EU MISSIONS
RESTORE OUR OCEAN AND WATERS

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

SeaClear2.0

https://www.seaclear2.eu

SeaClear2.0 stakeholder workshops

Co-design Activities for Tackling Marine Litter
Stakeholder Workshop in Kristiansund
06 June 2025

Grant Agreement no. 101093822

Co-funded by the European Union

The SeaClear2.0 stakeholder workshops

Identifying site-specific issues and co-designing applicable solutions are essential steps in effectively tackling marine litter. As part of the SeaClear2.0 project, ISOTECH Ltd is implementing its DeCyDe-4 decision support method in a series of participatory workshops with stakeholders in eleven countries around Europe and the Mediterranean (including non-EU member countries) to map site-specific marine litter problems and co-design solutions.

The second workshop: Kristiansund, Norway

Following the successful implementation of the first workshop in Hamburg, the second workshop was held in Kristiansund, Norway, on 6 June 2025. Organised in collaboration with the RECLAIM project, funded through the Associated Regions call of the SeaClear2.0 project, the workshop convened 15 invited stakeholders representing public authorities, port administrations, waste management, academia, and civil society.

Local Insights: Marine Litter Challenges in Kristiansund

Participants worked collaboratively to identify key challenges that Kristiansund and its neighbouring municipalities are facing regarding marine litter. The following challenges emerged:

1. Marine litter generated by the marine and maritime industry. This includes both current waste, such as fishing gear, aquaculture materials, and cruise ship-related waste, and legacy litter from old sea landfills and fishing operations. The persistence of this historical waste continues to impact local fjords and coastlines.
2. Seabed litter, which remains largely invisible to the public and authorities due to its "out of sight, out of mind" nature.
3. Litter generated by specific activities, such as confetti from celebrations or wind-blown waste from open bins and construction sites, contributes significantly to pollution.
4. Seagulls spread waste as birds often scavenge from bins and inadvertently deposit non-edible litter into the marine environment.
5. The use of tyres as boat fenders, which gradually release microplastics. This is especially alarming considering that fjord water is used for drinking in many Norwegian cities, and current treatment facilities do not filter out microplastics.
6. Legacy of illegal dumping and unregulated landfills from past decades.
7. Inability of existing sewage systems to treat plastic-containing items like sanitary products, leading to further pollution.

The workshop participants prioritised two major problem areas for deeper discussion and the identification of solutions: (1) marine industry-related litter, both current and historical; and (2) traditional waste disposal practices, including illegal dumping and historic landfills.

Targeted Solutions for Marine Industry-Related Litter

To address the challenges stemming from the marine industry, stakeholders proposed a range of practical measures:

- Incentive-based systems were highlighted as key to creating a culture shift, from penalty-driven to positive engagement. For example, initiatives like "Fishing for Litter," reduced disposal fees, and refund schemes for proper gear disposal could encourage responsible behaviour. Technological solutions, such as GPS tracking of fishing gear using existing registration systems, were also discussed to incentivise the retrieval of lost fishing gear.
- Alternative Materials: Participants recommended supporting a shift away from plastics through the use of alternative materials like bioplastics.
- Improving waste management in land and sea aquaculture facilities: The relocation of land-based aquaculture activities to non-inhabited islands, as well as the use of closed nets at sea-based aquaculture facilities, could help better control waste from these activities.
- Promoting circular economy models and circular products: incentivising circular practices and innovation in industry by supporting start-ups and providing incentives to industry that implements circular processes.

Solutions for Illegal Dumping and Legacy Landfills

In relation to illegal dumping and legacy waste sites, the stakeholders proposed the following solutions:

- Map and monitor historic landfills to develop a baseline and define steps and priority areas for remedial actions.
- Allocate responsibilities: illegal landfills are found everywhere, including on private land, but the waste does not necessarily belong to the landowners. Nonetheless, landowners often have to pay for the management of this waste. Furthermore, there is often confusion as to which is the competent authority to deal with this issue. Regulations should be adjusted to avoid penalising those not responsible and to clarify the roles of competent authorities.
- Allocate funds and build capacity in the responsible authorities: it is important to ensure that responsible public bodies have the necessary funding and technical expertise and support to undertake cleanup operations. Additionally, the bureaucracy surrounding the management of illegal waste dumping and legacy landfills should be reduced.
- Regulatory reforms that promote positive action: reforms should be introduced to ensure that the value of waste is recognised, for example by introducing a Deposit Refund System (DRS). Furthermore, the participants also noted that incentives should be offered to ensure that people comply with regulations coupled with granting grace periods for people to comply with new regulations. Additionally, the participants also

noted that volunteer efforts and community-led cleanups should be supported through small-scale funding and recognition schemes.

Cross-cutting solutions

While developing solutions, participants agreed that the following two key actions were so fundamental that they should be applied horizontally to address all the marine litter related issues that they identified:

- The implementation of awareness-raising initiatives grounded in practice, not theory. Campaigns that involve communities, such as beach adoption schemes, can foster a stronger sense of responsibility and stewardship.
- Stronger collaboration among all sectors, including industry, academia, local authorities, and citizens, to implement coordinated and effective solutions.

This second stakeholder workshop demonstrated the power of inclusive, locally grounded dialogue in designing effective responses to marine litter. The results from these eleven workshops will complement the policy analysis work that ISOTECH is implementing within SeaClear2.0 and will inform the final policy recommendations that will be included in a White Paper to be published in 2026.