

ANNUAL REPORT ON

THE IRISH FISHING FLEET FOR 2022

Department of Agriculture, Food and the Marine
Ireland

ANNUAL REPORT TO THE EUROPEAN COMMISSION ON THE IRISH FISHING FLEET FOR 2022
(Pursuant to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and of
the Council of 11 December 2013 on the Common Fisheries Policy)

1. Summary

This report gives a description of the Irish fishing fleet in relation to fisheries developments during 2022, the impact on fishing capacity of fishing effort reduction schemes, information on the compliance with the entry/exit scheme, a summary report on the weaknesses and strengths of the fleet management system together with a plan for improvements and information on the general level of compliance with fleet policy instruments as well as any information on changes of the administrative procedures relevant to the management of the fleet.

2. MS opinion on balance of fleet capacity & fishing opportunities

The technical indicators as currently set down do not allow for the highly diverse nature of the fleet or the range of natural variation within these segments. For example, the polyvalent segment of the fleet is diverse in terms of size of vessels, geographical spread of activity and species targeted. Also, certain specified areas carry effort restrictions, or are subject to seasonal/monthly patterns. It is difficult when dealing with such a wide variety to compare them all on the same basis so, while the assessment in relation to technical indicators has been carried out, it cannot give an accurate picture until such time as these natural variations can be allowed for within the assessment.

This analysis shows declining results for the Irish fleet in 2021 with total fleet scores for RoFTA and break-even revenue falling compared with the previous year, particularly for inshore

vessels. However, for the main sectors of the Irish Fleet – DTS 18-24, DTS 24-40, TMVL 24-40 AND TML40XX - the economic indicators are positive. A lower number of fleet segments failed the RoFTA and the CR/BER indicators respectively than the year before which is a positive outcome.

Reduced quotas for Nephrops and other whitefish species resulting from the EU Trade and Cooperation Agreement with the UK, will impact the turnover of the demersal trawl and seine fleet segment while general inflation and increasing oil prices are continuing to erode profitability. Similarly, the pelagic fleet segments have passed both indicators well in the latest years but the impacts facing these are considerable given the quota transfers of mackerel and other species as part of the TCA between the EU and the UK, as well as a decline in the horse mackerel stock which is important to these segments.

When assessed through the Department of Agriculture, Food and Marine (DAFM) segments, of the polyvalent general segment, the length classes of 00-10m and 10-12m fail both economic indicators in 2021. These segments encompass a large part of the small-scale fleet, which have faced a series of challenges in recent years relating to Brexit, Covid as well as stock related issues for certain inshore stocks. The pelagic trawl segments both pass the economic indicators in 2021.

Given the continued challenge represented by Brexit, as well as the impacts of the conflict in Ukraine on the Irish fleet, it is highly unlikely that there will be improvement to the economic indicators for a number of fleet segments in 2022 and 2023. To this end, the Irish Government has introduced a range of support schemes under the Brexit Adjustment Reserve that will help to offset against these economic shocks to the sector. These include a Voluntary Permanent Cessation Scheme, Voluntary Temporary Cessation Schemes, and specific support schemes for the inshore sector. See <https://bim.ie/the-brexit-adjustment-reserve-fund/>

With regard to biological indicators, of the 14 fleet segments for which the 2021 Sustainable Harvest Indicator (SHI) was considered meaningful to assess balance or imbalance, 13 fleet

segments are in balance with their fishing opportunities. However preliminary figures for 2021 show that 1 segment may not be in balance. Overall, there is a clear downward trend in average SHI over time indicating more segments are in balance in 2021. The Stock at Risk (SAR) indicator was available for all the 21 active fleet segments in 2021, 13 of which may be in balance with their fishing opportunities. The report undertakes a detailed analysis of the main stocks targeted by these fleets. This analysis indicates that numbers of stocks at risk caught is lower than last year.

As indicated above, the length classes of 00-10m and 10-12m, encompassing a large part of the small-scale, inshore fleet, failed both economic indicators in 2021. However, taking all factors and indicators into consideration, Ireland is of the view that based on the analysis herein that a structural imbalance does not exist with the fleet. **However, a number of schemes have been implemented in 2022 and 2023 in order to address the impacts of Brexit on the inshore fleet (see below). These schemes are still in operation, therefore, it will be necessary to await their outcome and analyse their impact before it can be determined if an Action Plan is required. Furthermore, as described below, 2023 will see developments in a number of fisheries (such as the Mackerel Hook & Line, Spurdog, North-West Herring etc.) which are expected to benefit the inshore fleet.**

Initiatives to support the Inshore Fleet

Brexit Off-Register Capacity buy out scheme

A scheme has been established, the purpose of which is to minimise the risk to the voluntary decommissioning scheme from re-entry of vessels after decommissioning by buying out a proportion of off-register capacity in the under 18m and over 18 polyvalent fleet. This scheme is open to owners of polyvalent off-register capacity (excluding capacity in the Polyvalent Potting sub-segment and capacity received through the “Lost at Sea” scheme) that has not expired. The capacity to be withdrawn must, at the time of application, be confirmed as being off-register by the Licensing Authority for Sea-fishing Vessels.

Brexit Inshore Fisheries Business Model Adjustment Scheme 2022 and 2023

The first round of this scheme went live in January 2022. The scheme provided payments to inshore fishers to adapt their business operations to the post Brexit environment. Applicants were required to attend online Brexit training courses offered by Bord Iascaigh Mhara (BIM) – the Irish Seafood Development Agency.

On 19 April 2023, it was announced that this scheme would reopen. Eligible participants, including those which participated in the 2022 scheme, can avail of existing and new training modules which seek to help fishers to adapt their operations to reduce costs, improve product quality and reach new customers.

This scheme is part of a wider package of supports and development strategies which includes investments in marketing and promotion of inshore stocks, development of marine infrastructure and investing in all elements of the seafood supply chain, providing new and growing avenues for the inshore catch.

Inshore Fisheries Sector Strategy

The first industry-led Strategy for the inshore fisheries sector (Strategy for the Irish Inshore Fisheries Sector 2019-2023) has framed the work of the Inshore Fisheries Forums. Priorities identified at the outset included developing a profile of the inshore sector, building the sector's capacity to engage with policy development and enhancing industry's understanding of management and planning for inshore fisheries.

An Inshore Census will be conducted during 2023 (final preparations for this are underway by BIM) which will gather more detailed data on the Irish small-scale fleet in order to provide a suitable evidence base to inform development strategies for this part of Ireland's fishing fleet.

BIM published a report on 20th March 2023 – 'An economic analysis of the Irish small-scale fleet' (<https://bim.ie/wp-content/uploads/2023/03/BIM-An-economic-analysis-of-the-Irish-small-scale-fleet.pdf>). This report highlighted the impact which issues such as increased fuel costs had on profitability and the incomes of fishers. However, since the analysis was

completed for this report, fuel prices have continued to fall to levels similar to those experienced prior to the Russian invasion of Ukraine.

2023 Quota Management Measures relevant to the Inshore Fleet

Mackerel Hook and Line

A fishing quota allocation of 400 tonnes for a fishery for smaller vessels fishing for Mackerel by means of hooks and line, which is largely pursued by the inshore fleet including under 12 metre vessels, was set down in Policy in 2010. In preparation for the 2023 Fishery, the Minister asked BIM, the State Agency responsible for developing the Irish Seafood Industry, to explore how marketing opportunities could be developed for the Mackerel Hook and Line Fishery. BIM has advised that they are working with Bord Bia, the State Agency responsible for the promotion of Ireland's food, drink and horticulture businesses, and an external provider, and that work is progressing well. The project group are involved in stakeholder interviews and consultation with National Inshore Fisheries Forum (NIFF), Irish Islands Marine Resource Organisation (IIMRO), National Inshore Fisherman's Association (NIFA), processors, retail, fishmongers, seafood restaurants and food service. The project is due to be reported on shortly. Following on from the project, BIM hope to explore with Bord Bia the potential for running a marketing campaign for hook and line mackerel to align with the fishing season. The Minister is confident that it will help build up the return for this valuable fishery.

Northwest Herring

The management of Ireland's herring quotas (with the exception of the quota for herring in the Irish Sea), is set out in the Minister's 2012 Herring Management Policy. The International Council for the Exploration of the Sea (ICES) provided zero catch advice for years 2016 to 2022 for both herring stocks in the North-West. There was also a zero TAC set for 2015 for Herring 6A South. Monitoring Total Allowable Catches (TACs) were set each year by the EU Council for 2016 to 2022 for both stocks to facilitate the collection of scientific data. In these years, as Monitoring TACs were in place, the Minister's 2012 Herring Management Policy was set

aside for both herring stocks in the North-West to facilitate the collection of scientific data to assess the state of the stocks.

In 2022, the scientific advice from ICES is that both herring stocks in the North-West will be managed as commercial stocks in 2023. The EU Council adopted TACs and quotas following this advice. The Minister's 2012 herring policy set access to the relevant herring stocks for vessels with the relevant track record in years 2006 to 2010 inclusive. The vessels with this track record are known as the "ring-fenced" category and are allocated the majority of the available quota of the Herring 6A herring stock, based on longstanding ratios.

In February 2023, the Minister launched a consultation process on a review of the 2012 Herring Management Policy, in relation to the quantity of herring set aside for the Herring 6A South quota for inshore vessels that are not part of the ring-fenced group. The Herring Management Policy of 2012 sets aside 5% of the Herring 6A South stock of the quota for vessels under 20 metres in length, that did not have a qualifying track record for the fishery. When the 5% provision was set in the 2012 Herring Management Policy, it reflected an expectation that Ireland would have a reasonable quota available to it, as had been the case in the years prior to the setting of the policy. The Minister is open to considering amendments to this part of the policy so that inshore vessels have a reasonable allocation available to them when the quota available is low, taking into account that this stock is important for our inshore vessels. This process is expected to be finalised shortly for Ministerial decision.

Picked Dogfish (Spurdog)

The re-opening of the Spurdog fishery in 2023, after it was closed for over ten years to rebuild the stock, provides a valuable opportunity for the inshore fleet. As there has been no fishery for Spurdog in such a long period of time it has been noted that the market for Spurdog in the short term is limited. The Minister has asked BIM to identify and explore the options for developing market opportunities for the Spurdog fishery in order to deliver best returns for fishers.

3. Section A

(i) Description of the fleet segments

The Irish fishing fleet is largely a coastal fleet made up of 1,985 vessels, varying in size from in excess of 24 metres to under 12 metres. The fleet operates over five segments: pelagic, polyvalent, beam-trawl, specific and aquaculture. An outline of the 5 fleet segments in the Irish fleet in respect of 2022 is provided below:

(a) **Refrigerated Seawater (RSW) Pelagic Segment:** This segment comprised 23 vessels with a total capacity of 27,819 GT and 47,223 kW.

