



2014 UK SEAFOOD PROCESSING INDUSTRY REPORT



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EXECUTIVE SUMMARY

Overview: All Fish Processing

- The size of the UK fish processing industry as a whole (including sea fish, salmon and other processors) remained stable between 2012 and 2014, both in terms of number of units and employment.
- In 2014, there were 403 fish processing units in the UK providing a total of 19,511 FTE jobs.
- In 2014 the number of processing units was 1% lower compared to 2012 and 29% lower compared to 2008.
- The number of Full-Time Equivalent (FTE) jobs in 2014 was 1% higher than in 2012 and 7% lower than in 2008.
- The average size of a fish processing unit grew from 37 FTEs per unit in 2008 to 48 FTEs per unit in 2014.
- In 2014 approximately 83% of processing units and 73% of FTE jobs were engaged in sea fish (i.e. saltwater or seafood) processing; 15% of units and 24% of employment were in salmon processing, with the remainder being accounted for by other freshwater fish processors.
- In 2014 65% of FTEs were concentrated in 13% of processing units that each had more than 100 FTEs.

Sea Fish (i.e. Saltwater, or Seafood) Processing: Industry Size and Structure

- There was a slight decline in the number of units and employment in sea fish processing between 2012 and 2014.
- In 2014 there were 333 sea fish processing units in the UK, providing a total of 14,305 FTE jobs.
- Between 2012 and 2014 the number of seafood processors declined by 3% and the number of FTE jobs declined by 4%.
- The sector has contracted in recent years, with a 34% reduction in the number of units and a 12% reduction in the number of FTE jobs between 2008 and 2014. Average unit size, in terms of employment, grew by 33% over the period, to 43 FTEs per unit in 2014.
- In 2014 47% of sea fish processing units were small (each providing between one and ten FTE jobs) and these processors provided 6% of industry employment. 60% of FTE jobs were concentrated in the 11% of units with 101+ FTEs each.
- Despite the growth in average employment per unit, there was renewed growth in the number of small (1-10 FTEs) seafood processors between 2012 and 2014.
- In 2014 56% of sea fish units were mixed processors (i.e. undertaking both primary and secondary processing); 29% were primary processors and 15% were secondary processors. There is evidence of a recent rebound in the number of units undertaking secondary and mixed processing, while the number of primary processors has continued to decline.
- The composition of units by fish type category has remained relatively stable: 48% mixed species; 24% shellfish; 23% demersal (whitefish) and 5% pelagic (2014 figures).
- The regional distribution of the industry since 2008 shows signs of further industry concentration in the two largest centres of Humberside and Grampian, which together accounted for 38% of units and 52% of FTE jobs in the industry in 2014.

Salmon Processing

- Following a period of decline, salmon processing regained its 2008 scale, in terms of both the level of employment and the number of processing sites, through strong sector recovery from 2012 to 2014.
- In 2014, there were 62 salmon processing units in the UK, providing 4,648 FTE jobs. Average unit size was 75 FTEs per unit.
- In 2014 77% of salmon processing employment was concentrated in 24% of units with more than 100 FTEs each, while the 39% of units with 1-10 FTEs provided 2% of employment.
- Salmon processing has recently become more polarised in terms of unit size. In 2014, 63% of units were either very large (101+ FTEs) or very small (1-10 FTEs), compared to 45% of units in these categories in 2008.
- The UK salmon processing industry is primarily concentrated in Scotland. In 2014 63% of processing units and 76% of industry employment were based in Scotland.
- Since 2008 the salmon processing industry has been strengthening its presence in the rest of the UK, outside of the traditionally strong Highlands and Islands and Grampian regions.

Sea Fish Processing Industry: Inputs, Outputs and Financial Performance

Financial estimates are based on sample data (details in [Appendix 4. Research Methods](#)). The latest figures available are for 2012.

- Spending on raw materials is the largest cost for seafood processors, representing 73% of total costs and 76% of operating costs in the industry in 2012. The total value of raw material input in seafood processing was approximately £3 billion in 2012, an 11% increase on 2010 and a 23% increase on 2008 in nominal terms.
- The value of industry labour input was an estimated £475 million in 2012. Average labour cost per FTE, turnover per FTE and GVA per FTE all increased from 2008 to 2012. These changes in labour productivity reflect growing industry output and labour costs being spread over fewer FTEs.
- Fixed capital in the industry increased by 49% from 2010 to 2012, following a period of stagnation between 2008 and 2010. This is indicative of a recovery in confidence following the recession and consequent period of economic uncertainty. As a result of the increase in fixed capital, capital productivity across the different measures declined, despite of the positive growth in industry output.
- Total annual industry turnover was an estimated £4.2 billion in 2012, a 16% increase since 2008 in nominal terms. To give context, UK consumers purchased £6.2 billion worth of seafood in 2012.
- In 2012 average turnover per unit was £12 million and ranged from an average of £1 million for units in the smallest size category (1-10 FTEs) to £76 million for units in the largest size category (101+ FTEs).
- Average turnover per unit increased by 19% from 2010 to 2012 and by 69% between 2008 and 2012, in nominal terms. The considerable continued increase is the result of a growing industry turnover being generated by fewer, larger units.
- The Gross Value Added (GVA) of the sea fish processing industry was an estimated £766 million in 2012, a nominal increase of 2% from 2008 to 2012.
- Large seafood processors (101+ FTEs) generated 56% of industry turnover and 54% of industry GVA in 2012.
- In 2012 47% of industry turnover and 44% of industry GVA was generated in the Humberside and Grampian regions.

- Between 2008 and 2012 industry turnover increased by 16%, while operating costs increased by 20%, resulting in a 24% drop in operating profit. Industry operating profit margin was an estimated 7% in 2012.
- The reduced profitability of the seafood processing industry in 2012 appears to have been driven by higher raw material costs, which were not fully passed on to customers.

Stories from the Sea Fish Processing Industry: Business Environment and Outlook

The findings below are based on limited qualitative research conducted in 2014-15, including in-depth interviews with processors and other industry stakeholders.

- The supply of raw materials, regulatory and trade developments such as exchange rate movements, lack of consumer awareness, skill shortages, securing finance and retailer pressure on suppliers create problems for many businesses in the seafood processing industry. At the same time, growing demand for seafood and signs of economic recovery underpin industry confidence in the long-term sustainability and profitability of seafood processing in the UK.
- As in many previous industry surveys, problems with the consistency and continuity of supply were highlighted as a major issue which restricts long-term planning. Processors described unpredictable supplies and increasing prices of raw materials.
- Higher raw material prices were generally explained with supply of raw materials falling short of a rising demand for seafood products.
- While many processors have managed to achieve higher prices for their products in recent years, the price increases have often fallen short of the increases in raw material costs. Retail sector pressure on suppliers to keep prices low and the strong British Pound are among the factors that have prevented higher costs from being passed on to customers.
- Access to funding varies greatly among businesses; while for some interest rates on loans are very low, for others the terms are unfavourable or even prohibitive.
- Investment projects in the seafood processing industry in recent years have focused on enhancing production efficiency, increasing production capacity and gaining access to new markets. Key areas of innovation in the industry are product and process innovation and marketing innovation.
- There is a large degree of uncertainty about the regulatory environment within which seafood processors operate. A number of important domestic and international developments have recently taken place or are about to take place.
- Labour and especially skills shortages are often described as an issue. Long term staff retention and development are seen as key for securing the future of the industry.



This report is the latest in a series of reports that are prepared in response to requests for information from industry and government. Comparisons with previously published data may not be fully valid, as data collection methods and definitions have improved over time.

INTRODUCTION

The fish processing industry has a long-standing tradition and is of key importance to regional UK economies. This report presents an overview and detailed analysis of the fish processing industry with particular emphasis on the sea fish processing sector.

The analyses contained in this report utilise the latest UK seafood processing industry information, which is gathered and managed by Seafish Economics, namely 2014 Census data, 2012 Financial Survey data and qualitative research data gathered in late 2014 – early 2015.

- The 2014 Census Survey of the UK seafood processing industry was carried out by Seafish Economics between August and October 2014. This biennial survey aims for full industry coverage and provides key information on the number of processing units, employment levels, type of processing activities undertaken and the species being processed, amongst other features. This data is analysed to help describe the structure and size of the UK processing industry.
- The 2012 Financial Survey of the industry was carried out by Seafish Economics between February and April 2014. This survey provides key information about the financial situation of participating businesses (all processors are contacted; participation is voluntary). In addition, data from published financial accounts (containing at least six months

of financial data within the relevant year) complement data gathered through the Seafish Financial Survey. The sample size is different for each variable (see [Appendix 3.2](#)). The financial data are transformed, merged and analysed (see [Appendix 4](#) for details of the research methods used) to produce estimates for the industry as a whole in line with European Data Collection Framework guidelines. Due to present data and methodology limitations, all financial estimates and related findings are presented for illustrative purposes only.

- Note that [Sections 2.1.2, 2.2.4](#) and all of [Section 5](#) draw upon small-scale qualitative research, conducted between November 2014 and February 2015. This involved semi-structured in-depth interviews with business owners and managers, as well as other industry stakeholders (non-representative sample). The results from this research are presented for illustrative purposes and are not necessarily representative of the views of the entire industry.

Note that no individual site or company records are disclosed and strict confidentiality rules have been observed in order to ensure that individual businesses cannot be identified.

Similar Seafish reports were published in 1986, 1995, 2000, 2004, 2008, 2010 and 2012. The present report includes financial estimates for the first time since 2008 and also includes a

number of items that were not previously available. Recent major improvements in data collection, management and estimation methods and changes in definitions mean that direct comparisons with data for earlier years may not always be possible, even where seemingly comparable figures have been previously published.

Please note that throughout the report, percentages are rounded to the nearest whole number and therefore figures may not always sum due to rounding.

Sea fish, salmon and other freshwater fish categories of processor

The main focus of this report is the sea fish (seafood, or saltwater) part of the fish processing industry (see ‘main fish category’ in [Appendix 2](#). Definitions for details on the classification used). [Section 1.2](#) and [Sections 2 - 5](#) refer to sea fish processors only.

A complete picture of the UK fish processing industry (including saltwater, salmon and other non-saltwater processors) is presented in [Section 1.1](#).

The size and structure of the UK salmon processing sector is presented in [Section 1.3](#).

1

FISH PROCESSING: INDUSTRY STRUCTURE AND EMPLOYMENT



Section 1 presents findings on the size, structure and recent changes in the UK fish processing industry based on Seafish Census Survey data for the years 2008, 2010, 2012 and 2014. [Section 1.1](#) presents an overview of all UK fish processors, while [Sections 1.2](#) and [1.3](#) focus on sea fish and salmon processing respectively. As noted in the introduction, the main focus of this report is sea fish (i.e. seafood or saltwater) processing and all report sections other than 1.1 and 1.3 focus on sea fish processing only.

For more information on how individual processing units were counted and classified, see the terms '[processing](#)', '[site](#)' and '[main fish category](#)' in Appendix 2. Definitions and also [Appendix A4.1. Scope](#). See [Appendix 4. Research Methods](#) for a detailed description of the research methods used.

1.1. OVERVIEW OF ALL FISH PROCESSORS

For the purposes of the present report processing units (also referred to as sites, or processors) are individual fish processing factories or facilities which derive 50% or more of their turnover from fish processing activities. See the terms ‘processing’ and ‘site’ in Appendix 2. Definitions and also Appendix A4.1. Scope for details.

1.1.1. Processing units and employment by main fish category

Each processing unit is classified as either saltwater (also referred to as sea fish, or seafood), salmon or other freshwater fish, according to the fish category that makes up the majority of the unit’s processing income. Salmon and other freshwater fish together make up the non-saltwater category. See ‘main fish category’ in Appendix 2. Definitions for details.

Figure 1.1. Fish Processing: No. of Units by Main Fish Category, 2008-14



Figure 1.2. Fish Processing: Share of Total Units by Main Fish Category, 2008-14



Figure 1.3. Fish Processing: No. of Units by Main Fish Category, 2008-14

Main fish category	2008	2010	2012	2014	Change 2012-14	Change 2008-14
Saltwater (Sea Fish)	504	391	345	333	-3%	-34%
Non-saltwater (Salmon and Other)	60	57	63	70	11%	17%
Salmon	60	51	52	62	19%	3%
Other Freshwater Fish		6	11	8	-27%	n/a
Total	564	448	408	403	-1%	-29%

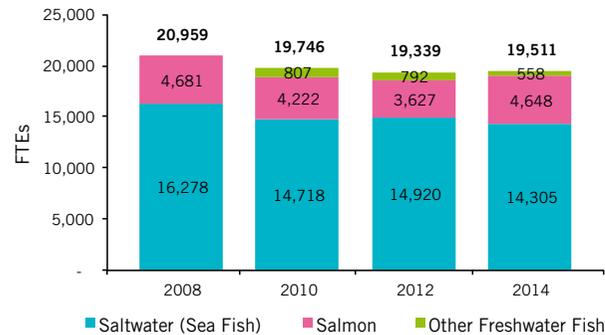
Note Other Freshwater Fish is a new category recorded since 2014. 2010 and 2012 figures were derived by applying new definitions to pre-existing data and should be interpreted as broad estimates. No suitable data were available for 2008.

Highlights (Figures 1.1 – 1.3):

- In 2014 there were 403 UK fish processing units, a decrease of 1% since 2012 and 29% since 2008.
- 83% of fish processing units in 2014 specialised in processing sea fish, 15% specialised in salmon and 2% specialised in other freshwater fish.
- The total number of sea fish processing units has declined since 2008, while the number of salmon processors has grown slightly.



Figure 1.4. Fish Processing: No. of FTE Jobs by Main Fish Category, 2008-14



Note Other Freshwater Fish is a new category recorded since 2014. 2010 and 2012 figures were derived by applying new definitions to pre-existing data and should be interpreted as broad estimates. No suitable data were available for 2008.

Figure 1.5. Fish Processing: Share of Total FTE Jobs by Main Fish Category, 2008-14

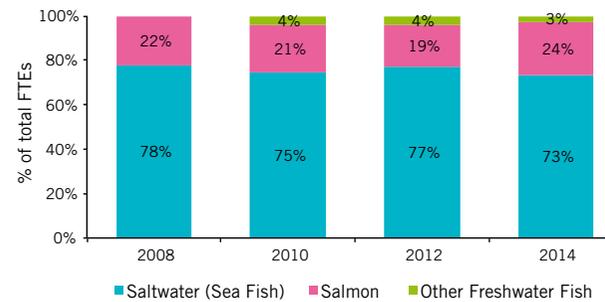
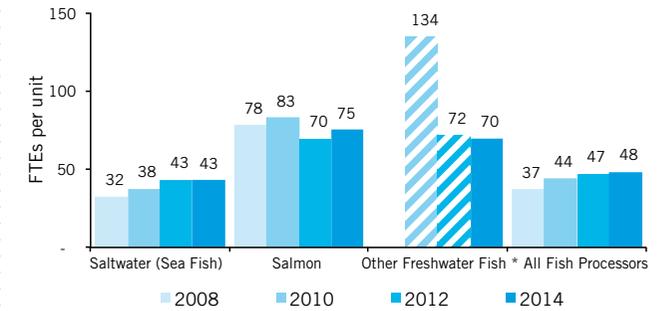


Figure 1.7. Fish Processing: Average FTE Jobs per Unit by Main Fish Category, 2008-14



Note that the newly designated category Other Freshwater Fish also shows fluctuating figures, but there are inherent difficulties associated with back-filling data based on new distinctions so the 2010 and even 2012 figures should be seen as broad estimates.

Figure 1.6. Fish Processing: No. of FTE Jobs by Main Fish Category, 2008-14

Main fish category	2008	2010	2012	2014	Change 2012-14	Change 2008-14
Saltwater (Sea Fish)	16,278	14,718	14,920	14,305	-4%	-12%
Non-saltwater (Salmon and Other)	4,681	5,029	4,419	5,206	18%	11%
Salmon	4,681	4,222	3,627	4,648	28%	-1%
Other Freshwater Fish		807	792	558	-30%	n/a
Total	20,959	19,746	19,339	19,511	1%	-7%

Highlights (Figures 1.4 – 1.6):

- In 2014 there were 19,511 Full-Time-Equivalent (FTE) jobs in the UK fish processing industry, a 1% increase since 2012 but an overall decrease of 7% since 2008.
- 73% of fish processing jobs in 2014 were in sea fish processing, 24% in salmon processing and 3% in processing other freshwater fish.

Highlights (Figure 1.7):

- Average processing unit size in terms of FTE jobs per unit varies between saltwater and non-saltwater processors. In 2014 the average unit size of a sea fish processing unit was 43 FTEs compared to an average of 75 FTEs for salmon processors.
- The average number of FTEs per unit in sea fish processing increased steadily from 2008 to 2012 and has since stabilised, while average unit size in the salmon processing sector has fluctuated in both directions over the years.

1.1.2. Analysis of recent changes in units and employment

Figure 1.8. Fish Processing: Analysis of Change in No. of Units and FTE Jobs 2012-14

	Change in No. of units 2012-14	Change in No. of FTE jobs 2012-14
Unit category unchanged (net change in FTEs)		898
Sea fish in 2012; salmon in 2014 (net change in FTEs)		65
Salmon in 2012; sea fish in 2014 (net change in FTEs)		42
Sea fish in 2012; freshwater in 2014 (net change in FTEs)		4
Freshwater in 2012; sea fish in 2014 (net change in FTEs)		-56
Net FTE change among units that were in this category in both 2012 and 2014		952
Additions:		
Minority processor in 2012; majority processor in 2014	59	1,162
New business or facility new to our records	46	945
Existing processor moved (new facilities)	13	470
Was not processing in 2012; was processing in 2014	6	37
Total additions	124	2,613
Reductions:		
Could not be reached in 2014 (multiple attempts made)	-42	-487
Out of business	-39	-2,008
Majority processor in 2012; minority processor in 2014	-24	-392
Was processing in 2012; was not processing in 2014	-12	-243
Still existing processor moved facility (old facilities)	-6	-146
Other / Misc.	-6	-118
Total reductions	-129	-3,394
Net changes	-5	171

Highlights (Figure 1.8):

- From 2012 to 2014 there was a net decrease of five processing units and a net increase of 171 FTE jobs. There were several drivers behind these changes. The most notable positive changes were:
 - A net employment gain of 952 FTE jobs in existing units; 898 of that was among units which remained in the same category in 2014 (sea fish, salmon or other freshwater fish). Units which switched from the sea fish to the salmon category saw a net gain of 65 FTE jobs, while units which switched from salmon to sea fish registered a net increase of 42 FTEs. There was a net decrease of 56 FTE jobs among units that switched from other freshwater fish to sea fish.
 - 59 units classified as minority processors in 2012 (less than 50% of turnover from fish processing) were reclassified as majority processors in 2014, with an associated increase of 1,162 FTEs.
 - 46 units, accounting for 945 FTEs, were new to Seafish Economics records in 2014 (did not appear in previous surveys).
 - 13 existing processors moved to new (presumably larger) facilities, with an associated employment gain of 470 FTEs.

- Several factors were also at work to reduce the number of units and employment. The most notable were:
 - 42 units, accounting for 487 FTEs, could not be contacted in 2014 after multiple attempts and their continued existence could not be confirmed.
 - 39 fish processing units went out of business, with an associated decrease of 2,008 FTEs.
 - 24 units, classified as majority processors in 2012 were reclassified as minority processors in 2014 and therefore eliminated from the total count, with an associated decrease of 392 FTE jobs.
 - 12 units, accounting for 243 FTEs, were no longer involved in fish processing activities in 2014.

1.1.3. Processor size

Figure 1.9. Fish Processing: No. of Units by FTE Band, 2008-14

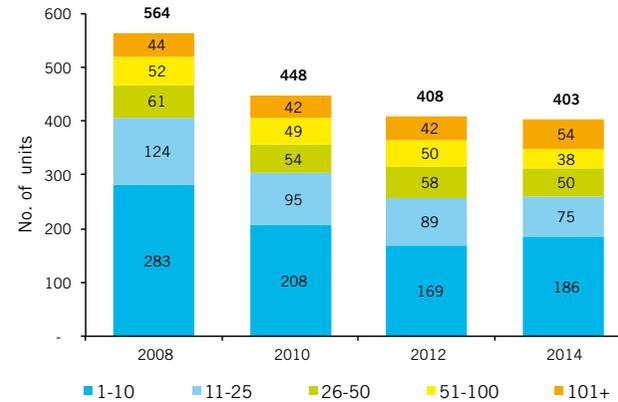
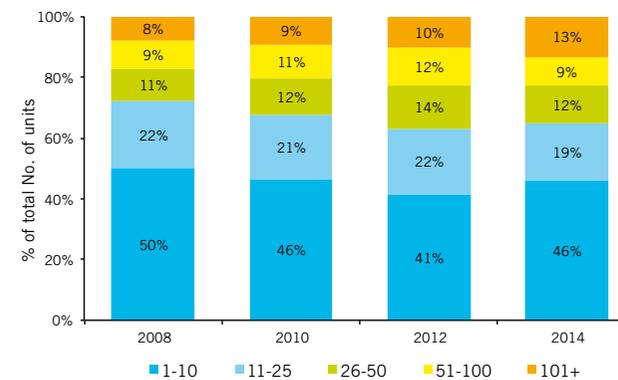


Figure 1.10. Fish Processing: Share of Total Units by FTE Band, 2008-14



Highlights (Figures 1.9 – 1.10):

- In 2014, 46% of all fish processing units employed 1-10 FTEs; 19% of units employed 11-25 FTEs, while 13% of units employed 101+ FTEs.
- The number of units in all size bands decreased from 2008 to 2010, reflecting the overall decline in the number of total units following the recession.
- The number of units in mid-size bands (11–100 FTEs) continued to decline into 2014, both in absolute and relative terms.
- The number of processing units in the largest size band (101+ FTEs) grew by 29% from 2012 to 2014. This band’s share of total units increased by 5 percentage points between 2008 and 2014.
- The number of units in the smallest unit size band (1-10 FTEs) fell by a total of 34% from 2008 to 2012. However, there are signs of renewed growth in this size category, with a 10% rise in the number of units and a 5 percentage point increase in the share of total units between 2012 and 2014.



Figure 1.11. Fish Processing: No. of FTE Jobs by FTE Band, 2008-14

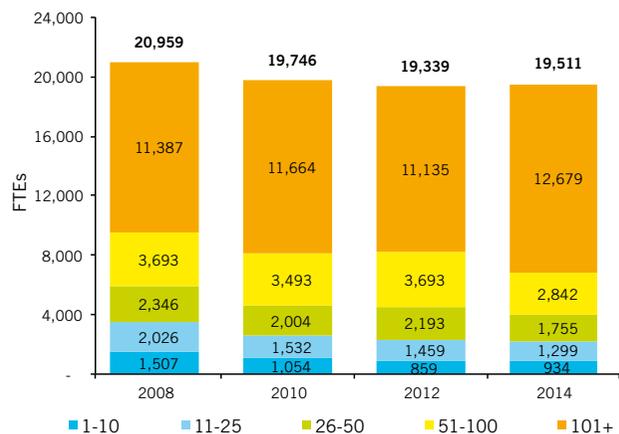
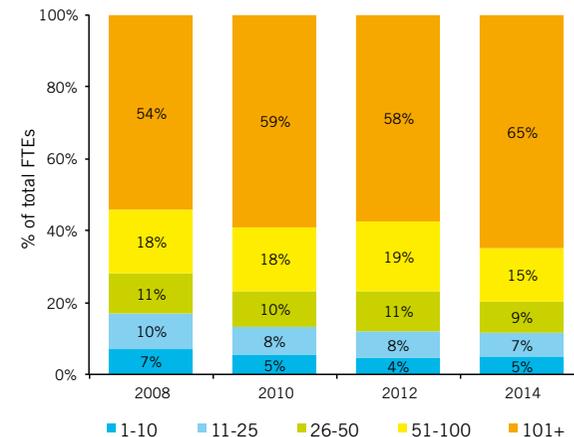


Figure 1.12. Fish Processing: Share of Total FTE Jobs by FTE Band, 2008-14



Highlights (Figures 1.11 – 1.12):

- In 2014, 65% of FTE jobs in UK fish processing were in large (101+ FTEs) units. The importance of this category in terms of its share of total employment has grown over time, while that of all other size categories has declined.
- UK fish processing employment is concentrated in large units. In 2014 65% of FTEs were employed in the 13% of units with 101+ FTEs each, while the 46% of units with 1-10 FTEs each provided 5% of employment in the industry.
- The trend of industry concentration is evident, with an 11 percentage point increase in the share of FTE jobs in the largest category of units (101+ FTEs) between 2008 and 2014. However, from 2012 to 2014 there was also some employment growth for the smallest size band (1-10 FTEs).

