



CLIMAREST

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BlueActionAA Webinar – April 9th 2026



CLIMAREST



Agenda

- CLIMAREST Project introduction
- Arctic pollution and the demonstration site
- Solution – Awareness campaign





Coastal Climate Resilience and Marine Restoration Tools for the Arctic Atlantic Basin

Demonstration, replication and upscaling of large-scale solutions for restoration and climate resilience.

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Climate and Environment, SINTEF Ocean



 PART OF THE
EU MISSIONS
RESTORE OUR OCEAN & WATERS



Mission Ocean Innovation Action
2022 – 2025 (3 years), 8.5 M€
18 partners, 5 replication sites, 12 countries

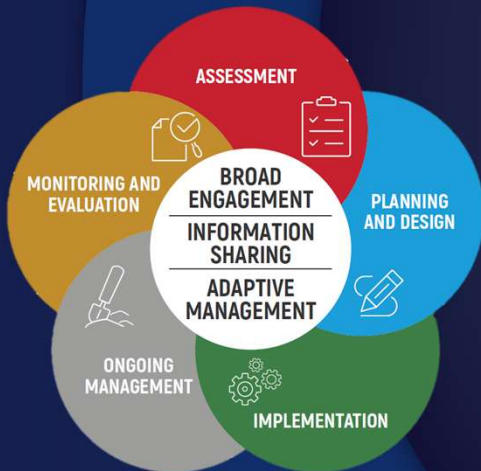
Funded by
the European Union



INNOVATIVE SOLUTIONS
FOR RESTORATION AND
COASTAL RESILIENCE

DEMONSTRATION OF LARGE SCALE SOLUTIONS

EFFECTIVE TOOLS
AND GUIDANCE




Arctic fjord
Norway > Sweden



Seagrass
Ireland > Greece



Oyster reefs
France > Germany



Soft bottom
Spain > Croatia



Rocky bottom
Madeira > Cyprus

MARINE RESTORATION TOOLBOX

 **MARINE RESTORATION WEBSITE**



 **MARINE RESTORATION THEMED VIRTUAL LAB**



 **RELEVANT OPEN DATA REPOSITORIES**





MARINE RESTORATION WEBSITE



Guidelines for marine ecosystem restoration



Stakeholder and community involvement



Expert knowledge on restoration phases



Funding and permits guidance



MARINE RESTORATION TOOLBOX



MARINE RESTORATION VIRTUAL LAB

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INTERACTIVE DIGITAL TOOLS

- Regional Digital twin demonstrators
- Tailored protocol development surveys
- Site prioritization tools
- AI image analysis



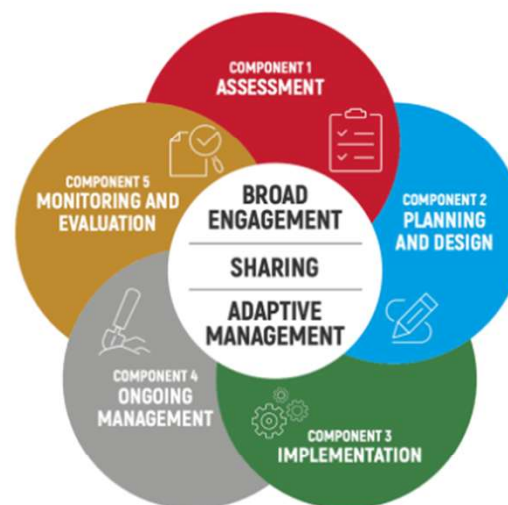
EU OPEN PLATFORMS





Welcome to the Marine Restoration Toolbox!

The Marine Restoration Toolbox is a compilation of resources which aim to aid practitioners, authorities and stakeholders in the process of effective marine restoration. The tools have been created in tandem with ongoing restoration efforts in Europe, and are guided by extensive scientific research. The toolbox is structured using the [UN Standards of Practice to Guide Ecosystem](#)



Cost-Benefit Analyses

The Cost-Benefit Analysis below is an interactive tool to assist practitioners in conducting a cost benefit analysis, as well as an introduction to important terms and concepts.



Stakeholder Engagement

Stakeholders are an essential part of the restoration process, and without engaging the right groups or individuals, marine restoration actions are likely to fail. Find guidelines and useful resources here!

CLIMAREST Stakeholder guidelines

The CLIMAREST project (funded through the EU Mission: Restore our Ocean and Waters) has developed guidelines for stakeholder engagement that are tailored to marine restoration projects. These guidelines provide experience-based tips for engaging stakeholders in your restoration project, which is necessary to ensure your success!

[Go to guidelines](#)



Pollution in the Arctic

CLIMAREST demo for reduction of sewage pollution in Arctic waters



Photo: Lis Bach,
Aarhus University

What is the problem with sewage?





Wastewater in the Arctic is often untreated.