(b) **Beam Trawler Segment:** This segment comprised 10 vessels, which are dedicated to beam trawling, with a total capacity of 1,139 GT and 2,818 kW.

(c) **Polyvalent Segment:** This segment comprised 1,714 vessels, the vast majority of 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), and medium and large offshore vessels.

This segment also includes 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. They are ring-fenced within this segment and the capacity of these boats may not be used elsewhere in the segment for the purposes of compliance with the entry/exit regime.

(d) **Specific Segment:** This segment comprised 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.

(e) **Aquaculture Segment:** These vessels must be exclusively used in the management, development and servicing of aquaculture areas. This segment, which comprised 98 vessels, with a total capacity of 4,295 GT and 11,818 kW, is not subject to the entry / exit regime.

Capacity of Irish Fleet on 31 December 2022 (Extracted from Vessel Register Report on 31 December 2022)			
Fleet Segment	Number of Vessels	Gross Tonnage (GT)	kilowatts (kW)
Aquaculture	98	4,295	11,818
Specific	140	2,100	11,250
Polyvalent	1,714	32,918	115,797
Beam Trawl	10	1,139	2,818
RSW Pelagic	23	27,819	47,223
Total	1,985	68,271	188,906

Table 1: Structure of the Irish Fleet 2022

The segmentation of the Irish fishing fleet is provided for by Policy Directive 2 of 2003, as amended by Policy Directive 1 of 2006, Policy Directive 1 of 2011 and Policy Directive 2 of 2011. The transfer of capacity between the segments (or sub-segments) is not permitted, and equivalent “replacement” capacity must be taken out of the segment (or sub-segment) into which a vessel is being introduced. This is known as the “entry/exit regime” and is a requirement since 1 January 2003 under Regulation (EU) No 1380/2013 of the European Parliament and of the Council which repealed and replaced EU Council Regulation 2371/2002.

Of the 1,985 vessels in the Irish fleet, 1,485 are less than 10 metres length overall, 221 vessels are between 10 and 12 metres length overall, 67 vessels are between 12 and 15 metres length overall, 97 vessels are between 15 metres and 24 metres length overall and 115 vessels are greater than or equal to 24 metres length overall.

Traditionally, up to 90% of ownership of the Irish fishing fleet has been vested in skipper/owner, single vessel family operations. However, since 2016, there is a move towards increased body corporate ownership. Since 2016, the number of vessels licenced by a body corporate has increased by 88% from 154 in 2016 to 290 in 2022 and now comes to 14.6% of the fleet.

(ii) Link with fisheries

The RSW (Pelagic) Segment is engaged predominantly in fishing for pelagic species such as herring, mackerel, horse mackerel and blue whiting.

Vessels in the Beam Trawler Segment target demersal species such as monkfish, megrim and sole.

Polyvalent vessels are multi-purpose vessels which prosecute a range of fisheries. The species targeted include demersal species, pelagic species, shellfish (e.g. Nephrops, crab and lobster) and bivalve molluscs (e.g. scallop, mussel and razor clam).

Vessels in the Specific Segment may target bivalve molluscs and aquaculture species only.

Vessels in the Aquaculture Segment are restricted to use in the management, development and servicing of aquaculture areas. As part of a service to aquaculture installations, such vessels may collect mussel seed, subject to certain restrictions, as have been determined in the context of Regulation (EU) No 1380/2013.

The profile of the Irish fleet in Table 2, below, shows the main target species for each segment.

Fleet Segments	Main Target Species	
	Fin Fish	Shellfish
(a) Refrigerated Sea Water (RSW) Pelagic	Pelagic (e.g. Mackerel, Herring, Horse Mackerel, Blue Whiting, Boarfish, Albacore)	

(b) Polyvalent (sub-divided into:- Potting Sub-segment; Scallop Sub-segment; ≥ 18 metre length overall Sub-segment and < 18 metre length overall Sub- segment)	Demersal (e.g. Whiting, Haddock, Hake, Cod, Halibut, Sole, Plaice, Monkfish, Megrin, Skate) Pelagic (e.g. Mackerel, Herring, Horse Mackerel, Blue Whiting, Boarfish, Albacore)	Lobster, Crab, Nephrops, Shrimp, Whelk, Bi-Valve Molluscs (e.g. Mussels, Scallop, Razor Clam, Clam, Oyster etc.)
(c) Beam Trawl	Demersal (e.g. Whiting, Haddock, Hake, Cod, Halibut, Sole, Plaice, Monkfish, Megrin, Skate)	Nephrops, Scallop
(d) Specific (sub-divided into Scallop Sub- segment and General Sub- segment)	N/A	Farmed species and wild Bi-Valve Molluscs (e.g. Mussels, Scallop, Razor Clam, Clam, Oyster etc.)
(e) Aquaculture	Farmed species only	Farmed species only

Table 2: Irish Fleet Profile

(iii) Development in fleets

Compared with 2021, the RSW (Pelagic) Segment did not change in terms of number of vessels. The on-register capacity in the RSW (Pelagic) Segment changed as follows: there was an increase of 1,560 GT and a decrease of 174 kW during 2022.

The Beam Trawler Segment did not change in terms of the number of vessels, nor was there any change in on-register capacity in this segment during 2022.

The Polyvalent Segment decreased by 4 vessels but the capacity registered in the segment changed as follows: there was an increase of 128 GT and a decrease of 444kW in 2022.

The Registrar General of Fishing Boats carries out periodic reviews of the Register to identify and follow up on registered vessels whose sea-fishing boat licences have lapsed. Under this review in 2022, 2 vessels were compulsorily de-registered and 5 vessels were voluntarily de-registered.

The Specific Segment decreased by 5 vessels while the capacity registered in the segment decreased by 127 GT and 658 kW in 2022.

The Aquaculture Segment increased by 1 vessel.

Figure 1 illustrates the number of vessels in the Irish Fleet since 2005 which grew to a maximum of 2,217 vessels in 2012, but which has since declined to 1,985 vessels in 2022.

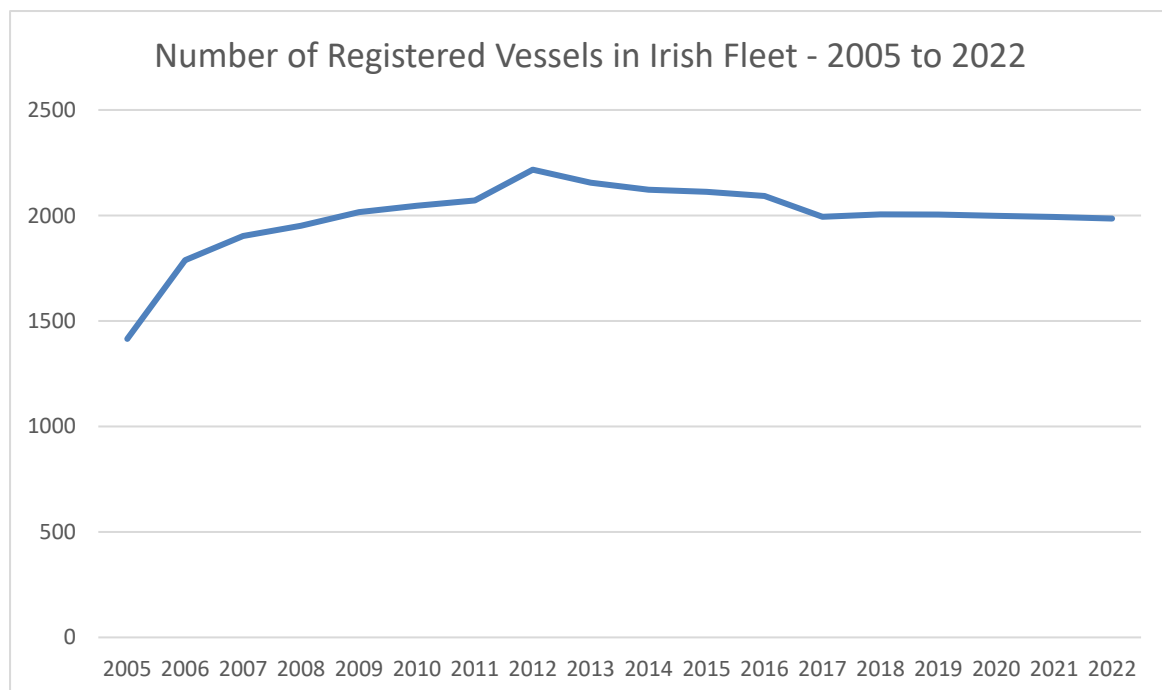


Figure 1: Number of vessels in the Irish Fleet since 2005.

The increase in the number of vessels since the year 2006 is mainly due to (a) the number of vessels regularised (i.e. registered and licensed) under the Special Inshore Schemes, (b) the number of Aquaculture vessels registered and licensed and (c) the tendency to replace larger vessels with smaller vessels for economic reasons.

Figures 2 and 3 illustrate the capacity of the Irish fleet from 2014 to 2022, measured in Gross Tonnes and kW. The fleet capacity ceiling was set on 1 January 2014 for the Irish fleet under Regulation (EU) No 1380/2013 at 77,568 GT and 210,083 kW.

The Irish fleet makes up just 2.5% of the EU fleet in terms of numbers of vessels but holds capacity just above this percentage.

