

EMFF Operational Programme 2014-2020 Seafood Processing Development Measure

BIM Development & Innovation Services

Seafood Processing Innovation Scheme Work Programme Projects

Final Report 2020

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/DI004
NAME OF PROJECT: Business Mentoring Panel
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

Typically, the internal management structures of many of the Irish seafood businesses in the SME sector are sub-optimal in certain areas. Most operations are family focused with some in the second and third generation of ownership, and often the owners have not enjoyed the benefit of formal training in management skills. This scheme is intended as a precursor to these companies employing outside professional expertise within their staff cadre. In many cases the long-established management in companies may not fully appreciate the potential gains that can be made from making changes or improving certain operational procedures.

Generally, these businesses depend on the owner/manager to carry out a multitude of management tasks. Typically, they have a general understanding of what they need to do but sometimes they implement their change programmes poorly. When exposed to the positive experience of having a mentor on site, they generally see the importance of making changes in key areas and will seriously look at employing a skilled person to carry out the necessary improvements. This scheme will allow them to carry out a fast analysis in specific areas including Brexit to help inform them of options available, before committing to contracting specialist expertise. The support may in certain instances extend to consultants who can assist with necessary changes to business operations to Brexit related tasks on behalf of the client company.

The seafood sector has unique challenges that require specialist skills to support the industry remain competitive. The purpose of the Business Mentoring Panel is to form a group of suitably qualified specialist advisors that BIM can choose from, with the skills and experience necessary to advise and support Irish seafood businesses in relation to opportunities and challenges that they are faced with. This programme was set up as a means of showing clients what positive changes can be made within different areas of their operations where deficiencies have been identified. The skill providers (or consultants) drawn from the Business Mentoring Panel (BMP) analyse the specific operation, define where it can be improved, and advise on cost effective implementation of the recommendations.

Objectives

Panel members are required to advise and support individual seafood businesses to address the challenges impacting their business and capitalize on potential opportunities. This involves developing a tailored plan for each client, supporting the client through the implementation of the plan and deliver an end of project report to the client and BIM. The main objectives of the project are:

- To minimize the disruption on seafood businesses as a result of Brexit and support companies “Get Brexit Ready”.
- Enable a more professionalised industry, skilled in planning and resourcing.
- Enable companies get specialist advice where they have a deficit in their knowledge, broadly but not exclusively in areas such as food safety, food factory design, financial advice and business strategy.
- Help companies to modernise their business model and deliver high service levels to their customers.
- Have the three key business areas of production, financial management and sales and marketing working in harmony.
- Help companies prepare for Brexit.

Budget: €145,000

Achievements/Spend:

- Twenty-four seafood processing companies supported in “Getting Brexit Ready”. Companies were supported in identifying areas where they were underprepared for Brexit and assisted in actioning key steps in the following areas: import and export customs procedures, border control procedures and requirements, customs classification, lodging declarations with Revenue and HMRC, setting up deferred payment accounts, advice on import or export to Northern Ireland, review of VAT position in Ireland and the UK, duty mitigating procedures, and AEO authorisation. This has enabled companies to better manage the disruption to trade caused by Brexit.
- Four seafood processing companies were supported in minimizing the negative impacts of Covid-19 on their business. Supports in the areas of cost reductions, cashflow forecasting, availing of governmental support schemes, immediate future planning, and funding negotiations were delivered for clients. This has enabled companies to minimize the negative impacts of Covid-19 on their business and pivot their operations to profitable new and existing projects.