1.2. OVERVIEW OF SEA FISH PROCESSORS

1.2.1. Processing units and employment

Figure 1.13. Sea Fish Processing: No. of Units, FTE Jobs and Average FTEs per Unit, 2008-14

Indicator	2008	2010	2012	2014	Change 2012-14	Change 2008-14
No. of Units	504	391	345	333	-3%	-34%
No. of FTEs	16,278	14,718	14,920	14,305	-4%	-12%
Avg. FTEs per unit	32	38	43	43	-1%	33%

Highlights (Figure 1.13):

- There were 333 sea fish processing units in the UK in 2014, a 3% decrease since 2012 and a 34% decrease since 2008.
- In 2014 there were 14,305 FTE jobs in sea fish processing, a decrease of 4% since 2012 and 12% since 2008.
- Average processing unit size (average number of FTE jobs per unit) increased by 33% from 2008 to 2012, driven by the slower pace of contraction in employment relative to the decline in the number of units over the period. Average unit size remained stable between 2012 and 2014 at 43 FTEs.
- The data suggest that industry concentration continued into 2014, albeit at a slower rate than previous years.



1.2.2. Analysis of recent changes in units and employment

Figure 1.14. Sea Fish Processing: Analysis of Change in No. of Units and FTE Jobs 2012-14

	Change in No. of units 2012-14	Change in No. of FTE Jobs 2012-14
Net FTE change among units that were in this category in both 2012 and 2014		839
Additions:		
Minority processor in 2012; majority processor in 2014	50	1,065
Facility new to our records	32	689
Existing processor moved (new facilities)	11	383
Salmon in 2012; sea fish in 2014	7	179
Was not processing in 2012; was processing in 2014	6	37
Freshwater in 2012; sea fish in 2014	5	133
Total additions	111	2,485
Reductions:		
Could not be reached in 2014 (multiple attempts made)	-38	-385
Out of business	-36	-1,889
Majority processor in 2012; minority processor in 2014	-21	-333
Sea fish in 2012; salmon in 2014	-8	-950
Was processing in 2012; was not processing in 2014	-8	-105
Still existing processor moved facility (old facilities)	-6	-146
Other / Misc.	-6	-131
Total reductions	-123	-3,939
Net changes	-12	-615

Highlights (Figure 1.14):

- From 2012 to 2014 there was a net decrease of 12 sea fish processing units and 615 FTEs.
- The more notable positive changes (additions) were:
 - A net employment gain of 839 FTEs among existing sea fish processors;
 - 50 units switched from being minority processors in 2012 to majority processors in 2014, with an associated increase of 1,065 FTE jobs;
 - 32 sites, accounting for 689 FTEs, were new to Seafish Economics records in 2014 (did not appear in previous surveys);
 - 11 existing processors moved to new (presumably larger) facilities with an associated employment gain of 383 FTEs;
 - Seven units that were primarily processing salmon in 2012 had reoriented their focus to sea fish processing by 2014, with an associated increase of 179 FTEs;
 - Five units that were primarily processing other freshwater fish in 2012 had switched to sea fish processing by 2014, with an associated employment gain of 133 FTEs.
- Notable negative changes (losses) were:
 - 38 units, accounting for 385 FTEs, could not be contacted in 2014 after multiple attempts and their continued existence could not be verified;
 - 36 units went out of business, resulting in a decrease of 1,889 FTEs;
 - Eight units switched from primarily sea fish processors in 2012 to salmon processing in 2014, with an associated decrease of 950 FTEs;
 - 21 units which were majority processors in 2012 were reclassified as minority processors in 2014, with an associated decrease of 333 FTEs.

1.2.3. Processor size

Figure 1.15. Sea Fish Processing: No. of Units by FTE Band, 2008-14

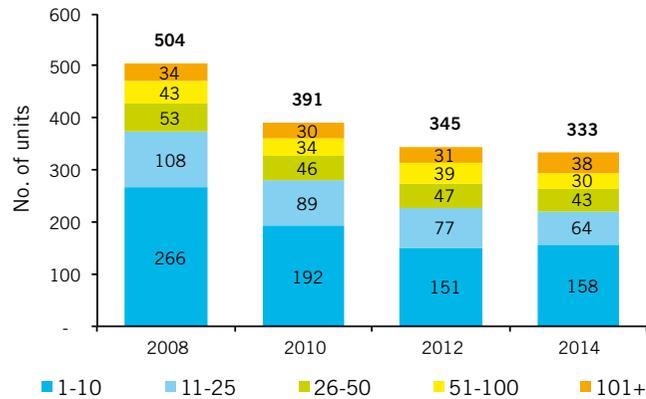
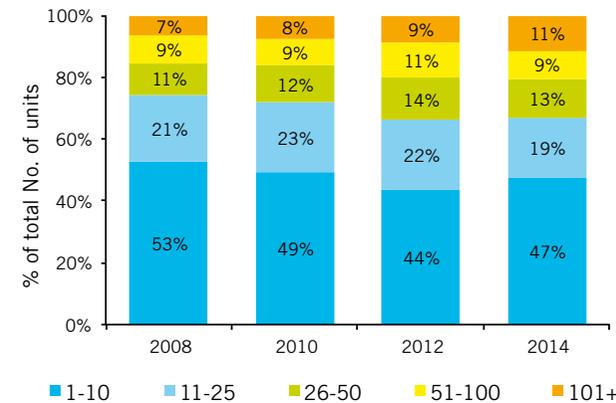


Figure 1.16. Sea Fish Processing: Share of Total Units by FTE Band, 2008-14



Highlights (Figures 1.15 – 1.18):

- In 2014 67% of sea fish processors operated with 25 or fewer FTEs. The processors in these size bands (1-10 and 11-25) together accounted for 13% of employment.
- Industry employment is mostly concentrated in large-scale operations. In 2014 60% of FTE jobs were concentrated in the 38 largest units with 101+ FTEs each (11% of total units). The average unit size for that category was 228 (see Figure 3.4 in Section 3.1.2).
- Industry concentration continued into 2014, with both more FTEs and units falling into the 101+ FTE category, although there was a marginal increase in the 1-10 FTE category from 2012 to 2014. The number of units and jobs in mid-size bands has declined throughout the study period.
- See Figure 3.4 in Section 3.1.2 for data on average unit size in each FTE band.

Figure 1.17. Sea Fish Processing: No. of FTE Jobs by FTE Band, 2008-14

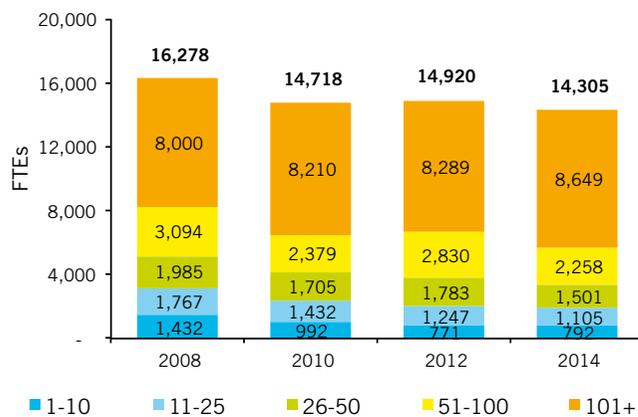
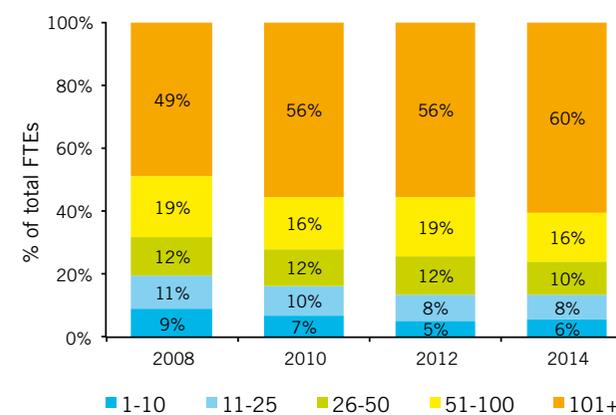


Figure 1.18. Sea Fish Processing: Share of Total FTE Jobs by FTE Band, 2008-14





1.2.4. Industry structure

Figure 1.19. Sea Fish Processing: Scale and Structure, 2008-14

Indicator	2008	2010	2012	2014	Change 2012-14	Change 2008-14
No. of Companies	476	373	330	317	-4%	-33%
No. of Units	504	391	345	333	-3%	-34%
No. of FTEs	16,278	14,718	14,920	14,305	-4%	-12%
Avg. FTEs per Unit	32	38	43	43	-1%	33%
Avg. FTEs per Company	34	39	45	45	0%	32%
Avg. No. of Units per Company	1.1	1.0	1.0	1.1	0%	-1%
% of Companies Operating Single Processing Unit	96%	97%	97%	97%	-1%	0%

Note that the companies in scope here are those owning at least one sea fish processing unit in the respective year.

Highlights (Figure 1.19):

- In 2014 the 333 sea fish processors based in the UK were owned by 317 companies.
- 97% of the companies had only one site. This has remained largely unchanged since 2008.
- Industry concentration continued during the period, not through companies buying more sites, but through growth in average unit size (in terms of FTEs). However, there are limitations to this analysis e.g. consolidation could also be happening at a higher level where a Group acquires new companies. Seafish Economics is looking to build analytical capabilities in this area in the future.

1.2.5. Processor types

For the purposes of this report each unit is classified as a primary, secondary or mixed type processor, where mixed implies that a combination of primary and secondary type activities are undertaken. See ‘processing type’ in Appendix 2. Definitions for more details.

Figure 1.20. Sea Fish Processing: No. of Units by Type of Processing, 2008-14

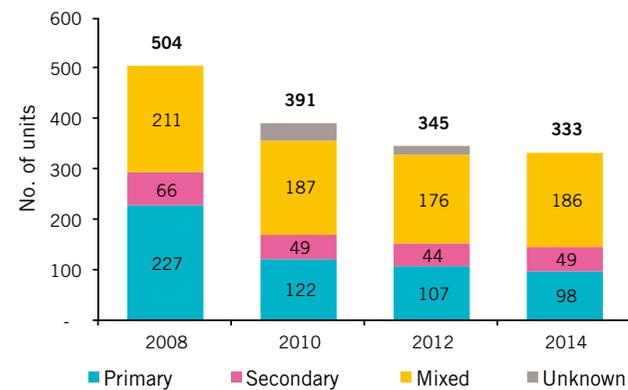


Figure 1.22. Sea Fish Processing: No. of FTE Jobs by Type of Processing, 2008-14

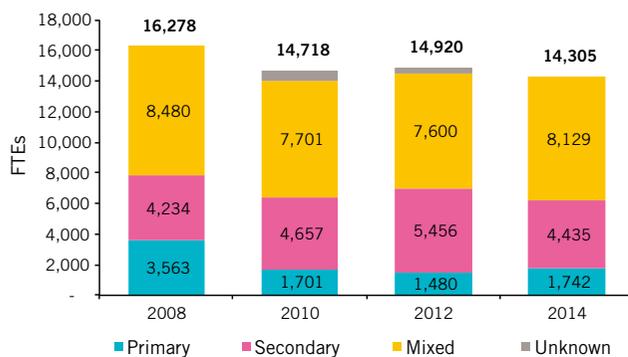


Figure 1.21. Sea Fish Processing: Share of Total Units by Type of Processing, 2008-14

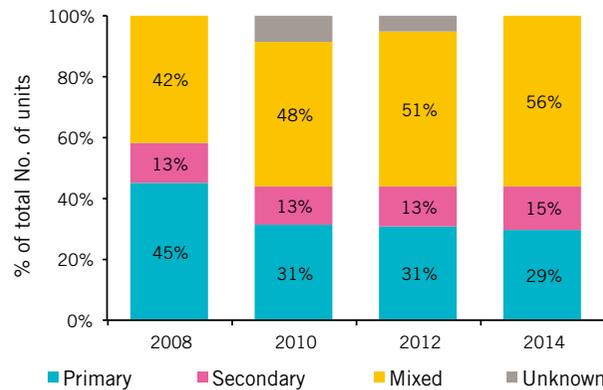
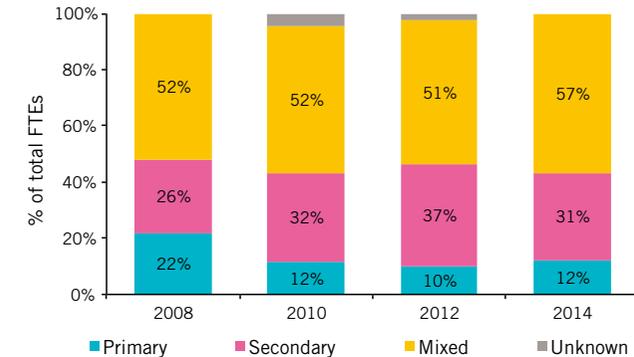


Figure 1.23. Sea Fish Processing: Share of Total FTE Jobs by Type of Processing, 2008-14



Highlights (Figures 1.20 – 1.23):

- In 2014 56% of sea fish processing units were mixed processors, accounting for 57% of FTEs. 29% were primary processors employing 12% FTEs and 15% were secondary processors employing 31% of FTEs.
- All processor types have seen a decline in units and FTEs since 2008 in absolute terms.
- From 2008 to 2014 mixed processors’ shares of total units and FTEs increased, while primary processors’ shares decreased. This suggests a general move towards undertaking more value-adding activities on-site, possibly indicating a shortening of the supply chain and/or increased end-consumer demand for partially or wholly cooked products, such as ready meals.

1.2.6. Fish type categories

For the purposes of this report each seafood processing unit is classified as a demersal, pelagic, shellfish or mixed species processor, where mixed implies a combination of species from any two of the other categories. See ‘fish type category’ in Appendix 2. Definitions for more details.

Figure 1.24. Sea Fish Processing: No. of Units by Fish Type Category, 2008-14

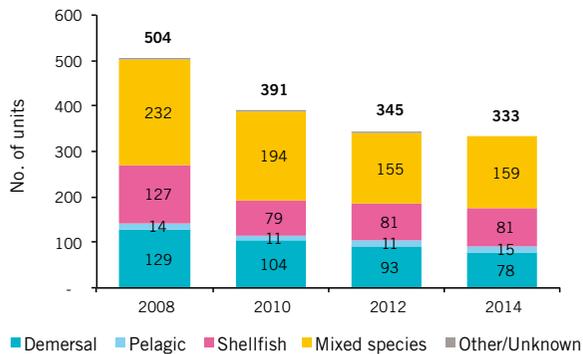


Figure 1.26. Sea Fish Processing: No. of FTE Jobs by Fish Type Category, 2008-14

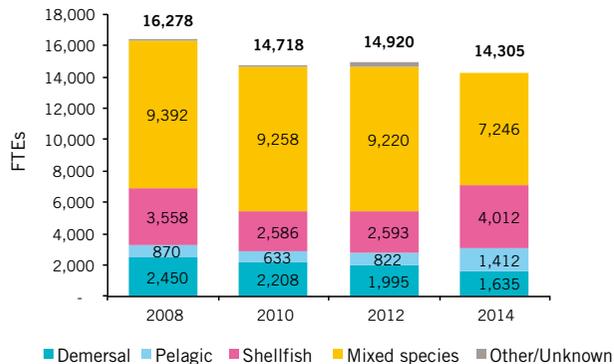


Figure 1.25. Sea Fish Processing: Share of Total Units by Fish Type Category, 2008-14

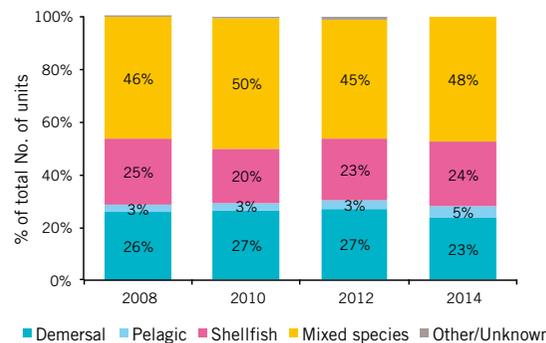
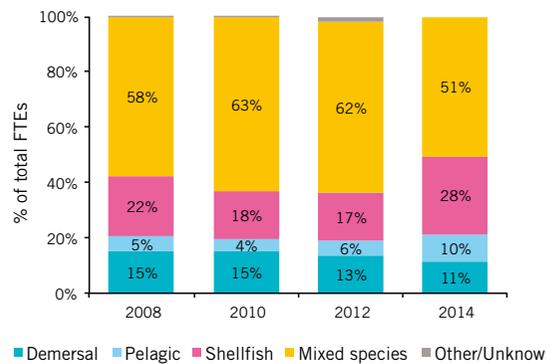


Figure 1.27. Sea Fish Processing: Share of Total FTE Jobs by Fish Type Category, 2008-14



Highlights (Figures 1.24 – 1.27):

- 48% of units in 2014 were processing a mix of species categories (for example, demersal and shellfish, or demersal and salmon*), with 24% of units processing only shellfish, 23% processing only demersal (whitefish) species and 5% processing only pelagic species.
- Between 2012 and 2014 the number of mixed species and pelagic processing units increased, while the number of whitefish processors decreased. The number of shellfish processing units remained stable.
- Over the 2008-14 period as a whole, the number of processors in all fish type categories other than pelagic decreased.
- The composition of units by fish type category has remained fairly stable since 2008.
- In 2014 51% of sea fish processing FTE jobs were in mixed fish type processors, 28% in shellfish, 11% in demersal and 10% in pelagic processors.
- From 2012 to 2014 the share of FTEs in the mixed fish type category dropped 11 percentage points, reversing a previously upward trend. In contrast, the share of FTEs in the shellfish processing category increased 11 percentage points, reversing a previously downward trend.

* Units which derive the majority of their processing turnover from sea fish species and also process salmon fall in the mixed fish type category of sea fish processor. Units which process only salmon, as well as units that derive the majority of their processing turnover from salmon, are not subject to the analysis presented here. See Section 1.3 for salmon processors.

1.2.7. Geographical distribution

Figure 1.28. Sea Fish Processing: No. of Units by Region, 2008 vs. 2014

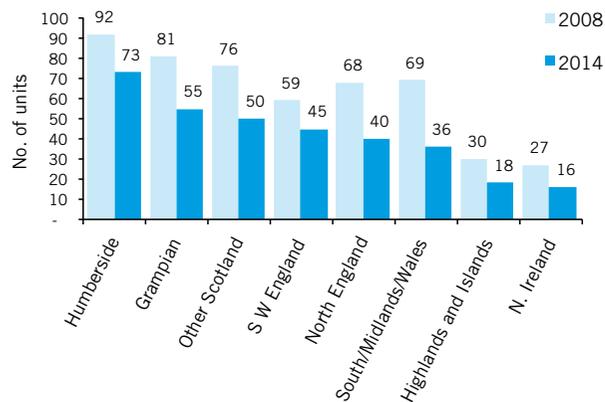


Figure 1.30. Sea Fish Processing: No. of FTE Jobs by Region, 2008 vs. 2014

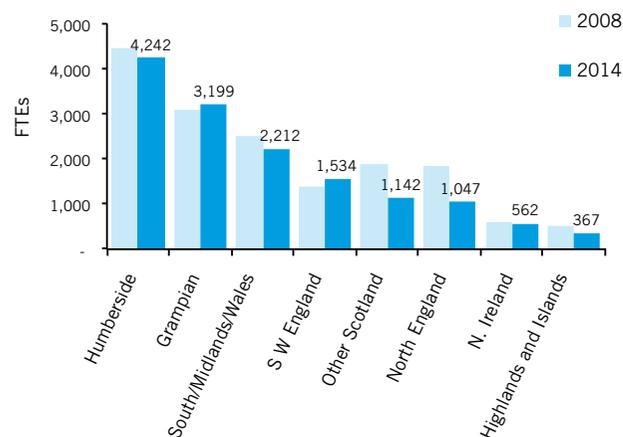


Figure 1.29. Sea Fish Processing: Share of Total Units by Region, 2008 vs. 2014

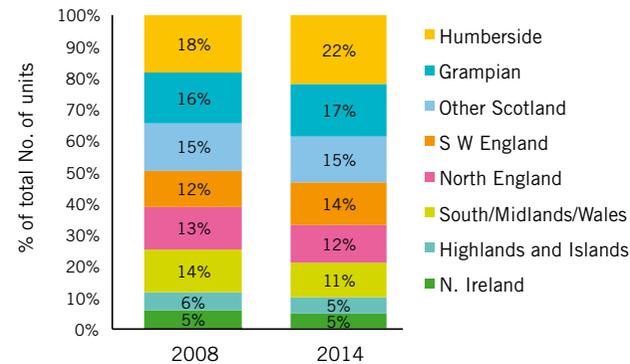
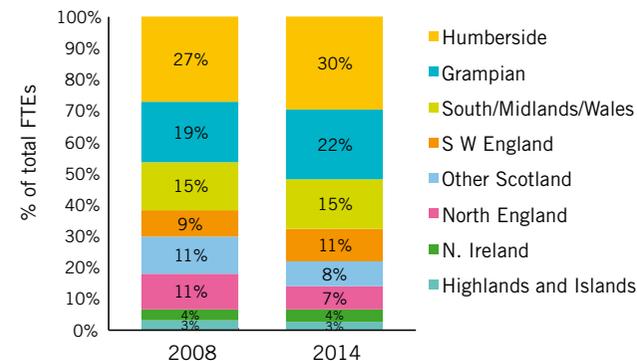


Figure 1.31. Sea Fish Processing: Share of Total FTE Jobs by Region, 2008 vs. 2014



Highlights (Figures 1.28 – 1.31):

- Between 2008 and 2014 the number of processing units fell across all regions. The number of FTEs fell in all but the Grampian and Southwest England regions.
- The geographical distribution of sea fish processing units remained relatively stable between 2008 and 2014, with some evidence of further industry concentration within the already dominant Humberside and Grampian regions.
- Together the Humberside and Grampian regions accounted for 38% of sea fish processing units and 52% of FTEs in 2014. This reflects the larger average size of units in these two key regions.
- See [Figure 3.13](#) in Section 3.1.5 for average unit size by region.
- In 2014 4,242 seafood processing FTE jobs were based in the Humberside, 3,199 were in the Grampian and 2,212 were in the South/Midlands/Wales regions.
- For detailed units and employment figures, including 2010 and 2012 data, see Figures 1.28-1.31 in the data tables accompanying this report (see [Section A3.1](#) in the appendix for details).

1.2.8. Labour force demographics, working hours and seasonality of employment

Figure 1.32. Sea Fish Processing: No. of FTE Jobs by Gender, 2008-14

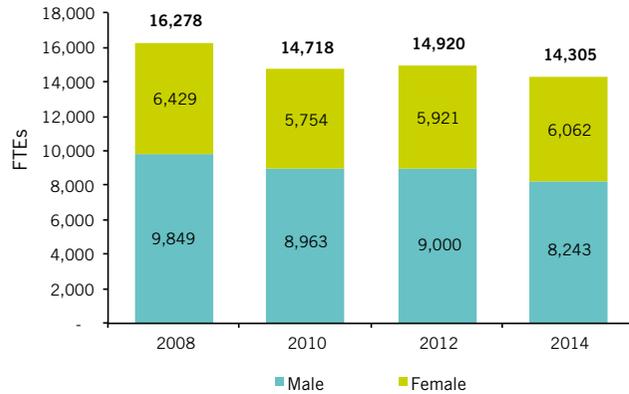
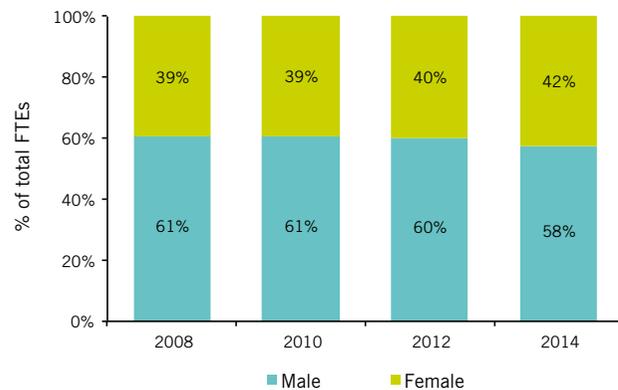


Figure 1.33. Sea Fish Processing: Share of Total FTE Jobs by Gender, 2008-14



Highlights (Figure 1.32 – 1.33):

- 58% of FTE jobs in 2014 were held by male employees.
- The male-to-female ratio has changed slightly over time, with the share of FTE jobs held by female workers increasing by 3 percentage points from 2008 to 2014.



