

BIM STRATEGY 2010 – 2012

# DELIVERING ON THE POTENTIAL OF IRISH SEAFOOD



Bord Iascaigh Mhara  
Irish Sea Fisheries Board

# CONTENTS

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## Ministers' Foreword

Brendan Smith TD Minister  
for Agriculture, Fisheries and Food

Sean Connick TD Minister of State  
with special responsibility for Fisheries  
and Forestry at the Department  
of Agriculture, Fisheries and Food

02

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## Acknowledgement

Acknowledgement from  
Chairman of BIM, Rose McHugh

03

---

## Introduction

Introduction from Chief Executive  
Officer of BIM, Jason Whooley

04

---

## SECTION 1

### The BIM Strategy

BIM's Mission Statement

08

Key Outcomes by 2012

09

---

## SECTION 2

### Implementing the Strategy

#### Context

Context for Setting the BIM  
Strategy 2010 – 2012

10

---

#### Theme 01

Ensuring that the Environment  
and Sustainability are Central  
to the Industry

12

---

#### Theme 02

Developing the Highest  
Standard of Skills

20

---

#### Theme 03

Fostering a Culture of Business  
Development and Innovation

26

---

#### Theme 04

Driving Knowledge and  
Technology Transfer Advances  
Throughout the Sector

36

---

## Glossary

46

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# MINISTERS' FOREWORD



**Brendan Smith TD**  
*Minister for Agriculture, Fisheries and Food.*



**Sean Connick TD**  
*Minister of State with special responsibility for Fisheries and Forestry at the Department of Agriculture, Fisheries and Food.*

The Irish seafood industry is vitally important to sustaining communities in the coastal regions around Ireland through the generation of income, exports, home market sales and jobs. The industry is worth more than €700 million per annum and provides direct employment for up to 11,000 people in fishing, fish farming, processing and marketing of seafood. There is no doubt that the industry, which is indigenous and natural resource based, has the potential to generate further value to the national economy and to the regions in which it is based.

BIM, with its long history and deep rooted knowledge and association with the Irish seafood industry is well placed to lead the sector to realise this potential.

In this new three year strategy, BIM has set a detailed agenda to create growth and build a new dynamism throughout the Irish seafood industry. The strategic focus, combined with the highly practical nature of the actions that BIM intends to carry out is impressive. BIM's clear determination to measure their own progress against specified targets is synonymous with the high standards they set for themselves and augurs well for the success of the strategy.

- The range of actions set out in this three year strategy aim:
- > To facilitate the seafood industry to achieve the levels of efficiency, commercial know-how and innovation necessary to thrive in the hugely competitive international market for fish products.
  - > To support the industry in meeting the highest standards of environmental responsibility and compliance.
  - > To enhance the standard of business and other professional and technical skills within the Irish industry which will be vital to the future development of the sector.
  - > To support the professionals working in the Irish seafood industry, to have access to the latest developments in knowledge and technology transfer and thereby ensure enhanced competitiveness throughout the sector.

As Ministers with responsibility for the fisheries portfolio our strategic objective is to ensure a secure future for this very important, indigenous seafood industry and for the coastal communities in which it is based. In this regard, we are very pleased to have the full support and commitment of BIM as set out in this important strategy and we wish them every success with its implementation.

**Brendan Smith TD**  
*Minister for Agriculture, Fisheries and Food.*

**Sean Connick TD**  
*Minister of State with special responsibility for Fisheries and Forestry at the Department of Agriculture, Fisheries and Food.*

# CHAIRMAN'S ACKNOWLEDGEMENT



**Rose McHugh**  
*Chairman Bord Iascaigh Mhara*

As Chair of the Board of BIM for the last five years, I am proud to have overseen the organisation during a period of rapid evolution and unprecedented change. Along with my Board colleagues, we have sought to ensure that the organisation which has emerged from this change programme is fit for purpose in the radically changed economic circumstances that currently exist in Ireland.

BIM has transformed itself into a leaner, more commercially focussed organisation driven by clearly defined targets. Staff numbers have been reduced by a third in the last two years but through a programme of performance led management, the organisation continues to provide a high level of service to the seafood industry and to our parent Department.

A new strategic plan for BIM has been developed that builds on the change programme and provides a detailed roadmap for the organisation and the industry over the next three years.

The Board and I have placed a significant emphasis on enhancing BIM's already strong corporate governance regime so that it meets the very highest standards, and in so doing, I feel that we have leveraged more value for money for the taxpayer and increased the organisation's overall efficiency.

Over the 60 year lifetime of BIM, the organisation has transitioned from fish wholesaling and boat building into a highly focussed service driven agency aligned with the needs of a modern and sophisticated fishing industry. I am confident that BIM will continue to provide much needed and precisely targeted development services to Ireland's strategically important and very valuable seafood industry.

I have been very impressed and hugely encouraged by the support that the change programme has received from staff, which has co-operated with my Board in its delivery. Their passion and commitment underpin the ambitions we have set out in our future vision for the organisation over the coming years.

In carrying out the actions contained in our new corporate strategy, BIM is confident of making a significant contribution to realising the policy objectives of our parent Department of Agriculture, Fisheries and Food. In particular, BIM will work with the Department to secure the maximum drawdown of EU funding for the sector through the projects put forward under the Irish Seafood Operational Programme 2007-2013. Furthermore, BIM's planned work programme will provide valuable synergies by complementing the programmes of other agencies, including, the Marine Institute, An Bord Bia, Enterprise Ireland and Údarás na Gaeltachta.

The Board has sought to ensure that the execution and delivery of the strategy is tightly measured through the adoption of clear key performance indicators associated with all of the actions. As a result, I am confident that our plans will be implemented in a timely and cost effective manner.

I would like to conclude by acknowledging the significant input and support of my colleagues on the Board and, in particular, of the Executive of BIM in overseeing the change programme and developing a plan for the organisation that will deliver value for money to taxpayers, real added value services to the seafood industry and motivation and encouragement to our staff.

**Rose McHugh**  
*Chairman Bord Iascaigh Mhara*

# CEO INTRODUCTION



**Jason Whooley**  
*CEO Bord Iascaigh Mhara*

## **Delivering on the Opportunities for the Seafood Sector in Ireland**

### **Background**

The prospects for seafood, both at a global and European level, are very favourable, especially in the medium to long term. The world's population is growing strongly and is not expected to stabilise until c. 2050 when there will be more than nine billion people on the planet. The additional 4.5 billion people, on top of the current population, represent a massive new market for food. As a consequence, it is inevitable that demand for seafood will continue to grow for the foreseeable future with estimates suggesting that an extra 40 million tonnes of seafood will be required annually by 2030.

### **The question for the Irish seafood sector is: what role will Ireland play in supplying this growing market?**

From a European Union perspective, the issue of seafood supply is already acute. Current market demand in Europe is of the order of 12 million tonnes per annum, valued at approximately €60 billion. The amount of seafood produced within the European Union, to meet local market demand, has declined substantially over the last two decades. In the 1990's, imports accounted for approximately 40% of demand, whereas, today that figure is closer to 65% and is showing no sign of falling.

As the emerging powerhouse economies of the Far East grow wealthier, their demand for seafood will continue to increase substantially. It is worth noting, for example, that the middle class in China is expected to quadruple in size to 600 million citizens in the next five years. This, together with an inevitable increase in fuel prices, will reduce the availability of cheap seafood from outside Europe, which, in turn, will have significant implications for the European market and for Irish seafood producers.

### **Challenges**

BIM has identified a number of key challenges to be overcome if the potential inherent in the Irish seafood sector is to be realised. These include:

- > Recessionary effects – reduced prices for seafood, difficulties in obtaining working capital, increasing interest rates;
- > Access to the resource – a stronger emphasis on environmental protection and conservation;
- > Lack of scale and inefficient logistics chain;
- > The growth of low cost imports from countries operating from significantly lower cost bases and a lack of differentiation of Irish seafood;
- > Changing consumer preferences – a premium on convenience, versatility and price.

### **Opportunities**

While the industry faces some significant challenges, tremendous growth opportunities also arise, particularly over the medium to long term. This growth has the added benefit of contributing to increased employment and job opportunities in many coastal regions and other communities dependent on the seafood sector.

While commodity production will continue to play an important role in the industry, especially in the pelagic sector, there is significant scope for a high proportion of Irish seafood to be differentiated from low cost third country imports through value added production and branding. Currently, 85% of all Irish seafood produced is commodity based. Through programmes in place, that will facilitate innovation and new product development, BIM believes that the industry can create an additional €50m in added value sales by the end of 2012 and in the process create an additional 200 new jobs.

Differentiation will be a key issue for the industry if Ireland wishes to successfully compete in a global marketplace, where low cost third country competitors are prevalent. Traceability and environmentally responsible production processes can set Ireland apart, in addition to appropriate labelling and strong and supportive marketing. By the end of 2012, as wild caught production is certified and more aquaculture producers join BIM accredited schemes, 40,000 tonnes of seafood, worth some €120 million, can be uniquely differentiated as Irish produce in the market.

As outlined earlier, it is projected that demand for seafood will continue to increase for the foreseeable future. In an attempt to address that demand, BIM will begin offshore trials of aquaculture production in 2010 which will open up the prospect of large production in the sector. We also believe that established methods have the potential to produce increases in output from existing resources.

Over the three year period to 2012, BIM believes that these initiatives can create an increase in productive capacity of approximately 10,000 metric tonnes worth an estimated €18 million in new sales. This uplift in production, if successful, can create full time employment for approximately 300 people across the sector.