SUMMARY OF SPEND:

Total Approved	€145,000.00
Total Eligible Expenditure	€125,192.38
Total Drawdown	€125,192.38
EU – 50%	€62,596.19
Exchequer – 50%	€62,596.19

Report by: Gavin McGrath

Date: 9th February 2021

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/DI005
NAME OF PROJECT: Project Atlantic
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

Project Atlantic was set-up in 2018 to enable the Irish seafood sector to add value to the ever-increasing landings into Irish fishery ports from international vessels. At first stage a Steering Group (SG) was established, comprising all sectoral interests in the project including DAFM. The SG met four times over the course of 2018 and 2019 during which a number of outputs were delivered. These include:

- Irish landed Whitefish Supply Chain study
- Study of European online seafood sales technologies
- Detailed concept design of proposed sales & distribution centre

Based on the above outputs, the SG agreed a plan to establish a seafood sales and distribution centre in Castletownbere to intercept and streamline the supply chain of international landings which are currently transported whole out of Ireland to Spain and France. The plan was for the business to provide a national platform for both international and Irish fish to be traded. The SG having completed its work in the early part of 2019, agreed that the project should move to the next phase; to test the commercial proof of concept. As this required significant investment and development of corporate structures, BIM considered that this phase was outside its scope and accordingly approached the Irish Strategic Investment Fund (ISIF) as an appropriate means of advancing the project. ISIF have the statutory mandate to invest on a commercial basis in projects which support economic activity and employment in Ireland. The fund is guided by the objectives of Project Ireland 2040 to target its future investments in five priority themes of key importance to the Irish economy:

1. Regional development
2. Housing
3. Indigenous businesses
4. Climate change
5. Sectors adversely affected by Brexit

With the backing of ISIF the objective is to establish a NewCo. seafood sales & distribution centre with key industry stakeholders which will operate as a commercial entity to trade fish nationally and internationally. BIM understands its role as a facilitator in the project is to guide stakeholders through the relevant processes to enable an effective result. The successful realisation of Project Atlantic is in the strategic interest of the Irish seafood sector and accordingly is assisting ISIF by providing technical support and guidance. BIM contracted BDO to provide project management and corporate structuring expertise, as the requisite skills do not reside in the organisation. BIM is cognisant of the fact that as soon as the new company is formed, it then becomes a commercial entity and is treated like any other seafood business for the purposes of supports.

Objectives

- Development of financial model of project concept
- Memorandum of Understanding signed by industry stakeholders
- Facilitation of four one to one meetings between industry stakeholders

- Facilitation of two group industry stakeholder meetings with ISIF to negotiate NewCo. corporate terms and investment criteria

Budget: €78,800

Achievements/Spend

Due to the impact of Covid-19, discussions took place between the project team and all stakeholders individually to re-assess their interest in the project given the changing global conditions. All parties agreed that the proposition and merits of the project still stood and if anything, the pandemic had reinforced the need to access a more consistent supply of fish landed and processed in Ireland and integrated into retail supply chains both domestically and internationally. However, it was agreed that the project be put on hold for a period of three months to enable the partners to deal with Covid-19 related issues in their respective businesses. Following the discussions, the Memorandum of Understanding drafted by BDO was finalised and sent to the stakeholders for signing. This document set out the principal terms and conditions to be agreed between the Irish Strategic Investment Fund and commercial partners regarding Project Atlantic. Agreement of the MoU enabled the project to progress to the next stage.

On resumption of the project following the on-hold period, the first project meeting took place between the stakeholders in July 2020. The meeting outlined the proposed structure of the new entity and details of the pilot phase. The financial model developed by BDO was also presented at the meeting. Discussions centered around the need for the four stakeholders to agree a plan to enable the entity to be set up and put a resource in place to validate the business case and secure raw material for the pilot. Based on these discussions, a proposal was sent out to the stakeholders outlining the requirements for each stakeholder for the project to progress.

This proposal focused on the pilot phase and included details on investment, shareholding, objectives and timelines. Three of the four parties signed and returned the proposal. The fourth party requested more time to consider the proposal, they noted other interests and time commitment as a barrier to proceeding. The fourth party indicated their commitment to the project in late November 2020 and signed the proposal. As a result of this, a meeting between all stakeholders took place in December 2020. Discussions were positive, but there was a lack of clarity by the stakeholders on the preferred business model of the new entity. It was agreed that the entity would need to develop a validated business plan outlining the business model options. It was agreed that the stakeholders would meet again in January 2021 to progress this action.

