2022 THE BUSINESS OF SEAFOOD

A Snapshot of Ireland's Seafood Sector

bim.ie

BIM Ireland's Seafood Development Agency

€1.3 billion

Estimated GDP of Irish Seafood industry

1,993 Number of Registered Fishing Vessels

101 Number of Seafood Processors

296 Number of Aquaculture Sites

15,373 Total number of people employed

The Irish Seafood Economy 2022

Aquaculture Value **€196M**

10% Growth

13% Growth

Irish Seafood Value **€703M**

€305M Retail Value

€169M Foodservice Value

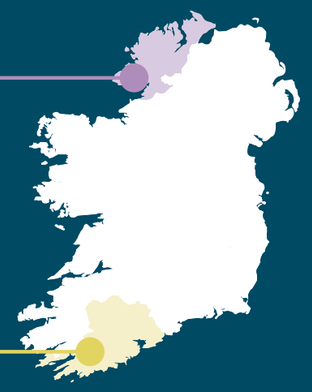
Domestic Sales Value **€475M**

GDP Growth **+4%**

Our Biggest Fishing Ports
(Value of Landings)

Killybegs **€135M**

Castletownbere **€129M**



€507M
of seafood was landed by Irish and non-Irish vessels into our ports in 2022

+14%

Irish landings **€336M**

Non-Irish **€171M**

Top Selling Species

Salmon (Down 3%) **€119M**

COD (Up 5%) **€44M**

UK Import Share 2022 **25%**

UK Import Share 2021 **29%**

€312M worth of seafood was imported into Ireland in 2022

€78M -8% worth of seafood was imported from the UK in 2022

€696M Export Value

+4% Value Growth

Ireland's Main Export Markets

+4% **EU €407M**

-1% **UK €80M**

-1% **ASIA €79M**

Contents

The Business of Seafood 2022

Rising Tide

Challenges abound, but growth in the sector continues

2,774

People employed in fisheries

Direct and indirect seafood employment

15,373

Against the backdrop of the conflict in Ukraine and the continued uncertainty brought by Brexit, 2022 was another challenging year for the Irish seafood industry. However, despite the steep increase in fuel prices, reduced quota available to Irish vessels, coupled with difficult trading conditions globally, overall, the value of the sector still rose in 2022 to €1.3 billion. This was an increase from the €1.25 billion seen in 2021 and represents a 4% growth in GDP.

The main driver of growth was from the consumption of seafood domestically, which increased to €475 million in 2022, a 13.5% increase following from the decline of 54% in 2020 as a result of the Covid-19 pandemic. Significant growth was seen in the value of landings of wild caught fish and aquaculture production, which were up by 14% and 10% respectively. Exports also increased in value by 4% to €696 million. Exports to the EU continued to grow to €407 million up from €393 million in 2021. Exports to the UK decreased for the third year in a row, as the difficulties in trading with the UK created by Brexit began to bite. Overall investment in the sector decreased marginally during 2022 to €443 million (-1%), reflecting continued uncertainty in the sector. However, Government investment increased by 10% as funding under the Brexit Adjustment Reserve (BAR) came on stream during 2022.

The beginning of 2022 saw the world begin to emerge from the Covid-19 pandemic and a sense of optimism prevailed. However, this initial optimism was dampened quickly by the conflict in Ukraine that led to global de-stabilisation of markets and the price of fuel rising to all time high levels. Coming on top of the economic shocks of Covid-19 and Brexit, the seafood sector was once again financially challenged. Despite this, the sector again showed remarkable resilience, with continued growth resulting in an increase in the value of the seafood economy to €1.3 billion. While overall volumes of seafood production reduced by 15% largely as a result of the quota transfers under the UK TCA agreement, higher prices for wild caught seafood and for farmed shellfish, saw the value of production increase to €703 million. This represents a year-on-year increase of 13% compared to 2021.

Employment across the seafood industry, however, fell in 2022. A total of 15,373 people were employed directly and indirectly within the sector, a decrease in overall employment of 8%. This comprised 8,218 employed directly in fisheries, aquaculture and processing and a further 7,155 in downstream employment in ancillary and support sectors. Despite this reduction, employment remains high in coastal regions, with the seafood industry accounting for 14% of coastal employment in Donegal, 7% in the north-west region, 6% on the south-western and southern coasts and 6% in Galway-Clare. The seafood industry, as a whole, accounted for 6% of total coastal employment, generating significant socioeconomic value in these areas.

Employment in the burgeoning seafood-tech sector comprising companies involved in high value-adding techniques and processes using seafood has continued to increase. In 2021, the latest figures available, 892 were employed in the sector in 62 companies, an increase of 48% since 2016. Turnover has increased by 152% and the opportunities for further expansion remain significant.

Increased demand for foodservice boosts consumption

Demand for Irish seafood increased in 2022 driven by strong recovery in foodservice after the slowdown caused by the global pandemic. Overall, consumption grew by 13%, reaching €475 million. This was driven by significant demand from the hospitality sector, which grew by 70% from 2021 to €169 million. However, the strong growth in the foodservice sector was offset by a 4% decline in the value of sales in the retail sector. Here, volumes declined by 8% after the peak in sales achieved throughout the pandemic when the hospitality sector was closed. Price inflation affected the sector significantly in 2022 with salmon increasing 9% in price and cod increasing 7%. These price increases led to demand falling by 11% and 3% respectively for salmon and cod. Volumes declined for nearly all of the main species, independent of price inflation. Only haddock and whiting bucked this trend with prices decreasing 2% for both, while sales volumes increased by 16% and 13% respectively.

Trade volumes down but impressive price growth sees value increase

The overall volume of exports fell in 2022 by 13% as reduction in pelagic quotas and global inflation impacted demand for Irish seafood. The decline in the volume of exports was driven mainly by reductions in mackerel (-31%) and blue whiting (-20%). Conversely, exports of salmon and shellfish species such as shrimps, lobsters, mussels and whelks all saw significant increases in the volume of exports. Strong price growth, particularly in the EU market, offset the overall decrease in the volume of seafood exported with strong price growth seen for mackerel (+27%) and Dublin Bay prawns (+26%) as well as for other shellfish species. This meant that the overall value of exports increased by 4% to €696 million.

Imports of seafood showed a similar pattern, with an overall decrease in volume of 12%, a decline of around 20,000 tonnes. The cost of imported

seafood increased by 24%, leading to an increase in value to €312 million, compared to €287 million in 2021. Volumes of salmon, prawns and tuna imports, which are traditionally major import species all declined but value increased by an average of 9%. Imports of species such as tilapia, pangasius and seabass all increased significantly in 2022, reflecting a shift in the retail market towards lower value species. Due to increasing prices globally, imports from all countries declined in 2022. The decline in imports from the UK seen in 2020 and 2021, continued with both volume and value of UK imports declining by 37% and 8% respectively. The trading difficulties presented by Brexit are the main contributor to this decline, which now seems systemic. Since 2019, the volume of seafood imports from the UK has halved and the value has declined by two thirds.

The value of wild-caught and farmed seafood on the rise

The value of wild-caught and farmed seafood reached record heights in 2022 increasing by 13% to €703 million. This was driven by very strong price growth for the majority of wild-caught species and despite a significant decline in volumes of 17%, with landings of both Irish and non-Irish vessels falling sharply. The decline in volume was due mainly to reduced quotas as a result of the TCA deal with the UK, which saw quotas transferred from the EU to the UK. This impacted not only Irish vessels but also those from other EU Member States that traditionally landed into Irish ports. As in 2021, prices that had fallen in 2020 due to the lack of market demand as a result of the global pandemic, increased significantly in 2022. The value of the Dublin Bay prawn catch increased significantly, resulting in Dublin Bay prawns being the most valuable species landed by the Irish fleet at €82 million. Killybegs and Castletownbere remained as the top two Irish ports in volume and value terms. However, the ports of Ros an Mhil, Clogherhead and Greencastle all saw significant increases in the value of landings, mainly as a result of the rise in the value of Dublin Bay prawn landings.

Prices for mackerel rebounded in 2022, following an unexpected fall in 2021. This resulted in an increase in value of mackerel landings of 10%, despite a reduction in volume of 14%. Horse mackerel and blue whiting saw volumes and values decline in 2022 despite price increases while boarfish and herring experienced the opposite, with volumes and value increasing.

Following the 2% reduction in the value of aquaculture production in 2021, the volume (+1%) and value (+10%) both increased in 2022. The value of Irish organic farmed salmon increased to €124 million, driven by high demand and strong price growth. The farmed shellfish sector also fared well with positive growth recorded for oysters, and rope mussels increasing significantly in value. The oyster sector saw a further 8% increase in value, following the strong growth in 2021. Both mussel sectors – rope and seabed cultured –had contrasting performances in 2022 with the rope mussel sector benefitting from strong demand leading to a 7% increase in value while the seabed cultured mussels declined by 6% in volume and 11% in value.

BAR funding leads to an increase in government investment

In 2022, Government investment in the seafood sector continued to grow, amounting to €255 million, an increase of 10%. Funding from the European Maritime and Fisheries Fund (EMFF) was reduced in 2022 as that programme came to a close to be replaced by the new European Maritime, Aquaculture and Fisheries Fund (EMFAF) in 2023. However, significant funding from the Brexit Adjustment Reserve (BAR) came on stream in the second half of 2022. The BAR fund aims to provide financial support to the Member States, regions and sectors most affected by Brexit to deal with the adverse economic, social, territorial and, where appropriate, environmental consequences. Ireland, as the Member State most affected, has received a significant allocation of over €1 billion, or just over 20% of the entire Reserve.

Several schemes resulting from the recommendations of the Seafood Taskforce that reported to Government in 2021 opened in 2022, including support for the whitefish sector in the form of a Temporary Cessation Scheme, inshore vessels through the Inshore Business Model Adjustment Scheme and Blue Economy Enterprise Development Scheme, as well as capital funding schemes for the processing and aquaculture sectors.

Private investment, having risen in 2021, fell back again in 2022 by 13% to €189 million. The reduction in 2022 reflected the various sources of uncertainty the sector is dealing with, from Brexit, the war in Ukraine and the associated wave of inflation affecting the global economy. The opening of numerous BAR schemes in the latter parts of 2022 also likely led to firms delaying their planned investments to avail of these. Based on the significant interest level to the processing and aquaculture BAR schemes, it is anticipated the level of private investment will increase in 2023, given funding under these schemes requires significant levels of matched funding.

Fleet Restructuring underway

One of the most important schemes launched in 2022 under the Brexit Adjustment Reserve was a Voluntary Permanent Cessation ("Decommissioning") Scheme. The purpose of this scheme is to restore balance between fleet capacity and available quotas following the quota reductions arising from the Trade and Cooperation Agreement (TCA), ensuring the future profitability of the fleet. It is targeted at whitefish and beam trawl vessels and opened for applications in September 2022.

The Seafood Taskforce, which recommended this scheme, agreed a target of approximately 60 whitefish and beam trawl vessels with total capacity of 8,000 gross tonnes to ensure the future profitability of the Irish whitefish fleet, with approximately 170 vessels remaining in the fleet. Over 9,000 tonnes of quota fish valued at €30 - €35 million annually will be available for remaining whitefish vessels to catch which will ensure the economic viability of the remaining fleet into the future. Applications to the scheme closed in November 2022 with 57 vessels with total gross tonnes of 8,700 GTs applying to decommission. Letters of offer have now been issued to these vessels and the process of decommissioning vessels accepting these offers has begun. The scheme is due to be completed by the end of 2023.

Rising energy costs – the new challenge

There is no doubt that the initiatives recommended by the Seafood Task Force represent a significant level of investment that will help to rebalance and reshape the industry. However, the continued conflict in Ukraine, which has seen energy costs skyrocket, remains a huge threat to the viability of the seafood industry both in Ireland and globally. While the price of marine diesel stabilised somewhat towards the end of 2022 and into the early months of 2023, the outlook for energy costs is volatile. Additionally, as identified in the recent communication released by the European Commission on the Energy Transition of the EU Fisheries and Aquaculture sector, the vulnerability to the economic resilience and sustainability of the EU fisheries and aquaculture sectors has been identified. The sector has a high level of dependence on fossil fuels and given the current geopolitical uncertainty, this leaves the seafood sector exposed to volatility in the energy market. Developing ways to reduce this dependence on marine diesel as well as cutting carbon emissions in line with achieving Net Zero by 2050 will require a collective effort from the industry backed with financial and technical support from Government to withstand this challenge and ensure economic viability in the years to come.

Gross Domestic Product
of the Irish Seafood Sector

GDP Components	2017	2018	2019	2020	2021	2022	Growth Rate 2022	Share of Seafood Economy
DOMESTIC CONSUMPTION	470	486	493	406	418	475	+13.5%	36%
PRIVATE INVESTMENT	220	267	257	199	216	189	-12.6%	14%
GOVERNMENT INVESTMENT	170	170	185	209	232	255	+9.7%	20%
EXPORTS - IMPORTS	345	316	291	270	385	385	+0.1%	30%
GDP	**1,205**	**1,239**	**1,227**	**1,085**	**1,251**	**1,303**	**+4.1%**	**100%**

Domestic Consumption
36%

Private Investment
14%

Government Investment
20%

Exports - Imports
30%

Direct Employment
in the Irish Seafood Sector

FISHERIES
2,774
Total Employed

AQUACULTURE
2,019
Total Employed

FISH PROCESSING
3,425
Total Employed

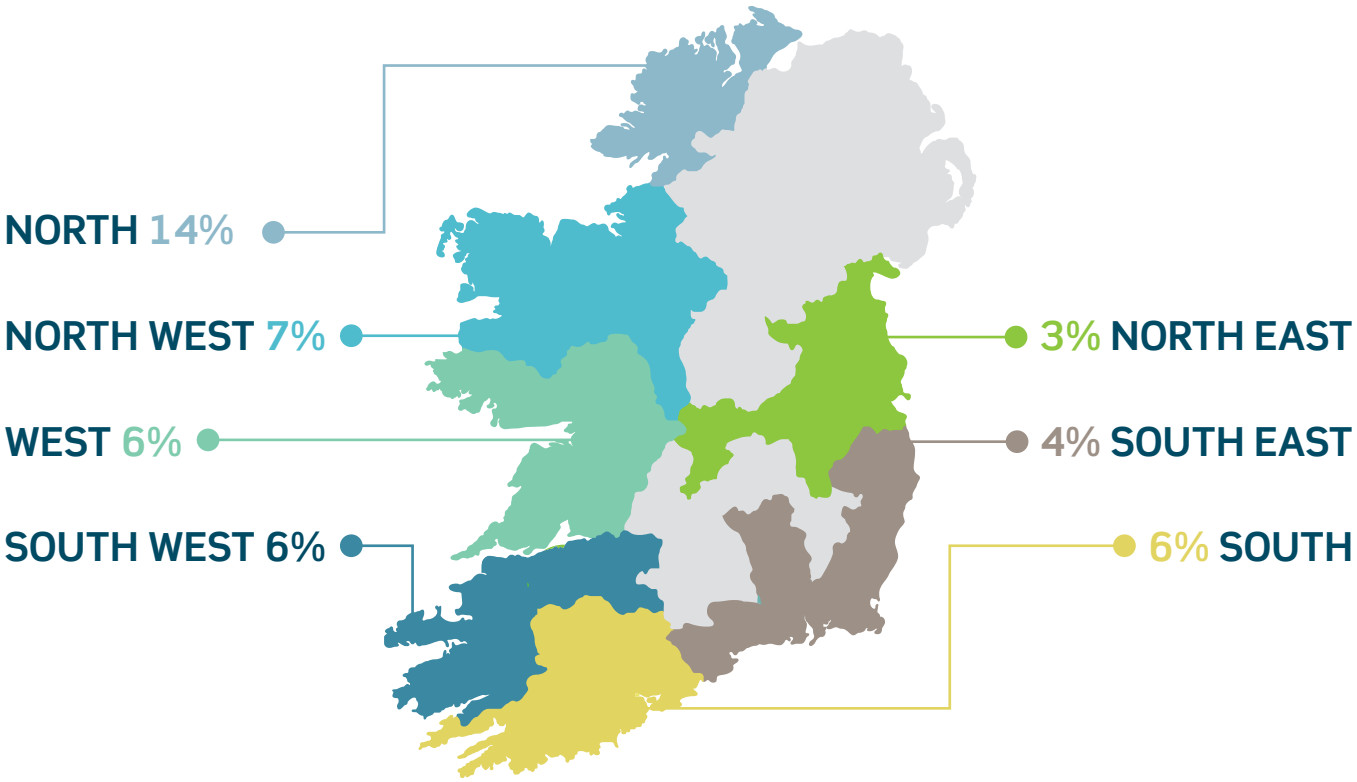
Total Employment
in the Irish Seafood Sector

8,218 Direct Total Employees

7,155 Indirect Total Employees

15,373 Direct and Indirect Total Employees

Breakdown of
Employment By Region



Region	Total Population	Coastal Population	Coastal Employed	Direct Seafood Employment	Downstream Seafood Employment	Share of Coastal Employment
NORTH	159,192	74,989	27,488	1,668	3,736	14%
NORTH WEST	292,630	64,059	25,328	1,073	1,843	7%
WEST	376,875	64,704	27,034	981	1,690	6%
SOUTH WEST	342,606	90,323	36,718	1,286	2,095	6%
SOUTH	542,868	115,533	49,815	1,634	3,169	6%
SOUTH EAST	808,737	91,681	36,467	962	1,602	4%
NORTH EAST	2,238,957	83,775	36,139	614	1,238	3%
REPUBLIC OF IRELAND	**4,761,865**	**585,064**	**238,989**	**8,218**	**15,373**	**6%**

Source

Where does Irish seafood come from?

