BIM Ireland's Seafood Development Agency

Annual Fisheries Report

Findings of the National Seafood Survey 2024

Rialtas na hÉireann
Government of Ireland

Arna chomhchistiú ag an Aontas Eorpach

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The Annual Fisheries Report: Findings of the National Seafood Survey 2024 **supersedes all previous reports.** Comparisons across reports cannot be made as data is revised if survey returns arrive after the official deadline.

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Irish Fishing Fleet 2022

Profitability for 2022

Significant Decrease from 2021

€311.8 million

Revenue

(-10%)

2,687

Total Employment

(-3%)

175,800 tonnes

Landings by Weight

(-15%)

1,745 (FTEs)

Full-Time Equivalents

(-9%)

€287 million

Landings by Value

(-12%)

1,318

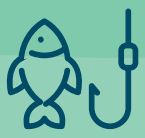
Active vessels

(-3%)

69,126

Days at Sea

(+31%)



60,317

Fishing Days

(+42%)

61.6 million litres

Energy Consumption

(-19%)

€17 million

Gross Profit

(-82%)

€137.5 million

Gross Value Added (GVA)

(-30%)

-4%

Return on Fixed Tangible Assets

(-140%)

Executive Summary

BIM's National Seafood Survey provides insights into the status of Ireland's catching sector on an annual basis. It examines the economic performance of the fleet and the social demographics of people employed in the sector. The National Seafood Survey is a critical part of Ireland's legal obligations under the European Union Multi Annual Programme (EU MAP) Data Collection Framework (DCF).

This report presents a comprehensive analysis of the financial and operational performance of the Irish fishing fleet, shedding light on key insights and identifying notable trends based on the findings of the most recent survey. By examining the economic data for the year 2022, a particularly economically challenging year for the sector against the backdrop of the conflict in Ukraine and the continued uncertainty brought about by Brexit, we delve into the factors that potentially drive these trends, providing valuable insights into the industry's dynamics.

Under the National Seafood Survey, all active vessels are requested to submit economic and operational details for their previous year's activity. There is a time lag reporting these data because for an accounting period ending on 31 December 2022, the financial return must be filed by September of the following year (i.e., September 2023). In compliance with EU and Irish legislation, BIM collected data for the reference year 2022 from October 2023 to January 2024 and submitted national totals to the European Commission in February 2024. This report presents the actual economic performance reported by the industry in 2024. This valuable data provides a historic record of the industries performance and allows us to identify long-term trends and reassess any predictive models for 2023-2024.

In terms of structure, the report presents economic estimates at a macro national and micro fleet segment level. This is followed by an overview of key drivers influencing the economic performance of the national fleet based on industry feedback, including rising operating costs, fish prices, and the decommissioning scheme. Projections of economic performance in 2023 and 2024 are presented in the final section.

Results from the most recent National Seafood Survey indicate the following:

Profitability

- Data for 2022 demonstrate a particularly economically challenging year with significant decreasing revenue and profitability driven primarily by the Ukrainian war, rising energy costs, inflation, and quota reductions linked to Brexit.
- Profitability of the Irish fleet in 2022 decreased significantly since 2021. Revenue decreased by -10% amounting to €311.8 million; Gross Value Added (GVA) at €137.5 million decreased by -30%, and gross profit at €17 million decreased by -82%. This deterioration was somewhat offset by €23.9 million in operating subsidies financed under the Brexit Adjustment Reserve (BAR) and European Maritime, Fisheries and Aquaculture Fund (EMFAF) funding. However, this is not factored into revenue and gross profit calculations for 2022.
- Data projections for 2023 indicate decreasing revenue (-20%) to €284.3 million and decreasing GVA (-1%) to €136 million. Gross profit is predicted to increase 71% from €17 million to €29 million in 2023. It is important to note that 39 vessels from the Irish LSF fleet were decommissioned at various stages in 2023. The potential economic effects are, as yet, unknown and are likely to emerge from 2024 onwards once financial data from the vessel owners becomes available.

- Forecasts for 2024 suggest an overall higher economic performance compared to 2023 driven by a reduction in operating costs despite a predicted decrease in landings by weight and value compared to 2023. Revenue is predicted to increase (2%) combined with increases in GVA (8%) and gross profit (26%).

Capacity and Effort

- The capacity of the national fleet has remained stable since 2008. In 2022, there were 2,036 registered vessels (excluding those registered in the aquaculture segment). The estimated total number of inactive vessels was 718 and 87% of these are in the less than 10 metre segments.
- An estimated 1,318 Irish fishing vessels were active (down -3% from 2021) with a total capacity of 69,786 GT and 193,260 kW. Around 81% of these vessels were under 12 metres in length and typically operate in inshore waters.
- The Irish fishing fleet spent 69,126 days at sea, of which 87% were fishing days (an increase of 7%) representing an increase in effort of 31% and 42% respectively from 2021.
- Despite increases in effort, energy consumption decreased by -19% over the same period.
- 39 vessels with a gross tonnage of 6,289 and engine power of 15,778 kW were decommissioned by the end of 2023.

Landings

- In 2022, the fleet landed over 175,800 tonnes valued at €287 million representing decreases of -15% in live weight and -12% in landed value compared to 2021.
- Provisional data for 2023 from the Sea Fisheries Protection Authority (SFPA) indicate that the fleet landed 186,000 tonnes, an increase of 6% from 2022.

Operating costs

- Operating costs increased by 14% to €331.5 million in 2022 with energy and personnel costs combined, representing 53% of all costs.
- Energy costs spiralled in 2022 to €59.4 million compared to €38.6 million in 2021, an increase of 54%.
- Despite reductions in the total number of jobs, personnel costs increased by 21% to €116.3 million in 2022, from €96.1 million in 2021.
- Other variable costs such as provisions, cleaning and hygiene, filters/lube oil, ice, bait, memberships, and harbour dues increased by 20% to €54 million in 2022.
- Data projections for 2023 and 2024 suggest a decrease in overall operating costs as energy costs reduced significantly compared to 2022 figures.

Employment

- Direct employment generated by the sector in 2022 was estimated at 2,687 jobs corresponding to 1,745 Full-Time Equivalents (FTEs).
- The average annual crew wage for the entire fleet was estimated at €43,295 per job and €66,667 per FTE compared to the median national annual earnings in Ireland of €41,823 reported by the Central Statistics Office (CSO)[1]. However, it is important to note that there are substantial variations in the average wage depending on the vessel size, the way crew are employed (i.e., shared remuneration systems or PAYE employee), and the type of fishery the vessel operates.
- Employment is expected to decrease in 2023 and 2024 in line with recent trends and as a result of 39 decommissioned vessels exiting the fleet in 2023.

1. CSO (2022). Earnings Analysis using Administrative Data Sources 2022.

1. Profile of the Irish fishing fleet

The Irish national fishing fleet is highly diversified with a broad range of vessel types across Small-Scale Fisheries (SSF) and Large-Scale Fisheries (LSF), targeting different species or species groups often in mixed fisheries.

The fleet is dominated by the polyvalent segment; a diverse group including small inshore vessels (netters and potters), medium and large offshore vessels targeting *Nephrops*, mixed whitefish, some pelagic species (including mackerel, herring, and tuna) as well as a range of vessels, from small to large-scale, targeting bivalve molluscs and crustaceans.

The Refrigerated Seawater (RSW) pelagic segment targets exclusively pelagic species (i.e., mackerel, horse mackerel, herring, blue whiting, and boarfish).

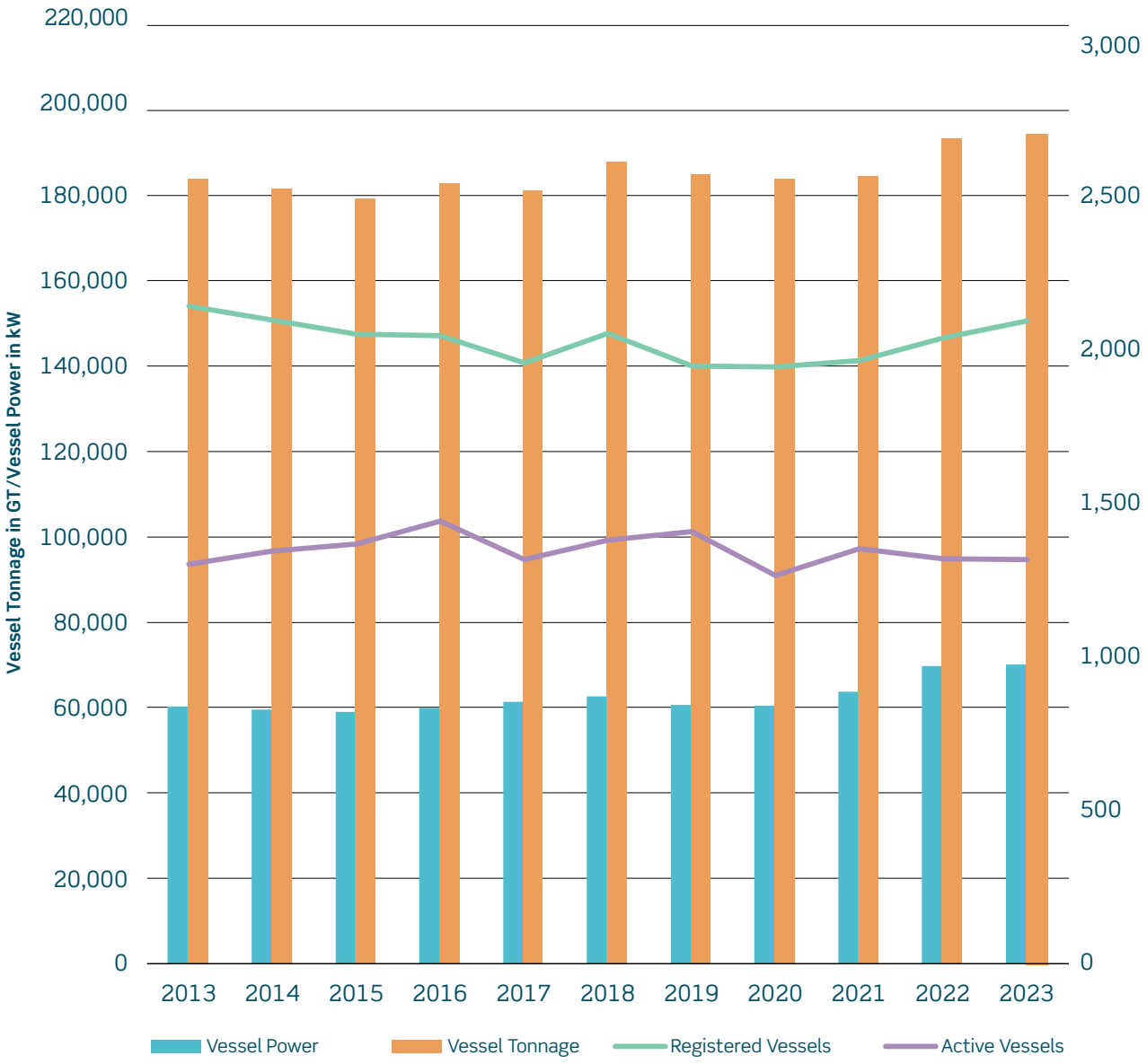


Figure 1: Trends in the fleet summary: 2013-2023.

Data source: Department of Agriculture, Food, and the Marine (DAFM) Fleet Register.

1.1 Fleet capacity

The capacity of the national fleet has remained relatively stable since 2008 with small temporal fluctuations in vessel numbers (Figure 1). In 2022, there were 2,036 registered vessels (excluding those registered in the aquaculture segment) with a total capacity of 69,786 GT and 193,260 kW. The estimated total number of inactive vessels in 2022 was 612, the majority of which (87%) are in the less than 10 metres segments. The estimated number of active vessels in 2022 for all segments was 1,318.

1.2 Fleet structure: National and EU context

Nationally, the fishing fleet is divided into five segments: RSW pelagic segment, beam trawler segment, polyvalent segment, specific segment and aquaculture Segment (see Annex 1 for further details). In addition to the nationally defined fleet segments, for EU economic data reporting purposes in accordance with EU MAP/DCF legislation (Annex 2), in 2022 the Irish fleet consisted of 32 EU MAP/DCF fleet segments (Annex 3).

From an EU MAP/DCF perspective, a fleet segment is defined as a group of vessels with the same length class (LOA, length overall) and predominant fishing gear during a given calendar year. In order to maintain confidentiality, some segments with under five vessels were aggregated.

1.3 Landings

Landings by weight in 2022 decreased significantly by -15% to 175,800 tonnes valued at €287 million compared to 207,400 tonnes in 2021 (valued at €325 million) reflecting quota reductions and a decrease in fish prices of some of the main species (Figure 2). Adjusting for price errors in the landings data and including improved estimates for income for the less than 10m segments, revenue for 2022 is estimated as €311.8 million.

Provisional figures for 2023 indicate that total landings will be close to 186,000 tonnes (with an associated landings value of approximately €260.6 million), reflecting the continued downward trend in quotas and fish prices.

Figure 2 Trends in landings by weight and value: 2013-2023* (*2023 data is provisional).

Data source: Landings by weight provided by Sea Fisheries Protection Authority (SFPA), landings by value estimated by BIM.

The top species landed by the Irish fleet by value and weight in 2022 are illustrated in Figure 3. Based on real landing values, *Nephrops* was the top species by value (€73.1 million) representing 25% of the total value of landings of the fleet, an increase of 36% compared to 2021. Production trends are highly influenced by quota changes for pelagic species and more recently by Brexit related quota reductions.

Typically, mackerel has been the most valuable species for the Irish fleet. However, in 2022 landings of mackerel decreased by -14% by weight and -42% by value compared to 2021. Similarly, horse mackerel landings decreased -18% by weight and -12% by value. There were also decreases in landings by value across other quota species including for example, scallops (-27%), hake (-8%), and anglerfish (-8%), while haddock values increased by 3%. Conversely, there were increases in the value of landings for non-quota species such as lobster (3%) and crab (2%) in 2022.