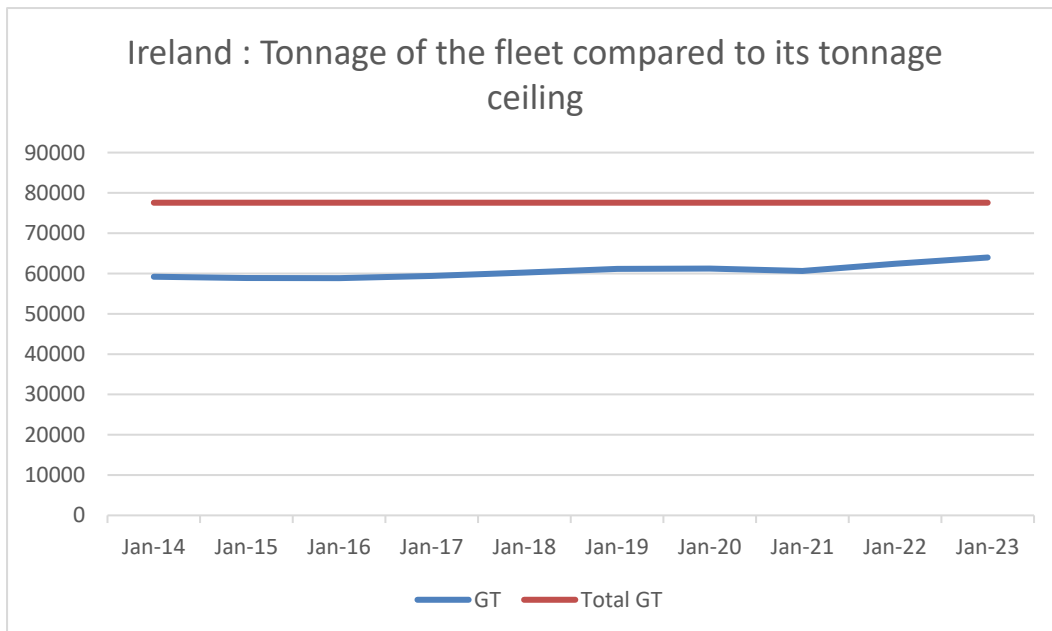


Figure 2: Capacity of the Irish Fleet in Gross Tonnes Jan 2014-Jan 2023

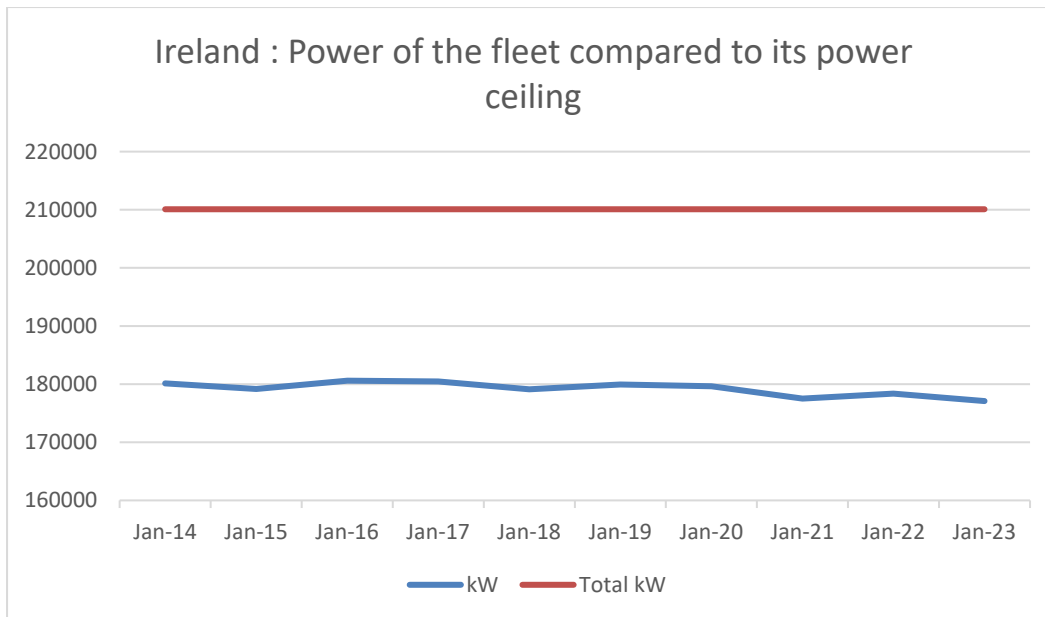


Figure 3: Capacity of the Irish Fleet in kW Jan 2014 – Jan 2022

4. Section B

(i) Statement of Effort Reduction Schemes

Fishing Effort – Stock Recovery plans

The Irish demersal fisheries coming within the scope of stock recovery plans (ICES Area 6a and 7a) are of a highly mixed nature. Specific measures in place in each area are as follows:

Area 6a

Since 2009, Ireland has introduced a seasonal closure in statistical rectangle 39E3, for the protection of juvenile cod as the area was identified as a vulnerable spawning area. Historically, over 40% of Irish cod landings in 6a had been attributed to this area. In its submission to the Commission in 2012, Ireland anticipated that the closure would result in a reduction of cod catches of 24% in 2012. This closure has since been modified and implemented under EU legislation (Regulation (EU) 2019/1241). The area boundary has been defined in line with STECF advice and the closure is effective for 6 months of the year from 1 October to 31 March.

Area 7a

A range of new selectivity measures were introduced under the Technical Measures Regulation (2019/1241). This Regulation included the setting of minimum conservation references sizes, mesh sizes and defined closed or restricted areas. These closed areas include a part of the Irish Sea that is closed from 14 February to 30 April to protect spawning cod. During this period, it is prohibited to use any demersal trawl, seine or similar towed net, any gillnet, entangling net or trammel net or any fishing gear incorporating hooks. Demersal trawls are only permitted in the area if they are fitted with STECF assessed selective gears.

In addition to the above, seasonal closures are also in place for the Porcupine Bank in Areas 7c and 7k (directed fisheries for Nephrops and associated species prohibited from 1 May to 31 May each year) and the Celtic Sea Conservation Area (closed to all fishing activity from 1 February to 31 March each year). These measures are set out in Regulation (EU) 2019/1241.

Western Waters Effort Regimes:

The table below sets out the maximum annual fishing effort for Ireland for certain fishing areas and fisheries as set out in Council Regulation (EC) No 1415/2004.

Maximum Allowable Fishing Effort (kW. Days) in Western Waters

Area	Vessel Length	Demersal	Scallops	Crab
5,6	≥ 15m	2,324,932	5,766	465,000
7	≥ 15m	7,904,120	525,012	40,960
BSA*	≥ 10m	7,154,490	109,395	63,198

* **biologically sensitive area referred to in Article 6 of Regulation (EC) No 1954/2003**

Ireland operates within the limits as set out above except in the case of Crab Effort in the BSA whereby a swap with another Member State is negotiated, as required, on an annual basis to increase Ireland's maximum allowable fishing effort.

Fleet Restructuring

In 2005/2006 and 2008, Ireland implemented two fleet decommissioning schemes. The 2005/2006 Scheme removed 3,323 GT, while the 2008 Scheme removed 6,914 GT. In March 2021, the Minister for Agriculture, Food and the Marine established a Seafood Task Force to examine ways in which the impacts of Brexit and the EU-UK Trade and Co-Operation Agreement could best be mitigated. The Report of the Seafood Task Force recommended a Voluntary Permanent Cessation scheme to take out 8,000 gross tonnes (approximately 60 vessels) from the polyvalent and beam trawl fleet segments. This is equivalent to 26% of Ireland's demersal fleet, at an estimated cost of €60 million to be funded under the Brexit Adjustment Reserve. Following sanction by the Department Public Expenditure and Reform and a State Aid Notification from DGCOMP, this scheme was launched in September 2022 and is due to be completed by the end of 2023. See <https://bim.ie/fisheries/funding/brexitvoluntary-permanent-cessation-scheme/>. This scheme will potentially free up to €30 million of quota fish for those demersal vessels remaining in the fleet, allowing them to have a more sustainable future.

(ii) Impact on fishing capacity of effort reduction schemes

As a result of significant changes to the recovery plan operation in 2009 there were reductions in fleet activity in Areas 6a and 7a, but it is difficult to gauge the full impact on fishing capacity of fishing effort reduction schemes.

In 2011, a Value for Money Review of the two fleet decommissioning schemes was concluded. The Value for Money Review was undertaken in accordance with Ireland's Value for Money and Policy Review Initiative which was introduced to secure improved value for money from public expenditure. VFM reviews aim to analyse Government spending in a systematic manner and provide a basis on which more informed decisions can be made on priorities within and between programmes. While the report was not published until 2012, it was shared with the Commission in 2011.

The review examined the efficiency and effectiveness of the Whitefish Decommissioning Schemes. Overall, the conclusions of the VFM Review were that the 2008 Scheme, co-funded by the European Fisheries Fund, was good value for money, in that it achieved its objectives in an efficient manner, with extremely low deadweight cost and it improved the quota availability to and viability of the remaining whitefish fleet.

The current scheme known as the Brexit voluntary permanent cessation scheme aims to restore balance between fleet capacity and available quotas following the quota reductions arising from the Trade and Cooperation Agreement (TCA), ensuring the profitability of the fleet.

The scheme aims to support fleet segment impacted by:

- The reduction in quotas for 2021 to 2026 arising from the EU-UK Trade and Cooperation Agreement. The Scheme aims to mitigate losses associated with certain stocks included in Annex FISH.1 and FISH.2 of the TCA.
- Difficulties in accessing UK waters or third country waters due to Brexit.

The scheme will support vessels in the polyvalent and beam trawl segments to permanently cease all fishing activity, thus increasing the quota available for remaining vessels.

While vessels in the polyvalent and beam trawl fleets may fish quota species impacted by the TCA quota reductions and are thus negatively impacted by the TCA, the scheme will target applications by vessels most active in fishing such quota species as their voluntarily removal from the fleet will most contribute to restoring fleet balance and to increasing the amount of quota available to vessels remaining in the fleet.

5. Section C

Statement of Compliance with Entry/Exit Scheme & with Fleet Capacity Ceiling

Regulation (EU) No 1380/2013 set Ireland's Fleet Capacity Ceiling on 1 January 2014 at 77,568 GT and 210,083 kW.

The total capacity which entered the fleet between 2014 and 2022 was 26,267 GT and 73,550 kW. The total capacity which exited the fleet between 2014 and 2021 was 21,807 GT and 78,103 kW (no capacity was decommissioned).

The term “capacity exiting the fleet” refers to capacity coming off-register due to a vessel de-registration or due to a vessel being decommissioned. The term “capacity entering the fleet” refers to capacity temporarily off-register from de-registered vessels used to license new/replacement vessels. The capacity of a de-registered vessel can re-enter the fleet whereas the capacity of a vessel decommissioned with public aid cannot as it is permanently withdrawn.

Fishing Capacity at 31 December 2022 (Extracted from Fleet Register 31 December 2022)

	GT	kW
Capacity of the Fleet on 31/12/2013	59,516	181,641
2014 to 2022 Entries of Vessels Without Public Aid	26,267	73,550
2014 to 2022 Exits of Vessels Without Public Aid	21,807	78,103
Capacity of the Fleet on 31/12/2022	63,976	177,088
Fleet Capacity Ceiling 31/12/2022	77,568	210,083

Table 3: Overall fishing capacity situation of the Irish fleet 2022

6. Section D

(I) Summary of Weaknesses & Strengths of Fleet Management System

Fleet management in Ireland involves a number of tools that act upon the Irish fleet and other tools that act upon the impact of the fleet on Irish fisheries. Fleet management tools include the specification of the five Irish segments mentioned previously in section 1A, licensing of sea-fishing boats, gear and vessel restrictions associated with the licensing process and a decommissioning scheme carried out in the period 2005 to 2008. Fishery management policy is developed through a transparent and inclusive system.