Top species produced by the Irish Aquaculture Sector;

Irish Organic Salmon – €124m – 13,500 Tonnes

Top species landed by the Irish Fleet;

Dublin Bay Prawns – €82m – 6,200 Tonnes

In 2022 the volume of seafood produced by the Irish seafood sector declined by 15%. However, like the previous year, 2022 saw very strong price growth in sea-caught fish, rising by 38%. This led to an overall increase in value of 13%, to a record high of €703m.

The overall volume of seafood landed in Irish ports fell by 17% to 260,000 tonnes, with this decline stronger for non-Irish fleets (-23%) than the Irish fleet (-14%).

The value of seafood landed in Irish ports by Irish and non-Irish vessels increased by 14%. However, most ports saw a decline in landing volumes except for Clogherhead, Howth and Greencastle.

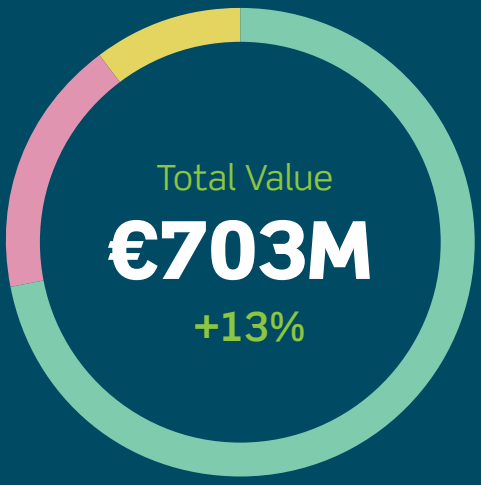
Killybegs and Castletownbere continue to be the two biggest ports in terms of volume and value. In Killybegs, volumes declined by 18%. Non-Irish landings fell by 30% with landings by Irish vessels falling by 10%. Despite this, the value of landings into Killybegs increased by 12% driven by strong price growth for mackerel and other pelagic species. Volumes landed into Castletownbere fell by 7% driven by Irish fleet landings (-24%). There was a slight increase for non-Irish fleets. The value of landings increased by 16%, increasing by 20% for the Irish fleet and by 14% for non-Irish fleets. Strong price growth was seen across all whitefish species particularly for Dublin Bay prawns and hake. Ros an Mhíl was the port with the strongest value growth in 2022, increasing by 69%, driven by Dublin Bay prawn price growth. Clogherhead and Greencastle saw very strong value growth of 43% and 36% respectively.

Dublin Bay prawn is now the most valuable species landed by the Irish fleet seeing value growth of 53%, driven by a 24% increase in price in 2022, reaching a value of €82m. Mackerel volumes declined by 14% but value grew by 10% due to a price increase of 27%. Landings of crab by the Irish fleet remained stable in volume terms but grew by 19% in value.

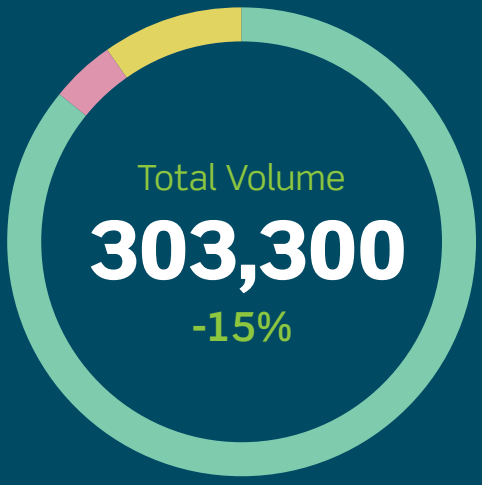
Aquaculture production grew marginally in 2022 by 1% with value increasing by 10% due to price inflation. The value of Irish organic salmon reached €124m, increasing by 13% in the year. Positive growth in volumes and prices led to an 8% increase in the value of Irish rock oysters, reaching €51m. Rope mussels benefited from strong price growth to increase its value by 7%.

The Source of **Irish Seafood**

By **Value (€)**



By **Volume (tonnes)**



SEA-CAUGHT FISH

€507M +14%

Irish €336m +14%
Non Irish €171m +14%

260,400 -17%

Irish 174,600 -14%
Non Irish 85,800 -23%

FARMED FINFISH

€125M +13%

13,900 0%

FARMED SHELLFISH

€71M +10%

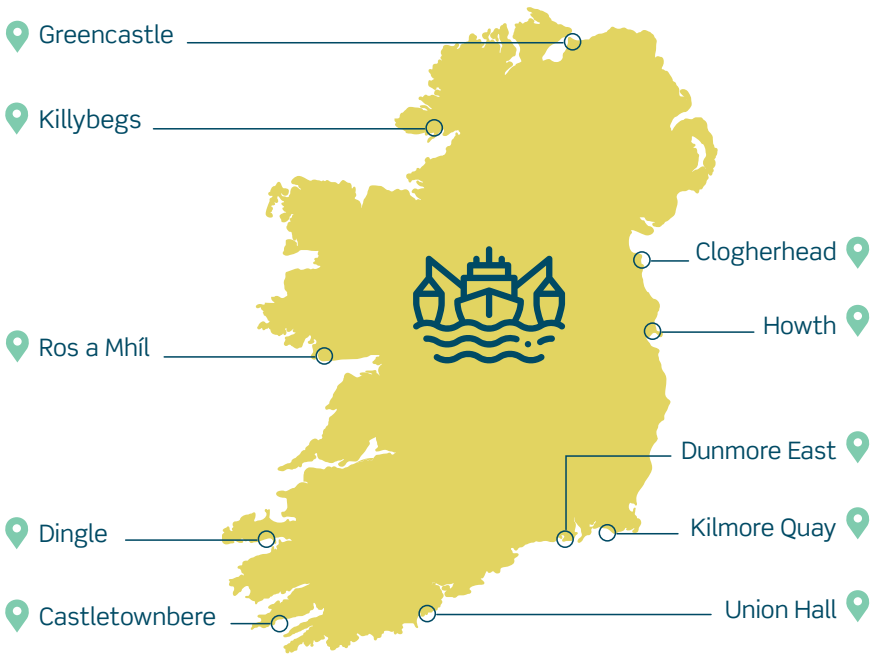
29,000 +3%

Regional
Value & Volume of Landings

€507M in 2022

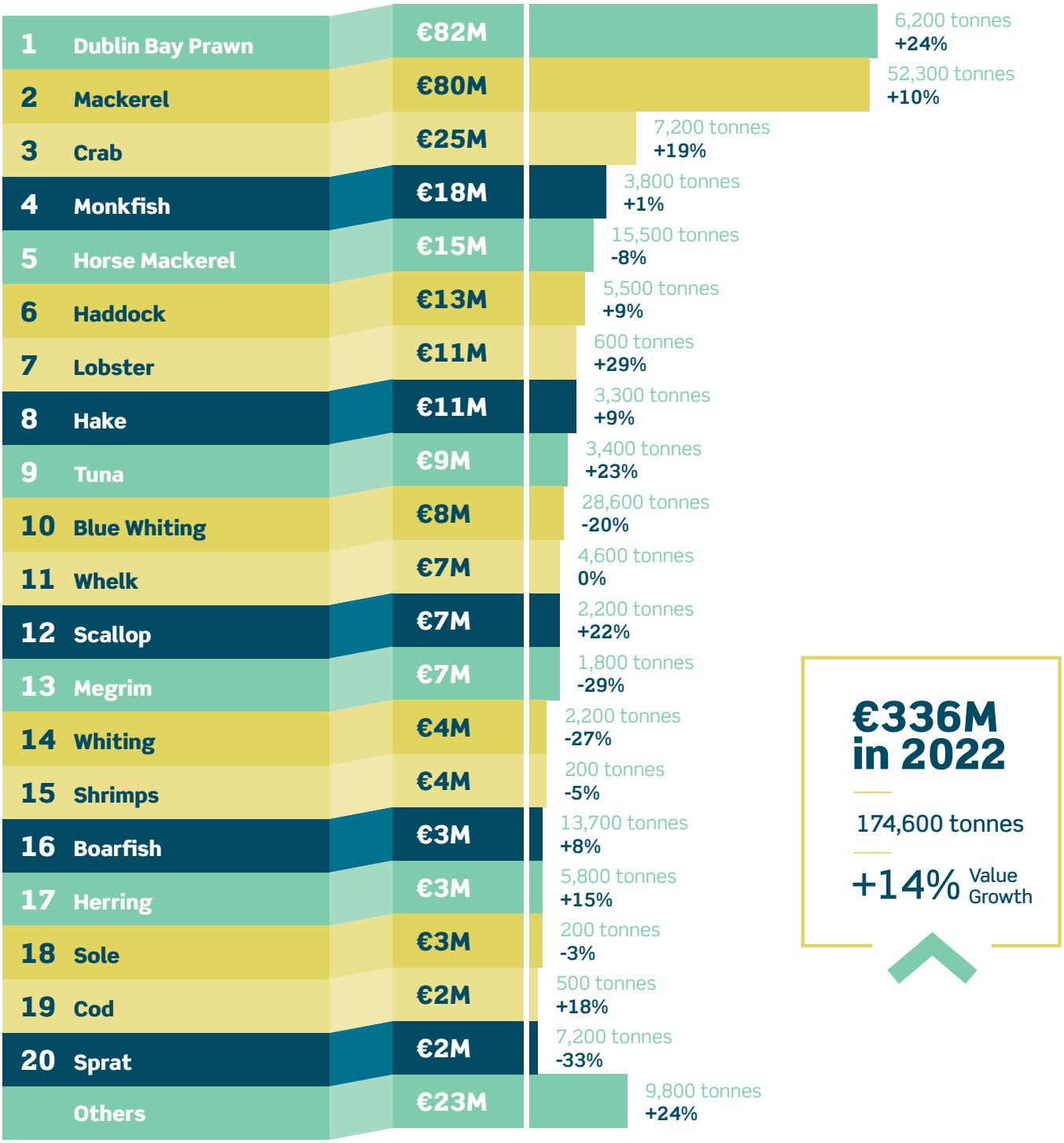
260,400 tonnes

+14% Value Growth



	Value of Landings - €M				Volume of Landings - Tonnes			
Port	**Irish**	**Non -Irish**	**Total**	**Share of Non-Irish**	**Irish**	**Non-Irish**	**Total**	**Share of Non-Irish**
KILLYBEGS	95	40	135	30%	102,700	58,200	160,800	36%
CASTLETOWNBERE	33	97	129	75%	8,600	20,400	29,000	70%
DINGLE	9	14	23	61%	4,100	3,000	7,100	42%
ROS A MHIL	22	1	22	5%	2,000	100	2,100	5%
DUNMORE EAST	15	4	19	21%	5,400	900	6,300	14%
CLOGHERHEAD	15	0	15	0%	1,800	-	1,800	0%
HOWTH	11	2	13	15%	2,900	400	3,400	12%
KILMORE QUAY	12	0	12	0%	3,600	-	3,600	0%
GREENCASTLE	10	1	12	8%	3,400	300	3,700	8%
UNION HALL	11	0	11	0%	1,700	-	1,700	0%
ALL OTHER PORTS	102	12	115	10%	38,400	2,600	41,000	6%
GRAND TOTAL	**336**	**171**	**507**	**34%**	**174,600**	**85,800**	**260,400**	**33%**

Breakdown of **Top 20 Landed Species** by the Irish Fleet

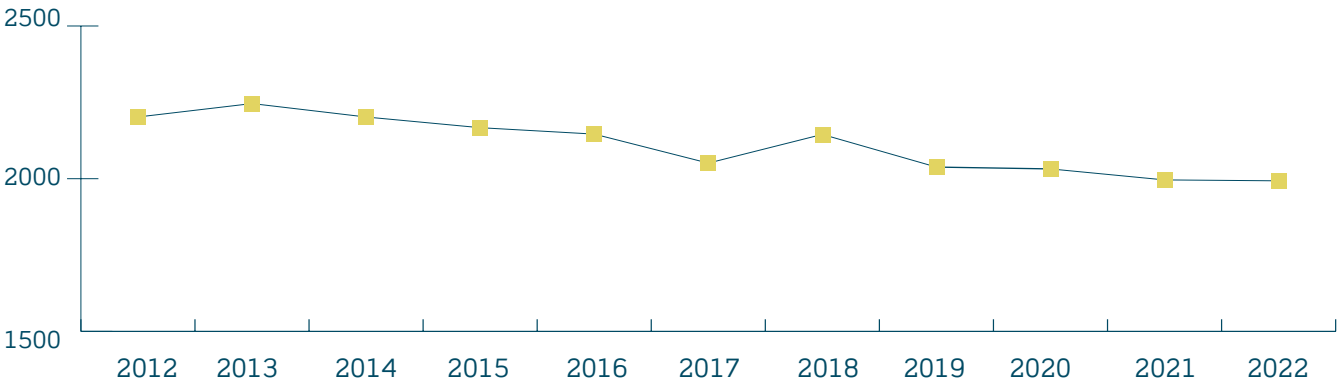


€336M in 2022

174,600 tonnes

+14% Value Growth

The Irish **Fishing Fleet**



Segment	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Aquaculture	96	106	107	109	102	97	100	91	92	97	97
Beamer	12	13	13	13	14	13	14	14	13	10	10
Pelagic	23	23	23	23	23	23	23	23	23	23	23
Polyvalent General	1,434	1,466	1,431	1,411	1,421	1,381	1,420	1,417	1,417	1,391	1,386
Polyvalent Potting	487	490	489	477	440	395	435	359	358	329	331
Specific	150	148	139	134	146	142	153	134	129	146	146
Grand Total	**2,202**	**2,246**	**2,202**	**2,167**	**2,146**	**2,051**	**2,145**	**2,038**	**2,032**	**1,996**	**1,993**

Polyvalent Segment

This segment contains the vast majority of the fleet. These vessels are multi-purpose and include small inshore vessels (netters and potters), and medium and large offshore vessels targeting whitefish, pelagic fish and bivalve molluscs.

Specific Segment

Vessels which are permitted to fish for bivalve molluscs and aquaculture species.

Refrigerated Seawater (RSW) Pelagic Fleet

Vessels engaged predominantly in fishing for pelagic species (herring, mackerel, horse mackerel and blue whiting, mainly).

Beam Trawler Fleet

Vessels dedicated to beam trawling, a simple trawling method used predominantly in Irish inshore waters except in the southeast, where it is used to catch flatfish such as sole and plaice.

Aquaculture Segment

These vessels must be exclusively used in the management, development and servicing of aquaculture areas and can collect spat from wild mussel stocks as part of a service to aquaculture installations.

Aquaculture Production
by Value and Volume

By **Value (€)**

By **Volume (tonnes)**

€124M ^ +13%	SALMON	^ 13,500 +1%
€51M ^ +8%	IRISH ROCK OYSTERS	^ 11,000 +3%
€9M ^ +7%	ROPE MUSSELS	^ 11,600 +1%
€8M v -11%	SEABED CULTURED MUSSELS	v 5,500 -6%
€3M v -6%	OTHER SHELLFISH	^ 900 +32%
€1M v -34%	OTHER FINFISH	v 400 -29%

Processing

Irish Seafood Processing

101
companies provide

3,425
jobs including full time, part time and casual employment

A headline export figure of €696m represents a 4% increase in value on 2021, indicating strong demand and buoyant market prices in key categories. This, however, belies the range of challenges that seafood processors faced throughout the year.

