Economics of the UK Fishing Fleet 2018

seafish

Acknowledgments

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Executive summary

- Turnover of the UK fishing fleet was close to £1 billion in 2018, a very similar figure to 2017. Total operating profit was £268 million, 4% lower than in 2017. This decrease in operating profit in 2018 was due mainly to an increase in fuel prices.
- The average price of fuel increased by 19% from 2017 to 2018. Total spend on fuel of the fleet in 2018 was an estimated £136 million, 20% higher than in 2017.
- Crew costs were £251 million in 2018. This figure is a 5% decrease from 2017: it is likely that the increase in fuel price reduced the amount of money available to distribute among the crew.
- Total operating costs of the UK fleet were £759 million in 2018, a 2% increase from 2017.
- Total fishing income of the fleet was £978 million in 2018. This was a similar figure to 2017, although the total weight of landings decreased by 5% in 2018. An increase in the average price of the catch in 2018 helped offset this decrease in weight landed.
- The total number of active fishing vessels was 4,512 in 2018. Of these active vessels, around 1,600 were classed by Seafish as low activity vessels with a fishing income of less than £10,000.
- Seafish researchers interviewed around 400 skippers and vessel owners during the summer of 2018. These interviews touched on the main factors impacting the financial performance of their businesses, such as the abundance of fish, access to quota, fuel price, the age and health of fishermen and the weather.
- Interviewees reported a mixture of ambitions for the next few years. Possible opportunities included increases in the price of catches, more direct access to buyers, better infrastructure and expected improvements in fish stocks and quota access. There were mixed views on the future political and trade landscape in the event of EU exit, with some interviewees perceiving it as an opportunity while others felt it was a potential risk to their businesses.

NB: 2018 financial estimates will be revised when vessel accounts for that year are available in early 2020. A new version of this annual report will be published based on updated estimates.

Introduction

This report provides a detailed insight into the financial and operational performance of the UK fishing fleet in 2017 and 2018. This is the thirteenth edition of this annual report. We hope that accurate fleet economic data and analyses will help inform decisions and help to enhance fisheries management and benefit the UK fleet in the long-run.

The report presents economic estimates at UK, home nation and fleet segment level for the years 2017 and 2018. The estimates are calculated based on samples of fishing costs and earnings gathered by Seafish as part of the 2018 Annual Fleet Economic Survey. The data does not include or reveal any individual vessel data, only segment totals and averages.

Estimates for 2017 are based on same year costs and earnings samples, official statistics on landings, capacity and effort, and fuel price. The 2017 figures presented in this report are revised estimates based on additional data available since the previous edition of this report. Estimates for 2018 are based on same year landings and effort data, fuel prices and 2017 cost and earning samples. The different estimation methods are due to a time lag in the availability of company accounts. 2018 estimates should therefore be considered early estimates. Seafish will revise those estimates when 2018 vessel accounts become available in early 2020.

The dataset presented in this report is downloadable as an Excel file from the Seafish website[1]. The website also offers access to our full suite of publications covering the economic performance of the UK seafood catching and processing sectors. Bespoke analyses are available upon request and depending on sufficient data being available.

If you have any comments about this report, would like to suggest improvements or would like more detailed information, please contact us at:

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Production of this report is only possible with the goodwill of vessel owners (and their accountants) who participated in the survey.

[1] https://www.seafish.org/article/fleet.
NOTE: all financial figures in this report are nominal (i.e., not adjusted for inflation).

The UK fishing fleet in 2018
Overview

Total UK Fleet
Fishing income

Total UK Fleet
Turnover

Total UK Fleet
Operating cost

Total UK Fleet
Operating profit

Total UK Fleet
GVA

Fleet

4,512

Active Vessels

In 2018 there were 4,512 active registered vessels in the UK fishing fleet. In addition there were 1,733 inactive vessels, most of which were small scale vessels under 10m in length. The number of active and low activity vessels decreased in 2018 by 3.7% and 5.1% respectively, compared to 2017. The number of inactive vessels increased by 11.2%.

74%

Of all active vessels are under-10m

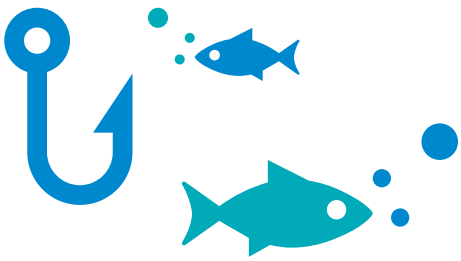
The UK fishing fleet is highly diverse in terms of types of vessels and species targeted. The majority of the active fleet (74%) in 2018 was comprised of under 10m vessels. These vessels operate mostly in the inshore areas around the UK, while larger vessels tend to operate further from the shore.

- Active vessels (Fishing income >£10,000 per vessel)
- Inactive vessels (Fishing income £0 per vessel)
- Low Activity vessels (Fishing income <£10,000 per vessel)

35%

Low activity vessels

Approximately a third (35%) of registered vessels active in 2018 were classed by Seafish as “low activity”. Low activity vessels are defined as those with annual fishing income under £10,000.



64%

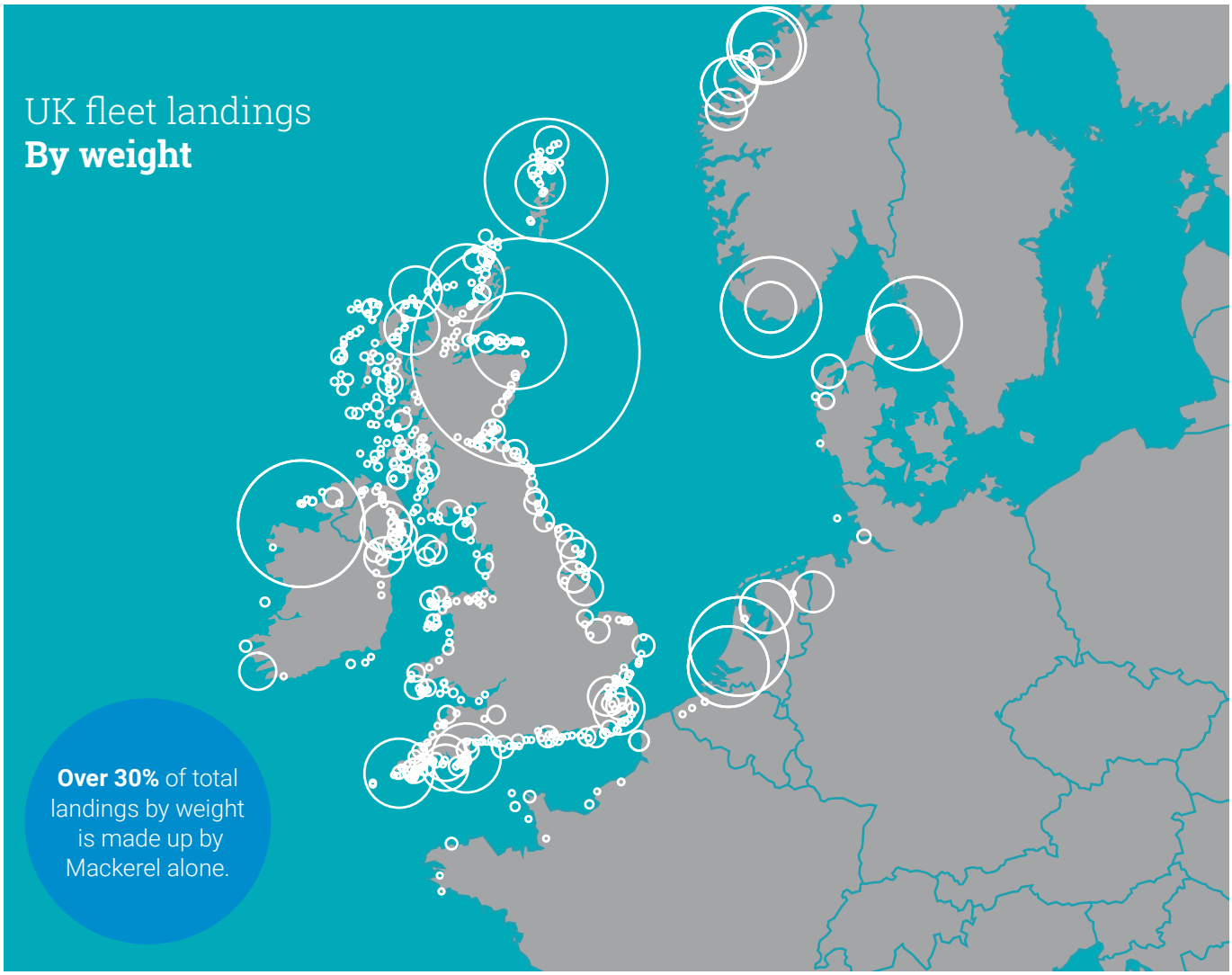
Use static or passive gear

UK fishing vessels also vary in the types of gears used. Approximately 64% of active vessels (excluding low activity vessels) used mainly static or passive gear (pots, hooks, drift and fixed nets). Vessels using mobile (or towed) gears include dredgers, trawlers or seiners.

Landings

Map of weight of landings by port

The UK fishing fleet landed nearly 688,000 tonnes of fish and shellfish in 2018. Most landings were made in UK, with Peterhead, Lerwick and Fraserburgh being the main UK landing ports by weight. Landings abroad were mainly in Norway, Denmark, the Netherlands and Ireland.



Total UK Fleet

Landing location – Weight

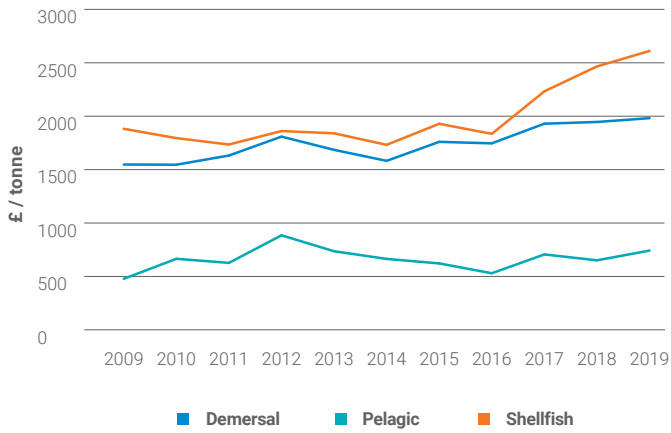
Landing location – Value

£978m

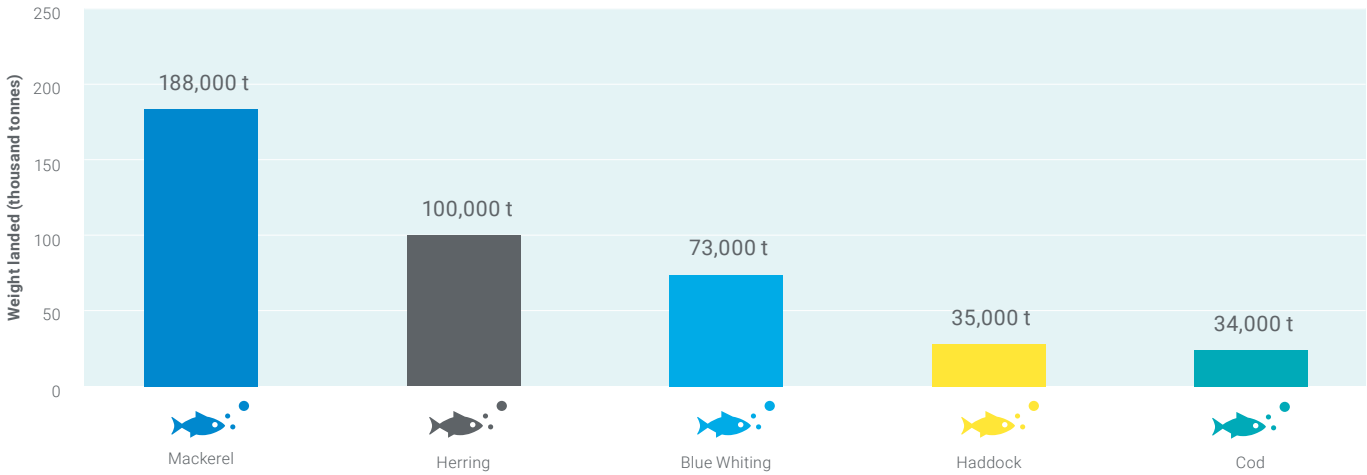
Value of landings

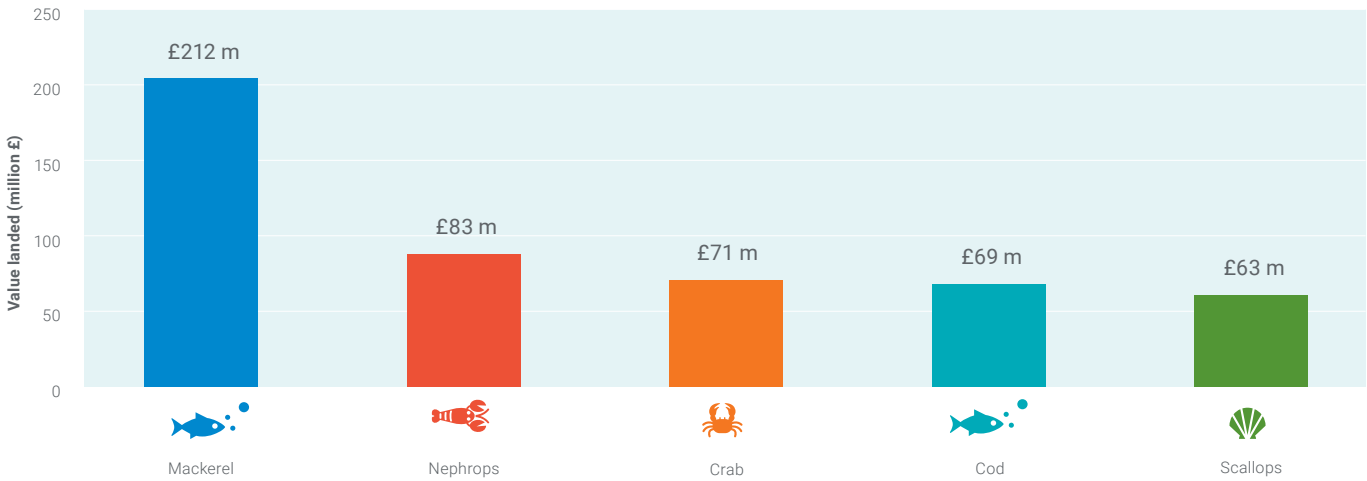
The total fishing income of the UK fleet was £978 million in 2018, a very similar figure to that of 2017 even though weight of landings decreased, thanks to an increase in the average price of landings.

