

Artificial Reef Monitoring Structures (ARMS)
providing insights on the marine biodiversity and
community structure

ID: 379

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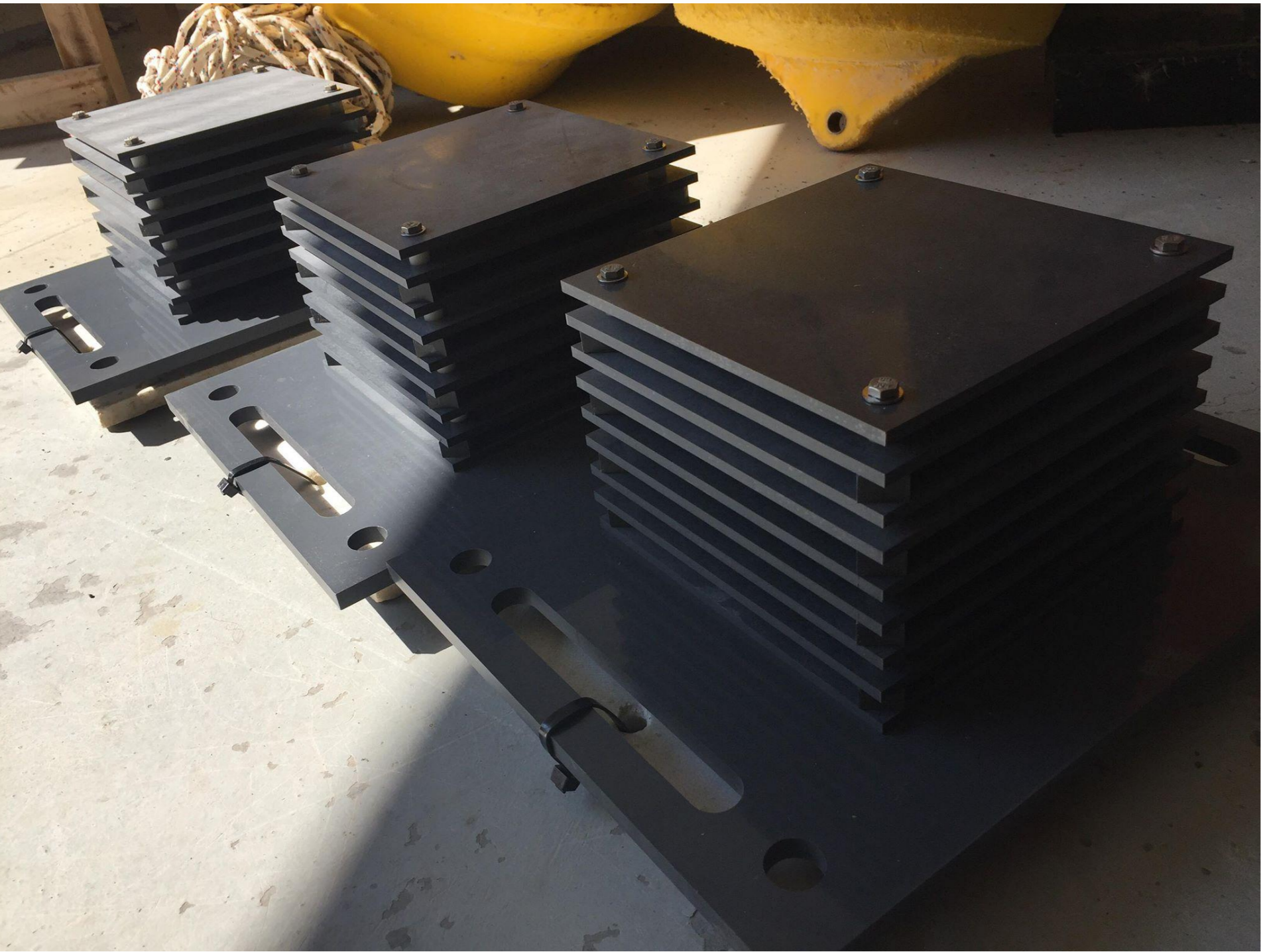
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Introduction

This project aims to set up a network of **Artificial Reef Monitoring Structures (ARMS)** in proximity to marine research stations in order to monitor status and changes in hard substrate communities in coastal environments. The scientific purpose of the project is to provide a potential early-warning system for marine biological invasions by identifying newly introduced **Non-Indigenous Species (NIS)** and track the migration patterns of already known NIS in European continental waters.

