

## BIM EMFAF Work Programme Project Report 2022

<b>BENEFICIARY:</b>	Bord Iascaigh Mhara
<b>PROJECT REFERENCE NUMBER:</b>	22/KGS/DIS-BG010-BR040
<b>NAME OF PROJECT:</b>	<b>Enabling the Pelagic Strategy</b>
<b>IMPLEMENTATION PERIOD:</b>	1st January to 31st December 2022

### Project Scope

The Irish pelagic sector has developed a highly successful commodity business model. However, increased raw material, energy, logistics and other supply chain costs have been impacting on competitiveness and profitability. Internationally, larger-scale competitors are often more efficient, have more raw material and have better market reach. New entrants internationally have also heightened competitive challenges and exacerbated raw material access. In addition, the truncated pelagic processing season in Ireland has led to significant seasonal processing over-capacity and employment retention challenges. Brexit has more recently further significantly compounded these challenges due to a 26% loss of Ireland's mackerel quota.

Pelagic processors have acknowledged that their current volume-based commodity business model in isolation is becoming increasingly unviable. During 2021 BIM engaged the pelagic sector to progress a pelagic strategy. The key message is that commodity will remain a core, but the sector must pivot towards complementary higher value opportunities and focus on 'doing more with less', becoming greener and more efficient, and focusing on sustainability. BIM identified a variety of development projects for 2022 aligned with the priority areas within the pelagic strategy roadmap.

Sustainability: Enhancing the sustainability of key pelagic resources is vital for the security of the sector. BIM proposed to work closely with the Marine Institute and key industry stakeholders through the Killybegs Fishermen's Organisation to support the setting up and running of mackerel scanners at pelagic processing plants. These scanners detect mackerel tagged in Europe and analysis of recapture data will enhance understanding of stock biomass, distribution, and migratory patterns. The data will feed into ICES annual stock assessments for mackerel and improve overall management decisions.

Resource development: BIM, the Marine Institute and Teagasc have been engaging in a H2020 project assessing the sustainable development of mesopelagics (MEESO). The €6m project reveals that mesopelagics are at an early stage of scientific assessment and significantly more research is required before commercial development can be considered. An associated national mesopelagic scientific survey supported by DAFM was also proposed by BIM and the Marine Institute for 2022. To ensure the Irish pelagic sector is appraised of progress within MEESO and both fishers and processors fully understand the steps required to assess as yet unexploited mesopelagic resources, a workshop on mesopelagics was also planned for 2022.

Strategy: To ensure the outputs of the pelagic strategy could be communicated clearly, the production of a high-quality report, incorporating the pelagic roadmap, was also proposed.

Product development: Blue whiting is one of Ireland's most under-utilised large volume pelagic resources. BIM carried out air-drying trials during 2021 to enhance value. Results were positive and processors were



keen to carry out further specific trials during 2022 to identify viable dried product formats and the most efficient processes and technologies to deliver on these.

Quality: Processors plan to extend their short processing season by defrosting and processing fish throughout the year. Processors were interested in establishing the quality impacts of defrosting and processing fish compared to conventional processing of fresh fish. A shelf-life appraisal of fresh and refreshed mackerel was therefore proposed for 2022.

Brexit Processing Capital Support Scheme: Given the significant impact of Brexit on the pelagic sector, processors expressed interest in investing in technologies that increase efficiencies, reduce costs, and allow processing throughout the year. BIM proposed to proactively engage with the pelagic sector during 2022 to progress opportunities identified within the pelagic strategy to enhance competitiveness by encouraging uptake of the BPCSS funds to support relevant capital projects.