The project team have been updating ISIF on progress of the project. ISIF remains committed to the project and have stated that they will re-engage when the new commercial entity is set up and a validated business plan is completed.

Deliverables:

- Financial model was developed and presented
- Memorandum of Understanding signed by all stakeholders
- Four meetings with individual partners
- Facilitation of two meetings between industry stakeholders
- Updated ISIF on project progress

SUMMARY OF SPEND:

Total Approved	€78,800
Total Eligible Expenditure	€72,704
Total Drawdown	€72,704
EU – 50%	€36,352
Exchequer – 50%	€36,352

Report by: Tomás Cooper

Date: 5th February 2021



BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/DI015
NAME OF PROJECT: Centre of Excellence (R&D)
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

The Irish Government's Agri-Food Policy Food Wise 2025 identified numerous priorities for the Irish seafood sector including industry partners to develop a research programme to support high value products from seafood research; to reduce the level of seafood produce sold in commodity form from 70% to below 50%. To achieve this the policy suggests that a renewed priority be given to R&D into seafood based new product development, food ingredients and functional foods. This research should also include both harvested wild and farmed seaweeds and their by-products. The Centre of Excellence (R&D) Programme was developed to explore industry-good opportunities for the Irish seafood sector to add further value by utilisation of by-products, development of marine ingredients and trial and application of new technologies under Irish conditions in conjunction with knowledge providers.

Objectives

Commercially-relevant seafood R&D projects were conducted across a range of sector need areas:

- To develop commercially relevant industry good projects and encourage investment in R&D.
- To define new opportunities for by-product utilisation in the development of human and pet-food concepts.
- To explore new technologies to increase product quality and safety.
- To develop new solutions for Irish-origin ingredients and product.
- To develop linkages with national and international knowledge providers and explore opportunities for our client base.
- To use data and insights collected to determine the commercial viability of investing in new processes and technologies.
- To lead the Irish seafood sector in identification of new business opportunities and strategies.

BIM has been working with Teagasc, University of Limerick, University College Cork and a Norwegian organisation, Nofima, on a range of BIM-led 100% funded R&D projects to generate new opportunities for the Irish seafood sector. Eight projects were finalised in 2020 with a further two projects beyond midpoint stage and due for completion Q2 and Q3 2021.

Budget: €250,000

Achievements/Spend

Teagasc provided technical consultancy on six projects including analytical testing, extraction, characterisation and development of standard operational procedures (SOP's) on the following projects:

- Exploring pelagic blood-water for valuable ingredients.
- Health and wellness ingredients from rope grown Irish mussels.
- Appraisal of whitefish and salmonid waste streams for pet food and bio stimulant ingredients.
- Enhancing cell culture health using marine magnesium mineral extracts and collagen/collagen hydrolysates.
- Opportunities for Irish marine ingredients in the global pet food sector.
- Comparison of blue whiting-derived calcium to dairy sources.

Nofima provided technical consultancy on one project:

- Automated technologies to optimize anisakis spp. in Irish megrim and hake.

University of Limerick provided technical consultancy on two projects:

- Cadmium mitigation in brown crab.
- Effect of blue whiting protein hydrolysates supplementation on markers of glycemic control, metabolic syndrome and appetite in humans.

University College Cork

- Project midpoint reached on MSc project "Marine functional ingredients opportunities for the Irish seafood sector".

Due to Covid-19 restrictions during 2020 it was not possible to deliver on a significant element of the projects due to travel restrictions of partners, interruption of supply chains and workplace restrictions.