Everything flushed down the toilet can end up in the Ocean



Photo: Ida Beathe Øverjordet

Sisimiut, Greenland



Photo: Anne Bødal



Photo: Lis Bach, Aarhus University

Sisimiut, Greenland



Photo: Anne Bødal

Svalbard, Norway



Longyearbyen



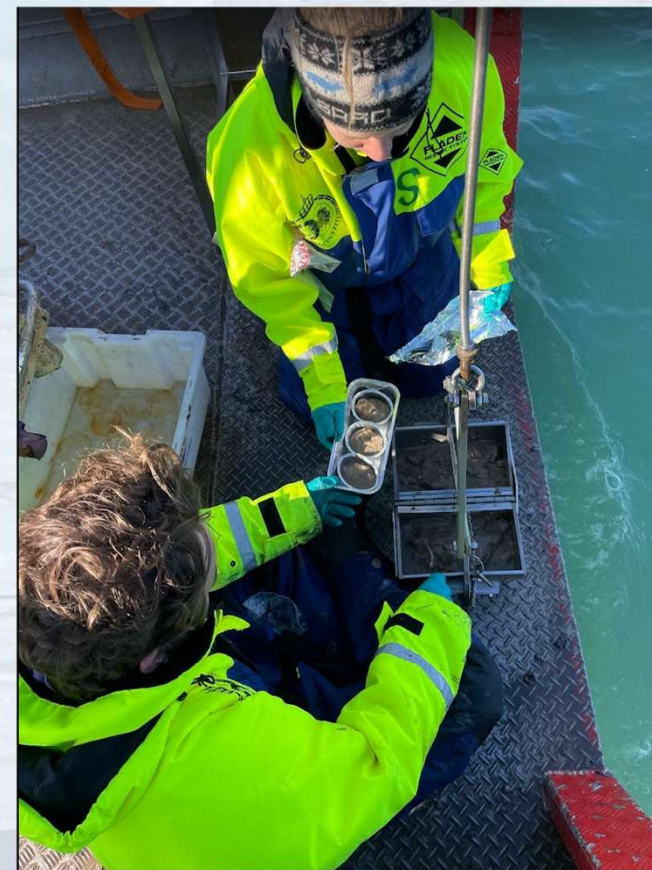
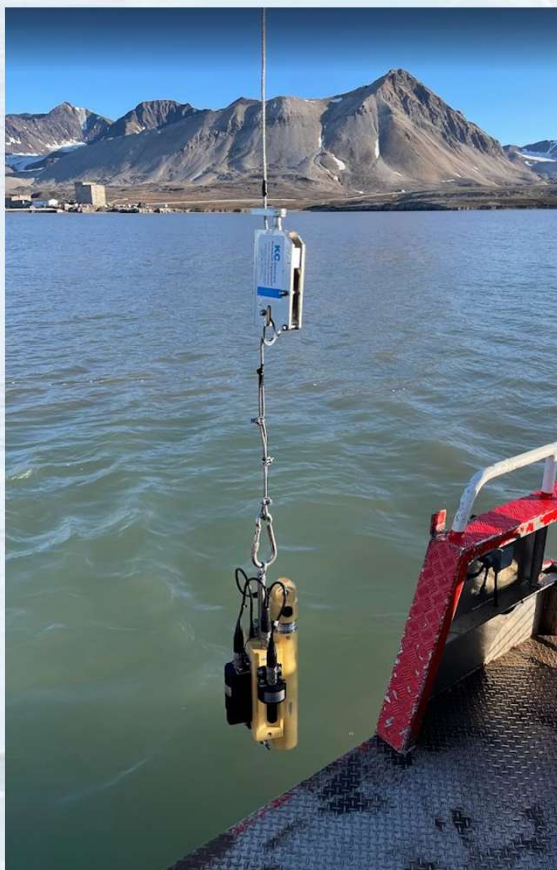
Photo: Ida Beathe Øverjordet

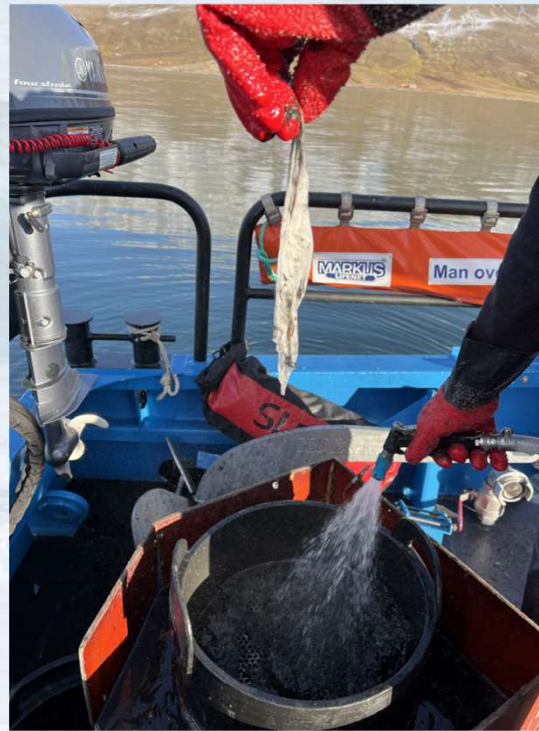
Longyearbyen

- Wastewater piped to a central discharge point (3km out in the fjord, 60m deep)
- 6 mm sieve provides mechanical treatment
- Around 300,000 m³ wastewater from Longyearbyen discharged to Adventfjorden each year



Sampling the recipient





Lots of macro waste (wet wipes etc) in the grab samples. All food waste in the sewage.
Photos: Hanne Kvitsand (2023)

Summary of the environmental sampling and documentation

- Large amounts of waste found at the sea floor
- The benthic community is affected by the sewage
- High levels of microplastics and fibres in sewage samples
- Sewage related micro pollutants abundant in sediments across the fjord.



