

CLIMAREST - restoring our coasts

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CLIMAREST



Coastal Climate Resilience and Marine Restoration Tools for the Arctic Atlantic basin (CLIMAREST)

Large scale restoration of coastal ecosystems for climate resilience in coastal communities

- Mission: Restore our ocean and waters by 2030
- Arctic Atlantic Lighthouse
- Innovation action

December 2022 - 2025 (3 years)

EU financing: 8.5 M€



18 Partners in 7 countries



OLLSCOIL NA GAILLIMHÉ
UNIVERSITY OF GALWAY



UNIVERSIDAD DE MÁLAGA



Universitat d'Alacant
Universidad de Alicante



UNIVERSIDADE
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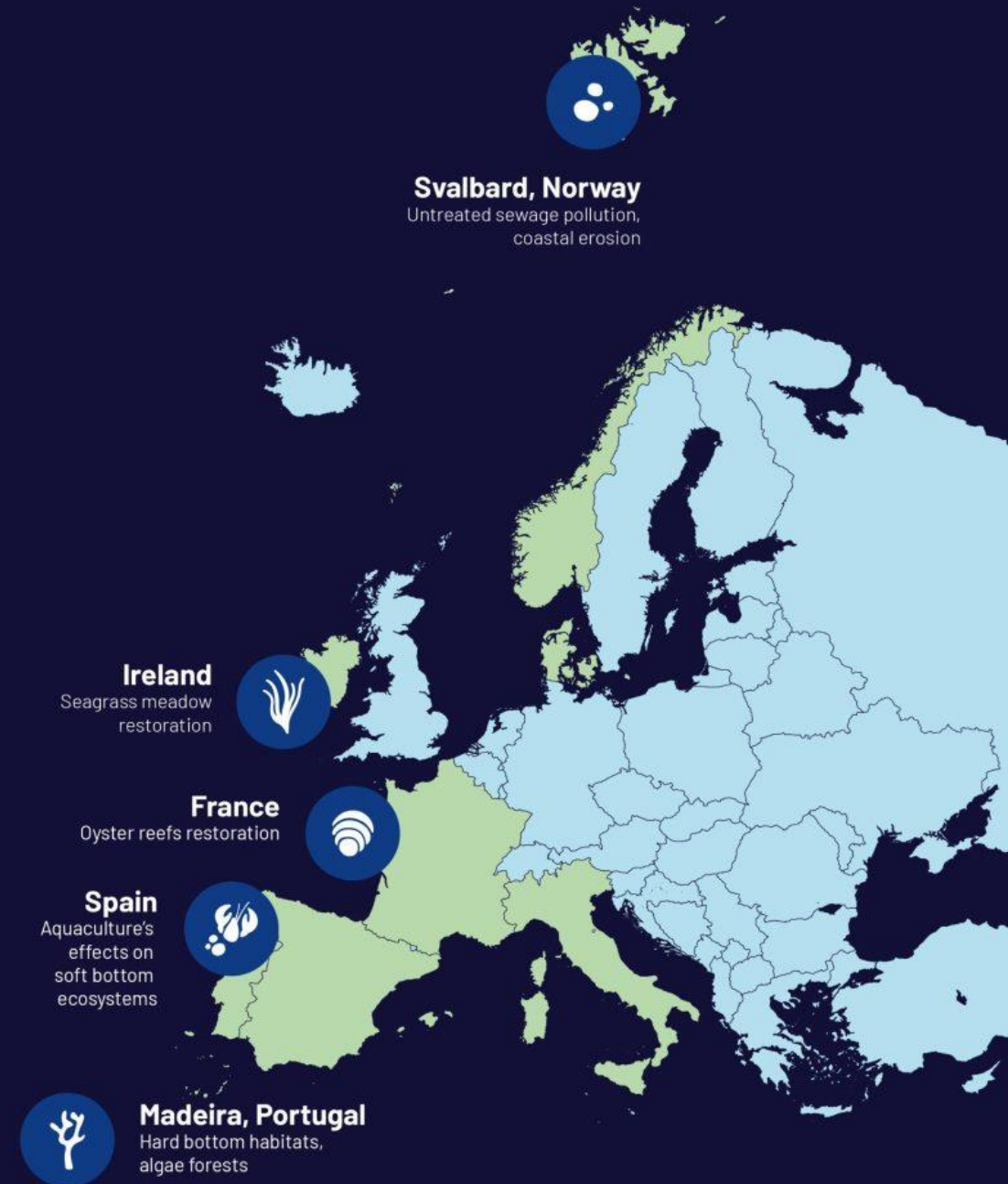


