Guidance document

on Challenges in the bivalve mollusc sector and ways to address them

Input received from the AAC members

The Aquaculture Advisory Council (AAC)'s members wish to bring inputs from individual members to the current Commission's work to draft a guidance document on the "Challenges in the bivalve mollusc sector and ways to address them". This addition of contributions does not constitute an AAC position.

These comments are based on the draft presented in January 2026. The AAC would welcome the opportunity to contribute to any other preliminary draft of the guidance documents that the European Commission could be sharing with us.

Contributions listed below:

- ✓ **Recirkfish Sweden**
- ✓ **European Mollusc Producers Association (EMPA)**
- ✓ **Consello Regulador Do Mexillón De Galicia**
- ✓ **Associazone Mediterranea Acquacoltori (AMA)**

• Recirkfish Sweden

The numbers in the tables are incomplete and partly incorrect at least for Sweden. Numbers for oyster production are missing and in Sweden mussel production is solely on long lines.

Increase and shift the share of EMFAF financial contribution for research from the academic world to directly support SME research & development activities. A by far too high proportion of fundings goes to support academic research which doesn't contribute to an increased primary production (which is at least the case in Sweden). Making sure that dedicated research support for SME activities is as well accessible for SME and not absorbed by academic institutions.

A higher importance for restauration activities in MS with the help of especially oysters & oyster banks in conjunction with offshore wind energy projects and increased biodiversity activities in European waters. A harmonized EU policy on focusing on oyster restauration and a higher responsibility for MS to secure existing wild population of Ostrea edulis.

Harmonize policy within EU for an equal competition of SME in Europe where all SMEs in all MS can produce oysters on the same legal conditions i.e. stop discrimination of Swedish producers not being allowed to grow Magallana gigas and/ or to develop triploid Magallana gigas oysters.

Put emphasis behind making Europe independent from USA, Russia and China on the strategic supply on Artemia. Direct funding for these activities to European hatcheries to find substitutes on this strategic issue.

- **European Mollusc Producers Association (EMPA)**

EMPA welcomes the overall quality of the report on the bivalve sector, as well as the in-depth consultation process with the panel of producers, which accurately reflects the concerns on the ground and demonstrates a genuine effort to listen to and engage in dialogue with professionals. This participatory approach was very appreciated and is an essential foundation for building a credible and shared aquaculture strategy. Nevertheless, when viewed in the context of the findings of the European Court of Auditors (ECA) and the lessons learned from recent strategic thinking, this report highlights several key points that would benefit from being reinforced in order to ensure the effectiveness and consistency of public policies in favor of European shellfish farming.

Firstly, the report appears insufficiently explicit on the issue of financing water quality, which is nevertheless crucial to the sustainability of the bivalve sector. The European Court of Auditors highlights the EU's general difficulties in measuring and guaranteeing the real environmental effects of funding allocated to aquaculture, particularly in relation to water quality (European Court of Auditors, 2023). In this context, the lack of a clear reference to the extended producer responsibility (EPR) mechanisms introduced in the revision of the Urban Waste Water Treatment Directive is a strategic shortcoming. This directive provides for an increased financial contribution from producers of micropollutants to finance quaternary wastewater treatment, which is essential for the protection of shellfish farming areas (European Parliament, 2024). The EMPA therefore recommends that the report explicitly includes the preservation and effective implementation of these mechanisms as a prerequisite for the resilience of the sector.

The EMPA considers that the report would be strengthened by further specifying the spatial prioritization of shellfish production areas. While the strengthening of existing frameworks, in particular the Water Framework Directive (WFD), is mentioned, no clear hierarchy of objectives is proposed. However, experience shows that the absence of territorial priorities dilutes efforts and reduces the effectiveness of public policies. The ECA emphasizes that the lack of strategic targeting has contributed to the inability of European funding to produce measurable results (European Court of Auditors, 2023). The EMPA l therefore recommends explicitly identifying priority shellfish farming areas, in which the achievement of good water status objectives should be considered a priority and non-negotiable.

The report must also be viewed in the broader context of the discrepancy between the scale of European funding and the actual stagnation of aquaculture production. According to the European

Court of Auditors, EU aquaculture production has remained broadly stable for nearly 20 years, despite a very significant increase in the funds allocated, with the 2014-2020 budget being around three times higher than that of the previous period (European Court of Auditors, 2023). This situation highlights a structural weakness in the allocation of funds, which are often directed towards:

- responding to the immediate needs expressed by companies, rather than towards a long-term transformation strategy
- other aquaculture sectors or other links in the value chain that have the structural capacity to carry out projects.
- research organizations that still do not take sufficient account of the structural needs of the sector.

References:

European Court of Auditors (2023), *Special Report 25/2023 – EU aquaculture policy: Stagnating production and unclear results despite increased EU funding*, November 2023. https://www.eca.europa.eu/ECAHTMLNews/NEWS-SR-2023-25/en/body.html

European Parliament (2024), *New EU rules to improve urban wastewater treatment and reuse*, press release on the revision of the UWWTD Directive and the introduction of extended producer responsibility. https://www.europarl.europa.eu/news/en/press-room/20240408IPR20307/new-eu-rules-to-improve-urban-wastewater-treatment-and-reuse

- ## Consello Regulador Do Mexillón De Galicia

Firstly, we would like to thank you for the effort made in preparing the document, including the consultation processes with the sector that help capture the concerns and views of European bivalve aquaculture professionals.