SUMMARY OF SPEND:

Total Approved	€250,000.00
Total Eligible Expenditure	€155,006.42
Total Drawdown	€155,006.42
EU – 50%	€77,503.21
Exchequer – 50%	€77,503.21

Report by: John Fagan

Date: 8th February 2021

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/DI016
NAME OF PROJECT: Engendering Innovation in Irish Seafood
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

The overall aim of Engendering Innovation in Irish Seafood is to embed and promote the widespread use of methodologies developed specifically for seafood by BIM (or additional approaches or methodologies that emerge) to drive commercial growth across the sector in the quickest and most efficient way possible. This is undertaken through the development and continued re-engineering of the innovation processes and standards utilising a project management standardised approach. This innovation approach should reduce the level of commodity and build the seafood sectors added value business across the supply chain and to build the industries innovation capability. Taking recommendations from the OECD and comparisons from other industries, the innovation process is to provide that capable seafood specific facilitator that can add value by forcing client issues out into the open, supporting company staff involvement, ensuring that everyone takes the exercise seriously, interpreting findings and arriving at an action plan through a business specific case.

The rationale for BIM to take a leadership role in funding and implementing the innovation process is in accordance with OECD findings that SMEs have neither the scale, expertise, capability or resources and if the seafood sector was not supported in this area then the sectors competitiveness internationally would be seriously undermined. For these reasons having a specific purpose Innovation Framework that has been fully validated is the foundation for empowering the sector with innovative design led thinking utilising appropriate innovation tools. The OECD identified that the risks of innovation are higher for a small firm than a large one: usually, the smaller firm will have fewer technical and managerial competences, more limited finance, and more limited access to information than a larger organisation. It has been suggested that the most appropriate support for SMEs is a capable facilitation that can add value by forcing issues out into the open, promoting wide staff involvement, ensuring that everyone takes the exercise seriously, interpreting findings and arriving at an action plan.

Innovation is the most important driver of growth. Today, more than ever, companies need to innovate to survive. Companies obsess over being creative and innovative and spend significant time and expense in designing and building products yet struggle to monetise them: 72% of innovations fail to meet their financial targets - or fail entirely. Radically improving the odds that your innovation will succeed is just a matter of removing the guesswork. That happens when you put customer demand and willingness to pay in the driver seat - when you design the product around the price. It's a new paradigm, and that opens the door to true game change.

Objectives

Today more than ever, product and supply chain innovation is critical to maintaining competitiveness in today's fast-paced, global seafood market. Studies show many companies find it hard to assess and advance their ability to innovate across the product and supply chain portfolio. An innovation framework and tools for managing product and supply chain development in companies provide a cohesive framework for assessing a company's innovation. Seeing a way to fulfil this need, BIM created the Seafood Innovation Playbook and tools based on international literature for the innovation management to give seafood companies a critical tool for assessing the strength of their innovations, which is essential to continue improving productivity, time to market, and commercial success. BIM focused on three key objectives:

- Build specific innovation value supply chains for several seafood species through engagement with industry stakeholders and building their innovation capability development through specific industry workshops.
- Develop BIM's innovation capability development; to support the innovation process and complete the roadmap development for innovation within the organization for the communication to a wider part of the seafood sector.
- Innovation promotion and engagement of the innovation process tools with key stakeholders to communicate the innovation capability and achievement of the seafood sector.

Budget: €210,000

Achievements/Spend

The project was implemented through BIM's Seafood Innovation Hub (SIH) and the innovation team to provide support to industry to develop and launch commercially viable products, services and build their business competitiveness model. The BIM Innovation Playbook is a practical guide to help develop 'hands-on innovation'. The playbook gives an overview of the BIM innovation process framework and how it can be applied to turn customer needs, pain points and desired gains into a successful commercial venture. The framework helps build and evolve a business case for investment and ultimately for a successful commercial launch. The SIH undertook the projects in collaboration with partners including other agencies such as Bord Bia, third level institutions, industry groups and specific technology providers. The partners were utilised to include specific expertise including market information, third level research and the latest technology developments to have a highly informed data to build a full supply chain business model.

The following are the main achievements of the project:

- Industry innovation capability was delivered through twenty-two individual projects of new product developments for the seafood sector.
- Development of value chain analysis of three species including megrim, haddock and prawns.
- Communication on a guide for implementation of innovative technology for Resource Efficiency Planning for added value production to improve business competitiveness.
- Delivery of Irish seafood retail data demonstrating changing consumer trends and requirement for innovation on changed supply chain and product development.
- Implementation with industry of a Seafood Innovation Framework through specific client projects.
- Alignment of the Innovation Framework and Process with the NSAI standard for ISO equivalence.
- Design and publishing of specific seafood innovation tools.
- Design and publishing of Innovation Project Management Systems.
- Communication of Blas na hÉireann Seafood Innovation Award.