These challenges included raw material constraints, an escalation in most supply chain costs (e.g. energy, fuel, logistics, consumables, storage, raw material) and difficulties in recruiting and retaining employees. Pelagic processors performed well in key high value Asian and Eastern European markets, however, the intense competition for raw material, meant a rise of 27% for the first sales price of mackerel, which impacted on margins. The fallout from the Trade and Co-operation Agreement (TCA) and quota cuts for other pelagic species is reflected in the 18% drop in the volumes exported compared to 2021. Shellfish exports were robust with a 9% increase in value, and consistent volumes compared to 2021. There was some evidence of an inflationary related falloff in consumer demand for higher value shellfish towards the latter end of the year. Organic salmon export volumes grew by 10% but values were stable, with price premiums being challenged by emerging Scottish and Norwegian organic salmon producers. A rapid rise of 12% in the price of salmon on the back of limited sourcing options presented real issues for many processors. For whitefish processors, an increase of 2% in the value of exports was evident compared to 2021. However, the volume of exports was down by 13% over the same period, which meant significant difficulties in sourcing raw material for processors.

Number of Seafood **Processing Companies**

Breakdown by **revenue**

<€1M
40
companies

€1 to €10M
35
companies

>€10M
26
companies

Number of companies by **revenue band and seafood category**

Category	< €1M	€1M - €10M	> €10M	Total
Whitefish	15	16	13	44
Shellfish	17	9	6	32
Salmonids	7	6	1	14
Pelagics	1	4	6	11
Grand Total	**40**	**35**	**26**	**101**
BREAKDOWN OF INDUSTRY	40%	35%	25%	100%

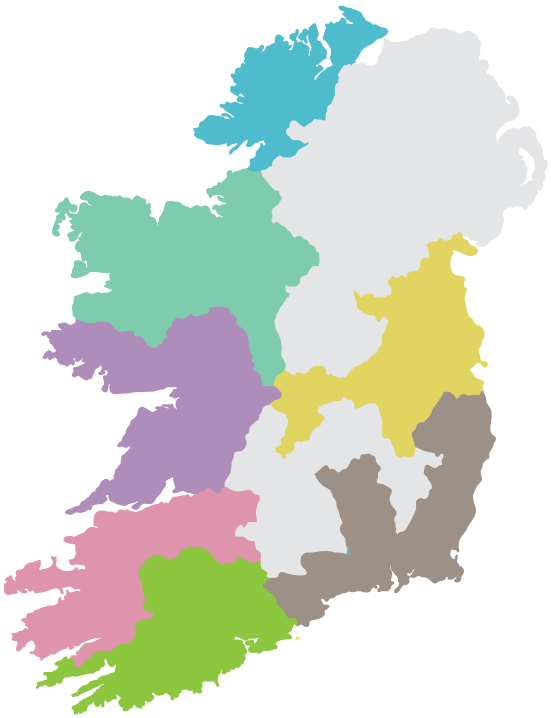
Number of companies and **employment by region**

North
Companies **18**
Employed **545**

North West
Companies **9**
Employed **322**

West
Companies **11**
Employed **171**

South West
Companies **9**
Employed **230**

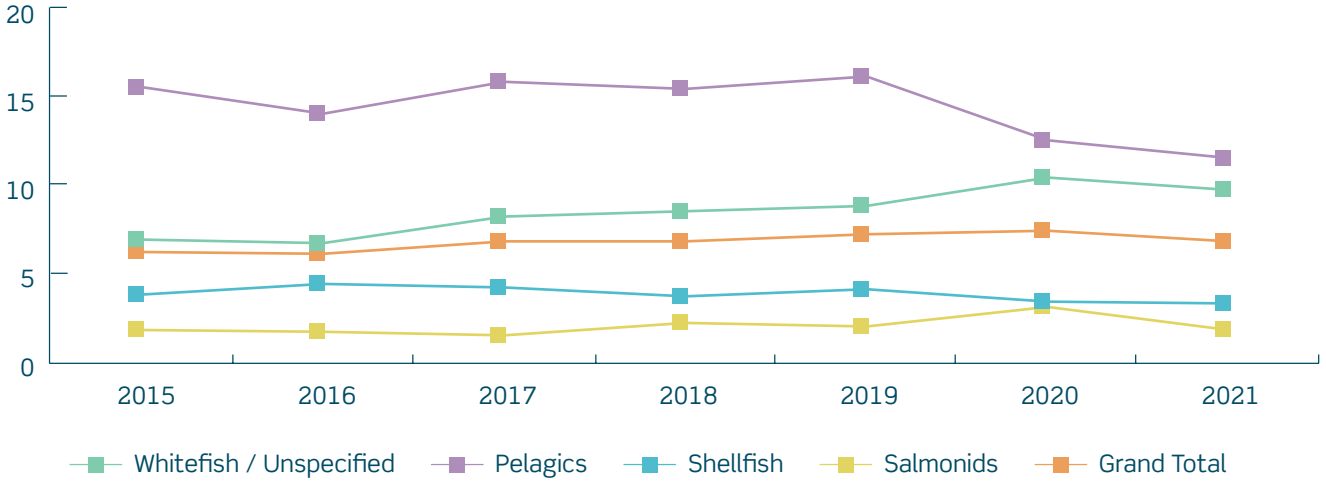


North East
Companies **17**
Employed **651**

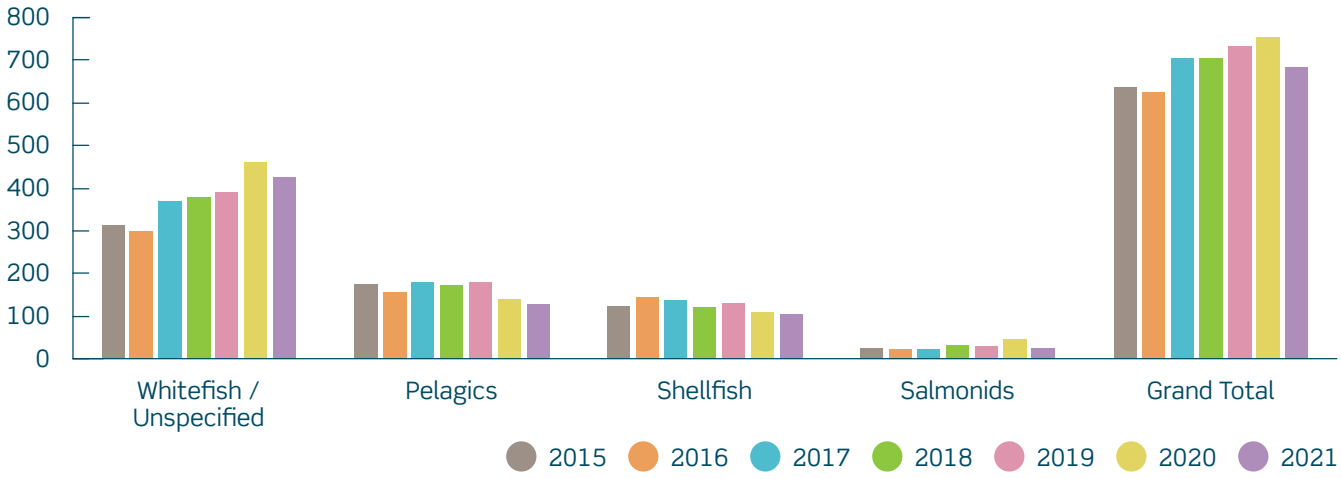
South East
Companies **19**
Employed **641**

South
Companies **18**
Employed **735**

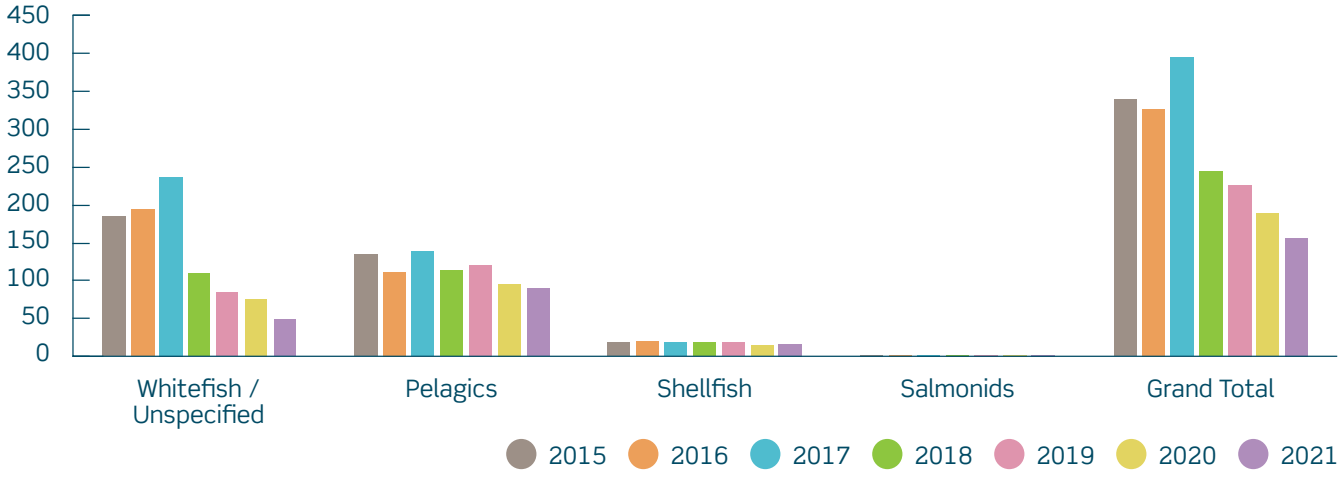
Average Turnover (€m) per Processing Firm



Total Turnover (€m) Processing Sector



Total Volume ('000 Tonnes) Processing Sector



Seafood-Tech

Economic Performance of the Irish Seafood-Tech Sector

892

People employed in sector

Turnover has increased by 152% since 2016 to

€217m

The seafood-tech sector refers to companies that are involved in high value-adding techniques and processes using seafood. It is distinct from the direct primary producing sectors of fishing and aquaculture due to its value-adding characteristics. It is also distinct from the processing sector, as it is not providing direct output to the food sector.

In the Business of Seafood, estimates of activity in the downstream economy are provided for the indirect seafood sector that supports the fishing, aquaculture and seafood processing sectors. The seafood-tech sector is separate to these ancillary and auxiliary service providers given this sector is made up of companies developing innovative, high value-adding processes and techniques rather than providing direct services.

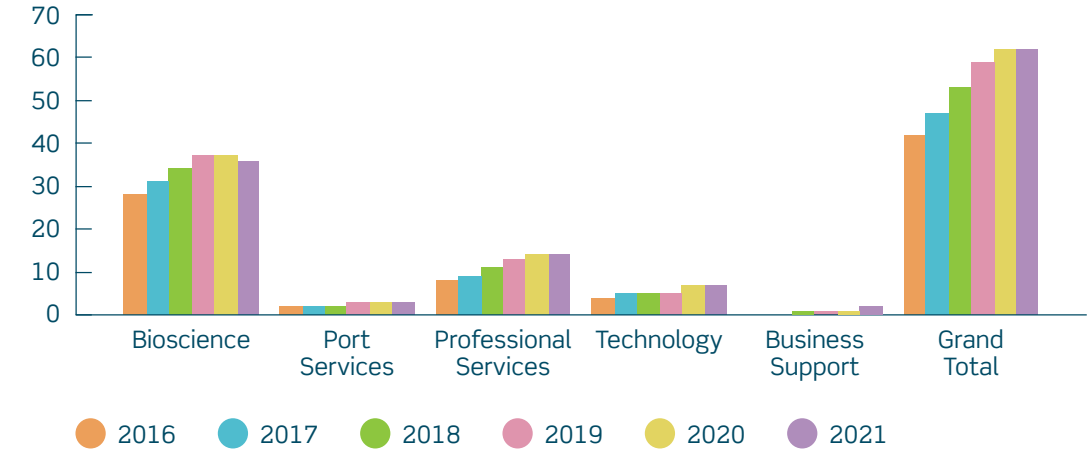
The sector is composed of high technology companies that provide business support, professional and port services and carry out significant research and development into the nutritional and health benefits of seafood. The range of disciplines include genetics, pharmaceutical industries, aquaculture infrastructure, information technology, financial services and many other associated activities. BIM has, for the last four years, been developing startup companies in this area through its Innovation Studio.

As can be seen in the figures below the sector is dominated by bioscience companies which account for the majority of the number of companies, in terms of employment and revenue generated. BIM estimates that significant growth has occurred in the seafood-tech sector over the last five years with the number of active companies growing from 42 in 2016 to 62 in 2021 (+48%). Over this period employment in these companies increased from 517 in 2016 to 892 in 2021 (+72%) while turnover has increased from €86m in 2016 to €217m in 2021 (+152%). The growth in Bioscience companies has driven growth in the overall sector with significant growth also occurring in the Professional Services sector.

Seafood-Tech

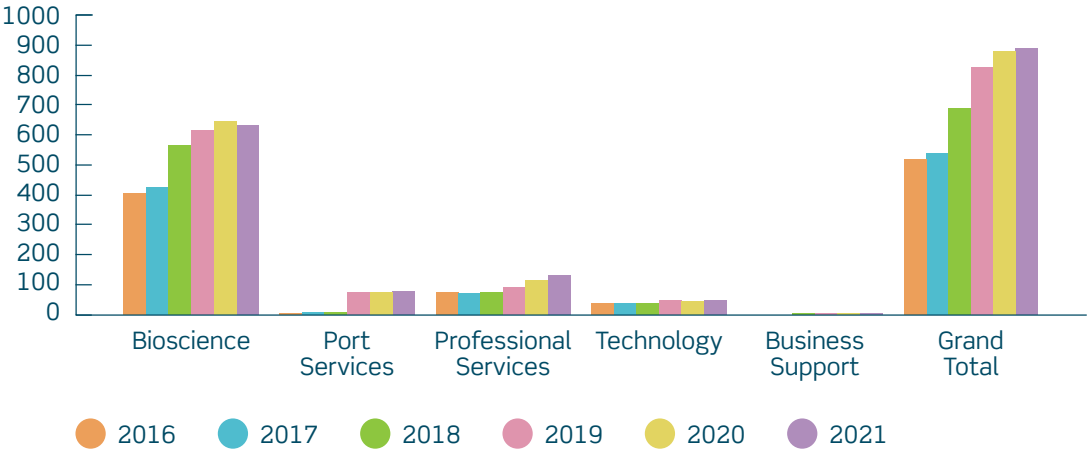
No. Active Seafood-Tech Companies

Number of Companies



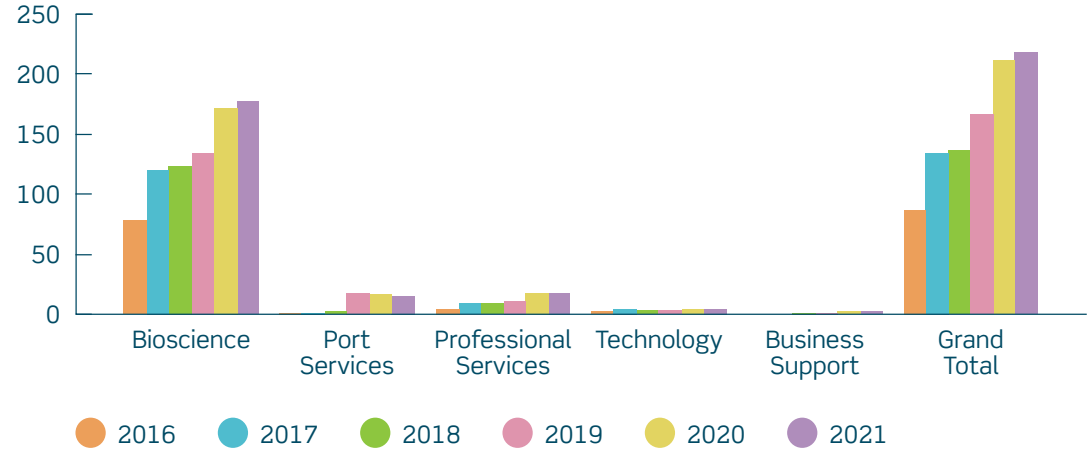
Seafood-Tech Employment

Full-Time Employment

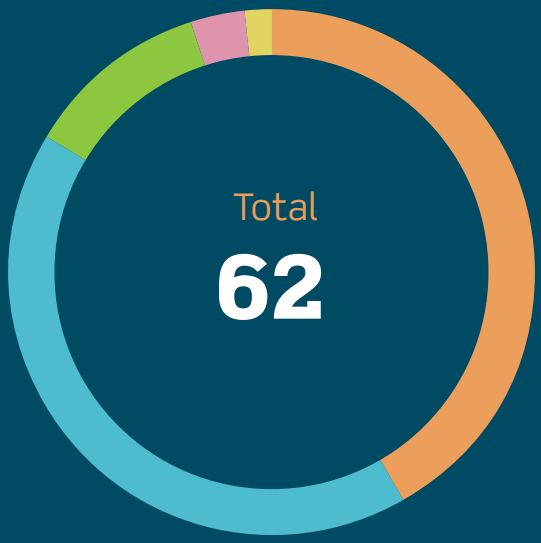


Seafood-Tech Turnover

€ Millions



No. of Active Seafood-Tech Companies by Seafood Subsector - 2021



- Seaweed **42%**
- Aquaculture **42%**
- All Seafood **11%**
- Fisheries **3%**
- Coral **2%**

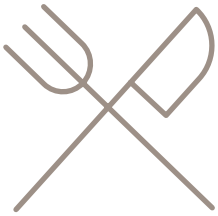
Seafood-Tech Employment by Seafood Subsector - 2021

- Seaweed **57%**
- Aquaculture **18%**
- All Seafood **20%**
- Fisheries **3%**
- Coral **2%**

Seafood-Tech Turnover by Seafood Subsector - 2021

- Seaweed **66%**
- Aquaculture **15%**
- All Seafood **11%**
- Fisheries **7%**
- Coral **1%**

Seafood Consumption
in Ireland



€475m

Value of Seafood consumption in 2022

The consumption of seafood grew by

13% **in value terms**

In 2022, the consumption of seafood in Ireland grew by 13%, reaching €475m, an increase of €56m. As in 2021, the hospitality sector was the main contributor to this growth with the sector increasing by 70% on 2021 (+€70m). This growth was a strong rebound for the sector after the impact of the global pandemic.