Another area, where significant opportunities exist, is adding value through up-skilling. Focussed industry training can equip the sector with the latest knowledge, education and technical know-how and ensure that the Irish seafood industry can compete with the best in the world.



# CEO INTRODUCTION

*Continued*

## **BIM's response - a new approach is needed**

In response to the challenges and opportunities facing the industry and following extensive engagement with all the key stakeholders, BIM has formulated a new three year strategic plan. The plan, set out in this document, is based on a reorganisation of BIM's activities around four key themes. In conjunction with the industry, BIM believes that these themes will underpin the future success of the Irish seafood sector. These themes are:

- > Environment and Sustainability
- > Skills Development
- > Business Development & Innovation
- > Knowledge and Technology Transfer.

BIM has now prioritised these four themes within its business operations and will deliver in these areas through better harnessing the extensive range of existing services at its disposal, coupled with the introduction of new services over the period 2010 – 2012. This approach will ensure that our service offering is delivered effectively across the entire seafood industry, including, fishermen, fish farmers, seafood processors, retailers, as well as to the government departments and agencies engaged in the sector.

The strategy is less about driving large increases in seafood output over the period but more about making sure that BIM is enabling the sector to better leverage the existing resources at its disposal to facilitate the generation of real added value.

To provide a sharper focus on our commitment to this new strategy, our plans are grounded on delivering on 70 identified actions and associated key performance indicators. Programmes of financial assistance, skills development, enhanced environmental compliance, product differentiation and labelling, new product development and innovation and improved commercial practices, will all be geared to improve the sector's performance in the face of the challenge and opportunities, facing the industry. Our performance and the outcomes from this strategy will be subject to regular review through newly established Industry Consultative Groups.

As part of the new strategy, BIM will modernise its organisation and approach to service delivery in a number of important respects. New strategic services will be provided through the formation of specialist units. These will include:

- > Seafood Economics
- > Strategic Planning
- > Health and Safety
- > Processing Services
- > Dedicated Seafood Development Centre
- > New Regional Business Development Officers
- > New Category Management Groups.

This significant organisational transformation will enable BIM to execute the new corporate strategy more efficiently and effectively. In turn, these actions will support and underpin the seafood industry's own resources and structures, leading its future development and thereby generating increased investment, added value, income and employment.

Allied to these actions, BIM will also adopt more commercially focussed and business led practices in its operations. Management tools such as Key Account Management and a greater level of business training for client facing staff will bring a sharper commercial focus to the delivery of services to customers right across the sector.

The adoption of a sharper business focus will enable BIM to exploit opportunities that it is uniquely positioned to identify. On the one hand, BIM is in a pivotal position to facilitate the better flow of commercial knowledge from the market, back along the value chain to the producer, through its intimate knowledge and understanding of the industry at a local level. In this way, producers will be more cognisant of the constantly changing needs of consumers and thus be able to deliver products that better meet customer demands. On the other hand BIM, working in association with other agencies, acts as a strong and authoritative advocate to highlight the technical attributes of Ireland's leading seafood producers - a key selling point for the industry - with the major international buyers of seafood products.

The strategic plan set out in this document is based on currently available resources and is subject to change based on the availability of resources for future years.

To facilitate the development of a dynamic, value added-led industry, BIM will channel financial assistance to operators and businesses, with well developed business plans from which a reasonable return can be expected. Our investment will focus on individual operators and businesses, that can add value, create jobs and generate opportunities for growth, with the benefit of targeted state support.

The seafood sector represents an invaluable asset for Ireland with a huge potential opportunity for jobs and wealth creation right around the Irish coastline.

In BIM, we look forward to playing our part in delivering on that opportunity.



**Jason Whooley**  
*CEO Bord Iascaigh Mhara*

## BORD IASCAIGH MHARA'S MISSION

**“To provide commercially relevant and innovative services to the Irish seafood industry that drive growth opportunities, add value, enhance competitiveness and create jobs in a sustainable, natural resource based industry for the benefit of coastal communities.”**

## KEY OUTCOMES BY 2012

**600**

Create an additional 600 new jobs.

**€50m**

An additional €50m in value added seafood sales.

**40,000**

Differentiate 40,000 tonnes of seafood, worth some €120 million, as Eco-labelled and uniquely Irish produce in the market.

**10,000**

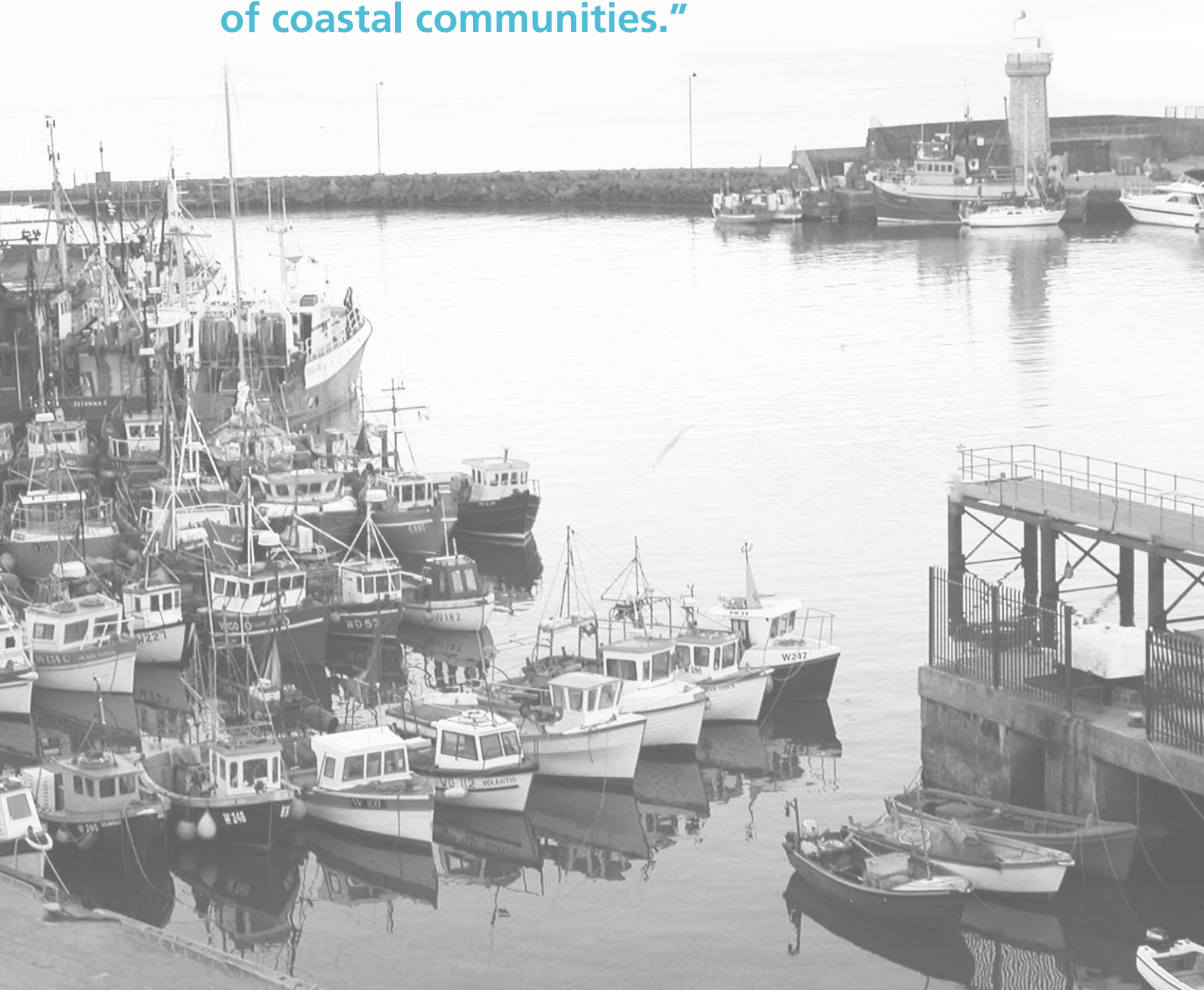
Increase aquaculture productive capacity by approximately 10,000 metric tonnes, worth an estimated €18 million in new sales.

**3,500**

Deliver 3,500 training places to the seafood sector, in over 30 coastal locations annually.

**250**

Award Seafood Circle Membership to 250 establishments for delivering the highest standards of seafood and service to their customers.





## CONTEXT FOR SETTING BIM STRATEGY

The Government's core strategy for the Irish seafood industry is contained in two complementary reports which contain a shared vision for the sector. These are:

### Steering a New Course

*A Strategy for a Restructured, Sustainable and Profitable Irish Seafood Sector 2007-2013: Report of the Seafood Industry Strategy Review Group, known as the Cawley Report.*

The first of these, *Steering a New Course* sets out a vision for a sustainable, profitable and self reliant industry that will maximise its long term contribution to coastal communities based on fish stocks restored to sustainable levels in the context of a healthy and diverse marine environment.