SUMMARY OF SPEND:

Total Approved	€210,000.00
Total Eligible Expenditure	€201,919.64
Total Drawdown	€201,919.64
EU – 50%	€100,959.82
Exchequer – 50%	€100,959.82

Report by: Paul Ward

Date: 8th March 2021

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/DI017
NAME OF PROJECT: Innovation Portfolio
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

Applying the concept of portfolio management for innovation is identical to portfolio management for any other form of investment. The principle underlying any investment portfolio is that the inherent risks and potential rewards have to be evaluated in conjunction with one another. By allocating capital across a range of investments, the goal is to obtain the best return while controlling risk. The key, as articulated in portfolio theory, is that the risks taken must be non-correlated, meaning that various investments selected must perform differently under every specific set of economic or business conditions. The particular challenge related to innovation portfolios is that the projects to be decided upon are never complete or mature, and so their future value is highly uncertain. Innovation portfolios consist largely of ideas, often under development and mostly untested. Further complicating the problem of innovation portfolio management is the fact that innovation proceeds best when it proceeds rapidly from failure to failure, for this is how the learning process advances best; fail faster to succeed faster.

These innovation activities generate costs, which need to be minimized in order to compete with other “innovators”, especially so since the outcome and the ensuing commercial success of innovation efforts remains to a large extent uncertain. In supporting the seafood sector to compete globally and ensure that as a category of SMEs building towards the EU Innovation Scorecard, BIM will undertake innovative projects at a species category level thus removing the barriers for industry and presenting compelling tested business cases so that industry can commercialise global innovation opportunities. The OECD (2018) suggests that Governments can support innovation in SMEs by fostering a sound business environment, helping SMEs to develop and use their internal strategic resources effectively, and building an innovation system that is effective in the commercialisation of research and inclusive of a large range of SMEs.

For many seafood companies, innovation will remain a sprawling collection of activities, energetic but uncoordinated and a source of frustration. For BIM, however, it represents the most important challenge of all by figuring out how to manage an innovation portfolio as an integrated system within overall sector innovation portfolio goals, to harness its outputs and make it a reliable driver of growth.

Objectives

Innovation at BIM is about solving problems and stimulating growth in the seafood sector. The goal is to reduce commodity production from 70% to below 50%, value creation is important at every stage of the supply chain, there is a shift from price to margin focus and there is a balanced focus between short term and long-term gains. Utilising the Innovation Process and tools using project management principles, BIM identified innovative strategic projects that can build value to specific seafood categories. There are five identified categories, Whitefish, Pelagic, Salmon, Shellfish, and Waste Optimisation, which will be supported along the value chain, aimed at delivering growth.

The key projects for 2020 were:

- Anisakis management through technology implementations
- Prawns, industry strategy development for added value
- Hake, technology adaptations to improve supply consistency
- Pelagic; value added
- Mussels, industry strategy development for added value

Budget: €100,000

Achievements/Spend

The project was implemented through BIM's Seafood Innovation Hub (SIH) and the Innovation team to undertake category review for innovations to assist industry develop and launch commercially viable products and services. Due to Covid-19 restrictions during 2020 it was not possible to deliver on a significant element of the projects due to travel restrictions of technology providers, interruption of technology supply chains and workplace restrictions.

The project delivery during 2020 was:

- Development of Anisakis detection in hake and megrim for the effective production of value-add products to improve supply consistency to the marketplace. The technology included development of infra-red technologies for detection of anisakis in the flesh of the product.
- Development of an optimal production layout to incorporate IQF as an additional control measure in hake and megrim production to meet supply demands and shift from commodity to value add.
- Feasibility of process drying and functional food options applicable to the mussel and associated activities to develop marine ingredients related value add opportunities for the sector.