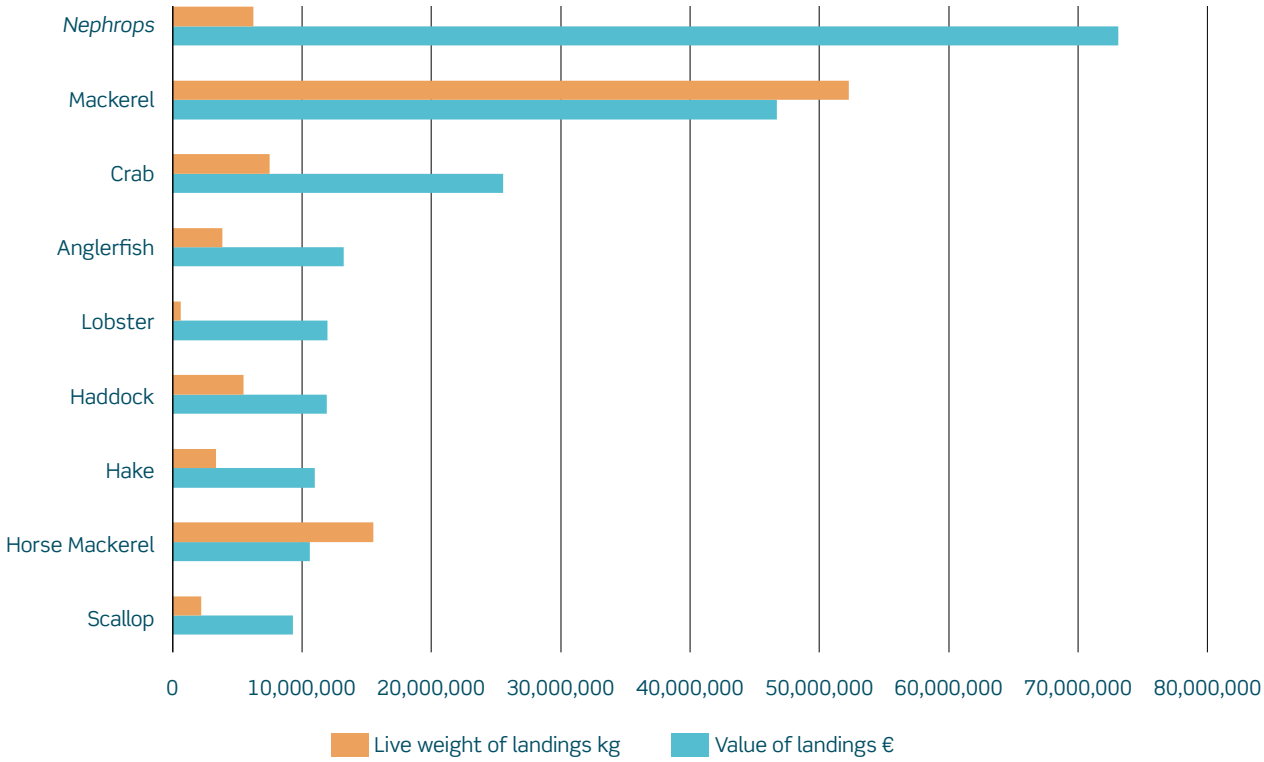


Figure 3 Top species landed by the Irish fleet by value and weight in 2022.

Data source: Landings by value estimated by BIM, landings by weight provided by SFPA.

1.4 Effort and fuel consumption

The Irish fleet operates in the North Western Waters encompassing the Celtic and Irish Seas and the waters to the West of Scotland (Figure 4). Trends in effort of the Irish fleet are illustrated in Figure 5 indicating an increase in both Days at Sea (DaS) and Fishing Days in 2022, compared to 2021.

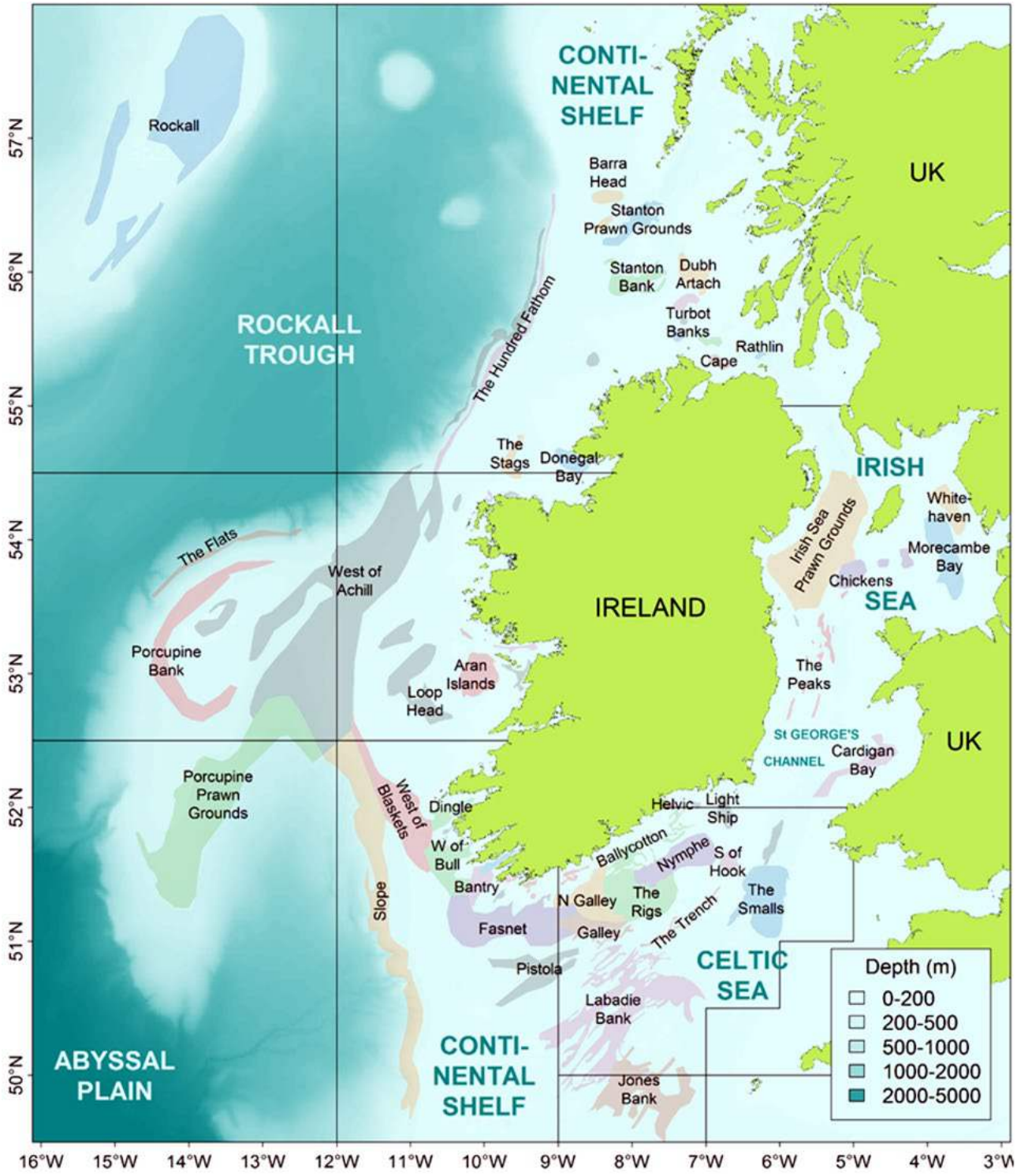


Figure 4: Map illustrating the main fishing grounds of the Irish fleet (Source: Marine Institute).

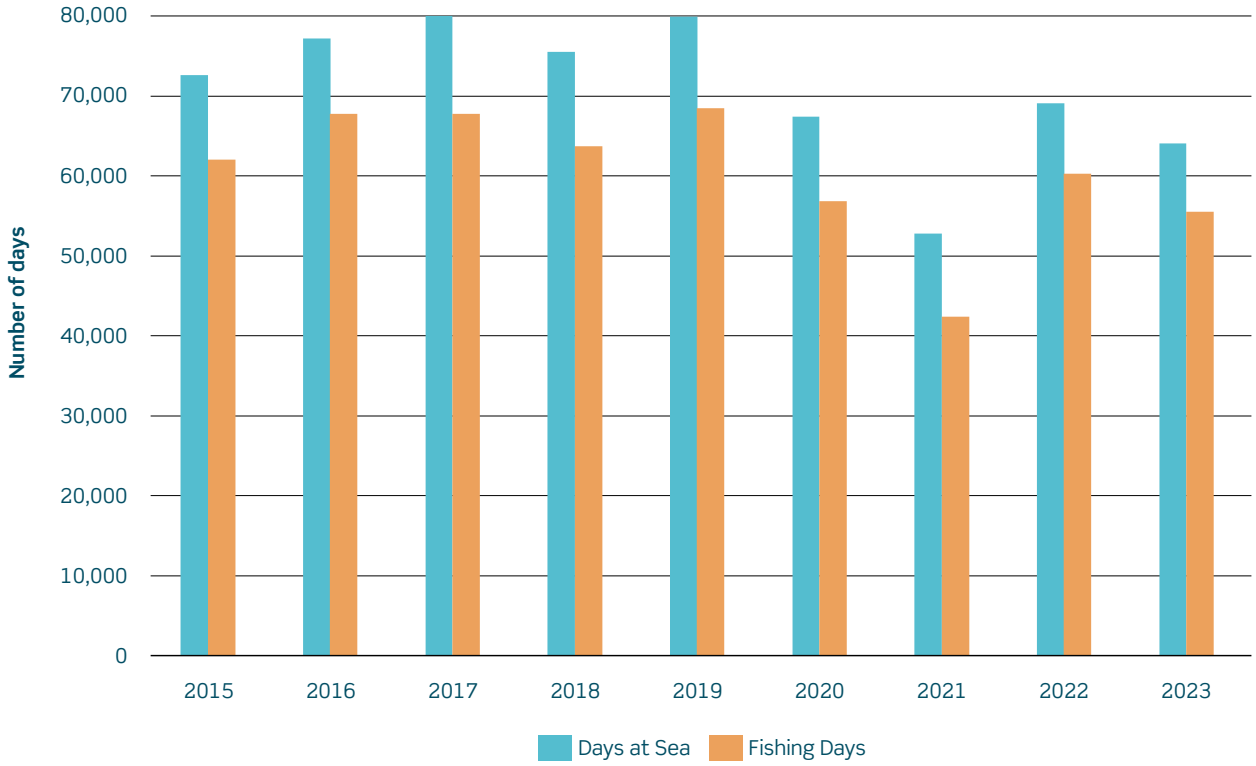


Figure 5: Trends in the effort of the Irish fleet: 2015-2023*.

Data source: SFPA.
Notes: Data for 2023* is provisional. Prior to 2015, not all inshore effort was reported.

1.5 Employment and social demographics

The Irish fishing sector is dealing with a shrinking labour pool due to slower population growth and an ageing demographic in rural and coastal areas, which traditionally supply most of its workforce. Comparatively, urban areas are experiencing slower ageing rates and retain a more robust pool of younger individuals. This demographic shift poses a significant challenge to the sector which heavily relies on younger workers, particularly males, for crew positions. Recent data shows a stark ageing trend in these areas, with the number of individuals aged 20-34 years declining sharply, thereby complicating recruitment efforts (BIM, 2022)[2]. Earnings within the sector also reflect challenges with median weekly earnings significantly lower than other sectors such as construction and transportation. This disparity may deter potential new entrants from considering fishing as a viable career path.

National Seafood Survey data indicates in 2022 an estimated 2,687 jobs were directly supported by Irish fishing activity, representing a decrease of 3% on 2021 employment figures (2,776). Total employment in the sector remains below pre-Covid-19 levels with 2,944 jobs in 2019. Figure 6 presents trends in terms of total employment in the fleet from 2008-2022.

In 2022, Full-Time Equivalent (FTE) was estimated to be 1,745, a decrease of 9% from 2021. FTE is a measure of employment in an industry which considers average daily hours worked by employees and total annual sea days. A lower FTE relative to total numbers employed indicates that there are large numbers of employees working in a casual or part-time capacity in the fleet.

2. BIM (2022). Labour Force Analysis of the Irish Fishing Fleet.

Employment and wages of the Irish Fleet: 2022

Total Employment

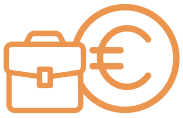
2,687

(-3%)

Full-Time Equivalents (FTEs)

1,745

(-9%)



Average wage per job across the fleet

€43,295

(+37%)

Average annual wage per FTE across the fleet

€66,667

(+40%)

Median annual national earnings (CSO)

€41,823

***Note:** There are substantial variations in the average wage depending on the size and gear of the vessel and the systems of crew share.

The average annual crew wage for the entire fleet was estimated at €43,295 per job and €66,667 per FTE compared to the median national annual earnings in Ireland of €41,823 reported by the Central Statistics Office (CSO)[3]. However, it is important to note that there are substantial variations in the average wage depending on the vessel size, the way crew are employed (i.e., shared remuneration systems or PAYE employee), and the type of fishery the vessel operates.

3. CSO (2022). Earnings Analysis using Administrative Data Sources 2022.

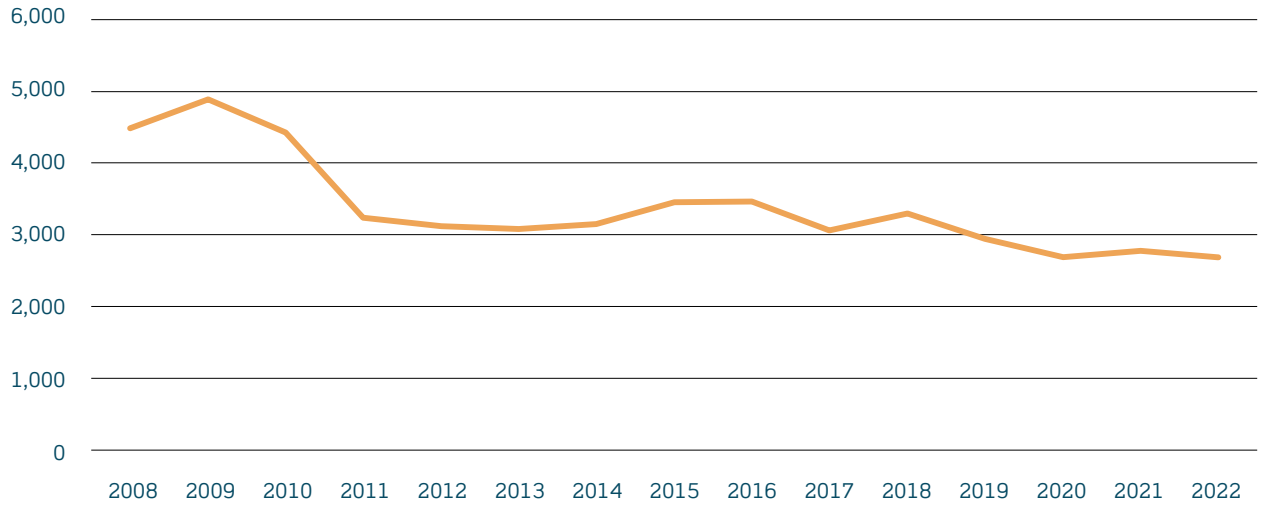


Figure 6: Total employment in the Irish fleet: 2008 – 2022.

1.5.1 Profile of employment in the fishing industry

As part of the National Seafood Survey, vessels are asked to give a breakdown of crew positions and their payment type. Figures 7 and 8 present the breakdown of payments for SSF and LSF. In the SSF, most crew positions (including Deckhand, Mate, Onshore Worker, Owner, Skipper, Skipper/Owner, Trainee Deckhand, and Trainee Engineer), primarily rely on salary as the mode of payment. Notably, there is a significant presence of crew share payment for the mate and skipper roles, reflecting a profit-sharing approach.

The 'Other' category and positions like owner have a mix of salary and unknown payment types, possibly indicating flexible or varied payment arrangements. In contrast, the LSF shows a larger reliance on crew share, particularly prominent in roles such as cook, deckhand, engineer, mate, and skipper. Salary remains the dominant payment method for positions like onshore worker(s), owner, and other, whereas the trainee positions are mostly salaried, but with a notable portion of their compensation coming from crew share.

Overall, the SSF shows a more straightforward salary-based compensation structure across most roles, while the LSF exhibits a mixed approach, dominated by crew share, especially for operational roles aboard vessels. This could suggest different operational and financial structures within the fleets, with the LSF possibly offering more incentive-based earnings through crew share arrangements.

Figure 7: Percentage breakdown of crew positions by payment type for SSF vessels in 2022.