The Irish fish quota management system is designed to ensure, having regard to fishing patterns and market conditions, a fair and rational allocation of quotas between fishing vessel operators and management to support fishing seasons and the availability of by-catch quotas during the year. The management arrangements have been set and developed over many years since the commencement of the Common Fisheries Policy (CFP) and the introduction of quotas. Any amendments or changes to the policy on management arrangements are determined by the Minister for Agriculture, Food and the Marine following detailed analysis and full consultation with stakeholders. Within the Minister's policy, allocations and other arrangements are decided by the Minister on an ongoing basis having regard for the advice of the Quota Management Advisory Committee (QMAC). This Committee is a formal consultative committee, involving fishing industry representatives from the catching, inshore and processing sectors. The QMAC is in place at the discretion of the Minister and is chaired by the Department.

The QMAC currently meets on a monthly basis. The purpose of these meetings is for the industry representatives to make recommendations to the Minister on monthly/bimonthly/quarterly catch limits for particular demersal stocks. The Minister has regard for the recommendations, subject to the proper management and rational exploitation of our fisheries. Additional meetings are organised as required to discuss specific issues in particular fisheries that may arise.

The strengths of the fleet management system include; the strict control exercised by Ireland's Registrar General of Sea Fishing Boats (Ireland's licensing authority for the fleet) over

the entry/exit regime and the fleet remained within its reference level; the logical segmentation of the fleet; vessel catch limits are recommended to the Minister by the QMAC on a monthly basis for certain stocks (in particular demersal stocks) taking account of the situations of both the fleet and the market and the success of the last decommissioning scheme carried out in the Irish fleet.

The weaknesses in the fleet management system include; overcapitalisation evident in parts of the fleet; challenges in responding to the Landing Obligation which may lead to exacerbation of economic indicators signalling further overcapitalisation, particularly in the smaller and medium sized polyvalent fleet.

(II) Plan for improvements in fleet management system

Over the period 2014-2020, Ireland operated a grant aid scheme to modernise the Irish fishing fleet. This was funded under the European Maritime and Fisheries Fund (EMFF). The Sustainable Fisheries Scheme provided grants for on board investment in order to foster the gradual elimination of discards, to reduce the impact of fishing on the marine environment, to facilitate the transition to a sustainable exploitation of living marine biological resources, to mitigate the effects of climate change and to improve the energy efficiency of fishing vessels. The new EMFAF seafood development 2021-2027 will also provide support onboard investment.

(III) Information on general level of compliance with fleet policy instruments

Each Member State is required to ensure that from 1 January 2014, the fishing capacity of its fleet does not, at any time, exceed the Fishing Capacity Ceiling set. Relative to the Irish fleet this is achieved by managing entries into its fleet and exits from the fleet in a manner whereby each entry of new capacity into the fleet, is compensated, without public aid, by the previous withdrawal of at least the same amount of capacity, again without public aid, as reflected in the 2022 capacity figures at Table 3 above. This mechanism is known as the “entry/exit regime”.

7. Section E

(i) Information on changes of the Administrative Procedures Relevant to Fleet Management Fleet Policy Directives

Under section 3(2) of Ireland's Fisheries (Amendment) Act 2003 (as amended by section 99 of the Sea Fisheries and Maritime Jurisdiction Act 2006), the Minister may from time-to-time issue policy directives to the Registrar General of Sea-fishing Boats in relation to sea-fishing boat licensing for the purposes of protecting, conserving or allowing the sustainable exploitation of living marine aquatic species. No new policy directives were issued in 2022.

Council Regulation 1224/2009

SI 54 of 2016 as amended implements Council Regulation (EC) No. 1224/2009 of 20 November 2009 and Commission Implementing Regulation (EU) No. 404/2011 of 8 April 2011 as they relate to fisheries control systems and rules for the recording of fish catches. This Statutory Instrument gives the Marine Survey Office, Sea Fisheries Protection Authority and the Navy the necessary powers to implement the requirements of these regulations in particular in relation to monitoring, certification and verification of engine power.

8. Section F

Estimation & Discussion of Balance Indicators

Summary of Biological Indicators

The estimation and discussion on balance indicators are based on Tables extracts from the JRC website on 4th May 2023 for Sustainable Harvest Indicators (SHI) and Stock at Risk Indicators (SAR) related to the Irish fleet segments (<https://stecf.jrc.ec.europa.eu/reports/balance>). Table 1 (see page 26) gives the Synthesis of indicators and trends for Ireland in Supra Region Area 27, for all gears and all vessel lengths. The discussion material is based on these tables and the comments for Ireland from the 2022 STECF report – Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing

opportunities (STECF-22-15). Annex 1 gives the Fishing Technologies – DCF categories used in Table 1 and Table 2. Annex 2 is a map of supra region 27.

The Guidelines referred to in this document are Com (2014) 545 FINAL - Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy.

Indicators

This section should be read while referring to Table 1. The Sustainable Harvest Indicator (SHI) presented in Table 1 is designed to reflect the extent to which a fleet segment is dependent on stocks that are over harvested, where 'over harvested' is assessed with reference to F_{msy} values over time, and dependency is based on fleet segment revenues (value of landings).

The SHI is calculated using landings value for 2008-2021 for every fleet segment for which data were available. Data on $F_{current}$ (mean F) and F_{msy} for fish stocks found in FAO Area 27 were obtained from the ICES online database. For FAO area 37 the most recent estimate of $F_{current}$ and F_{msy} (or its proxy $F_{0.1}$) were extracted from the database compiled by JRC.

Comments on balance (status 2021): $SHI \geq 1$ 'out of balance'; $SHI < 1$ 'in balance' (as according to the 2014 Balance Indicator Guidelines as requested by the TOR)

Green cells indicate SHI values that were calculated where 40% or more of the fleet segment's annual landed value came from assessed stocks (an indication that the SHI value is representative).

Trend analysed for the period 2014-2021, using the slope equation and a 5% threshold to indicate significance, as: Slope > 0.05 increasing; Slope < -0.05 decreasing; $-0.5 < \text{Slope} < 0.5$ no significant trend and slope = 0 flat/null trend. For trends to be calculated, the last 3 years of data must be available.

The Stock at Risk indicator (SAR) presented in Table 1 aims to measure how many stocks are being affected by the activities of a fleet segment that are biologically vulnerable.

SAR is calculated for the years 2009-2021 for all fleet segments for which data were available.

Comment on balance (status in 2021): SAR ≥ 1 'out of balance'; SAR < 1 'in balance'; (as according to the 2014 Balance Indicator Guidelines as requested by the TOR). No SAR found when SAR = -1

Coverage is indicated by the availability of data (landings in weight)

Comments on SHI Indicator Findings for Ireland

Table 1 gives the Sustainable harvest indicator (SHI) for Ireland in Supra Region 27 for all gear and all vessel lengths by year for 2021.

Out of 30 fleet segments active in 2021, SHI indicator values were available for 23. According to the criteria in the 2014 Commission guidelines, the SHI indicator values for 9 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks that comprise less than 40% of the total value of landings by those fleet segments (shown as stippled cells in Table 1).

The 14 fleet segments for which the SHI indicator may be considered meaningful to assess balance or imbalance, accounted for around 75% of the total value of the landings in 2021 provided by MS, and were as follows:

- **14 fleet segments** may be **in balance** with their fishing opportunities were;

IRL NAO DFN1824 *

IRL NAO DFN1824 *

IRL NAO DFN1824 *

IRL NAO DTS1012

IRL NAO DTS1218

IRL NAO DTS1824

IRL NAO DTS2440

IRL NAO HOK1012 *
IRL NAO HOK1012 *
IRL NAO TBB2440 *
IRL NAO TBB2440 *
IRL NAO TM 1218 *
IRL NAO TM 2440
IRL NAO DFN1824 *
IRL NAO DFN1824 *
IRL NAO TM 1218 *

- **1 fleet segments** may be **out of balance** with their fishing opportunities.

IRL NAO TM 40XX

Trends could be calculated for 18 segments:

- 10 fleet segments displayed a **decreasing** trend,

IRL NAO DFN1824 *
IRL NAO DFN1824 *
IRL NAO DFN1824 *
IRL NAO DTS1012
IRL NAO DTS1218
IRL NAO DTS1824
IRL NAO DTS2440
IRL NAO TBB2440 *
IRL NAO TM 1218 *
IRL NAO TM 2440

- 4 fleet segments displayed **no clear** trend.

IRL NAO HOK1012 *
IRL NAO HOK1012 *
IRL NAO TBB2440 *
IRL NAO TM 40XX

The overall trend for all fleet segments was analysed over the full time series. This shows a clear downward trend over time with the 2021 smoothed average now well below 1. Only 2 fleets exceed 1 the IRL NAO TM 40XX and IRL NAO DRB2440 * This indicates that on average fleets are more in balance.