Average first sale price by species group



Top species landed in 2018 by weight and value





Employment and GVA

Employment by home nation

Seafish combine data on hours worked by crew as reported by skippers with MMO employment data to estimate Full Time Equivalent (FTE) jobs on board UK vessels.

In 2018 there were an estimated 7,226 FTE jobs generated by UK registered fishing vessels. This is a very slight decrease on 2017 reflecting a decrease in days at sea.

Overall

FTEs: 7,226

Scotland

FTEs: 3,592

Northern Ireland

FTEs: 597

England

FTEs: 2,786

Wales

FTEs: 136

670

FTEs on pots and traps over 12m vessels

The segment with the highest number of FTEs in 2018 was pots and traps over 12m.

Vessels of all lengths (combined) using demersal trawls/ seines had the highest number of FTEs in the fleet (29% of all FTEs, excluding low activity vessels).

£505m

Gross Value Added (GVA)

Gross Value Added (GVA) is used as a measure of the contribution to the economy of an individual industry in the United Kingdom. It is also used for estimating Gross Domestic Product (GDP), a key indicator of the state of the whole economy.

The Gross Value Added (GVA) of the UK fleet in 2018 is estimated at £505million (nominal figures), a 1% decrease compared to 2017. The largest share of GVA corresponded to vessels over 24m length.

Financial performance in 2018

£1 billion

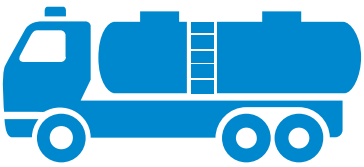
Total UK Fleet Turnover

Total turnover of the fleet in 2018 remained at the same level as in 2017 thanks to an increase in average price of landings, despite a lower number of vessels and weight landed. However an increase in total operating costs meant that the total operating profit of the fleet decreased by 6%.

4%

Non-fishing income

An estimated 4% of total UK fleet turnover was non-fishing income in 2018. This figure includes income for leasing out quota as well as activities such as guard duty and tourist trips.



50p

Average fuel price per litre

Total fuel costs of the UK fishing fleet increased by 20% in 2018 compared to 2017.

Fuel price continued to increase in 2018, reaching an average of 50p per litre.

£268m

Total Operating Profit

The total operating profit of the UK fleet decreased by 4%, from £280 million in 2017 to £268 million in 2018. This decrease reflects the increase in operating costs in 2018 due to higher fuel costs not completely compensated by a reduction in crew costs; while fishing income remained largely similar.

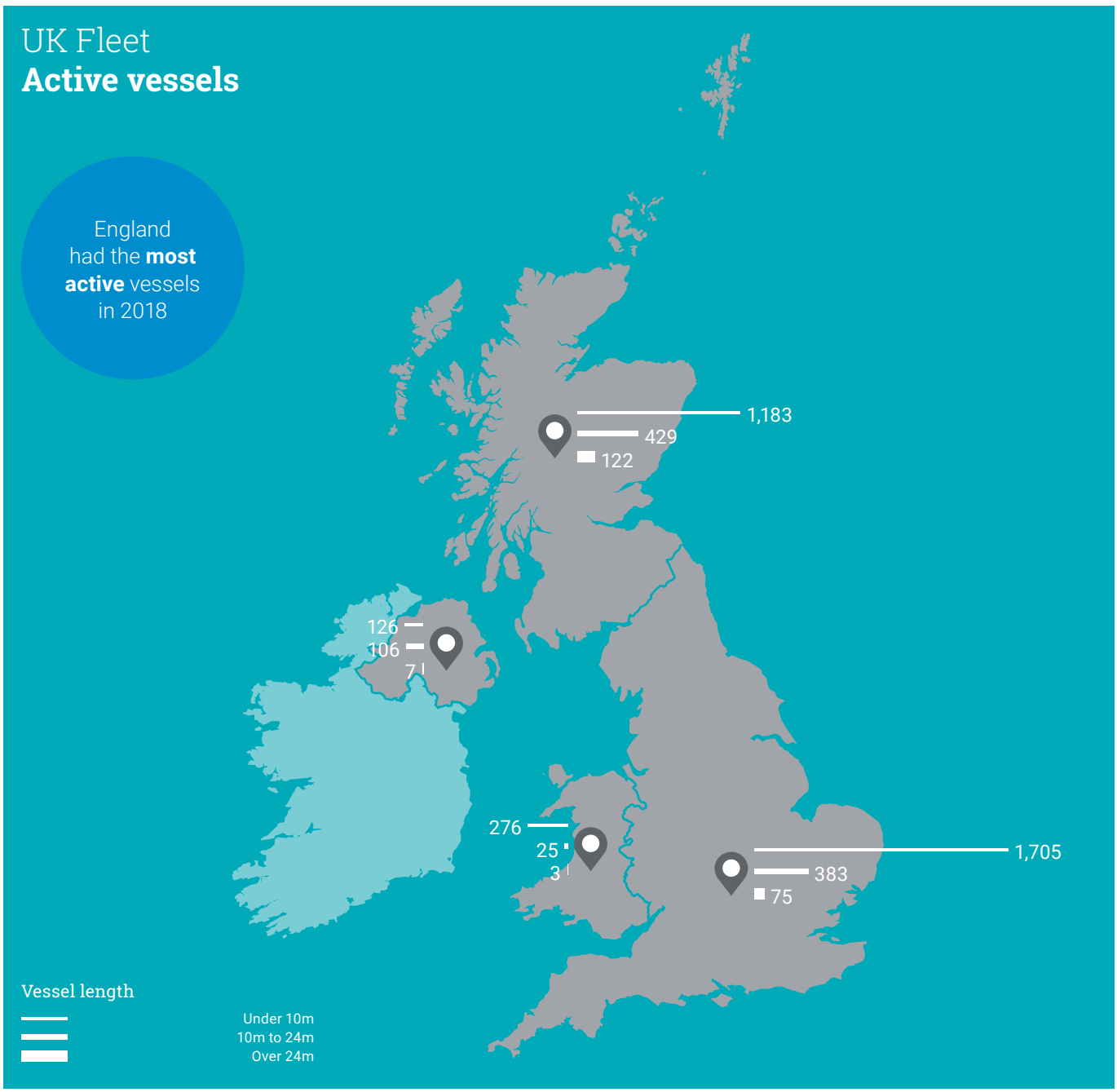
Home nations analysis
Fleet

Fleet size and activity

England had the highest number of registered active vessels in 2018: 2,163 vessels, including low activity vessels. This number represented nearly half (48%) of all active vessels in the UK fishing fleet. Scotland had the second highest number of active vessels at 1,734 (38% of UK active vessels). Wales and Northern Ireland had a total of 304 and 239 active vessels in 2018 respectively.

The majority of active vessels in all home nations were under 10m vessels, ranging from 53% of all Northern Ireland vessels to 91% of all Welsh vessels.

Figure 1. Number of active fishing vessels by registered home nation of vessels in 2018

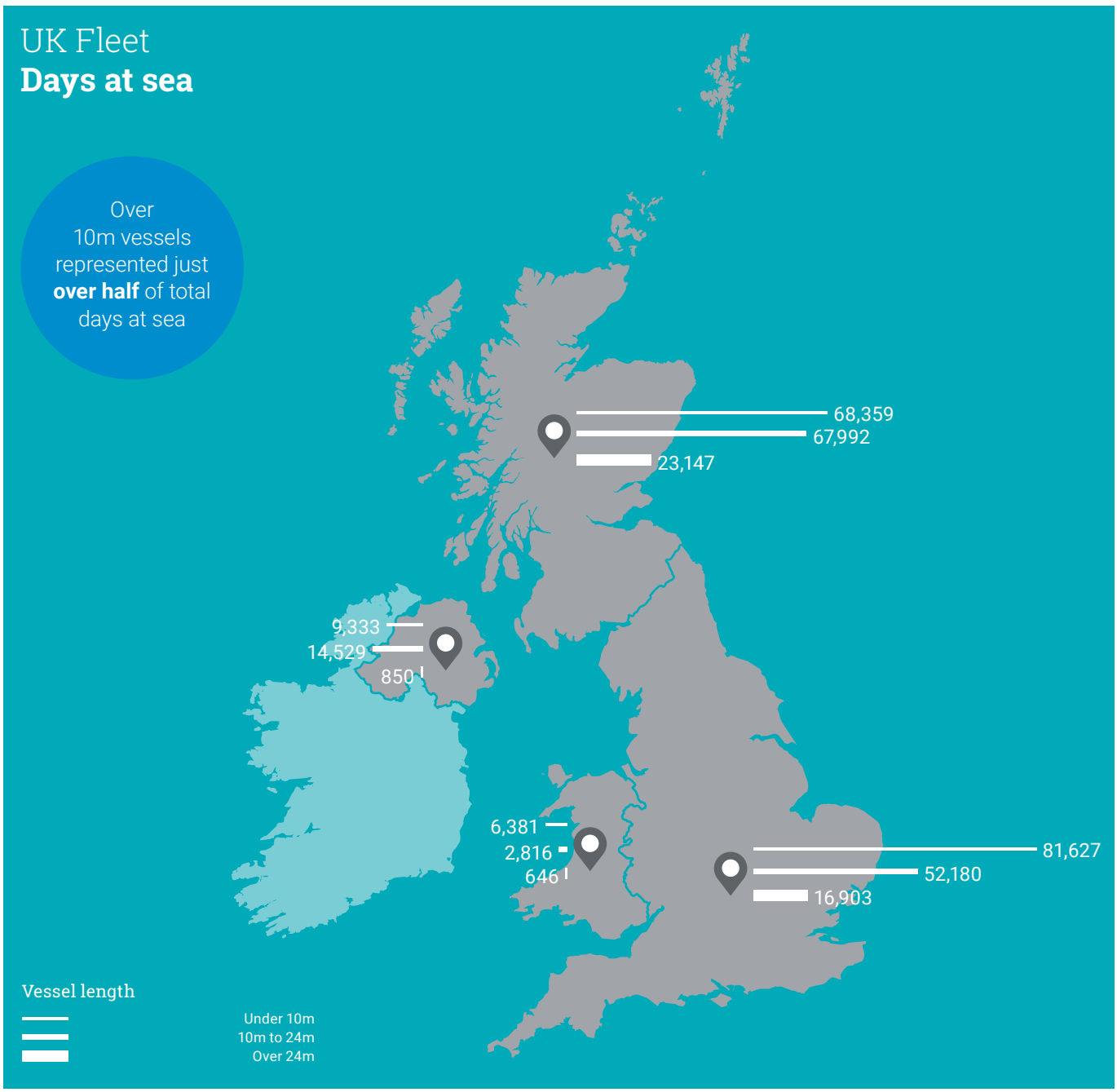


Days at sea

Vessels under 10m were responsible for the majority of days at sea (54% and 65% respectively) in the English and Welsh fleets. For Scotland, under 10m vessels and 10-24m vessels were each responsible for nearly half (43%) of the fishing effort. For Northern Ireland, vessels 10-24m represented nearly 60% of total days at sea.

Across all nations the number of days at sea in 2018 was lower than that of 2017. In the 2018 survey, respondents highlighted that weather conditions and storms in early 2018 (the 'Beast from the East') had reduced the number of days at sea they could work.