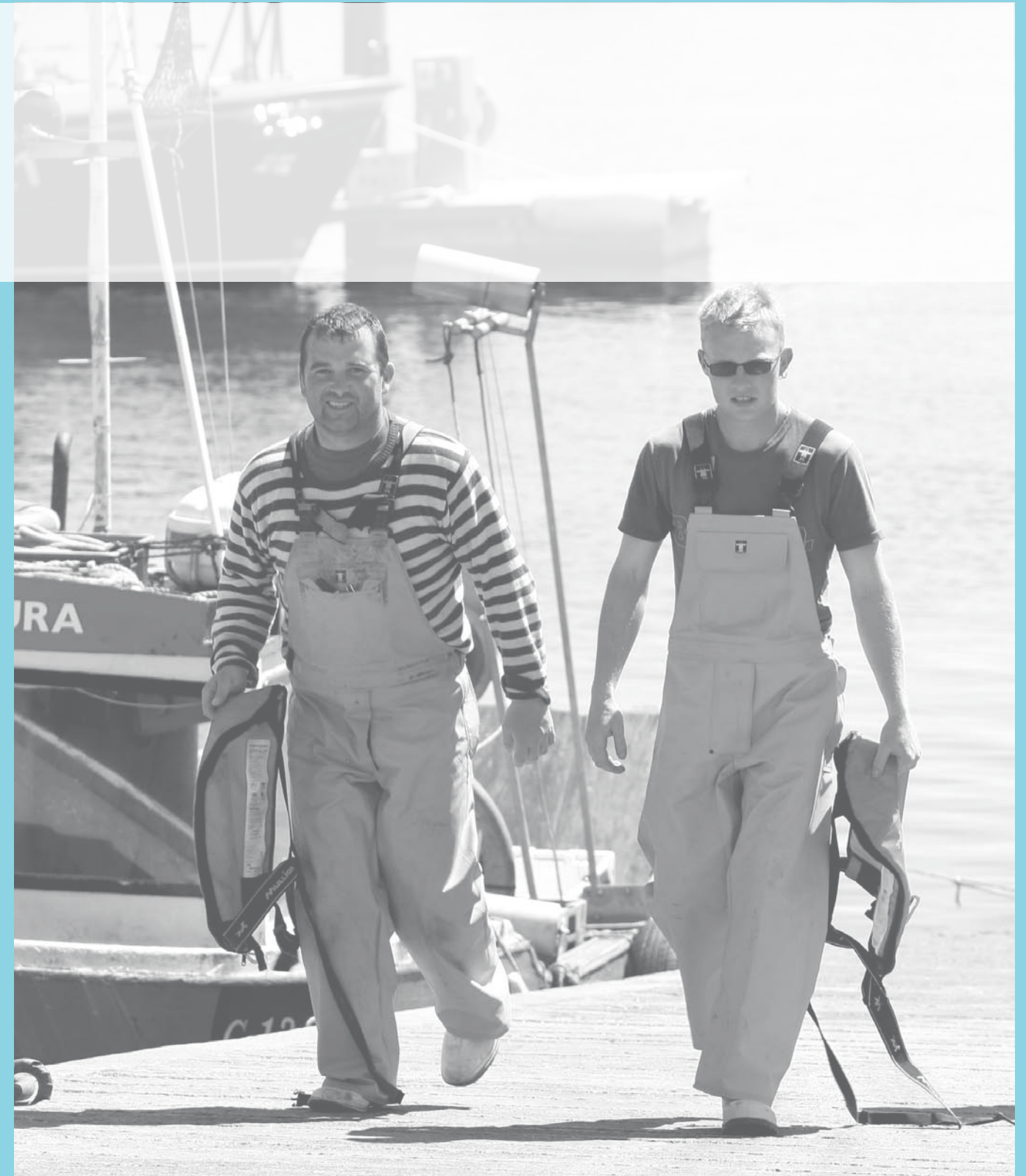
### Sea Change

*A Marine Knowledge, Research and Innovation Strategy for Ireland 2007-2013.*

The second report, published in 2006 by the Marine Institute, developed a national marine research strategy, namely *Sea Change*, which aims to ensure that Ireland fully maximises the economic, social and environmental contribution of its marine resources. This report engaged in an extensive 'scenario-setting' exercise and its projections for future growth in the sector were very much aligned to those set out in *Steering a New Course* (Cawley Report), although arrived at via a different methodology.

BIM has also taken into account the thrust of the EU's Integrated Maritime Policy in the preparation of this strategy. BIM recognises that the fisheries sector interacts closely with other maritime sectors and that it must strive to lead the Irish seafood industry away from stand-alone 'sectoral' management towards a more holistic, integrated 'ocean management' approach. This is reflected in the actions BIM will take under the Environment and Sustainability theme.

Likewise, BIM has also taken cognisance of the reform of the Common Fisheries Policy, currently underway, in the preparation of this three year corporate strategy. In particular, the emphasis placed on certified quality assurance, the eco system approach to fisheries management, the introduction of enhanced management of inshore fisheries and increasing the role of the aquaculture sector in generating supplies of Irish seafood, all reflect key issues emerging from the CFP Review.



The overall status of the marine environment and the sustainability of some fisheries have moved centre stage in the public debate on the future of fishing and fish farming.

Concerns about the status of some stocks, notably cod, and the environmental impact of an expanded aquaculture sector have gained media coverage and this has led to increased pressure on retailers to demonstrate that they are sourcing seafood supplies both ethically and responsibly.



Today, not only must the Seafood Industry conduct its business in an environmentally responsible manner, it must also pro-actively demonstrate its environmental credentials if it is to continue to maintain access to key markets. In this respect, BIM's range of certified Eco-labels along with the development of operator-based Environmental Management Systems (EMS) have become increasingly important services to the sector.

An example of this changing attitude amongst the wider population and policy makers at a European level is readily seen when we consider the ongoing impact of the 'Natura 2000' framework. Important inshore fisheries have been closed for, in some cases, prolonged periods and the aquaculture licensing process has been severely disrupted because we have not, nationally, implemented Natura in the timeframe envisaged in the relevant directives. The current drive to achieve full compliance will demand much of the various state departments and agencies involved and we believe that BIM's capability, technical staff and range of environmental services will play an integral part in achieving this vital outcome.

In a similar vein, the Ecosystem Approach to Fisheries Management is now a central part of many international agreements. It encompasses the management of fisheries within the context of the whole ecosystem and involves working closely with stakeholders; managing fisheries to limit their impact on the ecosystem; preserving the ecological relationships between species; and introducing governance that ensures both human and ecosystem wellbeing and equity.

In its strategy, BIM is cognisant of the position put forward in the national response to the Commission's Green Paper on the Review of the Common Fisheries Policy, which recognises the essential ingredients of the approach, working with stakeholders, limiting impacts, as well as area based management objectives and planning. BIM has a vital role, whether it be in the provision of expert advice (gear technology, advanced mapping services and aquaculture technical expertise) or working directly with fishermen and other industry stakeholders (local area committees, CLAMS groups etc), or assisting our parent department, DAFF.

Finally, the cost of fuel to the seafood industry remains an ongoing problem and is addressed under this theme. Although the price of fuel is subject to short term fluctuations, there is an inexorable upward trend in fuel prices. Since this factor alone has the capacity to make a large proportion of the industry uncompetitive, it is vital that improvements in energy efficiency are made in the sector. BIM will take a number of actions to improve the sector's energy efficiency and thus its overall cost.

In response to these pressures on the seafood industry, BIM has identified three core objectives and a suite of consequent actions which will help the sector deal with the severe disruptive impacts of these environmental challenges.



## OBJECTIVE 01

BIM, in close partnership with industry, will lead a drive to transform the Irish Seafood industry into an internationally recognised leader in environmental management practices and a supplier of eco-certified seafood products.

The key tools at our disposal to underpin the necessary actions to achieve this objective are the provision of appropriate knowledge and services along with the various schemes set out in *The Seafood Development Operational Programme 2017 - 2013* and in *The Irish Seafood National Programme 2007 - 2013*.

BIM will operationalise the appropriate schemes – in particular those under the Marine Environmental Protection (wild fisheries) and Aquaculture Environment Measures – to pursue this objective and provide the necessary financial assistance required to achieve success.



## ACTIONS

**01** Spearhead the widespread use of BIM's certified Eco-labels through the implementation of operator-based Environmental Management Systems in the aquaculture (ECOPACT) and wild fisheries sectors (Seafood EMS/Stewardship Standard).

- > 100 vessels and 150 fish farms will be covered by Environmental Management Systems by the end of 2012, this will mean that some 40,000 tonnes of Irish caught or farmed seafood will be produced in an environmentally friendly fashion.

**02** Drive an increased uptake of the BIM's Quality Seafood Programme (QSP) on products from the Irish aquaculture and fisheries sectors.

- > To bring the volume of Irish seafood products bearing the QSP Assurance Eco Mark up to 12% of total output by volume, by the end of 2012.

**03** BIM working with An Bord Bia and the seafood industry will promote the QSP Assurance Mark. In the first instance this will be done primarily at trade level. As significant volumes of product bearing the mark come on to the market, promotion will then take place at consumer level.

- > Up to 25 international seafood buyers will receive presentations and technical information regarding the QSP Assurance Mark by the end of 2012.

**04** Develop new approaches that reduce discarding of commercial fish species, the by catch of protected species (including marine mammals and seabirds) and the impact of fishing gears on the seabed and the wider marine environment. This work will focus on modified and alternative fishing gear and the development of environmentally friendly fishing methods.

- > Carry out and report on 12 tests on fishing gear selectivity and operating practices to reduce the discarding of commercial species by end 2012.
- > Carry out and report on three tests on by catch reduction devices and operating practices to reduce by catch of protected species and seabirds by end 2012.
- > Carry out and report on four tests of fishing gears with low seabed impact.