Food Consumption - Retail

Sales of seafood in the retail sector fell back in 2022 after the growth seen in the last two years following the Covid-19 pandemic. Volumes declined by 8% with modest price increases resulting in a decline in value of 4%. Sales of salmon fell by 11% in volume with price increases leading to a decline in value of 3% to €119m. The sales value of whitefish increased for cod, haddock, hake and whiting. Sales volumes declined for cod with prices increasing by 7%. For haddock and whiting volumes increased by 16% and 13% respectively after prices fell by 2%. All other species saw value declines.

Food Consumption - Foodservice

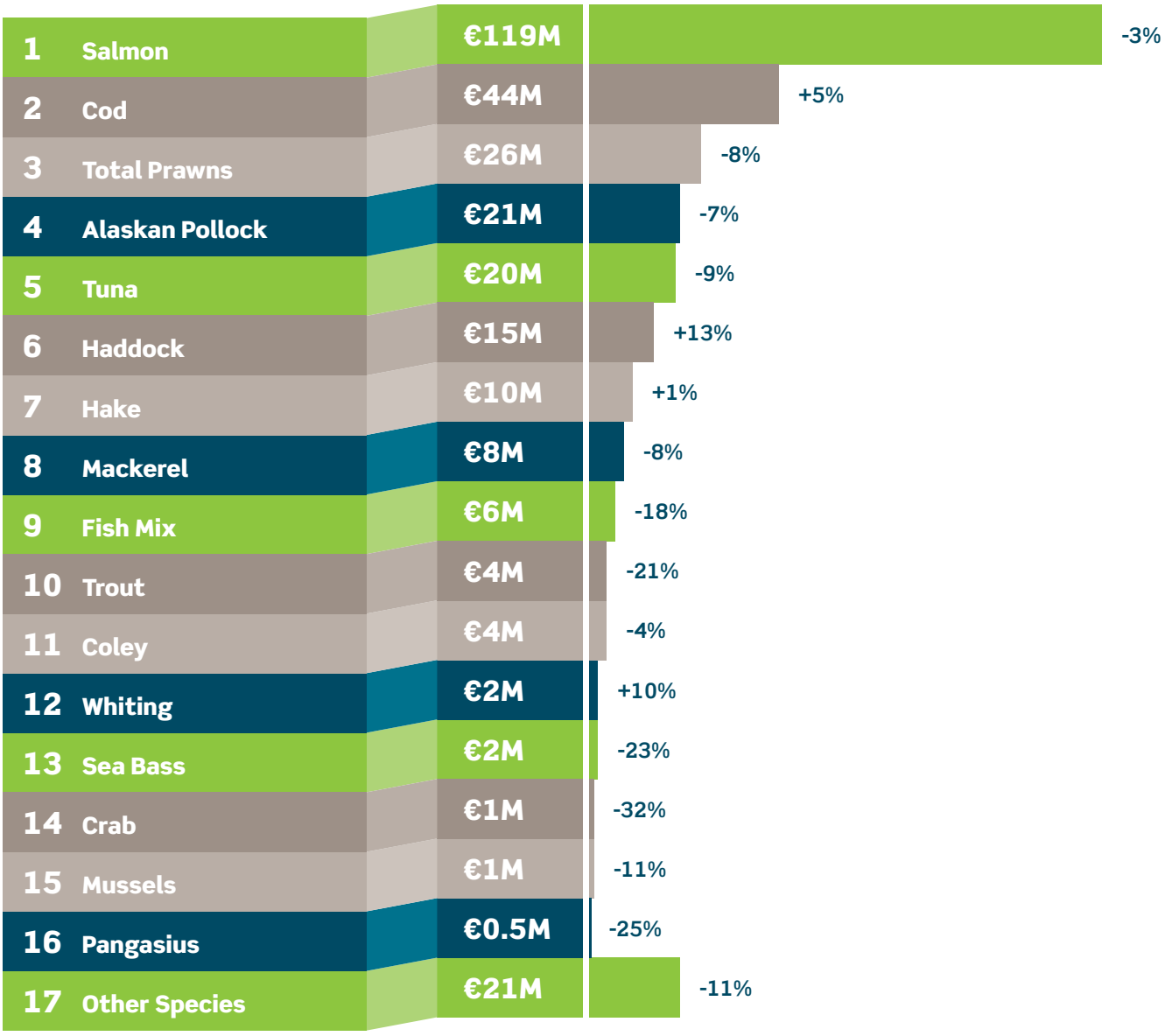
The foodservice sector rebounded strongly in 2022 after the lifting of all Covid-19 restrictions from the 1st of April. The sector grew by 70% compared to 2021, reaching an estimated value of €169m. While this level is still below the value of 2016 and the proceeding years pre Covid-19, it represents a strong performance for the nine months without restrictions. Purchases of seafood grew by 69% in value in the foodservice sector, the highest rate among protein sectors along with beef and pork, and above the overall increase of 63%. The share of seafood within operator purchase arrested its decline in 2022, increasing by 3%. The trend since 2016 is now under 14% below the 2016 level.

€475m
total value of seafood consumed

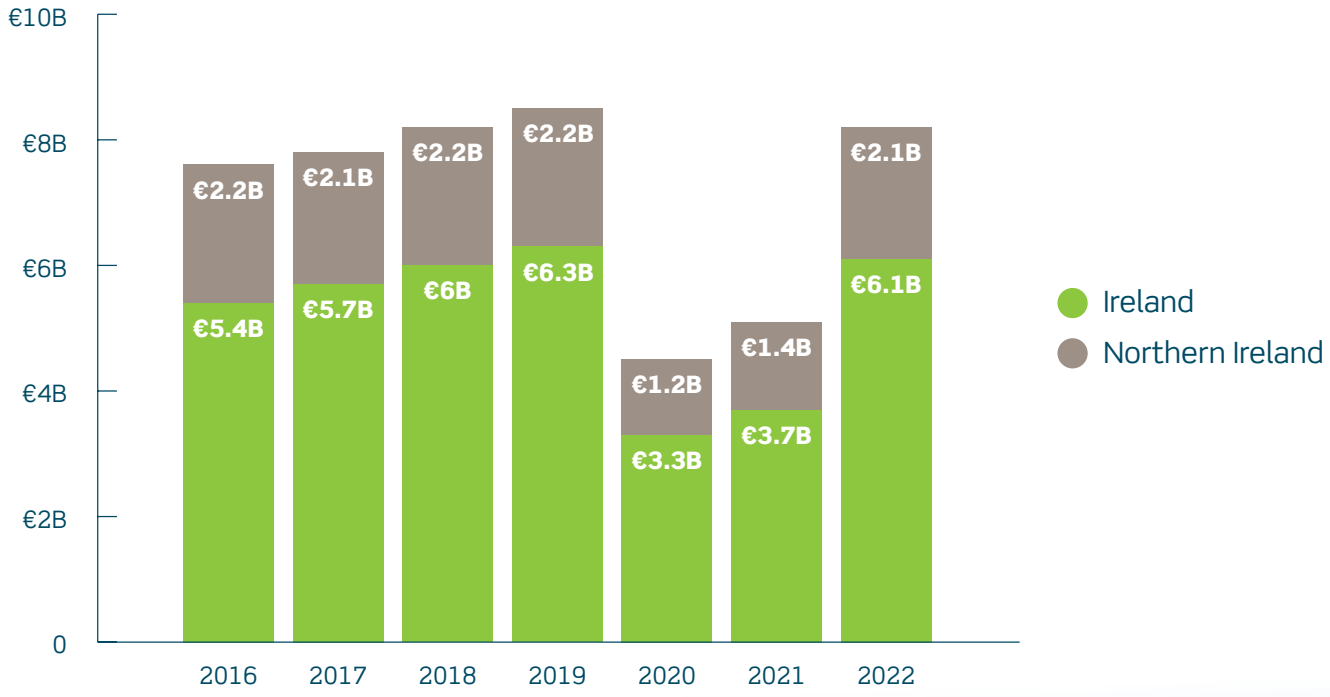
€305m
total value of seafood retailed

€169m
value of seafood sold in foodservice sector

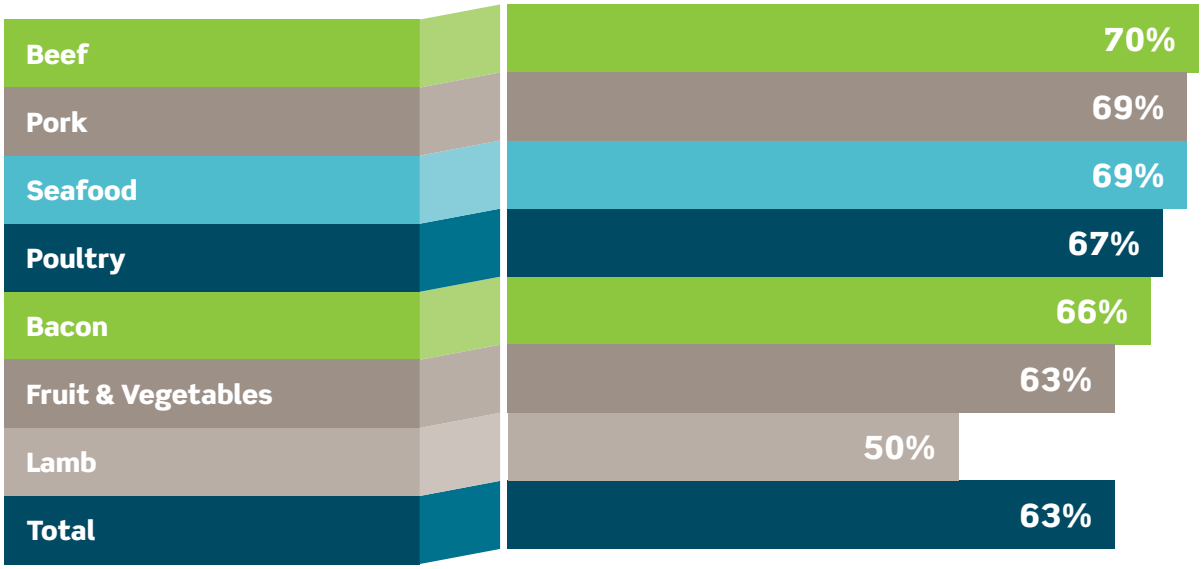
Top Retail Species
by Value 2022



All Ireland
Foodservice Turnover (€B)



Foodservice Operator
Purchase Growth 2022



Foodservice Operator
Purchase Share 2016-2022

Trade

Imports and Exports of Seafood

Exports

Value growth of +4%
Volume growth of -13%
Price growth of +19%

Value growth of +8%
Volume growth of -12%
Price growth of +24%

Imports

The volume of exports declined in 2022 by 13% to 293,000 tonnes due mainly to the lower quotas of mackerel and blue whiting. However, strong price increases in these as well as shellfish and whitefish categories lead to an overall value growth of 4% with the total value of exports reaching €696m.

Irish organic salmon remains the most valuable export species for the Irish seafood sector, at €120m, seeing a 2% reduction in value despite increased volumes of 6%. Strong competition in this market led to a price decrease of 8% in 2022. The value of mackerel declined by 12% driven by a reduction in export volumes of 31%. Increased prices of 27% reduced the impact of this volume decline. Volumes of Dublin Bay prawn exports declined by 8% but a strong price increase of 26% led to an overall value increase of 6%. Strong growth was seen in shrimps, lobsters, mussels and whelks in volume and value terms.

Exports to the European Union grew by 4% in value but declined by 1% to the UK and Asia. Price growth was seen across all major export markets.

The volume of imports fell by over 20,000 tonnes in 2022 to 151,000 tonnes, a decline of 12%. The cost of these imports increased by 24% leading to an increase in value of 8% to €312m. Volumes imported declined for the major import species of salmon, prawns and tuna, however, the value of these imports rose by 11%, 3% and 13% respectively. Strong volume growth was seen for tilapia, saltwater fish and seabass which signals increasing demand for more price competitive species in the domestic retail sector due to ongoing inflationary pressures in the market. Fish meal and herring were the only import products that saw declines in both price and volume. This signals supply growth within the domestic market for fish meal utilised in the aquaculture sector.

Volumes imported decreased across all but one major import trading markets with value increasing due to price increases from the EU, Asia and the Rest of the World. The UK was the only regional trading partner to see a decline in the value of imports, of 8% despite average prices increasing by 46% from this market. This continues the trend of 2021 where Irish importers shifted purchases from the UK to the EU and other regions of the world due to Brexit. The Nordic region was the only one to see an increase in volume and value in 2022.

Trade
Imports

Main
Import Markets

European Union
+17%

United Kingdom
-8%

Asia
+12%

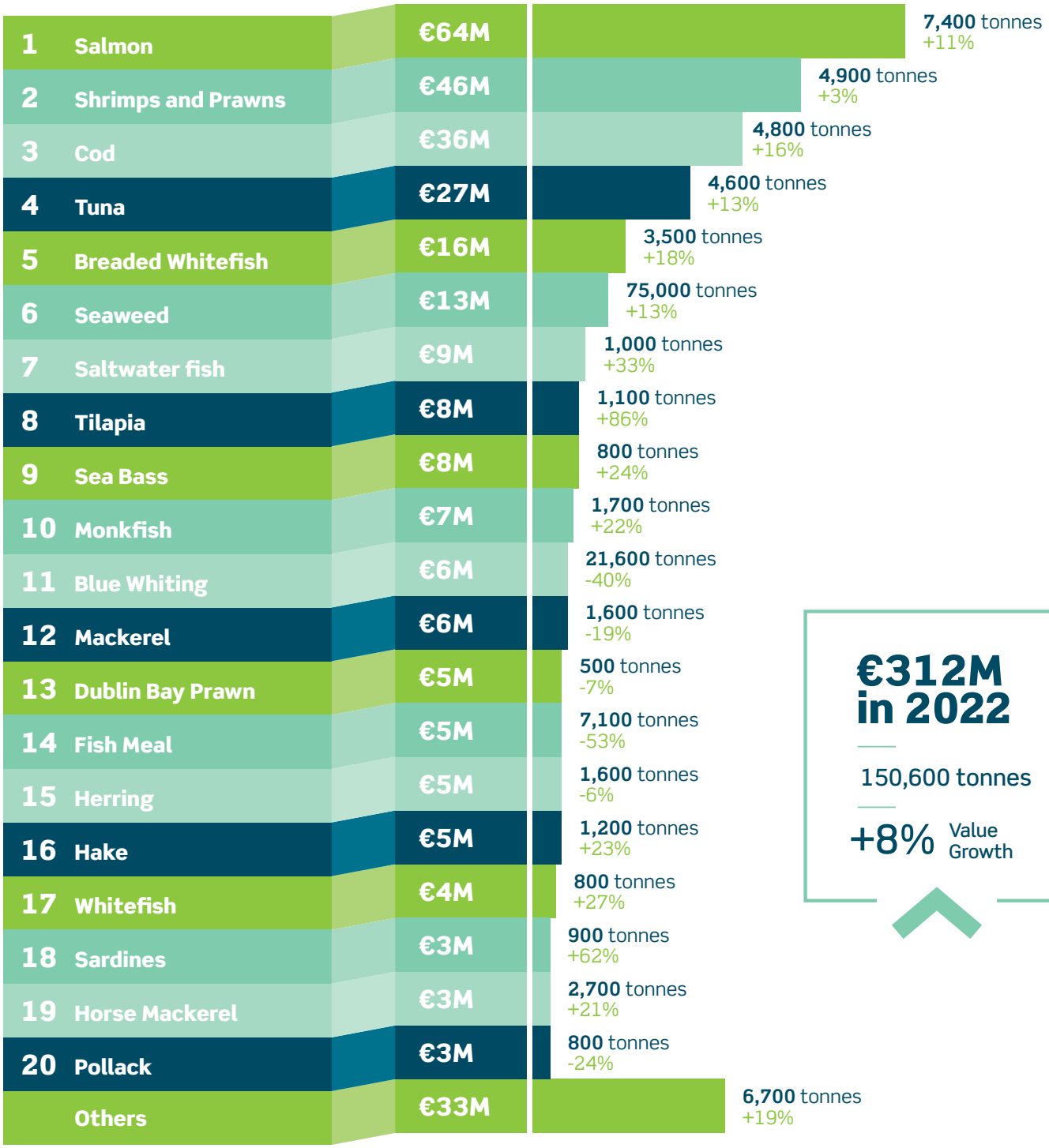
Nordics (non-EU)
+17%

Rest of World
+20%

Africa
0%

	Value €m			Volume Tonnes			
Main Markets	**2021**	**2022**	**Value Growth %**	**2021**	**2022**	**Volume Growth %**	**Price Growth %**
European Union	120	141	+17%	31,800	22,800	-28%	+64%
United Kingdom	85	78	-8%	49,500	31,200	-37%	+46%
Asia	32	36	+12%	4,900	4,800	-2%	+15%
Nordics (non-EU)	23	27	+17%	79,500	86,800	+9%	+7%
Rest of World	18	21	+20%	3,700	3,100	-18%	+46%
Africa	9	9	0%	2,500	1,900	-23%	+29%
Grand Total	**287**	**312**	**+8%**	**171,900**	**150,600**	**-12%**	**+24%**