Figure 2. Days at sea by registered home nation of vessels in 2018



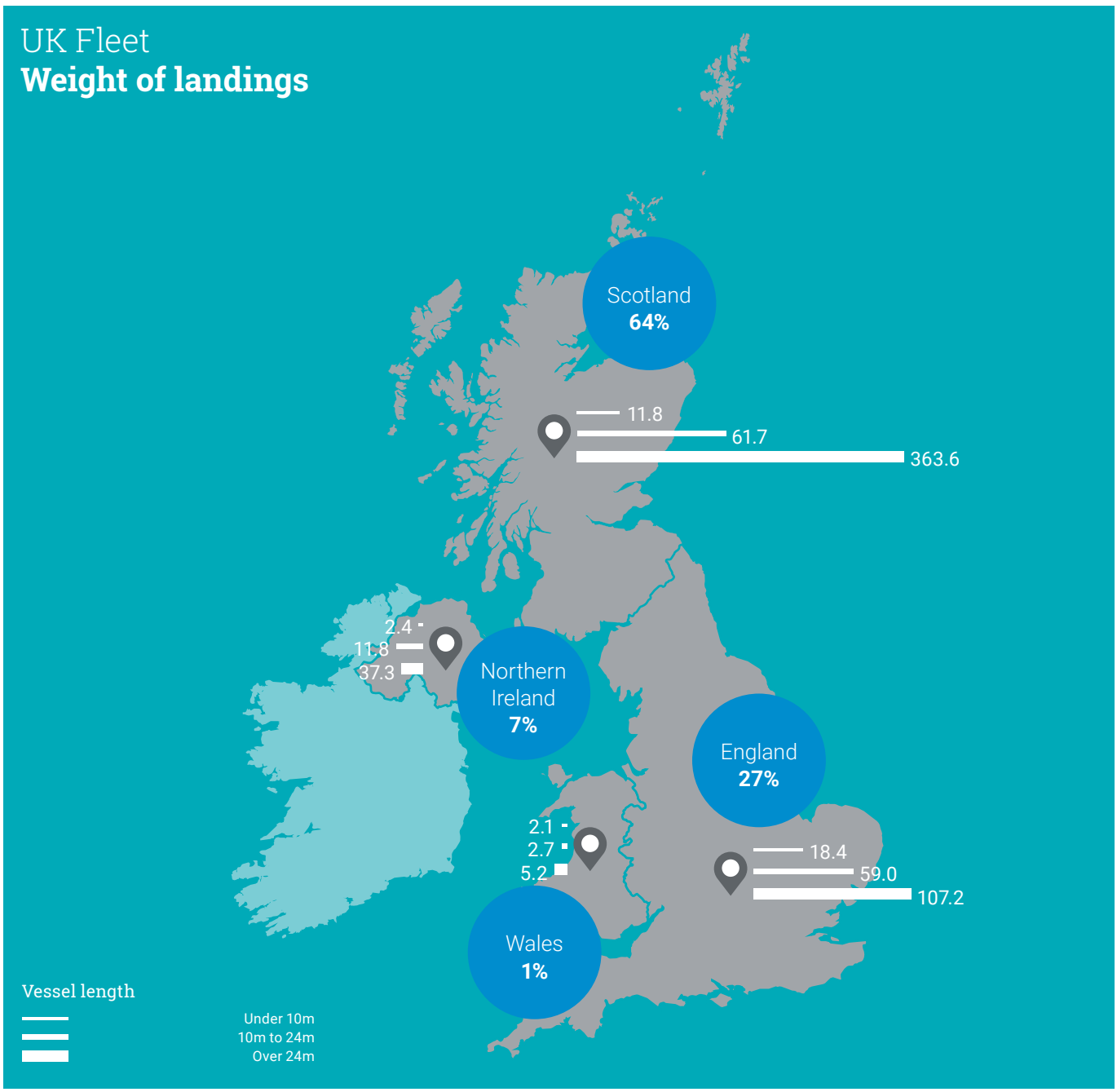
Landings

Weight of landings

Vessels registered in Scotland landed the highest total weight of fish of the four home nations with nearly 437,000 tonnes landed in 2018. Vessels registered in England landed approximately 185,000 tonnes, while vessels registered in Northern Ireland and Wales landed around 52,000 and 10,000 tonnes respectively.

In all home nations, vessels over 24m landed the largest share of weight, ranging from 52% of all weight landed by Welsh vessels to 83% of all weight landed by Scottish vessels.

Figure 3. Weight of landings by registered home nation of vessels in 2018 (thousand tonnes).

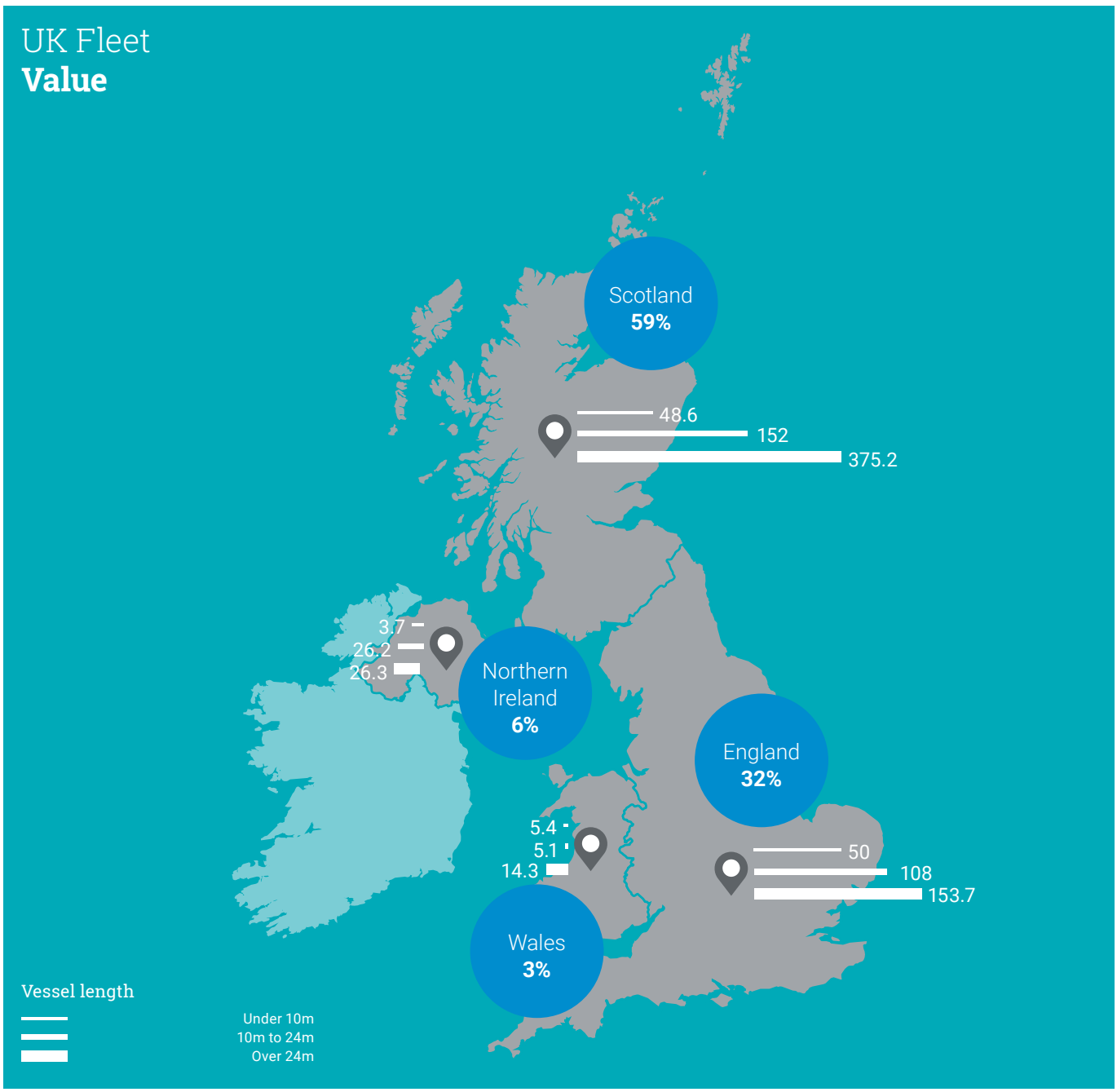


Value of landings

Vessels registered in Scotland had the highest value landed of the four home nations in 2018, with nearly £576 million. Vessels registered in England had a fishing income of nearly £312 million.

In England, Scotland and Wales, the largest share of landings (by value) was that of over 24m vessels. Over 24m vessels landed between 49% and 65% of total fishing income in these three home nations. In Northern Ireland, vessels 10-24m and over 24m represented both nearly half (47%) of the total value landed.

Figure 4. Value of landings by registered home nation of vessels in 2018 (million £).

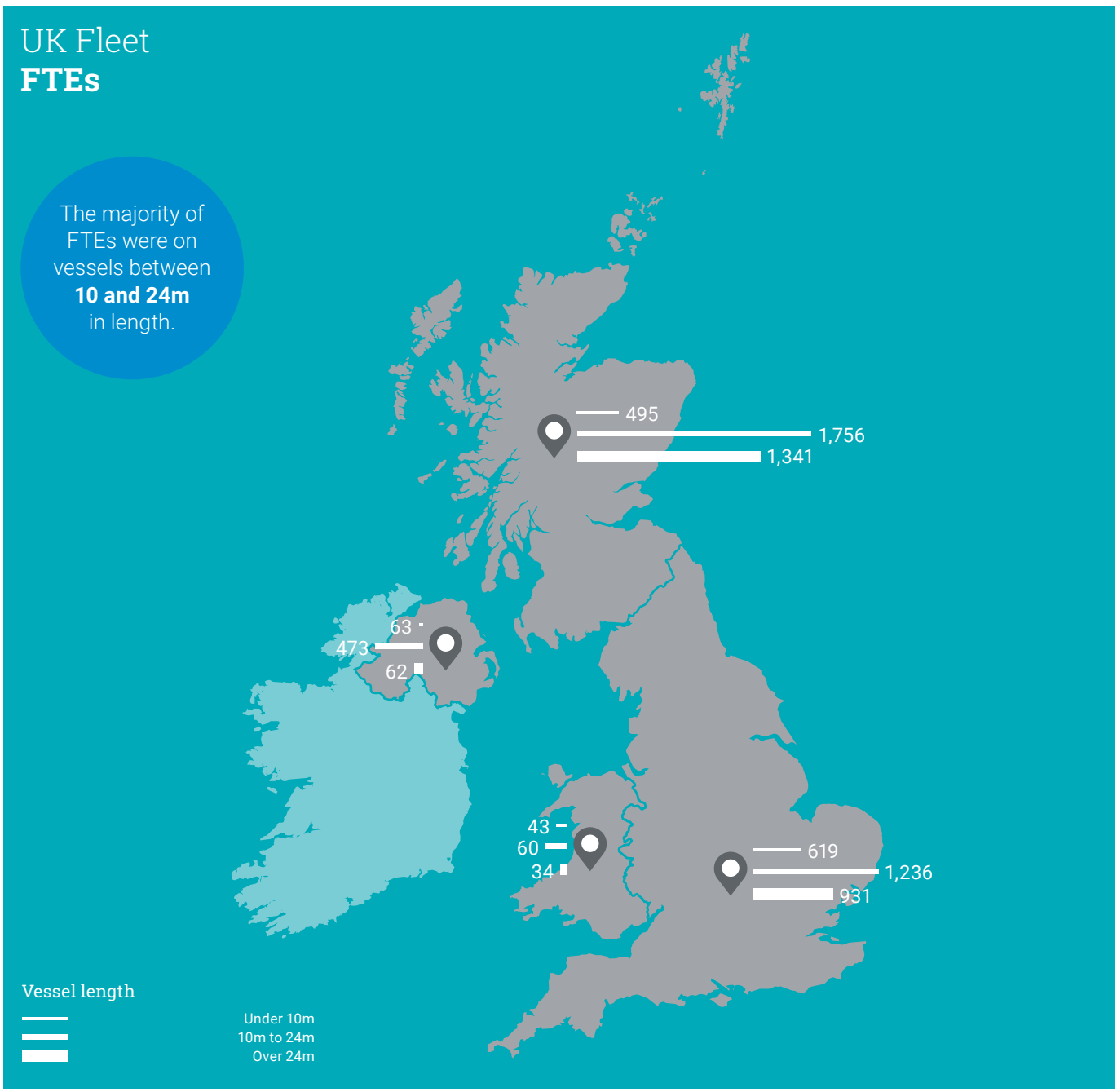


Employment

Scottish-registered vessels had the highest number of FTEs in 2018 with 3,592 FTEs. English-registered vessels had 2,786 FTEs, and Northern Irish and Welsh-registered vessels had 597 and 136 FTEs respectively. The majority of the FTEs across all home nations were on vessels between 10m and 24m in length.

Across all nations the number of FTEs was lower than that of 2017 reflecting the lower number of days at sea by the fleet, as seen in Figure 2.

Figure 5. FTEs by registered home nation of vessels in 2018.