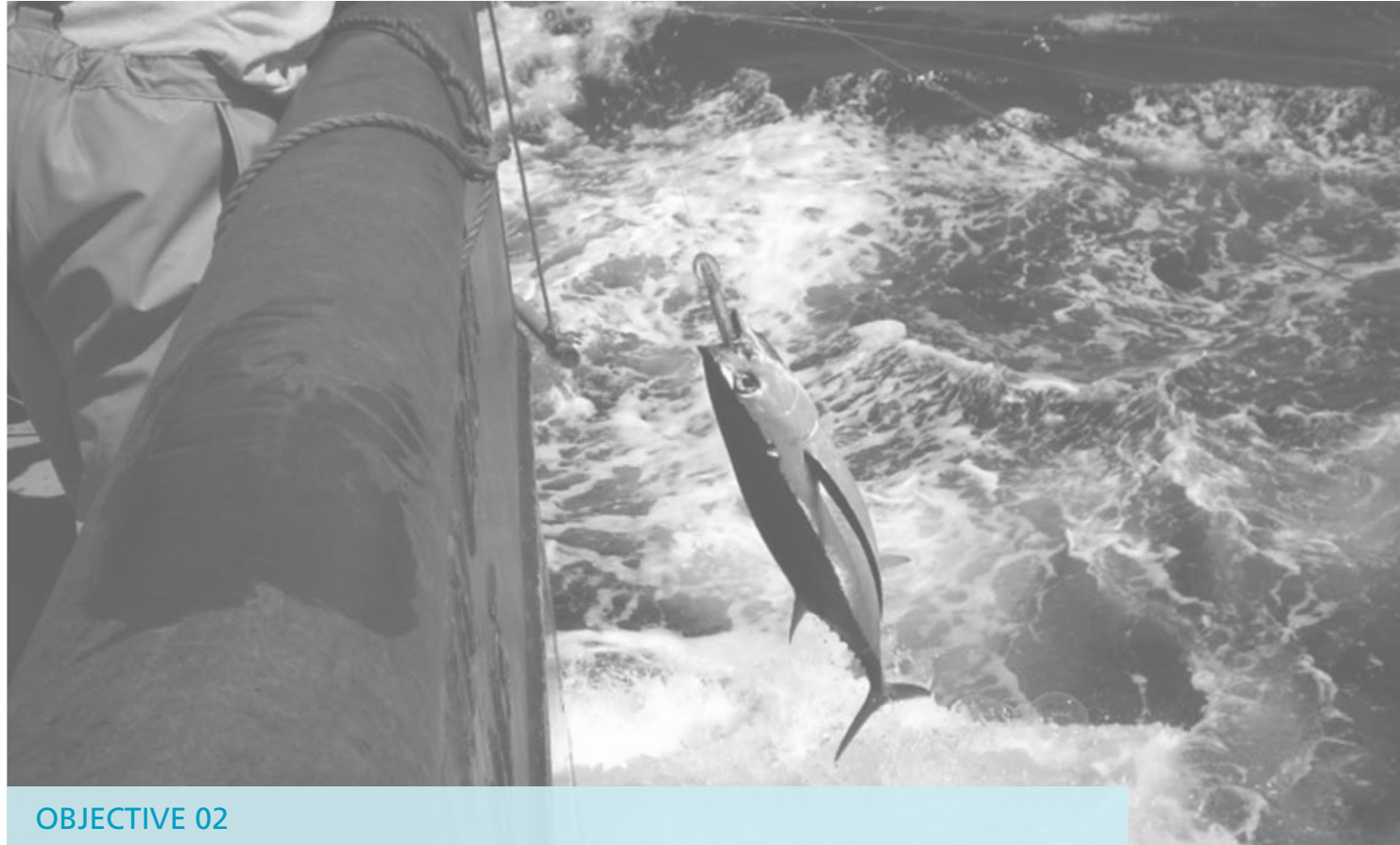
**05** BIM will investigate and, as appropriate, pilot test "green technologies" that reduce, reuse or recycle waste streams and by-products from the aquaculture, fisheries and processing sectors.

- > Further investigate recycling options for different fishing gears that result in a 15% reduction in the quantity of material being discarded at sea or sent to landfill.
- > By the end of 2011, using BIM's Environmental Management Systems approach, 20% of the Irish catching sector will be participating in a national Fishing Gear Recycling Scheme.

**06** Assess the carbon footprint associated with the production and route-to-market of wild caught and farmed fish and investigate ways of reducing it.

- > BIM will commission a study to evaluate the carbon footprint impact of the seafood sector from an Irish perspective.





## OBJECTIVE 02

BIM will work to bring all of Ireland's fish farms and relevant wild fisheries affected by Natura 2000 designations into full compliance with the Birds and Habitats Directives.

A December 2007, European Court of Justice finding against Ireland in respect of Natura 2000, has brought about a situation whereby a number of traditional activities have been severely disrupted; important inshore fisheries have been closed for, in some cases, prolonged periods and the aquaculture licensing process has been severely disrupted. This has led to difficulties for both the operators and the government as the current position stymies development and impedes operations.

The government, via inter-departmental co-operation involving the Department of Agriculture Fisheries and Food, Department of the Environment and the agencies of both Departments, has formulated a plan, known as the 'Roadmap to Compliance'. This plan has been provisionally agreed with the Directorate General of the Environment (DG Environment) in Brussels and its delivery will bring Ireland into compliance with the Birds and Habitats Directives and free up the sector to operate and trade in a more commercially favourable environment. Through the following actions, BIM will play an important part in resolving this impasse.

## ACTIONS

**01** BIM will continue to collaborate with the Marine Institute in the preparation of Appropriate Assessments. We will provide key information for each Natura 2000 designated area being assessed. This will include; site specific intensity-data from our unique GIS and other industry databases, and necessary information resulting from field surveys carried out by BIM specialist staff operating from our inshore survey vessel the *T-Burke*.

**02** In the case of inshore fisheries currently affected by Natura 2000 designations, BIM will take the lead role in facilitating the production of the necessary 'fishing plans' in conjunction with stakeholders.

**03** BIM will provide experienced and qualified personnel to participate in the various committees and other structures created by DAFF to evaluate the draft Appropriate Assessments being generated to complete the 'Roadmap to Compliance' process.

**04** BIM will revise the "Shellfish Management Framework" to integrate it with the requirements of Natura 2000 sites in consultation with the relevant environmental NGOs and the National Parks and Wildlife Service.

> The "Shellfish Management Framework" to be revised by the end of 2010.

**05** BIM will profile all inshore fishing activities carried out within Natura 2000 designated sites and using these data will prioritise individual fisheries for Appropriate Assessment under the 'Roadmap to Compliance' process.

> All significant inshore fisheries which will be affected by Natura 2000 designations will be identified, scoped and prioritised for assessment by the end of 2011.

**06** Guided by the prioritisation process above, BIM will facilitate the formation and operation of Local Area Committees and Species Action Groups to drive the production of species management and fishing plans which will feed into the 'Roadmap to Compliance' process.





### OBJECTIVE 03

BIM will assist and support our parent department (DAFF) and other government agencies to implement the Marine Strategy Framework Directive, to bring about improved integration of the inshore fisheries and aquaculture sectors with other users of the coastal zone and to reduce the environmental impacts associated with the activities of the industry.

Ireland's maritime area is significant and our marine waters generally and the coastal zone in particular are fast becoming congested with ever more users, all of whom wish to have access to the resources contained therein. The aim of the European Union's ambitious Marine Strategy Framework Directive (MSFD) is to provide more effective protection for the marine environment; to achieve "good environmental status" for the EU's marine waters by 2020; and to protect the resource base upon which marine-related economic and social activities depend.

The MSFD constitutes the environmental component of the European Union's future maritime policy, designed to achieve the full economic potential of oceans and seas in harmony with the marine environment. It will require that Ireland develop strategies for our marine waters, including, a detailed assessment of the state of the environment, a definition of "good environmental status"

and the establishment of clear environmental targets and monitoring programmes. Ultimately, the marine strategies developed should culminate in the execution of programmes of measures designed to achieve or maintain "good environmental status".

From a fisheries and aquaculture perspective, the MSFD will have a number of significant effects. The sector, and any impacts it is having on the marine environment, will inevitably come under greater scrutiny. Similarly, the sector will be required to demonstrate high levels of compliance and may have to demonstrate its relative economic worth in comparison with competing interests. Without doubt the environmental targets set in the national MSFD strategy will have an impact as will the programmes and measures designed to achieve or maintain good environmental status. To help further the sector's progress in this regard over the next three years, BIM will take the following strategic actions.

## ACTIONS

**01** Through its network of regionally based development officers working with local industry groups, BIM will seek to integrate inshore fisheries and fish farming activities into a single fisheries-pillar in the context of International Coastal Zone Management (ICZM) and the Marine Strategy Framework Directive.

- > Three pilot, integrated fisheries groups to be formed and in operation by the end of 2012.

**02** In the context of bringing about improved integration of fisheries with other activities in the coastal zone, BIM will continue to provide expert input into the key government management structures and committees. Our participation will be underpinned by our ability to provide mapping, field surveys and local information services via our unique GIS capabilities, our industry databases, survey vessels and our team of technical and scientific staff.

**In the short term arising from priorities already identified, BIM will engage in the following specific assistance and support:**

**03** BIM will support the operation of the CLAMS process and through our network of regionally based development officers will assist the aquaculture industry with the provision of "unified marking schemes" to improve safety and navigation.

- > Five "unified marking schemes" (UMS) will be put in place by the end of 2012 representing some 50% of areas which could benefit from a UMS.

