

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

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Mission Ocean Innovation action
2022 – 2025 (3 years)
8.5 M€



Funded by
the European Union



17+1 partners in 7 countries



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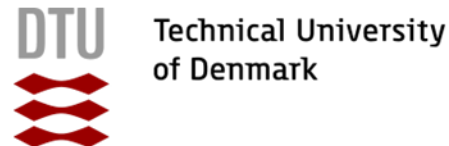
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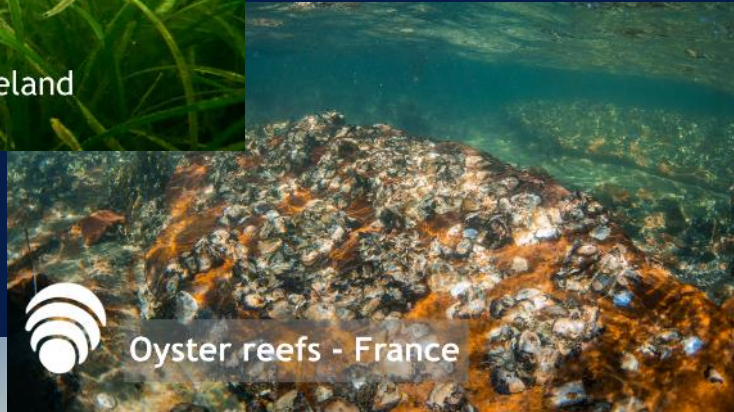




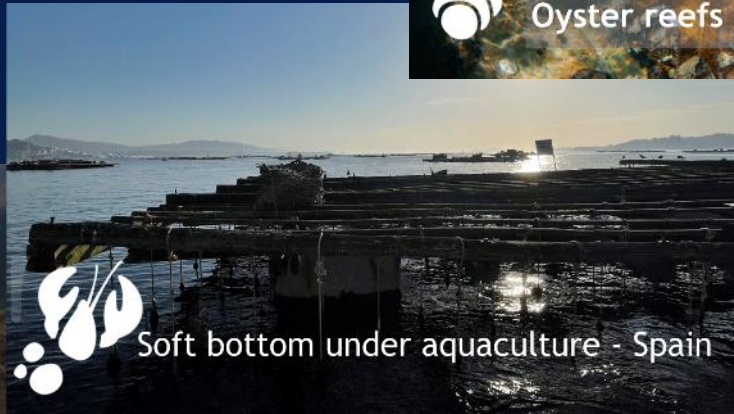
Coastal erosion and pollution - Svalbard



Sea grass meadows - Ireland



Oyster reefs - France



Soft bottom under aquaculture - Spain



Rocky bottom algae forest - Madeira

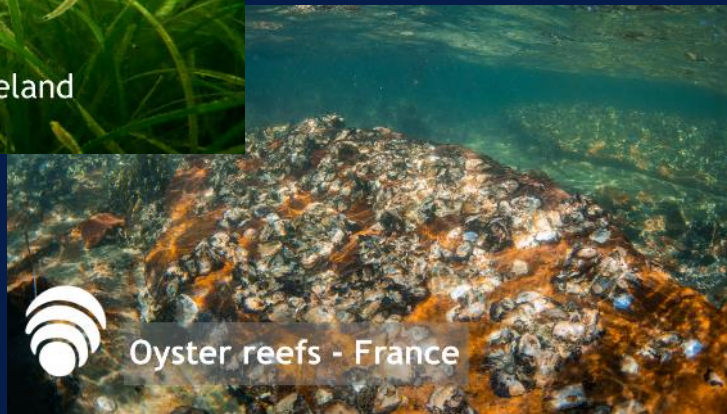




Coastal erosion and pollution - Svalbard



Sea grass meadows - Ireland



Oyster reefs - France

Demo sites
dedicated to
coastal protection



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Coastal protection considerations

Protect people
and property

AND

Reduce environmental and economical costs
Enhance biodiversity and ecosystem services



Hard engineering



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France: hard eco-engineering