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Our demo sites

- **Demo site 1:** Svalbard, Norway
Habitat: Arctic fjords
- **Demo site 2:** Ireland
Habitat: Seagrass meadows
- **Demo site 3:** France
Habitat: Oyster reefs
- **Demo site 4:** Spain
Habitat: Sedimentary soft-bed ecosystems
- **Demo site 5:** Madeira, Portugal
Habitat: Rocky substrates



CLIMAREST: 2023-2025

Stakeholder tools

Collection of functional tools

Marine restoration methods

Demonstrations

Climate resilience methods

Blueprints and action plans for replications

Economic models

Business and governance roadmaps

Online Toolbox

2026-2030

Replications:
New projects

Main impact:
Restored oceans
and climate resilient
communities by
2030

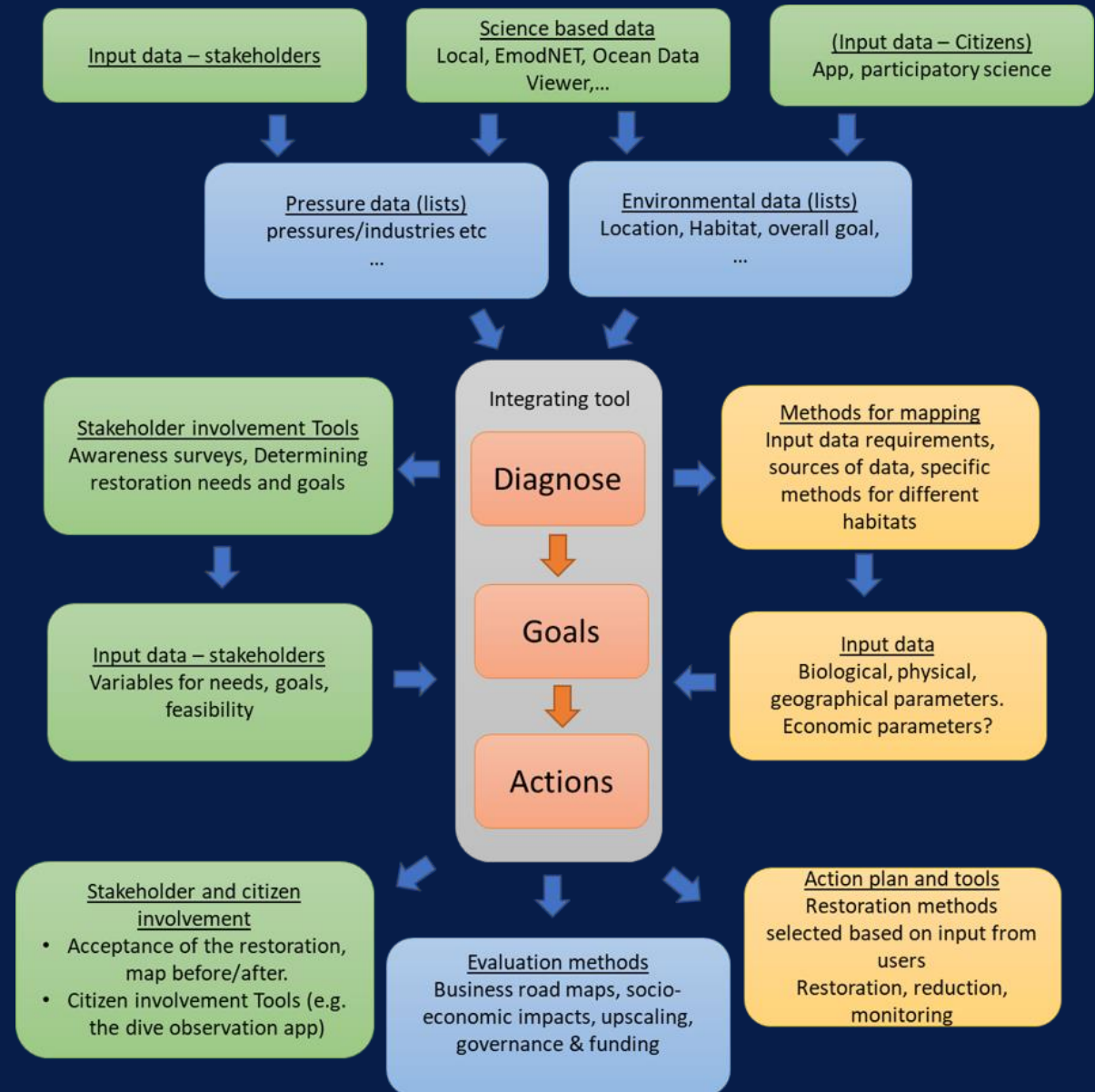
What is the digital toolbox?

A series of interactive applications to support the development, implementation, and monitoring of marine restoration projects.