Figure 1.34. Sea Fish Processing: Total Headcount Employment by Gender and by Type of Employment, 2008-14

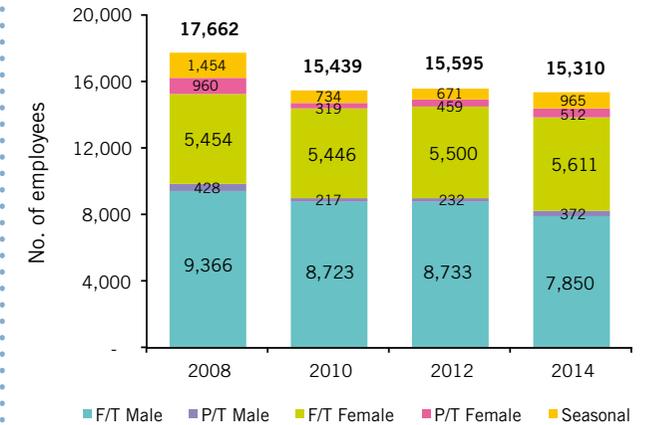
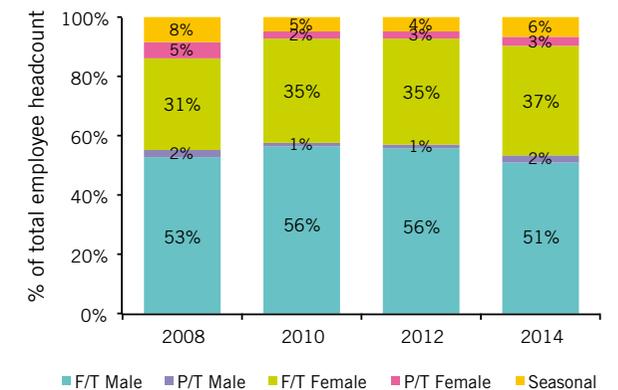


Figure 1.35. Sea Fish Processing: Share of Total Headcount Employment by Gender and by Type of Employment, 2008-14



Highlights (Figures 1.34 – 1.35):

- In terms of total headcount employment (where part-time and seasonal positions are counted like full-time positions), the sea fish processing industry employed 15,310 people in 2014.
- 88% of sea fish processing jobs in 2014 were full-time positions, with the remainder almost equally split between part-time and seasonal jobs.
- Female employees held the majority of part-time positions throughout the 2008-14 period, although this reduced slightly. At the same time, the share of females in full-time work grew by 6 percentage points.
- The number of seasonal workers almost halved between 2008 and 2010, then decreased further by 2012, but has since been on an upward trend.

Figure 1.36. Sea Fish Processing: Share of Total Units Employing Seasonal Staff, 2008-14

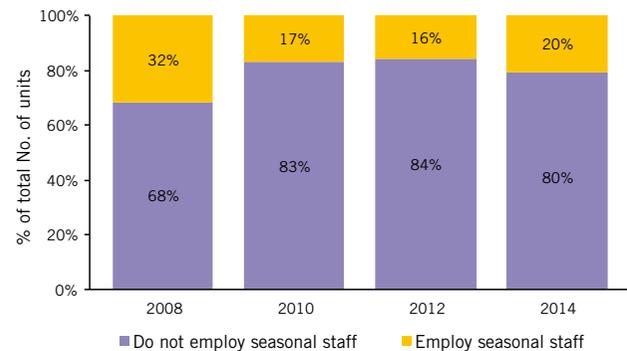
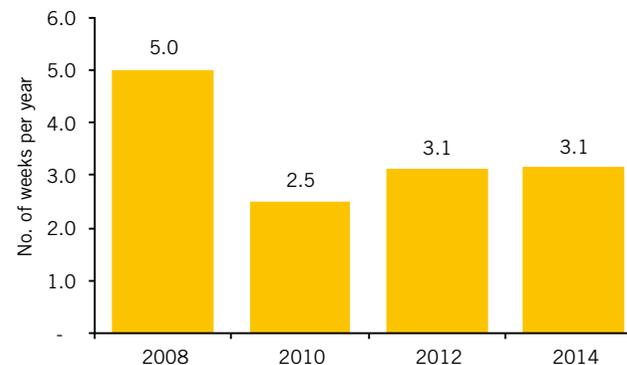


Figure 1.37. Sea Fish Processing: Average Annual Duration of Seasonal Staff Employment, 2008-14



Highlights (Figures 1.36 – 1.37):

- In 2014 20% of units employed seasonal staff (any number of positions). Seasonal workers represented 6% of total headcount employment.
- Although considerably lower than in 2008, the share of units employing seasonal staff in 2014 was higher than in 2012, indicating an upturn of the previously downward trend.
- The average annual duration of seasonal employment in 2014 remained at its 2012 level of 3.1 weeks. This is considerably less than in 2008 (5.0 weeks), but higher than in 2010 (2.5 weeks).

The impacts of seasonality on the industry are discussed at greater length in [Section 5.1](#).

1.3. OVERVIEW OF SALMON PROCESSORS

1.3.1. Processing units and employment

Figure 1.38. Salmon Processing: No. of Units, FTE Jobs and Average FTEs per Unit, 2008-14

Indicator	2008	2010	2012	2014	Change 2012-14	Change 2008-14
No. of Units	60	51	52	62	19%	3%
No. of FTEs	4,681	4,222	3,627	4,648	28%	-1%
Avg. FTEs per unit	78	83	70	75	7%	-4%

Highlights (Figure 1.38):

- There were 62 salmon processing units in the UK in 2014, providing a total of 4,648 FTE jobs.
- The salmon processing sector underwent a period of recession after 2008, but the latest data suggest a strong recovery between 2012 and 2014, both in terms of the number of units and jobs.
- Salmon processing units tend to be larger than sea fish processing units with an average of 75 FTEs employed per unit in 2014, compared to 43 FTEs per unit for sea fish processors. Average unit size in the salmon processing industry fluctuated considerably over the study period.



1.3.2. Analysis of recent changes in units and employment

Figure 1.39. Salmon Processing: Analysis of Change in No. of Units and FTE Jobs 2012-14

	Change in no. of units 2012-14	Change in no. of FTE jobs 2012-14
Net FTE change among units that were in this category in both 2012 and 2014		59
Additions:		
New business or facility new to our records	12	240
Sea fish in 2012; salmon in 2014	8	1,014
Minority processor in 2012; majority processor in 2014	7	84
Other / Misc.	2	87
Total additions	29	1,425
Reductions:		
Salmon in 2012; sea fish in 2014	-7	-137
Out of business or could not be reached in 2014	-6	-218
Not processing or not a majority processor in 2014	-5	-72
Other / Misc.	-1	-37
Total reductions	-19	-464
Net changes	10	1,021

Highlights (Figure 1.39):

- From 2012 to 2014 there was a net increase of 10 salmon processing units and 1,021 FTE jobs.
- Notable positive changes were:
 - Eight units which were primarily processing sea fish in 2012 switched their focus to salmon 2014, with an associated increase of 1,014 FTEs in the salmon category;
 - 12 units were new to Seafish records in 2014 (not included in previous surveys), with an associated gain of 240 FTEs;
- Notable negative changes were:
 - Six units, accounting for 218 FTEs, went out of business, or could not be contacted after multiple attempts;
 - Seven units that were salmon processors in 2012 were reclassified as sea fish processors in 2014, with an associated decrease of 137 FTEs.

1.3.3. Processor size

Figure 1.40. Salmon Processing: No. of Units by FTE Band, 2008-14

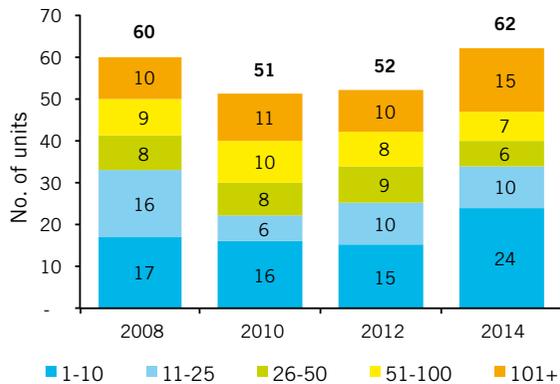


Figure 1.42. Salmon Processing: No. of FTE Jobs by FTE Band, 2008-14

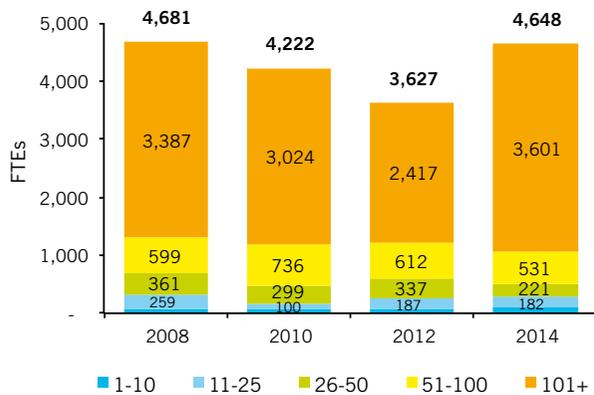


Figure 1.41. Salmon Processing: Share of Total Units by FTE Band, 2008-14

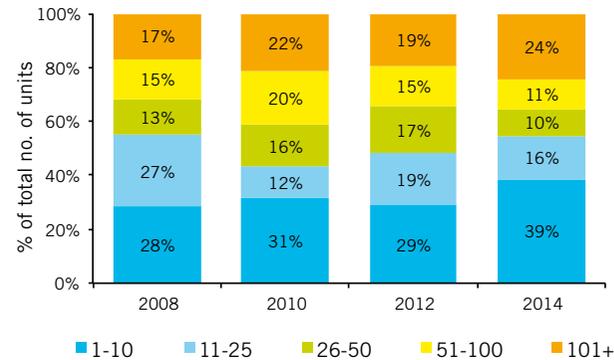
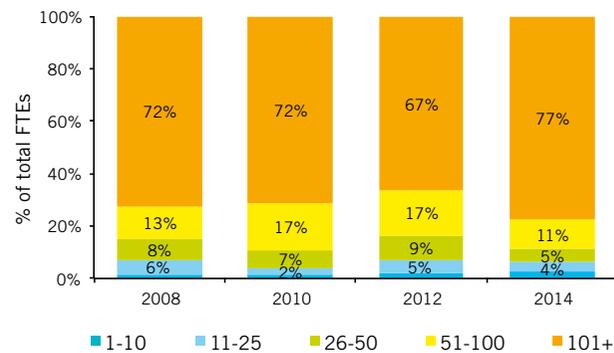


Figure 1.43. Salmon Processing: Share of Total FTE Jobs by FTE Band, 2008-14



Highlights (Figure 1.40 – 1.43):

- In 2014 77% of salmon processing employment was concentrated in 15 units with more than 100 FTEs each (24% of units), while the 39% of units with 1-10 FTEs each provided 2% of employment.
- Further concentration in the largest size band occurred between 2012 and 2014. At the same time, the number of units in the smallest size band also rose considerably. As a result, salmon processing has become more polarised in terms of unit size. In 2014, 63% of units were either very large (101+ FTEs) or very small (1-10 FTEs), compared to 45% of units in these categories in 2008.

1.3.4. Industry structure

- The 62 units which made up the salmon processing sector in 2014 were owned by 55 companies, most of which (52 companies) operated a single site each in the UK.
- Sector structure was very similar in 2008, when there were 55 companies operating 60 salmon processing sites across the UK.

1.3.5. Processor types

Figure 1.44. Salmon Processing: No. of Units by Type of Processing, 2008-14

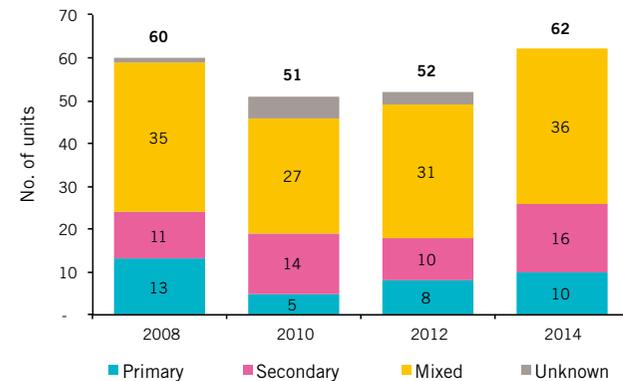
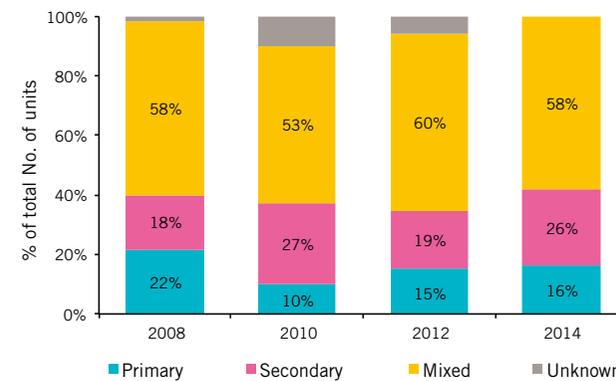


Figure 1.45. Salmon Processing: Share of Total Units by Type of Processing, 2008-14



Highlights (Figures 1.44 – 1.47):

- In 2014 58% of units and 81% of FTEs were in the mixed processing type category. The dominance of mixed processing diminished between 2008 and 2012 but this has since recovered.
- 26% of salmon processing units and 7% of FTEs were involved in secondary processing in 2014. This category was larger in 2014 than in 2008 both in terms of units and jobs.
- In 2014 16% of salmon processing units and 12% of FTEs were in primary processing. Employment in this category grew by 39% between 2008 and 2014 and its share of total employment increased by 4 percentage points to 12%.

Figure 1.46. Salmon Processing: No. of FTE Jobs by Type of Processing, 2008-14

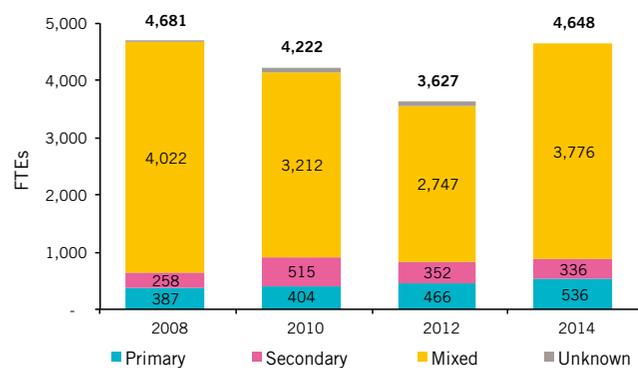
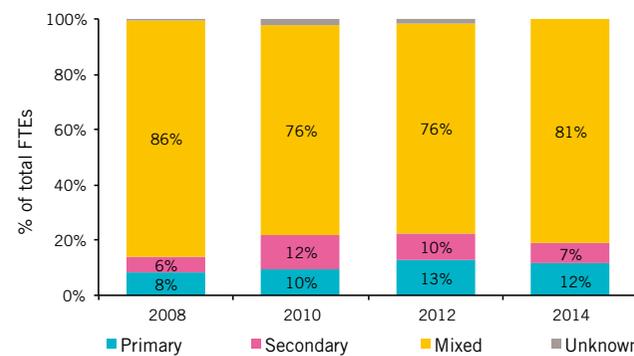


Figure 1.47. Salmon Processing: Share of Total FTE Jobs by Type of Processing, 2008-14



1.3.6. Geographical distribution

Figure 1.48. Salmon Processing: No. of Units by Region, 2008 vs. 2014

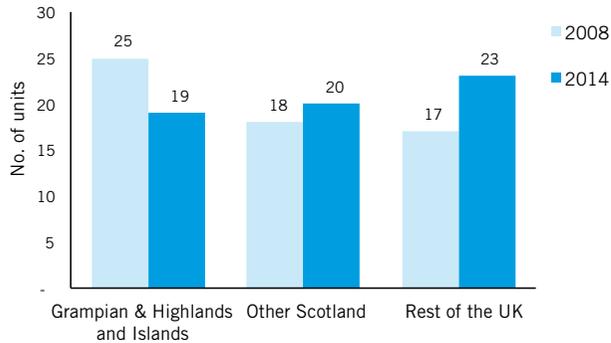


Figure 1.49. Salmon Processing: Share of Processing Units by Region, 2008 vs. 2014

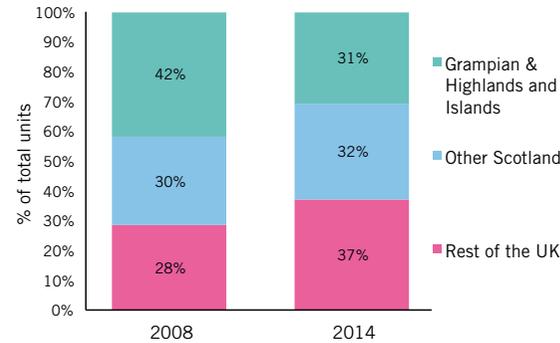


Figure 1.50. Salmon Processing: No. of FTE Jobs by Region, 2008 vs. 2014

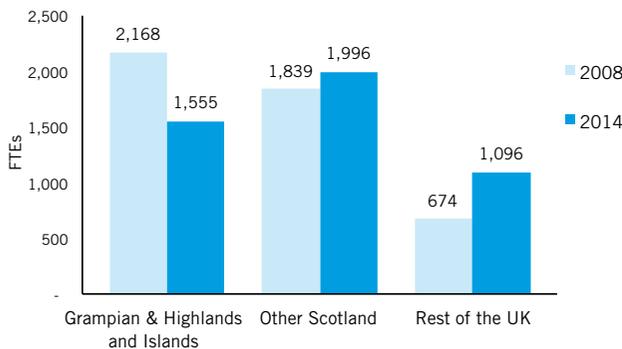
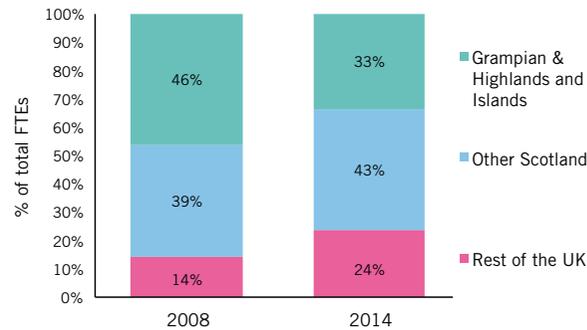


Figure 1.51. Salmon Processing: Share of Total FTE Jobs by Region, 2008 vs. 2014



Highlights (Figures 1.48 – 1.51):

- Traditionally salmon processing has been primarily a Scottish-based industry and continues to be so, with 63% of UK salmon processing units and 76% of jobs based in Scotland in 2014.
- However, in recent years the salmon processing industry has been strengthening its presence elsewhere, with a 35% increase in the number of units and a 63% increase in the number of FTE jobs outside of Scotland between 2008 and 2014.
- Within Scotland, the number of salmon processing jobs and units in the Grampian and Highlands and Islands regions decreased from 2008 to 2014, while the Other Scotland region saw an increase in industry presence.

A broader geographical classification with fewer, bigger regions was used to analyse the salmon industry for confidentiality reasons.

1.3.7. Labour force demographics, working hours and seasonality of employment

Figure 1.52. Salmon Processing: No. of FTE Jobs by Gender, 2008-14

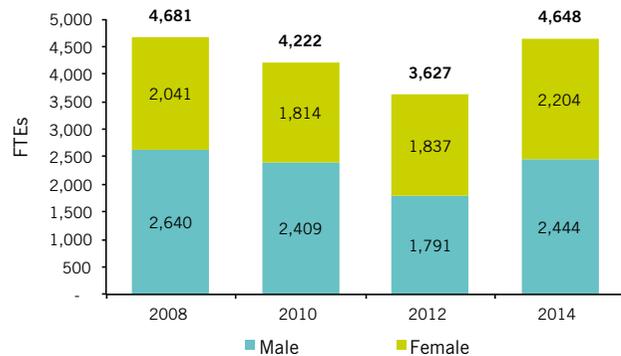
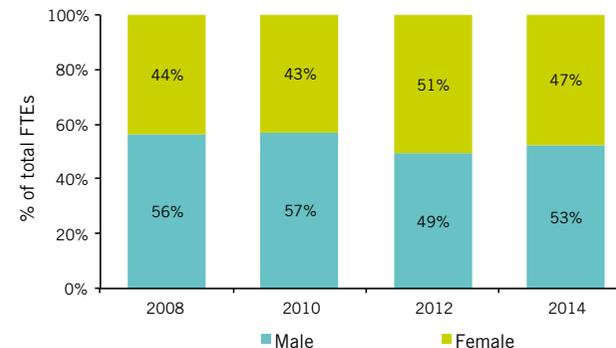


Figure 1.53. Salmon Processing: Share of Total FTE Jobs by Gender, 2008-14



Highlights (Figures 1.52 – 1.55):

- Of the 4,648 FTE jobs in salmon processing in 2014, 53% were held by male employees and 47% by female employees.
- In headcount terms, the salmon processing sector provided 5,108 jobs in 2014.
- 83% of headcount employment in 2014 was on a full-time basis, 10% was seasonal and 7% was part-time.
- The majority of full-time jobs were held by male employees, while the majority of part-time jobs were held by female employees throughout the study period.
- The level of seasonal employment has continually declined in recent years and by 2014 was less than half of that in 2008.
- In 2014, 34% of salmon processors used seasonal staff (any number of positions), compared to 43% in 2008.
- On average, seasonal staff worked 3.8 weeks in 2014, compared to 4.8 weeks in 2008.

Figure 1.54. Salmon Processing: Total Headcount Employment by Gender and by Type of Employment, 2008-14

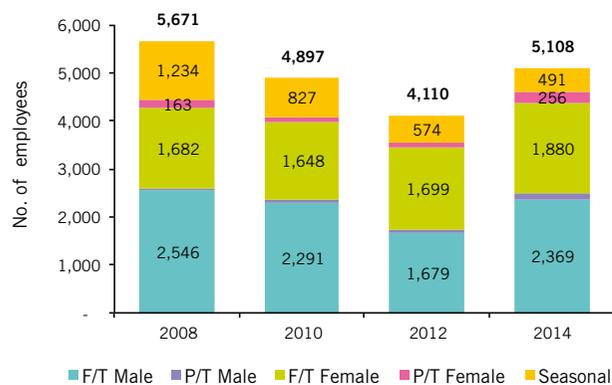


Figure 1.55. Salmon Processing: Share of Total Headcount Employment by Gender and by Type of Employment, 2008-14

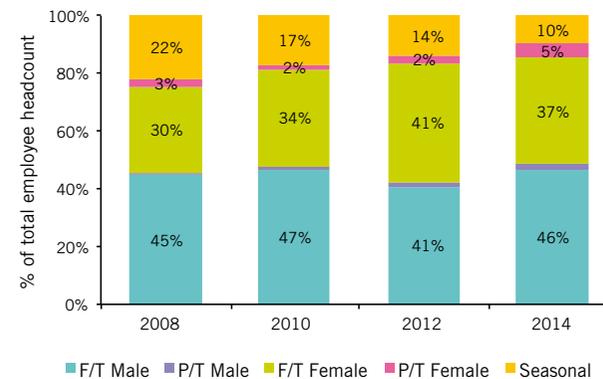




Figure 1.56. Salmon Processing: Share of Total Units Employing Seasonal Staff, 2008-14

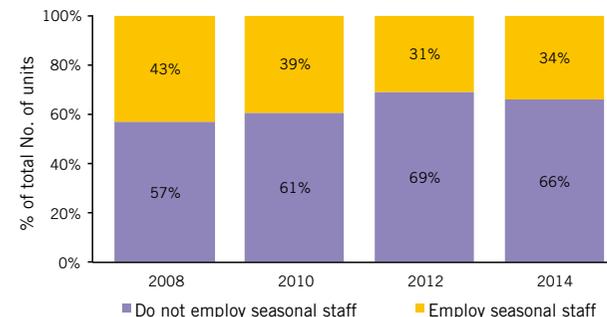
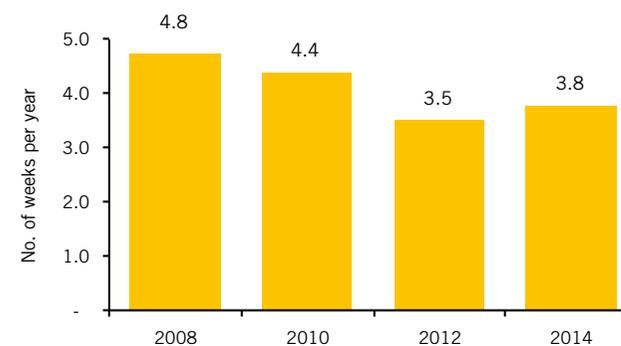


Figure 1.57. Salmon Processing: Average Annual Duration of Seasonal Staff Employment, 2008-14



Highlights (Figures 1.56 – 1.57):

- In 2014, 34% of salmon processors hired seasonal staff (any number of positions), compared to 43% in 2008.
- On average, seasonal staff worked 3.8 weeks in 2014, compared to 4.8 weeks in 2008.