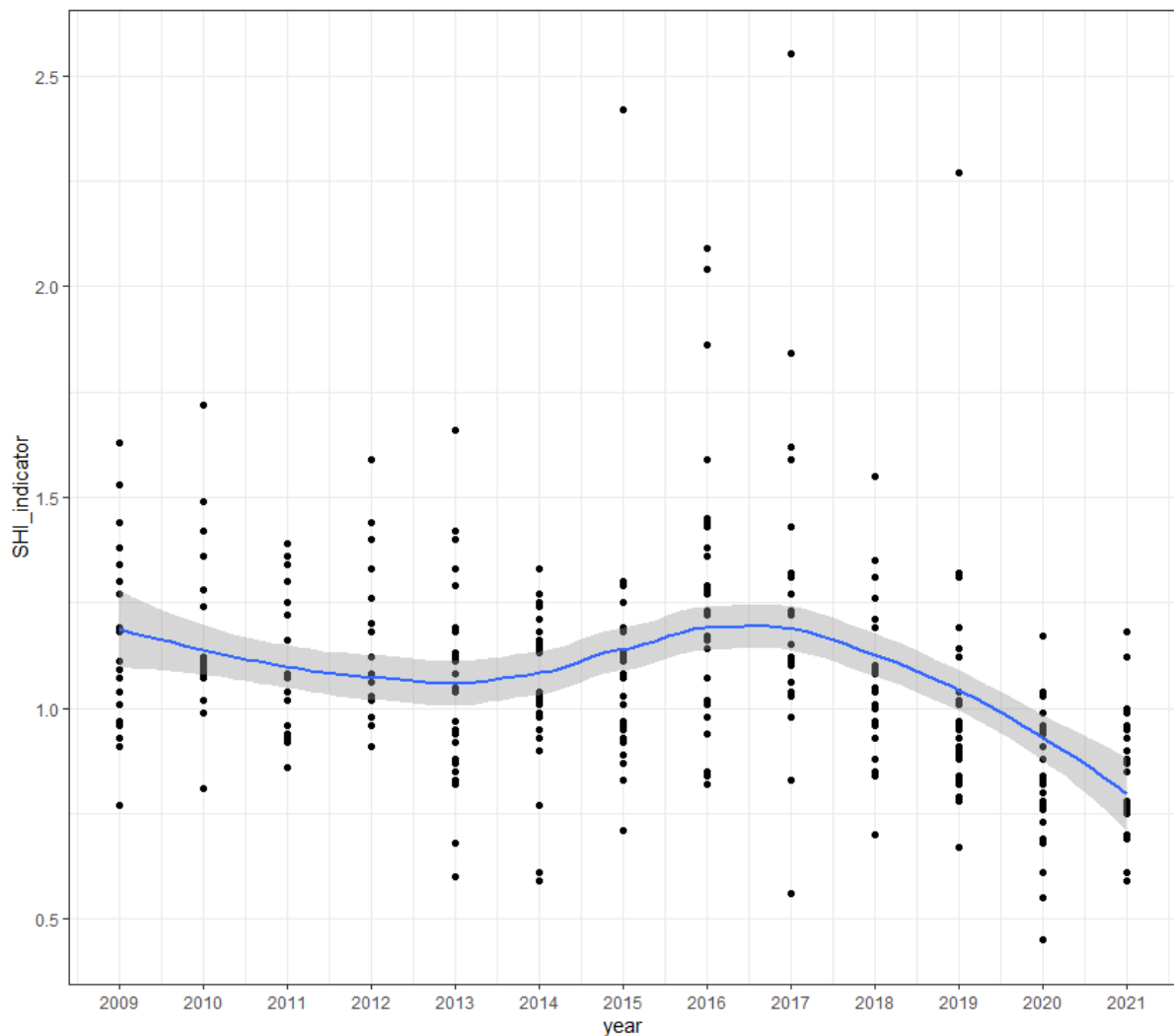


Figure 1. Time series of SHI indicator for Ireland's fleet segment. Each black dot indicates a fleet segment and the blue line is a time series loess smoother.

Comments on Fleet Segments that may not be in balance for SHI

The total number of fleet segments that may not be in balance for SHI reduced from last year.

TM (midwater trawls) >40m

- 20 active vessels in 2021.
- The dominant stocks for these vessels are blue whiting, mackerel, horse mackerel and boarfish. Blue whiting was fished above MSY in 2022 but the stock size is well above MSY $B_{trigger}$. The reason for the high exploitation on these stocks is due to lack of international agreement with different coastal states setting autonomous TAC's the

sum of which exceeds the catch advised from ICES. The landings from this fleet are within the quota allocated to Ireland. Mackerel is sustainably exploited. Horse mackerel was not exploited sustainably and the biomass was at increased risk in 2022. The stock status of boarfish is unknown but catches were below the ICES advice.

TM (midwater trawls) >40m

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Comments on SAR Indicator Findings for Ireland

Table 1 gives the Stocks at Risk Indicator (SAR) for Ireland in Supra Region 27 for all gear and all vessel lengths by year for 2021.

SAR indicator was available for 21 fleet segments in 2021. For 8 fleet segments, one or more stocks-at-risk were detected:

- 1 fleet segment with 5 stocks-at-risk,
 - demersal trawlers and/or demersal seiners (DTS) in the 24-40m length category
- 1 fleet segment with 3 stocks-at-risk,
 - demersal trawlers and/or demersal seiners (DTS) in the 18-24m length category
- 5 fleet segments with 1 stocks-at-risk.

- the pelagic trawlers (TM)10-12 & 24-40 m, length categories
- demersal trawlers and/or demersal seiners (DTS) in the 12-18m length categories
- Static nets in the 10-12m length categories
- Beam trawls in the 24-40m length categories

Comments on Fleet Segments that may not be in balance for SAR

DTS (demersal trawls/seines) 12-18m, 24-40m and 18-24m

- 127 vessels active in 2021
- This fleet has catches of several stocks that are considered biologically vulnerable, Celtic Sea Sea cod and whiting, Irish Sea cod and whiting, west of Scotland cod and whiting. These stocks are taken as a by-catch in mixed fisheries mainly targeting Nephrops, Megrin and monkfish and catches of vulnerable stock accounts for a small percentage of the catches of this segment. Catches of all vulnerable stocks are very minor compared to the sustainably fished target species and various avoidance and technical measures are in place to reduce by-catches of vulnerable stocks.

TM (midwater trawls) 10-12m and 24-40m

- 17 active vessels in 2021.
- This fleet has catches of 3 stocks that are considered biologically vulnerable in 2021. The dominant stocks for these vessels are blue whiting, mackerel, horse mackerel and albacore tuna. Blue whiting was fished above MSY in 2022 but the stock size is well above MSY $B_{trigger}$. The reason for the high exploitation on these stocks is due to lack of international agreement with different coastal states setting autonomous TACs the sum of which exceeds the catch advised from ICES. The landings from this fleet are within the quota allocated to Ireland. Horse mackerel was not exploited sustainably and the biomass was at increased risk in 2021. Celtic Sea herring was exploited sustainably in 2022 but remains below B_{lim} .

Conclusion

Over time the trend in indicators of balance between the fleet and the resource has improved and in 2021 the average SHI is now well below 1 (Figure 1). However, this is likely to change in 2022 with the impact of further quota reductions impacting on the Irish fleet as a result of Brexit and the TCA.

We do not consider that it is valid to state that the stock is over-exploited each time F is slightly above F_{msy} , in fact there is a range around F_{msy} that is consistent with maximising yield and the Precautionary Approach. Stocks are only over exploited when they are consistently fished above F_{pa} .

In relation to the fleets that may be out of balance in relation to SAR, in general Irish fleets take minor catches of the vulnerable stocks but without access to the international data used, it is not possible to assess whether fleets take more than 10% of the landings of a vulnerable stock.

TABLE 1: Ireland - Synthesis of indicators and trends for Supra Region Area 27; all gears and all vessel lengths. This table was extracted from

<https://stecf.jrc.ec.europa.eu/reports/balance>

STECF 22-15 - Balance capacity - indicator table.xlsx

						<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> in balance not in balance </div> <div style="text-align: center;"> deteriorating improving no clear trend Null/flat trend </div> </div>			
						Status 2021 according to thresholds and criteria in the 2014 Guidelines		Trends 2017-2021	
MS	SR	FT	VL	FS name	N vessels 2021	SAR	SHI	SHI	
IRL	NAO	DFN	VL0010	IRL NAO DFN0010	130				
IRL	NAO	DFN	VL1012	IRL NAO DFN1012	10				
IRL	NAO	DFN	VL1218	IRL NAO DFN1824 *	8				
IRL	NAO	DFN	VL1824	IRL NAO DFN1824 *	7				
IRL	NAO	DFN	VL2440	IRL NAO DFN1824 *	1				
IRL	NAO	DRB	VL0010	IRL NAO DRB0010	113				
IRL	NAO	DRB	VL1012	IRL NAO DRB1012 *	33				
IRL	NAO	DRB	VL1218	IRL NAO DRB1012 *	4				
IRL	NAO	DRB	VL1824	IRL NAO DRB2440 *	2				
IRL	NAO	DRB	VL2440	IRL NAO DRB2440 *	5				
IRL	NAO	DTS	VL0010	IRL NAO DTS0010	32				
IRL	NAO	DTS	VL1012	IRL NAO DTS1012	9				
IRL	NAO	DTS	VL1218	IRL NAO DTS1218	26				
IRL	NAO	DTS	VL1824	IRL NAO DTS1824	57				
IRL	NAO	DTS	VL2440	IRL NAO DTS2440	44				
IRL	NAO	FPO	VL0010	IRL NAO FPO0010	533				
IRL	NAO	FPO	VL1012	IRL NAO FPO1012	76				
IRL	NAO	FPO	VL1218	IRL NAO FPO1218 *	23				
IRL	NAO	FPO	VL1824	IRL NAO FPO1218 *	1				
IRL	NAO	FPO	VL2440	IRL NAO FPO1218 *	2				
IRL	NAO	HOK	VL0010	IRL NAO HOK0010	64				
IRL	NAO	HOK	VL1012	IRL NAO HOK1012 *	11				
IRL	NAO	HOK	VL1218	IRL NAO HOK1012 *	1				
IRL	NAO	TBB	VL1824	IRL NAO TBB2440 *	5				
IRL	NAO	TBB	VL2440	IRL NAO TBB2440 *	9				
IRL	NAO	TM	VL1012	IRL NAO TM 1012 *	3				
IRL	NAO	TM	VL1218	IRL NAO TM 1218 *	5				
IRL	NAO	TM	VL1824	IRL NAO TM 1218 *	1				
IRL	NAO	TM	VL2440	IRL NAO TM 2440	14				
IRL	NAO	TM	VL40XX	IRL NAO TM 40XX	20				
IRL	NAO	INACTIVE	VL0010	IRL NAO INA0010	551				
IRL	NAO	INACTIVE	VL1012	IRL NAO INA1012	92				
IRL	NAO	INACTIVE	VL1218	IRL NAO INA1218	20				
IRL	NAO	INACTIVE	VL1824	IRL NAO INA1824	2				
IRL	NAO	INACTIVE	VL2440	IRL NAO INA2440	5				
IRL Total					1919				

Stippled shading indicates fleets where the value of the landings was less the 40% for assessed stocks (i.e. SHIR <40)

