

Innovative technologies and methods for waste cleaning, with emphasis on macro and microplastics, in the marine environment: APP the CLAIM project approach

te CLANING LITTER CLEANING LITTER BY DEVELOPING AND APPLYING INNOVATIVE METHODS IN EUROPEAN SEAS

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This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 774586.



#### CLAIM: 2 Seas, 16 Countries, 21 partners, 48+6 months duration



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#### **Project Information**

CLAIM Grant agreement ID: 774586 Project website 🗹

Start date 1 November 2017

End date 31 October 2021

Ext: April 2022

Funded under H2020-EU.3.2.5.

**Overall budget** € 6 185 612,75

**EU contribution** € 5 654 786,01

Coordinated by HELLENIC CENTRE FOR MARINE RESEARCH

Greece



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Sea litter / plastic pollution: A growing problem

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### **CLAIM's Objectives**





Advance our knowledge on the current status of marine plastic pollution



Fostering ecosystems: interventions to tackle marine litter issues and produce impact on human well being



**Provide innovative technologies** to reduce the amount and impact of plastic pollution



Economic feasibility, social acceptance, institutional framework enabling



Set the basis for **operational forecasting of the impacts of marine plastic litter pollution** 



Change policy and public perceptions and provide advice for management decision making



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## IN BRIEF – TECHNOLOGIES AND APPROACHES



**Technologies** 



WWTPs pre-filtering

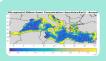


Database Macro/Micro marine plastic litter

Knowledge / Forecasting tools & Methods



WWTPs photocatalytic device



Mediterranean (Saline & oligotrophic system) Macro/Micro plastic litter forecasting

Baltic (Brackish system heavily influenced by

freshwater runoff) Macro/Micro plastic litter



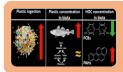
Harbour & Vessels small-scale Pyroliser



**River mouths Floating Barriers** 



FerryBox flow-through filtering system



Fostering ecosystem services

forecasting



Cost-effectiveness analysis, Social acceptance, Business models, MCDA



Communication & Dissemination



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### Pre-filtering system and Photocatalytic device







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#### CLEAN TRASH CLAIM's Litter Entrapping Autonomous Network Tactical Recovery Accumulation System Hellas





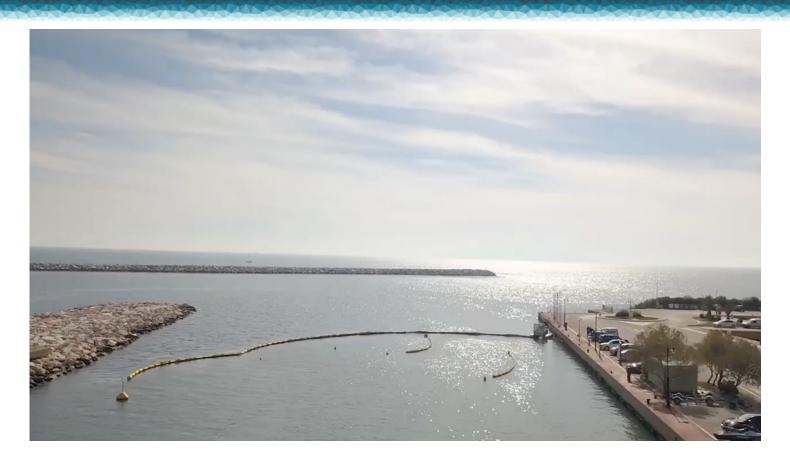


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https://www.claim-h2020project.eu/successful-installation-andtrial-of-claims-marine-litter-containment-floating-boom/