That said, we have some comments aimed at enriching the analysis of the challenges and possible ways to address them from the local perspective of the EU's main mussel-producing region.

i. Priority options proposed to address Challenge 1: Adaptation to climate change and ocean conditions

1) Mussel seed

The document states that natural seed is less reliable and predictable than seed from other supply sources, namely hatcheries. Hatchery seed is presented as the only alternative to increase seed supply, and it is further indicated (p. 25) that hatchery seed offers additional advantages such as: large volumes and predictable supply, the ability to produce triploid seed, and the potential to select certain traits over time, including greater tolerance to higher sea temperatures. Although limitations of this seed source (mainly economic and technical) are acknowledged, it is taken for granted that hatchery seed is the only option for the bivalve farming sector under a climate change scenario.

Galicia is by far the EU's main mussel-producing region, with an average annual production of around 250,000 tonnes, 1,845 companies engaged in this activity, and more than 3,100 employees working on rafts.

Our production relies exclusively on natural seed collected by the producers themselves from the local rocky intertidal zone and/or by means of collector ropes placed in the farming facilities. This ensures that the mussel population maintains broad genetic diversity, increasing the cultivated species' capacity to adapt to changing environmental conditions and therefore enhancing its resilience.

Thus, one of the strengths of farming systems based on the collection of local natural seed (such as mussel farming in Galicia) is that they preserve the genetic diversity of the cultivated species and allow it to adapt to local environmental conditions through natural selection, ensuring production volumes that could in no case be guaranteed through hatchery seed.

Therefore, for these farming systems, promoting the use of hatchery seed would be counterproductive, as it would erode the genetic diversity of the farmed population and compromise producers' sovereignty over their own production. This situation and its associated problems would be multiplied if selected, triploid seed, etc., were also used.

In addition, Galicia lies at the northern limit of the Northeast Atlantic coastal upwelling system. This results in high productivity of our waters and is one of the reasons for the success of mussel farming in our region. However, it also makes the development of local oceanographic predictive models in mussel production areas in Galicia more difficult, as they maintain high levels of uncertainty and sometimes even contradictory results. This undoubtedly hampers the development of selective breeding programmes for climate resilience.

Therefore, hatchery seed should not be the only proposal for the bivalve farming sector. In the case of mussels whose production depends on natural seed, it would be necessary to advance knowledge of seed dynamics (collection areas, seasons, systems, etc.) and also improve seed management during the farming cycle (optimising seed use).

In this regard, in Chile, the world's second largest producer of mussels, there is a public initiative supporting mussel seed management through the "Mussel Larval and Environmental Monitoring Programme" led by IFOP, which includes a digital platform called "Endemic Seed" that provides useful information to both producers and scientists to improve natural seed collection.

2) Water quality

Among the priority options to address this challenge, improving the quality of the waters where bivalves are farmed should also be included, since bivalves will be more affected by water pollution under projected climate change conditions (they will bioaccumulate more contaminants and their defence systems will function less effectively).

In other words, ensuring a high-quality environment will improve the survival prospects of farmed molluscs in a climate change scenario.

ii. Challenge 2: Degradation of water quality

As European producers have been denouncing for years through AEPM, there is confusion in the analysis of the necessary protection of water quality for mollusc farming between food hygiene legislation and environmental protection legislation, as well as the principles and objectives underlying both.

It must therefore be clarified that while European hygiene rules were established with the objective of facilitating trade and protecting bivalve consumers, European legislators had previously adopted Directive 79/923/EEC on the quality required of shellfish waters, with the objectives of facilitating trade, protecting consumers, and protecting and improving the environment in order to allow the life and growth of molluscs.

Ensuring compliance with this broader objective is essential as a guarantee of the sustainability of European bivalve aquaculture.

If mollusc farming waters are not effectively protected from degradation and pollution, the hygiene and survival of our products and their marketability — as well as their certification as organic products — will be compromised. In such a case, the basic principles of environmental legislation would not be fulfilled, and mollusc producers would end up paying for pollution they do not cause.

To ensure the sector's sustainability, real guarantees of protection of waters officially designated for mollusc farming are required. To this end, it is essential that the competent authorities establish specific environmental objectives for waters designated for mollusc farming. It is also essential to establish programmes of measures to reduce pollution (microbiological, viral, chemical, etc.) in those waters.

It is necessary and non-negotiable that effective water protection ensures both hygiene and the health of bivalves, in application of the principles of European environmental policy (Article 191(2) of the Treaty).

iii. On traditional mussel farming systems: the raft (batea)

Throughout the document, rafts are presented as a traditional mussel production system and therefore limited in terms of development and economically inefficient, with their replacement by more "modern" long-lines being recommended.