- Nature inspired solutions
- Protecting coastal areas
- Enhancing biodiversity



100 ecoblocks (2 x 2 x 2 m, concrete) in the Bay of Brest



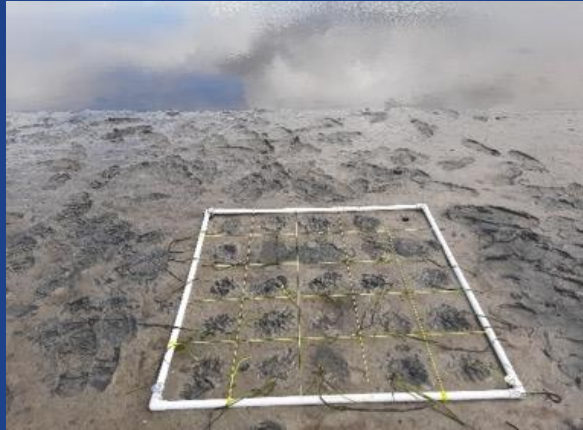
Svalbard: hybrid eco-engineering

- Nature inspired solutions
- Preventing coastal erosion
- Conserving biodiversity
- Maintaining human needs

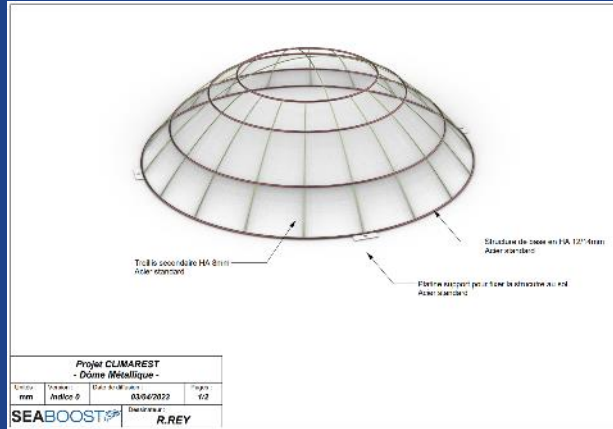


Ireland and France: soft eco-engineering

- Re-introduction of engineering species
- Wave attenuation
- Conserving biodiversity
- Stocking carbon



Seagrass transplantation in Galway, Tralee and Killala bays



Deployment of 30 native oyster settlement units in the bay of Quiberon

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CLIMAREST: 2023-2025

CLIMAREST demonstrations

Stakeholder tools

Marine restoration tools

Climate resilience tools

Socio-economic analysis

Business and governance roadmaps

Blueprints for replications

Online Toolbox

2026-2030

Replications

Restored oceans and climate resilient communities by 2030



What is the CLIMAREST digital toolbox?

A series of interactive applications to support the

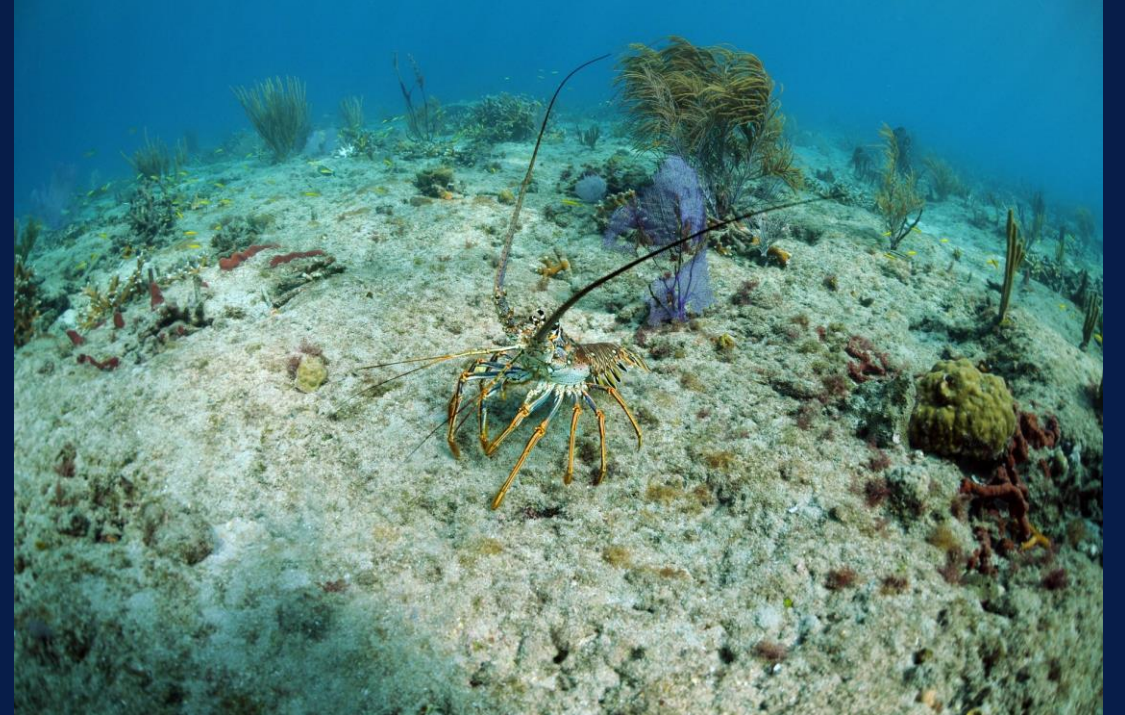
*development,
implementation,
and monitoring*