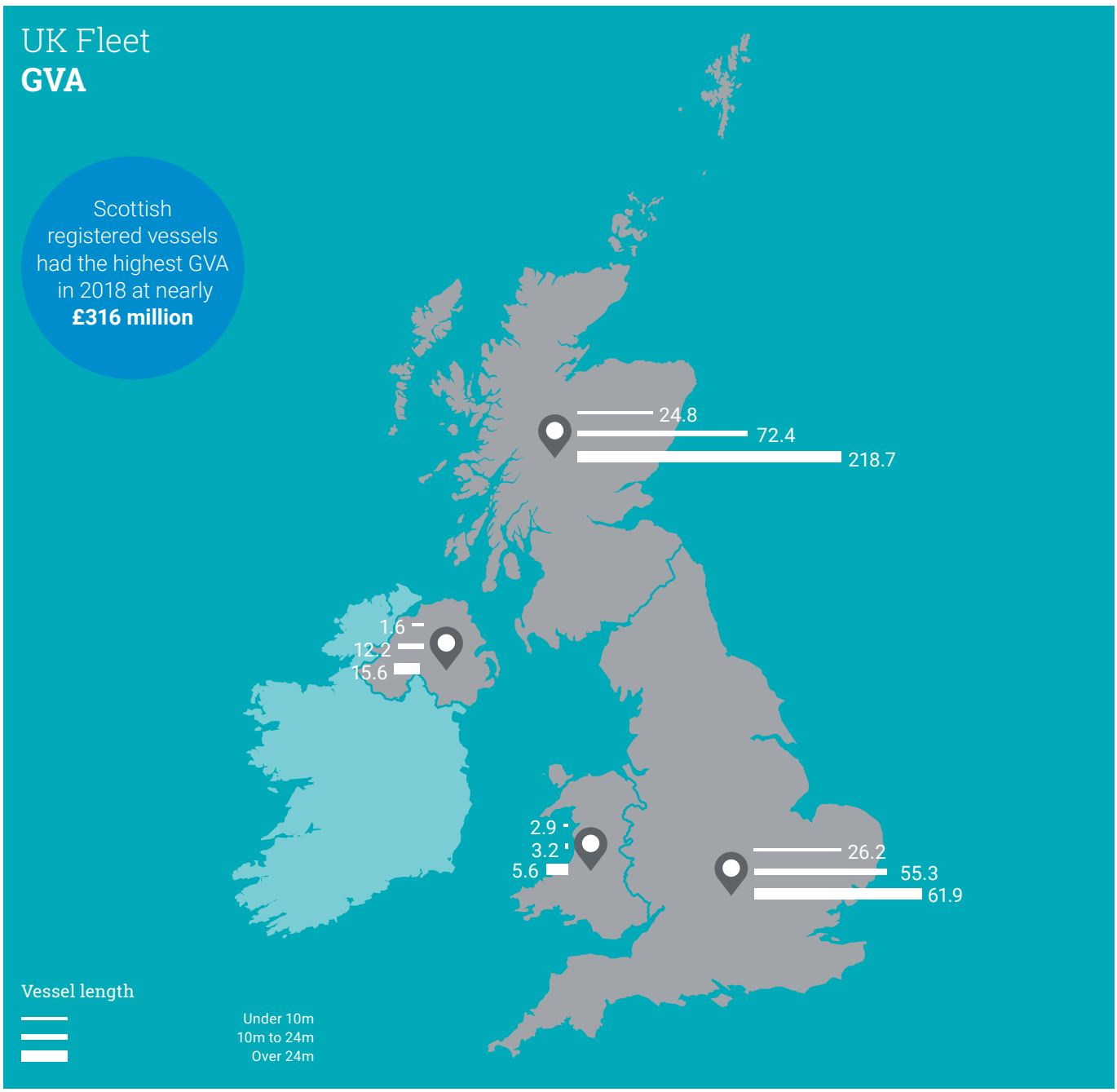


Gross Value Added (GVA)

Scottish-registered vessels had the highest GVA in 2018 at nearly £316 million. English-registered vessels had a GVA of £143 million, while Northern Irish- and Welsh-registered vessels had a GVA of £29 million and £12 million respectively.

Vessels over 24m contributed the largest share to total GVA in all home nations.

Figure 6. GVA by registered home nation of vessels in 2018 (million £).



Fleet size and activity

There were 4,512 active vessels in the UK fishing fleet in 2018, plus 1,733 inactive vessels. Compared to 2017, the number of active vessels decreased by 197 vessels, while the number of inactive vessels increased by 175.

The greatest changes in numbers of vessels from 2017 to 2018 occurred among West of Scotland (WoS) nephrops trawlers over/ under 250 kW, Area 7A demersal trawlers and under 10m demersal trawlers. The segments WoS nephrops vessels over/under 250 kW have experienced noticeable decreases in size for three years in a row (2016 to 2018). The number of under 10m demersal trawlers decreased in 2018 by 12% to 153 vessels, while the number of Area 7 demersal trawlers decreased by 29% to 10 vessels.

There were mixed trends in average days at sea in 2018, with just over half of segments decreasing their average days at sea per vessel and the remaining segments showing an increase. Among those segments that increased their effort, the most noticeable changes occurred in the North Sea and West of Scotland (NSWoS) demersal vessels and NS beam trawlers over 300kW, for which average days at sea increased by up to 26%. Average days at sea had decreased among most segments in 2017.

The total fishing income of the UK fishing fleet in 2018 was £978 million, a figure very similar to 2017. Within segments however, there have been significant changes in average fishing income per vessel.

Fourteen segments saw an increase in average fishing income per vessel, while for thirteen segments it decreased. Among the most noticeable changes, Area 7A demersal trawlers saw a significant increase in average fishing income per vessel from 2016 to 2018. This increase is related to a increase in the TAC of their main stock (Haddock 7A), which resulted in a higher weight landed per day at sea (see Table 2).

For pots and traps vessels over 12m average fishing income per vessel also increased over the last three years by 11% each year, most likely due to an increase in the average price of shellfish species (see section 'UK Overview').

WoS nephrops vessels over 250kW and longliners saw a decrease in average fishing income per vessel from 2016 to 2018, particularly noticeable for longliners (a 30% decrease each year).

Table 1 shows numbers of vessels, average days at sea and fishing income per vessel by fleet segment.


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Table 1. Fleet size, activity, fishing income (nominal figures) and main stocks, 2017–2018

Segment	Number of vessels				Average days at sea				Average fishing income (£'000)			
	2017		2018		2017		2018		2017		2018	
Area VIIA demersal trawl	14	↓	10	↓	139	↑	129	↓	302	↑	328	↑
Area VIIA nephrops over 250kW	30	↓	31	●	137	●	145	↑	294	↑	268	↓
Area VIIA nephrops under 250kW	36	↓	33	↓	126	↓	136	↑	160	●	173	↑
Area VIIBCDEFGHK 24-40m	13	↑	13	●	254	↓	243	●	1,522	↓	1,523	●
Area VIIBCDEFGHK trawlers 10-24m	61	●	58	●	162	●	147	↓	263	↑	194	↓
North Sea beam trawl over 300kW	9	●	7	↓	190	↓	240	↑	1,482	↓	1,660	↑
North Sea beam trawl under 300kW	20	↓	21	↑	104	●	103	●	96	↓	105	↑
North Sea nephrops over 300kW	53	↑	42	↓	204	●	193	↓	713	↑	610	↓
North Sea nephrops under 300kW	70	↑	62	↓	127	↓	123	●	181	↓	180	●
NSWOS demersal over 24m	43	●	44	●	195	↓	224	↑	2,098	↑	2,187	●
NSWOS demersal pair trawl seine	25	●	25	●	193	●	221	↑	1,993	↑	1,913	●
NSWOS demersal seiners	17	↑	15	↑	159	●	158	●	1,361	↑	1,395	●
NSWOS demersal under 24m over 300kW	37	↑	45	↑	180	↓	202	↑	1,110	↑	1,038	↓
NSWOS demersal under 24m under 300kW	18	↑	19	↑	87	↓	110	↑	243	↓	311	↑
South West beamers over 250kW	26	↑	26	●	226	↑	209	↓	989	↑	943	●
South West beamers under 250kW	22	●	25	↑	228	●	219	●	740	↑	648	↓
UK scallop dredge over 15m	89	●	81	↓	172	↓	173	●	494	●	497	●
UK scallop dredge under 15m	208	↑	204	●	94	↓	94	●	142	↓	141	●
Under 10m demersal trawl/seine	174	↓	153	↓	88	↓	88	●	77	↑	75	●
Under 10m drift and/or fixed nets	184	↓	209	↑	83	●	77	↓	43	●	44	●
Under 10m pots and traps	1,155	↑	1,113	●	86	↓	82	●	59	●	63	↑
Under 10m using hooks	235	↑	204	↓	59	↓	58	●	36	↓	39	↑
WOS nephrops over 250kW	43	↓	30	↓	179	●	174	●	330	↓	290	↓
WOS nephrops under 250kW	75	↓	62	↓	150	↓	153	●	175	●	173	●
Gill netters	30	●	26	↓	160	↓	168	●	466	↓	527	↑
Longliners	28	↑	30	↑	176	●	177	●	657	↓	472	↓
Pots and traps 10-12m	176	●	184	●	151	↓	148	●	144	●	158	↑
Pots and traps over 12m	92	●	98	↑	193	●	189	●	491	↑	546	↑
Miscellaneous	20	↑	23	↑	161	↑	125	↓	2,618	↑	2,034	↓
Low activity over 10m	47	↓	42	↓	24	↑	23	●	4	●	5	↑
Low activity under 10m	1,633	●	1,552	●	19	↓	19	●	3	●	3	●
Pelagic over 40m	26	●	25	●	68	●	74	↑	9,397	●	10,829	↑

Trend:

↓ Indicates a decrease of >5% compared to previous year

● Indicates a change in the range of +/-5% compared to previous year

↑ Indicates a increase of >5% compared to previous year

Main stock by % of total annual fishing income 2018	Stock status 2018	Stock dependency % of fleet segment revenues 2018	Fleet significance % of stock landings caught by this fleet 2018	2nd main stock by % of total annual fishing income 2018	Stock status 2018	Stock dependency % of fleet segment revenues 2018	Fleet significance % of stock landings caught by this fleet 2018
Had VIIa	●	54%	78%	Scallops		10%	1%
Nep VII	●	75%	45%	WC Nephrops	●	7%	3%
Nep VII	●	69%	29%	WC Nephrops	●	13%	4%
Anglers VII	●	49%	43%	Meg VII	●	29%	69%
Cuttlefish		14%	10%	Lemon Sole		13%	37%
NS Plaice	●	59%	39%	NS Sole	●	21%	65%
Brown Shrimps		100%	86%				
NS Nephrops	●	48%	36%	NS Anglers IIa(EC),IV(EC)	●	15%	12%
NS Nephrops	●	80%	28%	WC Nephrops	●	6%	2%
NS Cod	●	20%	37%	NS Haddock	●	13%	30%
NS Cod	●	30%	29%	NS Haddock	●	27%	33%
NS Haddock	●	29%	18%	NS Cod	●	27%	12%
NS Anglers IIa(EC),IV(EC)	●	23%	33%	NS Cod	●	17%	16%
Squid		21%	9%	NS Cod	●	19%	2%
Cuttlefish		31%	52%	Sole VIIe	●	16%	42%
Cuttlefish		24%	25%	Sole VIIe	●	22%	38%
Scallops		92%	58%	Queen Scallops	●	7%	74%
Scallops		67%	31%	Cockles		12%	99%
NS Nephrops	●	29%	8%	WC Nephrops	●	16%	6%
Sole VIId	●	19%	54%	Bass	●	10%	23%
Lobsters		38%	60%	Crabs (C.P.Mixed Sexes)		30%	27%
Razor Clam		27%	50%	Bass	●	25%	44%
WC Nephrops	●	79%	26%	NS Nephrops	●	11%	3%
WC Nephrops	●	91%	39%	NS Nephrops	●	5%	1%
WS Hake incl VII	●	36%	39%	NS Anglers IIa(EC),IV(EC)	●	15%	14%
NS Hake	●	35%	42%	WS Hake incl VII	●	28%	37%
Crabs (C.P.Mixed Sexes)		38%	14%	Lobsters		31%	20%
Crabs (C.P.Mixed Sexes)		75%	55%	Whelks		16%	41%
Cod I,II Norway		24%	100%	Patagonian squid		23%	100%
Scallops		39%	0%	Crabs (C.P.Mixed Sexes)		32%	0%
Lobsters		34%	4%	Bass	●	13%	18%
Mackerel IVa (flex box)	●	44%	98%	WC Mackerel	●	27%	97%

Stock status (ICES advice):