2 SEA FISH PROCESSING INDUSTRY: PRODUCTION INPUTS

There are many inputs into the production processes and general business operations of sea fish processors. This section focuses on the main production inputs, namely labour, fixed capital and raw materials.

Data in this section refer to the years 2008, 2010 and 2012, with 2012 being the most recent year for which financial data estimates are available.

The simple estimation technique underlying the analyses of all financial data presented in Sections 2 - 4 consists of taking sample per-FTE averages at the company level (e.g. average raw material cost per FTE across all companies in the sample for that year) and then applying those averages to companies not in the sample (by multiplying the average per-FTE ratio and the number of FTEs for each company that is not in the sample). This is done independently for each variable. Company data are then allocated to the respective sites according to each site's proportion of the company total FTEs and whether the site is in scope. Financial data are analysed at the site level in order to enable analyses of those data by processor type, fish type category and region, which are only possible at the site level.

The company financial data sample consists of a combination of data provided by survey participants (all processors in scope are invited to participate) and published company accounts data. The sample size is different for each variable (see [Appendix 3.2](#)). Sample bias arising from self-selection and the public availability of accounts (large companies) has been identified as a limitation.

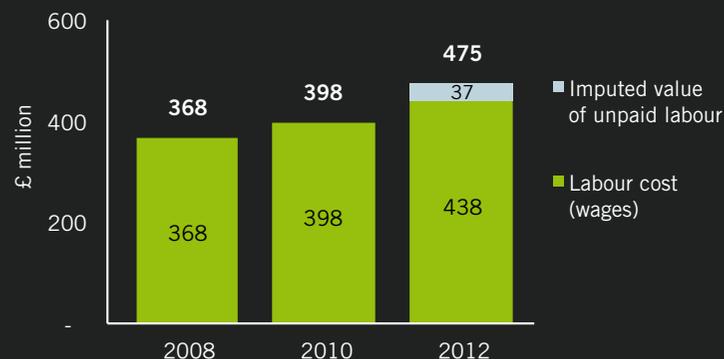
See [Appendix 4. Research Methods](#) for a more detailed description of the research methods used to build the dataset underlying the analysis presented in Sections 2 - 4.

2.1. LABOUR INPUT

2.1.1. Annual labour input

Annual labour input here refers to the sum of wages (including director remuneration) and imputed value of unpaid labour (only available since 2012) across all seafood processing units.

Figure 2.1. Sea Fish Processing: Annual Labour Input, 2008-12



Note the inclusion of the newly recorded value of unpaid labour in 2012. Direct comparisons between total labour input figures for 2012 and earlier years are not on a strict like-for-like basis.

Highlights (Figure 2.1):

- Total labour costs in industry were estimated at £475 million in 2012.
- The value of annual labour input into the sea fish processing industry increased by 8% between 2008 and 2010 and then increased a further 19% between 2010 and 2012, although almost half of the latter increase is accounted for by the newly included value of unpaid labour. On a like-for-like basis, the increase in industry labour costs from 2010 to 2012 was 10% in nominal terms.
- Wages represented 11% of both operating and total costs in the industry in 2012 (see [Figure 4.2](#) in Section 4.1.1. for total costs composition).

2.1.2. Wages

As in most other industries, wages in the seafood processing industry vary greatly depending on a number of factors such as type of role, skill level, experience and tenure of the worker, as well as the state of the regional labour market and the company policies with respect to remuneration.

The decline in industry employment between 2008 and 2014, combined with the increasing labour costs implies that nominal wages on the whole have increased over the period. See [Figure 3.22](#) in Section 3.3.1 for estimates of labour cost per FTE between 2008 and 2012.

While specific data on average wages by job role in the sea fish processing industry are presently not available, our limited qualitative research suggests that full-time 'floor' staff (whose activities vary depending on the type of activities undertaken and type of product handled) are paid an hourly rate consistent with the National minimum wage or higher. In many cases pay is performance-related, containing a basic element (typically set at the minimum wage or higher) plus a bonus dependent on hitting targets (based on volume, yield or quality). The basic hourly rate, targets and bonus element vary widely between processors.

It is likely the different remuneration packages offered by processors have an effect on productivity. Data permitting, further research in this area could include analysis of the benefits of various remuneration options and effects on productivity.

2.1.3. Skill shortages – comments from the industry

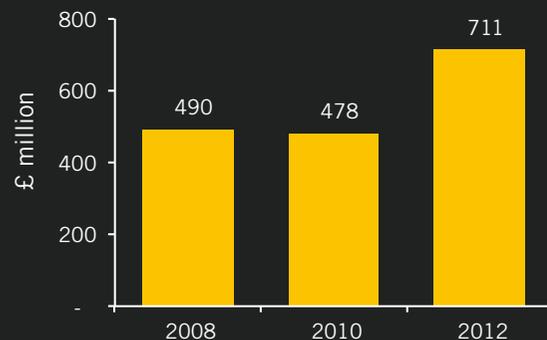
A discussion on the topic of labour and skill shortages based on comments from the industry is available in [Section 5.3](#).

2.2. CAPITAL INPUTS

2.2.1. Fixed capital

Fixed capital refers to the stock of tangible fixed assets (such as property and equipment) in the industry at a particular point in time. See [‘fixed capital’](#) in Appendix 2. Definitions for more details.

Figure 2.2. Sea Fish Processing: Fixed Capital (Tangible Fixed Assets), 2008-12



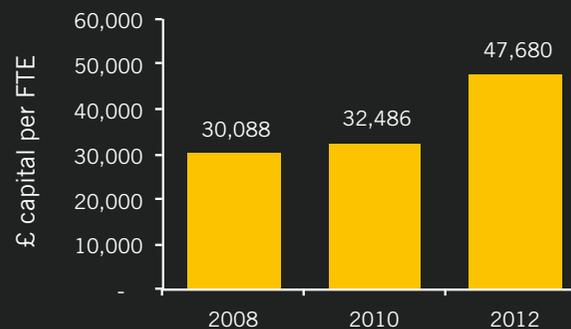
Highlights (Figure 2.2):

- Total fixed capital (or tangible fixed assets) employed in the sea fish processing industry was an estimated £711 million in 2012.
- Fixed capital increased by 49% between 2010 and 2012, in contrast to the previous period of stagnation between 2008 and 2010.
- The recent increase can be attributed to new investment in fixed capital and provides some evidence of a recovery in confidence following the recession and consequent period of economic uncertainty.

2.2.2. Fixed capital intensity

Fixed capital intensity here refers to fixed capital (or tangible fixed assets) per FTE and is calculated for the seafood processing industry as a whole.

Figure 2.3. Sea Fish Processing: Fixed Capital per FTE, 2008-12



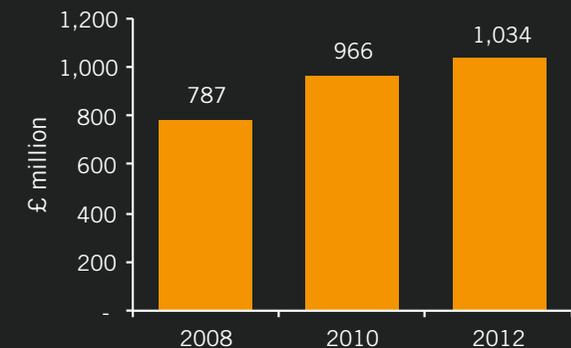
Highlights (Figure 2.3):

- Fixed capital intensity in the industry rose by 47% from 2010 to 2012.
- The increase was driven by a considerable rise in the total level of fixed capital in the industry between 2010 and 2012 and a simultaneous decrease in FTEs.

2.2.3. Total capital employed

Total capital, or capital employed is also known as net assets and is the money directly used to finance the business, or in this case, the seafood industry as a whole. It is equal to total assets minus current liabilities, or total shareholder funds plus long term liabilities. See [‘total capital’](#) in Appendix 2. Definitions for more details.

Figure 2.4. Sea Fish Processing: Capital Employed (Net Assets), 2008-12



Highlights (Figure 2.4):

- The value of capital employed (or net assets) in the sea fish processing industry was an estimated £1 billion in 2012.
- Capital employed in 2012 was 7% higher than in 2010 and 31% higher than in 2008, in nominal terms.

See [Section 5.5](#) for a further discussion of capital investment.



2.2.4. Premises and equipment – comments from the industry

The cost of premises varies regionally and is an important factor influencing the choice of unit location for both new and established processors. The total cost of equipped premises varies greatly depending on the scale, type, level and complexity of processing activities carried out. For example, equipment costs are relatively low for a small-scale primary processing operation, when compared to a large-scale factory producing a variety of value-added products. Some companies own their premises, while others rent (typically purpose-built plants) and opinions on which is more common were divided among research participants.

Research participants described both rental and purchase price of premises as high. There is large regional variation in the cost of premises, driven by regional demand and supply conditions, as well as local strategic development plans. Competition from other local industries is a major factor, while restrictive planning policy can further increase competition for plant premises, or sustain high prices despite relatively low demand.

Equipment is commonly described as very expensive by industry stakeholders, particularly new, higher specification and stainless steel items. Purchase of equipment represents a major cost for new enterprises, as well as existing enterprises establishing a new plant or upgrading equipment. Innovations in processes or products often require new specialist equipment; for example, automating a factory requires significant capital investment. Some processors replace existing equipment to enhance utility efficiency, for example upgrading refrigeration and cooking equipment.

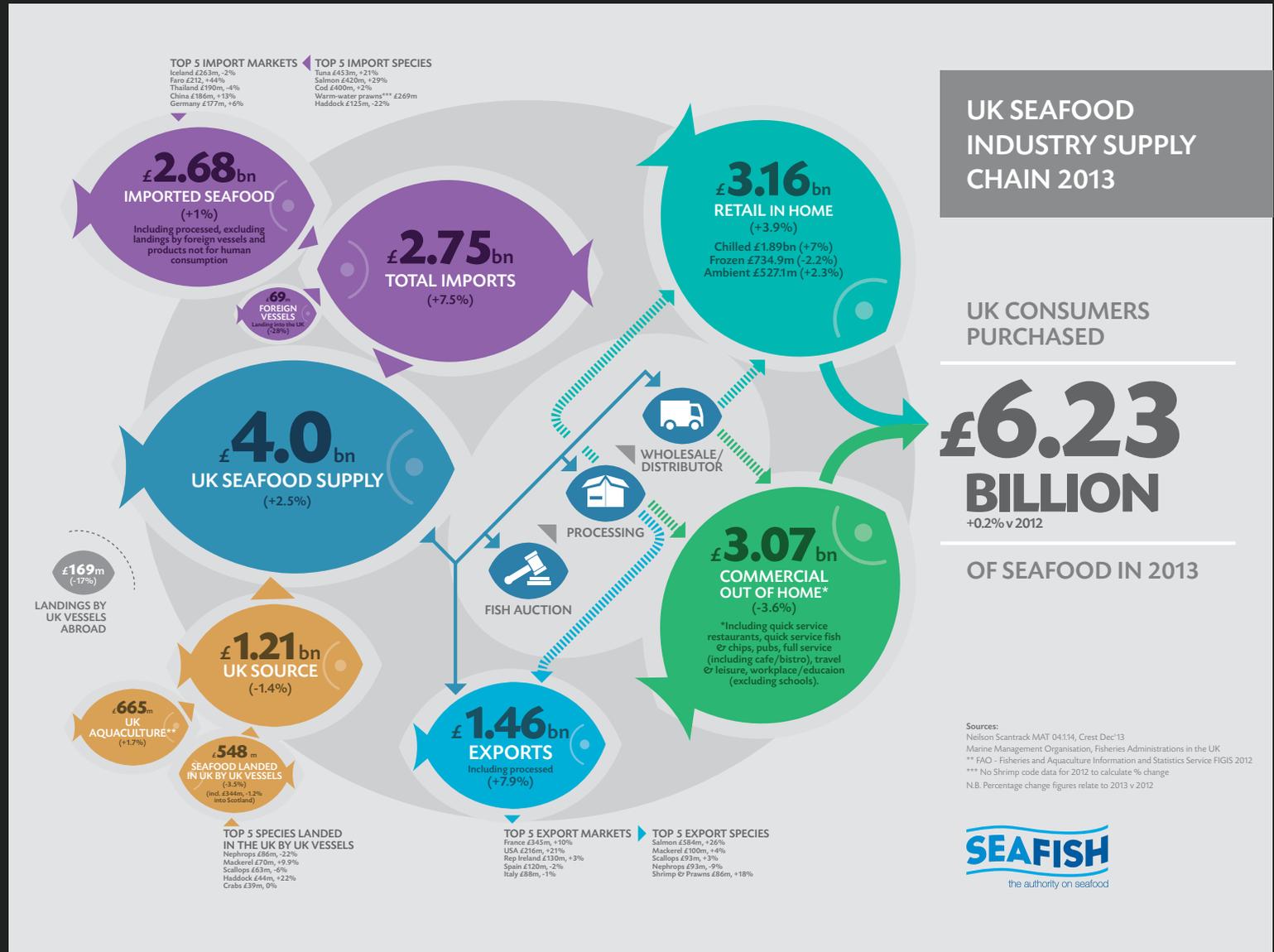
High equipment costs were cited as a major reason why the seafood processing industry is still very labour intensive. High initial business establishment costs also present a barrier to market entry for new businesses.

2.3. RAW MATERIAL INPUT

2.3.1. UK Seafood Industry Supply Chain

Figure 2.5. UK Seafood Industry Supply Chain 2013

The infographic opposite has been produced by Seafish separately from the research underlying this report. It is shown for illustrative purposes, to provide a context around the UK seafood supply chain of which processing is a key part. The infographic shows the latest available figures, which are for 2013. The infographic for 2012 is available in the electronic supplement to this report (see Appendix A3.1. Report Data). Note that in the infographics the term 'seafood' refers to any species, including salmon and other non-saltwater species.

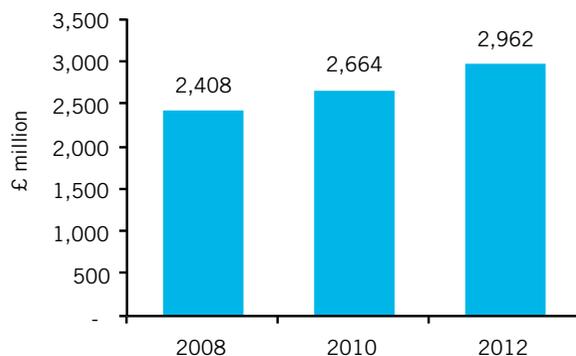


Sources:
Nelson Scantrack MAT 04.114, Crest Dpc'13
Marine Management Organisation, Fisheries Administrations in the UK
** FAO - Fisheries and Aquaculture Information and Statistics Service FIGIS 2012
*** No Shrimp code data for 2012 to calculate % change
N.B. Percentage change figures relate to 2013 v 2012.



2.3.2. Annual raw material input

Figure 2.6. Sea Fish Processing: Annual Raw Material Input, 2008-12



Highlights (Figure 2.6):

- Total spending on raw materials by sea fish processors rose to an estimated £3 billion in 2012, an 11% increase on 2010 and a 23% increase on 2008, in nominal terms.
- The increase in spending on raw materials is driven by a combination of changes in the volumes and prices of these materials. Unfortunately no suitable data on raw material volumes is currently available to determine the extent to which these factors have influenced the change described here.
- See [Sections 5.1](#) and [5.2](#) for comments from the industry relating to the supply of raw materials. [Section 5.2.1](#) is particularly relevant.

2.3.3. Supply sources

Figure 2.7. Sea Fish Processing: Use of Imported Raw Materials, 2014

	No. of Units	% of Respondents
Total No. of respondents to the relevant Census question	175	100%
No. of units using only domestically sourced materials	123	70%
No. of units using imported raw materials (any amount)	52	30%
No. of units using ≥50% imported raw materials (in value terms)	31	18%
≥50% raw materials from the European Union (EU)	17	10%
≥50% raw materials from the Rest of the World (RoW)	14	8%

Note that the sample contains all survey respondents who answered the relevant question and is not necessarily representative of the whole population.

Highlights (Figure 2.7):

- In 2014 175 out of 333 units provided information on raw material source during the Seafish Census survey. Of these, 30% reported using imported raw materials to some degree, with the remaining 70% using only domestically sourced raw materials (although this is likely to include purchases of imported fish from domestic suppliers).
- 18% of respondents reported importing more than 50% of their raw materials in terms of value. 10% of respondents reported importing more than 50% of their raw materials from EU countries, compared to 8% from non-EU countries in 2014*.
- Seafish levy data can be useful in providing additional context around the volume share of imported seafood in the UK. In 2012 76% of levy income was from imported seafood.

* Note that these figures do not provide information on the volume or value of imports; all responses are counted with equal weight in this analysis, regardless of unit size and turnover. The relevant survey question was introduced in 2014 in order to provide the present analysis, which is still limited. Future research would benefit from dedicated, detailed data collection in this respect (out of the scope of a Seafish Census survey).

2.3.4. Supplier base

Figure 2.8. Sea Fish Processing: Supplier Base by Processor Size, Type and Fish Type Category, 2014

	No. of Units in Category	Average No. of Suppliers per Unit	Median No. of Suppliers per Unit
Total No. of respondents to the Census question	276		
Size of Processor			
1-10	139	10	6
11-25	60	24	11
26-50	36	31	18
51-100	15	39	25
101+	26	123	39
Type of Processing			
Primary	86	13	7
Secondary	40	54	18
Mixed	150	29	10
Fish Type Category			
Demersal	66	9	6
Pelagic	11	14	8
Shellfish	70	43	12
Mixed	129	30	12
All Categories	276	28	10

Note that the sample contains all survey respondents who answered the relevant question and is not necessarily representative of the whole population.

2.3.5. Supply trends – comments from the industry

A discussion on the topic of raw material supply based on comments from the industry is available in [Section 5.2.1](#), where the issue is explored in the context of general market conditions and trends.

Highlights (Figure 2.8):

- The average number of suppliers per unit was 28 (one auction market counts as one supplier), although 50% of processors had ten or fewer suppliers.
- The difference between the mean and median number of suppliers is driven by several factors:
 - Small processors (1-10 FTEs) with relatively few suppliers account for 50% of respondents;
 - A small number of units in the 101+ FTE category reported a very large number of suppliers.
- Secondary processors tend to have a larger number of suppliers due to their position in the supply chain.
- Shellfish processors typically reported the largest supplier base by fish type category. Note that they typically source directly from vessels (most shellfish are not traded at auction markets).







3

SEA FISH PROCESSING INDUSTRY: OUTPUT AND PRODUCTIVITY

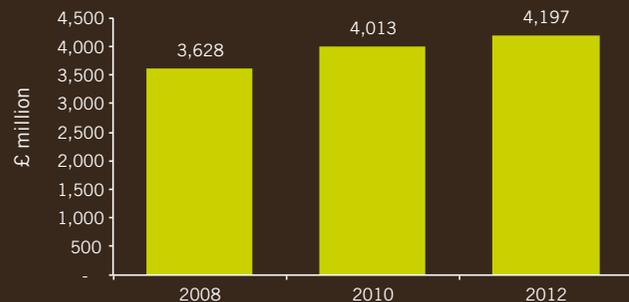
Sections [3.1](#) and [3.2](#) describe the output of the sea fish processing industry, measured in terms of turnover and gross value added (GVA) respectively. [Section 3.3](#) describes industry productivity by combining input and output data presented in preceding sections of the report.

Similarly to Sections 2 and 4, data in this section refer to the years 2008, 2010 and 2012, with 2012 being the most recent year for which financial data estimates are available. The considerations regarding the use of financial estimates outlined in [Section 2](#) apply.

3.1. TURNOVER

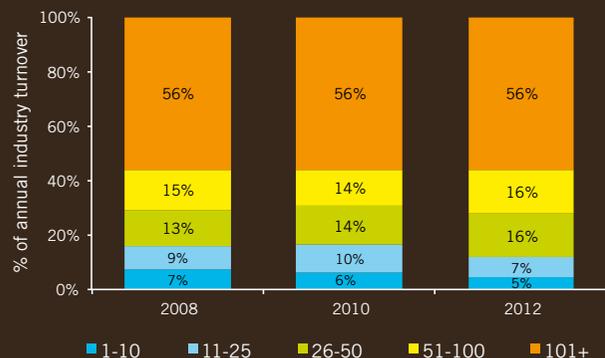
3.1.1. Annual turnover

Figure 3.1. Sea Fish Processing: Annual Industry Turnover, 2008-12



3.1.2. Turnover by Processor Size

Figure 3.2. Sea Fish Processing: Share of Industry Turnover by FTE Band, 2008-12



* Changes in industry turnover are driven by changes in volume sold and the price achieved. No data was available to perform in-depth analysis of market movements specific to the study population. Future research would benefit from bridging the gap between observed market data and financial estimates. Note that Figure 3.4 includes Seafish Census data and the latest figures for 2014. It is presented here, rather than Section 1.2 to provide context to estimated turnover figures.

Figure 3.3. Sea Fish Processing: Average Processor Turnover by FTE Band, 2008-12

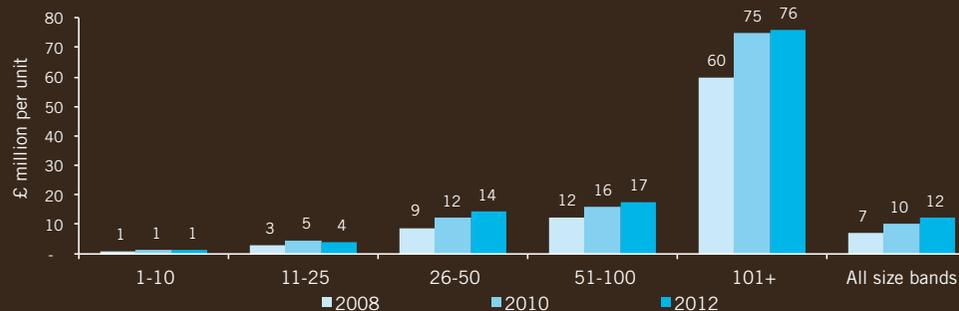


Figure 3.4. Sea Fish Processing: Average Processor Size (FTEs) by FTE Band, 2008-14

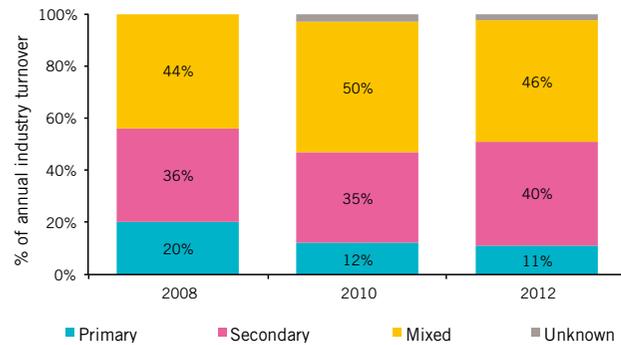


Highlights (Figure 3.1 – 3.4):

- Total annual industry turnover was an estimated £4.2 billion in 2012, a 5% nominal increase on 2010 and a 16% nominal increase on 2008*.
- Average turnover per unit was an estimated £12 million in 2012 a nominal increase of 19% on 2010 and 69% on 2008. The continued increase in turnover despite declining number of units indicates that increasing turnover is being generated by fewer, larger units.
- Turnover ranged from an average of £1 million amongst small units (1-10 FTEs) to £76 million for large units (101+ FTEs). This reflects differences in unit size and therefore capacity.
- The share of industry turnover generated by the largest units (101+ FTEs) remained constant at 56% between 2008 and 2012. The share of turnover generated by units of less than 25 FTEs declined while those in the mid-size band increased.

