



ERRIN European Regions Research and Innovation Network

Blue Economy Working Group meeting: LIFE project facilitation session

Sustainable artificial reefs

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Universidad
Politécnica
de Cartagena

MEMBER OF



EUROPEAN
UNIVERSITY OF
TECHNOLOGY



Universidad Politécnica de Cartagena

MIEMBRO DE **eut+** EUROPEAN UNIVERSITY OF TECHNOLOGY

The block contains the logos of the Universidad Politécnica de Cartagena and EUT+ European University of Technology. The university logo is a circular emblem with a cross and four quadrants. The EUT+ logo consists of the letters 'eut' in a stylized white font with a yellow plus sign, followed by the text 'EUROPEAN UNIVERSITY OF TECHNOLOGY'.

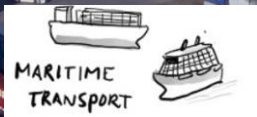
SHIPBUILDING

NAVY BASE

CAPACITY BUILDING



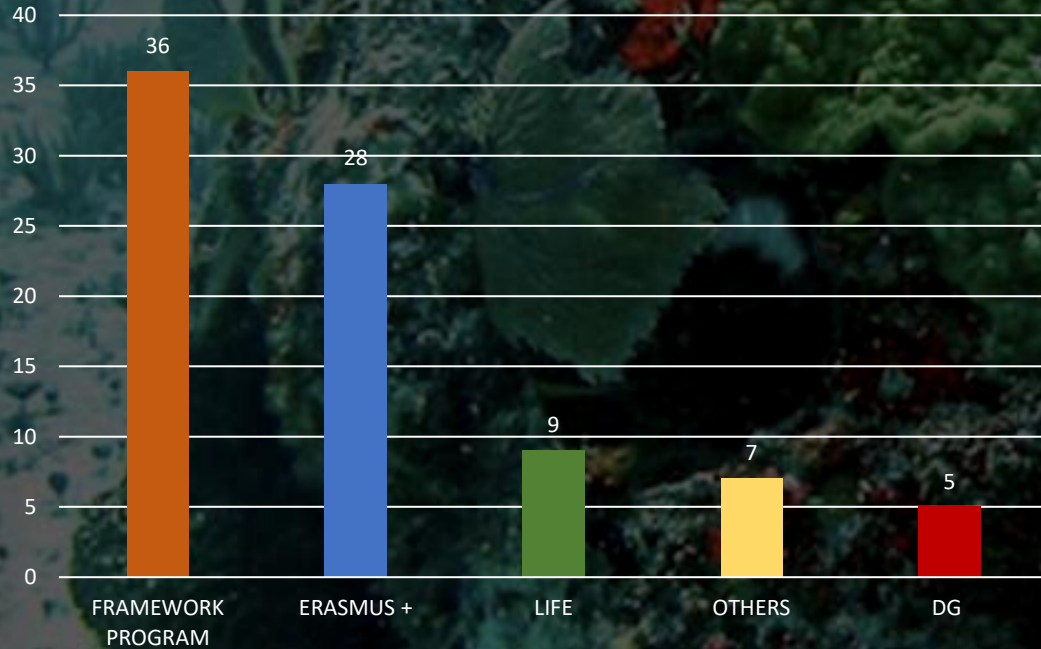
ENVIROMENTAL PROTECTION



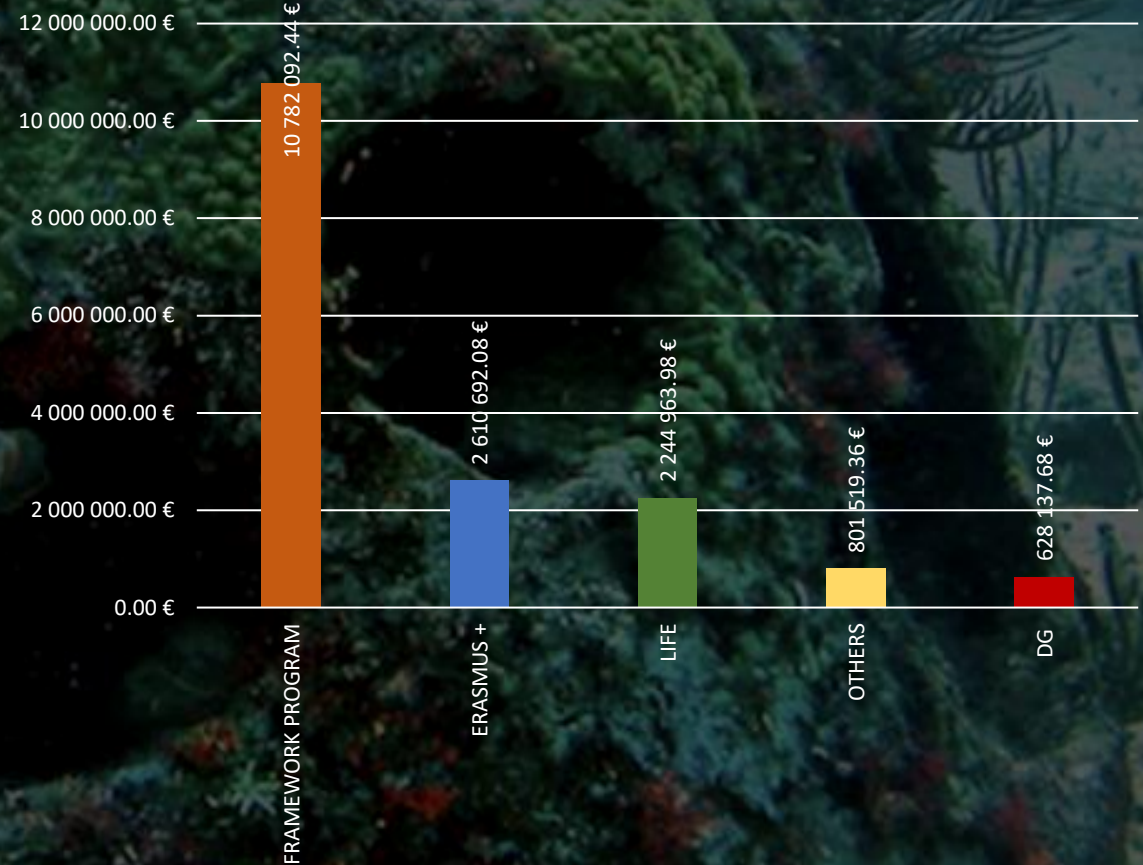
UPCT IN EUROPEAN PROJECTS (2006-2022):

European Projects Office 2009, support to researchers in all phases of the proposal, management and justification

Nº PROJECTS: 85



17.067.405,54 €



Objective: Build artificial reefs based on waste materials

What we know:

- **Artificial reefs as a measure to increase biodiversity in port areas has been successfully applied in different areas.**
- **Its manufacture have a significant carbon footprint impact.**

What we want:

- **Reduce the artificial reefs carbon footprint using local waste materials (circular economy)**

Questions to be answered during this project:

- In terms of biodiversity increase, what`s the best local waste material to be used?
- Could be evaluated the carbon sequestration that occurs in each one of the materials (blue carbon)?