**04** BIM will assist industry and DAFF with the coordinated re-arrangement of fish farm growing structures with a view to maximising output and minimising environmental impact. Where available, the UISCE project capability will be deployed. The UISCE project is a unique carrying capacity modelling system which provides a predictive planning tool at bay and farm level.

- > Six bays will have their aquaculture structures re-arranged by the end of 2012 to bring them into special compliance with their licence terms and conditions and to maximise the use of the area for aquaculture production.

**05** In the preparation of aquaculture licence applications and renewals to a standard sufficient to allow rapid and orderly consideration by DAFF, BIM will bring forward for consideration and possible approval under the Operational Programme, a pilot project involving the Marine Institute and the industry representative body to improve the efficacy and co-ordination of pest control on marine salmon farms.

- > A pilot project will be brought forward for consideration by end of 2011.



## SKILLS DEVELOPMENT

People are the key to any successful sector and Ireland's seafood businesses are no exception. The Irish seafood industry requires a constant supply of appropriately trained and skilled people to man fishing vessels, work on fish farms, operate processing plants and market the output from the sector.

BIM is the leading provider of vocational training to the seafood industry and through this strategy it is planned to continue providing accredited training services to fishing, aquaculture and processing personnel and thereby underpin this indigenous industry's place in Ireland's knowledge economy.

As other parts of the economy have declined, there has been a resurgence of interest in careers in the seafood industry among young Irish people. This development should ensure an on-going supply of personnel into the industry, who will bring with them a good standard of education and an expectation of modern working conditions.

BIM's seafood industry training programmes will be delivered through its training centres at the National Fisheries College (NFC), Greencastle; the Regional Fisheries Centre (RFC), Castletownbere; from three mobile Coastal Training Units (CTUs) and at BIM Seafood Development Centre in Clonakilty.

The NFC and RFC are equipped for delivering a broad range of Department of Transport (DoT) and FETAC accredited courses. These include fishing vessel deck officer and engineering Certificates of Competency training, as well as short duration safety, radio, first aid and other nautical skills courses. The mobile CTUs cater for short courses in safety, radio, engineering and navigation in the more remote coastal regions - visiting on average 30 locations annually. Training will also be provided at other external coastal locations, through strategic training alliances with other institutions as appropriate.

Recognising the dramatic changes occurring in the Irish economy and the seafood industry, there is an increasing need to provide training to fishermen, to up-skill them in their chosen profession or for alternative job opportunities in coastal regions, such as aquaculture, seafood processing or even marine tourism. For example, the acquisition of DoT Passenger Boat Proficiency certification provides opportunities for fishermen to operate aquaculture workboats as well as marine tourism boats, thus opening up employment opportunities in both sectors. BIM will address the seafood industry's skills requirements through four key objectives with specific actions designed to improve skills, productivity and efficiency, as well as increasing safety, maximising profitability and promoting sustainable development.



OBJECTIVE 01

Over the three year period 2010 – 2012, BIM will continue to provide the seafood industry with the technical skills required to ensure on-going development of the industry.

There is an ongoing need to train the next generation of Irish fishing skippers, engineers and crew members and to provide vital safety training for those going to sea, as fishermen, fish farmers and marine scientists.

In addition to addressing the industry’s statutory training requirements, BIM will also provide FETAC accredited training in aquaculture and seafood processing. Furthermore, BIM will offer specialist expertise and support in seafood processing technology, seafood safety management, environmental management systems and business management and marketing skills, all of which are specially geared to the Irish seafood sector.

ACTIONS

**01** BIM will continue to provide training and information seminars to the seafood sector to ensure that they have the requisite skills to compete in a highly competitive and challenging working environment.

- > BIM will provide 3,500 training and seminar places to all sectors of the Irish seafood industry by the end of 2012.

**02** BIM will provide statutory Department of Transport (DoT) training for skippers, second hands and engineers to ensure the safe operation of fishing vessels.

600 training places will be provided to the catching sector including:

- > 130 – DoT Fishing Vessel Skipper and Second Hand, Certificates of Competency.
- > 50 – DoT Engineer Officer (Fishing).
- > 50 – Refrigeration Handling Skills.
- > 130 – Navigation Control/Electronic Navigation Systems.
- > 240 – GMDSS Radio Communications.

**03** BIM will continue to provide the FETAC accredited Commercial Fishing Certificate course to train new entrants for a fishing career, as well as a range of modular skills courses of relevance to modern fishing vessel operations.

210 training places will be provided including:

- > 40 – FETAC Certificate in Commercial Fishing (eight modules).
- > 60 – FETAC Navigation & Stability for inshore vessels.
- > 60 – FETAC Marine Engineering Processes for inshore vessels.
- > 50 – FETAC Care of the Catch/Hygiene/HACCP.

OBJECTIVE 02

BIM will provide accessible training to new entrants and workers already engaged in fish farming on a lifelong learning basis to improve their levels of technical competency and enhance efficiencies.

New entrants are equally important for the aquaculture sector and the FETAC Certificate in Aquaculture is now a well established means of entering fish farming or enhancing the skills of existing practitioners. For established fish farm workers there are individual training modules available to acquire specialist technical skills in areas such as farmed fish welfare and seaweed production.

A number of training modules are common to both the FETAC Certificate in Aquaculture and the FETAC Commercial Fishing Certificate which simplifies the process of career transfer from fishing to aquaculture or vice versa.

ACTIONS

**01** BIM will provide 250 training places on FETAC and Department of Transport accredited courses for the aquaculture sector.

The number of training places are as follows:

- > 20 – FETAC Certificate in Aquaculture (eight modules).
- > 25 – FETAC Finfish On-growing Operations.
- > 25 – FETAC Shellfish On-growing Operations.

- > 20 – FETAC Seaweed On-growing Operations.
- > 20 – FETAC Farmed Fish Welfare.
- > 50 – FETAC Workboat/Powerboat Handling.
- > 50 – DoT/FETAC Passenger Boat Proficiency with Category A Commercial Endorsement.
- > 40 – GMDSS Radio Communications.



OBJECTIVE 03

BIM, in conjunction with other training providers, will facilitate knowledge transfer in seafood processing technology, innovation and new product development, environmental management systems, grounded business management and marketing programmes, supported where appropriate by mentoring and FETAC accredited training.

To maintain access to premium markets, Ireland's seafood companies have to be able to demonstrate that they are sourcing, handling and processing their products to high standards of food safety and, increasingly, to ever more stringent sustainability-based performance criteria.

In response, BIM has expanded its range of support activities to assist Irish seafood business operations to meet these emerging trends in the seafood market. These new areas of activity will be complemented by BIM training courses to keep Irish seafood companies at the forefront of developments in the international market place.

ACTIONS

**01** BIM will offer support and expertise to facilitate skills development in innovation and new product development in BIM's Seafood Development Centre, backed up where appropriate, by FETAC accredited training courses.

- > BIM will conduct 18 product innovation workshops to the end of 2012.

**02** BIM will offer support to industry to engage in BIM's risk-based Environmental Management Systems (EMS) for aquaculture and wild caught seafood through:

- > 100 fishing vessels being inducted into the Stewardship Standard EMS.
- > Five fish farm operations per annum will be supported in the process of being inducted into the ECOPACT EMS.

**03** BIM, in conjunction with coastal County Enterprise Boards, will provide one intensive ten-month Business Training and Mentoring Programme for seafood enterprises, each year up to the end of 2012, the delivery of which will be co-ordinated through BIM's new Seafood Development Centre in Clonakilty.

- > Provide at least 30 places for joint ten-month Seafood Business Training and Mentoring programmes to the end of 2012.

**04** BIM will provide FETAC training courses and expert support to assist seafood businesses achieve adherence to the necessary hygiene and food safety standards.

The number of training places are as follows:

- > 90 – FETAC Seafood Hygiene Management.
- > 80 – Risk-Based HACCP for Seafood Business.

OBJECTIVE 04

BIM will provide safety training places to all sectors of the Irish seafood industry.

Safety training is vital to embed a culture of safety in every workplace, whether at sea or ashore. BIM's safety courses range from Department of Transport statutory training to those addressing the requirements of the Health & Safety Authority in the context of improving occupational health and safety standards across the Irish seafood sector.

In addition, since 2002, it has become a statutory requirement that everyone engaged in the fishing industry must undergo a course in mandatory Basic Safety Training.

ACTIONS

**01** BIM will provide 2,000 safety training places to fishermen, fish farm workers and others working in the sector.

The number of training places are as follows:

- > 1,350 – three-day Basic Safety.
- > 250 – STCW Marine Fire Fighting (three and five day).
- > 130 – Medical First Aid Aboard Ship.
- > 120 – FETAC Occupational First Aid.
- > 150 – FETAC Safety and Health at Work.

**02** In addition to improving safety at work, BIM is committed to a number of joint safety initiatives involving the EU and the Health & Safety Authority.

- > BIM will establish an Occupational Health & Safety Team to provide advice to the seafood industry.
- > BIM's Fishing Vessel Health & Safety CD Rom will be updated by end 2010.
- > BIM will provide input to a non-binding EU Guide for safety onboard fishing vessels under 15 metres in length. This will be completed by end 2011.
- > BIM will develop an Aquaculture Health & Safety CD Rom by end 2012.

**03** To complement formal training and update those who have already completed training courses, BIM will host a number of seminars and workshops on key industry topics; including, the correct use and care of personal floatation devices, fishing vessel stability, onboard safety and musters, occupational health and safety, D- larvae identification, chill chain management, energy optimisation, water usage and effluent disposal, offal and waste management etc.