The main European mussel production takes place in the Galician rías using the raft system. Although traditional, this system allows a level of productivity per unit of sea area that is unmatched by any other available system. This farming method is perfectly adapted to the local environmental conditions in which it operates and is economically efficient.

Replacing rafts with long-lines in Galicia would entail an exponential increase in the sea area occupied, with no guarantee of achieving at least the same production volumes currently obtained through raft farming.

Moreover, although rafts are traditional farming systems, they incorporate innovations in construction materials, flotation systems, farming machinery, etc. The fact that a sector is composed of small, mostly family-owned companies does not necessarily mean that it is not innovative or mechanised. The Galician mussel sector is an example of this. Another matter would be the desirability of advancing towards more efficient management of production resources (boats, etc.).

iv. Challenge 5: Socio-economic and market pressures

1) On the decline in mussel consumption

It should be clarified that although a decline in mussel consumption has been recorded in recent years, this must be understood within the broader trend of declining consumption of fisheries and aquaculture products in general (EUMOFA, 2025).

2) On the market: ensuring fair competition

Different production conditions and lower requirements in third countries mean that European production sectors do not compete on equal terms in the market with products from third countries.

Likewise, food fraud prevents consumers from making informed choices and undermines food safety and fair trading practices.

In addition, insufficient control (and sanctioning) of misleading labelling, as well as lower consumer information requirements for processed and prepared products, prevent fair competition conditions.

Finally, tariff-free trade agreements that do not take into account the damage caused to local production constitute factors that may jeopardise the viability of European bivalve production sectors (and the companies in the value chain that work with local production).

For the EU to achieve food sovereignty in seafood products, it is necessary and a priority to ensure genuine fair competition in markets and to guarantee that consumers have access to truthful and detailed information about these seafood products (including bivalve molluscs), regardless of their commercial presentation. Therefore, priority measures should include strengthening control systems and the fight against food fraud in relation to bivalve molluscs, as well as extending mandatory identification of origin and species to processed products under heading 1605 (prepared and preserved molluscs).

It is also essential that trade agreements with third countries take into account the EU's primary seafood production sectors, so that EU food sovereignty is not compromised and European food production sectors (including bivalves) are not driven towards disappearance.

Finally, to reposition "European" bivalves in the market, it would be helpful to establish, as a criterion for public procurement, in addition to organic products, those protected by quality-origin indications.

- **Associazone Mediterranea Acquacoltori (AMA)**

Like EMPA, AMA welcomes the overall quality of the report on the bivalve sector, as well as the in-depth consultation process with the panel of producers, which accurately reflects the concerns on the ground and demonstrates a genuine effort to listen to and engage in dialogue with professionals. This participatory approach was very appreciated and is an essential foundation for building a credible and shared aquaculture strategy. AMA also supports EMPA's position on the importance of water quality and AZAs. However, some aspects deserve comment.

The concepts of "good status" or "good environmental status" in the WFD and MSFD are of fundamental importance, but care must be taken in how they are implemented. Implementation cannot ignore what could be defined as a "good status of origin".

For example, reduced fertilizer use, increased water purification efforts combined with a sharp decrease in average rainfall (a likely impact of climate change) are leading to a progressive depletion of the trophic capacity of the waters in the Adriatic, with negative consequences for the aquaculture activities typical of these waters.

In addition to causing damage to productive activities, the use of the same thresholds regardless of the ecosystem in question, risks leading to increasingly similar ecosystems with a consequent loss of biodiversity. Although difficult to manage, remedying past damage must not be the cause of new damage.

The emergencies that have occurred in Italy over the last two years, first the blue crab crisis and then the mussel mortalities at the end of summer 2024, have led to the permanent closure of many companies. The emergency measures adopted, mostly using national instruments and funds, have not been sufficient to preserve production capacity, permanently compromising the entrepreneurial fabric of entire areas.

The two main EU funding instruments for the aquaculture sector are the EMFAF which provides support for investments, and research funds for adaptation to climate change and sector resilience. Although these instruments are very valuable, their implementation times are incompatible with crisis management.

Most of the EU regulation landscape is only projected into the future, with objectives such as maximum adaptation, climate neutrality, and reduced vulnerability to the effects of climate change, but does not contemplate short-term strategies to ensure the perpetuity of productive sectors affected by emergency situations.

As the impact of climate change is expected to increase in the coming years, it would be important to raise this issue. Without preserving what already exists, it is difficult to imagine its transformation or adaptation.

Finally, Italian mussel farming, like Spanish mussel farming, is based on seed self-sufficiency based on natural recruitment. It is a highly sustainable model, both environmentally and economically, which is why we continue to consider the use of hatchery seed as a last resort when there are no alternative solutions. This does not prevent us from carrying out research so that we are ready in case of need, but the remarkable potential of new genetic selection techniques is not a sufficient reason to pursue a path that currently presents more risks than certainties.

The last aspect is purely terminological. When referring to ecosystem services as a whole, it would be better to talk about "Nature credits" rather than "Nutrient credits". This would be in line with the recent publication "Roadmap toward Nature credits." - Com(2025) 374 07lug25.