

Integrated Multi-Trophic Aquaculture in France

Development of IMTA in France in 2018 is based on very different types of systems, due to the specificity of the French aquaculture sector, mostly based on shellfish farming. In this factsheet, the study is limited to the marine systems (marine water), land-based or offshore. About ten companies have been identified on the atlantic area of the French coast, as well as a network of developing poly-culture systems since the 90's. Research units focused on the Mediterranean area are also working on divers aspects of IMTA, such as the performance of those systems on the environmental point of view, and the economic viability of the companies.

IMTA systems' diversity

At least 4 types of systems are mainly represented in France, with mostly two trophic levels in interaction:

- co-culture oyster - shrimps in half-closed ponds in the swamps of Charente Maritime;
- salmonids farming in offshore cages associated with algae production;
- algae culture on offshore ropes associated with mollusks farming;
- marine fish nursery with algae production.

IMTA systems in France present also a diversity in terms of production's scale, with companies producing hundreds of tons of shellfishes and small scale fishfarms with less than 10 tons of production.

IMTA implementation procedure

The approach is exactly the same as the one for the conventional aquaculture. The local administration is in charge of the inquiry of the file and remains the preferred intermediary of the project promoters. Fishermen, sea farmers and their representatives are thereafter consulted during a committee. Finally, the Prefect of the department signs the treaty authorising the implementation of the facility.

This procedure can last between 4 and 24 months, but it might be much longer when it is a creation of a concession in IMTA. Those new practices must be controlled and the regulations has to evolve so the files can be treated fast enough.



Schema of the implementation procedure of an IMTA system in France

Mapping of the IMTA actors on the French Atlantic Area



Current limits of the IMTA development

- Spatial competition with other coastal or offshore activities (Marine cultures, yachting, etc.) ;
- Few feedbacks regarding the potential and the performance of those systems ;
- Multi-skill needed to master the different compartments (fish / mollusk / algae).

Moreover, even if several research projects arise in the IMTA sector and gather research structures and companies, the amount of initiatives remains very limited. The number of producers looking for diversification and adopting the IMTA model is still very low. The sector needs to find development levers in terms of technic, economic viability and regulations or social aspects.