- > BIM will offer 250 seminar and workshop training places on these key industry topics.





## BUSINESS DEVELOPMENT & INNOVATION

The European seafood market is dominated by imports from third countries operating at significantly lower cost bases. Today 85% of all Irish seafood is commodity traded and in many instances must compete with these cheaper imports. In these circumstances, Irish seafood producers are faced with tight margins and low profitability.

It is imperative that premium quality Irish Seafood is differentiated in this competitive global market. Ultimately, in order to boost profitability, there is a need for new product development and innovation to meet the needs of discerning international customers.

Thus, industry performance must be enhanced through strategic business development and streamlined route-to-market solutions.



The sector is production-led and there is a lack of strategic business planning, particularly at the producer level. This means that the industry is constantly struggling with short term actions in a fiercely competitive international market for seafood. Furthermore, the level of investment in new product development and innovation has historically been extremely low and there is a serious lack of differentiation in the Irish seafood product offering.

Recognising the need to address these shortcomings in the sector, BIM has identified specific initiatives which are grouped together under the Business Development and Innovation theme. The services cover the areas of category analysis, route-to-market solutions, business planning and the differentiation of Irish seafood in the market.

BIM will seek to stimulate an innovation mind-set throughout the industry with a focus on new products, processing and packaging technologies. BIM strongly believes that pursuing a strategy of integration whereby the supplier is more fully informed and connected to the market and where the market is fully appreciative and aware of the Irish product offering, is essential for the future of the Irish industry.

Within the Business Development and Innovation theme there are five core objectives and a suite of actions which are designed to assist seafood companies to enhance growth, innovation and competitiveness in their businesses.



## OBJECTIVE 01

BIM, in consultation with our seafood industry clients, will develop detailed category plans that identify key drivers, barriers and solutions to fully exploit potential business opportunities in the sector.

Category planning is a valuable methodology which allows for a thorough examination of all the elements of the production and value chain for a particular species or product group. The analysis arising from the process can inform industry where changes are necessary and where there are business opportunities to be exploited.

BIM will form specific category planning working groups, with strong industry participation, to develop category management plans for key species and product groups. As route-to-market issues have already been identified as critical constraints, BIM will work with industry in developing proposals to restructure seafood distribution arrangements both on the Irish and EU markets.

## ACTIONS

**01** BIM, through the establishment of appropriate working groups, comprising industry and BIM personnel, will develop detailed, integrated category plans for key product groups.

- > Six category management plans to be developed for whitefish, pelagic, salmon, prawns, crab and mussels by end of 2011.
- > For other key product groups in 2012.

**02** Through the development of the category plans those critical factors along the value chain that are inhibiting growth, undermining competitiveness and preventing seafood companies from commanding higher prices in the market will be identified.

- > Identify pertinent issues in each category.
- > BIM will work with An Bord Bia to examine the feasibility of a unified food quality mark for agriculture, aquaculture and fisheries products by end of 2011.

**03** BIM, in conjunction with stakeholders, will devise and agree appropriate solutions to address the key issues identified in the supply chain for each category.

- > BIM will establish detailed work programmes designed to deliver on the key issues that are identified by the category groups.

**04** BIM will conduct a feasibility study which will examine the potential for Irish companies to establish a joint-venture seafood hub at an appropriate location on the European mainland. If successful, the hub will deliver greater levels of access for Irish seafood in the European market. This hub approach will also be investigated in the domestic market in an attempt to develop closer relationships between Irish producers and the retail/wholesale sector.

- > Two detailed assessments regarding possible hub projects i.e. domestic and international to be completed and presented to industry early in 2011.

Arising from priorities already identified, BIM will engage in the following specific actions:

**05** On the home market, BIM will work with retail and food service suppliers to increase distribution of seafood, including the provision of new seafood outlets where none currently exist, using a standard BIM Seafood Retail Template.

- > Develop a Seafood Retail Concept as a benchmark for seafood retailing during 2010 and increase by ten the number of retail outlets by the end of 2012.

**06** BIM will benchmark Seafood Circle members on cold chain management, labelling, staff product knowledge and key financial data. These activities will be supported with workshops and on-site training.

- > BIM to develop and instigate an annual benchmarking scheme commencing in 2010.

**07** BIM, working through the Seafood Circle network, will seek to increase sales on the domestic market by improving quality, handling and presentation of seafood. This will be supported by the introduction of a best in category annual awards scheme to recognise excellence in the retail and food service sectors.

- > BIM to devise and organise an annual award scheme commencing in 2010.





## OBJECTIVE 02

Through a focused programme of business planning and mentoring, BIM will engender a sharper commercial focus and greater depth to business development and planning by the Irish seafood sector.

BIM will provide Irish seafood operators with insightful intelligence and business development support services. This approach will seek to direct industry to carefully examine each stage in the supply chain and ensure that customer requirements and expectations

are fully met in the most competitive and cost effective manner possible. On the basis of the business plans and the opportunities identified therein, BIM will support the industry through a suite of integrated development programmes.

## ACTIONS

**01** BIM will develop business planning and mentoring programmes for the industry to enhance business skills in the sector. Business plans will be developed through BIM's Business Roadmap Programme.

- > Develop business plans with eight new seafood companies during 2010.
- > Establish a regionally based customer centred account management system to enable a broad range of operators access BIM's business development and innovation services.

**02** BIM will facilitate smaller operators to develop or update their business plans, that will assist them in securing working capital and where appropriate equity investments.

- > BIM's Account Management Team will engage 30 operators/companies during 2011.

**03** BIM will implement the Seafood Processing Investment Scheme in conjunction with Enterprise Ireland, Údarás na Gaeltachta and DAFF.

**04** BIM will provide an expert processing service to Irish seafood companies to assist them reach the necessary seafood safety management standards required by Irish and EU legislation.

- > BIM will carry out four FETAC training programmes during 2010 and 2011 as well as providing on-site quality/HACCP support to companies in each of the six categories; whitefish, pelagic, salmon, crab, prawns and mussels.

**05** BIM's processing service will assist seafood companies to achieve higher efficiencies, continually reducing operating costs in terms of plant utilization, energy use, waste and optimising by-product uses.

- > Carry out three SEAMAP (Seafood Energy Assessment and Management Action Programmes) with industry by end 2011.
- > Investigate and develop a lean manufacturing programme for seafood operators for implementation during 2011.
- > Conduct two workshops covering processing plant lay-out and design, and seafood labelling during 2010.



**06** BIM, in partnership with the local Enterprise Boards, will host business development workshops specifically geared for smaller seafood companies and new entrants to the sector.

- > BIM will implement three regionally based workshops by end 2011.

**07** BIM will provide appropriate business intelligence and trend forecasting through its B2B on-line service to ensure that Irish seafood business plans are informed by the most up to date information.

- > Provide a monthly seafood bulletin.
- > B2B on-line service will be enhanced by providing tailored business and research reports to clients in the seafood sector.

**08** BIM will augment its strategic planning capability and its economics expertise by creating special units focussed on these disciplines. The output from these units will provide critical input into the business planning process for Irish seafood companies and operators at all levels in the supply chain.

- > BIM to establish dedicated strategic planning and economics units by end of 2010.

**09** BIM will conduct reference visits with seafood customers to view international operations and to gain a greater understanding of best practices in the supply chain.

- > Organise one international reference visit per annum and report findings.





### OBJECTIVE 03

BIM will provide a basis for the differentiation of Irish seafood in the marketplace through ECO, organic and quality labelling.

One of the main weaknesses identified in the Irish seafood sector is a lack of product differentiation. On the home market this has resulted in imported product displacing home produced seafood.

In export markets, opportunities to command best prices and access to premium markets are being undermined by an inability to differentiate Irish seafood from other competing offerings.

### ACTIONS

**01** BIM will further develop the Quality Seafood Programme (QSP) range of Assurance Schemes to encompass both farmed and wild caught seafood products, thus creating a critical mass of differentiated Irish seafood bearing the QSP logo.

> BIM will develop QSP labels for crab and prawns during 2010 and 2011.

**02** BIM will, in conjunction with An Bord Bia, promote the merits of the QSP Standards and range of Assurance Schemes to the trade on home and export markets.

> BIM will work with An Bord Bia to promote QSP on domestic and international markets (See Environmental and Sustainability theme: Objective 1, Action 3).

**03** BIM will support the development of branding programmes in the larger Irish seafood companies to enable them to compete effectively with international competitors and to differentiate Irish products in the market place.

> BIM will deliver six new branding programmes for companies by end of 2012.



## OBJECTIVE 04

BIM's unique Seafood Development Centre will facilitate Irish seafood companies to add value to their products through innovation and new product development helping to ensure that their product offerings keep pace with changing consumer preferences.

Traditional markets for seafood are rapidly changing, across Europe. There is a move away from the prevalence of fresh fish counters and consumers are demanding convenient and easy to prepare seafood products. The *Steering A New Course* seafood strategy highlighted the competitive disadvantage to the Irish seafood sector arising from the lack of new seafood product offerings. BIM's Seafood Development Centre (SDC) will underpin an innovation programme which will seek to add an additional €50 million worth of new seafood products by 2012.

BIM's SDC will add value through the application of innovation in the processing and marketing of seafood by providing a centre of excellence for seafood innovation. It will develop Irish seafood companies by improving their capabilities in a number of key areas, including, new product development, new packaging and leading edge processing technologies. The SDC will assist in the creation of seafood company start-ups through the provision of supported incubation spaces and will provide a specialist seafood processing base for graduates being inducted into the sector.