of marine restoration and coastal protection projects.



How does the toolbox accomplish this?

- 1) Direct users to existing resources and networks
- 2) Produce tools and resources to fill identified gaps



Users

Stakeholders

Databases

Input data: Ecosystem and pressures

Diagnose

Goals

Actions

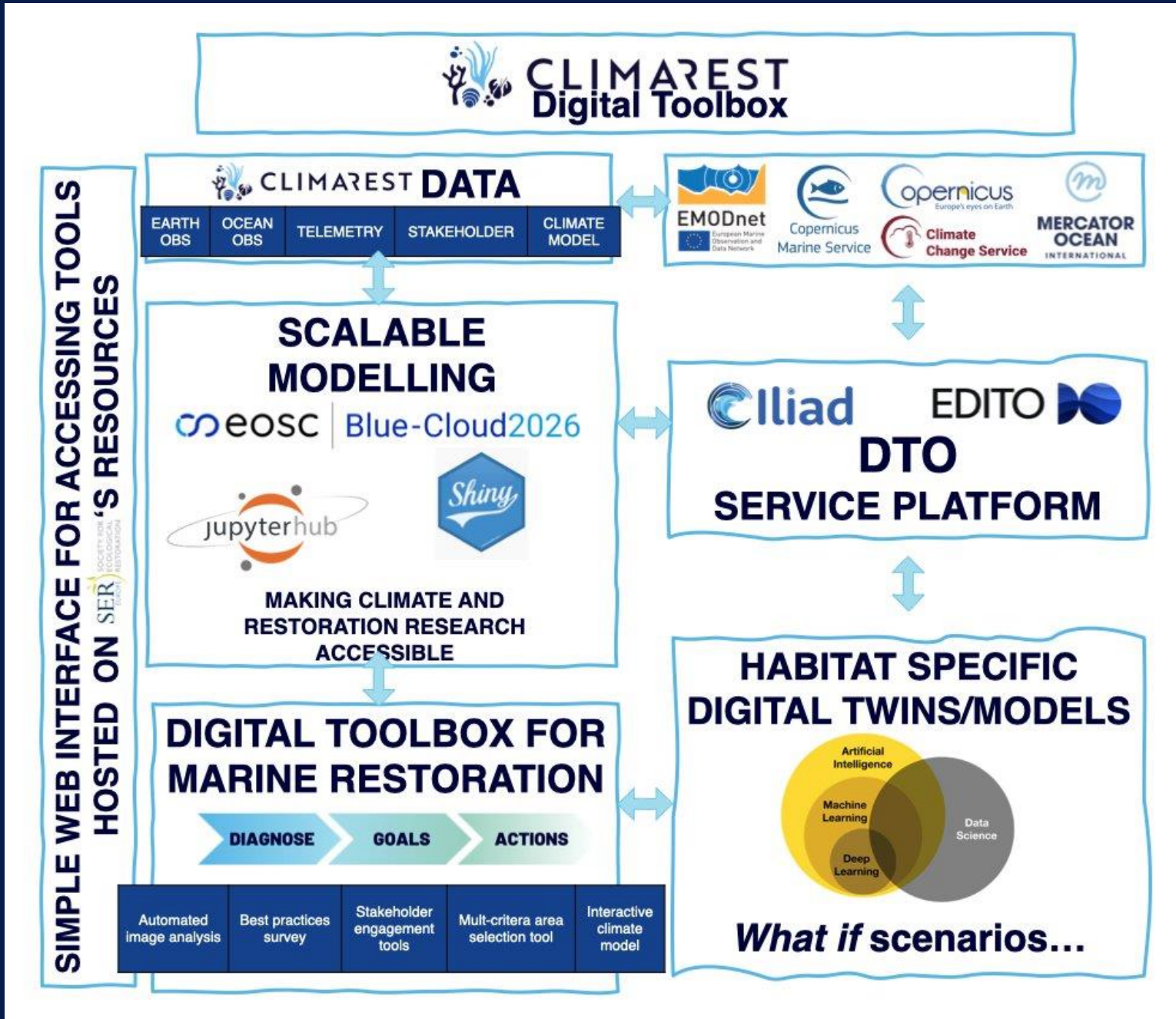
Stakeholder involvement

- Stakeholder mapping tools
 - Awareness surveys
- Guides for setting restoration goals
- Map acceptance of the actions
 - Co-design protocols
- Citizen involvement tools