SUMMARY OF SPEND:

Total Approved	€100,000.00
Total Eligible Expenditure	€76,463.82
Total Drawdown	€76,463.82
EU – 50%	€38,231.91
Exchequer – 50%	€38,231.91

Report by: Paul Ward

Date: 8th March 2021

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/DI022
NAME OF PROJECT: Assessing New Technologies for the Pelagic Sector
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

The low margin high volume pelagic commodity business model has worked well for Irish pelagic processors; there are however competitive pressures emerging. BIM is currently co-developing a pelagic strategy in consultation with the pelagic sector to identify higher value opportunities that can be pursued in tandem with commodity processing and trading. This has the potential to improve profitability and utilise assets and resources more effectively by producing higher specification products and extending the processing season. Two key technologies identified as key enablers are Individual Quick Freezing (IQF) and tempering (defrosting).

Globally the pelagic sector uses a wide diversity of IQF and tempering technologies provided by several equipment providers. To fully understand the range of equipment options available and the best-fit solutions for the Irish sector a detailed commercially focused desk study was planned. This included engaging with Irish pelagic processors to understand their needs and reaching out to equipment providers to appraise available technology options to understand capacity, performance, costs etc. and feedback this information to the sector.

Following the desk study a tender was to be produced to allow the selection and trialling of best fit technology options for the sector so that they could appraise first-hand commercial operations and performance.

This project seeks to assess both tempering and IQF technologies by:

- Appraising available tempering and IQF technologies
- Setting up tempering and IQF commercial-scale trials
- Engage processors and customers during the trials
- Determine the best-fit technologies for pelagic processors

Objectives

- Carry out a detailed commercial desk study to determine best-fit IQF and tempering technologies for the Irish pelagic sector.
- Seek a third-party expert to source best-fit IQF and tempering technologies and conduct trials either in situ in pelagic processing plants or in suitable alternative locations.
- Communicate the outputs to industry so it enhances their understanding of effective solutions available.

Budget: €138,120

Achievements/Spend

A detailed desk study was completed and communicated to the pelagic sector. Col Fisher SAS, a French Consultancy expert, co-developed the study in conjunction with BIM. Pelagic processors were engaged to understand their needs and all relevant IQF and tempering equipment providers were contacted, and full specifications of equipment were established. The review was communicated to industry.

Following the desk study, a Request for Tender was circulated to source expertise to trial best-fit solutions under commercial settings. Killybegs Electrical Refrigeration was selected as the third party expert. Covid-19 significantly delayed the sourcing and transport of relevant equipment at the early stages of the project. Nonetheless, IQF options have been identified and discussions are ongoing with certain processors in terms of set up in processing plants and associated logistics and resources required. Likewise, three different tempering solutions have been sourced (forced air, radio frequency and water immersion) and trials are being arranged. The majority of the trials will be conducted in 2021 within a subsequent project, at processing plants in Killybegs and all processors will have access and visibility of the trials at the selected locations. It is hoped that first-hand assessment of trials in commercial settings will encourage processors to strongly consider commercial uptake.

SUMMARY OF SPEND:

Total Approved	€138,120
Total Eligible Expenditure	€138,120
Total Drawdown	€138,120
EU – 50%	€69,060
Exchequer – 50%	€69,060

Report by: Michael Gallagher

Date: 17th February 2021

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/STS002.1
NAME OF PROJECT: Green Seafood Business Programme
IMPLEMENTATION PERIOD: 1st January to 31st December 2020

Project Scope

The Green Seafood Business Programme's main function is to assist seafood processing companies with a resource efficiency management to improve their sustainability, reduce their impacts on the environment and the cost of their operations. Consistent with Food Wise, the Green Programme is aligned with Bord Bia's Origin Green programme and assists seafood companies to identify potential target areas for improvement, reducing their resource use and improve the overall sustainability of their operations. The Green Programme also helps Origin Green companies to develop their Sustainability Charters.