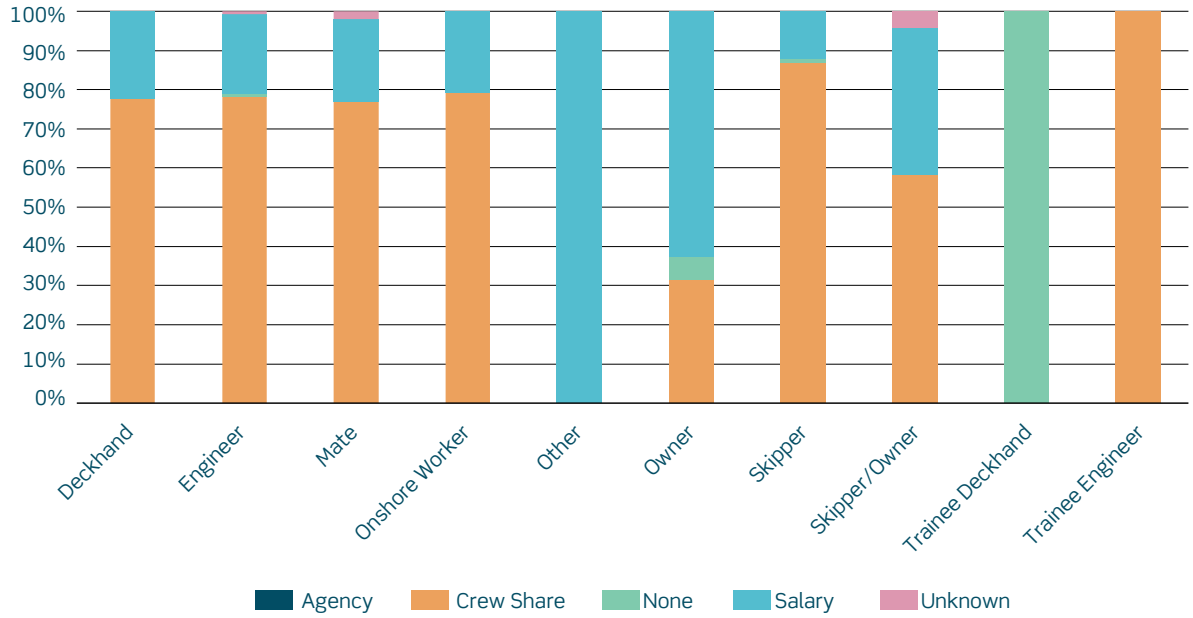


Figure 8: Percentage breakdown of crew positions by payment type for LSF vessels in 2022.

Age Distribution

Figure 9 presents a sample age distribution of crew members within the Irish SSF and LSF fleets. The ages, ranging from 14 to 90, are plotted as a percentage of crew members in each age category. These statistics reveal that while the SSF has a higher average and median age (47 and 50, respectively), suggesting an older workforce overall, it also displays a broader age range, from young to considerably old crew members. The LSF shows a tighter age distribution with an average age and median age of 45.

Overall, the graph displays considerable fluctuation in age distributions for both fleet sectors, with the SSF showing a broader spread of younger ages and the LSF skewing towards an older age range. These differences may reflect varying operational requirements, traditions, or employment practices between the two fleet sectors. Age fluctuations across both fleets could potentially raise issues in terms of new entrants or succession planning in the long term.

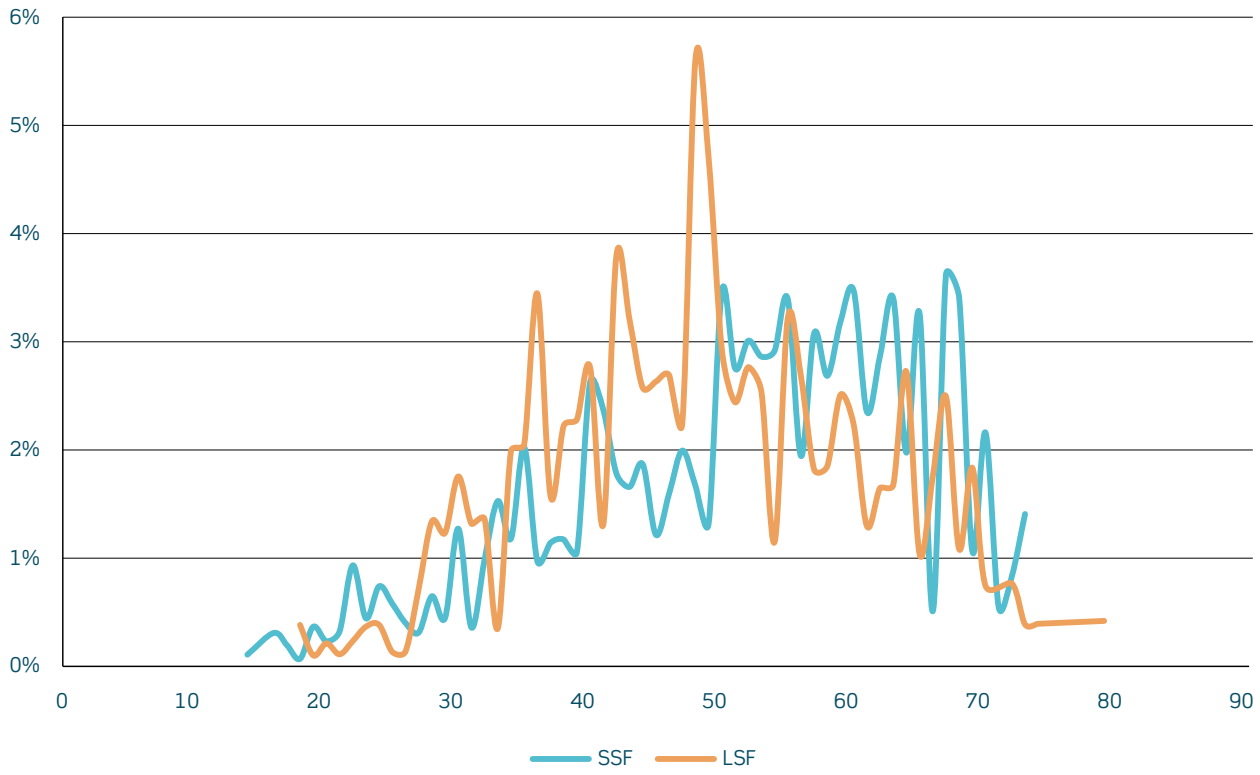


Figure 9: Age distribution proportions (expressed as %) for crew members of SSF and LSF vessels in 2022.

Gender

Gender distribution reveals a significant majority of male crew members across both SSF and LSF (Figure 10). In SSF, males comprise 95% of the workforce, while females make up a small fraction at 2%[4]. Similarly, in LSF, 95% of the crew members are male, and 4% are female, slightly higher than the SSF[5].

While the figures indicate a similar pattern of gender distribution between the two fleet segments, LSF has a slightly higher proportion of female crew members compared to the SSF from the sample data. Male dominance in the fisheries sector underscores a gender disparity that is mirrored across different spheres of the maritime industry in Ireland and beyond.

4. Gender for 3% of SSF fleet is unknown from the sample data.
5. Gender for 1% of the LSF fleet is unknown from the sample data.

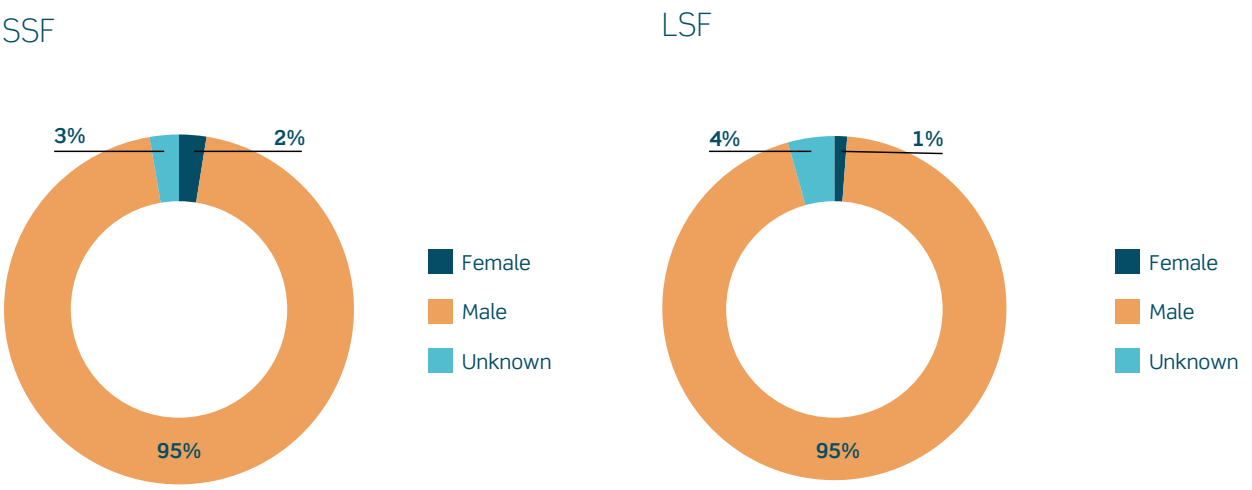


Figure 10: Gender distribution of crew members of SSF and LSF vessels in 2022.

Nationality

The breakdown of nationalities among crew members between SSF and LSF demonstrates a more pronounced difference than the gender divide (Figure 11). SSF is predominantly Irish, with 97% of its crew hailing from Ireland, while only a small fraction (2%) of crew hail from other EU Member States. In addition, 1% are categorised as 'Other' nationalities (non-Irish/EU or EEA (European Economic Area)).

In contrast, LSF features a more diverse workforce: 72% are Irish, 17% are from other EU Member States and 11% belong to other non-EU/EEA nationalities. This indicates that while SSF primarily rely on local Irish crew, LSF has a significant representation from both EU and other international crew members, highlighting a broader recruitment scope and reflecting its different operational needs.

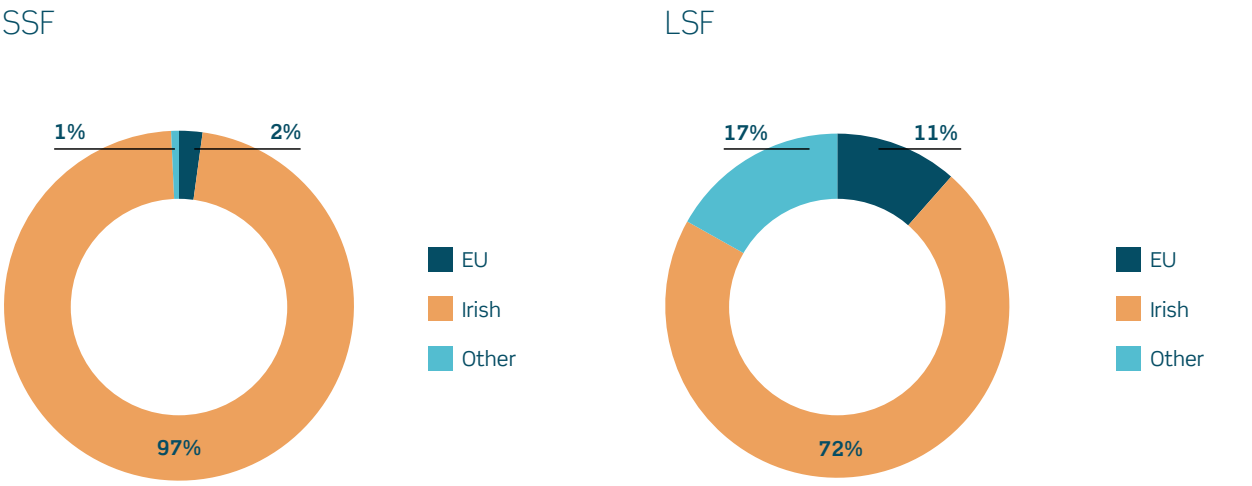


Figure 11: Nationality distribution of crew members of SSF and LSF vessels in 2022.

2. Economic results for 2022

This section presents economic estimates at a macro national and micro fleet segment level.

2.1 National fleet performance

Table 1: Key economic results of the Irish fleet 2022

	2022	% change 2021 – 2022
Total revenue	€311.8 million	-10%
Operating costs	€331.5 million	+14%
GVA	€137.5 million	-30%
Gross profit	€17 million	-82%

Table 1 presents the key economic indicators for the national fleet in 2022 with decreases in revenue (-10%), GVA (-30%) and gross profit (-82%) compared to 2021. This deterioration in economic performance was somewhat offset by €23.9 million in operating subsidies financed under the Brexit Adjustment Reserve (BAR) and European Maritime, Fisheries and Aquaculture Fund (EMFAF). Under BAR, support for the whitefish sector was provided in the form of a Temporary Cessation Scheme and for inshore vessels, through the Inshore Business Model Adjustment Scheme. However, financial support to the sector under these operating subsidies are not factored into revenue and gross profit calculations for the national fleet.

Trends in economic performance of the Irish fleet from 2008-2022 are provided in Figure 12. It should be noted that typically the national fleet performance is strongly influenced by the larger pelagic vessels. The value assigned to their cost structures and capital values along with fish prices can affect their total landings revenue and profit due to the large volumes of their catches on an annual basis. 2022 was a particularly challenging year for the pelagic trawlers over 40m segment, revenue was down by -37% and gross profit by -120% compared to 2021. Other LSF segments such as demersal trawlers 18-24m and 24-40m, and dredgers 24-40m also had deteriorating economic performance which had a significant impact on the overall national fleet performance. A full list of economic indicators for all fleet segments in 2022 is provided in Annex 4.

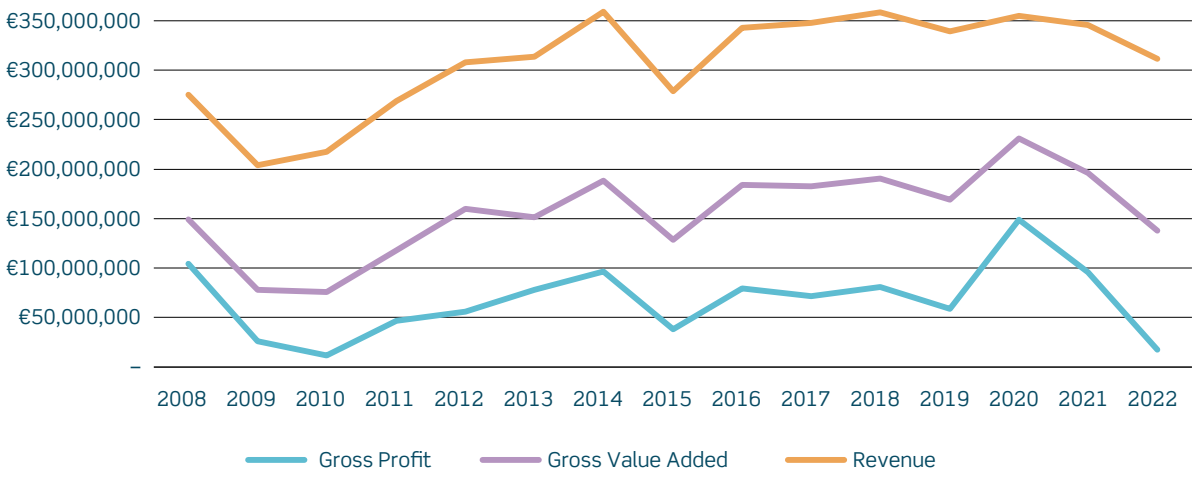


Figure 12: Trends in economic performance of the Irish fleet: 2008-2022.

In 2022, total operating costs incurred by the Irish fleet were €331.5 million, an increase of 14% compared to €290.8 million in 2021. Energy costs accounted for 18% of total operating costs in 2022 and increased by 54% from 2021, reflecting the spiralling costs linked to war in Ukraine and increasing inflation throughout 2022. The average fuel cost from 2013-2021 was €0.62/litre and increased to €1.19/litre in 2022. The extent of the price increase in one year had a serious impact on the economic performance of the Irish fleet.