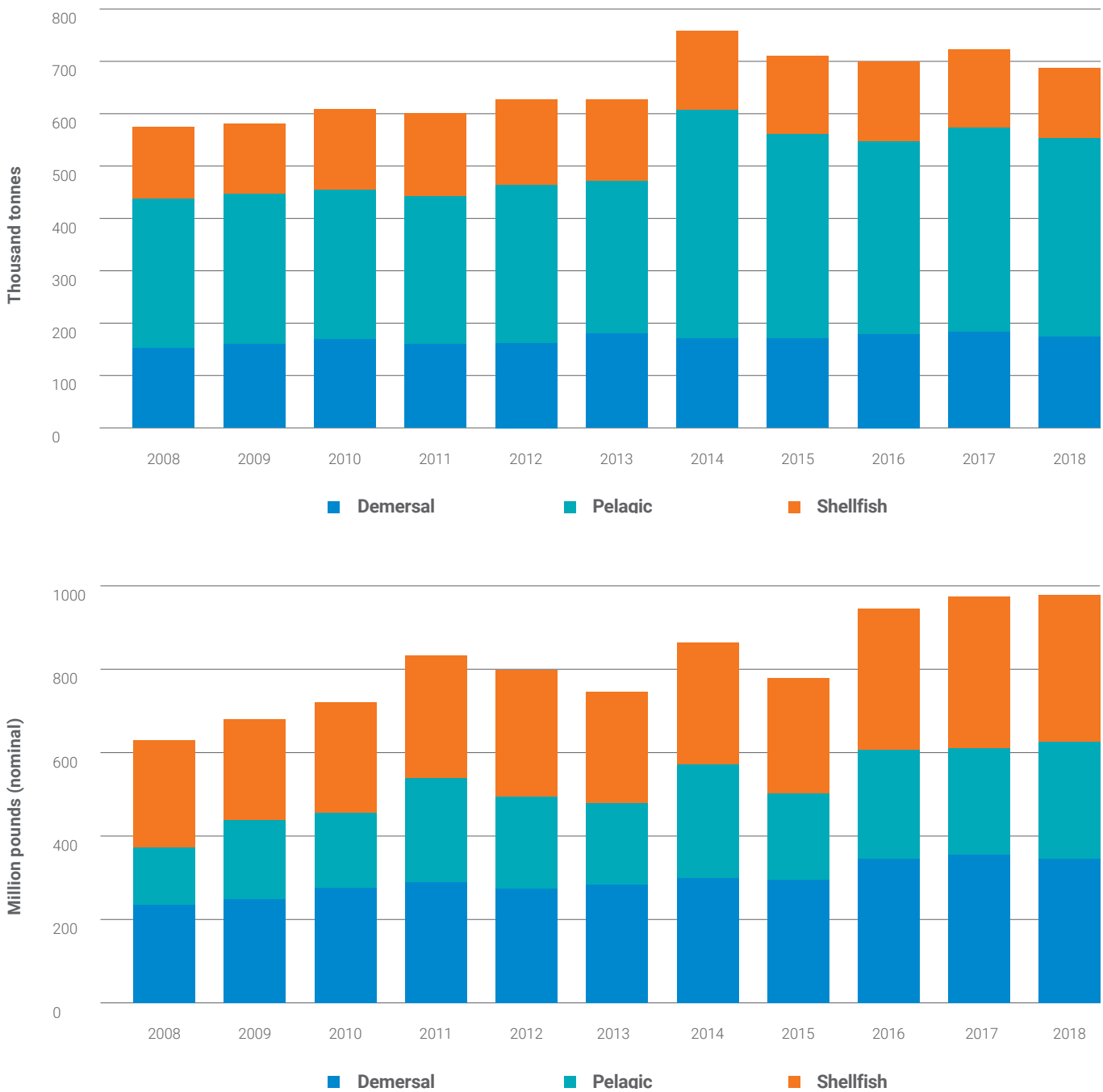
- Unknown
- ● Above MSY Btrigger
- ● Below MSY Btrigger
- ● Mixture of above and below MSY Btrigger

Fleet landings

UK vessels landed 688 thousand tonnes of fish and shellfish in 2018, a 5% decrease compared to 2017 landings. The total fishing income of the UK fleet was £978 million in 2018, a very similar figure to that of 2017 even though weight of landings decreased, thanks to an increase in the average price of landings.

Over half (55%) of landings by the UK fleet (in terms of weight) were of pelagic species. In terms of value landed however shellfish and demersal species represented the largest share of total value (35% each).

Figure 7. Weight and value of landings by the UK fishing fleet in the UK and abroad by species type, 2008–2018



Fish prices

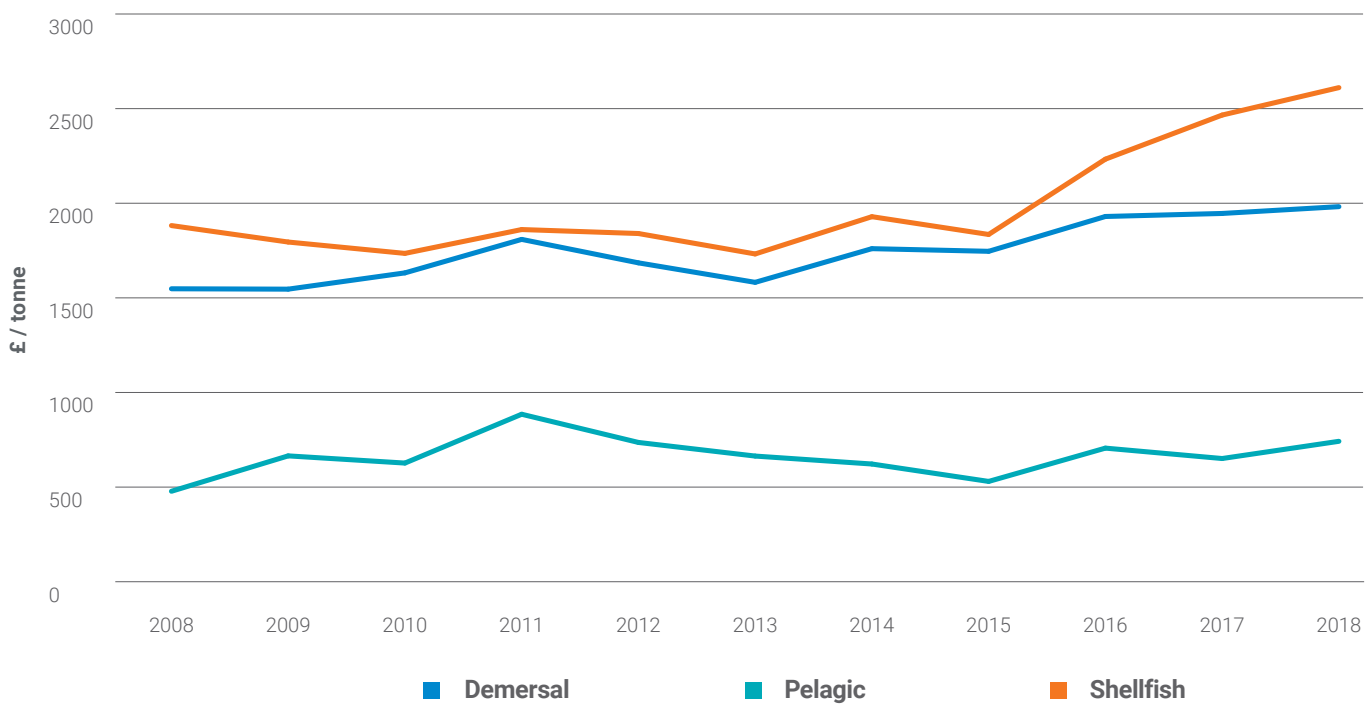
Shellfish and demersal species are the most valuable species, reaching average prices approximately three times higher than pelagic species.

Average nominal prices per tonne of shellfish species increased by 42% from 2015 to 2018, and reached £2,611 in 2018. This increase is likely linked to the drop in the pound/euro exchange rate experienced since 2016, given that shellfish caught by the UK fleet is mainly exported to other EU countries.

Average prices per tonne of demersal species increased by 14% in the same period to reach £1,982 in 2018.

The average price per tonne of pelagic species reached its lowest value in 2015 at £530, and increased to £742 in 2018.

Figure 8. Average price of landings in the UK and abroad by species type, 2008–2018 (not adjusted for inflation)



Fishing efficiency

Fishing efficiency refers to the average weight and value of landings and the average fishing costs per vessel per day spent at sea.

Overall, average weight landed per day at sea did not vary greatly between 2017 and 2018. Value landed per day at sea increased in most segments in 2017 as a result of increasing average prices, but in 2018 remained at similar levels to 2017. Fishing costs per day at sea increased across the fleet considerably in 2017 due to the increasing fuel price, and then remained largely static in 2018. Within segments however there was considerable variation from one year to the next.

Weight of landings per day at sea for North Sea beam trawlers over 300kW declined by 30% in 2018 (following a 14% decline in 2017). Their value landed per day at sea also decreased from 2016 to 2018.

Longliners also experienced a decreasing trend in weight and value landed per day at sea, and in costs per day at sea. The decrease in value landed per day at sea was particularly significant, with an annual 30% decrease each year from 2016 to 2018. As seen in Table 1, these vessels also experienced a 30% annual decrease in average fishing income per vessel in the same period.

On the other hand, Area 7A beam trawlers saw a significant increase in weight and value landed per day at sea from 2016 to 2018. Area 7A beam trawlers benefitted in 2017 from a quota increase and a higher number of days at sea.

The average price of shellfish species has increased since 2015, as seen in Figure 8. Segments more reliant on shellfish species for income, such as under 10m vessels and particularly pots and traps vessels, saw significant increases in fishing income per day.

Table 2. Landings per day at sea, fishing income and expenditure per day at sea (nominal figures), 2017–2018

Segment	Landings per day (tonnes)				Fishing income per day (£)				Fishing expenditure per day (£)			
	2017		2018		2017		2018		2017		2018	
Area VIIA demersal trawl	1.04	↑	1.50	↑	2,171	↑	2,538	↑	1,351	↑	1,611	↑
Area VIIA nephrops over 250kW	0.97	●	0.88	↓	2,151	↑	1,848	↓	1,237	↑	1,135	↓
Area VIIA nephrops under 250kW	0.62	↑	0.59	●	1,277	↑	1,277	●	706	↑	733	●
Area VIIBCDEFGHK 24-40m	1.99	●	2.11	↑	5,997	●	6,258	●	4,157	↑	4,774	↑
Area VIIBCDEFGHK trawlers 10-24m	0.86	●	0.78	↓	1,630	↑	1,318	↓	771	●	676	↓
North Sea beam trawl over 300kW	4.19	↓	2.98	↓	7,786	↓	6,902	↓	7,163	●	6,605	↓
North Sea beam trawl under 300kW	0.23	↓	0.44	↑	920	↓	1,018	↑	886	↓	984	↑
North Sea nephrops over 300kW	1.35	↑	1.35	●	3,495	↑	3,161	↓	2,373	↑	2,277	●
North Sea nephrops under 300kW	0.54	●	0.54	●	1,426	●	1,467	●	963	●	1,021	↑
NSWOS demersal over 24m	5.66	●	5.05	↓	10,740	↑	9,778	↓	7,373	↑	6,943	↓
NSWOS demersal pair trawl seine	5.76	↑	5.08	↓	10,332	↑	8,661	↓	7,208	↑	6,164	↓
NSWOS demersal seiners	5.25	↑	5.32	↑	8,552	↑	8,843	●	5,227	↑	5,465	↑
NSWOS demersal under 24m over 300kW	2.74	↑	2.31	↓	6,152	↑	5,149	↓	4,188	↑	3,672	↓
NSWOS demersal under 24m under 300kW	1.01	↓	1.15	↑	2,786	↑	2,818	●	1,710	↑	1,782	●
WOS nephrops over 250kW	0.83	↓	0.58	↓	1,851	●	1,671	↓	1,231	●	1,161	↓
WOS nephrops under 250kW	0.44	●	0.40	↓	1,164	●	1,129	●	673	●	674	●
South West beamers over 250kW	1.32	●	1.26	●	4,379	↑	4,514	●	2,902	↑	3,104	↑
South West beamers under 250kW	0.91	●	0.83	↓	3,251	↑	2,954	↓	1,966	↑	1,852	↓
UK scallop dredge over 15m	1.33	↓	1.24	↓	2,870	●	2,881	●	1,557	●	1,620	●
UK scallop dredge under 15m	0.86	↑	0.97	↑	1,518	↑	1,500	●	938	↑	957	●
Under 10m demersal trawl/seine	0.33	↑	0.31	●	870	↑	854	●	429	↑	435	●
Under 10m drift and/or fixed nets	0.19	↓	0.19	●	522	●	573	↑	284	↑	314	↑
Under 10m pots and traps	0.27	↑	0.22	↓	694	↑	773	↑	383	↑	431	↑
Under 10m using hooks	0.20	↑	0.18	↓	614	↑	671	↑	339	↑	376	↑
Gill netters	1.69	↑	1.91	↑	2,909	↑	3,142	↑	1,582	↓	1,729	↑
Longliners	1.67	↓	1.15	↓	3,736	↓	2,661	↓	2,610	↓	2,023	↓
Pots and traps 10-12m	0.41	●	0.36	↓	953	↑	1,068	↑	488	●	550	↑
Pots and traps over 12m	1.40	●	1.42	●	2,549	↑	2,881	↑	1,592	↑	1,811	↑

Trend:

↓ Indicates a decrease of >5% compared to previous year
● Indicates a change in the range of +/-5% compared to previous year
↑ Indicates a increase of >5% compared to previous year

Annual operating costs

Definitions

Fishing vessels incur a range of operating costs which are split into two groups: fishing costs and vessel costs.

Fishing costs vary depending on the amount of vessel activity and the value and weight of landings. Fishing costs cover several elements, of which crew share (wages), and fuel and oil are the most significant. Other items grouped under fishing costs include boxes, ice, food and stores, sales commissions, harbour dues, subscriptions and levies, shore labour, travel costs and quota leasing.

Vessel costs are independent of, or not directly related to, the level of vessel activity during the year. These vessel costs include gear and vessel repairs, insurance, administration and the purchase, hire and maintenance of electronic equipment.