Objectives

- To improve the environmental performance of the seafood processing sector and to increase the resource efficiency knowledge of the industry.
- To guide in the reduction of the cost of utilities for seafood processors by implementing improvements throughout their processes in the areas of energy, waste and water usage.

Budget: €67,400

Achievements/Spend

BIM has developed a Water Stewardship Support Programme aimed at improving water stewardship impacts and practices in the Irish seafood sector. The pilot programme provided a holistic and integrated suite of supports that assists seafood processing sites with technical expertise, business support, funding and training. The programme was launched at an online event in 2020 with attendees from across the seafood processing sector. As a result of Covid-19 an online programme was developed to adapt the first step on the BIM water stewardship programme to a remote offering. The programme consisted of four workshops run over a two-month period. Staff who participated in the programme developed preliminary water maps and became 'Certified Water Stewards'. Additionally, two companies completed the Water Mapping step on the programme and have achieved sustainable company-wide improvements in how they use water in their day-to-day operations. All companies who participated in the BIM Water Stewardship Programme have been able to improve their water efficiency, reduce their costs and lower their overall environmental impact.

Bord Bia's Origin Green programme has endorsed the BIM Water Stewardship Programme and view this as a supporting system to aid the seafood sector to manage and identify their water initiatives and targets for their Sustainability Charter. In 2020 Bord Bia launched 'Gold Membership' for their Origin Green programme. This is part of the new credit system used to assess the performance of Origin Green companies and is given to those who demonstrate exemplary performance in one or more target areas as part of the Origin Green Sustainability programme. In 2020 there were 26 winners across the entire food & drink sector (comprised of more than 300 Origin Green members). Of the 26 gold member companies five were from the seafood sector, representing a substantial proportion and clearly demonstrating the Irish Seafood Sectors' commitment to sustainability. Two seafood processing companies who participated in the BIM Water Stewardship Programme received Origin Green 'Gold Membership'.

In response to the need for remote resource efficiency support BIM developed a packaging and waste management toolkit for seafood processors. The toolkit addresses these important but often neglected elements of sustainable resource management. Plastics and food waste are currently receiving a lot of attention in the public and media as consumers are looking to companies for evidence of their work to reduce waste creation and generation. The toolkit comprises of industry specific questionnaires, spider diagrams (to identify priority areas) and associated action supports (e.g. letter templates, biodegradable alternative packaging elements). This toolkit will be disseminated to the sector throughout 2021 and provide Origin Green companies with support for addressing their ‘waste’ and ‘packaging’ initiatives and targets.

Refrigeration systems are one of the most significant energy users in seafood processing facilities, accounting for more than 15% of the total energy consumption on suite. To address this sector specific sustainable resource management issue BIM has developed a Refrigeration Management Guide to provide best practice guidance for the energy efficient operation of these systems. This is a comprehensive technical guide and includes overarching daily, weekly, monthly and annual checklists to allow processors to effectively manage these systems.

In 2020 BIM sponsored 12 delegates to attend the Green Awards. These awards recognise the extraordinary contribution and commitment that companies make towards growing a greener future in Irish business today. Through entering these awards, seafood companies gain visibility in the wider corporate sustainability sphere. These events also provide opportunities for networking and collaborating with likeminded businesses throughout Ireland. Seafood companies have been winners of the award in previous years, and this has provided a platform to promote not only the recipient but also the seafood industry as a whole to the corporate sustainability community and the general public.

SUMMARY OF SPEND:

Total Approved	€67,400.00
Total Eligible Expenditure	€67,085.50
Total Drawdown	€67,085.50
EU – 50%	€33,542.75
Exchequer – 50%	€33,542.75

Report by: Martina O’Brien

Date: 5th March 2021

BENEFICIARY: BORD IASCAIGH MHARA
PROJECT REFERENCE NUMBER: 20/SPIS/SDS002.4
NAME OF PROJECT: Innovation Upskilling Programme
IMPLEMENTATION PERIOD: 1st January 2019 to 31st December 2020