Personnel costs accounted for 35% of total operating costs in 2022 and increased by 21% to €116.3 million (from €96.1 million in 2021) reflecting the end of COVID-19 restrictions and an increased inflation rate. This increase reflects the overall trend of increased average wages per FTE from 2013 to 2022.

In addition, other variable costs such as provisions, cleaning and hygiene, filters/ lube oil, ice, bait, memberships, and harbour dues increased by 20% to €54 million in 2022. Conversely, non-variable costs such as insurance, loan interest, accountancy costs, and legal costs decreased by -21% to €22.6 million. Trends in the costs structure of the Irish fleet from 2008 to 2022 can be seen in Figure 13.

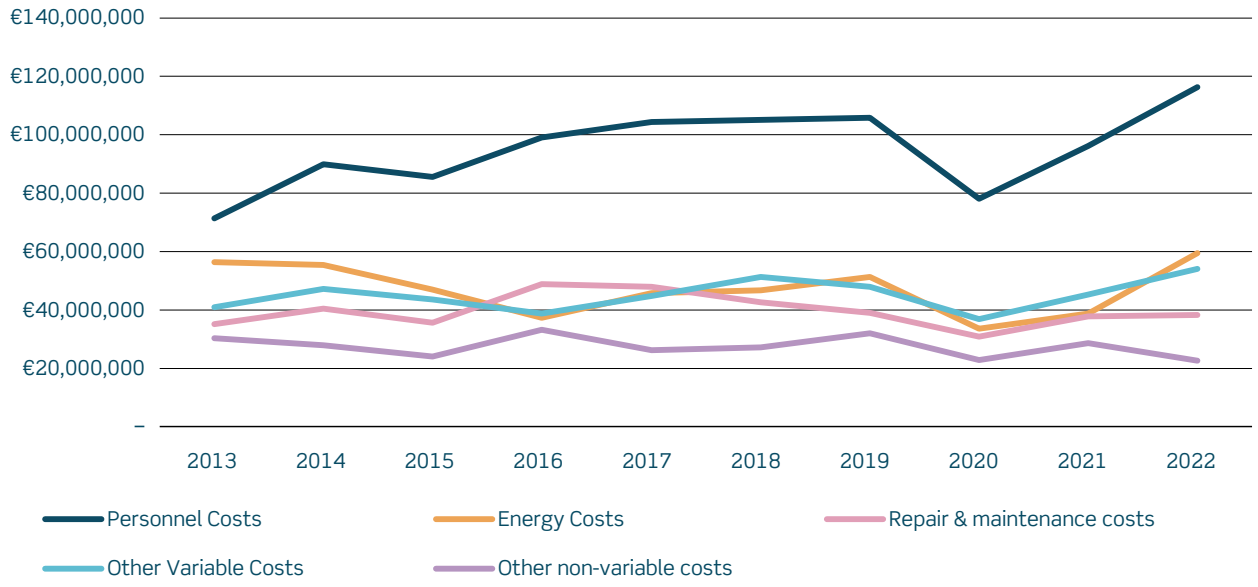


Figure 13: Trends in the cost structure of the Irish fleet: 2013-2022.

2.2 Efficiency Indicators

The key results in terms of resource productivity and efficiency indicators for 2022 are listed below:

Table 2: Efficiency indicators for the Irish fleet: 2022

	2022	% change 2021-2022
Gross profit margin	6%	-80%
Return on Fixed Tangible Assets (RoFTA)	4%	-140%
Energy consumption	61.6 million litres	-19%
Energy consumed per landed tonne	348 litres per tonne	-5%
Landed weight per fishing day*	4 tonnes per fishing day	-37%
Average price per litre of marine fuel	€1.19/per litre	+90%

***Note:** This average fleet figure may mask performance in specific segments.

2.3 Economic performance of inshore Small-Scale Fisheries (SSF)

At a national level, Ireland's inshore SSF fleet consists of all under-12 metres inshore vessels regardless of gear type[6]. These vessels utilise a variety of distinct types of passive fishing gear, and often more than one gear on the same fishing trip. The most used gear includes pots and traps, trammel nets, set gillnets, pots and traps, set longlines, and hand lines.

The area of operation tends to be close to landing points and within 12 nautical miles from the coast. Vessels are typically owned by a sole owner/operator or small family enterprises. The key figures and economic results for the Irish SSF fleet are listed in Table 3.

Table 3: Small-Scale Fisheries: 2022

	2022	% change 2021 -2022
Active vessels	1,144	4%
Full Time Equivalents (FTEs)	978	1%
Days at Sea	38,784	1%
Landings by weight	20,300 tonnes	-21%
Landings by value	€53 million	-11%
GVA*	€31.1 million	-36%
Gross profit*	€4 million	-86%
Revenue	€63.6 million	-8%
Keys species	Lobster, crab, sprat, whelk, mackerel	

***Note:** Survey data for the some under 10m segments can be deficient which in turn impacts the estimates of economic indicators for SSF. As survey returns for economic data increase, higher quality estimates of economic variables can be deduced for SSF.

SSF contributed 20% of the total revenue of the Irish fleet in 2022. SSF offer employment (56% of all FTEs at a national level) in often deprived remote areas and bring much needed money to local communities and their hinterlands.

In 2022, this fleet of 1,244 under-12m vessels made up 82% of the total active Irish vessels and in terms of capacity. This represents 7% of the total engine power (kW) and 25% of total vessel volume (GT). In terms of economic performance of SSF in 2022, landings by value and revenue were down by -11% and -8% respectively on last year and gross profit was significantly impacted by high fuel costs, down -86% compared to 2021.

6. This composition of the Irish SSF varies from that of the EU definition. At an EU level, Commission Delegated Decision (EU) 2019/910 defines the Small-Scale Coastal Fleet as "fishing carried out by fishing vessels of an overall length of less than 12 metres and not using towed gear" (as listed in Table 3 of Annex I to Commission Regulation (EC) No 26/2004).

2.3.1 Economic performance of selected SSF segments

This section presents an overview of the available economic data for 2022 for a selection of SSF segments. Survey returns are continuously low for some SSF segment which creates challenges for economic analysis.

	Small Scale Fleet (SSF)	Vessels using Pots and/or traps 0-< 10 m	Vessels using hooks 10-< 12 m*	Demersal trawlers and/or demersal seiners 10-< 12 m	Dredgers 0-< 10 m	Drift and/or fixed netters 10-< 12 m
	Number of vessels	531	5	9	122	15
	FTE	430	6	12	50	21
	Days at Sea	22,048	254	335	1,631	987
	Energy consumed per landed tonne	379 Ltr/T	2,033 Ltr/T	686 Ltr/T	558 Ltr/T	30 Ltr/T
	Live weight of landings	4,246,678 Kg	15,821 Kg	107,184 Kg	940,273 Kg	4,740,571 Kg
	Value of landings	€14,550,283	€42,631	€527,427	€4,799,456	€4,383,933
	Revenue	€21,118,094	€42,631	€527,427	€5,789,858	€4,292,606
	Gross Value Added (GVA)	€9,190,185	€26,531	€101,609	€3,019,976	€3,167,763
	Gross profit	-€4,752,372	-€4,129	-€87,473	€739,461	€1,973,643
	Average wage per FTE	€32,425	€5,110	€15,757	€45,610	€56,863
	% of total revenue	6.8%	0.0%	0.2%	1.9%	1.4%

*Segments are clustered to ensure confidentiality.

Dredgers 10-< 12 m*	Vessels using hooks 0-< 10 m	Demersal trawlers and/ or demersal seiners 0-< 10 m	Pelagic trawlers 0-<10m*	Drift and/or fixed netters 10-< 12 m*	Dredgers 10-< 12 m*	Drift and/or fixed netters 0-< 10 m	Vessels using Pots and/or traps 10-< 12 m
49	45	34	8	15	49	168	94
50	22	11	5	21	50	159	141
2,570	No data	No data	89	987	2,570	No data	7,313
1,186 Ltr/T	196 Ltr/T	736 Ltr/T	No data	30 Ltr/T	1,186 Ltr/T	246 Ltr/T	318 Ltr/T
514,437 Kg	435,420 Kg	747,696 Kg	2,151,911 Kg	4,740,571 Kg	514,437 Kg	2,130,114 Kg	4,307,864 Kg
€2,613,865	€1,291,990	€1,784,411	€1,001,340	€4,383,933	€2,613,865	€8,636,155	€12,958,608
€2,547,337	€2,001,487	€1,865,458	€998,467	€4,292,606	€2,547,337	€9,393,956	€14,999,064
€1,559,360	€1,414,328	€1,005,428	€904,727	€3,167,763	€1,559,360	€1,836,334	€8,886,584
€348,856	€631,722	€328,530	€861,732	€1,973,643	€348,856	-€826,592	€4,498,524
€24,210	€35,573	€61,536	€8,599	€56,863	€24,210	€16,748	€31,121
0.8%	0.6%	0.6%	0.3%	1.4%	0.8%	3.0%	4.8%

2.4 Economic performance of Large-Scale Fisheries (LSF)

Table 4: Large-Scale Fisheries: 2022

	2022	% change 2021 -2022
Active vessels	238	-4%
Full Time Equivalents (FTEs)	858	-9%
Days at Sea	33,899	14%
Landings by weight	155,500 tonnes	-15%
Landings by value	€234 million	-12%
GVA	€106.4 million	-21%
Gross profit	€13 million	-79%
Revenue	€248.2 million	-0.5%
Keys species	Mackerel, whiting, sprat, crab, *Nephrops*	

LSF vessels represented 18% of the total fleet and 80% of the total revenue in 2022. The majority of the active vessels in the national fleet's engine power and tonnage was attributed to LSF vessels, with 75% of total engine power and 93% of total tonnage. Killybegs and Castletownbere remain the two largest home ports for LSF vessels.

2022 was an extremely challenging year for LSF against the backdrop of quota reductions linked to Brexit and spiralling fuel costs. In terms of economic performance, landings by weight and value were down by -15% and -12%, respectively. While revenue decreased by 0.5% compared to 2021, gross profit deteriorated significantly by -79%.

2.4.1 Economic performance of LSF segments

This section presents an overview of the available economic data for 2022 for a selection of LSF segments.

	Demersal trawlers and/or demersal seiners 24-< 40 m	Pelagic trawlers 40 m or larger/ RSW	Demersal trawlers and/or demersal seiners 18-< 24 m	Pelagic trawlers 18-< 24 m
Number of vessels	49	21	52	14
FTE	275	64	194	49
Days at Sea	9,949	873	9,268	1,202
Energy consumed per landed tonne	1,214 Ltr/T	90 Ltr/T	1,603 Ltr/T	139 Ltr/T
Live weight of landings	15,643,004 Kg	86,817,564 Kg	10,258,556 Kg	27,192,281 Kg
Value of landings	€68,052,021	€50,349,506	€48,447,089	€21,226,077
Revenue	€68,423,248	€57,705,162	€51,798,598	€23,739,263
Gross Value Added (GVA)	€25,789,910	€22,657,010	€21,437,044	€12,380,383
Gross profit	€5,045,482	-€5,784,962	-€1,210,288	€3,637,753
Gross profit margin	7%	-10%	-2%	15%
Average wage per FTE	€75,434	€444,406	€116,739	€178,421
% of total revenue	21.9%	18.5%	16.6%	7.6%

*Segments are clustered to ensure confidentiality.

Vessels using Pots and/or traps 12-< 18 m*	Dredgers 24-< 40 m*	Beam trawlers 24-< 40 m*	Drift and/or fixed netters 18-< 24 m*	Demersal trawlers and/or demersal seiners 12-< 18 m	Pelagic trawlers 12-< 18 m*
32	9	14	17	24	6
88	24	41	48	49	6
4,182	1,240	2,271	2,491	2,252	171
335 Ltr/T	489 Ltr/T	1,877 Ltr/T	433 Ltr/T	453 Ltr/T	53 Ltr/T
4,191,951 Kg	3,060,268 Kg	1,902,924 Kg	2,211,534 Kg	2,434,068 Kg	1,251,743 Kg
€15,485,495	€10,377,759	€7,073,578	€6,734,822	€5,752,176	€405,747
€15,644,694	€10,387,717	€7,253,367	€6,969,856	€5,856,491	€406,243
€10,480,126	€7,188,814	-€1,697,745	€5,663,157	€2,909,063	-€1,840,415
€6,120,920	€6,080,525	-€4,352,330	€4,839,178	€1,763,369	-€3,503,954
39%	59%	-60%	69%	30%	-863%
€49,536	€46,179	€64,746	€17,166	€ 23,382	€277,257
5.0%	3.3%	2.3%	2.2%	1.9%	0.1%

3. Industry feedback: Key drivers impacting industry and driving performance

Based on feedback from industry as part of the National Seafood Survey, inflation and the impact of rising fuel costs, fish prices, and fleet re-structuring through the decommissioning scheme were the key drivers in recent years. The following section provides an overview of these drivers.

3.1 Inflation and the impact of rising fuel costs

2022 saw the start of the Russian invasion of Ukraine. The consequences on the energy and oil markets created a new economic shock for the Irish fleet in the aftermath of COVID-19. The key factor that impacted the fleet performance in 2022 was increased operating costs and in particular, fuel costs.

In 2022, total operating costs incurred by the Irish fleet were €331.5 million, an increase of 14% compared to €290.8 million in 2021 (Figure 14) reflecting an upward trend in recent years. Total costs in 2022 exceeded the total revenue (€311.7 million) generated by the Irish fleet by over €19.8 million.

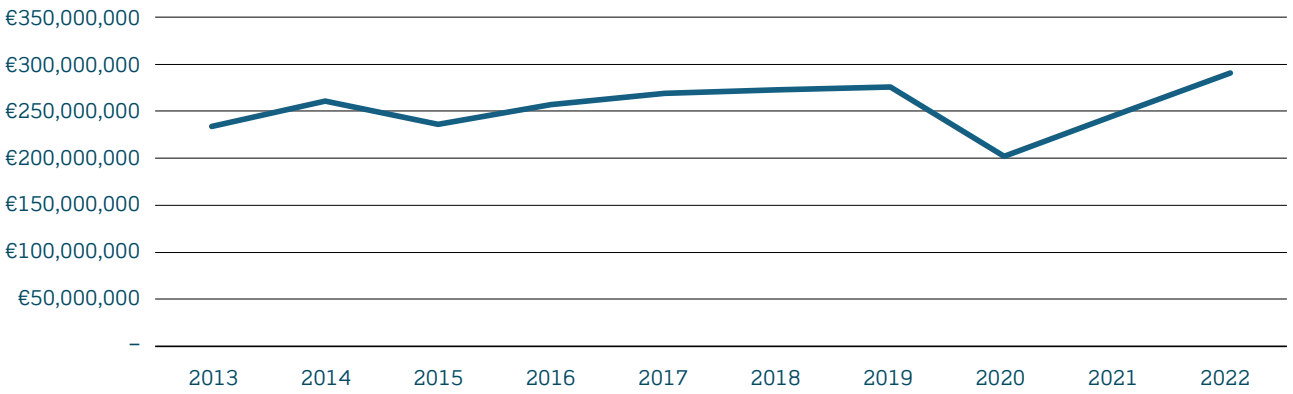


Figure 14: Trends in total operating costs of the Irish fleet 2013-2022.

Figure 15 illustrates trends in energy costs from 2013 to 2023 alongside overall operating costs. Based on provisional data, energy costs for 2023 are projected to decrease significantly compared to the peak in 2022.