Methodology

The ARMS were deployed during summer season and autumn of 2018 and retrieved after 2-4 months, according to the standards and protocols established by the Smithsonian Institution.

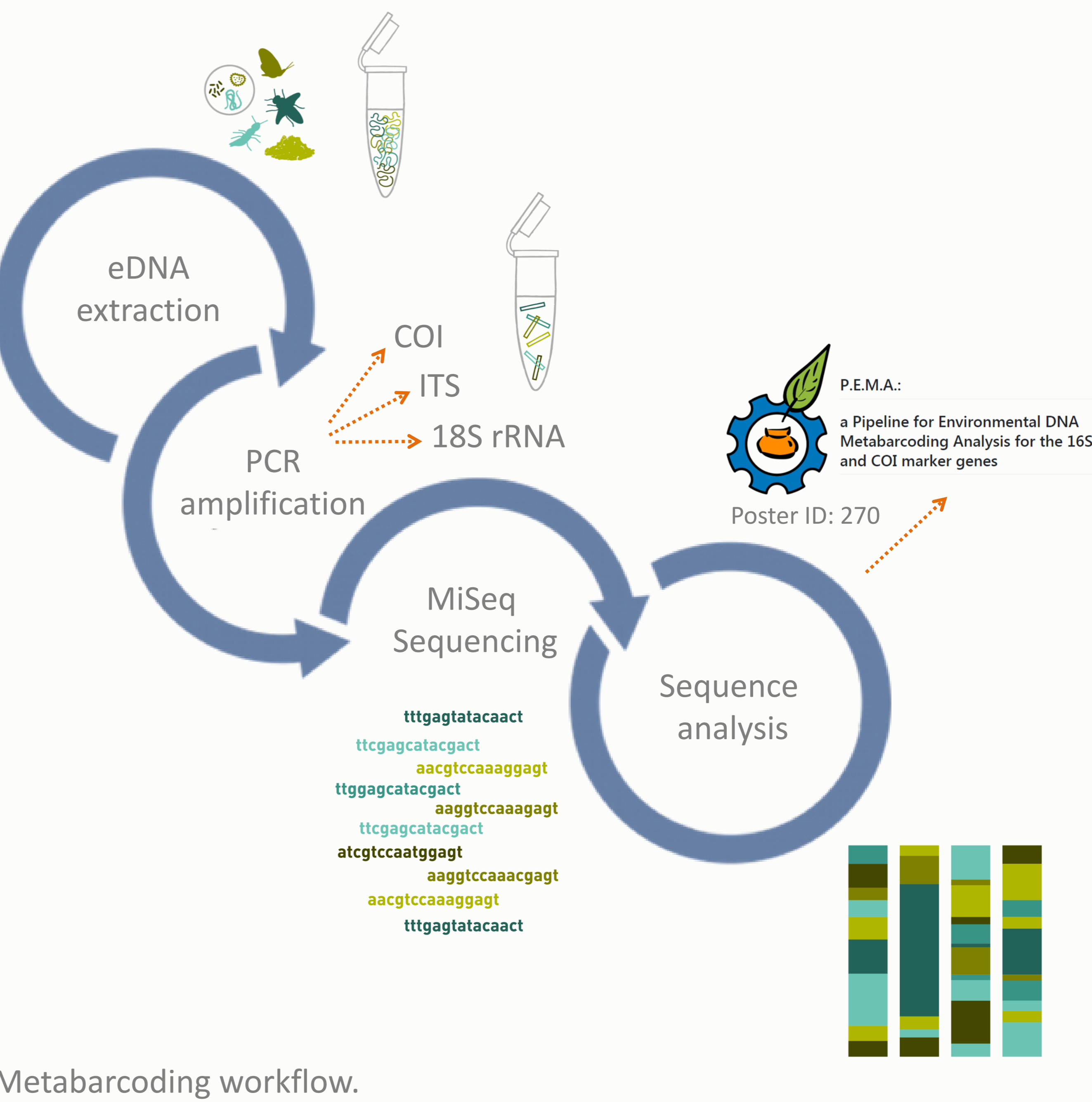
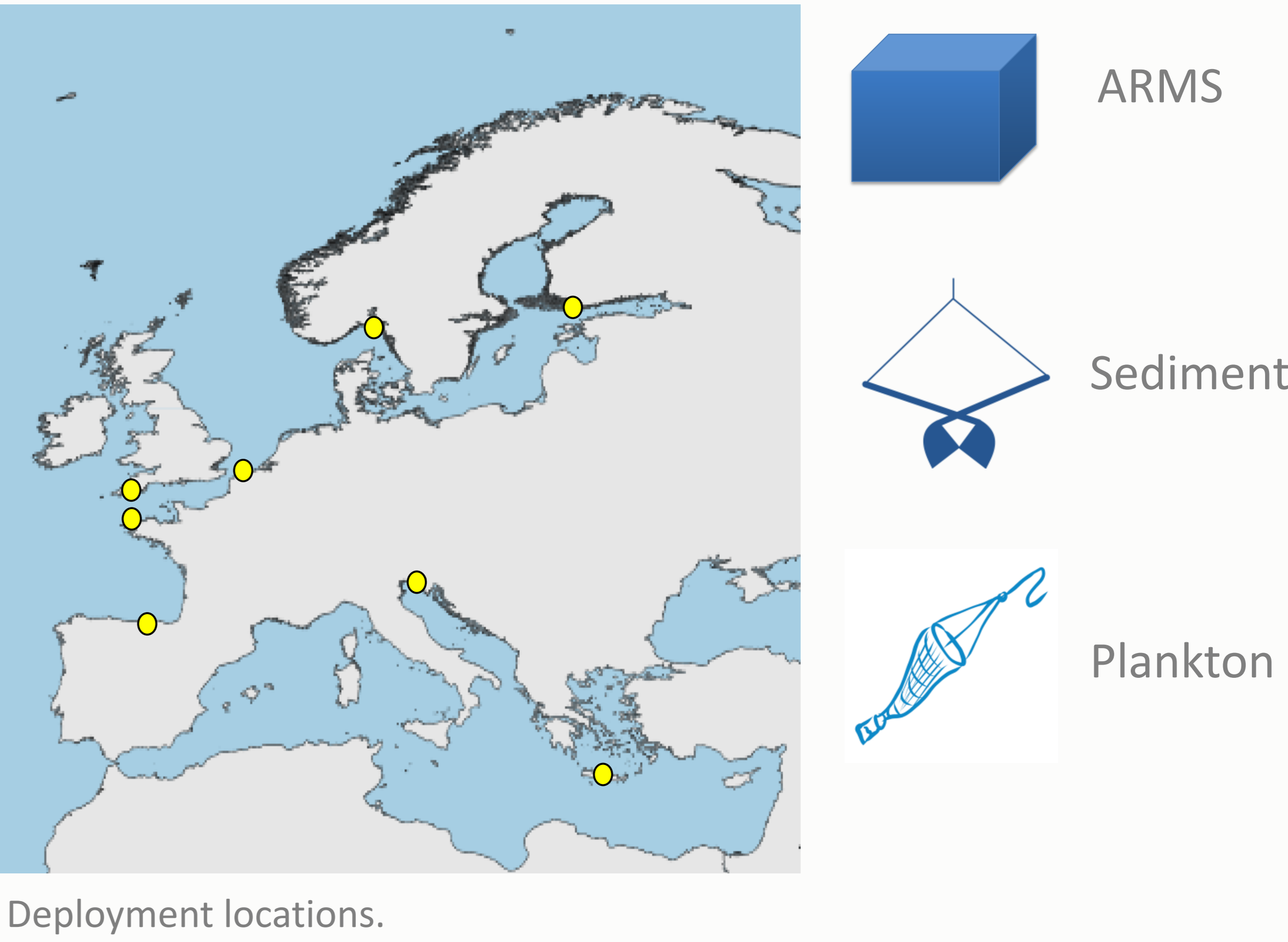


ARMS assembled (before deployment).



ARMS deployed in one of the chosen locations.

The plates from the ARMS were disassembled, photographed and samples of both the motile and sessile communities were collected for molecular analysis. Physico-chemical parameters were measured at the time of retrieval while sediment and plankton samples were also collected.



Results will shed light on the investigation of marine biodiversity patterns across the European coastal waters. Furthermore, the results will provide crucial information on the importance of ARMS as a tool for biodiversity assessment and as an early warning system for the movement and establishment of NIS.

ARMS Handbook

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Funding provided by RECONNECT project (MIS: 5017160). RECONNECT is implemented under the framework of the Transnational Cooperation Programme Interreg V-B "Balkan-Mediterranean 2014-2020" and is co-funded by the European Union and National Funds of the participating countries.