Operating costs

Total operating costs of the UK fleet increased by 2% in 2018, reaching £759 million. The increase in fuel price was the main driver for this increase.

Following the increase in fuel price, average annual operating costs per vessel increased in 2018 for seventeen segments compared to 2017. In addition operating costs represented a higher percentage of total income in 2018 for all segments. On average operating costs represented 82% of total income in 2018, compared to 80% in 2017.

One segment, North Sea beam trawlers over 300kW, made a loss in 2018 as their operating costs were 110% of total income. This was a continuation of the 2017 trend, when their operating costs also exceeded their total income. This segment experienced decreasing landings and income per day at sea in 2017 and 2018, which may explain the decrease in size observed in Table 1 on this segment.

For NS beam trawlers under 300kW, operating costs represented nearly their total income in 2018 at 99%.

Fuel is a significant part of operating costs. Fuel costs expressed as a percentage of total income increased in 2018 across all segments following an increase in fuel prices. Across the whole UK fleet, fuel costs represented 18% of total income in 2018. The increase in fuel costs as a percentage of income was particularly high for NS beam trawlers over 300kW, with an increase of 13 percentage points.

In responses to the annual fleet economic survey, vessel owners highlighted the main elements that affected their operating costs, chiefly the costs of purchasing quota, vessel maintenance, bait, gear and fuel.

Table 3. Average annual operating costs, 2017–2018 (nominal figures)

Segment	Average annual operating costs (£)				Operating costs as % of income				Fuel costs as % of income			
	2017		2018		2017		2018		2017		2018	
Area VIIA demersal trawl	272,975	↑	300,818	↑	88%	↑	89%	●	14%	●	16%	●
Area VIIA nephrops over 250kW	209,736	↑	201,442	●	71%	●	75%	●	16%	●	21%	↑
Area VIIA nephrops under 250kW	130,879	↑	145,285	↑	75%	●	77%	●	11%	●	14%	●
Area VIIBCDEFGHK 24-40m	1,434,631	↑	1,484,207	●	93%	↑	97%	●	16%	●	19%	●
Area VIIBCDEFGHK trawlers 10-24m	177,393	●	138,495	↓	66%	●	70%	●	11%	●	17%	↑
North Sea beam trawl over 300kW	1,571,814	↓	1,821,309	↑	106%	↑	110%	●	35%	↑	47%	↑
North Sea beam trawl under 300kW	102,982	↓	112,561	↑	99%	●	99%	●	45%	↑	48%	●
North Sea nephrops over 300kW	641,639	↑	574,751	↓	87%	●	91%	●	19%	●	26%	↑
North Sea nephrops under 300kW	168,089	●	170,548	●	85%	●	87%	●	20%	●	23%	●
NSWOS demersal over 24m	1,811,008	↑	1,938,950	↑	83%	●	86%	●	14%	●	19%	●
NSWOS demersal pair trawl seine	1,719,197	↑	1,677,128	●	83%	●	84%	●	6%	●	9%	●
NSWOS demersal seiners	1,115,680	↑	1,153,524	●	76%	●	76%	●	7%	●	8%	●
NSWOS demersal under 24m over 300kW	928,645	↑	902,104	●	73%	↓	76%	●	12%	●	17%	↑
NSWOS demersal under 24m under 300kW	219,192	↓	286,035	↑	70%	↓	72%	●	8%	●	10%	●
WOS nephrops over 250kW	315,091	●	285,221	↓	87%	●	90%	●	16%	●	21%	↑
WOS nephrops under 250kW	142,077	↓	144,035	●	80%	●	82%	●	14%	●	18%	●
South West beamers over 250kW	828,549	↑	813,882	●	84%	●	86%	●	25%	●	29%	●
South West beamers under 250kW	554,653	↑	500,401	↓	75%	●	77%	●	15%	●	19%	●
UK scallop dredge over 15m	392,295	↓	404,687	●	79%	↓	81%	●	15%	●	19%	●
UK scallop dredge under 15m	130,970	●	132,776	●	89%	↑	91%	●	14%	●	17%	●
Under 10m demersal trawl/seine	54,475	●	54,143	●	69%	●	71%	●	9%	●	12%	●
Under 10m drift and/or fixed nets	29,510	●	30,259	●	65%	●	66%	●	8%	●	9%	●
Under 10m pots and traps	44,676	●	47,873	↑	74%	↑	75%	●	8%	●	9%	●
Under 10m using hooks	25,579	●	27,918	↑	67%	●	68%	●	5%	●	6%	●
Gill netters	407,881	↓	464,076	↑	87%	↑	88%	●	7%	●	8%	●
Longliners	579,581	↓	445,442	↓	87%	↑	93%	↑	14%	↑	24%	↑
Pots and traps 10-12m	103,038	↑	113,698	↑	65%	●	65%	●	6%	●	7%	●
Pots and traps over 12m	413,171	↑	461,258	↑	74%	●	75%	●	9%	●	10%	●

Trend:

↓ Indicates a decrease of >5% compared to previous year

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Annual operating costs

Fuel

The prices of Brent crude oil and marine diesel have varied substantially over the last 10 years, as seen in Figure 9.

The price of Brent crude oil reached its lowest figure in the last ten years in early 2016 when it fell to $26 per barrel. This drop in price led to the price of marine diesel falling to 26p per litre in January 2016. The price of Brent crude has increased steadily since then and in early 2018 it had reached $34 per barrel; with the average price of diesel increasing to 51p per litre in the same period.

The fuel costs of the UK fishing fleet reflect the development in fuel prices. Fuel consumption remains largely unchanged across fleet segments, but in 2018 the average fuel costs per vessel increased across all segments by an average of 25%.

Figure 9: Oil price and marine fuel price (source: Seafish, U.S. Energy Information Administration)

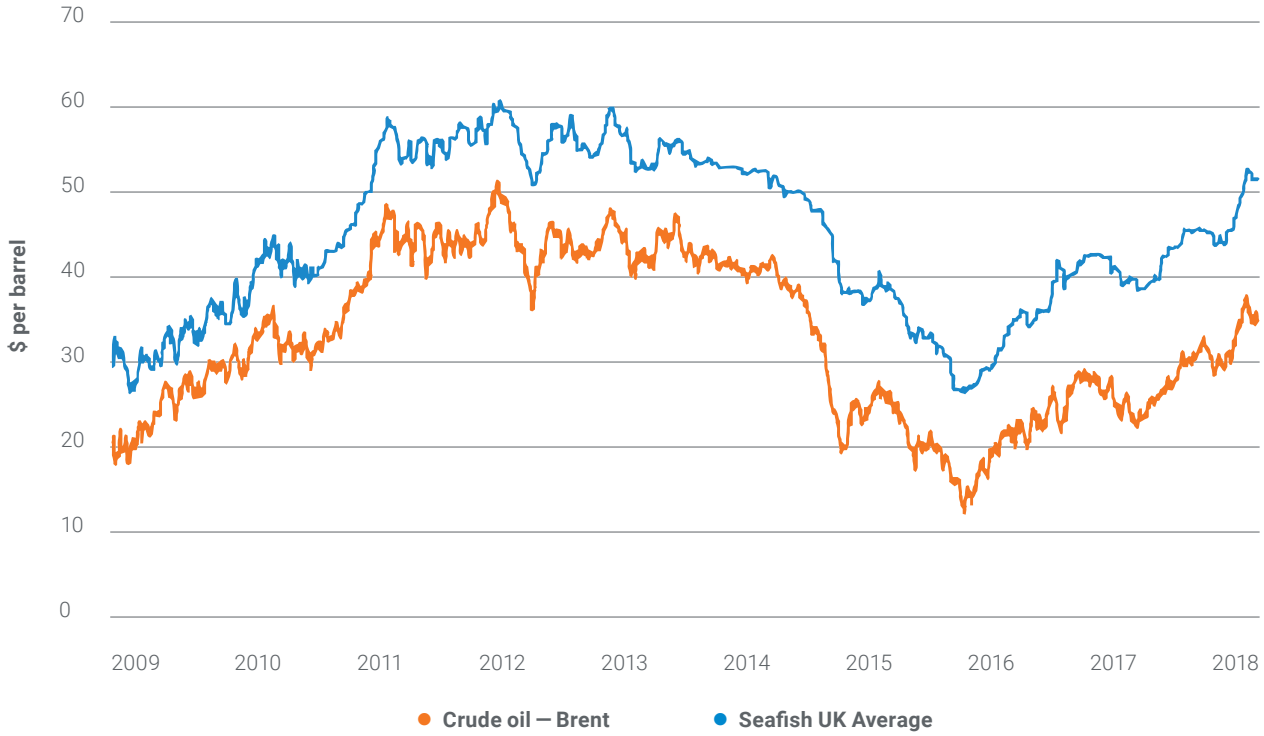

Table 4. Average annual and daily fuel costs per vessel (nominal figures), 2017–2018

Segment	Average annual fuel costs (£)				Average fuel cost per day at sea (£)				Litres per day			
	2017		2018		2017		2018		2017		2018	
Area VIIA demersal trawl	43,755	↑	54,674	↑	315	↑	423	↑	757	↑	842	↑
Area VIIA nephrops over 250kW	46,104	↑	56,597	↑	337	↑	391	↑	817	●	785	●
Area VIIA nephrops under 250kW	18,276	↑	25,885	↑	146	↑	191	↑	354	↑	380	↑
Area VIIBCDEFGHK 24-40m	246,583	●	295,455	↑	972	↑	1,214	↑	2,331	●	2,426	●
Area VIIBCDEFGHK trawlers 10-24m	30,361	↑	33,420	↑	188	↑	227	↑	451	●	450	●
North Sea beam trawl over 300kW	513,987	●	786,259	↑	2,700	↑	3,270	↑	6,500	●	6,500	●
North Sea beam trawl under 300kW	47,061	↑	54,207	↑	451	↑	528	↑	1,065	●	1,058	●
North Sea nephrops over 300kW	137,649	↑	162,358	↑	675	↑	841	↑	1,627	●	1,672	●
North Sea nephrops under 300kW	38,754	↑	45,374	↑	305	↑	370	↑	732	●	743	●
NSWOS demersal over 24m	312,344	↑	421,050	↑	1,599	↑	1,883	↑	3,838	●	3,742	●
NSWOS demersal pair trawl seine	124,878	↑	171,038	↑	647	↑	774	↑	1,555	●	1,532	●
NSWOS demersal seiners	97,876	↑	116,645	↑	615	↑	739	↑	1,476	●	1,470	●
NSWOS demersal under 24m over 300kW	148,910	↑	200,623	↑	825	↑	995	↑	1,979	●	1,980	●
NSWOS demersal under 24m under 300kW	23,504	↓	39,627	↑	269	↑	359	↑	647	↓	715	↑
WOS nephrops over 250kW	57,741	↑	67,516	↑	323	↑	389	↑	780	●	777	●
WOS nephrops under 250kW	25,468	↑	30,903	↑	170	↑	202	↑	409	●	403	●
South West beamers over 250kW	246,284	↑	278,107	↑	1,091	↑	1,331	↑	2,619	●	2,653	●
South West beamers under 250kW	110,124	↑	120,908	↑	484	↑	551	↑	1,158	●	1,102	●
UK scallop dredge over 15m	76,553	↑	93,762	↑	444	↑	543	↑	1,067	●	1,084	●
UK scallop dredge under 15m	20,614	●	25,022	↑	220	↑	266	↑	528	●	528	●
Under 10m demersal trawl/seine	7,262	●	8,811	↑	82	↑	101	↑	198	●	199	●
Under 10m drift and/or fixed nets	3,540	↑	3,961	↑	43	↑	51	↑	103	●	101	●
Under 10m pots and traps	4,980	↓	5,866	↑	58	↑	72	↑	141	●	141	●
Under 10m using hooks	1,816	↓	2,393	↑	31	●	41	↑	75	↓	80	↑
Gill netters	34,398	↑	43,907	↑	214	↑	262	↑	515	●	521	●
Longliners	95,008	↑	115,085	↑	540	↑	649	↑	1,296	●	1,289	●
Pots and traps 10-12m	9,487	↑	11,351	↑	63	↑	77	↑	151	●	152	●
Pots and traps over 12m	51,302	↑	61,063	↑	266	↑	322	↑	642	●	636	●

Trend:

↓ Indicates a decrease of >5% compared to previous year
● Indicates a change in the range of +/-5% compared to previous year
↑ Indicates a increase of >5% compared to previous year

Employment and crew costs

In 2018 the UK fishing fleet had a total estimated 7,226 FTEs on board vessels. The number of FTEs per fleet segment varies depending on vessel size and vessel numbers. The segment with the most FTE jobs was the pots and traps vessels over 12m, which had 670 FTEs spread across 98 vessels in 2018. The second highest number of FTEs corresponded to under 10m pots and traps vessels, with 634 FTEs across 1,113 vessels. This means less than one full time equivalent job per vessel, reflecting the fact that many of these small vessels do not operate at sea all year round. In addition, the number of hours worked per day on these vessels (as reported by vessel owners during the 2018 survey) decreased in 2018 which contributed to a reduction in FTEs.