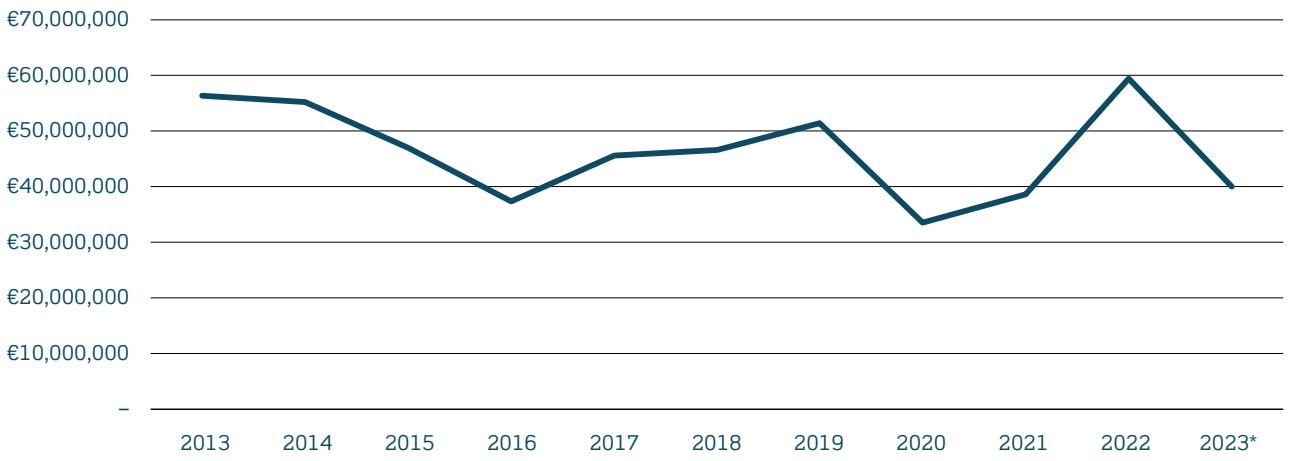


Figure 15: Trends in energy costs of the Irish fleet 2013-2023* (*2023 data is provisional).

Fisheries are directly impacted by energy price increases as fuel represents a significant input into operational costs. Energy costs accounted for 18% of total operating costs in 2022 and increased by 54% from 2021 reflecting the spiralling costs linked to war in Ukraine and increasing inflation throughout 2022. The average fuel cost from 2013-2021 was 0.62 €/litre and increased to 1.19 €/litre in 2022 (Figure 16). The extent of the price increase in one year had a serious impact on the economic performance of the Irish fleet. In addition to fuel costs, skippers and vessel owners reported increasing costs for bait, gear, and electricity for chillers.

Figure 16 highlights how average marine fuel oil prices across the EU have fluctuated in recent decades and particularly after the breakout of war in Ukraine in early 2022. Average fuel costs rose from May 2020 (€ 0.24/litre, the lowest recorded price) to a peak in June 2022 (€1.15/litre), followed by a downward trend to July 2023 (€0.60/litre), a steady increase up to September 2023 (€0.85/litre), followed by another decrease up to April 2024 (€0.75/litre)[7].

The energy crisis exposed the vulnerability of the fishing industry to fuel price volatility. This is driven in part by the dependency on fossil fuels. While average fuel prices in 2024 have decreased by -35% compared to peak costs in 2022, they remain 56% up on pre-COVID-19 average costs (€0.48/litre). It is unlikely that fuel costs will ever return to the low levels seen in the last decade.

In order to safeguard the industry from future energy shocks, the Irish fishing fleet should consider the energy transition of the fishing fleet, in time moving away from fossil fuels. This aligns with the European Commission's proposal to reduce dependency on fossil fuels and aim towards climate neutral fisheries and aquaculture sector in the EU by 2050[8]. In the short-term, catching in the most efficient way will help avoid unnecessary fuel consumption. In the long-term, moving towards viable alternative energy sources when they become available and innovations in terms of vessel design, construction and gear, electrification, efficient power generation and continued innovation in gear design and construction are essential.

7. Average fuel costs sourced from European Market Observatory for Fisheries and Aquaculture Products (EUMOFA) monthly market analysis reports: https://eumofa.eu/market-analysis#monthly
8. COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS On the Energy Transition of the EU Fisheries and Aquaculture sector.

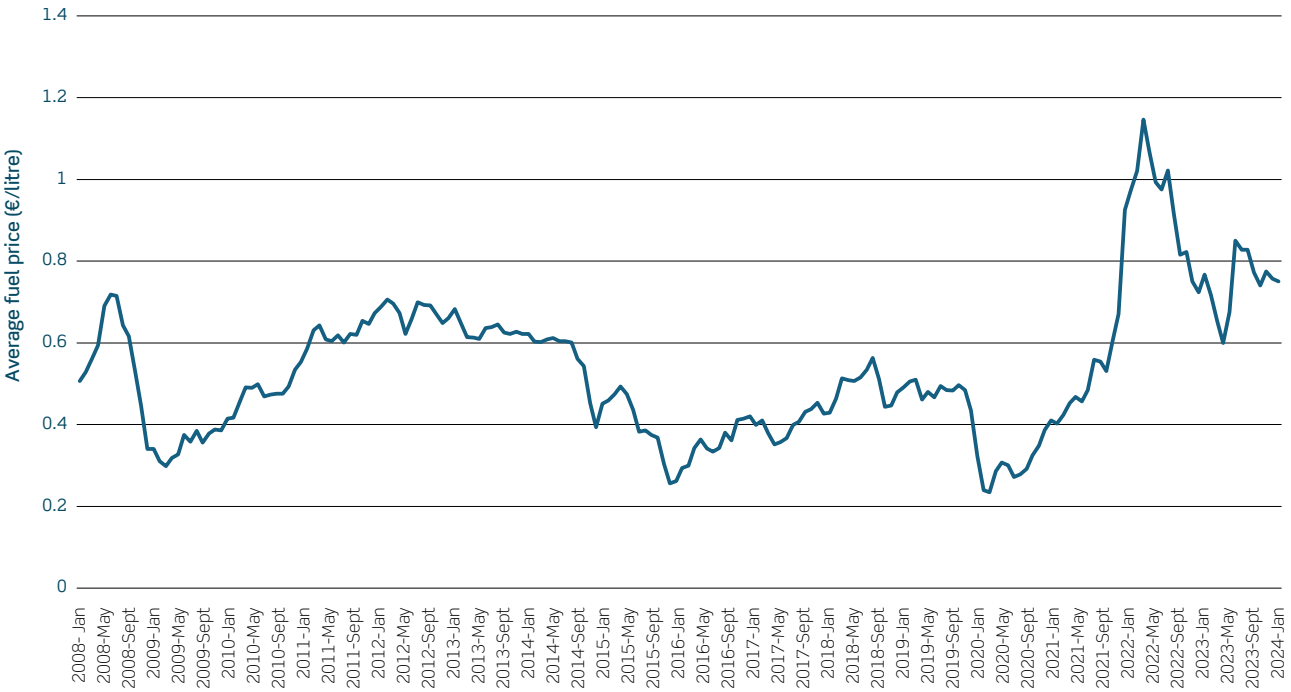


Figure 16: Average marine fuel oil prices (€) across the EU: 2008 – 2024.

Source: EUMOFA (European Market Observatory for Fisheries and Aquaculture Products).

Fuel usage can be measured in different ways. Fuel intensity refers to the quantity of fuel consumed per quantity of fish landed (litre per tonne), while fuel efficiency is the ratio between fuel costs and revenue, expressed as a percentage (%). Based on an average price of €1.19/litre for fuel in 2022, fuel efficiency and fuel intensity of the national fleet were estimated as 21% and 353 litres per tonne of landed fish, respectively. Table 6 presents data on fuel prices, short-term and long-term break-even revenues, as well as fuel efficiency and intensity across several segments that make up a representative sample of the Irish fleet.

Fuel efficiency of the Irish fleet has been steadily declining in the last decade. In 2022, fuel efficiency of the fleet was 21%, an increase of 9% compared to 2022 (Figure 17). However, energy consumption and fuel efficiency differ significantly across segment types within the fleet as demonstrated in Table 5. Some segments are more fuel efficient than others. Drift and/or fixed netters between 18 and 24m were the most fuel-efficient segment at 3.5% in contrast to beam trawlers between 24 and 40 metres which had a fuel efficiency of 48%.

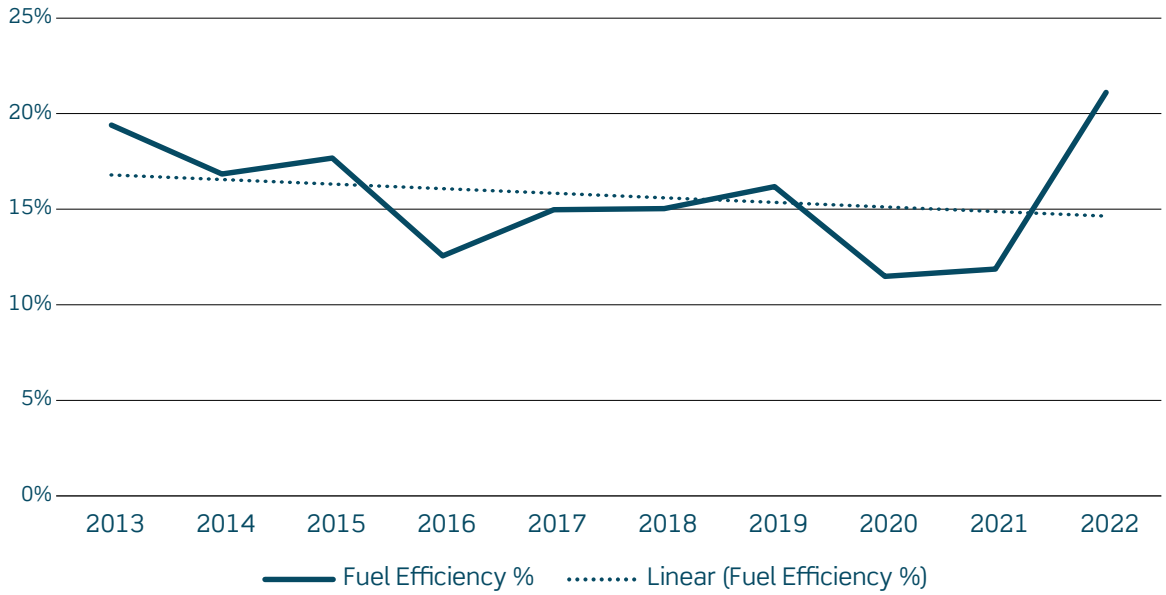


Figure 17: Fuel efficiency (%) of the Irish fleet 2013-2022.

Table 5: Fuel efficiency and fuel intensity of selected segments in the Irish fleet in 2022

Fleet segment	Fuel Price	Short-term BER fuel price/Ltr	Long-term BER fuel price/Ltr	Fuel Efficiency	Fuel intensity (Ltr/Tonne)
Demersal trawlers/Seiners 24-40 m	€0.94	€1.21	€0.87	26.20%	1,214.49
Pelagic trawl/RSW over 40 m	€0.88	€0.14	-€1.59	13.70%	90.02
Demersal trawlers/Seiners 18-24 m	€1.06	€0.99	€0.81	35.80%	1,603.46
Pelagic/Polyvalent Pelagic 24-40m	€0.60	€1.57	€0.53	10.90%	138.84
Potters 12-18 m*	€0.97	€5.33	€5.16	8.80%	334.83
Potters <10m	€1.40	-€1.56	-€3.05	15.40%	378.64
Potters 10-12 m	€0.91	€4.20	€3.63	9.60%	317.67
Dredgers 24-40 m*	€0.88	€4.95	€4.79	12.80%	489.27
Beam trawlers 24-40 m*	€0.98	-€0.24	-€0.36	48.20%	1,876.97
Drift and/or fixed netters 18-24 m*	€0.25	€5.30	€5.05	3.50%	433.36
Demersal trawlers/Seiners 12-18 m	€1.09	€2.69	€2.56	21.30%	452.73
Dredgers <10m	€1.32	€2.73	€1.78	14.40%	557.6
Drift and/or fixed netters 10 – 12 m	€1.23	€15.30	€13.74	4.00%	29.58
Dredgers 10-12 m*	€0.63	€1.20	€1.03	15.70%	1,185.52
Demersal trawlers/Seiners <10 m	€0.62	€1.22	€0.51	18.20%	735.81
Hooks <10m	€1.34	€8.75	€6.84	8.90%	195.82
Demersal trawlers/Seiners 10-12 m	€1.73	€0.54	-€0.69	24.10%	686.11
Hooks 10-12 m*	€0.06	-€0.07	-€0.38	4.20%	2,033.29
Grand Total (National Averages)	**€0.98**	**€1.23**	**€0.68**	**21.00%**	**353.19**

Notes: *Segments are clustered to ensure confidentiality. BER is Break Even Revenue. The break-even is the point at which total cost and total revenue are equal, meaning there is no loss or gain. Considering the fuel used by the fishing fleet in its activity, the fuel price break-even is the fuel price that makes total revenues and total costs, equal.

3.2 Fish prices

According to the FAO (Food and Agricultural Organisation) Fish Price Index, fish prices reached historic highs in June 2022 due to revived demand following the pandemic slump (FAO, 2023)[9]. In the Irish context, average prices for many species (both quota and non-quota) experienced varied changes in 2022. Figure 18 shows average prices of the main species landed by the Irish fleet since 2013.

Nephrops, which represented 25% of total value of landings in 2022, increased by 36% in value to €11.76/kg from €8.67/kg in 2021. Prices for pelagic species tend to have a dramatic effect on the total income given the scale of the pelagic TAC. Average prices of mackerel (25% of total value of landings in 2022) decreased significantly by -33% to €0.89/kg in 2022 from €1.33/kg in 2021.

Similarly, the average prices for blue whiting decreased by -30% from €0.37/kg in 2021 to €0.26/kg in 2022. These reduction in pelagic fish prices combined with a decline in pelagic landings by weight (linked to quota changes) contributed to a -2% decrease in landings values for the LSF and a -12% decrease for the national fleet in 2022.

Conversely, the higher value demersal species saw increases in average prices in 2022. Haddock increased by 6% from €2.00/kg in 2021 to €2.17/kg in 2022 and hake increased by 8% from €3.00/kg in 2021 to €3.30/kg in 2022.

Compared to 2021 prices, high value non-quota species such as lobster decreased slightly by -2% from €20.08/kg to €19.59/kg in 2022. This price reduction was offset by a 6% increase in landings by weight for lobster in the same year. Prices for crab increased by 6% to €3.42/kg from €3.24/kg. Price changes and landings of these non-quota species helped contribute to the 10% increase in landings value for the SSF in 2022.