Breakdown of **Top 20 Imported Species** by Value



€312M in 2022

150,600 tonnes

+8% Value Growth

Trade
Exports

Total Volume
-13%

Total Value
+4%

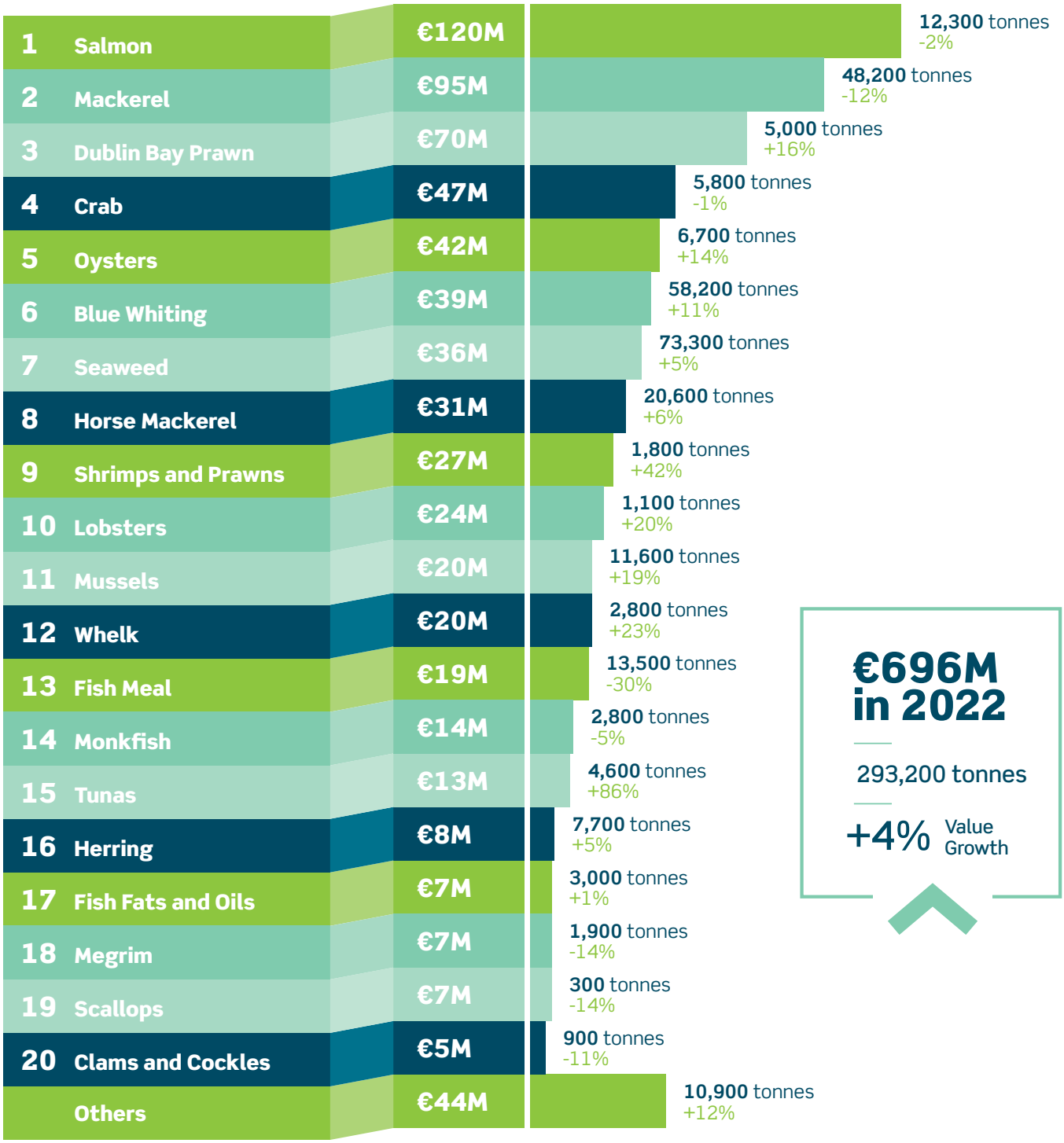
Average Price Growth
+19%

Main
Export Markets

European Union	United Kingdom	Asia	Africa	Middle East	Rest of World
+4%	-1%	-1%	-2%	+39%	+11%

	Value €m			Volume Tonnes			
Main Markets	**2021**	**2022**	**Value Growth %**	**2021**	**2022**	**Volume Growth %**	**Price Growth %**
European Union	393	407	+4%	112,300	100,600	-10%	+16%
United Kingdom	81	80	-1%	46,000	33,000	-28%	+39%
Asia	80	79	-1%	36,800	29,200	-21%	+24%
Africa	65	64	-2%	88,500	72,800	-18%	+20%
Middle East	26	36	+39%	25,600	27,000	+6%	+31%
Rest of World	27	30	+11%	28,400	30,600	+8%	+3%
Grand Total	**672**	**696**	**+4%**	**337,600**	**293,200**	**-13%**	**+19%**

Breakdown of **Top 20 Exported Species** by Value



€696M in 2022

293,200 tonnes

+4% Value Growth

Main Export Partners

Top 10 Export Partners

1

FRANCE
€159M
-1%

Salmon 30%
Oysters 19%
Crab 13%

2

UNITED KINGDOM
€80M
-1%

Salmon 21%
Fish Meal 15%
Fish Fats and Oils 9%

3

ITALY
€71M
+25%

Dublin Bay Prawn 70%
Shrimps and Prawns 15%
Mussels 3%

4

SPAIN
€69M
+2%

Dublin Bay Prawn 17%
Monkfish 16%
Crab 15%

5

NIGERIA
€37M
-2%

Blue Whiting 56%
Mackerel 43%

6

EGYPT
€29M
+47%

Horse Mackerel 67%
Mackerel 31%

7

CHINA
€25M
-11%

Mackerel 36%
Whelk 23%
Crab 10%

8

GERMANY
€25M
+1%

Salmon
65%

Mackerel
11%

Herring
8%

9

POLAND
€25M
-3%

Salmon
67%

Mackerel
21%

Herring
6%

10

JAPAN
€19M
+7%

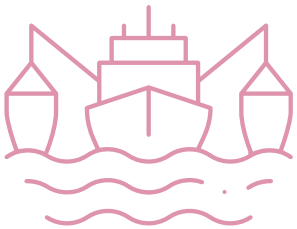
Mackerel
75%

Horse Mackerel
15%

Seaweed
6%

Irish Fleet Performance

Economic Performance of Ireland's offshore fishing fleet



€271m

Total revenue of the Irish Offshore Fleet

Gross profit margin for 2020

+17%

The capacity of the Irish fishing fleet has remained relatively stable since 2008. In 2022, there were 1,993 registered vessels, with a total capacity of 66,696 GT and 190,039 kW. More than 80% of the Irish fleet are inshore vessels of less than 12 meters, fishing for mainly non-quota shellfish species. Around 11% of these vessels are over 12 meters in length and operate in offshore waters targeting a range of quota species.

In recent years, the profitability of the Irish offshore fleet has trended downwards, except for the pelagic fleet segment, where profitability remains high despite significant quota transfers following from Brexit.

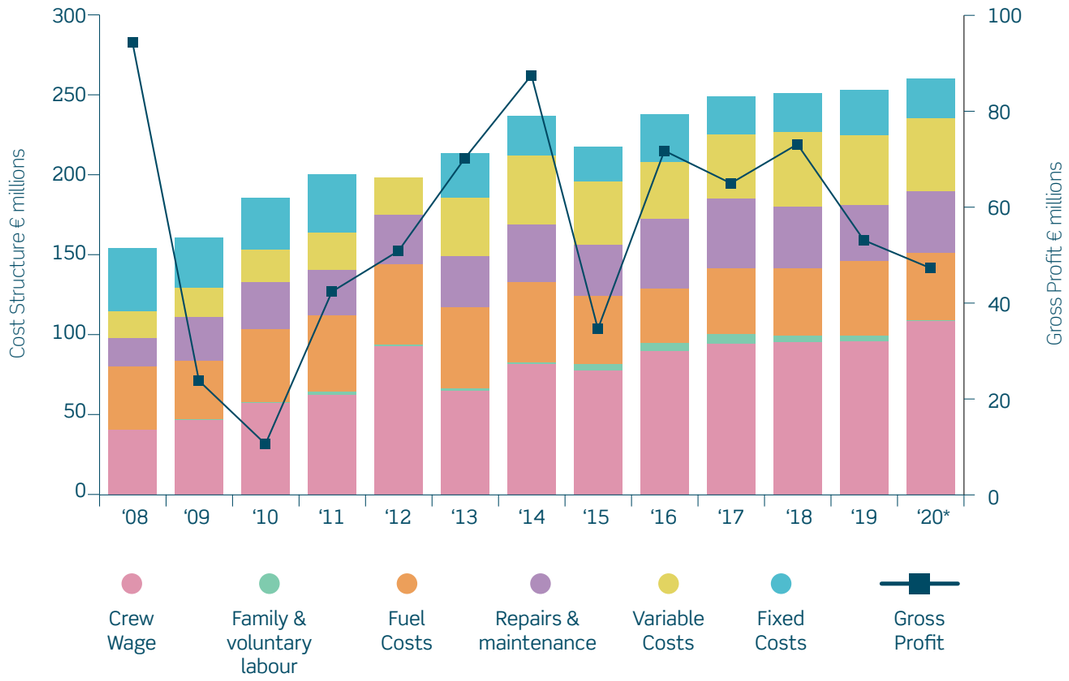
Forecasts for 2022 suggest a further decrease in economic performance compared to 2021 driven by decreases in both the volume of landings and rising operational costs. In terms of economic indicators, revenue and net profit are predicted to decrease along with GVA and gross profit, driven primarily by rising inflation and unprecedented energy costs.

In order to alleviate the economic impacts of rising fuel costs and the reduced access of fishing quotas as a result of Brexit, the Irish Government put in place a voluntary tie-up scheme over the period June-November 2022. There was high uptake with over 200 vessels availing of the scheme. In 2022, a voluntary decommissioning scheme was launched which aims to help bring fleet capacity back in balance with available quotas and improve the profitability for vessels remaining in the Irish fleet. This scheme is due to be completed by the end of 2023 and has the objective of removing up to 8,000 GTs from the Irish whitefish fleet. Applications to the scheme closed in November 2022 with 57 vessels with total gross tonnes of 8,700 GTs applying to decommission. Letters of offer have now been issued to these vessels and the process of decommissioning vessels accepting these offers has begun. The scheme is due to be completed by the end of 2023.

Economic Performance
of the Irish Offshore Fleet 2020

Fleet	Length (overall)	National Segment	Number of Active Vessels	Days at Sea	Employment FTE		Landings: Live Weight (Tonnes)	Revenue €'000	Gross Profit Margin %	Net Profit Margin %	Fuel Oil Used per Tonne Landed	Profitability
Mid-water Trawlers	≥ 40 metres	Pelagic	20	1,247	225		116,248	95,799	+34%	+17%	139	High
	24 - 40 metres	Pelagic & Polyvalent	14	1,668	95		33,052	23,719	+19%	-2%	81	Low
Demersal Trawlers & Seiners	24 - 40 metres	Polyvalent	44	9,967	322		17,690	49,186	+5%	-2%	1,591	Low
	18 - 24 metres	Polyvalent	58	11,479	354		12,961	46,723	+9%	-2%	1,503	Low
	12 - 18 metres	Polyvalent	55	7,208	187		10,456	39,111	+4%	-2%	962	Low
Drift & Fixed nets	18 - 24 metres	Polyvalent	15	1,961	60		1,649	4,154	-16%	-28%	1,257	Very Low
Beam Trawlers	24 - 40 metres	Beam Trawl	14	2,896	50		2,419	8,206	-10%	-13%	2,433	Very Low
Dredgers	24 - 40 metres	Specific	7	1,375	38		2,250	4,017	+66%	+59%	548	High
		Subtotal	**227**	**37,801**	**1,331**		**196,725**	**270,915**	**+17%**	**+6%**	**436**	**Low**

Economic Performance
of the Irish Fishing Fleet 2008 - 2020

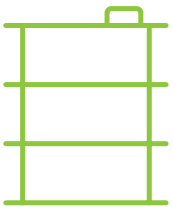


Fuel

Energy crisis impacts on seafood sector sustainability

$70.90

Average price per barrel in **2021**



Average price per barrel in **2022**

$100.94

Price growth in 2022

+42%

In 2022, fuel prices reached the historic highs of the 2011-2013 period with the average price of crude oil breaking the $100 per barrel threshold. This is in comparison to the period 2015-2021 when the average price per barrel varied between $40- $70, averaging $56. The Russian invasion of Ukraine in early 2022 has caused turmoil in international energy markets leading to drastic increases in price. This has highlighted the dependency of the seafood sector, and the catching sector in particular, on fuel and its vulnerability to fuel price volatility.

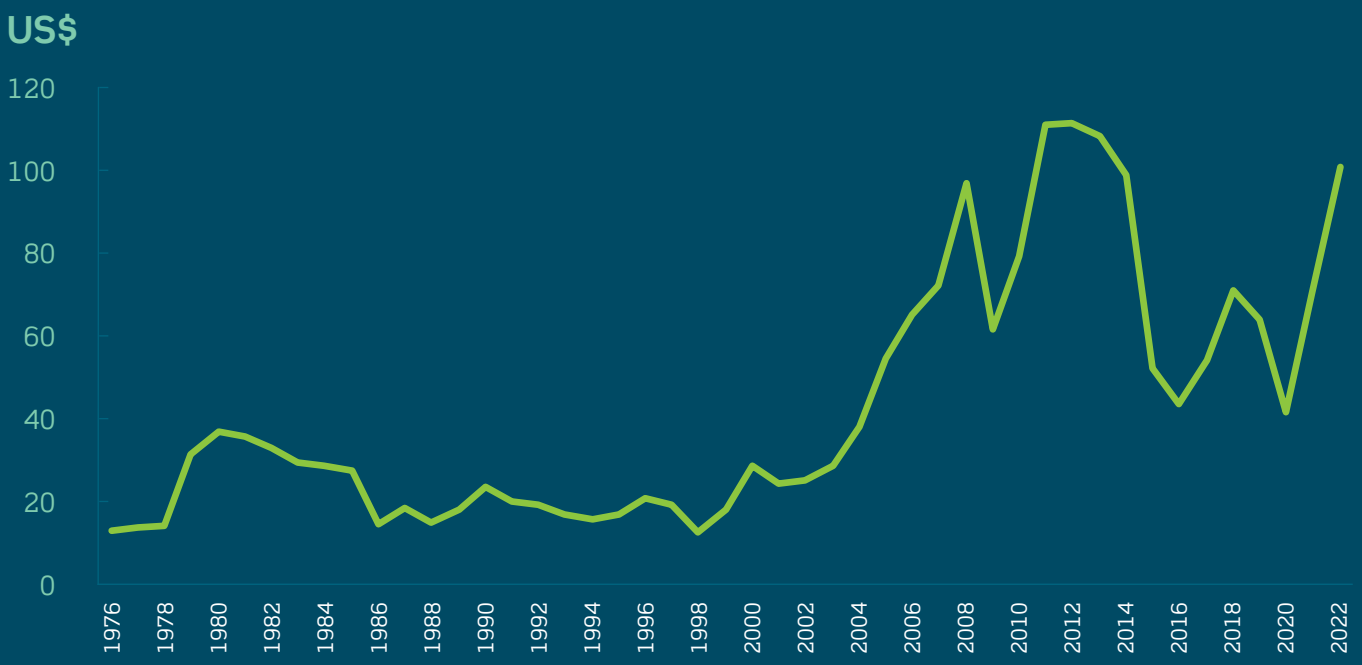
During 2022, many EU fleets across Europe, including Ireland stayed in port as they were not able to cover their operational costs. According to the EU Commission's recent Communication on the Energy Transition of the EU Fisheries and Aquaculture sector, the rise in fuel prices resulted in marine-diesel more than doubling in price in 2022. This has led to the contribution of energy costs to overall operational costs rising exponentially, reducing profitability and putting the economic viability of the EU fleet under pressure.