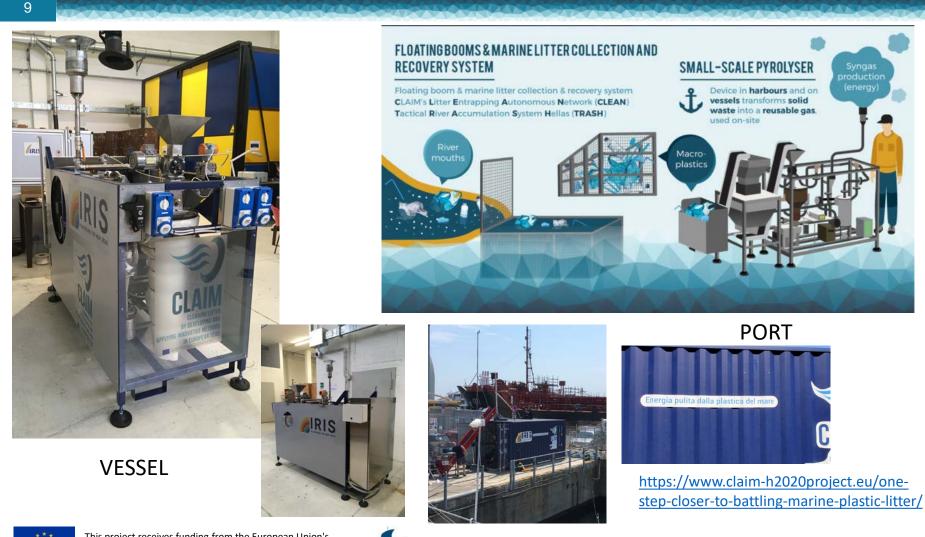


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#### **PYROLISER**





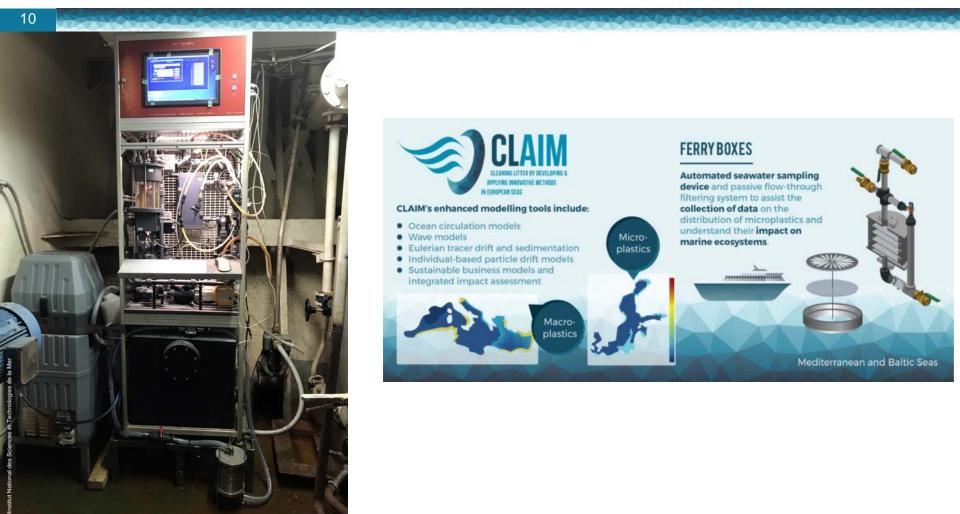
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# FerryBox automated seawater sampling device and passive flow-through filtering system







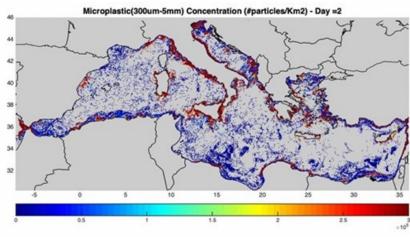
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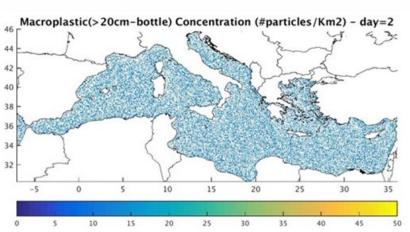