- Could it be used as alert systems for invasive species (i.e: *Rugulopteryx okamurae*)?
- Could the reefs be used as: shoreline protection, heritage protection, touristical diving areas?

Outreach

- Encourage institutes to build their own artificial reefs, deploy them and monitor the biodiversity on them shearing the multimedia material acquired.

UPCT Specialized expertise

The project will be based on the previous experience acquired by the projects carried out by the Science and Advanced Construction Technology research group of the UPCT.

New materials for reefs and floating islands (2021)



Prototype sustainable artificial reefs (2022)



IN CONVERSATION PARTNERS (EARLY STAGE)

PUBLIC INSTITUTIONS

- CARTAGENA PORT AUTHORITY (ES)
<https://www.apc.es> *Harbour to be used as test place*

UNIVERSITY

- UNIVERSIDAD POLITÉCNICA DE CARTAGENA (ES)
www.upct.es *Project Coordination and materials*
- UNIVERSIDAD DE CÁDIZ
www.uca.es *Underwater Heritage*

NGO

- CARTAGENA OCEANOGRAPHIC RESEARCH INSTITUTE (ES)
www.cori.institute *Outreach and underwater robot monitoring*

COMPANIES

- NAVANTIA (Spain) (ES)
www.navantia.es *Fifth-largest shipbuilder in Europe*
- REEFY (Netherland) (NL)
<https://reefy.nl/> *Reef engineering for climate-proof infrastructure.*

We need partners with experience on

- **Analysis of biodiversity in harbour areas.**
- **Blue carbon sequestration**

CONTACT INFO

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Expression of interest deadline: 31/05/2023 to apply on September 2023

An underwater scene featuring a large, textured rock formation covered in green and brown coral. Several small, colorful fish are swimming around the rock. The background is a deep blue, slightly hazy water.

THANKS !!