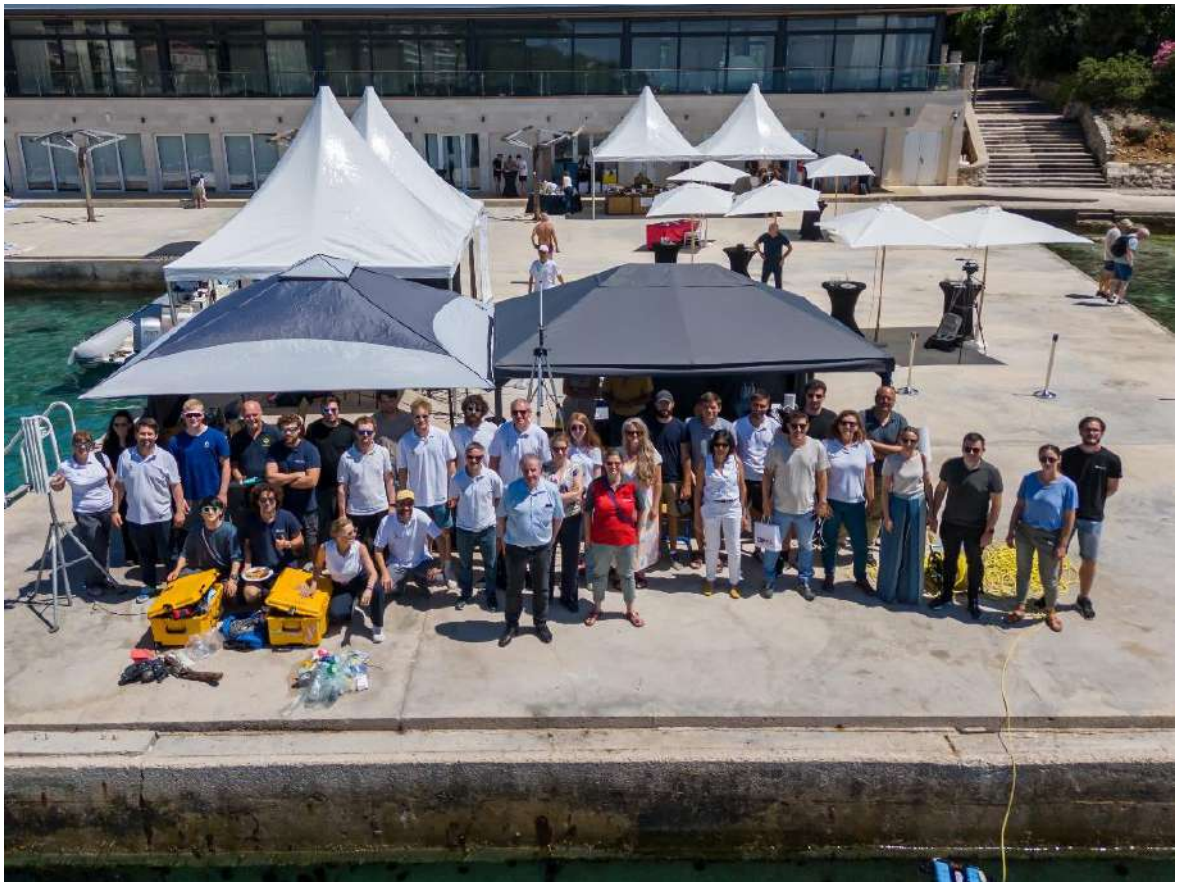


Figure 19. SeaClear 2.0 consortium team during public demo in Lapad bay, Dubrovnik, CRO

Throughout the demonstration, the assembly and deployment of the full SeaClear2.0 robotic system was finalized, various tests were conducted, and key objectives accomplished. Detailed report on system performance during demos will be reported in Deliverable D9.1.

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

All events were organised following zero-waste principles, with a focus on waste prevention, proper waste separation and the use of locally sourced food and products to minimise their environmental footprint.

3.1 Press & Medias

To complement the technical and operational results, the SeaClear2.0 project also achieved strong public visibility and outreach, demonstrating wide interest in its environmental and technological goals. Media coverage played an important role in raising awareness about marine pollution and in showcasing how autonomous robotic systems can contribute to cleaner and more sustainable seas.

During the Dubrovnik demonstrations, several national and regional outlets featured reports on the project, emphasizing the innovative use of autonomous surface, aerial, and underwater drones for waste detection and collection. Coverage included articles from Dubrovnik Times, DuList, DubrovackiDnevnik, DubrovnikNet, LibertasTV, UniduTV, Jug.info, and Jutarnji list, one of Croatia's leading national news outlets, as well as a feature on central news of the national television HRT. These publications highlighted the project's technological innovation, environmental impact, and European collaboration, particularly through the successful public demonstrations at Lapad Bay, Dubrovnik.

Together, these media appearances significantly strengthened the project's visibility, connecting the scientific objectives with the general public and policymakers, and underlining the potential of European research and innovation to deliver practical, high-impact environmental solutions.

References:

- https://www.youtube.com/watch?v=I7KJUeGyjUw HRT central news, from 38:35
- https://www.jutarnji.hr/promo/seaclear2-0-u-dubrovniku-povezao-tehnologiju-edukaciju-i-zastitu-mora-15718325
- https://juginfo.hr/dubrovacko-neretvanska/2026/06/17/foto-video-seaclear2-0-u-dubrovniku-povezao-tehnologiju-edukaciju-i-zastitu-mora/
- https://www.thedubrovniktimes.com/news/dubrovnik/item/19951-robots-take-on-marine-litter-in-dubrovnik-bay
- https://dulist.hr/sea-clear-2-0-buducnost-zastite-mora-predstavljen-sustav-koji-sam-otkriva-i-uklanja-morski-otpad/1025810/

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them

- https://dubrovackidnevnik.net.hr/vijesti/grad/buducnost-je-stigla-u-dubrovnik-roboti-pronalaze-i-uklanjaju-otpad-iz-mora-u-uvali-foto-video
- https://www.dubrovniknet.hr/video-u-uvali-lapad-demonstriran-seaclear-2-0-jedan-od-najnaprednijih-europskih-robotskih-sustava-za-uklanjanje-otpada-iz-mora/
- https://unidu.tv/kenova-seaclear-2-0-t ehnicka-demonstracija/

Co-funded by the European Union

SeaClear2.0 is co-funded by the European Union under the Horizon Europe Programme (Grant Agreement 101093822). Views and opinions expressed herein are those of the author(s) and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them