Project Scope

The European Commission's policy on innovation plays an increasing role in our economy. It provides benefits for citizens as both consumers and workers. It is suggested that it is essential to creating better jobs, building a greener society and improving our quality of life, but also to maintaining EU competitiveness in the global market. Innovation policy is the interface between research and technological development policy and industrial policy and aims to create a conducive framework for bringing ideas to market. The Commission for Research, Science and Innovation said that third level partnerships contribute directly to EU competitiveness and policy goals. The key strength of the partnerships is their ability to engage major industry partners and to overcome fragmentation in sectors. The European Commission in 2017 at the Gothenburg Social Summit, suggested that education and culture are essential to develop a more inclusive, cohesive and competitive Europe.

The European Commission Directorate-General for Research and Innovation through the Research, Innovation and Science Expert (RISE) Group details the need for R&I policy to work with education and employment policy to secure high quality jobs for citizens. The need for European policy and funding to be aligned with national, regional, local and even global ambitions. This points to the need for a two-way relationship, where research and innovation inform wider policy ambitions and actions while at the same time R&I policy is developed with cognisance of the wider policy context of Europe.

The Irish third level institutions are a wealth of expertise resulting with the latest thinking on the applications from other industries that could be applied to the seafood sector. Utilising the third level institutions for the application of Innovative Advisory Services across a range of disciplines can enhance the seafood sector through cross functional applications. The development of skills in innovation for various expertise requires the application of several technologies including, nutrition, food science, information technology, data analysis, financial applications, and digital communications.

Objectives

The objective is a substantial opportunity for Irish seafood to take the innovation lead on key sectoral issues in some science and technology areas. The seafood industry can build on its comparative strengths while positioning itself long-term in key enabling technologies and new markets. This requires a capacity for rapid response, to meet an ever faster changing business environment. The effectiveness of research and innovation as drivers of economic growth is well established. By directing resources and efforts towards solving key industry challenges, will also enhance global competitiveness and market opportunities for the Irish seafood sector. Applied innovative research projects are commercially exploited faster and more easily which leads to:

- successful market-oriented exploitation of platform technologies is linked to the ability to fully exploit the whole range of potential applications,
- involvement of industry in consortia increases the success rate of market-oriented exploitation.
- vertical integration (i.e., including the whole value chain) is a success factor for market-oriented exploitation,
- large enterprises can make a difference in successful market-oriented exploitation as long as the outcomes are in line with their 'expectations.

A benefit of this alignment with third level institutions is the ability to ensure the transformation of knowledge corresponds to non-linear, complex relation between the research outcome produced in a project and a technology, product or service can be made available to the market through industry partners.

The applications for innovation advisory services will only be received from registered third level institutions and the services will be applied to category issues within the seafood sector and results disseminated to the industry. The innovation advisory services will be managed from BIM's Seafood Innovation Hub to deliver on specific industry challenges.

Budget: €402,000

Achievements/Spend

The grant specifically funded the following innovation academic research advice:

- Third party services from third level institutions on the application of food science methodologies to seafood products, including a guide of the functional benefits of consuming seafood.
- Third party services from third level institutions on the application of financial planning to seafood products and economics of innovation planning, including a resource planning guide on cost savings, and an innovative approach to business finance planning.
- Third party services from third level institutions on the application of food marketing methodologies to seafood products, sustainability and business planning, to include an assessment of sustainability within the seafood sector.
- Third party services from third level institutions on the application of project management methodologies to seafood projects to build best practice approach to project implementation, including a model for innovative project management planning.
- Third party services from third level institutions on the application of digital technologies methodologies to seafood products and innovative opportunities for the future. This includes an assessment on the opportunity for the Irish seafood processors digital readiness, application of predictive modeling to raw material sourcing and utilizing social media platforms for greater data insights.

SUMMARY OF SPEND:

Total Approved	€402,000
Total Eligible Expenditure	€402,000
Total Drawdown	€402,000
EU – 50%	€201,000
Exchequer – 50%	€201,000

Report by: Paul Ward

Date: 8th March 2021