3.1.3. Turnover by Type of Processing

Figure 3.5. Sea Fish Processing: Share of Industry Turnover by Type of Processing, 2008-12



Highlights (Figures 3.5 – 3.7):

- In 2012 mixed processing generated 46% of total industry turnover; secondary processing generated 40%; and primary processing generated 11%.
- Primary processors’ share of turnover fell by 9 percentage points from 2008 to 2012, driven largely by the decline in their overall number and share of units (see [Figures 1.20](#) and [1.21](#) in Section 1.2.5).
- The differences in average turnover by type of processor generally reflect the relative size of units in those categories.
- In 2012 average turnover in secondary processing was almost 10 times that in primary processing and 3.5 times that in mixed processing. Average turnover in that sector almost doubled over the study period, in line with average unit size changes.
- Note that the units making up these groups in 2008 are not the same as those making up these groups in 2012, i.e. individual processors have changed from primary to secondary processors or minority to majority processors over the course of the study period.

Figure 3.6. Sea Fish Processing: Average Processor Turnover by Type of Processing, 2008-12

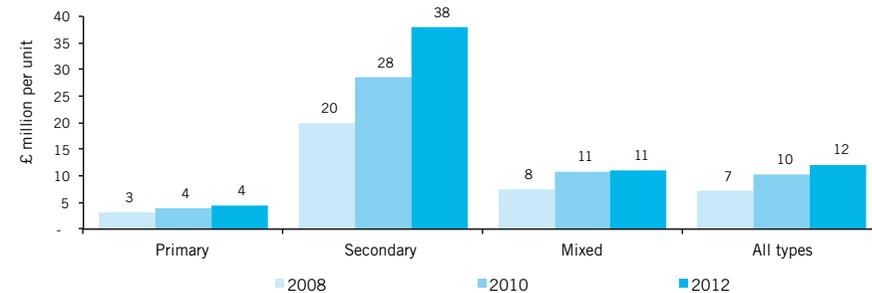
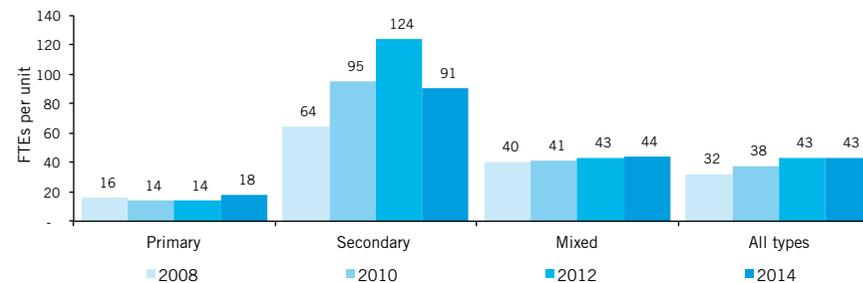


Figure 3.7. Sea Fish Processing: Average Processor Size (FTEs) by Type of Processing, 2008-14



Note that the above chart uses Seafish Census data, including the latest figures for 2014. It is presented here, rather than in [Section 1.2. Overview of Sea Fish Processors](#), to provide a context around estimated average turnover figures.

3.1.4. Turnover by Fish Type Category

Figure 3.8. Sea Fish Processing: Share of Industry Turnover by Fish Type Category, 2008-12



Highlights (Figures 3.8 – 3.10):

- The composition of industry turnover by fish type category remained relatively stable during the 2008-12 period.
- In 2012 58% of total turnover was generated by mixed species processing sites, 21% by demersal processors, 14% by shellfish processors and 4% by pelagic processors.
- The largest increase in average turnover per unit has been in the mixed processor category, where average turnover per unit increased by 83% from 2008 to 2012, in nominal terms.

Figure 3.9. Sea Fish Processing: Average Processor Turnover by Fish Type Category, 2008-12

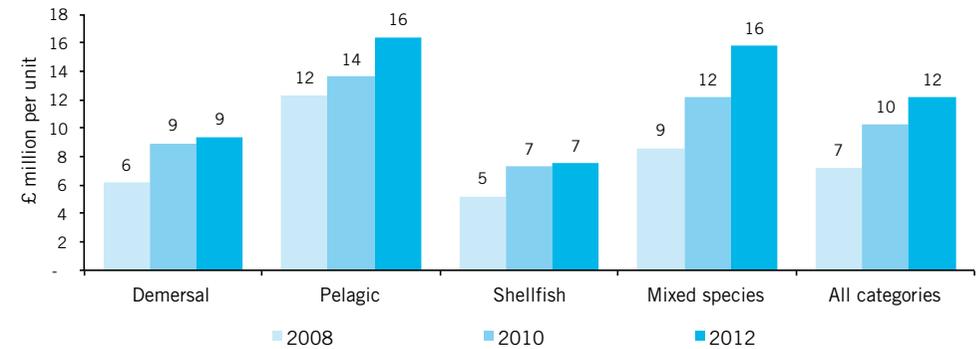
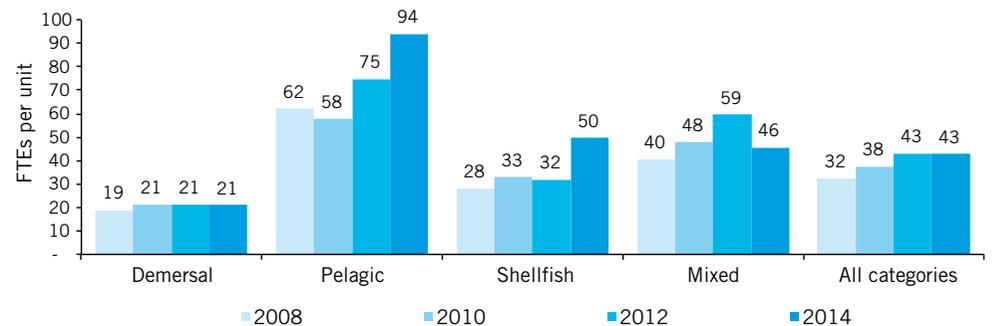


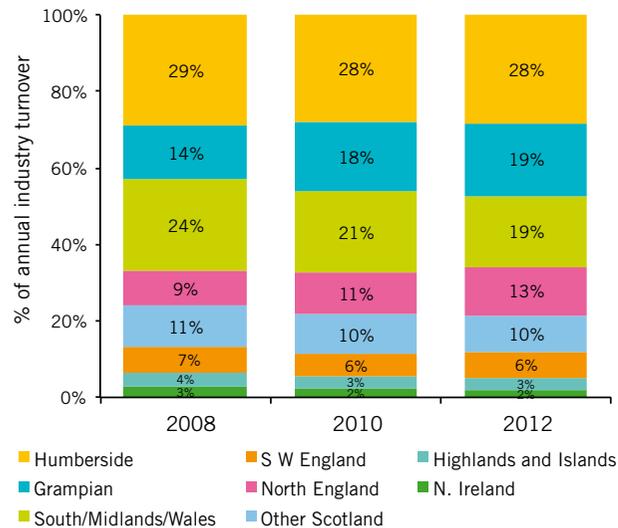
Figure 3.10. Sea Fish Processing: Average Processor Size (FTEs) by Fish Type Category, 2008-14



Note that the above chart uses Seafish Census data, including the latest figures for 2014. It is presented here, rather than in [Section 1.2. Overview of Sea Fish Processors](#), to provide a context around estimated average turnover figures.

3.1.5. Turnover by Region

Figure 3.11. Sea Fish Processing: Share of Industry Turnover by Region, 2008-12



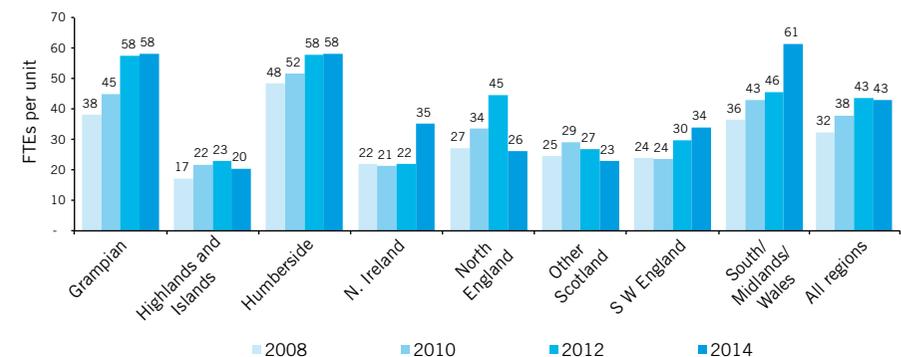
Highlights (Figures 3.11 – 3.13):

- In 2012 processing units based in the Humberside region continued to generate the largest share of industry turnover, 28%.
- The Grampian region saw its share of industry turnover increase by 5 percentage points from 2008, rising to 19% of total industry turnover in 2012. In contrast, the share of turnover generated by the South/Midlands/Wales declined by 5 percentage points from 2008 to 2012, falling to 19% of the industry total. The turnover share generated by sites in North of England increased by 4 percentage points from 2008 to 2012, rising to 13% of the industry total.
- The differences in average turnover by region broadly reflect differences in average unit size, with highest average turnover per unit observed in the regions with largest average unit size, namely South/Midlands/Wales, Humberside and Grampian.
- National average turnover per unit increased by 69% in nominal terms from 2008 to 2012. Four regions grew by more than the national average: North England (125%), Highlands and Islands (98%), Grampian (96%) and Other Scotland (76%).

Figure 3.12. Sea Fish Processing: Average Processor Turnover by Region, 2008-12



Figure 3.13. Sea Fish Processing: Average Processor Size (FTEs) by Region, 2008-14



Note that the above chart uses Seafish Census data, including the latest figures for 2014. It is presented here, rather than in Section 1.2. Overview of Sea Fish Processors, to provide a context around estimated average turnover figures.

3.1.6. Customer base

Figure 3.14. Sea Fish Processing: Customer Base by Processor Size, Type and Fish Type Category, 2014

	No. of Units in Category	Average No. of Customers per Unit	Median No. of Customers per Unit
Total No. of respondents to the Census question	276		
Size of Processor			
1-10	136	46	25
11-25	60	125	45
26-50	36	109	40
51-100	18	201	70
101+	25	82	70
Type of Processor			
Primary	83	94	30
Secondary	40	53	40
Mixed	152	88	35
Fish Type Category			
Demersal	64	63	30
Pelagic	11	27	20
Mixed	131	126	50
Shellfish	69	36	20
All Categories	275	85	35

Highlights (Figure 3.14):

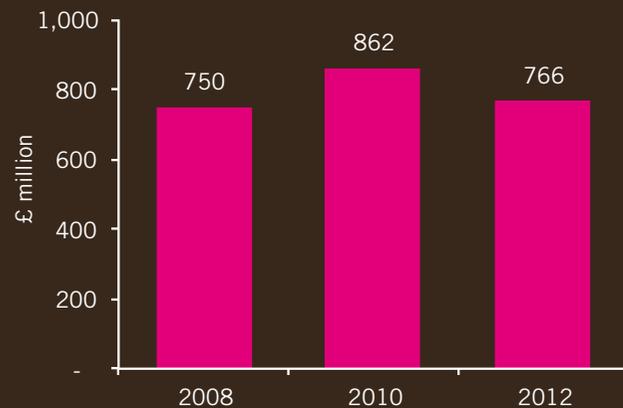
- 276 out of 333 units provided information on the number of customers they supply during the 2014 Seafish Census survey.
- While processors had on average 85 customers each (counting own retail arm as one customer), half of survey respondents reported having 35 or fewer customers.
- By type of processing, primary processors had the largest average customer base, 94. However, half of primary processors had 30 or fewer customers, while the median for secondary processors was 40.
- By fish type category, mixed species processors had the largest customer base, with an average of 126 customers and a median of 50.



3.2. GROSS VALUE ADDED

Gross Value Added (GVA) generally measures the contribution to the economy of each individual producer or industry. Here it reflects the value of goods and services produced in the UK sea fish processing industry and is calculated as the sum of industry operating profit and labour costs.

Figure 3.15. Sea Fish Processing: Annual Industry Gross Value Added (GVA), 2008-12



Highlights (Figure 3.15):

- The GVA of the sea fish processing industry was an estimated £766 million in 2012.
- GVA fluctuated during the study period, with an overall nominal increase of 2% from 2008 to 2012.
- An increase in GVA between 2008 and 2010 was followed by a decrease between 2010 and 2012. The fluctuation appears to be driven by the rise and fall in industry operating profits (see Figure 4.5 in Section 4.2. Profitability). The rise in labour spending between 2010 and 2012 (which was partially due to the newly captured value of unpaid labour) has offset the decrease in operating profits between 2010 and 2012 to an extent.

Figure 3.16. Sea Fish Processing: Share of GVA by FTE Band, 2008-12



Figure 3.17. Sea Fish Processing: Share of GVA by Type of Processing, 2008-12

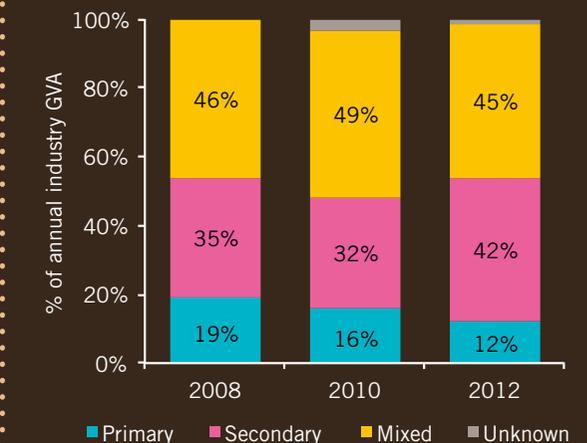
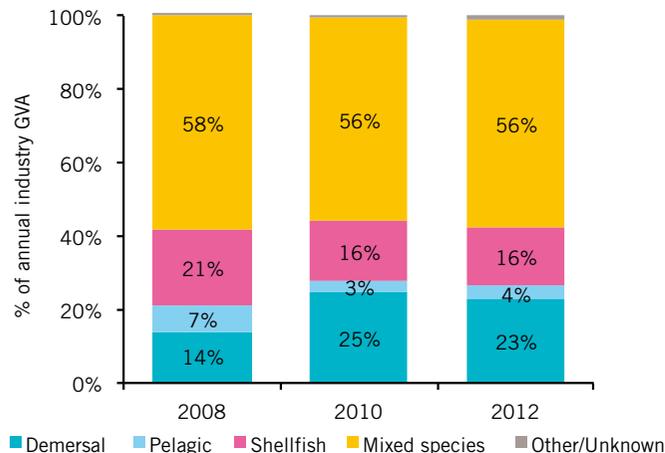


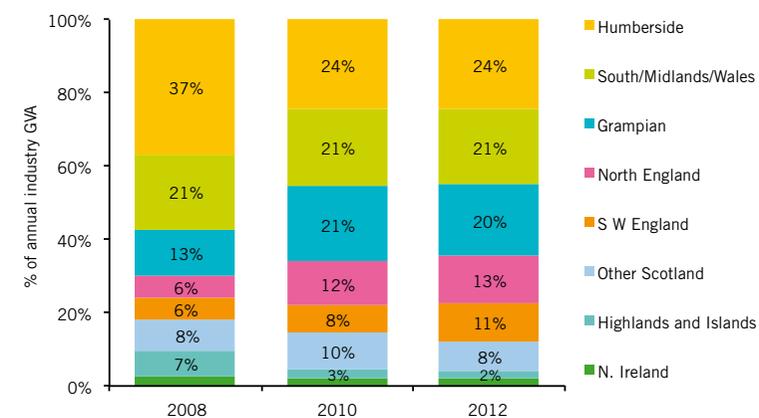
Figure 3.18. Sea Fish Processing: Share of GVA by Fish Type Category, 2008-12



Highlights (Figures 3.16 – 3.18):

- In 2012 54% of sea fish processing GVA was generated by processors in the 101+ FTEs category (compared to 56% of industry turnover).
- Between 2008 and 2012 the GVA share of the largest size band decreased, whereas the shares of medium-size bands increased.
- In 2012 45% of industry GVA was generated by mixed type processors, 42% by secondary and 12% by primary processors.
- Between 2008 and 2012 the share of GVA generated by primary processors decreased, driven by the relative decline in the number of processors in this category (see [Figure 1.20](#) in Section 1.2.5. Processor type).
- In 2012 56% of industry GVA was generated by mixed species processors, 23% by demersal, 16% by shellfish and 4% by pelagic processors.
- From 2008 to 2012 the GVA share of the demersal fish type category increased, while the shares of all other categories decreased. Most of the change occurred between 2008 and 2010.

Figure 3.19. Sea Fish Processing: Share of GVA by Region, 2008-12



Highlights (Figure 3.19):

- In 2012 65% of industry GVA was generated in the Humberside, the South/Midlands/Wales and Grampian regions.
- Between 2008 and 2012, the shares of industry GVA generated in the Humberside and Highlands and Islands regions decreased, while the shares of the Grampian, North England and Southwest England regions increased.
- Most of the regional composition change in industry GVA occurred from 2008 to 2010.

3.3. PRODUCTIVITY

The productivity of inputs into the manufacturing process can be measured in many ways. A simple, common approach is taken here to differentiate between labour and capital as the main inputs and explore a few simple relationships between these and important indicators such as GVA, turnover and costs over time.

3.3.1. Labour productivity

Figure 3.20. Sea Fish Processing: Average Turnover per FTE, 2008-12

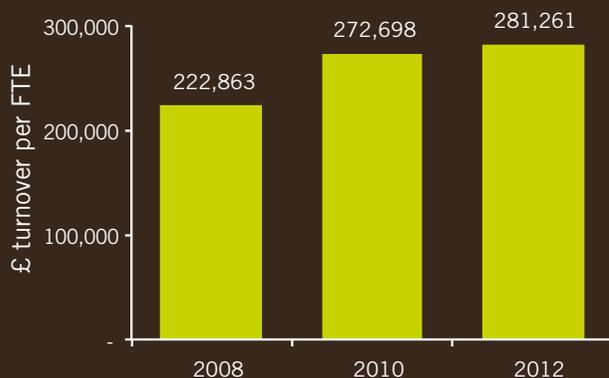


Figure 3.21. Sea Fish Processing: Average GVA per FTE, 2008-12

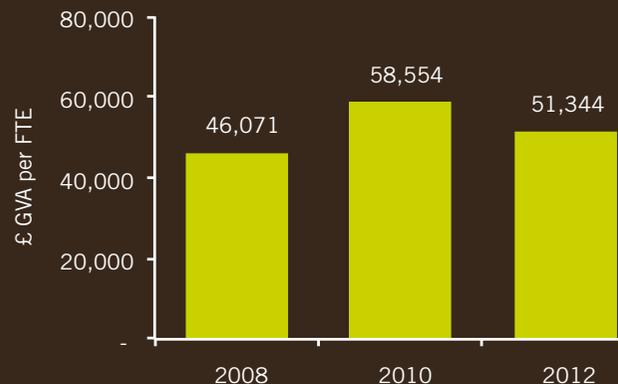
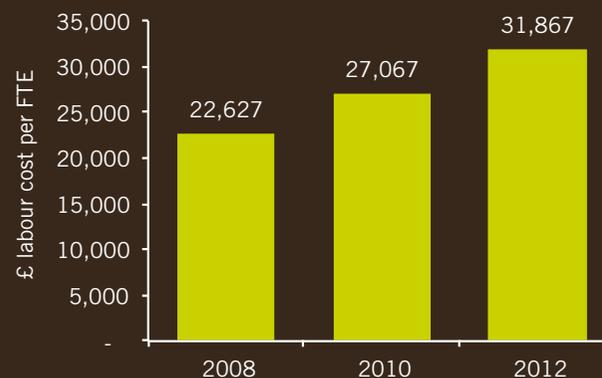


Figure 3.22. Sea Fish Processing: Average Labour Cost per FTE, 2008-12



Note that the 2012 figure includes the estimated value of unpaid labour. If the latter is excluded, the average labour cost per FTE (or average wage per FTE) in 2012 is £29,373.

Highlights (Figures 3.20 – 3.22):

- From 2008 to 2012 average turnover per FTE in the sea fish processing industry grew by 26% in nominal terms, with the majority of the increase being observed between 2008 and 2010.
- Average GVA per FTE fluctuated over the period, with a net 11% increase from 2008 to 2012 (in nominal terms).
- Average labour cost per FTE registered a 41% nominal increase during the study period if the value of unpaid labour is included in the 2012 figure. If the latter is excluded, average labour cost (or average wage) grew by 30% in nominal terms from 2008 to 2012.
- Overall, both output per FTE and cost per FTE increased over the study period. These labour productivity changes reflect growing industry output and labour costs being spread over fewer FTEs over time.



3.3.2. Fixed capital productivity

Figure 3.23. Sea Fish Processing: Average Turnover per £1 Fixed Capital, 2008-12

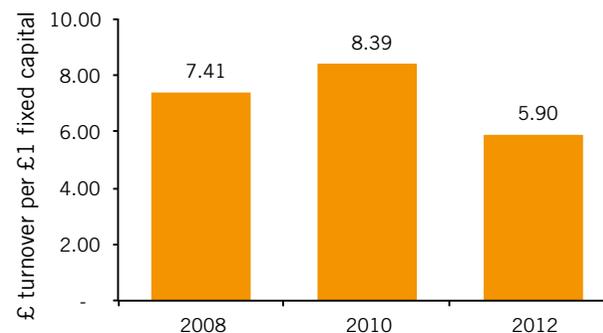
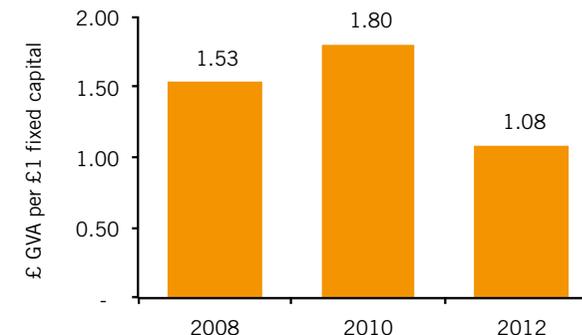


Figure 3.24. Sea Fish Processing: Average GVA per £1 Fixed Capital, 2008-12



Highlights (Figures 3.23 – 3.24):

- In 2012 each £1 of fixed capital employed (tangible fixed assets) in the sea fish processing industry on average generated an estimated £5.90 of turnover and £1.08 of GVA.
- Capital productivity across the different measures was lower in 2012 than in 2008, despite growing levels of industry output. The sharp drop in output per £1 capital observed from 2010 to 2012 was driven by a considerable (49%) increase in the level of fixed capital (see [Figure 2.2](#) in Section 2.2.1). The renewed investment in fixed assets may have caused a dip in productivity measures, but it might deliver real productivity gains over the long term if it enhances production efficiency, e.g. through enhanced yield, energy efficiency, or process automation.



4 SEA FISH PROCESSING INDUSTRY: COST STRUCTURE AND PROFITABILITY

This section adds to input and output information presented in Sections 2 – 3 and focuses the analysis on the cost structure and profitability of the sea fish processing industry.

Similarly to Sections 2 and 3, data in this section refer to the years 2008, 2010 and 2012, with 2012 being the most recent year for which financial data estimates are available. The considerations with regards to the use of financial estimates outlined in [Section 2](#) apply.



4.1. COST STRUCTURE

4.1.1. Total costs composition

Note that the definitions used here follow the European Data Collection Framework and may not correspond directly to the definitions of these terms in the original company accounts.

Total costs in this report are the sum of operating costs and capital cost, where operating costs consist of raw material, labour, unpaid labour, energy and other operating costs, while capital costs consist of depreciation, financial costs and extraordinary costs (in line with the EU DCF).