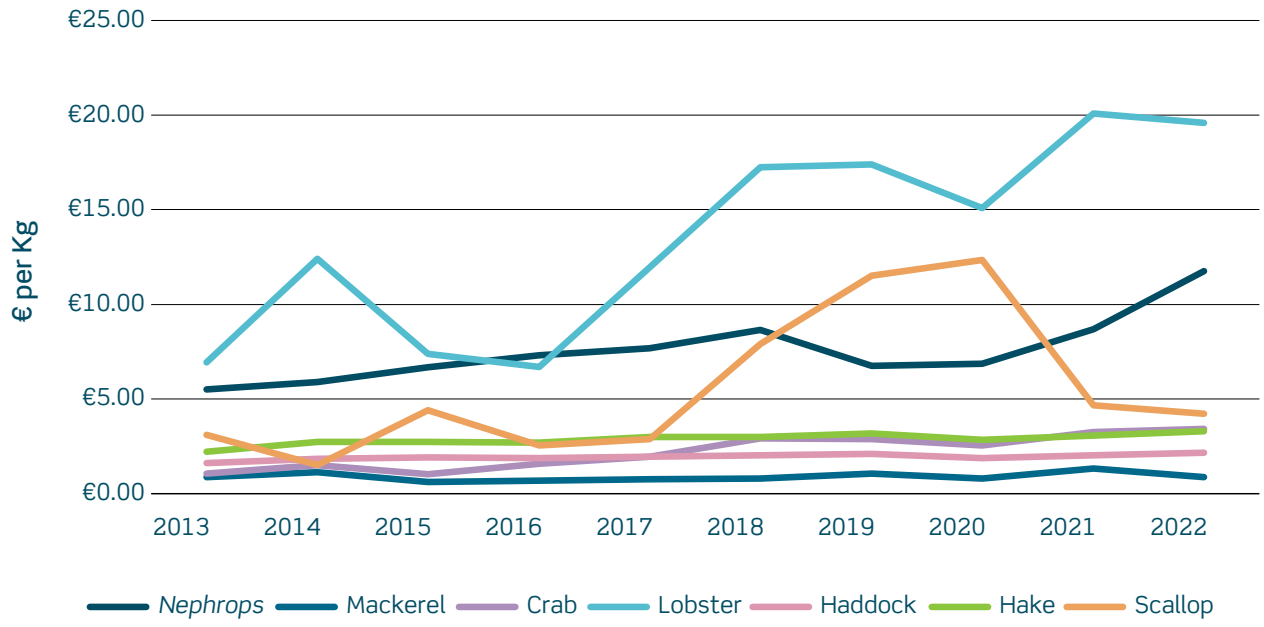


Figure 18: Average landed prices (real) for main species: 2013 – 2022.

Data source: SFPA.

9. FAO (2023). Globefish: Information and analysis on markets and trade of fisheries and aquaculture products. Published online 17.03.2023.

3.3 Decommissioning scheme: Fleet re-structuring

One of the main schemes launched in 2022 under the BAR was a Voluntary Permanent Cessation ("Decommissioning") Scheme. The purpose of this scheme was to restore balance between fleet capacity and available quotas following the quota reductions arising from the EU-UK Trade and Cooperations Agreement (TCA), ensuring the future profitability of the fleet. It was 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 to €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.

The Brexit Voluntary Permanent Cessation Scheme was open to licence holders of fishing vessels that were registered on the Irish sea-fishing boat register in the polyvalent or beam trawl segments, held a valid sea-fishing boat license issued by the Licensing Authority for Sea-Fishing vessels at the date of application and vessels aged 10 years or more at the time of application.

Applications to the scheme closed in November 2022 and a total of 57 vessels with an associated total gross tonnes of 8,700 GTs applied to decommission. Whilst 43 originally accepted offers, 39 LSF vessels with a gross tonnage of 6,289 and engine power of 15,778 kW were decommissioned at different stages in 2023.

The main Irish fleet segments affected by the programme were the beam trawl segment (i.e. one vessel) and the polyvalent general segment (38 vessels). The following tables and figures show the breakdown of the decommissioning scheme by county and hinterland for the 38 polyvalent vessels only.

Table 6: Number of vessels of the polyvalent general fleet segment by length class decommissioned by county.

	Vessels 12-18m	Vessels 18-24m	Vessels 24-40m	County TOTAL
Cork	3	11	4	**18**
Donegal	0	1	1	**2**
Dublin	1	1	0	**2**
Galway	1	2	1	**4**
Kerry	0	1	1	**2**
Louth	0	2	6	**8**
Waterford	0	1	0	**1**
Wexford	1	0	0	**1**
Segment TOTAL	**6**	**19**	**13**	

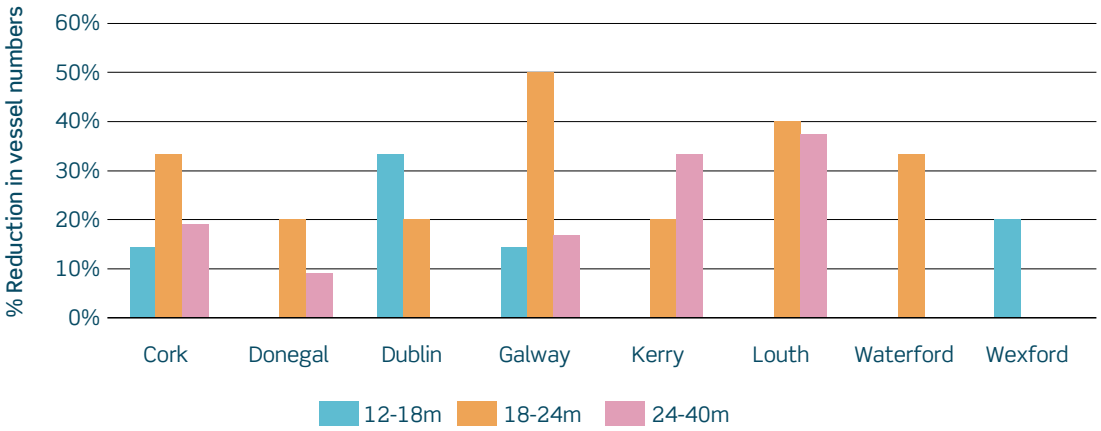


Figure 19: Share of polyvalent vessels by length class decommissioned by county.

As shown in Table 7, the counties with most vessels decommissioned were Cork (18) and Louth (8), followed by Galway (4). In terms of the share of total vessels decommissioned by length class by county (Figure 19), Galway had the highest reduction for the 18-24m segment (50%), followed by Louth (40%) and Cork (33%). For the larger 24-40m vessels, Louth and Kerry had the highest percentage loss of vessels at 38% and 33%, respectively.

Table 7: Gross tonnage of polyvalent vessels by length decommissioned by county.

	Vessels 12-18m	Vessels 18-24m	Vessels 24-40m	County TOTAL (GT)
Cork	192	1,525	1,017	**2,734**
Donegal	0	215	297	**512**
Dublin	44	183	0	**227**
Galway	60	240	340	**640**
Kerry	0	176	140	**316**
Louth	0	244	1,182	**1,426**
Waterford	0	150	0	**150**
Wexford	97	0	0	**97**
Segment TOTAL (GT)	**393**	**2,733**	**2,976**	

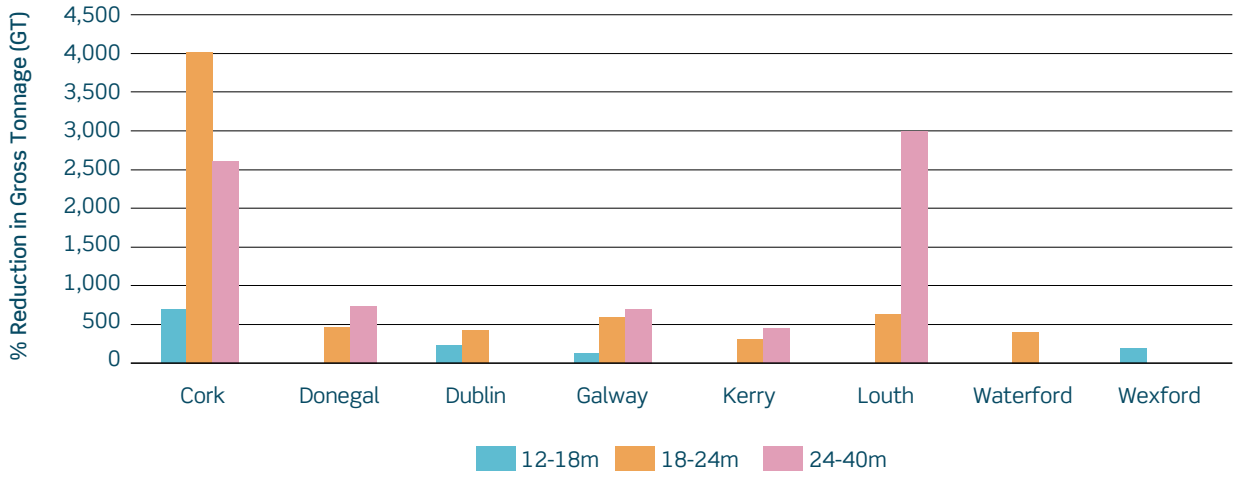


Figure 20: Gross tonnage share of polyvalent vessels by length class decommissioned by county.

Table 8: Engine power (kW) of polyvalent vessels by length decommissioned by county.

	Vessels 12-18m	Vessels 18-24m	Vessels 24-40m	County TOTAL (kW)
Cork	688	4,016	2,609	**7,312**
Donegal	0	460	738	**1,198**
Dublin	228	421	0	**649**
Galway	128	596	696	**1,421**
Kerry	0	310	448	**758**
Louth	0	633	2,995	**3,628**
Waterford	0	405	0	**405**
Wexford	187	0	0	**187**
Segment TOTAL (kW)	**1,230**	**6,841**	**7,486**	

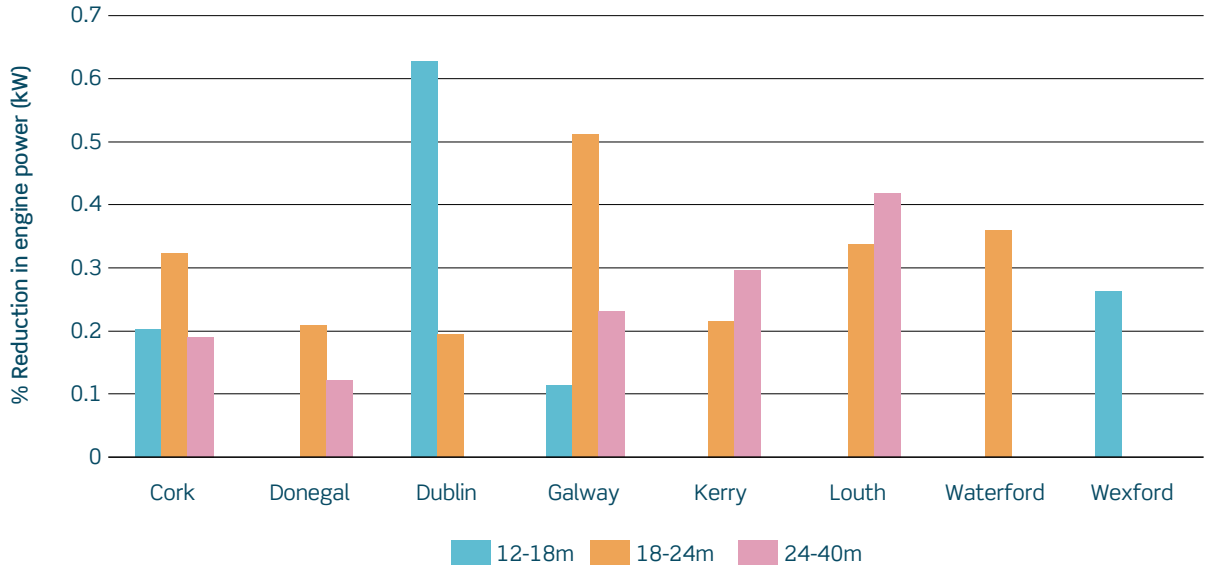


Figure 21: Engine power (kW) share of polyvalent vessels by length class decommissioned by county.

The pattern of gross tonnage (Table 7 and Figure 20) and engine power (Table 8 and Figure 21) decommissioned by county follows a similar pattern to that of the number of vessels with Cork, Louth and Galway, the counties most impacted.

In terms of hinterlands and main ports affected, Castletownbere and the surrounding Beara peninsula was the main area affected by the programme. In this area alone, 11 vessels were decommissioned representing 2,000 GT, and over 5,000 kW (Figure 22). Clogherhead was the next area most impacted. Six vessels representing 1,000 GT and 2,500 kW were decommissioned (plus two vessels registered in the Cooley peninsula). Rossaveal had four vessels decommissioned (over 600 GT and 1,400kW), while Union Hall lost four vessels (400 GT and 800 kW).

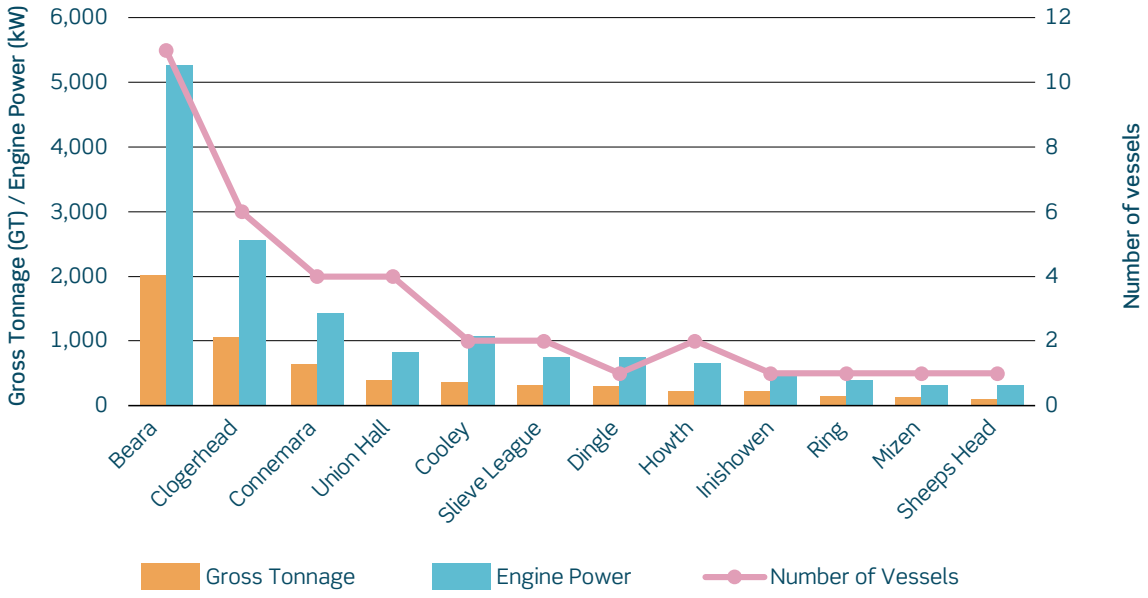


Figure 22: Gross tonnage, engine power and number of vessels decommissioned by hinterland.

In terms of the overall economic impact of the decommissioning programme, the potential economic effects are, as yet, unknown and are likely to emerge from late 2024 into 2025 once financial data from the vessel owners becomes available. However, it could be inferred that the programme will lead to higher relative shares of quota for whitefish and *Nephrops* quota per vessel around the coastline. There are early indications that the availability of crew that formerly worked on decommissioned vessels have, as expected, begun to alleviate the difficult sourcing of crew in the sector to a certain extent. In addition, the higher quota share may lead to higher turnover and hence a higher crew share for the LSF fleet that may furthermore alleviate problems with sourcing crew.

The impact at the port level will vary according to the level of decommissioning that has occurred in each location. Feedback from stakeholders has confirmed significant declines in activity for the ports of Clogherhead and Union Hall. The number of vessel numbers in county Louth has fallen by 21%, (from 10% to 8%), in gross tonnage by 36% (from 14% to 11%) and in engine power by 38% (from 13% to 10%). County Cork saw its overall share across all indicators fall marginally, however within the county, certain areas saw higher impacts. In relative terms, the counties that saw their share increase include counties Donegal (Greencastle) and Wexford (Kilmore Quay).