The effects on the Irish fishing fleet vary depending on the scale of operations, fishing gear used and level of fishing effort. However, all of the Irish fleet are susceptible to skyrocketing fuel costs. As shown in the fuel price comparison figure, petrol and diesel prices at the pump show low variation from 2015-2021 but sharply increase throughout 2022. Marine oil prices in Killybegs and Greencastle (Foyle) are broadly similar showing an identical trend to the pump price but at a lower scale due to bulk pricing and tax exemptions applicable to fuel used in the fishing sector.

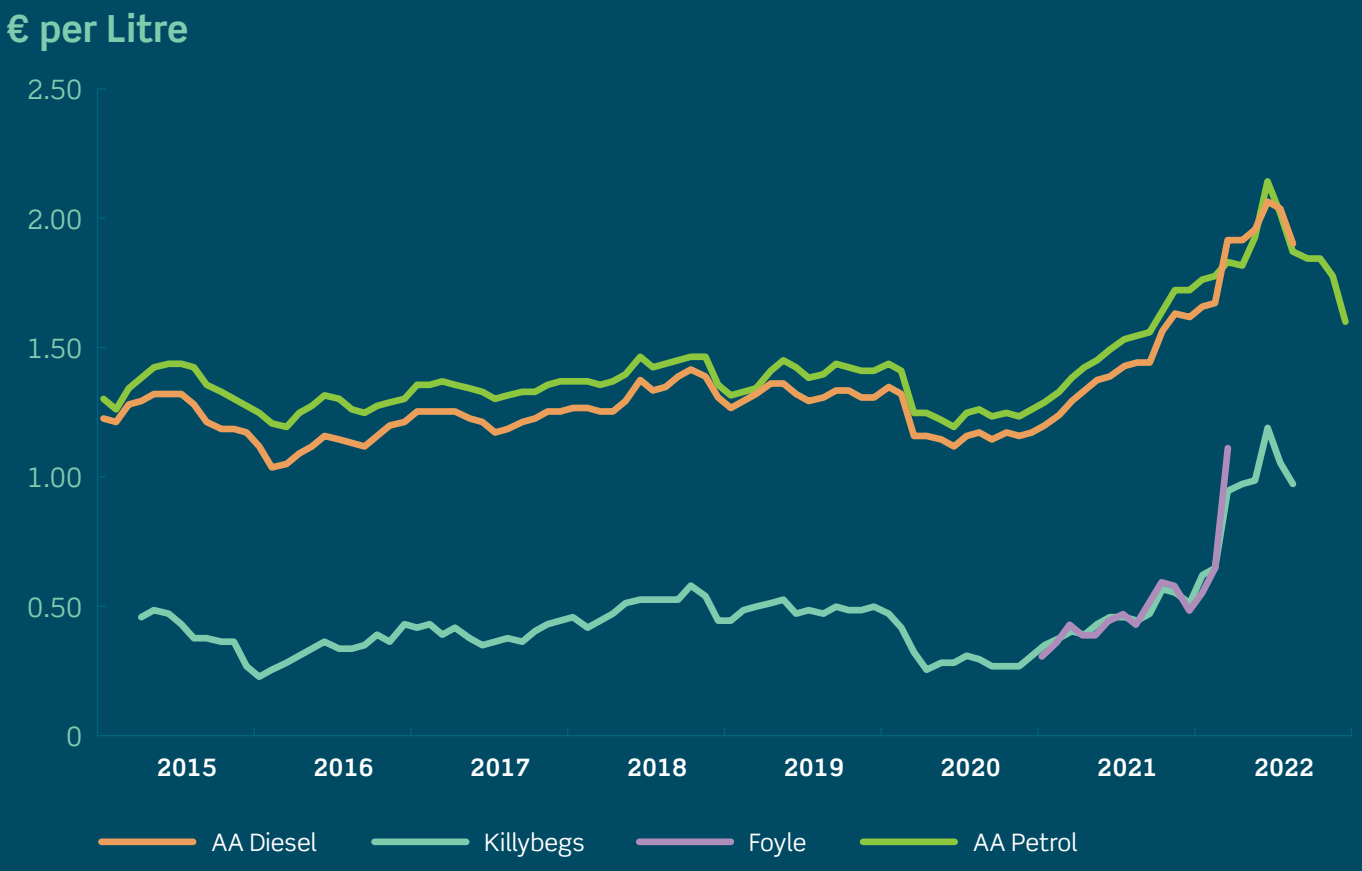
Looking forward, the short-term Energy Outlook from the U.S. Energy Information Administration (EIA) forecasts increased oil production in 2023 and 2024. They indicate that spot prices should stabilise at around $80 per barrel from the highs of over $100 per barrel in 2022. This is dependent on a number of key factors including oil demand in China, oil production in Russia and global oil inventories, meaning there is a high degree of uncertainty about the short-term forecasts. Therefore, given the dependency of the seafood sector on fossil fuels there is a need to explore ways to reduce fuel usage as well as investigating alternative fuel sources such as renewable hydrogen, ammonia, methanol or other sustainable synthetic fuels and biofuels.

Brent Crude Oil

Long-term Spot Prices - Barrel



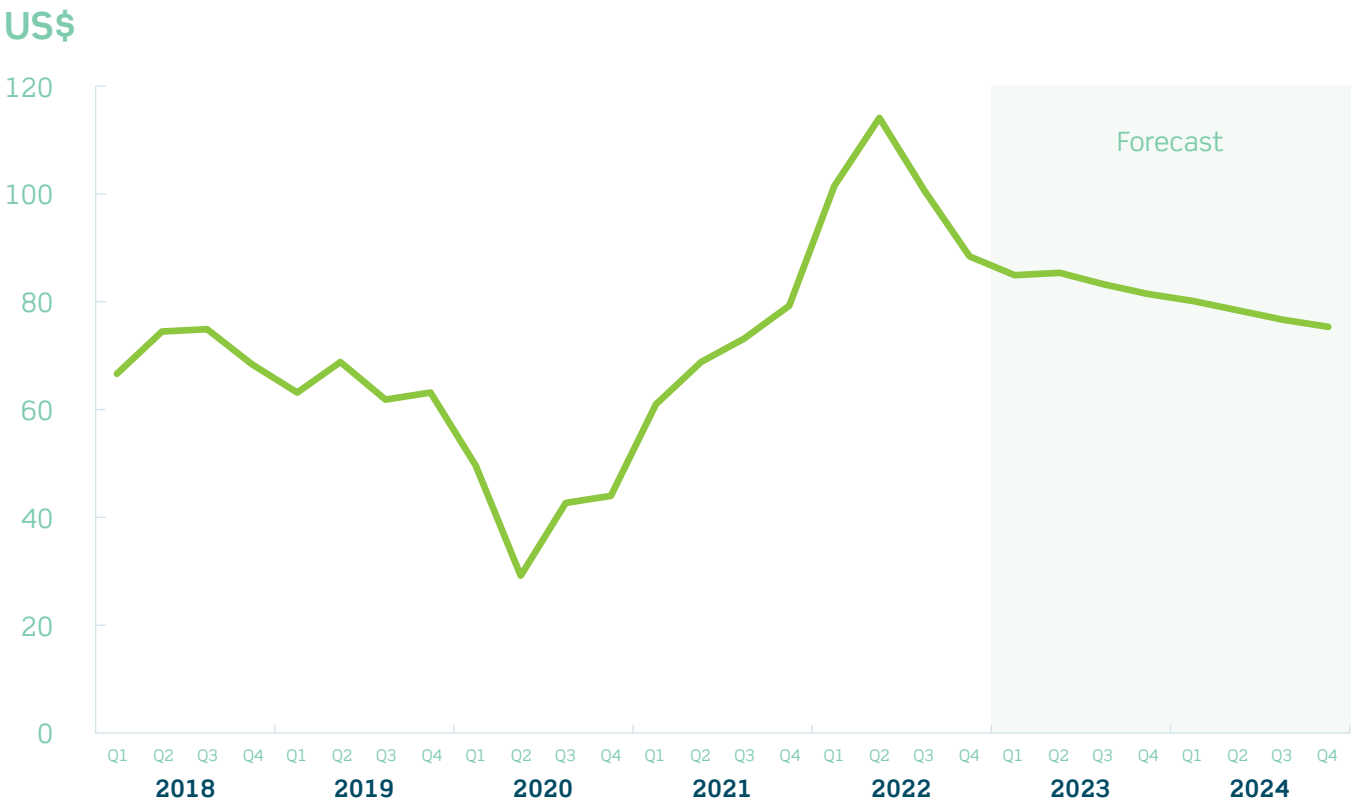
Fuel Price Comparison - Ireland



Global Petroleum
and Other Liquids

	Actual		Forecast	
	2021	**2022**	**2023**	**2024**
Brent crude oil spot price (dollars per barrel)	70.89	100.94	83.63	77.57
Global liquid fuels production (million barrels per day)	95.7	99.95	101.1	102.61

Brent Crude Oil
Spot Price Forecast 2023-2024 - Barrel



Carbon Footprint

Establishing a Carbon Baseline for the Irish Seafood Sector

The Irish seafood sector is a

low carbon

emitting sector when compared to other economic activities.

The Irish seafood sector is a "low carbon food source", generating less than 2% of the total Irish Agri-food Greenhouse Gas emissions figure.

Greenhouse gas emissions from the Irish seafood sector are relatively low when compared to other food producing sectors such as farming. Food production globally accounts for approximately 30% of total carbon emissions from human activities. However, the global seafood sector only accounts for a small portion (4%) of food production emissions.

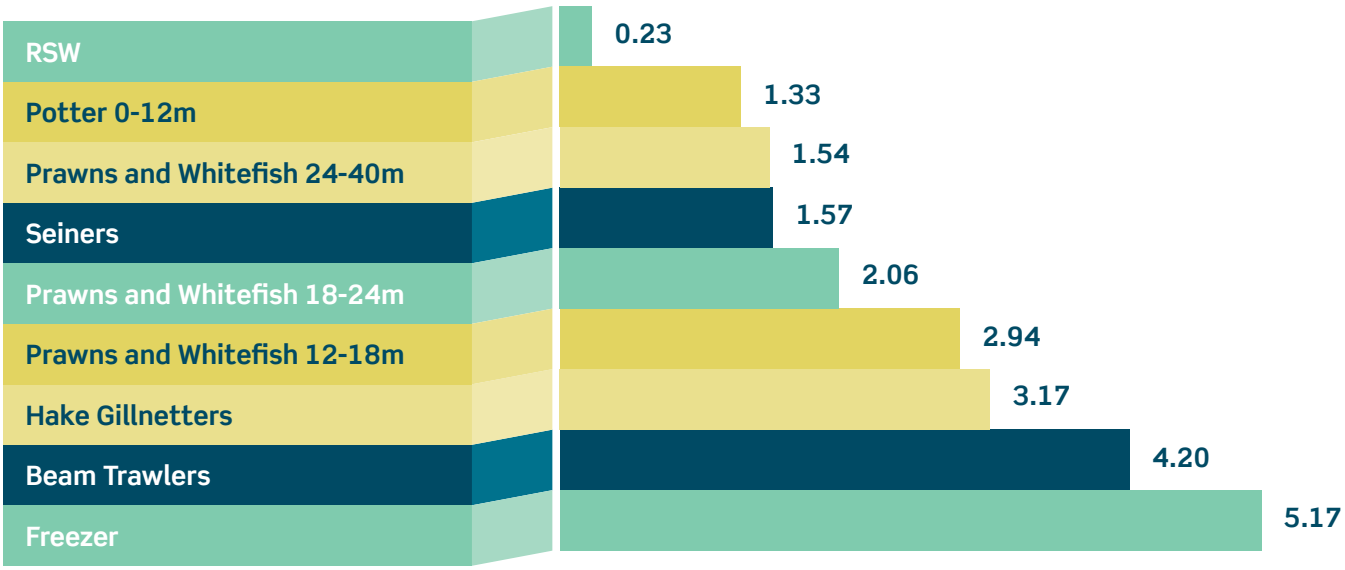
The seafood sector is unique and operates differently to other sectors of the economy. It is diverse, made up of numerous sub-sectors. Each of these has a unique Greenhouse Gas (GHG) emission profile. In general terms, fish that shoal in high density, such as mackerel, which are caught by the modern Irish pelagic fleet, comprise fisheries with a very low carbon footprint. Farmed shellfish such as mussels and oysters similarly have very low carbon emissions, with some studies suggesting that shellfish farms can be considered to have 'negative emissions' (i.e., they remove more carbon than they produce).

Similarly fish landed using bottom trawled gear have relatively low carbon footprints when compared to other food types. However, there are some carbon emission 'hotspots' that should be the focus of mitigation measures to reduce the overall carbon footprint of seafood. The Irish seafood sector relies on diesel for its fishing fleet (accounting for circa 90% of all fleet GHG emissions) and imported aquaculture feed for the salmon farming sector (accounting for 60% of emissions for salmon farming). These aspects of the Irish seafood sector are key target areas for the future reduction of the sector's carbon footprint.

Average Carbon Emissions (carbon dioxide equivalent in tonnes) per tonne of fish landed, by vessel segment

Vessel Segment	Average Annual Emissions per Vessel	Average Annual Tonnes Landed per vessel	Average Emissions per Tonne Landed
RSW Pelagic	1,421	6,059	0.23
Potter 0-12m	47	35	1.33
Prawns and Whitefish 24-40m Trawlers	1,517	988	1.54
Seiners	522	332	1.57
Prawns and Whitefish 18-24m Trawlers	967	469	2.06
Prawns and Whitefish 12-18m Trawlers	313	106	2.94
Hake Gillnetters	484	153	3.17
Beam Trawlers	930	222	4.2
Freezer Trawlers	1,282	248	5.17

Carbon Emissions in Tonnes per Tonne of Fish Landed (2017-2019 average), by vessel segment



Total Greenhouse Gas Emissions for Main Irish Aquaculture Sectors

Aquaculture Species GHG Emissions (Tonnes CO_2 equivalent)	2017	2018	2019
Farmed Salmon	71,185	46,510	43,983
Salmon Hatchery	546	256	401
Rope Grown Mussels	922	1,025	1,123
Trestle Grown Oysters	2,351	2,399	2,329
Bottom Grown Mussels	6,172	3,870	4,032
Other Bottom Bivalves	199	206	211
Other Finfish	2,942	2,533	2,764
Other Minor Cultures	-	-	-
Total	**84,315**	**56,798**	**54,844**

Labour Force Study

Employment Conditions in the Irish Fishing Fleet

In 2022, BIM completed a labour force analysis of the Irish fishing industry. This analysis provides a detailed assessment of the employment characteristics of the sector. Key findings show that the Share fishing model dominates all fleet segments with the exception of the pelagic sector where the majority of crew are employed on a PAYE basis.