Half of fleet segments increased the number of FTEs in 2018 compared to 2017. As explained above, changes from one year to the next can arise if there is a difference in estimated number of hours worked, not necessarily implying that jobs were created or lost. The greatest change in FTEs occurred in the NSWoS demersal vessels under 24m under 300kW, which saw a 46% increase in FTEs from 2017 to 2018. WoS nephrops vessels over 250 kW on the other hand saw a 35% decrease in FTEs in 2018. From Table 1 it can be seen that the number of vessels in this segment decreased by 30% in 2018, which may explain the lower number of FTEs in the same year.

Crew share is strongly linked with fishing income and costs as many fishermen are paid a share of the vessel earnings, usually after deducting some direct costs such as fuel. Crew costs (i.e., the total expenditure in crew, including crew shares, salaries and agency payments of all crew) across segments therefore reflect the variability in vessel earnings. Total crew costs of the UK fishing fleet decreased in 2018 by 6%, possibly as a result of higher fuel costs which reduced the amount of money available for crew share. Crew costs in 2018 decreased significantly in NS beam trawlers over 300 kW and longliners, two segments which also saw noticeable reductions in average fishing income or increases in total expenditure exceeding their income.

Table 5. Average annual crew costs (nominal figures) and FTEs, 2017–2018

Segment	Average crew cost per vessel (£)				FTE (total)				Crew cost per FTE (£)			
	2017		2018		2017		2018		2017		2018	
Area VIIA demersal trawl	82,217	↑	86,375	↑	65	●	51	↓	17,645	↑	16,847	●
Area VIIA nephrops over 250kW	50,251	↓	41,578	↓	169	↓	180	↑	8,896	↓	7,146	↓
Area VIIA nephrops under 250kW	47,820	↓	49,301	●	148	↓	150	●	11,645	●	10,855	↓
Area VIIBCDEFGHK 24-40m	345,472	↑	321,151	↓	151	↓	157	●	29,667	↑	26,592	↓
Area VIIBCDEFGHK trawlers 10-24m	56,423	↑	38,353	↓	190	↓	167	↓	18,109	↑	13,284	↓
North Sea beam trawl over 300kW	289,271	↓	174,458	↓	174	↓	174	●	14,968	↓	7,022	↓
North Sea beam trawl under 300kW	19,705	↑	18,930	●	52	↓	53	●	7,571	↑	7,537	●
North Sea nephrops over 300kW	172,458	↑	128,534	↓	387	●	289	↓	23,641	↑	18,684	↓
North Sea nephrops under 300kW	48,670	●	45,148	↓	156	↓	134	↓	21,858	↑	20,895	●
NSWOS demersal over 24m	559,187	↑	538,844	●	518	↓	622	↑	46,387	↑	38,145	↓
NSWOS demersal pair trawl seine	549,754	↑	503,340	↓	208	↓	259	↑	66,137	↑	48,552	↓
NSWOS demersal seiners	378,188	↑	381,011	●	178	↑	143	↓	36,023	↓	39,997	↑
NSWOS demersal under 24m over 300kW	293,462	↑	246,679	↓	267	↑	377	↑	40,692	↑	29,424	↓
NSWOS demersal under 24m under 300kW	60,501	↓	73,590	↑	57	↑	84	↑	18,973	↓	16,685	↓
WOS nephrops over 250kW	107,464	↓	86,084	↓	241	↓	156	↓	19,196	●	16,577	↓
WOS nephrops under 250kW	53,302	↓	50,420	●	281	↓	236	↓	14,214	↓	13,252	↓
South West beamers over 250kW	280,163	↑	247,571	↓	185	↑	171	↓	39,280	↑	37,744	●
South West beamers under 250kW	201,418	↑	166,499	↓	174	↑	186	↑	25,539	↓	22,385	↓
UK scallop dredge over 15m	154,313	●	148,490	●	391	↓	356	↓	35,109	↑	33,766	●
UK scallop dredge under 15m	33,231	↓	31,235	↓	279	↓	275	●	24,734	↑	23,169	↓
Under 10m demersal trawl/seine	18,867	↑	17,773	↓	195	↓	169	↓	16,836	↑	16,060	●
Under 10m drift and/or fixed nets	14,427	●	14,543	●	123	↓	129	↑	21,575	↑	23,616	↑
Under 10m pots and traps	14,980	↓	15,725	↑	694	↓	634	↓	24,925	↑	27,604	↑
Under 10m using hooks	6,332	↓	6,712	↑	130	↑	111	↑	11,413	↓	12,365	↑
Gill netters	101,900	↓	113,446	↑	143	↓	125	↓	21,438	↑	23,610	↑
Longliners	120,345	↑	68,730	↓	275	↑	287	●	12,248	↑	7,182	↓
Pots and traps 10-12m	46,330	↑	50,499	↑	375	↓	382	●	21,759	↑	24,329	↑
Pots and traps over 12m	171,943	↑	189,128	↑	623	↓	670	↑	25,398	↑	27,679	↑

Trend:

↓ Indicates a decrease of >5% compared to previous year
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Economic performance of the fleet

Gross Value Added (GVA)

Average GVA per vessel decreased among almost all fleet segments in 2018, reflecting the increase in fuel prices and subsequent decrease in operating profit experienced. Segments such as NS beam trawlers over 300kW and longliners experienced particularly significant decreases in average GVA per vessel (93% and 50% respectively), linked to decreases in fishing income and increasing fuel costs.

Average GVA expressed as a percentage of total income also decreased from 45% in 2017 to 41% in 2018.

GVA per FTE is a measure of labour productivity, an indicator of how efficiently labour is used in the production process. Estimates of GVA per FTE decreased across most segments in 2018, particularly NS beam trawlers over 300kW which saw a 95% decrease from 2017 to 2018.

Table 6. Average annual GVA per vessel and GVA per FTE (nominal figures), 2017–2018

Segment	Gross value added (£)				GVA as % of total income				GVA per FTE (£ per FTE)			
	2017		2018		2017		2018		2017		2018	
Area VIIA demersal trawl	119,378	↑	122,627	●	39%	↑	36%	●	25,621	↑	23,918	↓
Area VIIA nephrops over 250kW	135,714	↓	109,005	↓	46%	↓	41%	↓	24,024	↓	18,736	↓
Area VIIA nephrops under 250kW	91,020	↑	92,382	●	52%	●	49%	↓	22,165	↑	20,341	↓
Area VIIBCDEFGHK 24-40m	458,124	↓	363,895	↓	30%	↓	24%	↓	39,341	↓	30,131	↓
Area VIIBCDEFGHK trawlers 10-24m	147,308	↑	97,411	↓	55%	●	49%	↓	47,279	↑	33,739	↓
North Sea beam trawl over 300kW	199,904	↓	13,123	↓	14%	↓	1%	↓	10,344	↑	528	↓
North Sea beam trawl under 300kW	20,732	↑	19,590	↓	20%	↑	17%	↓	7,965	↑	7,800	●
North Sea nephrops over 300kW	268,102	↑	185,047	↓	36%	●	29%	↓	36,752	↑	26,898	↓
North Sea nephrops under 300kW	78,715	●	71,164	↓	40%	●	36%	↓	35,352	↑	32,936	↓
NSWOS demersal over 24m	920,449	↑	863,677	↓	42%	●	38%	↓	76,356	↑	61,141	↓
NSWOS demersal pair trawl seine	902,845	●	815,543	↓	44%	↓	41%	↓	108,616	↑	78,667	↓
NSWOS demersal seiners	736,798	↑	739,237	●	50%	↑	49%	●	70,182	↓	77,603	↑
NSWOS demersal under 24m over 300kW	641,671	↑	538,793	↓	50%	↑	45%	↓	88,976	↑	64,269	↓
NSWOS demersal under 24m under 300kW	152,953	↑	185,951	↑	49%	↑	47%	●	47,966	↑	42,161	↓
WOS nephrops over 250kW	153,116	↓	117,646	↓	42%	↓	37%	↓	27,351	↓	22,655	↓
WOS nephrops under 250kW	89,190	↓	82,678	↓	50%	●	47%	↓	23,784	↓	21,730	↓
South West beamers over 250kW	441,965	↑	378,479	↓	45%	●	40%	↓	61,965	↑	57,702	↓
South West beamers under 250kW	386,337	↑	314,048	↓	52%	●	49%	↓	48,986	↓	42,222	↓
UK scallop dredge over 15m	258,780	↑	243,662	↓	52%	↑	49%	↓	58,878	↑	55,408	↓
UK scallop dredge under 15m	48,735	↓	43,780	↓	33%	↓	30%	↓	36,273	↑	32,474	↓
Under 10m demersal trawl/seine	43,323	↑	40,371	↓	55%	↑	53%	●	38,661	↑	36,481	↓
Under 10m drift and/or fixed nets	30,050	↑	30,248	●	67%	↑	66%	●	44,938	↑	49,120	↑
Under 10m pots and traps	30,669	↓	32,045	●	51%	↓	50%	●	51,029	↑	56,252	↑
Under 10m using hooks	18,689	↓	19,738	↑	49%	↓	48%	●	33,686	↓	36,362	↑
Gill netters	163,306	↓	179,376	↑	35%	↓	34%	●	34,356	↓	37,332	↑
Longliners	211,090	↓	104,786	↓	32%	↓	22%	↓	21,484	↓	10,950	↓
Pots and traps 10-12m	101,836	↑	110,880	↑	64%	↑	64%	●	47,827	↑	53,419	↑
Pots and traps over 12m	314,330	↑	345,269	↑	57%	●	56%	●	46,430	↓	50,530	↑

Trend:

↓ Indicates a decrease of >5% compared to previous year
● Indicates a change in the range of +/-5% compared to previous year
↑ Indicates a increase of >5% compared to previous year

Profit

The total operating profit (total income minus total operating costs) of the UK fleet decreased by 4% in 2018, from £280 million in 2017 to £268 million in 2018. This decrease reflects the increase in operating costs in 2018 due to higher fuel costs not completely compensated by a reduction in crew costs; while fishing income remained at largely similar figures.

All segments but five had a lower or similar average operating profit per vessel in 2018 compared to 2017. One segment (North Sea beam trawlers over 300kW) made a loss in 2018. This segment experienced a significant decline in landings per day at sea in 2018 (Table 2) and an increase in operating costs. Some individual vessels within other segments may also have made a loss, even if the overall segment has made a profit on average.

Operating profit margins (operating profit expressed as percent of total income) decreased across all segments in 2018, from an average 20% in 2017 to 18% in 2018.

Net profit is an estimate of profit remaining after deducing cost of finance from operating profit. Net profit is the amount that would be subject to taxation and profits after tax would be the amount that could be retained by the company and/or distributed as dividends to shareholders in the company.

For smaller businesses that operate as sole traders, owner's drawings often reflect a combination of wages for their labour and return on their capital invested in the business, with no formal difference between these two returns noted. Net profit margins in 2017 were an average of 14% across all segments.

Attitudes of skippers and vessel owners toward business success in the future were strongly influenced by the current performance of their business. There is continued uncertainty about regulation and political developments, combined with other issues such as personal situation (age, health), quota availability and affordability, fuel price, market prices, fish abundance, crew recruitment and the weather.

Table 7. Average annual operating profit per vessel and net profit margin (nominal figures), 2017–2018

Segment	Operating profit (£)				Operating profit margin				Net profit margin	
	2017		2018		2017		2018		2017	
Area VIIA demersal trawl	37,161	↓	36,252	●	12%	↓	11%	↓	8%	↓
Area VIIA nephrops over 250kW	85,463	●	67,427	↓	29%	↓	25%	↓	12%	↓
Area VIIA nephrops under 250kW	43,199	↑	43,081	●	25%	↑	23%	↓	23%	↑
Area VIIBCDEFGHK 24-40m	112,652	↓	42,745	↓	7%	↓	3%	↓	7%	↓
Area VIIBCDEFGHK trawlers 10-24m	90,885	↑	59,058	↓	34%	↑	30%	↓	26%	↓
North Sea beam trawl over 300kW	-89,367	↓	-161,335	↓	-6%	↓	-10%	↓	-6%	↓
North Sea beam trawl under 300kW	1,027	↑	660	↓	1%	↓	1%	↓	-3%	↑
North Sea nephrops over 300kW	95,644	↑	56,512	↓	13%	↓	9%	↓	6%	↓
North Sea nephrops under 300kW	30,045	↓	26,016	↓	15%	↓	13%	↓	0%	↓
NSWOS demersal over 24m	361,262	●	324,833	↓	17%	↓	14%	↓	11%	↓
NSWOS demersal pair trawl seine	353,092	↓	312,203	↓	17%	↓	16%	↓	13%	↓
NSWOS demersal seiners	358,610	↑	358,226	●	24%	↑	24%	↓	20%	↑
NSWOS demersal under 24m over 300kW	348,209	↑	292,114	↓	27%	↑	25%	↓	23%	↑
NSWOS demersal under 24m under 300kW	92,452	↑	112,361	↑	30%	↑	28%	↓	24%	↑
WOS nephrops over 250kW	45,652	↓	31,562	↓	13%	↓	10%	↓	7%	↓
WOS nephrops under 250kW	35,888	↓	32,258	↓	20%	●	18%	↓	12%	↓
South West beamers over 250kW	161,802	↑	130,908	↓	16%	↓	14%	↓	13%	↓
South West beamers under 250kW	184,919	↑	147,548	↓	25%	↓	23%	↓	22%	↑
UK scallop dredge over 15m	104,468	↑	95,172	↓	21%	↓	19%	↓	17%	↑
UK scallop dredge under 15m	15,504	↓	12,545	↓	11%	↓	9%	↓	4%	↓
Under 10m demersal trawl/seine	24,457	↑	22,598	↓	31%	↑	29%	↓	23%	↑
Under 10m drift and/or fixed nets	15,623	↑	15,705	●	35%	↑	34%	↓	28%	↑
Under 10m pots and traps	15,689	↓	16,320	●	26%	↓	25%	↓	19%	↓
Under 10m using hooks	12,357	↓	13,026	↑	33%	↓	32%	↓	27%	↓
Gill netters	61,406	↓	65,930	↑	13%	↓	12%	↓	11%	↓
Longliners	90,745	↓	36,056	↓	14%	↓	8%	↓	8%	↓
Pots and traps 10-12m	55,506	↑	60,381	↑	35%	↑	35%	↓	26%	↓
Pots and traps over 12m	142,386	↑	156,140	↑	26%	↑	25%	↓	20%	↑

Trend:

↓ Indicates a decrease of >5% compared to previous year
● Indicates a change in the range of +/-5% compared to previous year
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Methods

The collection of economic data on the UK fishing fleet is a staged process involving government administrations, vessel owners, accountancy firms and Seafish field researchers, data analysts and economists.