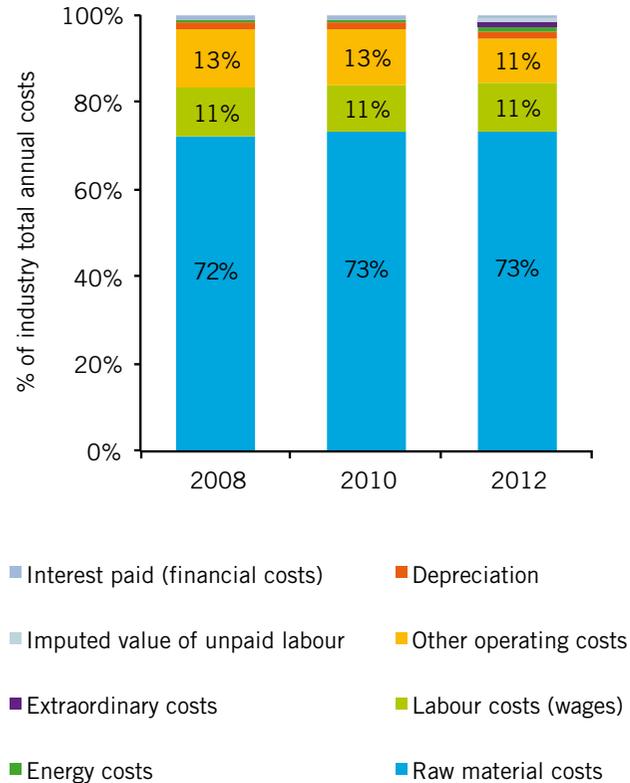
Figure 4.1. Sea Fish Processing: Total Costs Breakdown, 2008-12

Item - All figures in £ million	2008	2010	2012	Change 2010-12	Change 2008-12
Raw material costs	2,408	2,664	2,962	11%	23%
Labour costs (wages)	368	398	438	10%	19%
Imputed value of unpaid labour *			37	n/a	n/a
Energy costs	23	31	42	37%	81%
Other operating costs	447	457	426	-7%	-5%
Operating costs	3,246	3,550	3,906	10%	20%
Depreciation	52	52	56	8%	8%
Interest paid (financial costs)	41	36	36	-2%	-14%
Extraordinary costs **			38	n/a	n/a
Capital costs	93	88	130	47%	39%
Total costs	3,339	3,638	4,036	11%	21%

* Note that due to the newly included value of unpaid labour as part of operating costs in 2012, direct comparisons of operating and total costs between 2012 and previous years are not on a strict like-for-like basis.

** Note the due to the newly included value of extraordinary costs as part of capital costs in 2012, direct comparisons of capital costs and total costs between 2012 and previous years are not on a strict like-for-like basis.

Figure 4.2. Sea Fish Processing: Total Annual Costs Composition, 2008-12



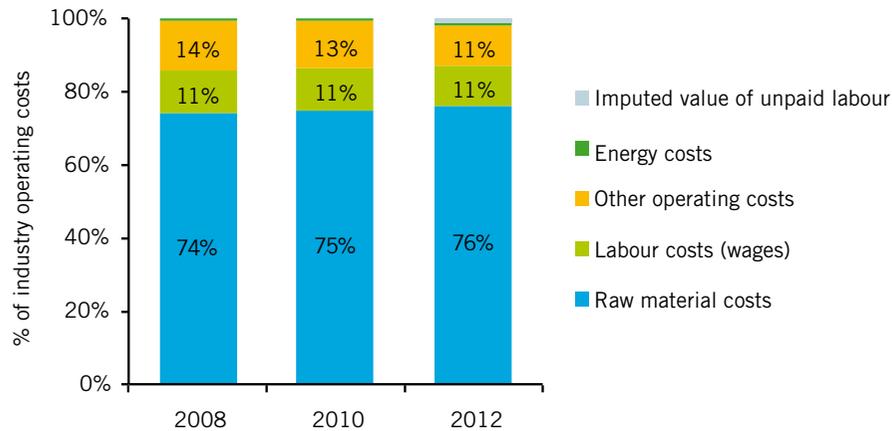
Highlights (Figures 4.1 – 4.2):

- Total costs for the UK sea fish processing industry were estimated at approximately £4 billion in 2012, a 21% increase since 2008 in nominal terms.
- The £697 million (or 21%) increase in total costs from 2008 to 2012 was mainly driven by a £554 million (or 23%) increase in the total cost of raw materials and also, to a much smaller extent, by a £70 million (or 19%) increase in total wages.
- 97% of total costs were accounted for by operating costs, with the remaining 3% being capital costs, e.g. interest on loans.
- Spending on raw materials was the largest cost element for the seafood processing industry, accounting for 73% of total costs in 2012. Note that this ratio varies for individual processors but also by processing type; for example, raw materials accounted for 75% of total costs in primary seafood processing.
- Industry energy spending grew by 37% from 2010 to 2012 and by 81% from 2008 to 2012, in nominal terms. Energy costs represented 1% of total industry costs throughout the study period.
- Capital costs registered a decrease from 2008 to 2010, due to a reduction in financial costs (interest paid on loans). Capital costs then increased from 2010 to 2012, driven by the newly included extraordinary costs item, and to a smaller extent, by an increase in depreciation.
- The composition of total costs in the fish processing industry remained relatively stable between 2008 and 2012, with a slight increase in the share of raw materials of total costs and a small decline in the share of other operating costs (at least partially due to the newly captured extraordinary costs item).



4.1.2. Operating costs composition and proportion of revenue

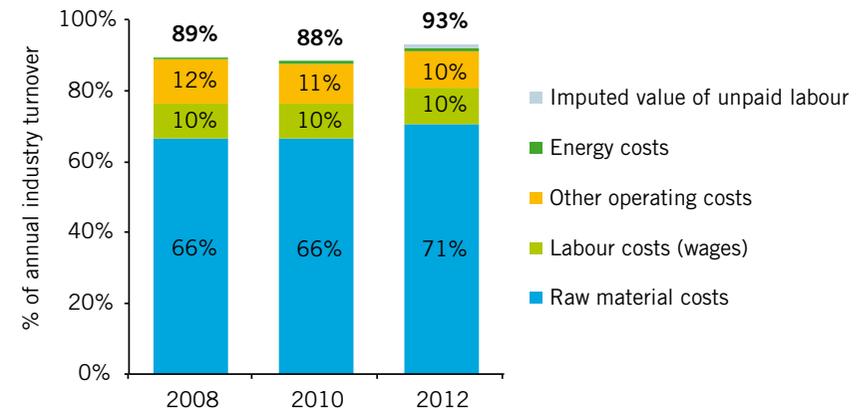
Figure 4.3. Sea Fish Processing: Annual Operating Costs Composition, 2008-12



Highlights (Figure 4.3.):

- The composition of operating costs remained largely stable during the 2008-12 period, with the share of raw materials slightly increasing and that of other operating costs slightly decreasing.
- Raw materials are the largest production cost element, accounting for 76% of operating costs; however, note that varies between individual processors and processor types, with the proportion being 77% for the primary processing sector, for example.
- Although industry energy spending grew by 81% in nominal terms from 2008 to 2012, it accounted for 1% of operating costs throughout the period.

Figure 4.4. Sea Fish Processing: Operating Costs Expressed as a Share of Turnover, 2008-12



Highlights (Figure 4.4.):

- Raw material costs' share of industry turnover increased by 5 percentage points from 2008 to 2012, without an equivalent reduction in other costs' shares to preserve existing margins.
- Operating costs accounted for 93% of turnover in 2012, up 4 percentage points since 2008, representing an equivalent drop in operating profit margin (see [Figure 4.5](#) in section 4.2).

4.2. PROFITABILITY

Profit margins differ greatly not only between businesses, but they also vary year to year and season to season. The business challenge of inconsistent margins is discussed at greater length in [Sections 5.1](#) and [5.2](#).

The table below summarises estimated income, costs and profitability of the sea fish processing industry as a whole (see [Appendix 4. Research Methods](#) for a full description of methods used).

Figure 4.5. Sea Fish Processing: Profitability - Total for the Industry, 2008-12

Item - All figures other than ratios in £ million	2008	2010	2012	Change 2010-12	Change 2008-12
Turnover (sales)	3,628	4,013	4,197	5%	16%
Raw material costs	2,408	2,664	2,962	11%	23%
Labour costs (wages)	368	398	438	10%	19%
Imputed value of unpaid labour *			37	n/a	n/a
Energy costs	23	31	42	37%	81%
Other operating costs	447	457	426	-7%	-5%
Operating costs	3,246	3,550	3,906	10%	20%
Operating profit	382	463	291	-37%	-24%
Subsidies **			31	n/a	n/a
Other income	8	40	28	-31%	239%
Other income	8	40	59	47%	617%
Total income	3,636	4,053	4,255	5%	17%
Depreciation	52	52	56	8%	8%
Interest paid (financial costs)	41	36	36	-2%	-14%
Extraordinary costs ***			38	n/a	n/a
Capital costs	93	88	130	47%	39%
Total costs	3,339	3,638	4,036	11%	21%
Net profit (pre-tax)	297	415	220	-47%	-26%
Operating profit margin	11%	12%	7%	-40%	-34%
Net profit margin (pre-tax)	8%	10%	5%	-50%	-37%

4.2.1. Operating profit

Operating profit here is calculated as turnover (sales) minus operating costs in the sea fish processing industry.

- Our estimates suggest that total industry operating profit increased between 2008 and 2010 and then decreased between 2010 and 2012.
- Operating profits declined, because operating costs and especially the cost of raw materials, increased by more than turnover. This suggests that higher production costs could not be fully passed onto customers.
- In 2012 the sea fish processing industry as a whole achieved a 7% annual operating profit margin (calculated as operating profit divided by turnover), which was lower than in 2008 and 2010.

* Note that due to the newly included value of unpaid labour as part of operating costs in 2012, direct comparisons of operating and total costs between 2012 and previous years are not on a strict like-for-like basis.

** Note that due to the newly included subsidies income as part of other income, direct comparisons of other income and total income between 2012 and previous years are not on a strict like-for-like basis.

*** Note the due to the newly included value of extraordinary costs as part of capital costs in 2012, direct comparisons of capital costs and total costs between 2012 and previous years are not on a strict like-for-like basis.

4.2.2. Total income

Total income here is the sum of turnover, subsidies and other income in the sea fish processing industry.

- In 2012 total income in the industry was an estimated £4.3 billion, a nominal increase of 5% since 2010 and 17% since 2008.
- Industry income is almost exclusively from turnover, with subsidies and other income together making up 1% of total income in 2012.
- Subsidies across the industry in 2012 were an estimated £31 million. No data on subsidies were recorded in previous surveys, so comparisons with previous years are not on a strict like-for-like basis.

4.2.3. Net pre-tax profit

Net pre-tax profit here is calculated as total income minus total costs in the industry.

- Our estimates show a net pre-tax profit of the industry of £220 million in 2012, which is lower than both 2008 and 2010. The decline was mainly driven by higher total costs and higher raw material costs in particular.
- Annual net profit margin for the industry as a whole (calculated as net profit divided by total income) was estimated at 5% in 2012, which was lower than in 2008 and 2010.

4.2.4. Current ratio

Also known as liquidity ratio or cash ratio, the current ratio can be used to illustrate a company's ability to pay back short-term liabilities with short-term assets. A ratio below 1 suggests that the company may be unable to pay off obligations. Values between 1.5 and 2 are generally accepted as 'normal'. Values outside this range may indicate working capital management problems, although this varies greatly between industries and individual businesses. Here the current ratio is with respect to the sea fish processing industry as a whole.

Figure 4.6. Sea Fish Processing: Working Capital Position - Industry Current Ratio, 2008-12

Item - All figures (other than ratios) in £ million	2008	2010	2012	Change 2010-12	Change 2008-12
Current assets	1,219	1,299	1,328	2%	9%
Current liabilities	909	883	1,239	40%	36%
Current ratio	1.34	1.47	1.07	-27%	-20%

- The current ratio of the sea fish processing industry in 2012 was estimated at 1.07, indicating that operations may be restricted to a certain degree by working capital problems. Note this ratio provides an indication of the industry as a whole and may not be representative of any individual business.
- While current assets registered a modest 2% increase between 2010 and 2012, current liabilities increased by 40% in nominal terms, causing the industry current ratio to drop by 0.4 points, or 27%.





5

SEA FISH PROCESSING: INDUSTRY BUSINESS ENVIRONMENT

This section highlights key business themes within the industry, based on small-scale qualitative research conducted using semi-structured interviews with business owners and managers, as well as other industry stakeholders (non-representative sample). See [Appendix 4. Research Methods](#) for a more detailed description of methods used.

The results from this research are presented for illustrative purposes and should not be interpreted as representative of the views of the entire industry.

For more on the specific challenges and opportunities in the fish processing industry, you can watch our short film [The Business of Processing \(2014\)](#) available online on the Seafish YouTube channel.



5.1. SEASONALITY: CYCLICAL AND SUDDEN IMPACTS

Both cyclical and temporary shifts in environmental conditions affect processors' business activities. These impacts are diverse and unique for each product and processor, with both the supply of raw materials and the demand for seafood products being affected in general. The market conditions within which UK processors operate are also affected by the seasonal availability of species, weather and consumer demand abroad, because the UK imports and exports large volumes of raw material and processed seafood.

5.1.1. Impacts on raw material supply

The size and availability of fresh catch for most fish and shellfish species vary due to their natural life cycles. This type of cyclical variation is very important for processors using wild caught produce (less so for farmed species). However, substantial losses of fish from fish farms do occasionally occur and can disrupt the supply of raw materials (for example in 2014 around 300,000 salmon were killed by a swarm of jellyfish at a fish farm in the Outer Hebrides). Even cyclical changes in availability are not necessarily exactly regular or predictable. Natural variations in the life cycles of some species can disrupt supply unexpectedly, particularly if little is understood about species behaviour.

The weather also plays an important role, e.g. by influencing the fleet's ability to go to sea and land raw material, and the British Isles and surrounding waters are well known for their changeable weather. While the use of imported raw materials lessens domestic cyclical and weather impacts, it exposes processors to supply fluctuations due to seasonality and weather abroad.

5.1.2. Impacts on product demand

Both cyclical and sudden weather changes affect the demand for seafood products. While the impacts vary greatly by product, it is well known that demand for many chilled seafood products tends to be higher around Christmas (especially for premium lines) and Easter, and lower around the beginning of each year. The weather is also important and can influence consumer demand of different products in different ways; for example shellfish products tend to be in high demand during periods of good weather, especially if prolonged, whereas demand for fish and chips meals may suffer. End-consumer demand can also change very suddenly, for example as a result of seasonal and non-seasonal marketing campaigns and celebrity chef endorsements.

5.2. A CHALLENGING MARKET PLACE

Each species and product type within the seafood industry has its own unique issues relating to supply and demand. Additionally, particular regions and even individual processing units can face unique issues in the supply of raw materials because of the structure of the local catching sector and competition with other processors. It can therefore be inappropriate to generalise about supply and demand issues for the processing sector as a whole. Nevertheless, research participants generally perceived an upward trend in the prices for most raw materials and processed products over the past few years. These price increases were typically explained by raw material supplies not keeping pace with the growing consumer demand.

5.2.1. Raw material supply – comments from the industry

The supply issues facing seafood processing businesses vary depending on the size and location of their operation, their ownership structure and the species they specialise in. The availability of supply of raw material was generally described by participants in our research as unpredictable. Continuity of supply was repeatedly highlighted by processors as a major challenge to business planning. Limitations to product innovation due to raw material supply inconsistency were also highlighted as an issue.

[Section 5.1.1](#) introduced some of the most important factors affecting raw material supply, namely natural cyclical and weather-related impacts, while [Section 5.7](#) looks at some of the important implications of recent and upcoming regulatory changes.

A number of research participants reported shrinking raw material supplies over the past 5-year period. The increasing pressures on quota lease prices were repeatedly mentioned as a contributor. Increasing or new effort restrictions; increased competition for raw materials from other processors; and vessel owners seeking to spread their risks by selling to multiple processors were all cited as being responsible for the decline in supply quantities and/or consistency.

Changes in the make-up of the local catching sector were said to have altered the frequency and volume of landings. For example, one crab processor reported a trend away from many smaller inshore ‘day’ boats and towards fewer larger vessels which fish in deeper seas and go out for longer trips. As a result landings have become less frequent and larger in quantity, meaning affected processors have had to increase their freezing and stock holding capacity.

5.2.2. Global influences at home – examples

Operating in a global market means that the UK seafood industry is impacted by changes in the international geopolitical landscape. In recent years large sudden changes in the demand for seafood products have impacted the UK fish processing industry in response to changes in international relations and associated trade agreements. Some examples are:

- The post-financial-crisis situation in many European countries was said to have affected many UK processors. The European market was repeatedly described as finally showing some signs of recovery; despite that, processors’ willingness to reduce reliance on European markets and expand exports to markets beyond the continent became evident in the survey.
- The growing Chinese middle class was repeatedly highlighted as a contributor to greater demand for certain seafood products.
- In 2014 trade sanctions were imposed on Russia, followed by a Russian embargo on EU food imports in response to the sanctions; one of the results was an influx of Norwegian product into the European and global markets, as Norwegian producers sought to replace lost Russian revenue streams.

- In 2014 when European trade sanctions were lifted from the Faroe Islands, there was a sudden influx of mackerel and herring into the UK, which lowered prices.
- Unlike in previous years, in 2014 the French fleet retained, instead of selling, their excess quota for coley, thus shortening the supply of British catch. At higher prices, British coley products were reportedly struggling to compete with French products on the French market.

For more on international trade, see [Section 5.4](#).

5.2.3. Rising up to the challenge

Seafood processing businesses try to adapt to changes in supply and demand in a number of ways and the methods adopted vary greatly depending on their individual situation. Some of the methods cited by research participants are described below.

Research participants repeatedly highlighted that it is absolutely crucial to respond quickly to sudden changes in supply and demand.

Promptly adapting and diversifying processing activities can ease some of the pressures caused by variability in supply and demand. Changing freezing and stock holding patterns in response to market changes appears to be a common mechanism for coping with supply and demand fluctuations.

Rapid product development was also cited as important.

Switching to cheaper materials can ease the pressure of rising costs of raw materials and allow processors to sustain or increase profit margins. This includes using alternative raw material (different quality or species) from existing sources, or using raw material from alternative sources (typically further afield). But while substituting raw materials can be highly advantageous to processors, it can be difficult to achieve in practice, e.g. due to customer demand for continuous supply of homogeneous product at a fixed price, pre-defined product specification, labelling and packaging, etc. According to research participants, many business customers tend to demand a high degree of product and price consistency, regardless of the prevailing supply conditions at the time. The need for increased awareness of seasonality and weather impacts on raw material availability among business customers and end consumers was repeatedly highlighted during the surveys.

The seafood supply chain was described as highly fragmented, with processors often sourcing raw materials from separate sources, sometimes from across the country. Some processors own or finance fishing vessels, which allows for more control over supply, albeit seasonal and other impacts still apply.

Sea fish processors tend to operate under conditions of uncertainty, where the future available volume, size, quality, and therefore price, of raw materials are not known precisely, this can pose significant challenges to business planning. Processors typically manage fluctuations through stock holdings, meaning that frozen manufacturers tend to be less affected by seasonality and sudden weather changes. Switching to alternative species is another way of dealing with supply shortages, although the scope for this depends on demand for the alternative product.

Operating non-standard working hours is also used by some processors to ease the pressures associated with fluctuating market conditions.

Seafood processors tend to be exposed to sudden fluctuations in the volumes and prices for both their raw materials and finished products and this does present considerable challenges for business management. At the same time, the excitement of dealing with unforeseen circumstances each day, while trying to 'marry' supply and demand, is commonly cited as one of the biggest reasons to be part of the seafood industry.

5.3. LABOUR MARKET

Labour and especially skill shortages were commonly reported as an issue by industry stakeholders. The problem is said to be more pronounced in regions with low unemployment and/or high competition from other industries. Some processors said the situation was not critical at present, but that they anticipated shortages in the future due to an insufficient number of young workers entering the industry to replace those who would soon retire.

5.3.1. Skills in demand

A variety of technical skill-sets were reported to be in low supply including: skilled primary processing operators (e.g. filleting, shucking, etc.), food scientists, product developers, nutrition specialists, safety specialists, food technologists, and software designers. Interpersonal and administrative skills were also commonly cited as an issue, with reported difficulties in attracting administrative staff above supervisor level. A shortage of suitable sales and marketing professionals was also mentioned. It was repeatedly highlighted that the issue is not in the number of job applicants, but rather in finding people with the right skills and attitude, as well as a genuine passion and interest in the industry.

Among the reasons for the shortages of workers with the desired skill-set were: the cold indoor work environment; other industries in the region offering more desirable working conditions or pay; lack of passion and excitement about the industry and/or interest in the job; and general local labour shortages.

5.3.2. Tackling the shortages

Traditional and non-traditional recruitment methods are used in the industry, ranging from standard job-boards to word-of-mouth and job marketing abroad. Some processors see the recruitment and retention of foreign workers as crucial for maintaining a healthy labour force.

Some processors look to attract skilled labour force through: attractive working hours and shift patterns; higher pay; working hours flexibility and attractive holiday allowance, among others. Some businesses compensate for any temporary shortage in workers through longer working hours for existing staff.

Another way in which processors tackle skill shortages is through training and development aimed at growing staff from within. Both in-house training and courses through external providers are in use at this end.

Some businesses actively seek to increase engagement with their staff, e.g. through daily team meetings aimed at motivating staff and keeping spirits high.

A relatively common theme was the willingness to recruit the best staff and provide them with stability in order to keep them long-term, regardless of the immediate business need for labour input, e.g. maintaining staff numbers, salaries and/or working hours even during quieter periods.



5.4. TRADE

5.4.1. Direct trade activity

Figure 5.1. Sea Fish Processing: Direct Trade Activity, 2010-14

Item	2010	2012	2014	Change 2012-14	Change 2010-14
Total No. of Units	391	345	333	-3%	-15%
No. of Direct Importers	121	95	70	-26%	-42%
Direct Importers as % of Total No. of Units	31%	28%	21%	-24%	-32%
No. of Direct Exporters	113	101	102	1%	-10%
Direct Exporters as % of Total No. of Units	29%	29%	31%	5%	6%
No. of Units that both Import and Export	62	48	39	-19%	-37%
Import-Exporters as % of Total No. of Units	16%	14%	12%	-16%	-26%

Earliest data available is from the 2010 Seafish Census survey.

Figure 5.2. Sea Fish Processing: Direct Trade Activity by Region, 2010 vs. 2014

Region	Direct Importers as % of total No. of units in the region		Direct Exporters as % of total No. of units in the region	
	2010	2014	2010	2014
Grampian	33%	16%	46%	42%
Highlands and Islands	17%	0%	33%	39%
Humberside	29%	38%	17%	23%
N. Ireland	37%	19%	37%	38%
North England	26%	20%	14%	20%
Other Scotland	27%	8%	33%	24%
S W England	26%	16%	23%	29%
South/Midlands/Wales	51%	31%	36%	44%
All regions	31%	21%	29%	31%

* Note that these figures do not relate to volumes or values of seafood.

Highlights (Figures 5.1 – 5.2):

- In 2014 21% of sea fish processing units reported that they import fish directly from markets outside the UK, while 31% reported that they export directly to markets outside the UK. 12% of processors reported being directly involved in both import and export activities.
- The proportion of units reporting direct import activity has fallen considerably in recent years, with a 7 percentage point decrease observed between 2012 and 2014. In absolute terms, the number of direct importers fell by 42% between 2010 and 2014.
- The proportion of units reporting export activity rose slightly between 2010 and 2014, although the number of units fell in absolute terms.
- The number of units that both import and export fell from 2010 to 2014, both in absolute terms and as a share of total units.
- The regions with shares of importing units higher than the UK average in 2014 were Humberside and South/Midlands/Wales.
- The regions with proportionately higher numbers of exporting units in 2014 were South/Midlands/Wales, Grampian, Highlands and Islands and Northern Ireland.

5.4.2. Current and desired export markets

- Of the 102 sea fish processors reporting that they were exporters, 87 businesses provided details on their key exporting markets during the 2014 Seafish Census survey.
- 68% of current export destinations* were in Europe (most commonly France, Spain and Italy); 15% in the Far East and Australia and 9% in Russia, the Middle East and Southern Asia. A small number of interviewees also reported destinations in the Americas and Africa.

- Products from mixed processors and those handling mixed species of fish were reported as being exported more widely around the world.
- 27 out of 87 respondents mentioned plans to expand exports to new locations in the future.
- Of the potential export markets mentioned, 36% were in the Far East and Australia (the most commonly China) and 23% were in Europe.

5.4.3. Important trade developments – comments from the industry

International trade represents a large portion of business activities for many UK seafood processors. A number of seafood processors are now focusing marketing activities overseas, encouraged in recent years by increasing demand from the growing middle class in emerging economies and especially in China. Demand from EU countries has reportedly started showing signs of recovery as well. It should be noted that demand can differ fundamentally between markets. For example, product innovation and health and safety standards tend to be highly valued by UK retailers, whereas competitive pricing of standard product may be preferred abroad; as another example, whole and shell-on products are often more highly valued by customers abroad.