## ACTIONS

**01** BIM's SDC will maximise the potential success for new product development ideas by providing a structured support framework for customers to test and develop new seafood products. Having regard to the opportunities identified by the industry for processing blue whiting, investigation on the potential for processing boarfish will be undertaken by the SDC.

- > Develop six new seafood products per annum to end 2012.
- > Conduct a feasibility project on the suitability of boarfish for processing and potential products from this species in 2011.

**02** BIM will implement a Seafood Innovation Programme (SIP) to assist Irish seafood companies to develop new products, new processes and new packaging concepts. The programme will include grant aid to support pilot innovation/testing equipment. The industry will be engaged through seafood category innovation workshops which will help foster creativity and identify new ideas.

- > BIM to implement the Seafood Innovation Programme during 2010.
- > BIM to conduct four seafood innovation workshops per annum.
- > BIM, in consultation with the seafood processing industry, will draw up a project for submission under the EU's 7th Framework Programme (FP7) to investigate opportunities for research into new product development and innovation.

**03** BIM's SDC will benchmark with international food innovation centres to provide the most up-to-date and relevant service to Irish seafood companies.

- > BIM to identify best-in-class international seafood innovation centres and benchmark SDC process and outputs by end 2011.

**04** BIM's SDC will forge links with appropriate third level institutions and will develop a Graduate Placement Programme with a specific focus on seafood technology.

- > BIM will develop a pilot Graduate Development Programme with University College Cork in 2010 – 2011.

**05** BIM will institute an annual seafood innovation award to stimulate innovation in the Irish seafood industry and to recognise the best innovation performers within the sector.

- > SDC to create and organise an annual Irish Seafood Innovation Awards.

**06** The SDC will publish a quarterly BIM Seafood Innovation Newsletter.

- > SDC will publish four seafood innovation newsletters per annum.

## OBJECTIVE 05

In addition to the on-shore business development, BIM will encourage the catching sector to continue to improve the standards of safety, hygiene, and efficiency of the Irish fleet thus helping to safeguard those jobs directly and indirectly dependent on this sector.

The large investment in the Irish fishing fleet over the last ten years has resulted in a major transformation of the quality of vessels in the catching sector and the Irish fleet is now one of the most modern in Europe. To maintain the fleet at this level requires continuing investment in the catching sector.

Investment in the fleet has greatly contributed to an improved safety record and to better standards for handling and storing fish catches.

Thus, a level of continued grant aid towards the fleet sector will be important to maintaining the many jobs onboard vessels and those dependant on the primary activity of fishing for their livelihoods in shore based activities throughout coastal regions. Moreover, support for local initiatives towards income generation in coastal communities is an important element of the European Fisheries Fund and is recognised in BIM's strategy.

## ACTIONS

**01** Continue the investment in the catching sector by encouraging it to partake in programmes, aimed at further improving the safety, working and hygiene conditions of the fishing fleet.

- > BIM will assist 100 vessels through safety and hygiene programmes by the end of 2012.

**02** BIM will facilitate local efforts at income generation in coastal communities by establishing up to six Coastal Action Groups around the coast. These groups will be tasked with supporting projects that may lead to greater employment and income in those particular communities.

- > Establish up to six Coastal Action Groups by end 2012.





## KNOWLEDGE & TECHNOLOGY TRANSFER

Seafood is the most widely traded food category in the world and is an immensely competitive business due to the global nature of this trade.

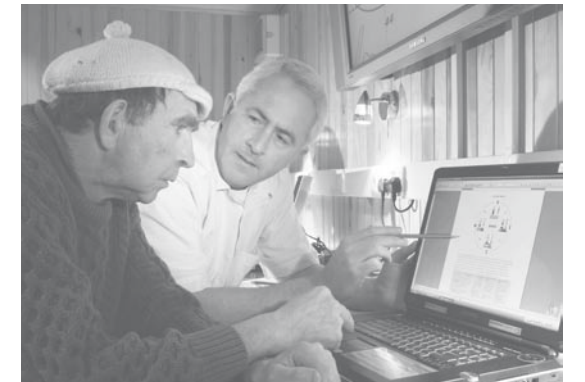
The ferocity of competition means that the seafood sector in any country must constantly evolve and strive to be at the forefront of the knowledge and technologies impacting on its development.

Thus, all operators across the seafood sector must constantly seek to drive out any unnecessary costs in their businesses and to keep up to date with the latest trends and thinking surrounding their particular area of activities.

Failure to remain competitive will inevitably mean that more keenly priced and produced products will take from market share and undermine financial sustainability. The pressure of doing business on a day to day basis makes it difficult for Irish seafood companies, nearly all of which are SMEs, to stay abreast of rapid changes in the international marketplace. Appreciating this environment, BIM's technical teams and knowledge base will be leveraged to work closely with the seafood industry and to help all producers keep up to speed and be ready to take up new opportunities as they arise.

Under the Knowledge and Technology Transfer theme of the strategy, BIM has developed objectives and key actions designed to support and assist the Irish seafood industry to be at the forefront of new technology and knowledge trends in the global seafood sector. For the purposes of this strategy document, new product development activity is dealt with in the Business Development and Innovation theme. Means to capture new knowledge and technologies, likely to impact on the work of fishermen and fish farmers, are covered in this section. With its new Economics Unit, BIM will also construct a solid database on all economic parameters of the seafood industry. This resource of sound baseline data will ensure a strong knowledge base to facilitate and support technology transfer projects undertaken with the industry.

Through the Industry Consultative Groups, BIM will work with industry to identify the priority areas for knowledge and technology transfer investigations. Projects and work programmes will be discussed with industry and will then be prioritised having regard to the industry's requirements in this area.







## OBJECTIVE 01

BIM, working with industry will actively seek out and evaluate techniques and technologies, developed at home and abroad, that have the potential to improve efficiency, reduce costs and create new operational opportunities for Irish seafood companies.

Investigating and being at the leading edge of new developments is a constant task that is vital for continued success. BIM will address this requirement by ensuring that our experienced technical personnel capture the knowledge wherever new and exciting developments are taking place. They will do this by participating in international working groups; by continually monitoring the leading journals, trade

publications and websites reporting on the sector and by following up on potentially significant new initiatives unearthed by industry practitioners.

Any new technical initiative so identified will be subject to rigorous scrutiny and put through a systematic commercial evaluation process to see if it should be progressed to field testing in partnership with the industry.

## ACTIONS

**01** To ensure that BIM is addressing the most pressing problems that require technology transfer solutions and to prioritise the use of scarce resources, BIM will introduce a new systematic consultation exercise with relevant sectors of the seafood industry. The results of the consultation will then be used to refine BIM's targeting of technology transfer opportunities.

- > Carry out one structured consultation using the Industry Consultative Groups each year to 2012.
- > Following the consultation, BIM will review its technology transfer programme in light of the industry views expressed and refine the plans accordingly.

**02** BIM's technical staff, accompanied by industry members as appropriate, will, having carried out extensive preliminary desk-based research, proactively engage with the leading practitioners in the industry at home and abroad. This engagement will be achieved, inter alia, by participating at key industry events and meetings to elicit the most up to date information emerging on new techniques and technologies being applied or in development around the world.

**03** To ensure full value for money and to maximise the benefit arising from the investigative activity, BIM staff will prepare detailed technology evaluation reports. These reports will be circulated to a specialist peer group, including industry practitioners, to evaluate whether or not the technology transfer initiatives contained therein merit further investigation and possible investment, to bring them forward to the testing stage.

- > Five reports to be produced and circulated to the expert peer review groups per annum to the end of 2012.
- > Three technology transfer initiatives to be taken forward to the testing/further evaluation phase per annum to the end of 2012.





## OBJECTIVE 02

Having identified promising techniques and technologies to improve efficiencies and reduce costs, BIM will engage in a range of projects to test their applicability within the Irish seafood industry. The outcomes of these projects will be actively disseminated throughout the sector.

Once it has been determined that a potential technology initiative is worthwhile from a cost benefit point of view, BIM will engage with the industry to carry out testing on the practical applicability of the new technique or technology under Irish conditions.

BIM will carefully consider the results from these test projects, by a process of peer review and evaluation, to determine whether they have real potential to significantly improve the commercial performance of the sector.

Given current resource constraints, the testing programme will be operated to very tight parameters and with maximum co-investment from industry and other potential partners. Provision for the funding of such joint activity is contained within the fisheries and aquaculture measures set out in *The Irish Seafood National Programme 2007 – 2013*.

BIM will operationalise the necessary schemes as soon possible in 2010. Some of the projects concerned are as follows:

## ACTIONS

**01** BIM will conduct ongoing investigations into practical ways of improving efficiency, reducing fuel consumption and lowering the overall energy cost of fishing and aquaculture vessels.

- > By the end of 2012, bring forward practical examples that, together, provide for an overall reduction of up to 20% in energy consumption for these vessels.
- > Further investigate modifications to fishing practices and gears that reduce energy consumption by up to 15%.
- > Introduce a range of practical, technical and, where appropriate, financial support schemes to assist vessel owners adapt to the identified changes.

**02** BIM will carry out practical tests to investigate new technologies and management systems, to improve the occupational health and safety environment for crew serving on aquaculture and on fishing vessels and staff working in seafood processing operations.

- > Twenty five tests of new equipment to be carried out by the end of 2012.
- > Up to ten novel safety initiatives will be tested in co-operation with industry practitioners by the end of 2012.

