

# Offshore shellfish aquaculture Opportunities and limits



EATIP Forum - Offshore aquaculture

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## Offshore mussel farming in Italy

- 100 000 tons/year
- Mainly Adriatic Sea (no tides)
- More or less exposed sites 10-15 deep
- Long-lines (socks)
- Spat self-sufficiency
- On board equipment
- Producers' organisations

### Constraints

- Plastic socks disposal or recycling
- Limited space for land-base facilities
- Increasing predation and damages from turtles, sea breams and dolphins
- Summer mortalities/loses



**Moving offshore**

**Long date experience**

**Assessed model**

## Offshore oyster farming in Italy

- 200 tons/year (*C. gigas*)
- From mussel farm reconversion
- Net lanterns or hard plastic lanterns
- Spat import
- Few small producers and niche markets
- Increasing demand

### Constraints

- Compared to inshore water:
  - Lower shelf-life
  - Fragility of the shell
  - Shape of the shell
- Low natural recruitment



**Moving offshore**

**Technically feasible & increasing production**  
**Models still to be fully assessed**

## Offshore mussel farming in France

- About 10 enterprises & 1 500 tons/year
- Long-lines (Ropes - Socks)
- Mainly pre-growing & complementarity with intertidal zones productions
- Increased seasonal product availability
- Few producers

### Constraints

- Compared to intertidal zone:
  - Access to the farm
  - Fragility of the shell
  - Difference in coloration and texture

## Offshore oyster farming in France

- About 10 enterprises & 1 500 tons/year
- Lantern and other systems
- Mainly growing
- Few small producers and niche markets

### Constraints

- Compared to intertidal zone:
  - Access to the farm
  - Lower shelf-life
  - Fragility of the shell
  - Less specific organoleptic traits

## Moving offshore

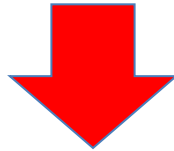
Technically feasible & increasing production

Models still to be assessed

## Current shellfish aquaculture

- In the intertidal zone or sheltered coastal areas
- Mainly SMEs and micro-enterprises (often family scale activities)

## Moving offshore



### Constraints

- Need for offshore technologies to be assessed
- Change in production scale and related investments and running costs
- Moving to less productive waters
- Higher salinity
- Low shelf life & fragility of the shell
- More exposed sites and impact of climatic changes to be evaluated

### Opportunities

- Better water quality
- Less competition for space (SMP has anyway to be implemented)
- Increased production
- Product transformation
- Complementarities between offshore and coastal farms for hardening and valorisation
- Partnerships with other offshore activities (wind fields)
- Partnerships with fish industry (IMTA)

**Moving offshore**



**Increased production**

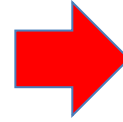


**New markets to be created**  
**Product diversification**



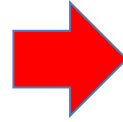
**Moving to new industrial models**

Transformation (agri-food industry)  
Possible use of shells and byssus  
Use as animal feeding ingredient  
Use in pharmaceutical industry  
etc....  
Vertical integration

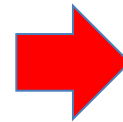


**Need for R & I**

- ❖ Technical feasibility studies
- ❖ Comparative studies
- ❖ Market studies
- ❖ Economic assessment



**Need for licensing**



**Deep transformation  
from social, economic  
and cultural point of view**

- ❖ How to preserve traditional production and price stability

# Thank you for your attention



The General Secretariat of the European Mollusc Producers' Association is hosted by the French National Committee on Shellfish Farming (Comité National de la Conchyliculture - CNC) located in Paris, France.



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