



## ARCHE

### SYNCHRONISATION AND MATURATION OF BROODSTOCK TO BETTER CONTROL FLAT OYSTER REPRODUCTION

The ARCHE project aims to improve success in the controlled reproduction of flat oyster broodstock by improving their maturation and better synchronising egg laying.

The project has several complementary aims: to optimise flat oyster feeding regimes, to improve farming methods in controlled environments, to increase the number of oyster families of interest, and to create dedicated equipment for transferring oysters into their natural environment. The project will add to and enrich the work which has been done over several years on increasing productivity of the original, iconic Breton flat oyster *Ostrea edulis* in shellfish farms.

The lack of molecular and proteomic data on flat oyster reproduction is currently an obstacle to further developing hatchery production of this species. Yet control of the reproductive cycle forms the basis of the production system for any aquaculture species.

Diversifying the species raised by shellfish farms is recommended as a means of expanding the market. It also minimises the disease risks which, in an industry which has a tendency towards monoculture, may ultimately threaten its survival.

It is therefore crucial to restore knowledge of various aquacultural techniques for controlled reproduction, and to identify mechanisms for improvement. This will help restore flat-oyster beds.

A new piece of equipment will be designed as part of this project, to enable larvae to settle before they are introduced into the ocean. Thus it will become part of the natural setting process. It will also contribute to the formation of new ecosystems, as flat oysters 'engineer' a habitat for a very diverse range of marine species.

#### Partners

##### COM\_PROJECTS\_CATEGORIE\_PARTNER\_ENTREPRISES

Comité régional de la Conchyliculture  
Bretagne-Nord, Morlaix (29) [\[Project Developer\]](#)

##### Research centers

Builders Ecole d'ingénieurs, Caen  
Sorbonne Université, site de Roscoff

#### Funder

Fonds Européen pour les Affaires Maritimes  
et la Pêche (FEAMP)

#### Labelisation

28/06/2019

#### Overall budget

1 615 K€