Exchange rate

Fluctuating exchange rates are a major issue for processors' who trade overseas. One particularly important development in recent years has been the strengthening of the British Pound against other currencies and especially the Euro. As revenues drop (when expressed in Pounds) and margins are squeezed, businesses can increase product prices (expressed in foreign currency), but this inevitably results in revenue losses, as British exports become less competitive. For example in recent years the export market to Spain decreased significantly not only due to the economic decline, but also as a result of the stronger Pound. Some businesses hedge these risks through financial instruments such as forward contracts, but in the long term there is little businesses can do to protect margins against unfavourable exchange rate developments.

Russian embargo

In August 2014 Russia imposed an embargo on food imports from the EU, US and some other western countries, in response to sanctions over the situation in Ukraine. The ban impacted directly UK seafood processors with export markets in Russia, especially the pelagic sector. The indirect consequences involved a greater volume of products from other countries such as Norway being sold in European markets instead of Russia and exerting a downward pressure on prices.

Illegal, unreported and unregulated (IUU) fishing

Seafood imports into the EU from Guinea, Belize, Cambodia and most recently Sri Lanka were prohibited following their failure to act on IUU fishing activities. The red card given to Sri Lanka is of particular significance to the UK seafood industry, in particular with regards to imports of fresh and chilled yellowfin tuna and swordfish. Ghana, South Korea, Philippines and Papua New Guinea are currently among the countries on yellow cards, meaning that they must urgently address IUU fishing or risk facing restrictions on their ability to export to the EU.

Tariffs and trade agreements

From 2015 onwards, China, Thailand and the Maldives are no longer able to enjoy the tariff reductions of the Generalised System of Preferences (GSP) regime and seafood imports from these countries now command full duties. India, Vietnam, Indonesia and the Philippines continue to enjoy GSP or GSP+ preferences. The agreement with Ecuador has already led to transitional tariff preferences similar to its GSP+ regime, while we await the implementation of benefits foreseen by the recently concluded EU–Canada Comprehensive Economic and Trade Agreement (CETA) due to be ratified in 2015.

5.5. INVESTMENT

5.5.1. Net investment

Net investment (purchase and sale of assets) in the seafood processing industry in 2012 is estimated at £89 million, which is 55% higher than the estimated £58 million net investment in 2010.

5.5.2. Financing investment

Processors express mixed views on the availability of financial services and support available to them.

The investment climate has remained largely unchanged or slightly improved over the last five years, according to most research participants. Access to funding varies greatly among businesses and while for some the interest rates on loans are very low, for others the terms are unfavourable or even prohibitive, with some participants reporting a worsening investment climate, with banks refusing to lend at all, regardless of terms and conditions.

Financing investment projects can pose a significant problem for some enterprises with limited access to external finance; they have to finance investment internally and this can slow growth and prevent businesses from seizing market opportunities at the right time. Banks were said to be reluctant to lend without 100% security, while at the same time heavily discounting the value of assets accepted as security. Most lenders

reportedly do not accept the value of inventories (raw material and product stock) as security at all, making it hard for smaller labour-intensive enterprises to secure loans.

Other enterprises find the investment climate very favourable and are able to borrow at historically low interest rates. The climate appears to be more favourable for larger, well established companies with more fixed assets and good credit history. Some of these businesses appear to have taken full advantage of the low interest rates in recent years by borrowing heavily while interest rates are low.

Various European and local grants exist for individual investment projects and are crucial in helping some processors to grow and develop their business; however, some believe more support should be provided to the industry.

It was noted that ownership structure strongly influences business decisions, including investment strategy. The required rate of return on investment (ROI) from projects depends on shareholders' preferences (e.g. shorter vs. longer-term view, or any other considerations taking precedence over profit maximisation).

While some research participants expressed much confidence about the future, others reported that uncertainty in the industry hindered their ability and willingness to invest. Commonly cited reasons for uncertainty were the landing obligation (discard

ban) and increasing pressure down the supply chain exerted by the big four UK retailers in their push to lower end-consumer prices.

5.5.3. Investment focus

Broadly speaking, the investment projects described by research participants focused on enhancing production efficiency, increasing production capacity and gaining access to new markets.

Enhancing the efficiency of processing operations ultimately means reducing the production cost per unit of output. Unsurprisingly, this appears to be a high priority for UK seafood processing businesses. Typical investment projects include the replacement of equipment such as boilers, cookers and refrigeration units to enhance utility efficiency and reduce spending on energy over the long term. Upgrading equipment to automate factory processes was reportedly very costly but still a worthwhile investment for some. Staff development, which requires lower initial outlay, was another commonly cited type of investment aimed at improving production efficiency.

Projects to increase production levels are another focus of investment. Acquiring a new plant, expanding existing facilities and increasing the working floor space within existing premises were all mentioned in the interviews. Hiring more staff can also increase production, although labour

5.6. INNOVATION

shortages appear to pose a problem for some enterprises wishing to pursue this option.

Investing in projects to increase market share and expand into new markets can help processors increase revenues and reorient their customer portfolios to help manage risk. Marketing activities, such as taking part in seafood exhibitions, re-branding, enhancing social media presence and opening retail outlets, are among the examples of activities being undertaken by seafood processors in recent years. Much of the focus of marketing activities is taking place in Europe and overseas, particularly Asia.



- Key areas of innovation focus in the industry are product and process innovation, marketing innovation and to a lesser extent, organisational change. Inspiration and ideas for innovation projects come both from within and outside businesses.
- Process innovation is a major area of research, development and investment for seafood processing businesses and research participants described specific projects to enhance utility efficiency as well as developing software to streamline ordering and stock control.
- Product innovation is also an area of focus for processors seeking to increase market share and enter new markets. The creation of new and improvement of existing product lines typically requires significant investment and is often considered high risk.

Marketing innovation projects are important for seafood processing businesses. Specific marketing innovation projects described by research participants include re-branding, innovative product offerings, engaging with customers directly through social media and strengthening links with overseas markets via visits, exhibitions and developing different branding for exported product lines. Further opportunities to enhance their profile and reach out to more customers exist in terms of adopting ethical sourcing policies, which is one of the ways in which the Seafish Responsible Fishing Scheme and Risk Assessment for Sourcing Seafood (RASS) can add value, for example.

Organisational innovation was also cited by research participants. Examples include restructuring management teams and administrative skills training and development, among others. Providing opportunities for training and promotion were generally described as worthwhile business endeavours by research participants.

5.7. REGULATORY DEVELOPMENTS

Specific regulations regarding catching, handling and processing exist for many species, creating unique challenges facing each business. Additionally, seafood processors who trade overseas must comply with the regulations in the countries where they trade. It is therefore not always appropriate to generalise about the regulatory environment and indeed there was little consensus amongst research participants regarding the most pressing regulatory issues.

A big regulatory development that influences the catching sector, such as the landing obligation, is bound to have impacts on processors. [Section 5.7.1](#) summarises the views gathered from industry stakeholders as part of the research. The author is grateful to colleagues at the Seafish Regulatory Affairs team, who helped summarise the key contemporary issues directly affecting processors in [Sections 5.7.2 – 5.7.4](#).

5.7.1. Landing Obligation: Threats and Opportunities

Article 15 of the reformed Common Fisheries Policy (EC Reg. 1380/2013) introduces a regulatory requirement for the EU fishing fleet to land all catches subject to catch limits or quotas (known as the landing obligation, or discard ban). The landing obligation was implemented for EU pelagic fisheries from January 2015. For demersal fisheries, the landing obligation will come into

force using a phased approach beginning for some fisheries in January 2016 and full landing obligation no later than 1 January 2019. Introduction of the landing obligation will require changes to existing regulations and definitions and those are still to be agreed, so certain elements of the landing obligation and how it will be delivered are still to be confirmed.

Despite its proximity, there is still a large degree of uncertainty surrounding the landing obligation amongst the catching sector, processors and fisheries administrators. Uncertainty of how the landing obligation will affect the catching sector (and therefore supply of raw materials) is worrying for many processors and is reportedly creating difficulties for long-term business planning. Despite the uncertainty, there was general consensus among research participants that the landing obligation will negatively affect the UK fishing fleet. Some participants also saw potential opportunities for processors because of increased supply of fish, which would otherwise be discarded, while others reported that business activities would not be affected by the ban at all, particularly for processors of non-quota species, e.g. crabs and lobsters.

The main threat anticipated by research participants was limited or severely disrupted supply of raw materials. There are worries that the landing obligation may cause the fleet to shrink as some fishing businesses become unprofitable under the new rules. According to several survey

respondents, the demersal and nephrops fleets in particular risk facing ‘choke’ scenarios (where the lack of quota for one species prevents further fishing in the area). It was also pointed out that as some sections of the fishing fleet become severely restricted or ‘choked’, some of the skippers may turn to other sectors which are less restricted by quota or choke species, such as scalloping, and this in turn could dilute the fishing effort of existing vessels, causing further business failures.

Some industry stakeholders also anticipate the landing obligation to create opportunities for processing businesses. It was highlighted that if ports have the infrastructure to cope with increased landings, there could be an increase in supply of raw materials. While some of this fish would be less marketable, a number of research participants highlighted opportunities to diversify into processing previously discarded fish, including unwanted and smaller-size fish. Diversifying the business into freezing and storage of unwanted fish to sell as bait was cited as another potential opportunity.

With regard to objective assessment, Seafish is currently undertaking an impact assessment of the landing obligation aimed at providing information to support decision-making and improving understanding of the impacts on the catching and onshore sectors.

5.7.2. Regulation on packaging, labelling, allergens and associated production planning

In 2014, following a three year transition period, the Food Information to Consumers Regulation 1169/2011 took effect. This is applicable to pre-packed products for supply to the final consumer and mass caterers. Food labelling is not a new requirement, but this introduced additional requirements of the date of first freezing on unprocessed products. There were also changes and clarification around the existing requirements to declare if a product is formed, has added water, has been defrosted, weight declarations on glazed products, allergen labelling presentation, declaration of fish proteins and vegetable oils.

Many of the new terms used in the Regulation have required interpretation at an EU level and this has caused difficulties in compliance. This uncertainty is ongoing and can cause issues when marketing products in other member states.

The requirement for allergen labelling has been extended to foods sold loose; this will include food service. The allergens are unchanged but information must be provided to the consumer at the point of sale of loose foods, e.g. fishmongers and food service including fish and chip shops.

In 2014 the requirement to include more information to the consumer on the fish presented for sale also took effect. The Common Organisation of the Markets Regulation 1379/2013 requires

additional information of the scientific name, the gear type used, a more precise catch area and if a product is defrosted. This is in addition to existing requirements of common name, catch area and production method. This only applies to CN03 products which are fishery products with no intrinsic ingredients other than salt.

New traceability rules were also introduced by Regulation 1224/2009. This requires the detailed traceability information to be available throughout the food chain. This isn't going to have a direct effect on processors except that they need to ensure that they receive this information from their suppliers and pass on to customers if required.

5.7.3. Contaminants

Crabs caught throughout the world may contain relatively high levels of cadmium in the part of the flesh known as the brown meat. The European Commission has investigated the issue and decided that setting cadmium limits on brown meat is inappropriate because consumption patterns vary widely between consumers in different member states. UK consumers prefer the white meat and consume relatively small amounts of brown meat, so that their exposure to cadmium through this route is small. National advice is expected shortly from the Food Standards Agency. Other countries that import crabs from the UK may have legislation that sets limits to crab meat without distinguishing between the white and brown meats of crab. This may cause problems

for exporters wishing to export UK crab and crab products to these countries.

New limits on polycyclic aromatic hydrocarbons (PAH), which mostly affect smoked fish, took effect in 2014. There are relaxed limits applicable in the UK specifically for traditionally smoked products produced in the UK and intended for the UK market. Imports of traditionally smoked fish need to be carefully monitored in order to ensure that levels are compliant with EU contaminant legislation as laid out in Regulation 1881/2006.

5.7.4. Trade barriers

Imports of shellfish into the EU from the USA continue to be restricted, and are currently limited only to the adductor muscle of wild-caught scallops.

The regulations in place to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing require that imported seafood other than aquaculture product from third countries is caught by vessels registered to an approved flag state and is accompanied by a catch certificate. Seafood caught by Guinea, Sri Lanka and Cambodia is currently prohibited from entering the EU until these countries provide adequate guarantees that they are tackling their IUU problems. Ghana, South Korea, Philippines and Papua New Guinea are among the countries who have been shown 'yellow cards', meaning that they are required urgently to address IUU fishing or risk facing restrictions on their ability to export to the EU.

Several countries including China, Bangladesh and India continue to have additional testing requirements placed on aquaculture product intended for export to the EU, in order to ensure that product reaching EU consumers complies with antibiotic residue requirements. An increase in rejections of Vietnamese seafood (mostly pangasius and prawns) containing non-compliant levels of residues of veterinary medicines was noted in 2014. The European Commission and the Vietnamese authorities have acted to address the issue, and it is hoped that no imposition of import restrictions will be necessary.



5.8. MOST PRESSING ISSUES FACING THE SEAFOOD PROCESSING INDUSTRY

Below is a summary of the key themes highlighted by research participants as the most important problems currently facing the industry. The supply of raw materials, lack of consumer awareness, skill shortages, securing finance, regulations, trade developments and competition with other processors were the most commonly cited issues.

- Coping with the rising cost and inconsistent supply of raw materials were identified as particularly problematic. For more on this topic, see [Sections 5.1](#) and [5.2](#).
- It was also noted that increasing downward pressure on the supply chain from the retail sector is squeezing profit margins.
- The issue of profitability is further compounded by stiff competition with other processors. Research participants described how some of their competitors bid up the price of raw materials temporarily to encourage customers to switch, which is problematic when trying to stabilise input, output and margins.
- Processors are affected by the increasing regulatory pressures on the catching sector. Many are concerned about politically driven developments and what is deemed by some to be insufficient scientific evidence to back up high-impact decisions.
- The seafood processing industry faces a number of direct regulatory pressures. Compliance with regulations, including rigorous food safety and general health and safety standards can be difficult for both new entrants and established businesses (see [Section 5.7. Regulatory Developments](#) for more). The view that there is limited guidance and support available from the enforcing bodies was expressed.
- Uncertainty around the future regulatory environment was highlighted as detrimental to business planning.
- Most seafood processors are affected by trade developments, either directly or indirectly, e.g. the strong British Pound against the Euro, red cards for IUU, the Russian embargo and others. See [Section 5.4. Trade](#) for more on the topic.
- In addition, excessive and/or poorly understood foreign food safety regulations, which are often referred to as 'red tape' barriers to international trade, were highlighted by exporters of UK product during the survey. In some cases a great deal of research is required to enter markets abroad to ensure that foreign regulations are adhered to. For more on the topic of regulation, see [Section 5.7](#) particularly [5.7.4. Trade barriers](#).

- Competition with overseas markets, particularly from imported farmed sea fish, is a common issue amongst processors. Research participants described difficult situations where a combination of fluctuating foreign exchange rates, differing seasonality and foreign export prices makes it difficult to compete with overseas businesses.
- Lack of awareness about the seafood supply chain was a major issue identified by approximately half of the research participants. Year-round expectation for products at a constant price (at varying quantities demanded) was repeatedly highlighted as a problem and was seen as being mainly driven by the retail environment and pricing strategies. Furthermore, there appears to be limited understanding about alternative species to replace those which are not available during particular seasons. A lack of customer awareness of sustainability in the seafood industry and the wider environmental impacts of the different catching and farming methods was also cited as an issue. Processors also reported widespread limited understanding of cooking methods among consumers, both for mainstream and alternative species. Limited understanding of the health benefits of seafood was also repeatedly mentioned by research participants. Educating consumers was something most industry stakeholders saw as essential for the future of the industry.
- Skills shortages are a common issue amongst seafood processors. For more on this topic, see [Section 5.3](#).
- A number of research participants described difficulty securing investment finance and having to fund investment internally. The issue appears more pertinent among small to medium enterprises. See [Section 5.5](#) for more.
- Financing the day-to-day activities of the business is also troublesome for some, with considerable difficulties in managing working capital even when using financial services such as invoice discounting to alleviate the pressure.
- Distribution was highlighted as a pressing issue by a few research participants. The cost of distributing small quantities of product to customers across the country was highlighted. To tackle the problem, some enterprises outsource distribution or sell to larger companies with established distribution networks. Issues with items going missing in transit and the high cost of insurance were other problems that were mentioned.

5.9. BUSINESS ASPIRATIONS AND OTHER COMMENTS FROM THE INDUSTRY

5.9.1. Business aspirations and outlook

It is difficult to generalise about an overall market outlook as some businesses will always be doing better than others in any industry at any time. Due to the many pressures and high level of uncertainty in the market, especially in relation to supply, most industry stakeholders who took part in the research were cautiously optimistic about the future of the industry. The need to be flexible and responsive to changes in the market was repeatedly cited as crucial to operating sustainably and profitably in the long term.

5.9.2. Supporting the industry

The processors interviewed acknowledged that agency help and support is available to them, although the landscape is not always well understood.

Most participants were of the opinion that there is a need for more education and promotion and more specifically:

- Educating business customers and end consumers about the health benefits of seafood and the uniqueness of seafood vs. other animal proteins;
- Encouraging the take-up of a wider variety of species and products in the domestic market;
- Education around seasonality and intermittent availability of fresh catch;
- Raising awareness around seafood sources, responsible fishing practices, product quality and sustainability;
- Educating consumers that cooking seafood is very quick and easy;
- Raising the profile of UK products abroad.

However, note that one participant argued that the industry needs less government interventions in marketing and value-adding initiatives, as these may undermine any competitive advantage gained through individual investment efforts.

A need for stronger engagement and guidance from regulatory bodies was mentioned repeatedly and a need for support in accessing foreign markets was highlighted, particularly with regards to understanding and complying with food safety regulations abroad. Furthermore, a need for

advisory support in the areas of sustainability, materials safety and industrial science was highlighted.

The need for better access to finance was also an important theme.

The need for better organised industry representation and stronger lobbying influence was also highlighted, particularly in relation to regulatory matters.

5.9.3. Securing the future of the industry

Concern was raised about the need to engage young people with the seafood industry as a whole. Survey participants flagged up a need for more funded projects to train young staff in a variety of fields, including skilled primary processing, management, food science and aligned skills such as software design. It was suggested that more educational partnerships, apprenticeship schemes and industry ambassadors should help promote the industry to school and university leavers and inspire the next generation.

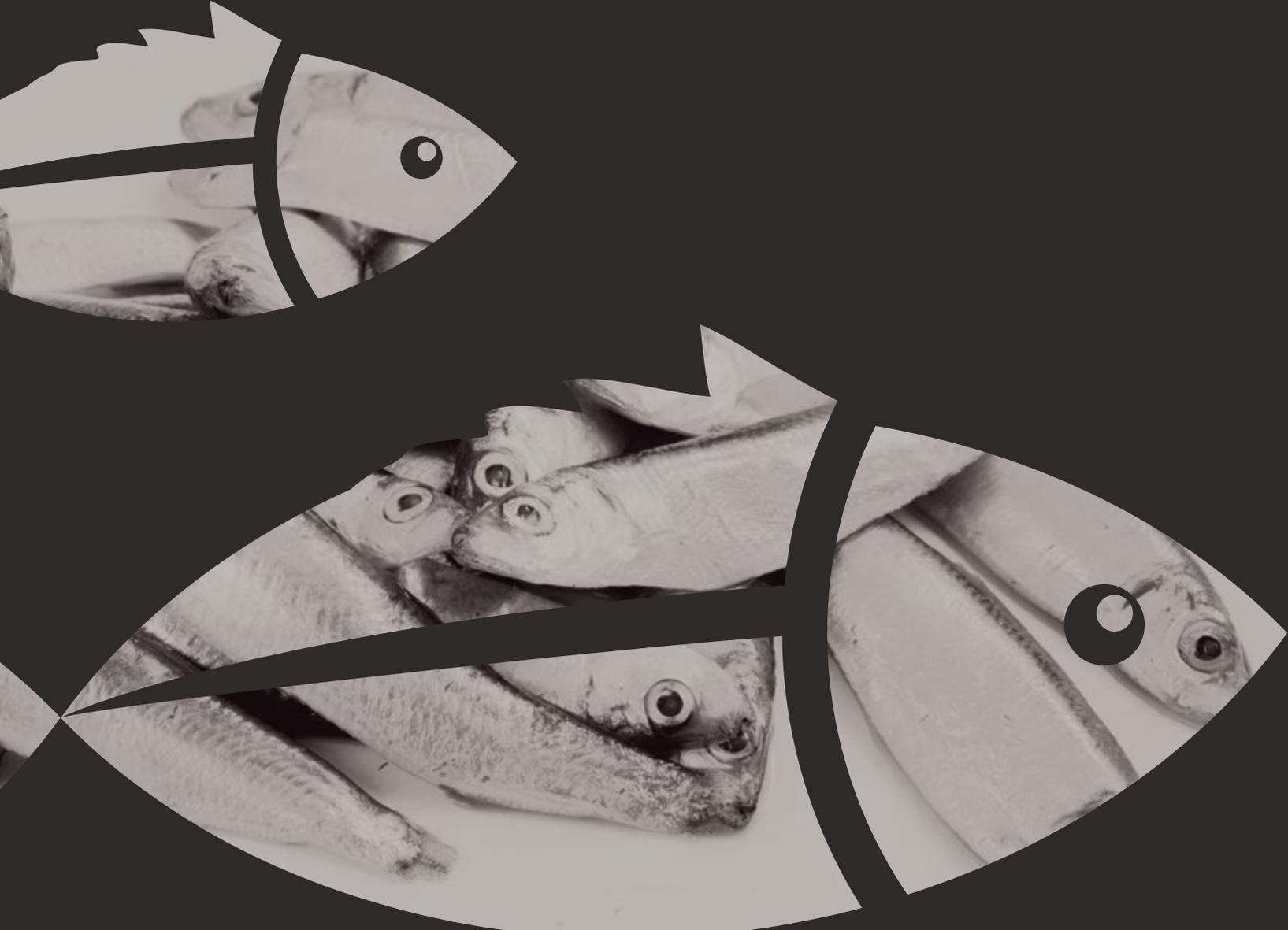
What came through very clearly from the conversations with processors was that they tend to value supplier relations highly and they care about the long-term sustainability and profitability of the catching sector. Several participants flagged up the fact that the catching industry is coming

under ever greater political and environmental pressures and it was suggested that restrictive regulations are not always based on sound scientific evidence. Present scientific knowledge and understanding of various species' natural cycles, behaviour and stock levels is deemed by some to be insufficient, so more investment effort in these areas is needed to fill any knowledge gaps and avoid the potential for overly restrictive policies.

It was also noted that for a variety of political reasons, restrictive regulations are not always designed in a way which offers workable solutions to problems. The need for reforms to the fishing rights management system was often brought up during the interviews, with a variety of issues and proposals for solution being mentioned depending on the specific product in question.

Some industry stakeholders also highlighted the excessively fragmented fisheries administration landscape and also the need for the industry to break away from the tradition of mistrust between fishermen and processors. Industry stakeholders emphasised the need for all industry participants to be proactive and work closer together to secure a bright future for seafood processing in the UK.

APPENDICES



APPENDIX 1. REGIONS OF THE UK FOR REPORTING PURPOSES



APPENDIX 2. DEFINITIONS

The following definitions have been used throughout the report. For the most part, these are consistent with previous years, although a number of changes have been introduced following a recent major review in definitions and methodology. All changes are driven by a continuous effort toward improving data quality, including accuracy and consistency over time, as well as being able to capture real-world events (e.g. changes in site ownership, sites moving address, etc). Where definitions were changed, the respective changes have been applied going back in time whenever possible.

All of the following definitions are used for the purpose of Seafish data collection as per the most recent surveys (in alphabetical order):

Capital costs – The sum of depreciation, financial costs (interest paid) and extraordinary costs. Note that prior to 2012 extraordinary costs were not captured.

Capital employed (or *net assets*, or *total capital*) – see *Total capital*.

Category of processor – See Main fish category.

Company – Organisation that owns at least one processing site, some companies own more than one. It is the lowest-level business entity (e.g. within a Group structure) for which separate accounts information is produced. It is the equivalent of ‘enterprise’ in the EU DCF.

Demersal (*fish type category*) – See *Fish type category*.

EBIT – Earnings before interest and tax have been deducted.

