ARTEMI

Accelerate the restoration of seagrass meadows in the Euro-MED region integrating the financial and societal here jits of seagrass ecosystem services into relevant public and private policies and investments.

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€2M

ditional

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4 Pilots Sites in Spain, Italy and Greece 10 Partners from BG, ES, FR, GR and IT Delivery of **4 seagrass restoration** pilots with €2M additional funding secured through Payment for Ecosystem Services (PES)

Guiding the replication of results to 10 larger restoration projects of >5 hectares worth €50M at project end



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Sardinia Menorca

1

Pilot Sites

4

Replication x10 larger

x10

€50M. at restoration the end projects of

Worth

€50M

Crete pilot site



- Fish Farm 1996 2017 (21 years) □ 1000 tons of gilthead sea bream (Sparus aurata) and sea bass (Dicentrarchus labrax)
- Natura 2000 site (GR4320006) 39,300 ha
- National Environment and Climate Change (NECCA) management unit of Eastern Crete protected areas and marine zone



Status and Reference conditions WePOSI [Gerakaris et al. 2021] (national intercalibrated index for the WFD) Seagrass ecosystem services Base map through drone Biodiversity (EBQI [Personnic et al. 2014]) and images and Underwater ROV Blue Carbon (Coastal BC manual Howard et al. 2014] Period 5 Monitor restoration Engage with a local NGO Implement restoration specialized in **underwater** actions on the Greek Pilot actions cleanup and depollution



City City





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Menorca pilot site



Species to recover: Posidonia oceanica

Area of action: meadow degraded by the construction of the collector for the Ciutadella desalination plant (depth=20m)

Year of the impact: 2010-2012

Impact: by accident, a bentonite spill occurred. Bentonite is a type of non-polluting clay with compaction characteristics.

Damaged area: 1,600 m² (40 x 40 m)

Challenges: restoration work at 20m depth; admin coordination and long term monitoring





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Sardinia pilot site



Ad hoc underwater surveys carried out in March 2023 revealed that the area is characterized by:

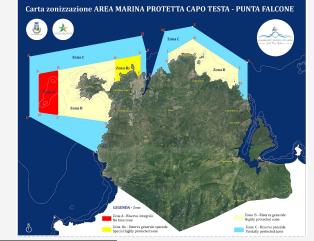
- Fragmented Posidonia oceanica 1. meadow
- 2. Area of approximately 2 hectares
- 3. Dead matte patches of various sizes identified (with an overall area exceeding 200 m2)
- 4. Depths of **20-25 m**

Actions:

- Restore the meadow integrity through 1. transplanting in the fragmented area
- 2. Assessment of habitat ecosystem services for the purpose of PES (payment for ecosystem services)
- **Dissemination and communication** actions 3.

Interreg

Euro-MEC





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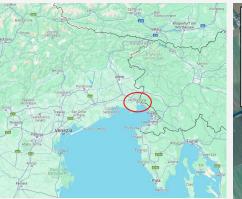


Monfalcone pilot site

Analysis of the **benefits of the seagrass presence** in North Adriatic Analysis of the results on the evolution of

transplants of seagrass in lagoons and north Adriatic shores

- Stakeholder engagement
- Identification of the areas where seagrass ecosystem services take on greater value Assessment of the vocation of **specific areas** to the implementation of measures of restoration and protection







VIDEO: SASPAS INTERREG ITA/CRO Project - YouTube



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- Weak enforcement: Apply protection frameworks alongside restoration (Nature Restoration Law, Post 2020 SAP-BIO)
- **Limited incentives:** EU project funding exists; need for PES and regional funding mechanisms
- Passive vs Active restoration: Active supports recovery **but costly**; prioritize non-degradation and protection
- Harmonization needed: Standardize ES assessments and restoration methods.

Example of ongoing destruction of Posidonia meadows

1st photo: June 2022, WFD monitoring station

2nd photo: Feb 2024, desalination unit and a pond created for a touristic village in Eastern Crete





Turbidity or siltation which will eventually destroy the meadow







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