## Objectives

- Sustainability: To ensure scanners are set up and managed at three pelagic processing plants to enable the detection of tagged mackerel.
- Mesopelagics: To co-ordinate a workshop with the pelagic sector to communicate progress of the MEESO project and possible next steps.
- Strategy: To produce a high-quality pelagic strategy report that communicates the context for change, opportunities, and a roadmap to relevant stakeholders.
- Product development: To carry out specific air-dried blue whiting trials to assess the most appropriate dried formats and processes.
- Quality: To conduct trials and produce a technical report on the shelf-life results of different fresh and refreshed mackerel formats held under different storage conditions.
- To work with the pelagic sector to ensure capital spend projects are supported through the Brexit Processing Capital Support Scheme.

## Outcomes

- Sustainability: During 2022 BIM supported the upgrading of mackerel scanners at three pelagic processing plants in the northwest. BIM worked with both the Marine Institute and the KFO to arrange for a third-party technical expert to install and upgrade mackerel scanning equipment at three pelagic processing plants. This allows Ireland to kick-start the collection of biological data from tagged mackerel and engage in the international tag scanning initiative that is helping scientists and managers better understand the biology of Northeast Atlantic mackerel.
- Mesopelagics: BIM has focused on facilitating industry engagement and knowledge transfer regarding mesopelagics. During March 2022 BIM organised a mesopelagic seminar in Limerick inviting national and international scientists, economists, and food technologists to present and discuss the current knowledge base regarding mesopelagics. From this seminar, fishers and processors understood that it is vital that a science-first precautionary approach is taken to develop the necessary knowledge base in an Irish context. It was discussed that the science may determine that sustainable development may not be possible. Further national scientific research is proposed in collaboration with the Marine Institute and industry from 2023 and beyond which will build on the outputs from H2020 mesopelagic projects (MEESO and SUMMER).
- Strategy: A high quality pelagic strategy report was produced. The highly visual report provides context for the global nature of pelagic commodity trading, how the Irish processors are performing, and the main challenges and opportunities facing the sector. A roadmap detailing specific actions has also been produced. Several of the identified actions are being actively pursued, with BPCSS funds supporting the required capital investments.



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- **Product development:** During 2022 BIM set up specific trials focussing on headed and gutted (h&g) and fillets from blue whiting. Frozen raw material was tempered and processed (h&g, filleted). Dried formats and specifications for the trials were based on initial market assessment and customer engagement conducted in 2021. These included both human consumption and petfood markets. A variety of drying times and humidity conditions was assessed for the different product formats to optimise product quality and ensure appropriate shelf-life could be achieved. Various marinades and spices were also appraised. Yields (yield-loss post drying) and energy consumption were important factors and these were assessed also. Product concepts were distributed to interested customers and feedback provided on interest, quality, and potential pricing. Blue whiting is seen as an ideal candidate species for drying and the scale of dried product with 80% weight loss during drying means much lower carbon footprint when exporting, particularly if renewables or excess heat is used during drying.
- **Quality:** Samples of mackerel from the winter RSW fishery and the summer hook and line fishery were collected. A variety of product formats (e.g., whole, h&g, fillets) and storage conditions (e.g., slush ice, flake ice, brine) were set up for fresh mackerel and tested over consecutive days. The trials were repeated on the same batches of fish that were frozen and then tempered (defrosted). This enabled the maximum storage conditions to be assessed for each format and storage regime for fresh and tempered mackerel. An industry report was produced to provide guidance to processors on the shelf-life that can be achieved for various fresh and tempered mackerel product and storage formats.
- **Brexit Processing Capital Support Scheme:** A pipeline of almost €40m will be invested by pelagic processors in the northwest during 2022 and 2023. BIM is actively engaging with the processors to support them accessing BPCSS grant aid. The initiatives are mainly focusing on novel efficient, greener commodity processing, in addition to diversifying to value-add year-round processing. The investments being made are aligned to the pelagic sectoral strategy.

## Summary of Project Spend

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Total Approved Costs	€63,000
Total Eligible Expenditure	€62,977
EMFAF Eligible Expenditure	€31,489
Exchequer	€31,489

Report by: Michael Gallagher

Date: January 2023



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