Results will soon be available here: <https://climarest.eu/deliverables/>

A social campaign to reduce wastewater pollution

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CLIMAREST's task: Implement & evaluate the effects of raising social awareness to inspire behavioral change to reduce the pressure from untreated sewage

Photo: Ida Beathe Øverjordet

Step 1: Get stakeholders 'on board'



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Photo: Ida Beathe Øverjordet



Photo: Svalbardposten

Step 2: Co-create & implement



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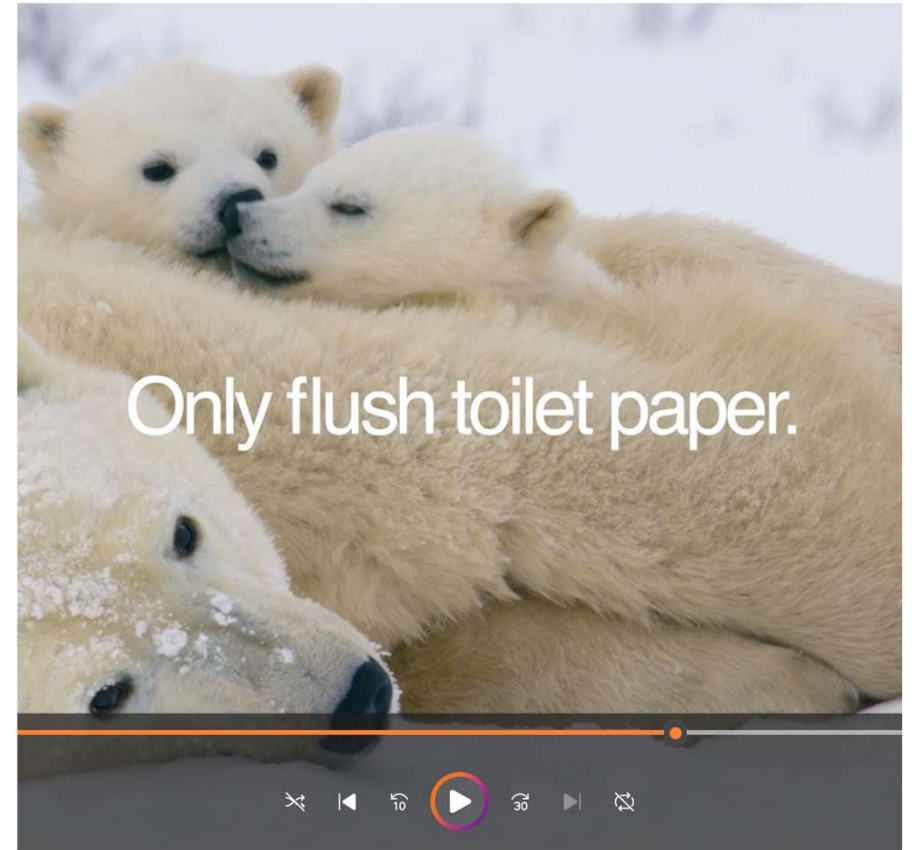




Photo: Laura Wendling

Approximately **5,000** stickers distributed

- Hotels
- Schools
- Student housing
- Private rentals
- Public institutions
- Publics

Video distributed to public institutions and hotels

Step 3: Evaluate and share learnings



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Evaluating success

- Short survey
 - **Awareness of the campaign's core message was very high**
 - Around 88% of 66 respondents answered 'Yes' to the question: *"Did you know that everything flushed down the toilet could end up in the fjord?"*
 - **Explicit recognition of the campaign branding "Protect Our Waters" was lower**
 - Around 26% of 66 respondents answered 'Yes' to the question: *"Have you seen Svalbard's Protect Our Waters campaign?"*
- Measurements of waste mass intercepted by the sieve
 - **Around a 33% reduction in per capita flushing of >6 mm macrowaste** following the campaign launch
 - To note: interpretation was complicated by sieve malfunction in mid-2024 and subsequent intermittent operation



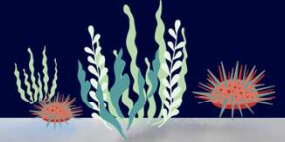
Photo: Sahar Stevenson-Jones

Key takeaways

1. The campaign was desired by the local authorities / tourism industry
2. Good problem understanding
3. Started small (just hotels/tourism industry) and scaled up (citizens, schools, etc.)
4. Small number of actors initially involved = feasible co-creation
5. Evaluation is important! (and could have been implemented better from the start)



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