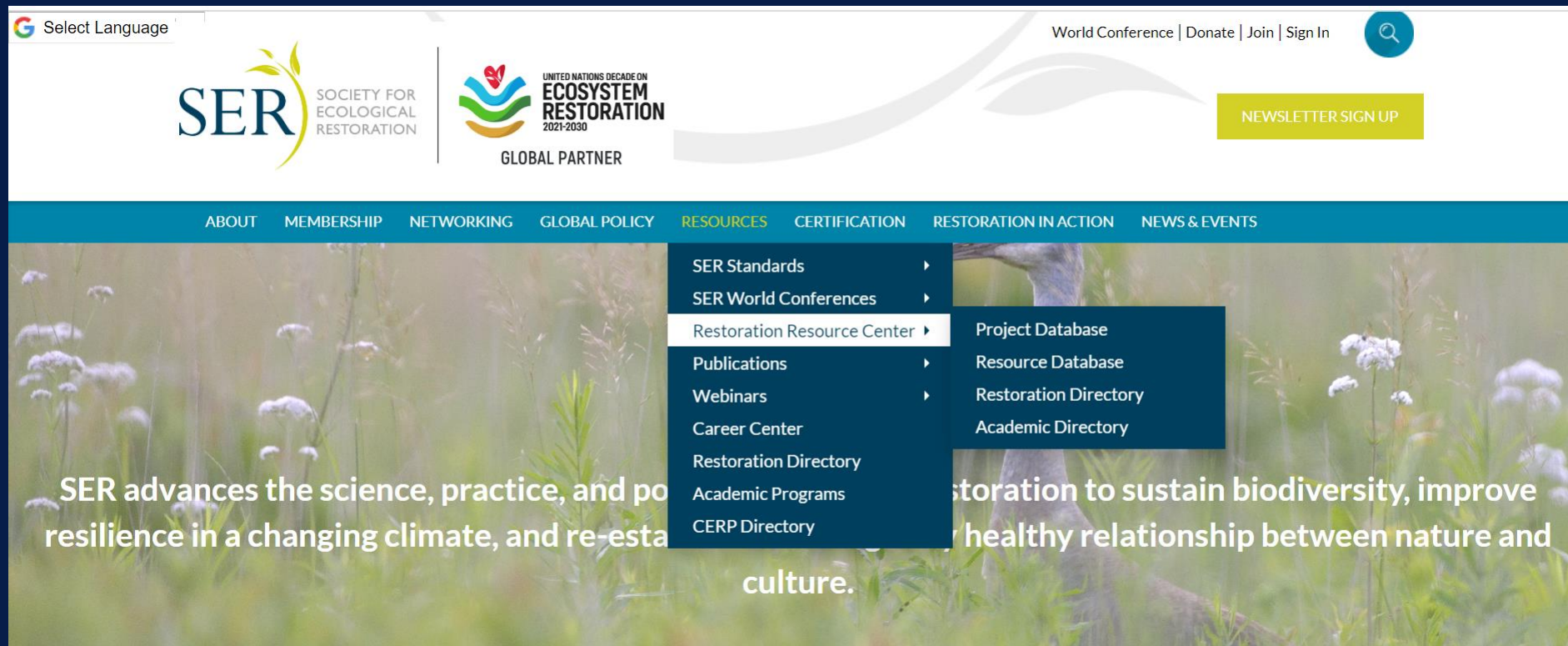
Environmental data and recommendations

- Input data requirements
- Monitoring protocols
- Additional sources of data
- Tools for retrieving and display data
 - Decision trees
- Restoration Principals

Action plan and tailored restoration protocols



A modular toolbox open for inclusion of new habitats and tools will be hosted on SER's Restoration Resource Center



SER Europe is an affiliated partner in CLIMAREST



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Resilient ecosystems for resilient communities



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