BLUE CONNECT

blueconnect-project.eu

DEMO SITES NEWSLETTER

JUNE 2026 – #2

BELGIUM - VLAAMSE BANKEN

From larvae to reef: oyster restoration in the Vlaamse Banken MPA

Over the past year, the Vlaamse Banken demo site partners have carried out preparatory work for **the installation of a pilot flat oyster restoration site near the Dageraad wreck.** This newsletter takes a closer look at the technical preparations behind the deployment of the pilot reef, from oyster larvae transport, to settlement and growth in the container and offshore installation preparation.

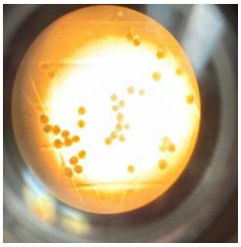
About the BLUE CONNECT project in Vlaamse Banken MPA

In the Vlaamse Banken MPA, the BLUE CONNECT project focuses on restoring the European flat oyster (*Ostrea edulis*) by reintroducing *Bonamia*-free native populations and testing sustainable methods. Historically abundant in the North Sea, today oyster reefs have largely collapsed. Yet they play a vital role in biodiversity and climate resilience by water filtration, nutrient cycling, and habitat creation for many species.

JAN DE NUL · GHENT UNIVERSITY · BLUEGent · natural sciences .be · VLIZ · Health Food Chain Safety Environment

Behind the scenes: preparing oyster restoration in the North Sea

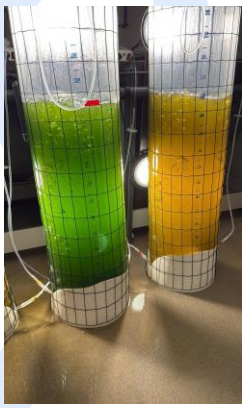
Arrival of the oyster larvae

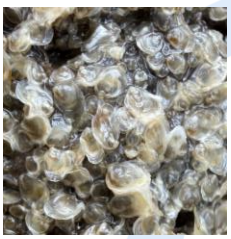



Mieke Eggermont/Molly Hughes Ghent University

On **15 April 2026**, UGent Laboratory of Aquaculture & ARC picked up certified ***Bonamia*-free larvae** of the European flat oyster (*Ostrea edulis*) and transported carefully to UGent Campus Coupure. The larvae were handled using a remote settlement approach, whereby transportation and settlement occur at a location distant from the hatchery, thereby avoiding the need to transport pre-settled substrates. Upon arrival, the larvae were released at UGent's Campus Coupure **in mobile units equipped with a closed recirculating aquaculture system (RAS)**. Project partner Jan De Nul provided two container systems: one housing the holding tanks for oysters and substrates, and a second dedicated to seawater filtration. As substrates for larval settlement, **a combination of sedimentary rock from the English Channel and flint (*silex*) sourced from French quarries was selected,** based on a prior geological assessment.

This substrate mixture was chosen to **closely replicate the natural conditions of the gravel beds** at the Vlaamse Banken. Upon arrival of the oyster larvae, the holding tank had been pre-filled with substrate-containing boxes and conditioned seawater maintained at the appropriate temperature and optimal water quality parameters.





Molly Hughes Ghent University

Growth under controlled conditions

During the following four weeks of larval arrival, rearing activities by the UGent Laboratory of Aquaculture & ARC focused on **microalgae cultivation**, **feeding of the larvae**, and **intensive water quality management**. After 3 weeks, successfully settled oyster spat became progressively visible on the substrates. Once the spat had reached sufficient size, the substrates were sampled to start assessing settlement rates and subsequently transferred into coco bags in preparation for later deployment.

Deployment preparation

The deployment method was tested on land by Jan De Nul. A (white) big bag was pre-filled with flint and topped with a coco bag with English channel dredging substrates. The big bag was lifted with a beam (yellow) and released gently on the floor by opening the bottom of the big bag. Ideally, the coco bag would end up on top of a base layer of flint, protecting the oysters from sand burial. The test went smoothly and produced the anticipated result. The coco bags will naturally disintegrate after a few months in sea.

Ghent University

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VLAAMSE BANKEN

Baseline data

In March 2026, the research vessel *Belgica* of the Institute of Natural Sciences collected baseline data at the restoration pilot site, before the deployment of oyster spat end of May. Activities carried out included **multibeam surveys, diving video observations and sampling of the benthic communities with a Hamon grab**.


MARECO, Institute of Natural Sciences

LSWG visit


Fien De Raedemaecker, Flanders Marine Institute

On 19 May, **partners and stakeholders** gathered at Ghent University for an inspiring visit to the oyster spat cultivation facilities at Campus Coupure. The visit provided participants with an in-depth look at the remote set cultivation process of European flat oyster (*Ostrea edulis*) larvae in a closed recirculation system built inside two mobile containers. The event concluded with **a tasting of European flat oysters** provided by Aquacultuur Oostende.

Next newsletter

The next newsletter will provide insights **on the offshore installation carried out on 25 May** and the monitoring campaign that followed. Stay tuned !

THANK YOU FOR READING

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