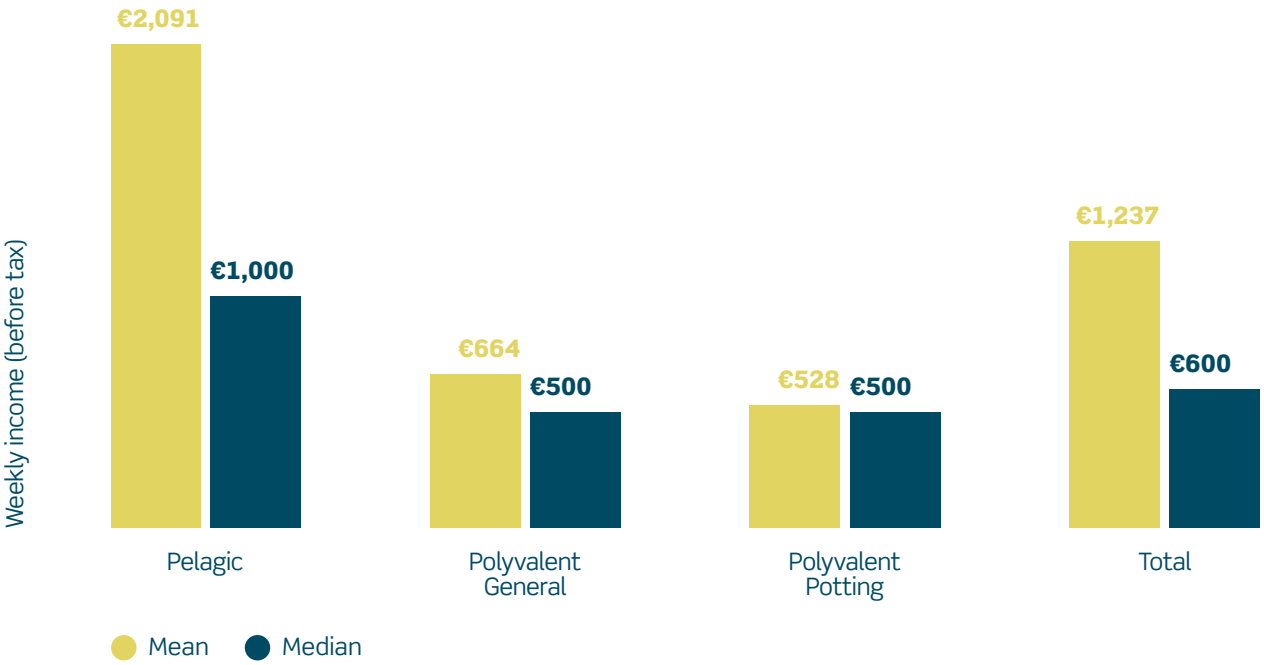
70%

of pelagic fleet crew employed under PAYE system

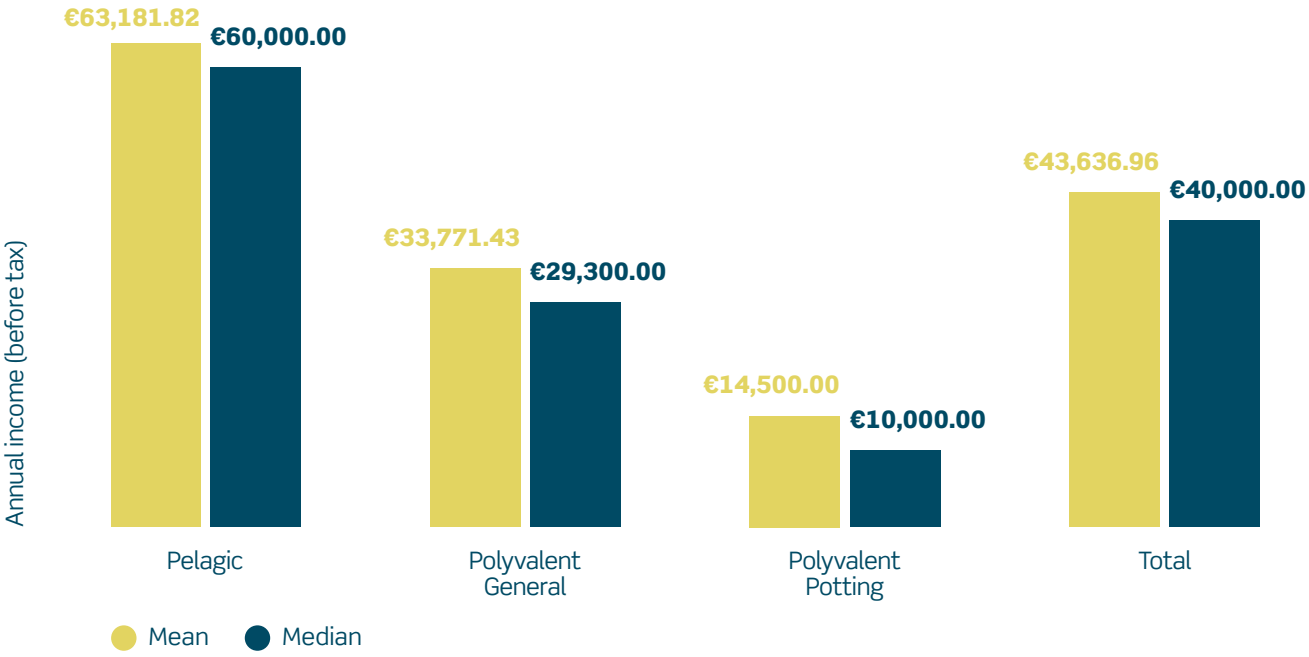
Polyvalent crew employed under share system

71%

Weekly income by Segment

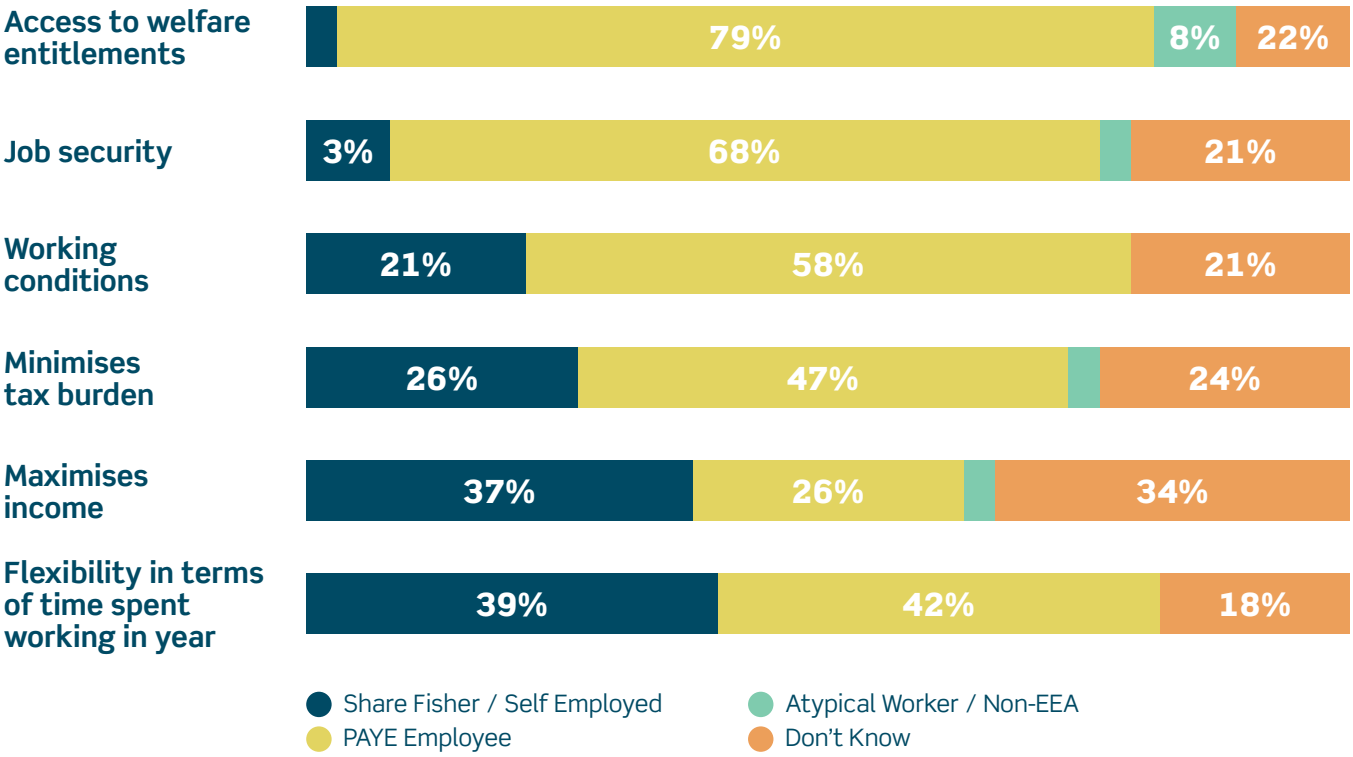


Annual income by Segment



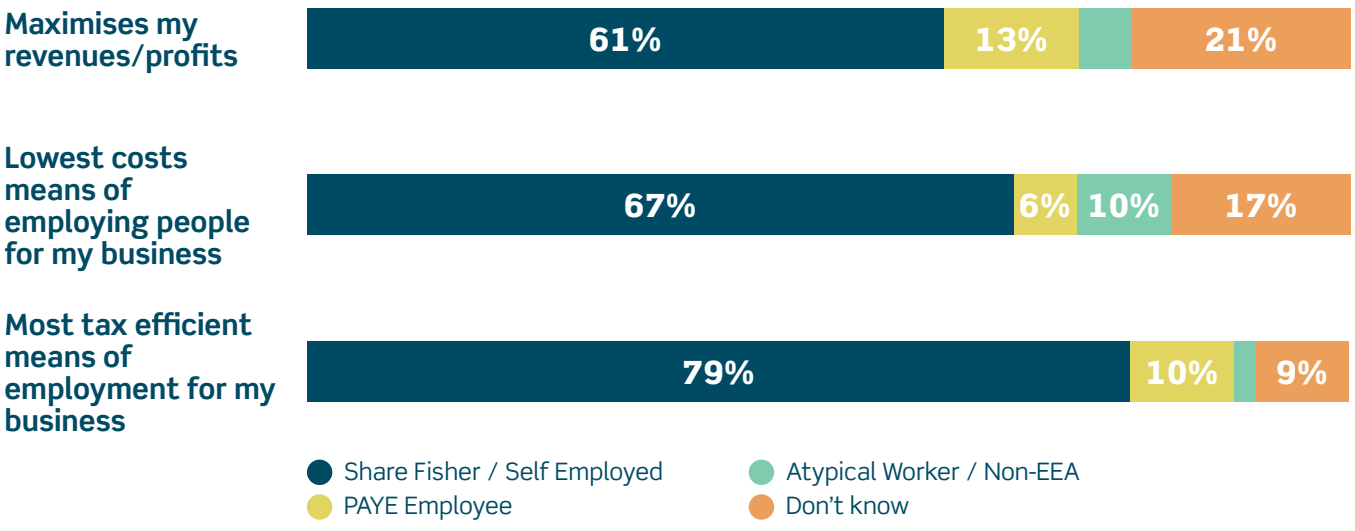
Crew typically view the share fishing model as advantageous to maximise income. Access to social welfare and certainty of income are seen as key advantages of PAYE employment.

Polyvalent General Sector Crew Views on Different Employment Types



Employers prefer share fishing arrangements citing flexibility of doing business and low administrative burden. Higher costs of PAYE employment due to employers PRSI, rights of PAYE workers to paid holidays and other costs were cited.

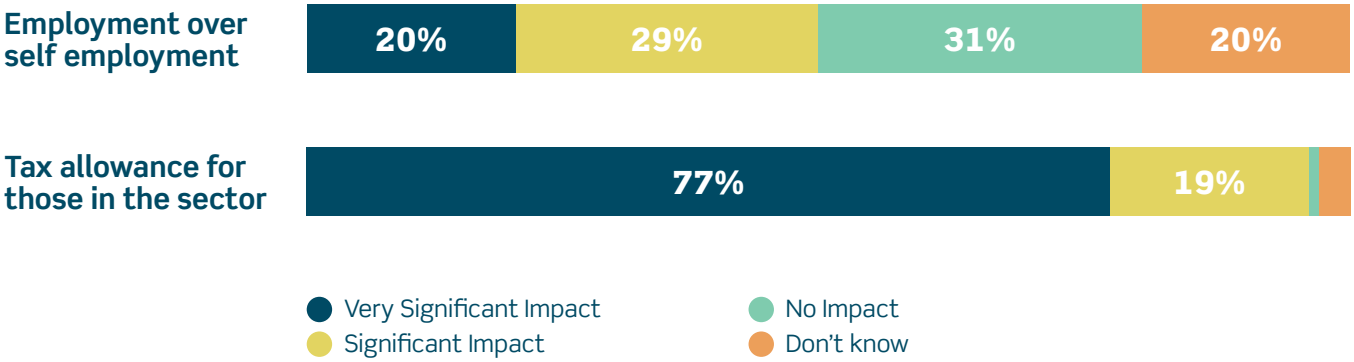
Employer Views on Income, Taxation, and Welfare Entitlements Under Different Employment Types



Views of Crew and Employers on Changes to the Means of Employment in the Fishing Sector

Crew

Employers



Labour Force Report Recommendations:

Engagement and Awareness

Increased engagement to raise awareness of career prospects in seafood sector

Career Progression and Training

Development of apprenticeship programme; formal qualifications in seafaring that are transferable across the marine sector; introduction of watchkeepers ticket; introduction of seaman's books to track employment history, skills and qualifications in sector.

Employment Practices

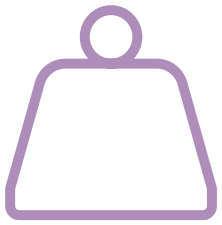
Raise awareness and training of PAYE employment in sector; encourage mixed employment of PAYE and share renumeration.

Taxation

Assess feasibility of mixed renumeration with access to social welfare system; reform existing fisher tax credit to align with seafarers allowance.

