AquEus

Towards a joint Aquitania-Euskadi research and higher education alliance to tackle potential risks posed by environmental and bio-based microplastics and nanoplastics in the Gulf of Biscay

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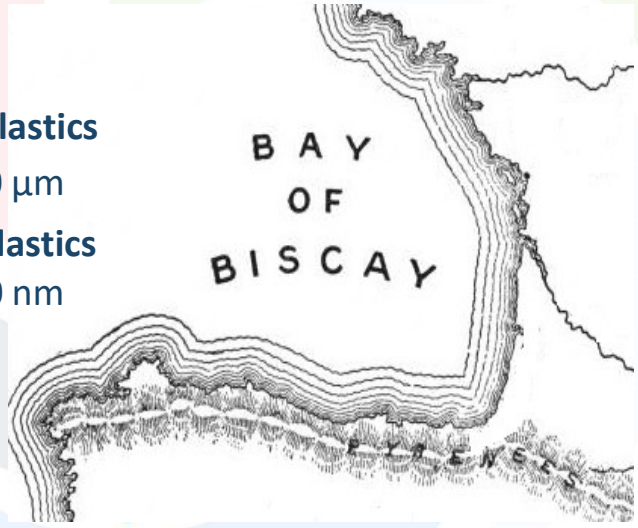
Plastics in the aquatic environment

Microplastics
1-1000 µm

Nanoplastics
1-1000 nm



AquEus partners

- **In Nouvelle Aquitaine region**:
  - **EPOC-EA** (Aquatic Ecotoxicology)
  - **EPOC-LPTC** (Laboratory of Physico- and Toxico-Chemistry of the Environment)
  - **EPOC-TGM** (Geochemical Transfer of Metals at the Continental-Ocean Interface)
  - **CBMN-SI** (Institute of Chemistry and Biology of Membranes and Nano-objects – Spectroscopy and Imaging team)
- **In the Basque country**:
  - **CBET+** (Cell Biology in Environmental Toxicology+)
  - **POLYMAT-PP** (Basque Center for Macromolecular Design and Engineering, Polymerization Processes)
  - **eMERG** (Materials Engineering)
  - **GMT** (Materials+Technologies)



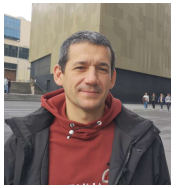










AquEus history of collaboration

PLASFITO RESEARCH PROJECT

PLASFITO

"Fate and effect of the microplastics, nanoplastics and additives coming from the degradation of fishing gears during their life cycle. Study in the Bay of Biscay" (Euskampus Missions 1.0) 2022-2024

FIERA

FIERA

"Fate and Impact of Environmentally ReAlistic nanoplastics and of novel bioplastics in the aquatic environment" (Spanish Ministry MCIU) 2022-2025.

@fieraproject

ENSURE² Project

"ENvironmental Safety of polyUrethanes from REnewable sources and from REcycled plastics: hazard assessment based on a battery of alternative methods" (Spanish Ministry MCIU) 2022-2024.

More than 20 years of collaboration!

7 joint projects (4 ongoing)

14 joint publications

3 joint PhD thesis

2 joint post-docs

Mobility of students and staff

Jointly organized events

Joint study programmes:

-Erasmus Mundus masters MER+, ECT+

-PhD programmes MER, CTA/ECT

AquEus main goals

- **Advancement of science in the field of MNPs and aquatic ecosystem preservation:** ***Deciphering the complex interactions of MPs-NPs and bioplastics with aquatic organisms represents a step forward in environmental risk assessment of these emerging pollutants in aquatic ecosystems.***
- **Higher education: BSc, MSc, PhD, postdoc in the Aquitaine-Euskadi region**
- **Science dissemination, citizen science**
- **Transfer to industry: safe(r) by design strategies of production of plastics and bioplastics**
- **Societal challenges: UN sustainable development goals and the zero pollution goal of the European Green Deal**

Overall, the LTC project AquEus represents a step forward towards a joint Aquitania-Euskadi research and higher education alliance to tackle potential risks posed by environmental and bio-based microplastics and nanoplastics in the Gulf of Biscay.