ANNEX 1

FISHING_TECHNIQUE – DCF categories used in Table 1 and Table 2

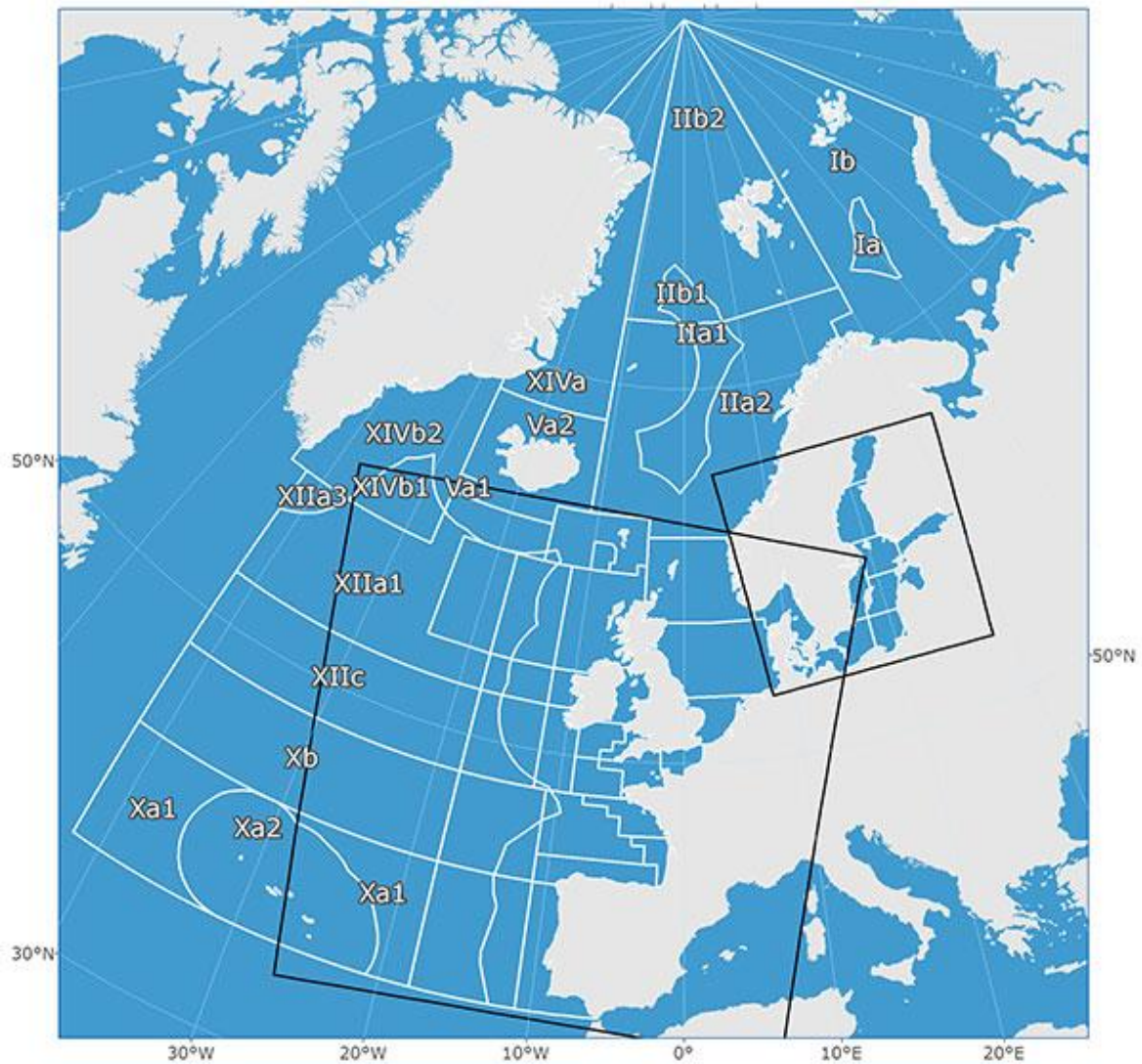
DFN	=	Drift and/or fixed netters
DRB	=	Dredgers
DTS	=	Demersal trawlers and/or demersal seiners
FPO	=	Vessels using pots and/or traps
HOK	=	Vessels using hooks
MGO	=	Vessel using other active gears
MGP	=	Vessels using polyvalent active gears only
PG	=	Vessels using passive gears only for vessels < 12m
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 meters and 10 meters in length
VL1012	=	Vessel between 10 meters and 12 meters in length
VL1218	=	Vessel between 12 meters and 18 meters in length.
VL1824	=	Vessel between 18 meters and 24 meters in length.
VL2440	=	Vessel between 24 meters and 40 meters in length.
VL40XX	=	Vessel greater than 40 meters in length.

Annex 2

Supra Region Area 27 - Baltic Sea, North Sea, Eastern Arctic, North Atlantic;



The boundaries of the Atlantic, Northeast (Major Fishing Area 27) corresponding to the ICES fishing areas for statistical purposes. (Source: <http://www.fao.org/fishery/area/Area27/en>)

Estimation & Discussion of Balance Indicators

2. Economic Indicators

The Annual Economic Report (AER), the STECF Working Group on balance between fleet capacity and fishing opportunities (STECF-15-02), and the DG Fisheries and Maritime Affairs Guidelines for analysis of the balance between fishing capacity and fishing opportunities **ALL** have distinct definitions of the economic indicators.

The fact that these indicators have not been harmonised creates confusion and leads to Member States using different calculations. In the following sections, the two main indicators, Return on Fixed Tangible Assets (RoFTA) and Current Revenue against Breakeven Revenue (CR/BER) along with their disparate definitions will be described and their results detailed. The main difference among these is the calculation of opportunity costs which involves applying a long-term interest rate to the estimated capital value of the fleet and her segments.

In relation to the calculation of the Irish fleet segments' economic trajectory via these indicators it is essential to recognise that, in this report, the indicators are calculated for the sample of the active fleet that returned a DCF economic survey outlining the vessels annual costs in contrast to the AER method which calculates socio-economic performance indicators by fleet segments using the DCF economic survey data raised up to the active national totals.

Table 1: Percentage DCF economic survey returns from the active fleet

DCF Clusters	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DFNVL0010	0	0	13	2	14	10	11	17	33	25	9	26	23	5
DFNVL1012	9	20	36	40	50	33	27	20	58	67	14	44	50	60
DFNVL1824	20	0	17	45	18	40	18	25	25	31	31	29	100	56
DRBVL0010	0	2	13	6	17	12	9	21	23	10	5	24	28	4
DRBVL1012	8	36	50	37	52	29	31	18	25	15	12	15	22	24
DRBVL2440	50	40	71	17	33	29	25	29	71	43	14	57	86	14
DTSVL0010	0	0	0	0	0	7	0	13	33	16	13	29	27	13
DTSVL1012	6	0	5	12	20	24	16	20	30	21	33	18	33	44
DTSVL1218	19	18	16	18	19	26	23	7	24	31	18	26	77	50
DTSVL1824	25	20	19	21	25	22	17	28	41	40	13	12	90	53
DTSVL2440	39	40	17	40	41	29	35	16	45	54	26	27	91	52
FPOVL0010	4	7	6	9	15	10	10	9	13	9	5	15	17	13
FPOVL1012	14	16	21	33	43	34	39	34	39	49	26	33	38	13
FPOVL1218	16	28	28	43	38	26	29	26	43	60	33	24	42	27
HOKVL0010	0	0	0	8	3	16	15	13	33	16	6	18	18	6
HOKVL1012	14	0	0	29	75	100	17	25	0	25	25	25	9	17
TBBVL2440	6	38	18	9	0	23	15	0	73	21	71	79	100	93
TMVL2440	29	42	50	64	18	50	33	33	67	58	27	33	100	64
TMVL40XX	35	45	25	42	52	48	33	19	40	40	35	35	65	70

The methodology used by the Member State (IRL), for the AER, is to submit landings income from the landing declarations. In this report the stated revenue of those vessels that provided DCF economic survey data are compared against the stated costs from the DCF surveys.

Differences in economic indicator results may arise between both methodologies. These differences can be caused by biases in the data. For instance, those vessels that have returned DCF cost surveys may have landed below the average for their segment and so their revenue may be below the average segment level and may skew the results of the indicators, or vice versa.

The segmentation used here will follow the DCF segmentation as opposed to the Irish national segmentation used by the Department of Agriculture, Food and the Marine (DAFM); The results for the latter will be included in Annex 1 and Annex 2.

2.1 Economic indicator 1: ROI/RoFTA

Annual Economic Report Methodology for Economic Indicators – Chapter 6 AER REPORT METHODOLOGY

The AER defines ROI/RoFTA as follows :

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

*Where opportunity cost of capital = fixed tangible asset value * real interest*

Where real interest (r) = [(1 + i) / (1 + π)] - 1.

Where i is the nominal interest rate of the Member State in the year concerned and π is the inflation rate of the Member State in the year concerned. See Table 6.3.

Rate of Return on Fixed Tangible Assets (RoFTA):

RoFTA = (net profit + opportunity cost of capital) / tangible asset value (vessel depreciated replacement value)

In the calculations above opportunity cost is included as a cost in the calculation for net profit. However, in the RoFTA calculation it is included again as what would seem to be an income (i.e. the net profit side of the equation should exclude the opportunity cost). It has been clarified that the net profit on its own should include opportunity costs while the RoFTA should not include opportunity costs as part of the net profit [by adding back the opportunity cost after it was already taken off in the previous equation]. The RoFTA is then compared against the opportunity cost of capital.

STECF WG on balance :

RoFTA* is calculated as:

Net profit* / (fleet depreciated replacement value);

where, Net profit* = (Income from landings + other income) - (crew wage + unpaid labour + energy + repair + other variable costs + non variable costs + annual depreciation)

ROI is compared against a Target Reference point (TRP). For this exercise, **the 5-year average of the risk-free long-term interest rate for each MS was used.**

Maritime Affairs Guidelines for analysis of the balance between fishing capacity and fishing opportunities

The suggested calculation method is as follows:

ROI = Net profit / Capital asset value

Where:

Net profit = (Income from landings + other income) – (crew costs + unpaid labour + energy costs + repair and maintenance costs + other variable costs + non variable costs + depreciation)

And where:

Capital asset value = Vessel replacement value + estimated value of fishing rights

In instances where data on intangible assets are not available, the Return on Fixed Tangible Assets (ROFTA) should be calculated instead, using exactly the same calculation method but without including an estimated value for fishing rights.

ROI (or ROFTA) would then be compared to the interest rate of a low-risk long term investment calculated as proposed above. That interest rate represents the profitability that the same invested capital will obtain if it was invested in the next best available alternative (normally long-term government bonds).

The resulting formula for the indicator would be *ROI – low risk long term interest rate*.