Quotas

Fishing Quotas for Stocks Exploited by the Irish Fishing Fleet



163,000

tonnes, the total quota available to the Irish fleet

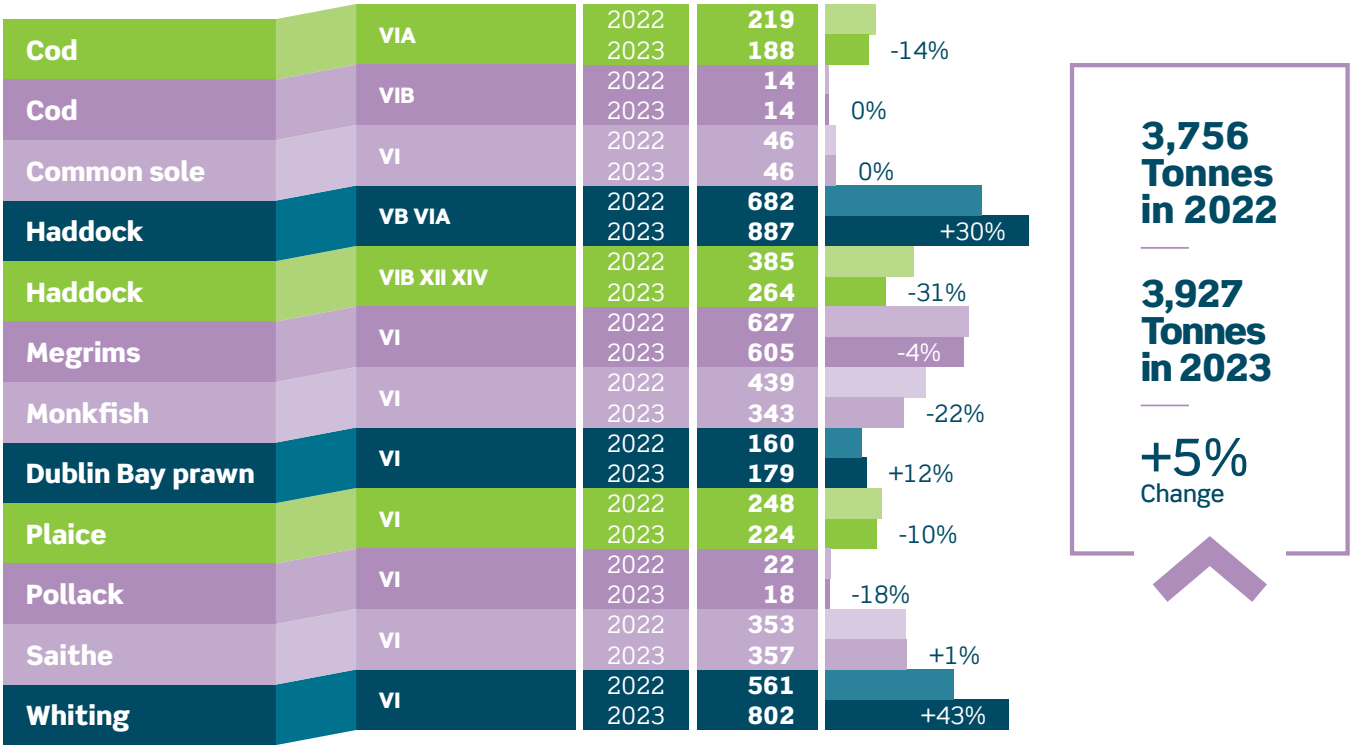
Value of Quota

€209m

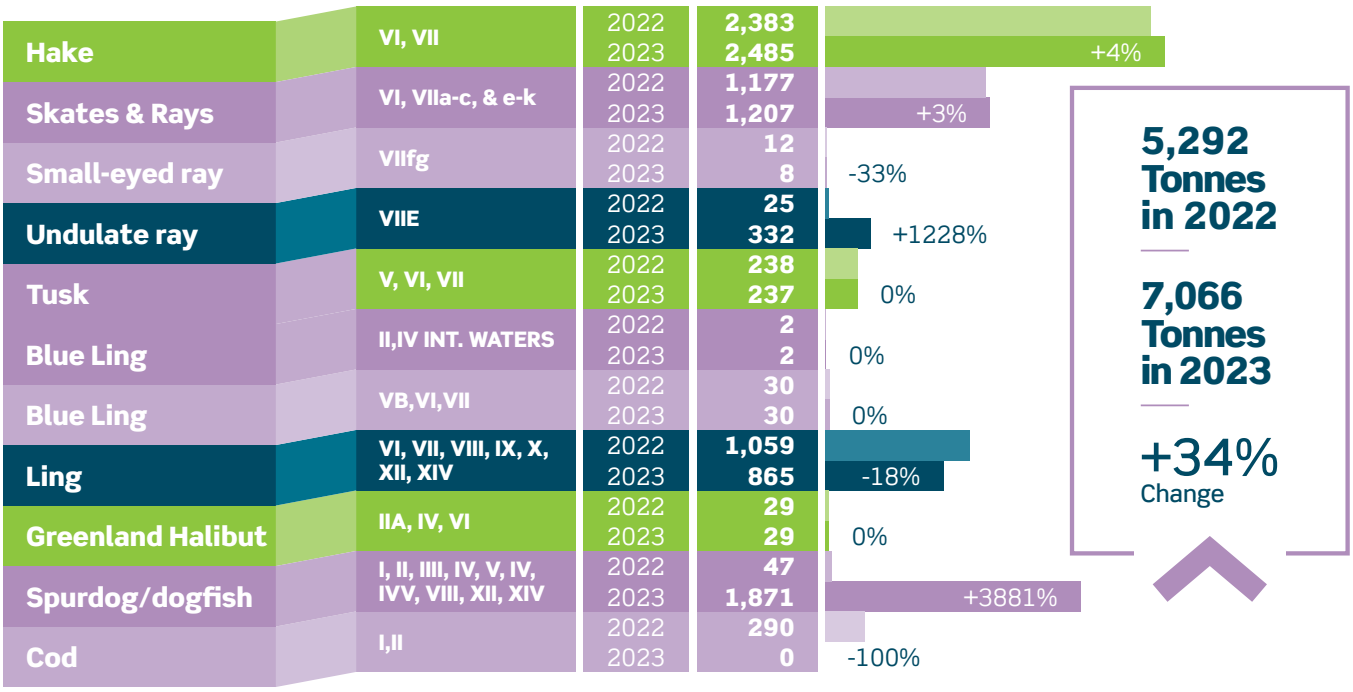
In 2023 the total quota available to the Irish fleet amounts to 163,000 tonnes, an increase of 5,000 tonnes (+3%). The value of this quota is €209m, a decrease of 2% on 2022.

For 2023, there has been a slight increase in the quota for all stocks combined. Pelagic quotas have increased by 3% compared to 2021to 128,747 tonnes, while the quota for demersal stocks has increased by 5% to 34,532 tonnes. At the species level, there is a significant increase in the blue whiting quota (+68%) with smaller increases for megrim, monkfish and Dublin Bay prawns of 17%, 10% and 6% respectively. These increases are offset by a large reduction in the horse mackerel quota (80%), as well as a smaller reduction in the mackerel quota of 5% and reductions in the quotas for pollack, whiting and several herring stocks.

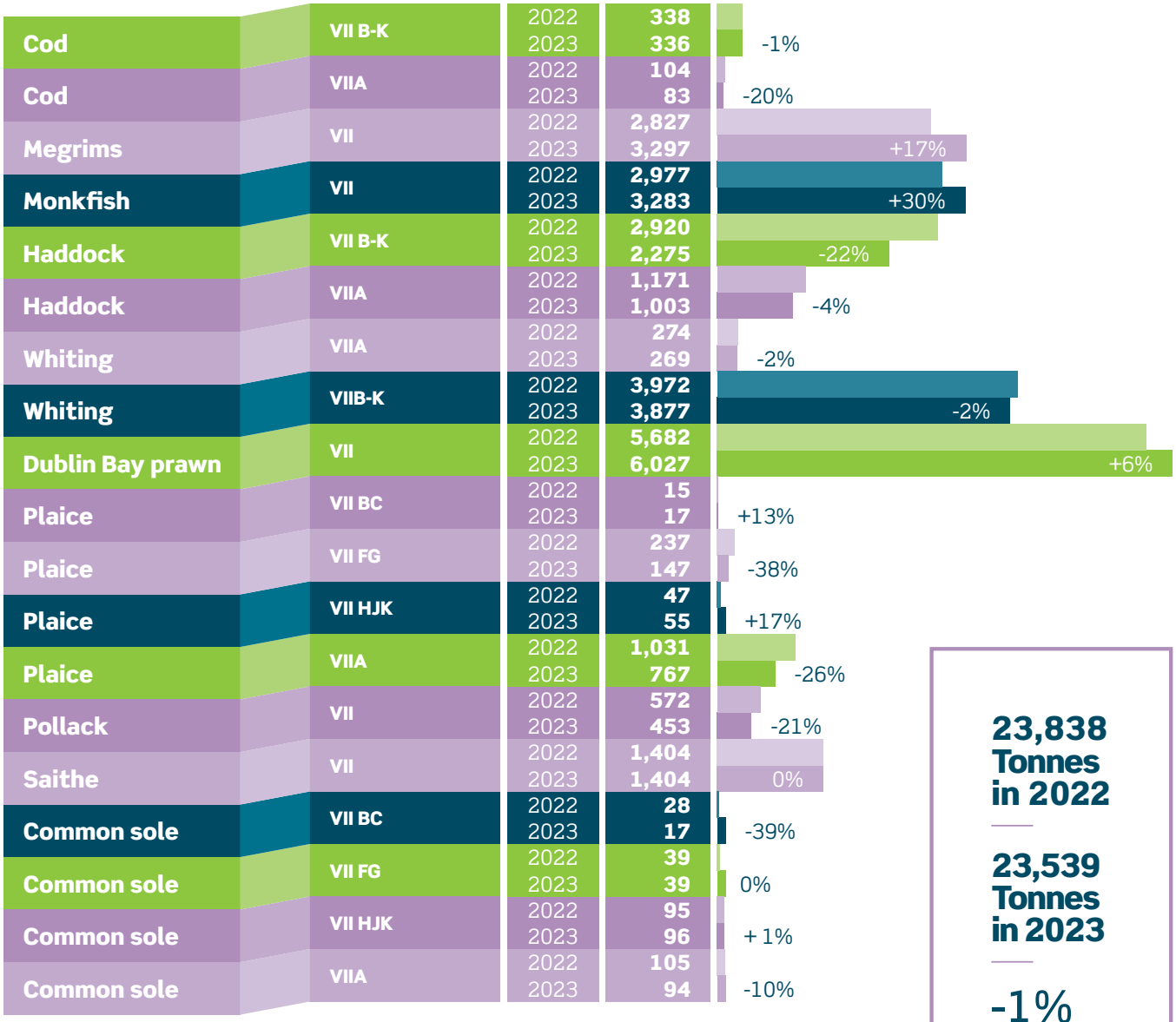
Area VI
Demersal Stocks



Area VI & VII
Demersal Stocks



Area VII
Demersal Stocks



23,838 Tonnes in 2022

23,539 Tonnes in 2023

-1%
Change

Deepwater
Stocks

Black Scabbardfish	V, VI, VII, XII	2022	18	
		2023	52	+189%
Alfonsinos	I, II, III, IV, V, VI, VII, VIII, IX, X, XII, XIV	2022	2	
		2023	5	+150%
Roundnose Grenadier	VB, VI, VII	2022	42	
		2023	150	+257%
Roundnose Grenadier	VIII, IX, X, XII, XIV	2022	1	
		2023	2	+100%
Red Seabream	VI, VII, VIII	2022	1	
		2023	3	+200%

64 Tonnes in 2022

212 Tonnes in 2023

+231% Change

Pelagic
Stocks

Greater silver smelt	III, IV	2022	5	
		2023	5	0%
Greater silver smelt	V, VI, VII	2022	821	
		2023	573	-30%
Boarfish	VI, VII,VIII	2022	15,749	
		2023	15,749	0%
Herring	I, II	2022	3,098	
		2023	2,646	-15%
Herring	VIAN	2022	470	
		2023	161	-66%
Herring	VIAS, VIIBC	2022	1,236	
		2023	1,720	+39%
Herring	VII GHJK	2022	750	
		2023	750	0%
Herring	VIIA	2022	719	
		2023	439	-39%
Blue whiting	I, II,III, IV,V, VI, VII, VIII A,B,D,E XII,XIV	2022	28,438	
		2023	47,737	+68%
Mackerel	VI, VII	2022	54,992	
		2023	52,385	-5%
Horse mackerel	IIA, IVA, VI, VIIA-C, VIIE-K, VIIIA,B,E	2022	15,737	
		2023	3,213	-80%
Horse mackerel	IVB, IVC, AND VIID	2022	202	
		2023	194	-4%
Albacore	NORTH ATL	2022	3,317	
		2023	3,174	-4%
Blue Shark	ATLANTIC OCEAN, NORTH OF 5 DEGREES	2022	1	
		2023	1	0%

125,535 Tonnes in 2022

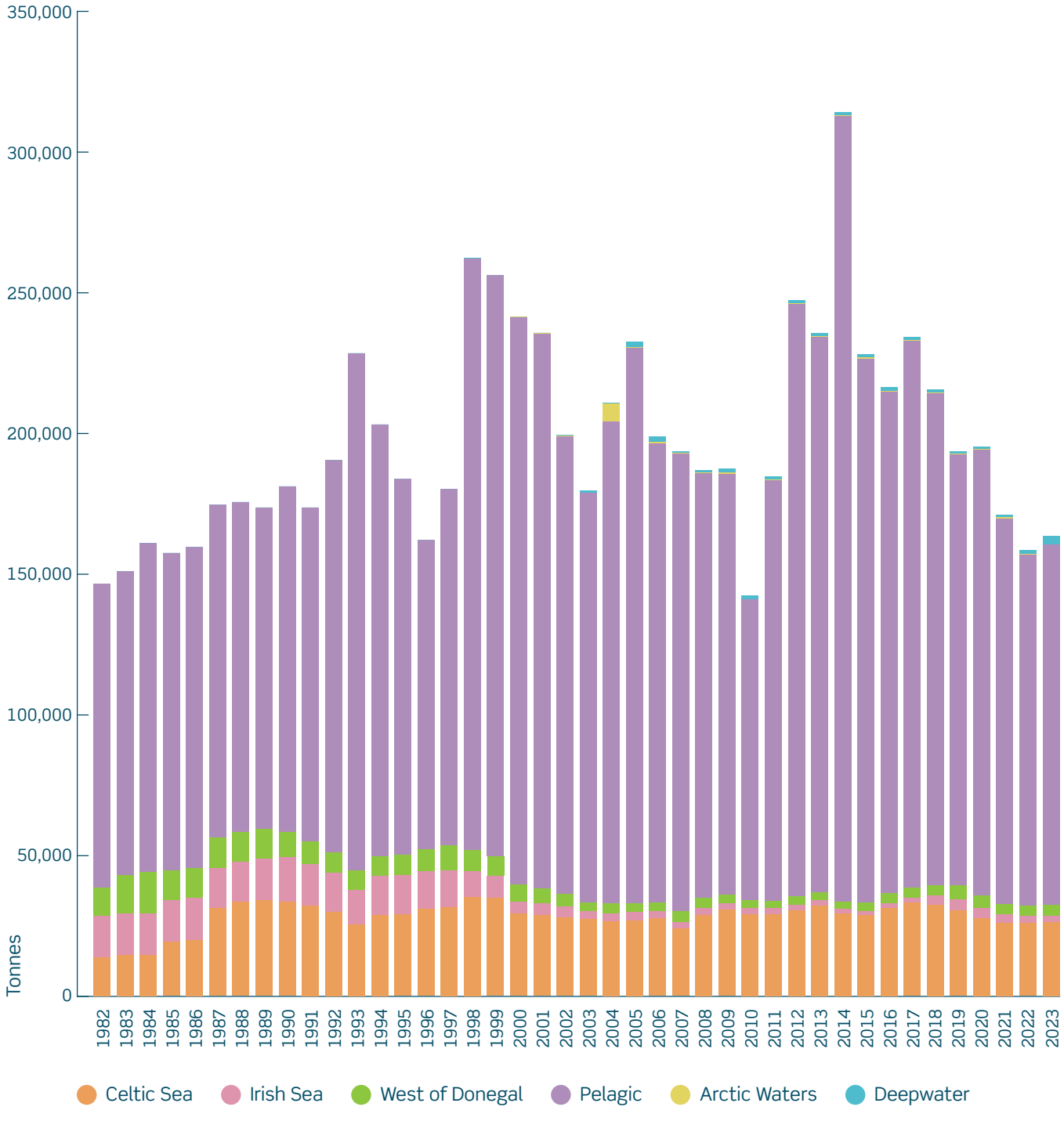
128,747 Tonnes in 2023

+3% Change

Evolution of Irish Quota
1982-2023

Fishing Opportunities for all stocks by regional sea 1982 - 2023

Quotas were first introduced into European fisheries in 1982. Since their introduction, Ireland's quota has fluctuated quite significantly from lows of 162,000 tonnes in 1996 and 142,000 tonnes in 2010, to highs of 262,000 tonnes in 1997 and 314,000 tonnes in 2014. These peaks and troughs have mainly been driven by variability in pelagic quotas, such as blue whiting, horse mackerel and boarfish. Quotas for demersal stocks across the sea areas have been remarkably stable since 2000, averaging around 35,000 tonnes. Ireland's 2023 total quota for all stocks represents an increase on 2022.



Terms of Reference

Pelagic Fish

Pelagic fish swim in mid-waters or near the surface. Oil rich fish such as mackerel, herring, boarfish and tuna are common examples.

Demersal Fish

Demersal fish are those which live on or near the sea bed. Round and flat white fish fall into this category and include cod, hake, haddock, whiting and flatfish such as sole, turbot, plaice and megrim.

Regions by County:

North: Donegal

North West: Mayo, Sligo and Leitrim

West: Galway and Clare

South West: Kerry and Limerick

South: Cork

South East: Wicklow, Wexford and Waterford

North East: Louth, Meath and Dublin

Data Sources

Landings data are supplied by the Sea Fisheries Protection Agency (SFPA), www.sfpa.ie.

Value of landings are estimated by BIM.

Aquaculture data is collected through the BIM Annual Aquaculture Survey.

Processing sector data detailing turnover and employment is estimated by BIM with production volume provided by the Central Statistics Office (CSO).

Seafood-Tech sector employment and estimated turnover based on data sourced from Bureau van Dijk Orbis.

Population data is sourced from the CSO Census 2016, www.cso.ie.

Seafood population and employment statistics estimated by BIM using Census 2016 data.

Employment data and economic data on the seafood sector collected through the Data Collection Framework by BIM.

Retail data is supplied by KANTAR World Panel.

Foodservice consumption estimated by BIM using Bord Bia 'Irish Foodservice Channel Insights' data.

The total processing employment includes wild seaweed harvesters.

Import and Export data supplied by EUROSTAT via IHS Markit.

Government investment is sourced from the Revised Estimates for Public Services of the Government of Ireland.

Economic performance of the fishing fleet is sourced from BIM's Data Collection Framework Data.

Data on quotas is sourced from the Official Journal of the European Union.

International energy prices sourced from the U.S. Energy Information Administration, Short-Term Energy Outlook. Local fuel prices in Ireland sourced from Foyle Fishermans Co-op and Art Kavanagh for Greencastle and Killybegs respectively.

Carbon footprint data and results sourced from the BIM project *'Carbon Footprint report of the Irish Seafood Sector'*, available on the BIM.ie website

Labour Force data and results sourced from the BIM project *'Labour Force Analysis of the Irish Fishing Fleet'*, to be published soon on the BIM.ie website.

Please note some figures have been rounded for the purposes of this publication.

The data used in this publication includes provisional data which may be subject to updates throughout the year.

Please consult the data sources cited above for original and updated data.

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