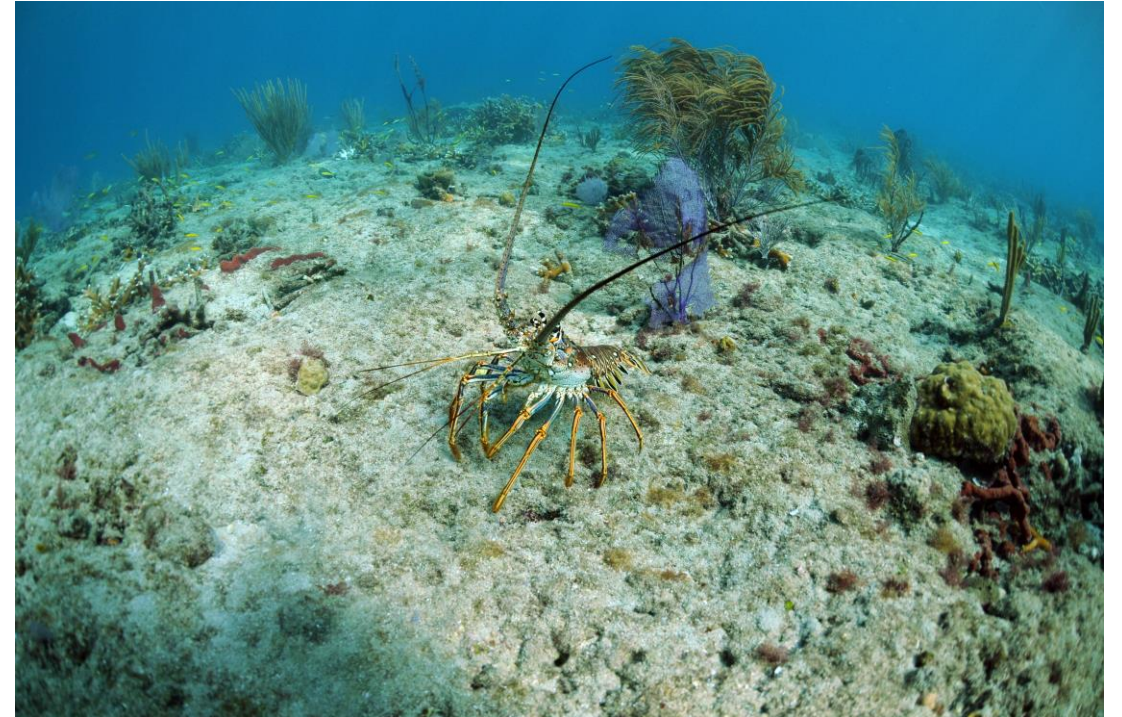
Digital toolbox

- Online decision-support “toolkit” for marine restoration
- Uses EU funded digital infrastructure (EMODnet and Blue-Cloud)
- Interactive ways of finding the right information for the right user
- Teach best practices for ecological restoration actions



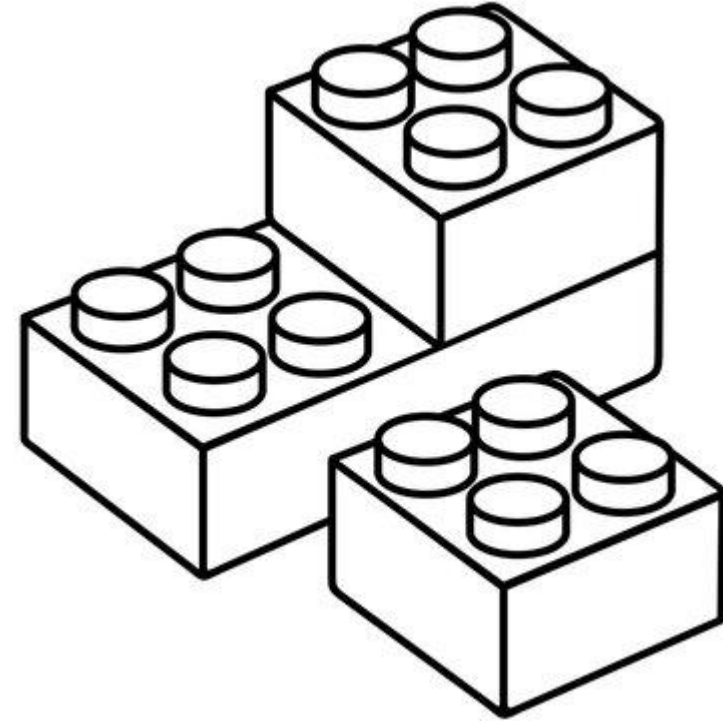
How does the toolbox accomplish this?