Employment – Used interchangeably with number of FTE jobs throughout the report, apart from when specifically used in the context of total headcount employment. On-site admin staff are included but not office staff at office-only sites. This is a natural consequence of viewing each processing plant as a separate unit and is consistent with previous surveys.

Exporting – Selling fish to buyers in countries outside the United Kingdom.

Fish type category – The following categories have been designed to categorise sea fish processors according to the type of species they handle:

- **Demersal (Whitefish)** – Cod, haddock, plaice, whiting, Pollack, saithe (coley), hake, monk/anglerfish, soles, lemons, megrim, witch, brill, turbot, halibut, dogfish, sharks, skates, rays, john dory, bass, ling, sea bream, marine eel, sea-water catfish, redfish and others.
- **Shellfish** – Nephrops (scampi, langoustine), scallops, crabs, oysters, cockles, mussels, winkles, lobster, crayfish, prawn (shrimp), squid, cuttle-fish and octopus, among others.
- **Pelagic** – Herring, mackerel, pilchard, sprat, whitebait, tuna and others.
- **Saltwater Exotics** – Snapper, barracuda, barramundi (giant sea perch), croakers, drums, emperor/emperor breams, groupers, jacks, parrotfish, pomfret, snappers and swordfish, among others.
- **Salmon** – All salmon species. Note that by definition saltwater processors cannot process salmon only; if a sea fish processor handles fish in this category, that processor’s fish type category is mixed.
- **Trout** – All trout species. Note that by definition saltwater processors cannot

process trout only; if a sea fish processor handles fish in this category, that processor's fish type category is mixed.

- **Other freshwater fish** – As a fish type category, this includes all non-saltwater species other than salmon and trout, e.g.: tilapia, pangasius (basa), carp, freshwater prawns, crayfish, freshwater catfish, perch, pike, zander, freshwater eel, and others. Note that by definition saltwater processors cannot process only such species; if a sea fish processor handles fish in this category, that processor's fish type category is *mixed*. Also note difference to *other freshwater* as a sub-category of the *non-saltwater category* of processor (see *Main fish category*).
- **Mixed** – for processors handling mixed species, i.e. from more than one of the above categories.

Fixed capital (or *tangible fixed assets; property, plant, and equipment (PPE)*) – The portion of total capital invested in fixed assets (such as land, buildings, vehicles, plant and equipment) that stay in the business for a relatively long period of time, or at the very least, for more than one accounting period.

Full-time equivalent (FTE) job – A standardised measure of employment, based on an employee working 37 hours per week 52 weeks per year. Standard assumptions in accordance with the European Data Collection Framework guidelines are made for the purposes of calculating FTEs; in particular, the following formula is used: No. of FTEs = No. of full-time jobs + (21.1 * No. of part-time jobs) / 37 + (No. of seasonal jobs * No. of weeks seasonal staff work) / 52

Gross Value Added (GVA) – Gross Value Added (GVA) is a measure of output, which is calculated here as operating profit plus labour costs (which includes the value of unpaid labour per site for 2012).

Importing – Purchasing fish from companies based in countries outside the United Kingdom.

Labour costs – The sum of wages of staff (which include management salaries) and the imputed value of unpaid labour. Note that prior to 2012 the imputed value of unpaid labour was not captured.

Main fish category (or *just category*) of processor – The high-level categorisation of processors according to the main type of fish species they handle into:

- **Saltwater (sea fish)** processors
- and **Non-saltwater** processors, which include the sub-categories:
 - **Salmon** processors (see *salmon* in *fish type category*); and
 - **Other freshwater** processors (includes trout and other freshwater fish, see *fish type category*).

Note that unlike the lower-level categorisation *fish type category*, there is no mixed category here. In order to allocate each site exclusively to a single main category, the income share derived from processing saltwater vs. non-saltwater / salmon is used. E.g. if a processor derives the majority of their processing income from processing saltwater fish, but they also process some salmon, that processor's *main fish category* is *saltwater (sea fish)* processor and their *fish type category* is *mixed*. Or, if a processor handles mainly trout, their *main fish category* is *non-saltwater* and their sub-category is other freshwater.

Mixed (*fish type category*) – See *Fish type category*.

Mixed (*type of processor*) – see *Processing type*.

Net assets – See *Capital employed*.

Net pre-tax profit – Total income less total costs (post-interest, post-depreciation, pre-tax).

Operating costs – Includes all operating costs and is the sum of raw materials costs, labour costs, energy costs and other operating costs.

Operating income – Turnover (revenues, or sales).

Operating profit – Operating income less operating costs.

Other freshwater fish (*fish type category*) – All non-saltwater species other than salmon and trout. See *Category (Main)* and *Fish type category* for more.

Pelagic (*fish type category*) – See *Fish type category*.

Primary (*type of processor*) – See *Processing type*.

Processing – Processing is materially changing the raw material product. This definition excludes seafood merchants that buy and sell seafood (see *Trading/ Wholesaling*), possibly including defrosting, repackaging and selling in smaller quantities, but not actually coating, cutting or altering the seafood. This also excludes

fishmongers which cut and fillet seafood solely for sale in their own premises (see *Retailing*). Service businesses, which provide a processing service to other companies without owning the seafood, are included as they materially change the seafood.

Processing type:

- **Primary** – Primary processing includes: cutting, filleting, picking, peeling, washing, chilling, packing, heading and gutting.
- **Secondary** – Secondary processing includes: brining, smoking, cooking, freezing, canning, deboning, breasting, vacuum and controlled packaging, production of ready meals.
- **Mixed** – Processing units that carry out a mix of primary and secondary processes are classed as ‘mixed’ processors.

It is important to remember these strict definitions when considering the figures presented in this report, since there is often a general idea that a primary processor is a smaller firm filleting fresh fish and a secondary processor is a large firm producing ready packaged seafood products. For the purpose of this survey, large units which carry out primary processes to provide material for their finished products are classed as Mixed (i.e. units are defined by type of activity rather than by format of their output).

Processor – See *site*.

Raw material costs – purchase of fish and other raw materials for production.

Retailing – Selling fish to members of the public.

Salmon (*fish type category*) – All salmon species. See *Category (Main)* and *Fish type category* for more.

Saltwater fish (or *sea fish*) – All saltwater (marine) species, including whitefish, pelagic fish, flatfish, saltwater shellfish and saltwater exotics. It excludes diadromous and freshwater species (such as salmon and trout).

Scope – The processors in scope of the research are majority processors only, i.e. those that derive 50% or more of their turnover from fish processing activities.

Sea fish (or *saltwater fish*) – All saltwater (marine) species, including whitefish, pelagic fish, flatfish, saltwater shellfish and saltwater exotics. It excludes diadromous and freshwater species (such as salmon and trout).

Secondary (*type of processor*) – see *Processing type*.

Shellfish (*fish type category*) – See *Fish type category*.

Site (*processor, or unit*) – Individual factory or facility for processing fish. The sites in scope of the research are majority processors, i.e. derive 50% or more of their turnover from fish processing activities. In our records a site is defined by the physical premises where processing activities are carried out. A company may operate more than one site and site ownership by companies can change over time. If a processor moves to a new physical address, the old site is no longer considered in existence and a new site is added to our records. A site may have a different postal address, e.g. in the case of a separate administrative office function.

Total capital (*or net assets, or capital employed*) – The money directly used to finance the business. It is calculated as follows: Capital employed = net assets = total assets (total fixed assets + total current assets) - total current liabilities (total shareholder funds + long term loans + any other long term liabilities). Equivalent to ‘total assets’ in the EU Data Collection Framework.

Total costs – the sum of operating and capital costs.

Total headcount (*employment*) – the non-weighted sum of all employees, regardless of the type of employment or working hours (e.g. a seasonal worker, a part-time employee and a full-time employee are counted as 1 each).

Total income – includes turnover (sales), subsidies and other income.

Trading/Wholesaling – Buying and selling fish (trade customers).

Trout (*fish type category*) – All trout species. See Category (**Main**) and *Fish type category* for more.

Turnover – Sales, or revenues, (£s) from business activity.

Unit – See *site*.

Whitefish (*fish type category*) – See *Fish type category*.

APPENDIX 3. DATA TABLES

A3.1. Report Data

In order to reduce the carbon footprint of the report, all data presented in the report, (including data supporting visualisations such as charts) are freely available online in electronic format.

If you wish to download the data tables Microsoft Excel workbook, visit the **Seafish Economics Downloads Web page** at:

<http://www.seafish.org/research-economics/industry-economics/economics-downloads>

If you have no access to the Web and require the data tables in print, please send an email with your specific request to t_yordanova@seafish.co.uk.

Note that no individual site or company records are disclosed and strict confidentiality rules have been observed in order to ensure that individual businesses cannot be identified.

Also note that Seafish reserve the right to make amendments and revisions to published figures and other information at any time without notice.

While we do our best to ensure high-quality data and publications, Seafish cannot be held responsible for any loss arising as a result of the use of information presented in this report, including but not limited to decisions based on incorrect information published as part of the report.

A3.2. Sample sizes for financial variables estimation

Financial variable	2008			2010			2012		
	Sample size	Population size *	Sample / Population	Sample size	Population size *	Sample / Population	Sample size	Population size *	Sample / Population
Turnover	115	528	22%	95	424	22%	102	387	26%
Subsidies	n/a	528	n/a	n/a	424	n/a	4	387	1%
Other income	77	528	15%	38	424	9%	44	387	11%
Wages	103	528	20%	91	424	21%	99	387	26%
Unpaid labour costs	n/a	528	n/a	n/a	424	n/a	3	387	1%
Raw material costs	98	528	19%	93	424	22%	101	387	26%
Energy costs	55	528	10%	40	424	9%	58	387	15%
Other operating costs	107	528	20%	86	424	20%	93	387	24%
Depreciation	168	528	32%	154	424	36%	156	387	40%
Financial costs	91	528	17%	73	424	17%	83	387	21%
Extraordinary costs	n/a	528	n/a	n/a	424	n/a	3	387	1%
Investment	n/a	528	n/a	22	424	5%	33	387	9%
Net assets	183	528	35%	155	424	37%	158	387	41%
Current assets	97	528	18%	133	424	31%	135	387	35%
Current liabilities	97	528	18%	133	424	31%	136	387	35%
Tangible fixed assets	137	528	26%	133	424	31%	133	387	34%

* Note that the number of companies in the initial population used for estimation includes companies with at least one majority processing site, which can be either saltwater (sea fish) or non-saltwater, whereas financial data presented in this report include only sea fish processing sites.

APPENDIX 4. RESEARCH METHODS

A4.1. Scope

The scope of the surveys includes all fish processing businesses in the UK (not Channel Islands or Isle of Man) where 50% or more of 2012 turnover is generated by sale of the products of fish processing regardless of size of business, type of processing or type of species processed. Wholesalers, retailers, fishmongers, distributors, farmers, etc. are out with the scope, even if they are engaged in processing activities to a certain degree (since processing is not their main income-generating business activity). Businesses which process a range of foodstuffs, of which fish products are only a small part, are also considered out of scope. Therefore only majority fish processors are included.

A4.2. Research stakeholders and objectives

The research stakeholders were defined as: the UK fish processing industry, UK Government, Marine Management Organisation, Marine Scotland, other public institutions in the UK and EU and researchers in the field.

The overall aim of this report and the supporting research was to present accurate up-to-date economic data and high-quality analyses and commentary to serve as evidence base for business decisions, policy discussions, and/or further research, where appropriate.

Note that Seafish Economics also collect, manage and analyse data, including some of the data contained within this report, to enable the UK government to meet its obligations under the EU data collection framework EC Decision 2008/949 pertaining to fish processing enterprises.

A4.3. Research methods

The research involved several data collection tasks, including a combination of primary and secondary research, requiring both quantitative and qualitative data.

The two primary quantitative data collection tasks were undertaking the 2012 Seafish Financial Data Survey and the 2014 Seafish Census Survey. Financial data from published accounts was also utilised. A further limited qualitative survey took place through one-to-one interviews with industry stakeholders.

2014 Census Survey – The phone census defined the population of the UK seafood processing industry. In preparation, a list of possible seafood processing sites was compiled from several sources: the 2012 Census survey; the Seafish contact management system; Seafish levy database; and a list of food processing companies having a fish processing licence from the Food Standards Agency. A phone census of the entire UK seafood processing industry was then undertaken asking for confirmation of business

contact details as well as details of their business activity (their core business activity, the type of fish processed, their importing and exporting activity, and the number and tenure of staff employed). No financial details were requested during the phone survey. The questionnaire is attached in [Appendix 5](#). The resulting data were entered into the new Seafish Economics Access database containing processing industry data in the same format for all years, where possible. This data is collected and stored at the site (unit) level.

Note that **operational data** is also stored and collected as part of the Census Survey, e.g. whether the site has changed its name, address or company ownership, contact details, dates when contact was attempted, outcome of the contact, any other comments, etc. These data are used to update the site address (if moved); site name (if changed); company ownership of the site for the relevant year (if changed), etc in the database. This operational information is also utilised as part of the change analysis, e.g. verifying whether the site has been contacted on enough attempts to conclude that it cannot be reached; or whether the researchers have noted that it is out of business, etc.

2012 Financial Data Survey – Data were drawn from the Seafish Levy Database, the previous phone census conducted in 2012 and Companies House. Processing businesses were approached directly and invited to provide data by email, fax or post. The relevant questionnaire is attached in [Appendix 6](#). The resulting data were input into an Access database. This data is collected and stored at the company level.

Published **company accounts data** is stored separately in Excel and is at the company level. The data was transformed using an appropriate VBA macro programme. Relevant company IDs were allocated in order to enable merging this data with the financial data from the Financial Data Survey (above).

In order to combine data at different levels (site vs. company) from different sources, a STATA programme routine was used. This routine utilises all the data mentioned above (Census and operational data from the Access database; Financial Survey data from the Access database; and published accounts data stored in Excel format) as well as postcode data for assigning a region to each site.

The **STATA programme** contains a number of data transformations, checks and adjustments needed to ensure as comprehensive a dataset as possible. Only data for sites and companies in scope were kept, i.e. majority processor sites and companies owning at least one majority processor

site. Some partially completed survey returns meant that data for all variables for all participating sites or companies were not comprehensive. In certain cases, entire observations were dropped (e.g. if a site has missing employment data, which is crucial for headline figures and estimations), while in others, this was accepted (e.g. if a company has provided turnover data but no raw material cost data). Where both Financial Survey and published accounts data were available for particular variables, the officially published figures superseded Survey data. The merging of Financial Survey and published accounts data was supplemented by extensive checks to ensure compatibility in terms of the variable definitions (for example, the Financial Survey variable ‘debt’ is equivalent to the sum of short-term and long-term debt from the published accounts).

Once the **financial datasets were merged and definitions harmonised, each of the financial variables was estimated** individually at the company level, for all companies in the population (aside from those in the sample), applying sample averages on a per-FTE basis, where company FTEs were calculated as the sum of the relevant site(s) FTEs, using site ownership data (for the relevant year). In order to assign the estimated financial data from companies to sites, the data were allocated from companies to individual sites on a per-FTE basis, using site ownership data (held in the Access database), site characteristics criteria (to establish scope) and employment data from the Census.

The resulting dataset contained all census and financial data from all sources, including financial estimates, at the site level. This approach was chosen, as it enabled analysis of financial data by region, type of processing, fish type category and other site characteristics (not applicable to the company level). Among the **limitations of the approach** are the relatively simplistic estimation of financials on per-FTE basis and equally the allocation of company-level financial data to sites in scope, purely based on FTEs. Future improvements in methodology will aim to address these limitations where possible.

Qualitative research – Qualitative research via interviews with business owners and managers, as well as other industry stakeholders, was carried out to inform the author of the current situation within the industry, with the results being used in the report for illustrative purposes only. The interviews were voluntary, in-depth, semi-structured and confidential in nature. The interviews were limited in number (11 in total) and involved different types of respondent (in terms of relationship with the industry), constituting a non-representative sample overall. The questionnaire forms varied slightly depending on the stakeholder’s position to comment on the industry (e.g. individual business managing director vs. industry expert working across an entire region) and are available upon request. The results from this research are presented for illustrative purposes only and should not be interpreted as representative of the entire industry.

APPENDIX 5. CENSUS SURVEY FORM (2014)

2014 Fish Processing Questionnaire

Record No.	Site ID
Phone	Site name
Contact name	Company name
Address	

Please confirm the information above and then complete the following by ticking, circling, deleting or entering a figure as appropriate.

1. With regards to fish, which of the following activities is your business involved in? (See over page for definitions)
- Processing Trading/Wholesaling Retailing Importing Exporting
- 1a. If you included 'Processing', approximately what proportion of the annual turnover this year will be from fish processing (as opposed to trading, retailing, wholesaling etc.)? ___%
- If < 50% survey ends here, but researchers should record any other voluntarily shared information such as key species traded.*

1b. What type of fish do you process? (See over page for definitions)

<i>Saltwater</i>	Demersal (whitefish) <input type="checkbox"/>	Pelagic <input type="checkbox"/>	Shellfish <input type="checkbox"/>	Saltwater exotics <input type="checkbox"/>
<i>Diadromous and freshwater</i>	Salmon <input type="checkbox"/>	Trout <input type="checkbox"/>	Other freshwater fish (including exotics) <input type="checkbox"/>	

1c. If you included 'Importing', approximately what proportion of your total raw materials (in terms of value) is imported from:

EU	%	Rest of the world	%
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Please confirm that the sum equals the total proportion of raw materials that are imported.

- 1d. If you included 'Exporting', which countries do you currently export to? _____
- 1e. If you included 'Exporting', are there any other export markets that you are particularly interested in? _____
2. Of your total income (or revenue) from fish processing, approximately what proportion comes from the following fish types? *Please ensure that the sum equals 100%.*
- | | | | |
|---|---|---|---|
| Sea fish (all saltwater fish including exotics) | % | Salmon, trout and other freshwater fish (including exotics) | % |
|---|---|---|---|
- If Salmon, Trout and Other Freshwater Fish ≥ 50%: What proportion of your total processing income comes from salmon? ___%*

3. Which types of processing are undertaken at your site:

<i>Primary</i>	Cutting <input type="checkbox"/>	Filleting <input type="checkbox"/>	Chilling <input type="checkbox"/>	Heading/Gutting <input type="checkbox"/>
<i>Primary (shellfish-specific)</i>	Picking <input type="checkbox"/>	Trimming <input type="checkbox"/>	Shucking <input type="checkbox"/>	Peeling <input type="checkbox"/> Washing <input type="checkbox"/>
<i>Secondary</i>	Freezing <input type="checkbox"/>	Brining <input type="checkbox"/>	Smoking <input type="checkbox"/>	Marinating <input type="checkbox"/> Canning <input type="checkbox"/>
	Deboning <input type="checkbox"/>	Breading <input type="checkbox"/>	Battering <input type="checkbox"/>	Vacuum/Controlled Packaging <input type="checkbox"/>
	Making Ready Meals/Cooking <input type="checkbox"/>			

4. How many staff are employed at this site (including administrative and support staff)? ____ Please break this down below:
Please ensure that the figures for employees in the table add up to the total figure above.

Full-time Women		Full-time Men		Part-time Women		Part-time Men	
Seasonal Staff		<i>If seasonal staff > 0: No. of weeks seasonal staff employed for</i> _____					

5. How many different suppliers do you use (count an auction market as one supplier)? ____
6. How many customers do you have (count own retail operation as one customer)? ____
7. We are undertaking an impact assessment of the Landings Obligation (discards ban) on the processing sector. Would you be willing to participate in our research by taking part in a short survey? Yes / No
If Yes: Please indicate how you would prefer to complete the survey: Telephone Email Fax Post

2014 Fish Processing Questionnaire

Definitions

Question 1

Processing – For the purpose of this census, processing is materially changing the seafood (see question 3 for types of processing). This excludes seafood merchants who buy and sell seafood (see Trading/Wholesaling), possibly including defrosting, repackaging and selling in smaller quantities but not actually coating or cutting the seafood in any way. This also excludes fishmongers who process seafood solely for sale in their own premises (see Retailing). Service companies, who provide a processing service to other companies without owning the seafood, are included, as they materially change the seafood.

Trading/Wholesaling – Buying and selling of fish (trade customers).

Retailing – Selling of fish to members of the public.

Importing – Importing of fish from countries outside of the United Kingdom (for the purpose of this census).

Exporting – Exporting of fish to countries outside of the United Kingdom (for the purpose of this census).

Question 1b*

Demersal (whitefish) – cod, haddock, plaice, whiting, pollack, saithe (coley), hake, monk (anglerfish), sole, lemon, megrim, witch, brill, turbot, halibut, dogfish, shark, skate, ray, John Dory, bass, ling, sea bream, marine eel, sea-water catfish, redfish, and others.

Pelagic – herring, mackerel (Spanish, Japanese, kingfish), pilchard, sprat, whitebait, tuna, and others.

Shellfish – nephrops (scampi, langoustine), lobster, crab, prawn (shrimp), oyster, scallop, cockle, mussel, winkle, squid, cuttlefish, octopus, and others.

Saltwater exotics – snapper, barracuda, barramundi (giant sea perch), croaker, drum, emperor, grouper, trevally (jack), parrotfish, pomfret, moonfish, mullet, jobfish, swordfish, and others.

Salmon – all varieties.

Trout – all varieties.

Other freshwater (including exotics) – tilapia, pangasius (basa), carp, freshwater prawns, crawfish, crayfish, freshwater catfish, perch, pike, zander, freshwater eel, and others.

Please send the completed form to Steve Lawrence (s_lawrence@seafish.co.uk) or fax to 0131 558 1442
 Alternatively, please mail to Sea Fish Industry Authority, 18 Logie Mill, Logie Green Road, Edinburgh EH7 4HS

* Fish have been categorized in this manner for the purpose of this census and the fish types listed are in no way exhaustive.

APPENDIX 6. FINANCIAL SURVEY FORM (2012)

2014 Seafish Processor Survey – Financial Data Collection Form for 2012

Seafish is collecting business data as part of our annual economic survey of UK seafood processing companies. All information collected will be treated as confidential and no individual company will be identified in any report or other output from this work. Your information will not be passed on to third parties. Only averages, totals and other aggregated figures will be published.

The purpose of this research is to understand the overall size and importance of the UK seafood processing industry. If you cannot provide all the information requested please complete what you can as all information will be useful to us.

We are collecting data relating to 2012 so **at least 6 months of the business year must fall within 2012**, including business years ending between 01/07/2012 and 30/06/2013.

Company ID -

Definitions:

Turnover – the value of all your company's sales during the 12 month period

Raw Material Costs – the cost of all material inputs to the production process including fish and other ingredients

Labour costs – total cost of staff to the business including production staff and other company employees and employer's social security costs

Energy Costs – total costs of power to the business

Other Operational Costs – all other costs incurred by the business in its operations, including packaging, transport, administration (before Operating Profit)

Interest Paid – all interest paid on loans by your company

Depreciation – annual depreciation charge in your year-end accounts

Net Assets – the net asset value on the balance sheet at the year end

Net Investment – total net investment in this financial year. This is equal to capital additions less capital disposals

Debt – total short term and long term debt at the year end

Variable	2012 Result £
1. Turnover	
2. Raw Material Costs	
3. Labour Costs	
4. Energy Costs	
5. Other Operational Costs	
6. Interest Paid	
7. Depreciation	
8. Net Assets	
9. Net Investments	
10. Debt	

Please return by fax to 0131 558 1442 or email figures to alison.grant@seafish.co.uk

Alternatively please return by post in the pre-paid envelope supplied to:
Seafish Industry Authority, 18 Logie Mill, Logie Green Road, Edinburgh, EH7 4HS

APPENDIX 7. LIST OF ABBREVIATIONS

CETA – Comprehensive Economic and Trade Agreement

CFP – Common Fisheries Policy

DCF – Data Collection Framework

EBIT – Earnings before Interest and Tax

EU – European Union

FTE – Full-time equivalent (job)

GSP – Generalised System of Preferences

GVA – Gross value added

IUU – Illegal, unreported and unregulated fishing

PPE – Property, plant and equipment

ROI – Return on investment

RoW – Rest of the world (other than the EU)

SW England – South-west England

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For more insight into the seafood processing industry you can go to the Seafish YouTube channel and watch **The Business of Processing (2014)**.

 www.youtube.com/user/SeafishTheAuthority

Contact us

We regularly request feedback on our work and encourage the contributions of all stakeholders.

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Supporting a profitable, sustainable and socially responsible future for the seafood industry.

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