# Use of hydrodynamic – ecological models







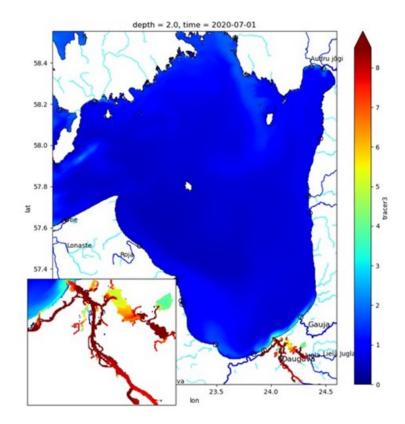


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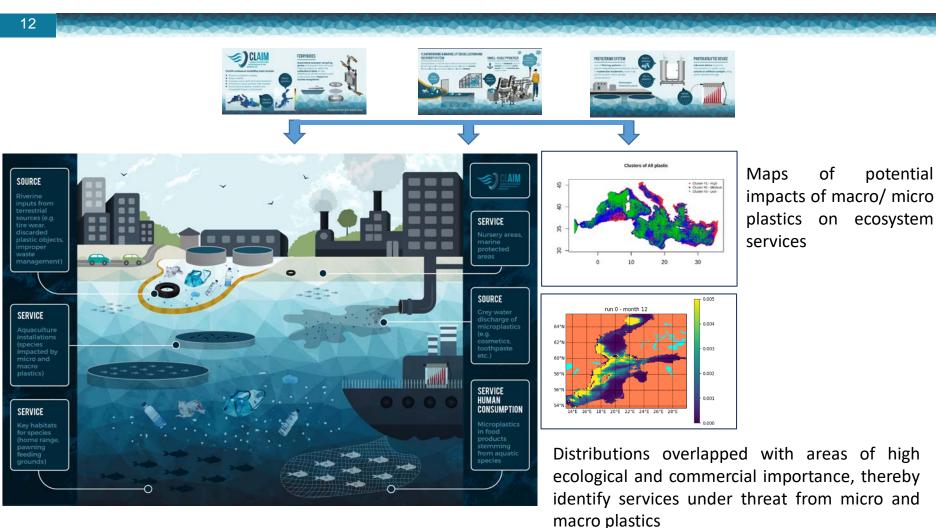
Wednesday; Daugava run-off = 7.8 m<sup>3</sup>/s



#### **Ecosystem** approach



potential

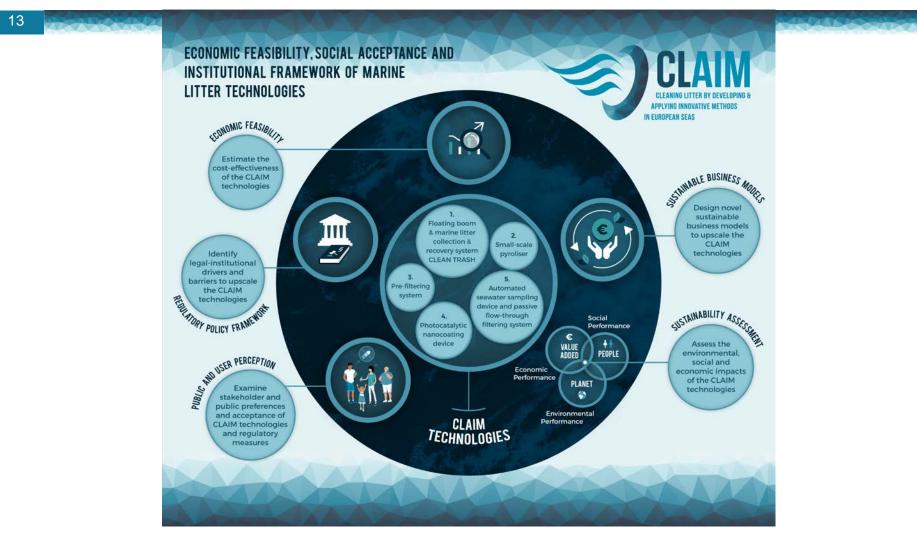


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#### Socioeconomics





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# THANK YOU

QUESTIONS?



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