



# AGESCIC

Achieve Good Environmental Status  
for Coastal Infrastructure Construction



## COASTAL INFRASTRUCTURE CONSTRUCTION CHALLENGES

With more than 400 projects per year in the EU, coastal and harbor construction is an important source of water pollution

- Impulsive and/or continuous noise emission
- Turbidity
- Pollution spreading over large areas

## INCREASING AWARENESS OF WATER POLLUTION

### Acoustic Pollution



- Dangerous consequences on marine wild-life: loss of hearing sensitivity, trauma, embolism, desorientation...
- Sound intensity has increased up to 20 decibels (x100) in the last 50 years in some areas

### Turbidity



- Impacts the growth of benthic life by reducing light penetration
- Modifies the filtration capacity of bivalves
- Disturbs pelagic species distribution
- Frees chemicals substances trapped and accumulated in the sea floor entering the food chain

### EUROPEAN PROBLEMATIC



The new European directive to reach Good Environmental Status for oceans by 2020 (MFSO 2008)

- Descriptors 6 and 7 - Turbidity
- Descriptor 11 - Acoustic pollution

### AGESCIC A new solution

To respond to that growing concern, a European consortium made of 6 partners has created **the AGESCIC project**

- Set of new/innovative technologies as a systemic solution
- Reduces marine environmental impacts of coastal works
- Restores the surrounding marine ecosystems

## AGESCIC

Answers coastal works environmental challenges  
with a disruptive and cost effective solution

A customer-oriented solution

Turnkey solution

Disruptive cost

Easy-to-use

Resilient to natural hazard (tides, currents, storms)

Adapted to coastal works & shipping traffic

Complies with European directives

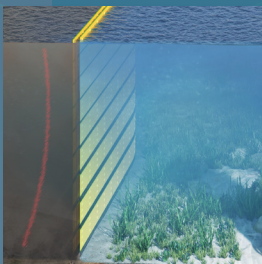
## A SYSTEMIC SOLUTION BASED ON 3 INNOVATIVE TECHNOLOGIES

### Avoid / Reduce / Mitigate

One system for several applications

- **SubSea Quieter®**  
Acoustic mitigation and turbidity containment  
From near to far field
- **SmartPAM +**  
Works impacts & ecosystems real-time monitoring
- **AVOREST**  
Avoids impact on post-larvae fishes and crustaceans and restores the ecological essential function after construction

SubSea  
Quieter®



SmartPAM +



AVOREST



## ECOLOGICAL GAINS

Up to 25 million m<sup>3</sup> water  
protected by equipped coastal work

Restored and improved local  
ecosystem

## CARBON FOOTPRINT FOR A 6 MONTH-WORK

CO<sub>2</sub> emission: 8t\*

Energy consumption: 90 MWh\*

\*99.9% less than bubbles curtain

# COASTAL INFRASTRUCTURE CONSTRUCTION CHALLENGES



NGOs / Think Tank



Governmental bodies



European Institutions



Scientific Community



Project Leads (harbour, regions,...)



Industry Coastal Works



Fishermen's associations



Consulting Companies



Clusters



Windfarm Installation, Extraction Companies

## Join the stakeholders group

Be part of the system development  
and prepare its implementation  
across European coasts



World leader in Naval Defence and expert in underwater acoustic discretion.

Naval Group (ex-DCNS) is the Subsea Quieter® designer and the inspirational lead behind AGESCIC.



Ecocean is the French pioneering company in Ecological Marine coastal restoration focused on Post-larvae fishes and crustaceans' stages.



Quiet-Oceans is the French leader in passive acoustics, underwater noise prediction, monitoring and mitigation.



Creocean is a consultancy company providing environmental, engineering and planning services in marine and coastal environment.



Subsidiary of Bouygues Travaux Publics, Bouygues Travaux Publics Régions France is specialised in civil works, river and maritime works, earthworks and infrastructure reinforcing works.



The Universitat Politècnica de Catalunya BarcelonaTech (UPC) is a public institution. Its Laboratory of Applied Bioacoustics is specialised in detection, classification and localisation of acoustic events of biological, anthropogenic or natural origin.

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