4. Sentinel Vessel Programme: Summary of 2023

This section provides an overview of the Sentinel Vessel Programme (SVP) for 2023[10] a joint project implemented by the Marine Institute and BIM on an annual basis since 2010.

In terms of data availability, good quality data are typically available for fish species which are managed via a quota system. However, prior to the SVP, fishing data in relation to smaller vessels targeting non-quota species was scant and thus monitoring fisheries around Ireland using commercial catch rate data was not possible. As part of the programme, participants are chosen from different length and gear categories representative of fishing activities by vessels predominantly under 12 metres around the Irish coast. The sample population for the SVP is designed to represent the diverse inshore fisheries sector in Ireland and address this data gap. These vessels account for the majority of pot-fishing inshore fleet targeting crab, lobster, shrimp, and whelks. They also target finfish with gillnets, jiggers, and longlines. Specific fisheries are targeted that represent gear usage, target species, and geographical location. The list of participants is reviewed annually to ensure that it remains representative of the small-scale fisheries fleet.

Logbooks are provided to participants every January and completed logbooks are collected by BIM in December each year. Daily logbook entries record target species, effort, landings, and prices by species. Weekly logbook entries record biological data of the catches (i.e., length composition) and discard information. Once the logbooks are returned, the data is entered and validated by the Marine Institute. Vessel owners are remunerated annually for their time to record the data in the SVP logbook. In addition to the logbook data, SVP participants are obliged to provide economic and employment data to BIM by completing the National Seafood Survey for their vessel.

Importance of the Sentinel Vessel Programme

The data recorded in the SVP logbooks is valuable as it includes effort, catch, landings, and discards data in relation to several shellfish species and various finfish species, which would otherwise not be available. Useful information on fishing location and details such as the type and amount of bait used or vessel operating costs (i.e., fuel consumption, number of crew, hours worked) are also collected. The length frequency data on lobster and brown crab recorded is also an invaluable source of size distribution information for these species.

10. A more comprehensive report of the biological data collected under this programme is published annually by the Marine Institute and BIM in the Shellfish Stocks and Fisheries Review. The most recent publication is the Shellfish Stocks and Fisheries Review 2023.

Data recorded in the SVP logbooks has been used in the assessment of the Malin Brown Crab Stock. As there is no current scientific survey in the area to estimate brown crab biomass, the commercial catch rate data can be used as a true index of abundance. This process is usually referred to as catch rate standardisation. For this assessment, the daily catch rates collected as part of the SVP programme from 2005-2019 proved particularly important. Details of the standardisation process can be found in the annual Shellfish Stocks and Fisheries Report produced by the Marine Institute and BIM. The model achieved from the data has recently been used to provide advice to DAFM on the relative status of the Malin Crab stock.

SVP data has also been informative in relation to monitoring catch rate indicators in the lobster fishery, in producing Landings Per Unit Effort (LPUE) indexes in the whelk fishery and for monitoring the catch rates of razor clams along the east coast. In addition, the Marine Institute have developed a new Shell Fisheries App[11] which displays maps based on the SVP data and other data collated through their at-sea surveys and observer programme

In 2023, there were 72 participants in the SVP from 12 coastal counties (Figure 23). In terms of national segments, 62 were Polyvalent [<18m LOA], nine were Polyvalent [Potting] and one was Specific [General]. Based on the information provided as part of the National Seafood Survey, 70% of SVP participants have vessel crews of one person. 90% have between one and three crew members. In 2023, the average age of a skipper was 54, while the average age of a crew member on a vessel participating in the SVP was 41. The average days at sea per year was 106 and the average hours worked per day was 10.

11. Marine Institute Shellfish Fisheries App (v1.0). An interactive website for the display of Shellfish fisheries data in Ireland.

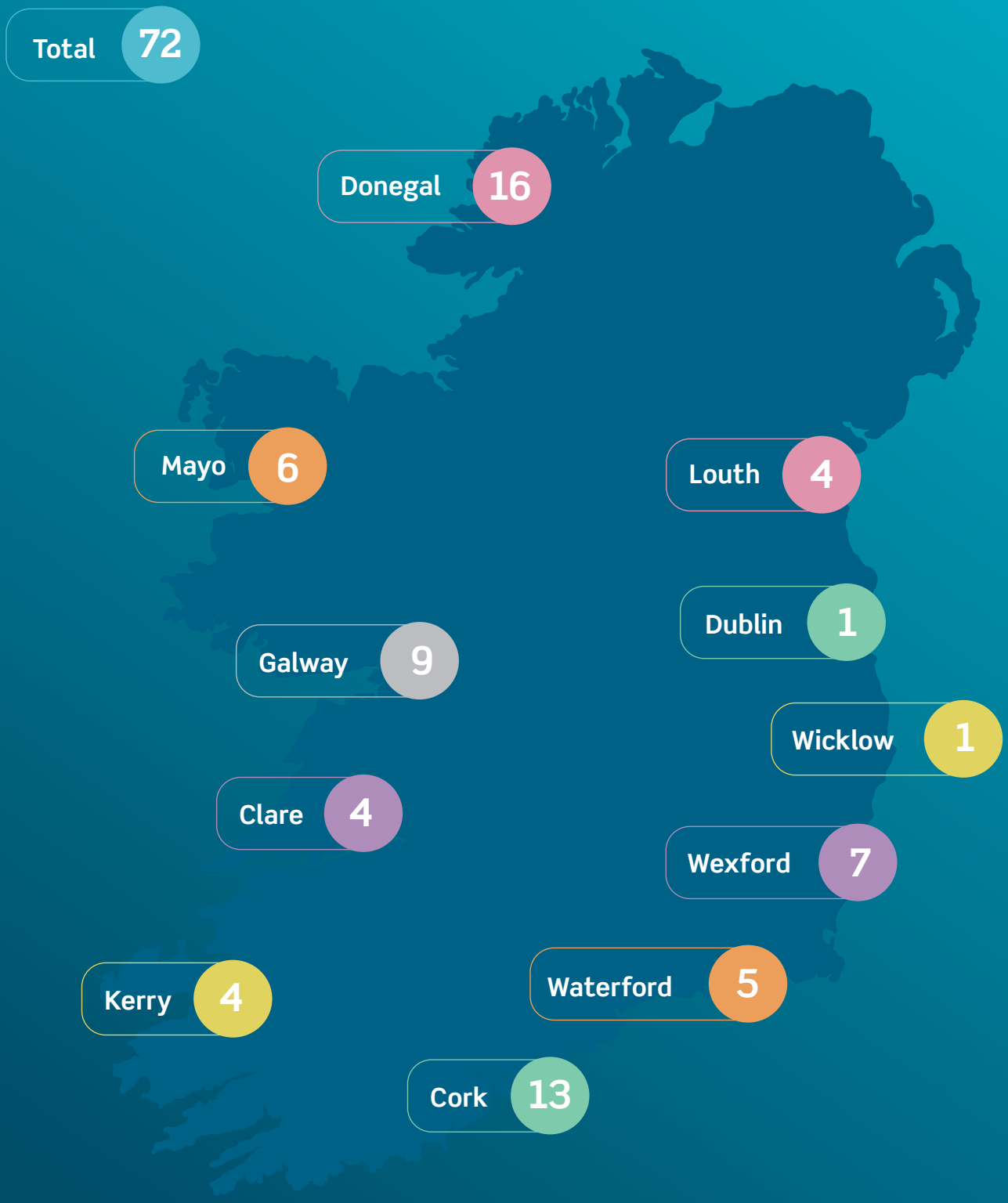


Figure 23: Map showing geographic distribution of the vessels in the Sentinel Vessel Programme 2023.

5. Outlook for economic performance: 2023-2024

Forecasts for 2023 demonstrate an improved economic performance compared to 2022 (but this is still considerably lower than pre-COVID 2013-2019 averages) with an increase in gross profit combined with a decrease in revenue. This is primarily driven by fluctuations in fish prices, a reduction in energy costs compared to 2022 and the ongoing impact of reduced quotas linked to Brexit and the TCA.

In 2023, the 6% increase in landed weight was counteracted by low fish prices, resulting in a -9% decrease in value. Data projections for 2023 indicate decreasing revenue (-20%) to €284.3 million and GVA is predicted to decrease (-1%) to €136 million. In addition, gross profit in 2023 is predicted to increase (71%) from €17 million compared to €29 million. It is important to highlight that 39 vessels from the Irish LSF fleet were decommissioned at various stages in 2023. The potential economic impact will emerge from 2024 onwards once financial data becomes available.

Nowcast for 2024 suggest an overall higher economic performance compared to 2023 driven by an overall reduction in operating costs despite a predicted decrease in landings by weight and value compared to 2023. In terms of economic indicators, revenue is predicted to increase (2%) combined with further increases in GVA (8%) and gross profit (26%).

Given the projections and underlying factors, the Irish fishing industry is set to experience several positive outcomes by the end of 2024 and beyond. A key driver contributing to this optimism is the anticipated reduction in operating costs, particularly in energy expenses, which had a significant impact on profitability in 2022. Additionally, strategic initiatives aimed at enhancing the efficiency and sustainability of the industry, such as improved management practices and technological advancements, are expected to improve economic performance.

The Irish government's continued support for the sector through policies and funding and the roll out of BIM administered EMFAF support grants will also play a crucial role in stabilising and promoting growth. Moreover, global market trends indicate a potential rebound in fish prices, which, combined with increased export opportunities, could further enhance the revenue streams for the industry. Overall, these elements collectively suggest a more resilient and prosperous outlook for the Irish fishing industry following the numerous economic shocks the industry has faced over recent years.

6. Annexes

Annex 1: Structure of the Irish fishing fleet (nationally defined segments): 2022

Refrigerated Seawater (RSW) Pelagic Segment	Large vessels engaged primarily in fishing for pelagic species (i.e., mackerel, herring, horse mackerel, blue whiting, and boarfish). This segment comprised 23 vessels with a total capacity of 27,819 GT and 47,223 kW.
Beam Trawler Segment	Vessels dedicated to beam trawling used to catch flatfish species such as sole, turbot, megrim, plaice, monkfish, and rays. They range in size from 23m to 28.05m in length overall. This segment comprised 10 vessels with a total capacity of 1,139 GT and 2,818 kW.
Polyvalent Segment	This segment comprised of 1,714 vessels, most vessels in the fleet, with a total capacity of 32,918 GT and 115,797 kW. These vessels are multi-purpose and include small inshore vessels (netters and potters), along with medium and large offshore trawlers and gillnetters targeting whitefish (e.g., haddock, hake, monkfish, whiting) and prawns, pelagic fish such as mackerel, herring, and albacore tuna on a seasonal basis. Vessels in this segment range from 3.06m to 38m in length overall, from 0.19GT to 469GT in volume and 0kW to 1,119kW in engine power. The segment has four sub-segments: • Vessels under 18m in length overall, • Vessels equal to or over 18m in length overall, • Scallop sub-segment – vessels equal to or over 10m in length overall with qualifying track record in the scallop fishery[12], • Potting sub-segment – vessels licensed and registered under the Scheme for the Licensing of Traditional Pot Fishing Boats in the Irish Inshore Fleet. The scheme for the registration of previously unregistered traditional potting boats in the inshore fleet was completed in 2007. These potting vessels may only fish for non-quota species exclusively by means of traps/pots.
Specific Segment	This segment comprised of 140 vessels, with a total capacity of 2,100 GT and 11,250 kW, which are permitted to fish for bivalve molluscs and aquaculture species only.
Aquaculture Segment	These vessels must be exclusively used in the management, development, and servicing of aquaculture areas. This segment comprised 98 vessels, with a total capacity of 4,295 GT and 11,818 kW. As the focus of this report is on wild capture fisheries, while on the fleet register, this segment is excluded from this report.

Source: DAFM, Licensing Authority for Sea-fishing Boats: Annual Report 2022

12. As defined in Ministerial Policy Directive 2 of 2003, as amended by Ministerial Policy Directives 1 of 2006, 1 of 2011 and 2 of 2011

Annex 2: EU fleet segments in accordance with EU MAP Data Collection Framework

Fishing Technique:

DFN = Drift and/or fixed netters

DRB = Dredgers

DTS = Demersal trawlers and/or demersal seiners

FPO = Vessels using pots and/or traps

HOK = Vessels using hooks

MGO = Vessel using other active gears

MGP = Vessels using polyvalent active gears only

PG = Vessels using passive gears only for vessels <12m

PGO = Vessels using other passive gears

PGP = Vessels using polyvalent passive gears only

PMP = Vessels using active and passive gears

PS = Purse seiners

TM = Pelagic trawlers

TBB = Beam trawlers

Vessel Length Classes:

VL0010 = Vessel between 0 metres and 10 metres in length.

VL1012 = Vessel between 10 metres and 12 metres in length.

VL1218 = Vessel between 12 metres and 18 metres in length.

VL1824 = Vessel between 18 metres and 24 metres in length.

VL2440 = Vessel between 24 metres and 40 metres in length.

VL40XX = Vessel greater than 40 metres in length.

Annex 3: Irish fleet segmentation in accordance with EU MAP Data Collection Framework 2022

Segment	Code	Total vessels
Beam trawlers 18-< 24 m	TBBVL1824	5
Beam trawlers 24-< 40 m	TBBVL2440	9
Demersal trawlers and/or demersal seiners 0-< 10 m	DTSVL0010	34
Demersal trawlers and/or demersal seiners 10-< 12 m	DTSVL1012	9
Demersal trawlers and/or demersal seiners 12-< 18 m	DTSVL1218	24
Demersal trawlers and/or demersal seiners 18-< 24 m	DTSVL1824	52
Demersal trawlers and/or demersal seiners 24-< 40 m	DTSVL2440	49
Dredgers 0-< 10 m	DRBVL0010	122
Dredgers 10-< 12 m	DRBVL1012	44
Dredgers 12-< 18 m	DRBVL1218	5
Dredgers 18-< 24 m	DRBVL1824	3
Dredgers 24-< 40 m	DRBVL2440	6
Drift and/or fixed netters 0-< 10 m	DFNVL0010	168
Drift and/or fixed netters 10-< 12 m	DFNVL1012	15
Drift and/or fixed netters 12-< 18 m	DFNVL1218	9
Drift and/or fixed netters 18-< 24 m	DFNVL1824	7
Drift and/or fixed netters 24-< 40 m	DFNVL2440	1
Pelagic trawlers 0-<10m	TMVL0010	2
Pelagic trawlers 10-< 12 m	TMVL1012	6
Pelagic trawlers 12-< 18 m	TMVL1218	4
Pelagic trawlers 18-< 24 m	TMVL1824	2
Pelagic trawlers 24-< 40 m	TMVL2440	14
Pelagic trawlers 40 m or larger/ RSW	TMVL40XX	21
Vessels using hooks 0-< 10 m	HOKVL0010	45
Vessels using hooks 10-< 12 m	HOKVL1012	4
Vessels using hooks 12-< 18 m	HOKVL1218	1
Vessels using Pots and/or traps 0-< 10 m	FPOVL0010	531
Vessels using Pots and/or traps 10-< 12 m	FPOVL1012	94
Vessels using Pots and/or traps 12-< 18 m	FPOVL1218	29
Vessels using Pots and/or traps 18-< 24 m	FPOVL1824	1
Vessels using Pots and/or traps 24-< 40 m	FPOVL2440	2
Inactive 0-< 10 m	InactiveVL0010	622
Inactive 10-< 12 m	InactiveVL1012	57
Inactive 12-< 18 m	InactiveVL1218	17
Inactive 18-< 24 m	InactiveVL1824	3
Inactive 24-< 40 m	InactiveVL2440	16
Inactive 40m or larger	InactiveVL40XX	3