**03** BIM will investigate and, as appropriate, pilot test “green-technologies” that reduce, reuse or recycle waste streams and by-products from the aquaculture, fisheries and processing sectors.

- > Further investigate the technologies and practical implementation of recycling options for different fishing gears and other plastic discards from the seafood industry.
- > By 2012, having identified a suitable partner, complete the partial commercialisation of the current BIM net recycling facility.

In the shorter term, arising from priorities already identified, BIM will engage in the following specific technology transfer investigations:

**04** In response to fish mortalities observed on marine salmon farms arising from environmental problems, BIM, in partnership with industry, will deploy and test novel aeration technology from Chile on Irish farms.

- > The technology will be deployed, tested and a report generated by the end of 2011. If the test is successful then an annual reduction in mortality on affected sites of 10% can be achieved.

**05** As part of a drive to reduce unit costs of production and extract more productivity from expensive high-tech fixed assets, BIM, in partnership with industry, will carry out a series of tests using extensive pond systems in the culture of perch.

- > Pond culture trials will be carried out and a report produced by the end of 2011. The trials will seek to clarify the exact economic benefits which may accrue from this approach.

**06** There have been a number of recent developments in the methodologies used to stun and slaughter marine salmonids. BIM, in partnership with industry, will carry out a series of harvesting tests using these novel technologies imported from abroad. If successful, these systems will improve the ratio of ‘superior’ to ‘ordinary’ grade fish at harvest time and will also maintain access to certain markets where more stringent standards of fish welfare are required. As an illustration of the potential of such systems; a 5% shift in the quality grade ratio of a harvest makes for an 11% improvement in the price per kilo. Thus, on a 10 tonne harvest of organic grade fish €5,940 would be added to the value of the consignment.

- > Three novel harvesting technology tests will be carried out and technology evaluation reports generated by the end of 2011.

## OBJECTIVE 03

BIM will assist the widespread commercialisation of those techniques and technologies, which after initial testing, have been shown to have strong potential to significantly improve the competitiveness and cost efficiency of the Irish seafood sector whether on board fishing vessels, on fish farms or in fish processing facilities.

BIM will operate a suite of support programmes to facilitate the uptake by industry of the technologies and techniques which have tested favourably and for which there is a strong demand from the sector.

We recognise that some technology transfers have an immediate application and may be directly taken up by industry. Others will be more complex and longer term in nature; such new technology transfers will require greater investment over a longer time frame and may also involve additional partners and the support of other agencies.

BIM will operationalise the necessary schemes under the aegis of *The Irish Seafood National Programme 2007 – 2013* as soon possible in 2010. Projects such as the very successful embedding of continuous recyclable rope technology and the drive to deploy environmentally sensitive floatation in the mussel sector are examples of the actions envisaged.

## ACTIONS

**01** BIM, in partnership with leading industry practitioners, will develop a series of ‘best-in-class’ technology transfer project examples on fish farms, on board fishing vessels and in fish processing factories – for the purposes of practical Demonstration to the rest of the sector.

- > Three ‘best-in-class’ technology transfer demonstrations organised annually.

**02** Drawing from its resource of technical personnel and industry databases, BIM will formulate and maintain a series of ‘best-in-class’ benchmarks spanning both the aquaculture and fisheries sectors, so as to allow practitioners to measure their own performance against international best practice.

- > Two benchmark workshops for the aquaculture sector and fisheries sector will be organised annually.

**03** Ireland’s west coast is the highest energy location for aquaculture and fisheries in Europe. Ireland has a vital interest in the development of off-shore aquaculture and it is imperative that a leading position is established in the drive to develop techniques and technologies to farm fish in these highly exposed locations. BIM will, in co-operation with industry, engage in a series of technology transfer and testing projects of equipment and growing techniques, for fish and shellfish, in exposed location along the west and south coasts.

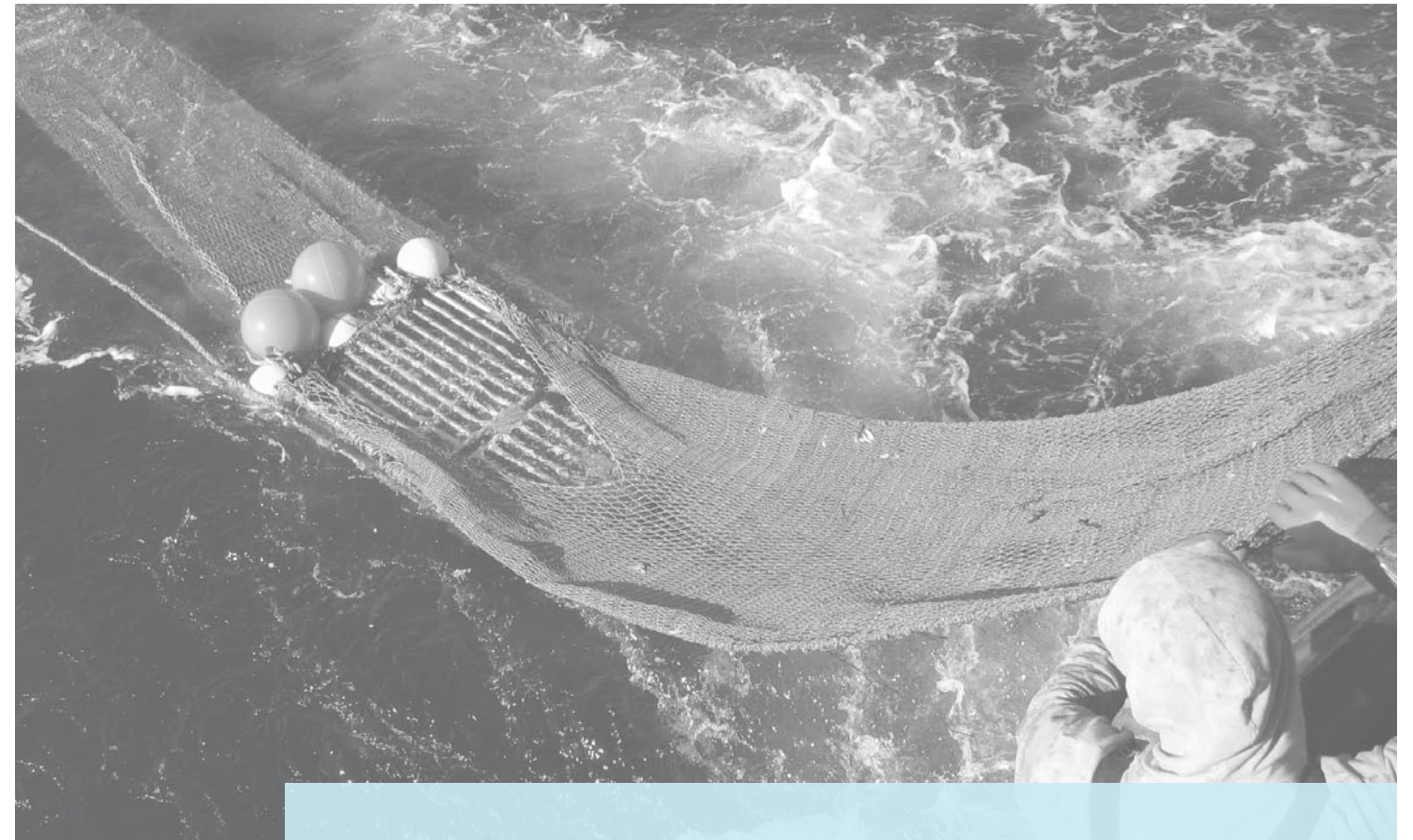
- > Recognising Ireland’s natural advantages in shellfish farming, BIM will seek to form industry partnerships, to practically investigate techniques and technology for shellfish culture in high energy locations. A project will be brought to field testing stage in 2011.

**04** BIM will continue to produce and circulate, as appropriate, a series of user friendly guides, covering the detailed and complex regulations emerging from the European Commission on matters of concern to the fishing, fish farming and fish processing sectors, in a manner that is accessible to all parts of the fishing industry.

- > BIM will produce three guides per annum.

**05** BIM will promote the use of Swedish sorting grids and other cod-friendly gears that provide an effective method of reducing cod bycatch in specified fisheries. In addition BIM will, in consultation with DAFF, investigate the use of incentives to promote responsible behaviour and explore how adherence to codes of practice by fishermen might be rewarded with increased quota allocation.

- > BIM will promote the use of cod friendly gears and working with industry will seek to have 25 vessels using such gears by the end of 2012.







"The seafood sector represents an invaluable asset for Ireland with a huge potential opportunity for jobs and wealth creation right around the Irish coastline.

In BIM, we look forward to playing our part in delivering on that opportunity."

Jason Whooley *CEO Bord Iascaigh Mhara*

## GLOSSARY

**BIM**

Bord Iascaigh Mhara

**CFP**

Common Fisheries Policy

**CLAMS**

Co-ordinated Local Aquaculture  
Management System

**CTUs**

Coastal Training Units

**DAFF**

Department of Agriculture,  
Fisheries and Food

**DoT**

Department of Transport

**EI**

Enterprise Ireland

**EMS**

Environmental Management Systems

**EU**

European Union

**GIS**

Geographic Information System

**ICZM**

Integrated Coastal Zone Management

**MI**

Marine Institute

**MSFD**

Marine Strategy Framework Directive

**NDP**

National Development Plan

**NGO**

Non Government Organisation

**QSP**

Quality Seafood Programme

**SDC**

Seafood Development Centre

**SIP**

Seafood Innovation Programme

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