*Threshold: If the return on investment (RoI) **is less than zero and less than the best available long-term risk-free interest rate**, this is an indication of long-term economic inefficiency that could indicate the existence of an imbalance.*

Conclusion: all three definitions differ in terms of interest rates. Both the STECF balance report and the Guidelines to MS refer to the ‘low risk long term interest rate’. However, the STECF balance report recognises that the ‘low risk long term interest rate’ which would

formerly have been the ECB rate IRL has fluctuated wildly during the years of the economic crisis and so has suggested using a 5-year average of the interest rate. **The AER uses real interest rate. The difference for Ireland can be seen in the following graph:**

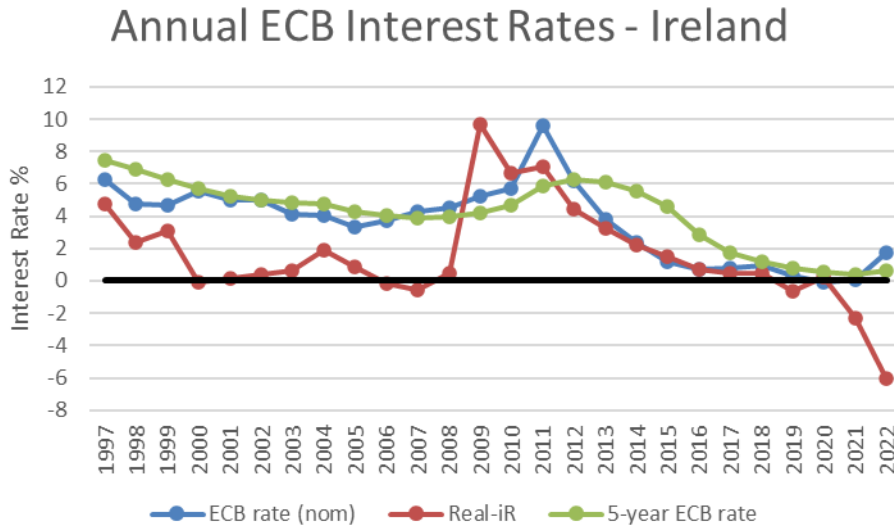


Figure 1: Nominal, real and 5-year average nominal interest rates for Ireland, 1997-2022

The **ECB rate IRL** is the nominal interest rate to Ireland from the ECB in each year, the **Real-iR** is the real rate of interest that adjusts the ECB nominal rate for annual inflation, and the **5-year ECB rate IRL** is the average interest rate for each year of the 5 former years (e.g. The 2008 value is the average interest rate to Ireland from 2004-2008 and so on).

In this report the indicator will be calculated following the suggestion of the STECF WG on balance and use the 5-year average ECB rate to Ireland (5-year ECB rate IRL).

Table 2: RoFTA using the declared landing income in combination with costs stated in the DCF surveys and the 5-year average interest rate from the ECB to Ireland:

DCF Segment	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DFNVL0010							2.78	0.43	0.57			0.36	0.15	
DFNVL1012	0.03		0.10	0.12	0.03	0.09	0.34	1.25		0.34		0.10		
DFNVL1824			0.25		5.13	0.07	14.13					0.03		0.21
DRBVL0010				0.55				0.05				0.40		
DRBVL1012			0.02	1.37			4.18	1.03		0.24	0.20	0.51	0.57	0.35
DRBVL2440				1.05		0.10	9.25	1.01	0.45	0.05	0.92	0.04	0.54	0.03
DTSVL0010									0.02			0.12		
DTSVL1012				0.57	1.48	1.12	0.20	0.03	0.13	0.21		1.17		0.24
DTSVL1218			0.00	0.01	0.12	0.12	0.20	0.05	0.29	0.18		0.00		0.16
DTSVL1824					0.12		0.00		0.59	0.10		0.01	0.06	0.17
DTSVL2440	0.03	0.00	0.17		0.00	0.01	0.04	0.03	0.25	0.12	0.10	0.13	0.35	0.28
FPOVL0010						0.11	0.09	0.49				0.49		
FPOVL1012	1.25		0.36	0.34		1.28	1.57	0.65	1.09	0.18	1.43	0.58		
FPOVL1218			0.23			0.18	0.94	1.20		0.13		1.34		3.96
HOKVL0010												0.29		
HOKVL1012				0.08		2.23					0.13			
TBBVL2440			0.15						1.99	0.43		0.27		
TMVL2440							0.09		0.06	0.17	0.09	0.12	0.33	0.18
TMVL40XX					0.03		0.14		0.01	0.08	0.05	0.03	0.11	0.06
Grand Total							0.16		0.10	0.11	0.09	0.09	0.11	0.05

Results of RoFTA:

The results for 2021 show a decline in economic performance for the Irish fleet compared to 2020 with total RoFTA falling from 0.11 to 0.05. Nevertheless, the number of fleet segments failing this indicator fell from 11 in 2020 to 8 in 2021. Only one of the five demersal trawl and seine fleet segments (i.e., DTSVL00-10m length classes) failed the RoFTA indicator,

Of the main pelagic fleet segments (TM), the 24-40m continues to show a steady return on fixed tangible assets in 2021. The Pelagic fleet over 40m length class also passed the long-term economic indicator in 2021, for the sixth consecutive year.

2.2 Economic indicator 2: CR/BER

Annual Economic Report Methodology for Economic Indicators – Chapter 6 AER REPORT METHODOLOGY

Break-Even Revenue (BER):

$BER = (\text{Fixed costs} + \text{opportunity costs of capital} + \text{depreciation}) / (1 - (\text{crew costs} + \text{unpaid labour} + \text{energy costs} + \text{repair and maintenance costs} + \text{other variable costs}) / \text{Revenue})$

Revenue to Break-Even Revenue Ratio (CR/BER):

$CR/BER = \text{revenue} / \text{break-even revenue} = \text{Income from landings} + \text{other income} / BER$

CR/BER gives an indication of the short-term profitability of the fleet/fleet segment (or over/under capitalised): if the ratio is greater than 1, then enough cash flow is generated to cover fixed costs (economically viable in the short term). If the ratio is less than 1, insufficient cash flow is generated to cover fixed costs (indicating that the segment is economically unviable in the short to mid-term).

STECF WG on balance :

Current revenue to break-even revenue ratio (CR/BER) is calculated as:

Current revenue (CR) / Break Even Revenue (BER),

where,

CR = income from landings + other income

where,

$BER = \text{fixed costs} / (1 - [\text{variable costs} / \text{current revenue}])$

and,

Fixed costs = non variable costs + annual depreciation

and,

Variable costs = crew wage + unpaid labour + energy costs + repair costs + other variable costs

Maritime Affairs Guidelines for analysis of the balance between fishing capacity and fishing opportunities

The formula for calculating the BER is as follows:

$$BER = (Fixed Costs) / (1 - [Variable costs / Current Revenue])$$

Where:

Variable costs =

Crew costs + Unpaid labour + Energy costs + Repair and Maintenance costs + other variable costs

And where:

Fixed costs = Non variable costs + depreciation

And current income = income from landings + other income

The ratio is calculated by dividing the current revenue by the BER i.e.

$$Ratio = Current Revenue (CR) / BER$$

The calculation of the ratio as indicated above gives a short-term view of financial viability. Should data permit, MS could also opt for providing an economic long term viability analysis of CR/BER. Doing so would require **adding opportunity costs to fixed costs**:

Fixed costs = Non variable costs + depreciation+ opportunity cost of capital

*Opportunity cost of capital = capital asset value * low risk long term interest rate.*

MS will need to state which CR/BER concept they are using.

*Threshold: If the ratio between current revenue and break-even revenue **is less than one**, this is an indication of short-term economic inefficiency that could indicate the existence of an imbalance.*

Conclusion: the CR/BER defined in the STECF report is what the Guidelines refer to as the short-term CR/BER while the CR/BER defined in the AER is what the Guidelines refer to as the long-term CR/BER. Hence, the long-term indicator includes opportunity costs. The difference between the AER and the Guidelines in this regard is the 'low risk long term interest rate'.

In this report we will use the **long-term indicator** that includes opportunity costs of capital.

Table 3: Current Revenue to Breakeven Revenue long term (CR/BER) using the declared landing income in combination with costs stated in the DCF surveys:

DCF Segment	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DFNVL0010							2.46	3.08	2.58	7.85	8.76	5.34	2.34	
DFNVL1012	1.02	7.89	2.31	1.48	1.23	1.39	2.78	4.97		2.61	93.25	1.39		
DFNVL1824			3.60		18.84	1.65	12.26					1.15		5.24
DRBVL0010				1.98		1.12		1.19				5.97		
DRBVL1012			1.12	4.09			4.93	8.51		2.73	2.41	4.78	5.18	6.37
DRBVL2440				7.75		1.30	40.17	8.08	1.88	1.13	9.22	1.26	3.77	1.99
DTSVL0010						1.93			1.06		2.59	1.77		
DTSVL1012				4.89	7.88	3.39	1.86	1.07	1.36	2.38		3.92		2.15
DTSVL1218				1.04	1.81	1.77	1.91	1.31	2.22	2.28		1.04		1.55
DTSVL1824					1.48				3.40	1.53		1.04	1.09	1.66
DTSVL2440	1.13	1.00	1.83		1.02	1.05	1.22	1.34	2.41	1.81	1.82	1.89	1.89	2.27
FPOVL0010						1.96	1.64	2.43		6.48	1.59	6.57		
FPOVL1012	2.75	6.10	5.40	2.72		6.92	7.16	3.12	4.09	1.76	7.19	4.01		
FPOVL1218			2.92			1.68	4.11	3.86		1.53		7.39		4.09
HOKVL0010						2.54				4.68	6.33	4.04		
HOKVL1012				2.44		4.15	8.10				3.29		1.25	
TBBVL2440			1.80				1.78		1.68	4.93		4.37		
TMVL2440							1.55		1.44	2.34	2.10	2.05	2.22	2.51
TMVL40XX					1.18		2.03		1.89	1.79	1.46	1.38	2.58	1.73
Grand Total							1.90		1.62	1.82	1.47	1.82	1.67	1.45

Results of CR/BER:

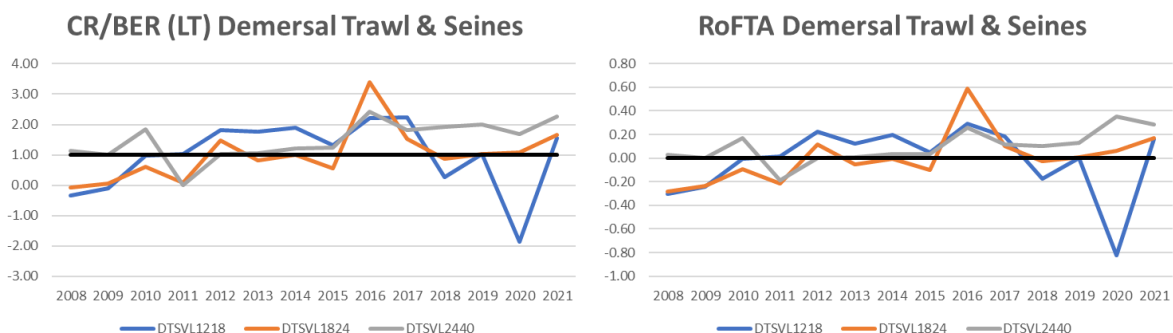
The results of this indicator are less positive than the RoFTA indicator with 9 fleet segments failing, mostly relating to small-scale fisheries (inshore) fleet segments. While the overall score is lower than in 2020, the number of segments failing the indicator has fallen by two. One length class of the demersal trawl and seine fleet failed this indicator, the 00-10m class. The 12-18m, 18-24m and 24-40m DTS fleet segments passed this indicator while both pelagic fleet segments passed the indicator comfortably. The Beam trawl fleet segment (TBBVL2440), which encompasses ten vessels failed this indicator for the second year in a row. This fleet segment is included in the Irish Government's Voluntary Permanent Cessation Scheme, launched in 2022 to help bring this fleet segment back into balance.