- 1) Direct users to existing resources/networks
- 2) Produce tools/resources to fill gaps partners identify

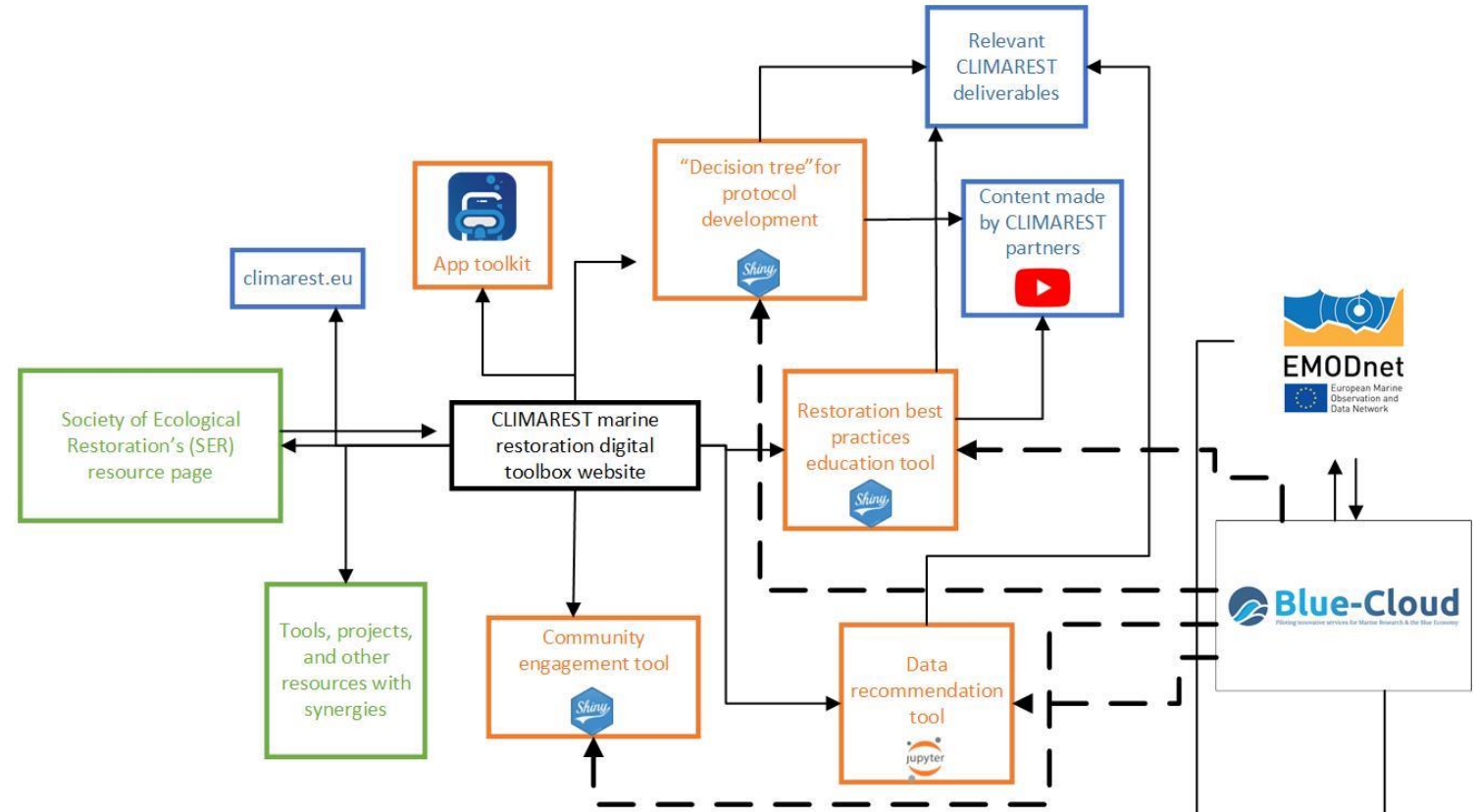


Requirements for future development

- Modular
 - Possible to develop new tools
- Needs to be possible to develop toolbox following CLIMAREST's lifetime
 - SER will maintain tools and develop the toolbox further
 - Using platforms/infrastructure that is already familiar and common for ease of system transfer



- CLIMAREST toolbox website
- External resources
- CLIMAREST tools
- CLIMAREST resources





Important platforms/infrastructure



CLIMAREST Community allows users (mostly researchers?) to **find data, papers, and data products** related to CLIMAREST



Used by restoration experts to find resources. Our **connection to** probably most toolbox **users**. Perhaps will maintain/expand toolbox following CLIMAREST.



EMODnet Biology is the **repository** most of our biodiversity-related **data** will be ingested to. Data will be used in the future development of digital twins of the ocean.



From the restoration virtual lab, Jupyter notebooks can be run to **interact with data, models, and data products** (scalable). External data sources (e.g., from EMODnet) can be accessed directly through Blue-Cloud.

Thank you for
listening!

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