Official government data

Government administrations gather data on vessel numbers and characteristics, catch, landings, sales, gear type and fishing effort (days at sea). This information is transmitted to a central UK database which keeps logbook, sales note and fleet register data.

Field research

Every year Seafish researchers visit ports around the UK, interviewing fishing business owners about their fishing businesses and obtaining their permission to get copies of their financial data. Although we have fishing income data for every UK vessel, we also gather a sample of other financial data for each fleet segment. To ensure an adequate sample size for other financial data we use a self-selecting stratified sampling approach, i.e., we interview a sufficient number of vessel owners from each segment who choose to participate in the survey when our researchers visit the ports. During this stage, researchers collect data on employment, fuel use and capital value indicators as well as the contact details of vessel owners' accountancy firms. In addition, researchers gather qualitative data on matters relating to fishing businesses.

We collect financial data from accountants and owners after the interview phase, with the objective of gathering a large sample of vessel accounts. In late 2018 and early 2019, Seafish Economics collected 514 sets of 2017 financial accounts (11% of the active UK fleet).

Fleet segmentation

The Seafish economic database includes all vessels recorded in the UK fishing fleet register that are active during the year considered. This includes all vessel types, gear types and activity levels. Therefore, we define groups or fleet segments of relatively similar vessels so we can provide information on the operational and financial performance of groups of comparable vessels.

Each fleet segment has a set of mutually exclusive criteria that define which vessels are included in it for each year. Every single active vessel will fit into only one segment each year. Criteria are based on the physical characteristics of the vessels, activity level, the gear used, species targeted and areas fished. For this report we have defined 32 Seafish segments to categorise the UK fleet as shown in the Segmentation Criteria table. Some segments have a large number of vessels, such as the under 10m pots and traps segment (1,113 vessels), while others have very few, such as North Sea beam trawl over 300kW (7 vessels). Individual vessels may be included in different segments in different years depending on their activity and gear use. Segments must contain at least five vessels so that reliable data can be collected, robust estimates of costs and profits can be produced, and confidentiality is protected. If fewer than five vessels fit into one segment in a given year, they are instead included in the 'Miscellaneous' fleet segment.

Costs and earnings estimation

Declared fishing income is available from the government data set for every active vessel in the fleet, so fishing income is the most reliable financial figure we produce.

We allocate costs structure and non-fishing income data from the sampled vessel accounts to particular fleet segments. We then extrapolate costs and non-fishing income to all vessels in the segment using official statistics on effort and fishing income covering every vessel in the fleet.

Within each fleet segment we add together the individual costs items from the collected vessel financial accounts (the segment sample) to create a 'combined segment sample cost structure'.

We then calculate, for all vessels in a segment, the sum of each cost item in the 'combined segment sample cost structure' as a proportion of the sum of fishing income. For example:

a) The sum of gear costs is 10% of the sum of fishing income for this group of vessels;

b) The sum of sales commission is 3% of the sum of fishing income, etc.

Fuel costs and crew share costs are calculated differently from other costs. To calculate fuel costs, we use the vessel capacity (VCUs) and days at sea for the year of each vessel to estimate its fuel consumption in litres, which is then multiplied by the average annual red diesel price (excluding duty) to estimate total annual fuel cost for each vessel. To calculate crew share costs, we use a system similar to how crew share is estimated in practice, where fishing costs are deducted from fishing income and then the remainder is split between the crew and the vessel business. We allocate a minimum of £100 per day in instances where the actual observed amount within the 'combined segment sample cost structure' is lower, in order to reflect the market value of the labour.

Following the calculation of fuel cost and crew share, we apply the proportions from all the other costs within the 'combined segment sample cost structure' to the official declared fishing income for each vessel within each fleet segment. This enables us to calculate Gross Value Added, operating profit and net profit for all vessels in each fleet segment.

Employment data

The estimation of employment is based on the survey data collected from vessel owners during the first stage of data collection, combined with MMO employment data. This process provides details of the number of engaged crew, both full-time and part-time. With this sample information we then estimate total engaged crew based on the physical characteristics of each individual vessel and the vessel's level of activity. Once the total engaged crew is estimated for all types of vessel in the UK fleet, we estimate Full Time Equivalent (FTE) jobs based on hours worked by crew as reported by skippers (one full time job is assumed to be 2,000 hours worked a year).

2018 estimates

Figures presented for the year 2017 are estimates based on Government data and data collected by Seafish. Figures for 2018 are estimates using provisional official statistics on landings, numbers of vessels and effort, along with actual annual average 2018 fuel prices and previous years' cost structures. Therefore, the 2018 values should be considered robust preliminary estimates. Seafish will revise these estimates when final government data and 2018 vessel accounts are available.

Table 7. Segmentation Criteria Table

Seafish Segments	Main Area	Main DAS Gear	Main Species by value	Main Gear Type	Power Main Engine	Vessel Length	Value of landings
Area VIIA demersal trawl over 10m	VIIA	Demersal trawls and seines				>= 10m	
Area VIIA nephrops over 250kW	VIIA	Demersal trawls and seines	Nephrops		>= 250 kW	>= 10m	
Area VIIA nephrops under 250kW	VIIA	Demersal trawls and seines	Nephrops		<250 kW	>= 10m	
Area VIIb-k trawlers 10-24m	VIIDE, VIIFG, VII other	Demersal trawls and seines	Not Nephrops			>= 10m & <24m	
Area VIIb-k trawlers 24-40m	VIIDE, VIIFG, VII other	Demersal trawls and seines	Not Nephrops			>= 24m & <40m	
UK Gill netters over 10m		Drift Nets and Fixed Nets	Not Nephrops			>= 10m	
UK Longliners over 10m		Gears using hooks	Not Nephrops			>= 10m	
Low activity vessels over 10m						>= 10m	< £10,000
Low activity vessels under 10m						< 10m	< £10,000
Miscellaneous vessels over 10m						>= 10m	
North Sea beam trawl over 300kW	NS	Beam Trawl	Not Nephrops		>= 300 kW	>= 10m	
North Sea beam trawl under 300kW	NS	Beam Trawl	Not Nephrops		< 300 kW	>= 10m	
North Sea nephrops trawl over 300kW	NS	Demersal trawls and seines	Nephrops		>= 300 kW	>= 10m	
North Sea nephrops trawl under 300kW	NS	Demersal trawls and seines	Nephrops		< 300 kW	>= 10m	
North Sea and West of Scotland demersal trawl over 24m	NS, WoS		Not Nephrops			>= 24m	
North Sea and West of Scotland demersal pair trawls and seines	NS, WoS	Demersal trawls and seines	Not Nephrops	Paired Trawl		>= 10m	
North Sea and West of Scotland demersal seiners	NS, WoS	Demersal trawls and seines	Not Nephrops	Scottish Seiner		>= 10m	
North Sea and West of Scotland demersal trawl under 24m, over 300kW	NS, WoS	Demersal trawls and seines	Not Nephrops		>= 300 kW	>= 10m & <24m	
North Sea and West of Scotland demersal trawl under 24m, under 300kW	NS, WoS	Demersal trawls and seines	Not Nephrops		< 300 kW	>= 10m & <24m	
UK pelagic trawl over 40m		Pelagic: Trawl, Seiner / Purse Seiner	Mackerel			>= 40m	

Seafish Segments	Main Area	Main DAS Gear	Main Species by value	Main Gear Type	Power Main Engine	Vessel Length	Value of landings
UK pots and traps 10m-12m		Pots and Traps				>= 10m & <12m	
UK Pots and traps over 12m		Pots and Traps				>= 12m	
South West beam trawl under 250kW	VIIDE, VIIFG, VII other	Beam Trawl			< 250 kW	>= 10m	
South West beam trawl over 250kW	VIIDE, VIIFG, VII other	Beam Trawl			>= 250 kW	>= 10m	
UK demersal trawls and seines under 10m		Demersal trawls and seines				< 10m	
UK drift and fixed nets under 10m		Drift Nets and Fixed Nets				< 10m	
UK hooks under 10m		Pots and Traps				< 10m	
UK pots and traps under 10m		Gears using hooks				< 10m	
UK pots and traps 10m-12m	WoS	Demersal trawls and seines	Nephrops		>= 250 kW	>= 10m	
UK Pots and traps over 12m	WoS	Demersal trawls and seines	Nephrops		< 250 kW	>= 10m	
West of Scotland nephrops trawl over 250kW		Dredges	Scallops, queen scallops, cockles			>= 15m	
West of Scotland nephrops trawl under 250kW		Dredges	Scallops, queen scallops, cockles			<= 15m	
UK scallop dredge over 15m		Dredges	Scallops, queen scallops, cockles			>= 15m	
UK scallop dredge under 15m		Dredges	Scallops, queen scallops, cockles			<= 15m	

Glossary and list of acronyms

Glossary

Active vessel. Any UK registered fishing vessel that recorded any amount of landings in the year considered.

Fishing costs. Costs incurred by vessel owners as a result of their fishing activity. Fishing costs include fuel costs, crew shares, ice and boxes, sales commissions, harbour dues, subscriptions and levies, quota leasing, days at sea purchases, food and stores, travel costs and shore labour.

Fleet segment. A group comprising vessels of similar characteristics in terms of level of activity, main gear used and/or area of operation.

FTE (Full-Time Equivalent). A standardised measure of employment, based on an employee working 37 hours per week, 52 weeks a year.

GDP (Gross Domestic Product). An indicator of the economic performance of a country.

GVA (Gross Value Added). A measure of the value of goods and services produced by an industry. In this report, GVA is calculated as the sum of operating profit and crew share.

Low activity vessel. Any vessel that recorded a total value of landings under £10,000 in the year considered.

Net profit. The result of subtracting finance costs, depreciation and interest costs from operating profit.

Operating costs. Costs incurred by vessel owners. Operating costs comprise fishing costs, which are dependent on the level of fishing activity; and vessel costs, which tend to be fixed regardless of the level of activity.

Operating profit. The difference between total income and operating costs.

Vessel costs. Costs incurred by vessel owners regardless of the level of fishing activity. Vessel costs include gear and vessel repairs, insurance, electronic equipment and administration costs.

Acronyms

FTE. Full-Time Equivalent

GDP. Gross Domestic Product

GVA. Gross Value Added

MMO. Marine Management Organisation

NS. North Sea

NSWoS. North Sea and West of Scotland

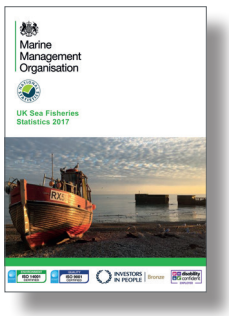
TAC. Total Allowable Catch

VCU. Vessel Capacity Unit

WC. Western Channel

WoS. West of Scotland

Further reading



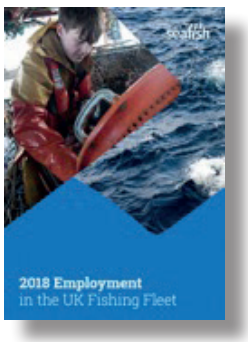
Fisheries statistics

Marine Management Organisation – UK Sea Fisheries Statistics 2017

UK Sea Fisheries Statistics 2017 provides a broad picture of the UK fishing industry. This publication includes data on the structure, activity and landings of the UK fleet along with additional information on overseas trade, exploitation of stocks and the world's fishing industry. This report uses the same underlying dataset.

Scottish Sea Fisheries Statistics 2017

A detailed overview of landings of sea fish, the Scottish fishing fleet and the number of fishermen employed in 2017.



Employment

2018 Employment in the UK Fishing Fleet

This report summarises the findings of Seafish's 2018 survey of employment in the UK fishing fleet, reporting on gender, age, nationality and qualification of workers among other factors.

Fuel efficiency

Quay Issues Volume 5

This edition of Quay Issues magazine looks at several innovations to improve the fuel efficiency of the fishing fleet: semi-pelagic doors and route optimizing apps

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