Economic Indicator Summary

STECF Guidelines for fleet reports use similar methodology in terms of long-term interest rate. However, STECF'S Annual Economic Report (AER) uses real interest rates to incorporate the opportunity costs of capital. In this report for the long-term indicator (RoFTA) we used the STECF recommendation of 5-year average ECB rates to Ireland. For the breakeven revenue indicators, we follow the Guidelines and incorporate opportunity costs in the CR/BER indicator.

The most important revenue generating segments in the Irish fleet to be analysed here are polyvalent general, pelagic and inshore fleet segments:

- Polyvalent general: DTS segments: DTS1218 - DTS1824 - DTS2440
- Pelagic: TM segments: TM2440 - TM40XX
- Inshore fleet: FPO0010 – FPO1012

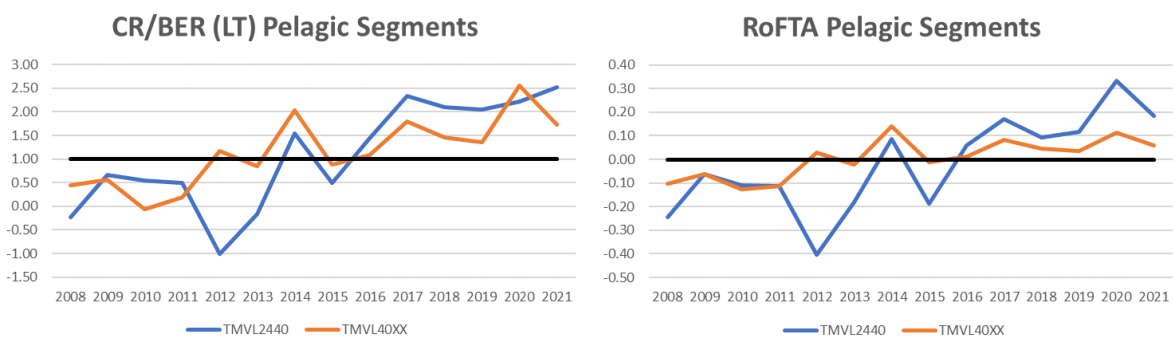


Figures 2a & 2b: Current Revenue against Break Even Revenue in the Long Term (CR/BER (LT)) and Return on Fixed Tangible Assets (RoFTA) for DTS length classes respectively (polyvalent general)

Results show that there have been improvements in both (CR/BER) and (RoFTA) economic indicators for the DTS fleet since 2008. The trends in both indicators are overall positive however there have been sharp fluctuations throughout. . The results show that the 12-18m and 18-24m segments have both either failed or were close to failing both economic indicators during the period 2018-2020. However, in 2021, both of these segments improved

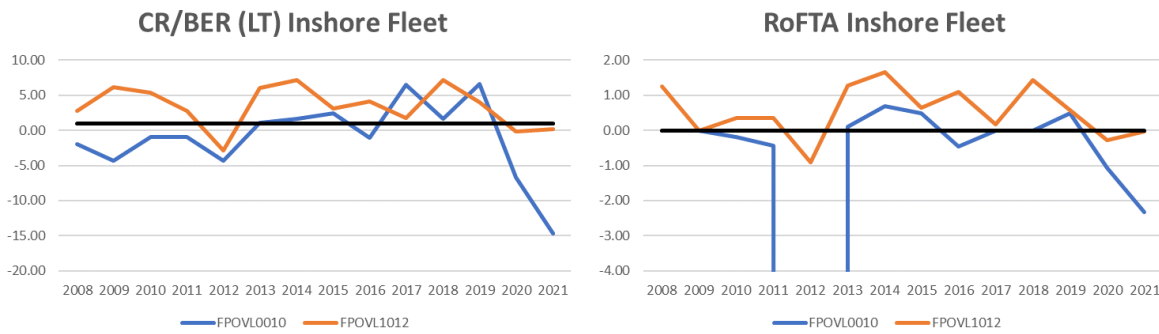
their performance and passed both indicators. The 24-40m segment continues to operate at a strong economic level.

Given the severity of the Covid-19 pandemic it is understandable that the economic performance of some fleet segments would be impacted negatively, despite the industry continuing to operate. When other factors are considered, such as the impact of Brexit on the Irish seafood industry from 2021 onwards and the current fuel crisis following the invasion of Ukraine by Russia in 2022, it is entirely foreseeable that many other segments of the fleet will be negatively affected economically. The Irish fleet will be impacted by lower landing values (reduced quotas from Trade and Cooperation Agreement (TCA) with the UK) and higher costs (fuel prices, general inflation) in the future so the capacity to maintain profitability will be considerably constrained.



Figures 3a & 3b: Current Revenue against Break Even Revenue in the Long Term (CR/BER (LT)) and Return on Fixed Tangible Assets (RoFTA) for TM length classes respectively (pelagic trawlers)

The economic performance of the pelagic fleets up to 2021 shows that both pelagic length classes performed well in 2021 despite the effects of the pandemic and the uncertainty caused by Brexit. Both fleet segments seem to pass both indicators comfortably after 2016. The impacts of the TCA on Irish quotas (where a significant reduction is seen in Ireland's quota of mackerel) and the significant increase in fuel costs and general inflation will be seen next year (2022).



Figures 4a & 4b: Current Revenue against Break Even Revenue in the Long Term (CR/BER (LT)) and Return on Fixed Tangible Assets (RoFTA) for TM length classes respectively (pelagic trawlers)

The economic performance of the inshore fleet potting segments has experienced significant difficulties since the onset of the Covid pandemic. Additionally, Brexit has also impacted on these fleet segments in creating logistical difficulties in exporting live shellfish to European and global markets, increasing the costs of doing business and decreasing profitability. For the years 2020 and 2021 these segments have failed both economic indicators with the results worsening significantly in 2021. The economic performance of this sector is expected to deteriorate further for 2022 due to the serious inflation experienced after the onset of the Russian invasion of Ukraine.

The results of both economic indicators are shown by Irish DAFM segmentation in Annex 1 and Annex 2.

Conclusion

This analysis shows worsening results for the Irish fleet in 2021 with total fleet scores for RoFTA and break-even revenue falling compared with the previous year yet remaining positive. Nevertheless, a lower number of fleet segments failed the RoFTA and the CR/BER indicators respectively than the year before.

Reduced quotas for *Nephrops* and other whitefish species will seriously impact the turnover of the demersal trawl and seine fleet segment while general inflation and increasing oil prices are eroding profitability. Similarly, the pelagic fleet segments have passed both indicators well

in the latest years but the impacts facing these are considerable given the quota transfers of mackerel and other species as part of the TCA between the EU and the UK and general inflation which is impacting all fleet segments.

Finally, when assessed through Department of Agriculture, Food and Marine (DAFM) segments, of the polyvalent general segment only the length classes of 00-10m and 10-12m fail both economic indicators in 2021. The pelagic trawl segments both pass the economic indicators in 2021. Given the ongoing crises affecting the Irish fleet in 2022 and 2023 it is highly likely that these indicators will deteriorate. On this basis, support mechanisms are actively being put in place by the Irish Government utilising funds from the Brexit Adjustment Reserve.

4. Technical Indicators

– see attached spreadsheet

Annex 1 – RoFTA Irish Segmentation

DAFM Segment	Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Beamer	VL1824									0.39			0.65		0.10
Beamer	VL2440		0.05	0.22									0.03		
Pelagic	VL2440										0.10	0.07	0.10	0.26	0.14
Pelagic	VL40XX	0.00				0.03		0.14		0.01	0.08	0.05	0.03	0.11	0.04
Polyvalent General	VL0010						0.47	0.19	0.04	0.33			0.36		
Polyvalent General	VL1012	0.41		0.29	0.37		1.12	1.37	0.91	0.48	0.30	0.88	0.42		
Polyvalent General	VL1218	0.07	0.15	0.19	0.21	0.43	0.27	0.40	0.48	0.03	0.31		0.20		0.28
Polyvalent General	VL1824	0.30				0.09				0.55	0.06		0.02	0.11	0.17
Polyvalent General	VL2440	0.15	0.01	0.15				0.12	0.18	0.28	0.15	0.12	0.15	0.45	0.28
Polyvalent Potting	VL0010								0.05				0.77		
Polyvalent Potting	VL1012			0.39	0.40			0.31	0.36	3.55			0.97		0.16
Specific	VL0010			0.16	0.21				1.12	0.53			0.22		0.00
Specific	VL1012			0.30	2.35			1.91	0.83				0.60	0.84	0.32
Specific	VL1218														0.00
Specific	VL1824								0.00	0.41	0.33		0.42	2.57	
Specific	VL2440	0.07			1.06		0.10	11.66	12.37	0.68	0.63	0.92	0.02	0.77	0.03
Grand Total								0.16		0.10	0.11	0.05	0.08	0.11	0.05

Annex 2 – CR/BER Irish segmentation

DAFM Segment	Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Beamer	VL1824							1.78		1.47			9.27		2.86
Beamer	VL2440		1.36	2.74						1.25			1.28		
Pelagic	VL2440										1.97	1.85	1.86	2.32	2.70
Pelagic	VL40XX					1.18		2.03		1.09	1.79	1.46	1.36	2.56	1.48
Polyvalent General	VL0010						1.35	1.20	1.16	1.91		3.87	4.66		
Polyvalent General	VL1012	2.37	6.18	4.79	2.84		4.50	6.31	3.95	2.94	2.39	5.10	3.12		
Polyvalent General	VL1218	1.35	1.95	2.12	1.87	2.51	2.61	2.71	3.07	1.12	2.85		2.86		1.67
Polyvalent General	VL1824	2.08				1.34				3.26	1.31		1.19	1.16	1.63
Polyvalent General	VL2440	1.83	1.08	1.91				1.67	2.13	2.60	2.06	1.92	2.23	1.83	2.35
Polyvalent Potting	VL0010						8.05	9.19	1.08		3.31		12.56		
Polyvalent Potting	VL1012		10.62	5.19	3.24		43.86	2.30	1.62	2.53	8.34	12.11	6.59		2.51
Specific	VL0010			2.58	2.77				5.93	2.60			4.55		
Specific	VL1012			3.18	5.18			3.27	7.25				6.45	8.34	6.81
Specific	VL1218														
Specific	VL1824								1.01	3.38	2.57		5.04	14.10	
Specific	VL2440	1.36			7.75		1.30	52.64	59.99	4.12	4.51	9.22	1.12	5.42	3.04
Grand Total								1.99		1.62	1.82	1.47	1.77	1.65	1.45