Annex 4: Economic indicators for all segments in the Irish fleet: 2022

Segments	Number of vessels	FTE national	Days at sea	Energy consumed per landed tonne	Live weight of landings	Value of landings	Revenue
				Ltr/T	Kg	€	€
Drift and/or fixed netter <10m	168	159	No data	246	2,130,114	8,636,155	9,393,956
Drift and/or fixed netters 10 – 12m	9	12	335	686	107,184	527,427	527,427
Drift and/or fixed netters 18-24m*	17	48	2,491	433	2,211,534	6,734,822	6,969,856
Dredgers <10m	122	50	1,631	558	940,273	4,799,456	5,789,858
Dredgers 10-12m*	49	50	2,570	1,186	514,437	2,613,865	2,547,337
Dredgers 24-40m*	9	24	1,240	489	3,060,268	10,377,759	10,387,717
Demersal trawlers/Seiners <10m	34	11	No data	736	747,696	1,784,411	1,865,458
Demersal trawlers/Seiners 10-12m	9	18	673	165	1,103,131	2,544,946	2,607,401
Demersal trawlers/Seiners 12-18m	24	49	2,252	453	2,434,068	5,752,176	5,856,491
Demersal trawlers/Seiners 18-24m	52	194	9,268	1,603	10,258,556	48,447,089	51,798,598
Demersal trawlers/Seiners 24-40m	49	275	9,949	1,214	15,643,004	68,052,021	68,423,248
Potters <10m	531	430	22,048	379	4,246,678	14,550,283	21,118,094
Potters 10-12m	94	141	7,313	318	4,307,864	12,958,608	14,999,064
Potters 12-18m*	32	88	4,182	335	4,191,951	15,485,495	15,644,694
Hooks <10m	45	22	No data	196	435,420	1,291,990	2,001,487
Hooks 10-12m*	5	6	254	2,033	15,821	42,631	42,631
Beam trawlers 24-40m*	14	41	2,271	1,877	1,902,924	7,073,578	7,253,367
Pealgic trawl <10m*	8	5	89	1	2,151,911	1,001,340	998,467
Pelagic 12-18m*	6	6	171	53	1,251,743	405,747	406,243
Pelagic/Polyvalent Pelagic 24-40m	14	49	1,202	139	27,192,281	21,226,077	23,739,263
Pelagic trawl/RSW over 40m	21	64	873	90	86,817,564	50,349,506	57,705,162

*Segments are clustered to ensure confidentiality.

Gross Value Added (GVA)	GVA to revenue	Gross profit	Gross profit margin	Average wage per FTE	GVA per FTE (labour productivity)	Return on fixed tangible assets	Economic development trend	As a % of total revenue
€	%	€	%	€/FTE	€	%		
1,836,334	20	-826,592	-9	16,748	11,549	-20	No data	3%
101,609	19	-87,473	-17	15,757	8,467	No data	Deteriorated	0%
5,663,157	81	4,839,178	69	17,166	117,982	311	Improved	2%
3,019,976	52	739,461	13	45,610	60,400	19	Deteriorated	2%
1,559,360	61	348,856	14	24,210	31,187	No data	No data	1%
7,188,814	69	6,080,525	59	46,179	299,534	851	Improved	3%
1,005,428	54	328,530	18	61,536	91,403	-6	No data	1%
2,073,147	80	1,810,369	69	14,615	115,300	69	No data	1%
2,909,063	50	1,763,369	30	23,382	59,369	29	Improved	2%
21,437,044	41	-1,210,288	-2	116,739	110,500	-11	Deteriorated	17%
25,789,910	38	5,045,482	7	75,434	93,781	-2	Deteriorated	22%
9,190,185	44	-4,752,372	-23	32,425	21,373	-77	No data	7%
8,886,584	59	4,498,524	30	31,121	63,025	31	No data	5%
10,480,126	67	6,120,920	39	49,536	119,092	21	Deteriorated	5%
1,414,328	71	631,722	32	35,573	64,288	32	No data	1%
26,531	62	-4,129	-10	5,110	4,422	No data	No data	0%
-1,697,745	-23	-4,352,330	-60	64,746	-41,408	-99	Deteriorated	2%
904,727	91	861,732	86	8,599	180,945	879	No data	0%
-1,840,415	-453	-3,503,954	-863	277,257	-306,736	-15	Deteriorated	0%
12,380,383	52	3,637,753	15	178,421	252,661	-1	Improved	8%
22,657,010	39	-5,784,962	-10	444,406	354,016	-8	Deteriorated	19%

Annex 5: Methods

Data collection is essential for the implementation of the Common Fisheries Policy (CFP), as a basis for founding it on the best possible scientific advice. Primary biological, technical, ecological, and socioeconomic data are collected to evaluate the state of fish stocks, the profitability of the different segments of the sector and the effects of fisheries and aquaculture on the ecosystem.

The annual data sources used to collect economic and social data from the Irish fleet segments are:

1. Sales notes data for landing income for vessels under 10m shared with BIM under a Data Sharing Agreement.
2. Logbook data for effort and landing income for vessels over 10m shared with BIM under a Data Sharing Agreement.
3. Voluntary questionnaire information returned by vessel owners targeted in the National Seafood Survey for all economic and social variables.
4. Face-to-face/phone interviews with vessel owners to clarify any issues arising with economic and social variables from the National Seafood Survey.
5. Mandatory economic and social information from the National Seafood Survey returned by vessel owners applying for EU/National grant aid.
6. Sentinel Vessel Programme collecting operational, landing, and economic data from a sample of the inshore fleet annually.

The annual National Seafood Survey of the fishing fleet is a major piece of research into the status of Ireland's catching sector. It examines the economic performance of the fleet and the social demographics of people employed in the sector. This allows BIM to better understand the social and economic impact the industry has on coastal communities.

The results of the survey help both industry and policy makers to understand the challenges and opportunities vessel owners face, as well as the impact of fisheries management measures such as Total Allowable Catch (TAC) and quota allocation. It also forms the basis for the justification for national and European funding programmes, which are focused on the support of the industry and coastal communities, under the Common Fisheries Policy. Creating an accurate picture of the industry relies on consistent support and good will from skippers and vessel owners to provide data on annual basis.

The survey asks a series of questions about the financial and operational performance of fishing vessels and the demographics of the crew. It is an opportunity for industry to report how they have navigated challenges and changes such as the impacts of Brexit and increasing operating costs. All data and information shared with BIM as part of the survey returns are treated in the strictest confidence and stored in a protected and secure database with limited access. Data is anonymised and no figures relating to any individual or specific vessel are revealed in any outputs.

As part of the annual National Seafood Survey, vessels are requested to submit operational details and economic data for their previous year's activity. There is a time lag reporting these data because for an accounting period ending on 31 December 2022, the financial return must be filed by September of the following year (i.e., September 2023). For this report, BIM collected economic data from October 2023 to January 2024 from vessel owners and submitted the results of the National Seafood Survey to the European Commission in February 2024 as part of Ireland's EU regulatory requirements.

All data received is combined with other vessel information within the same fleet category, based on LOA (overall length) and primary fishing gear. The information is submitted in aggregated format to the EU in accordance with Commission Implementing Decision (EU) 2021/1168 of 27 April 2021 and Commission Delegated Decision (EU) 2021/1167 of 27 April 2021.

Annex 6: Concepts, terms, and definitions

Revenue – the value of production (sale of landed seafood products) and income generated from the use of the vessel in other, non-commercial fishing activities, such as recreational fishing, transport, tourism, oil rig duty, research, etc., may also include insurance payment for gear damage/loss/vessel.

Income – from direct subsidies and fishing rights are excluded.

Gross Value Added (GVA) – net output of a sector after deducting intermediate inputs from all outputs. It is a measure of the contribution to GDP made by an individual producer, industry, or sector.

GVA to Revenue ratio – indicates the share of revenue that contributes to the economy through factors of production (returns to labour and returns to capital). Indicator is calculated as the ratio between GVA and revenue and expressed as a percentage.

Gross profit – the normal profit after accounting for operating costs, excluding capital costs. Also referred to as gross cash flow, i.e., the flow of cash into and out of a sector or firm over a period of time.

Gross profit margin (%) – a measure of profitability that can be used to analyse how efficiently a sector is using its inputs to generate profit. Calculated as the ratio between gross profit and revenue. Expressed as a percentage. Gross profit margin indicates the normal profitability of a firm and is of most interest to fishers as it represents the share of income they are left with at the end of the year. For managers, it may be used as an indication of the viability of an industry in terms of its commercial profitability by measuring the share of cash coming in and out of an industry. A high gross profit margin indicates that the sector has a low-cost operating model; reflects efficiency in turning inputs into outputs. A low percentage value can indicate a low margin of safety, i.e., a higher risk that declines in production or increases in costs may result in a net loss, or negative profit margin.

Net profit – is the difference between revenue and explicit costs and opportunity costs. Explicit costs include all operational costs, such as wages, energy, repair, and other variable and non-variable costs. Net profit differs from gross profit in that it includes depreciation and opportunity costs of capital. It measures the efficiency of a producer in society's view by evaluating the total costs of inputs (excluding natural resource costs) in comparison to outputs or revenue. Economic profit is the primary indicator of economic performance and is often used as a proxy of resource rent in fisheries. Economic profits emerge as the excess of revenue over the opportunity cost of producing the good. Also referred to as supernormal or abnormal profits. Abnormal profits in a sector are an incentive for other firms to enter the industry (if they can). Zero or a negative profit margin may indicate high competition in the sector and can be used as one of the indicators of overcapacity.

Net profit margin (%) – a measure of profitability after all costs have been accounted for and reflects the percentage of revenue that a sector retains as profit. It measures the relative performance of the sector compared to other activities in the economy and provides an indication of the sector's operating efficiency as it captures the amount of surplus generated per unit of production.

Labour productivity (GVA/FTE) – defined as output per unit of labour. Calculated as GVA (measure of output) by full-time equivalent (FTE) employment (unit of labour input). Labour productivity can be used as a measure of economic growth, competitiveness, and living standards within a sector. An increase in labour productivity indicates that a unit of input labour is producing more output or that the same amount of output is being produced with fewer units of labour. Labour productivity may also provide an indicator of worker's wellbeing or living standards, assuming that increases in productivity are matched by wage increases.

Capital productivity – the return of the investment divided by the cost of the investment, also referred to as ROI (Rate on Investment). It measures profits in relation to capital invested, i.e., indicates how profitable a sector is relative to its total assets. The higher the return, the more efficient the sector is in utilising its asset base. As data on intangible assets (e.g., fishing rights, natural resource) are not always available in fisheries, the Return on Fixed Tangible Assets (ROFTA) is used as an approximation of ROI.

Full Time Equivalent (FTE) – Unit expressing the number of employees converted into full-time workers. The estimation of FTEs uses a threshold representing the total number of hours worked on a standard and yearly basis, by a full-time worker in the sector.

For economic performance calculations the following formulas were used:

Total Income:

Total Revenue = Income from landings + income from fishing rights + other income + direct subsidies

Revenue:

Revenue = Income from landings + other income

Gross Value Added (GVA)

GVA = Income from landings + other income – energy costs – repair costs – other variable costs – non variable costs

Net Value Added (NVA)

NVA = Income from landings + other income – energy costs – repair costs – other variable costs – non variable costs – depreciation cost – opportunity cost of capital

Gross Profit (GP)

GP = Income from landings + other income – crew costs – unpaid labour – energy costs – repair and maintenance costs – other variable costs – non variable costs

Net Profit/Loss

Net Profit = Income from landings + other income – crew costs – unpaid labour – energy costs – repair costs – other variable costs – non variable costs – depreciation cost – opportunity cost of capital

Rate of Return on Fixed Tangible Assets (RoFTA)

RoFTA = (net profit + opportunity cost of capital)

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- Marine Institute.

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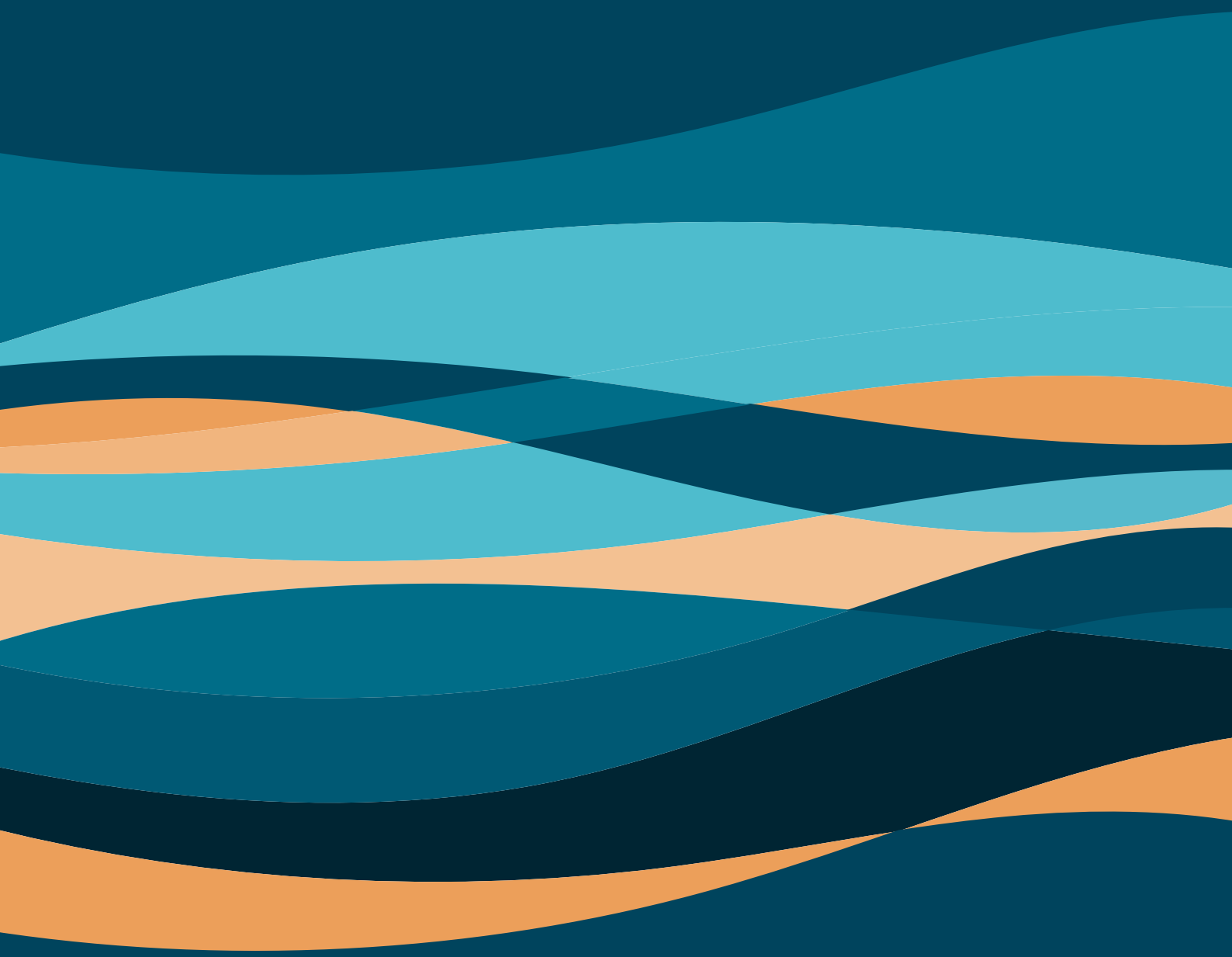

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