



Seafood Processing Methodology Report

5th Edition

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Introduction

The seafood processing sector is an important part of the seafood value chain. According to the European Commission 2020 Factsheet¹, the UK seafood processing sector is estimated to be one of the largest in Europe in terms of employment and turnover.

This methodology report presents the data collection and estimation procedure methodologies used by Seafish to report on the size, structure and economic performance of the UK seafood processing industry.

This report supports the Processing Enquiry Tool² in Tableau. Published data come from the Seafish seafood processing sector survey. Data is collected through primary research conducted by the Seafish economics team. The most recent survey took place from April to June 2022. The most recent financial data refers to the 2020³ financial year⁴.

The Seafish processing sector economics work programme and supporting research have two main aims. The first is to provide accurate, up-to-date economic data and high-quality analyses and commentary to inform business decisions, policy discussions, and further research, where appropriate. Stakeholders in this work include: the UK seafood processing industry, UK Government, Marine Management Organisation, Devolved Administrations, other public institutions and researchers in the UK and EU. The second is to meet UK data collection obligations.

Please be aware that all data collected by Seafish are treated with the strictest confidentiality and no individual sites or company records are disclosed. Confidentiality checks have been made so that no individual businesses can be identified in Seafish publications.

¹ Facts and figures on the common fisheries policy: Basic statistical data, 2020 edition. European Commission.

https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/pcp_en.pdf

² <https://public.tableau.com/profile/seafish#!/>

³ 2020 data are preliminary.

⁴ Data must cover at least six months of the reference year e.g. financial accounts must cover at least 6 months of 2020 to be counted as 2020 financial data.

Data collection

Scope

In scope for seafood processing data collection are all majority seafood processing businesses in the UK. Majority seafood processing businesses are those that self-report 50 percent or more turnover is generated by seafood processing activity as opposed to wholesaling, retailing, importing, exporting, or non-seafood processing activity.

Prior to the 2018 survey the Channel Islands and the Isle of Man were not in scope. In 2018, Isle of Man processors were included for the first time. Majority seafood processors identified on the Isle of Man are grouped with the "North England" region for reporting purposes. Seafish has not identified any majority seafood processing businesses in the Channel Islands.

As a result of limiting the scope of this study to majority processors, there is a clear industrial definition being applied. Please note that Seafish processing sector estimates are not directly comparable to ONS annual business survey statistics due to differences in the definition of a seafood processing business.

Processing Survey

Seafish contacts every business that may be processing seafood in the UK. The starting contact list is primarily informed by previous surveys, the expert knowledge of Seafish staff, and the Food Standards Agency's list of sites with a licence to process seafood. The starting list is also cross referenced against the list of businesses registered to Companies House under the standard industrial classification (SIC) code: 10200 Processing and preserving of fish, crustaceans and molluscs.

Most interviews are conducted over the phone. Some, more in-depth interviews, are carried out in person⁵. During interviews researchers first identify whether a business is a majority seafood processing site based on our definition (Appendix A). Operational and employment data are collected at the site level to enable analysis of regional processing activity.

⁵ N.b. no in person interviews have been conducted since 2018 due to the Covid-19 pandemic.

Only those identified as seafood processors are asked to provide further information about their business activity. This information includes employment levels, type of processing activity undertaken and the type of species being processed. At present no financial details are requested during this part of the survey. The 2022 survey questionnaire can be found in Appendix B.

Prior to 2020, the survey was conducted each second year. In 2008, 2012, 2014, 2016 and 2020 the survey took place during the summer (July-August). In 2018, due to other data collection requirements, the survey took place at the end of the year (November-December). Since 2021, the survey has been conducted annually during April-June.

Participation in the survey is entirely voluntary in the UK. In the event that we are able to contact a business but they will not provide data we use previous census data (if available) combined with our own expertise and publicly available information to create estimates. If we cannot contact a company which is reported to be trading but for which we have no previous census data, we estimate the full time equivalent (FTE) jobs for the reference year based on a combination of Seafish expertise and other available sources such as published accounts or data from a relevant trade association.

Data are stored in a secure Seafish database at the site (unit) level. Operational data are also stored and collected as part of the survey (e.g. whether the site has changed its name, address, company ownership, contact details, 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.

Any new sites identified in the 2022 survey that may have existed, but were not identified during previous censuses, are only included in the industry numbers for 2022 (despite existing in previous years). Sites may exit and re-join the population of majority seafood processors from year to year if annual turnover oscillates above and below 50 percent between years. Future improvements in methodology will aim to address this limitation.

Financial Data Collection

Processing financial data is typically collected each spring after most business accounts have been finalised. Due to timescales required for financial accounts to be finalised and released, financial data is not collected in real time. During the most recent survey period (April-June 2022), we collected 2020 financial data from companies identified as majority seafood processors in 2020.

Financial data collection has two phases⁶. In the first phase, we extract publicly available financial accounts information reported to Companies House. A high percentage of the largest processing companies (in terms of turnover) are included in the final sample each year due to the availability of data from these published financial accounts.

In the second phase we invite all companies in scope to supplement publicly available accounts information we gather from Companies House with missing information. Businesses can either supply a copy of their completed financial accounts or provide missing information through a bespoke data entry form. These accounts are seen as the most reliable data source for estimating the economic performance of the sector. The survey form for 2020 financial data collected in 2022 can be found in Appendix D.

Multisite companies⁷ with at least one majority seafood processing site are asked to submit financial information.

Financial data is provided by a sample of majority seafood processing sites each year. The financial survey is a census requesting all companies identified in the population to provide their information. Participation in the survey is voluntary. As such it involves a degree of self-selection and due to the low response rate could be classified as a non-probability sample survey.

Due to historically low response rates, sample targets are set at 10 percent or three companies per segment, whichever is greater. Segments are based on number of FTE (full time equivalent) jobs (FTE band). The four segments are: 1-10 FTEs, 11-50 FTEs, 51-250 FTEs, and 250+ FTEs. Segments and sample rates for each financial survey from 2017 to 2020 are provided in Appendix E.

⁶ This approach differs from that used from 2008-2018 (Appendix C).

⁷ In 2022, 24 multisite companies were identified through the processing survey.

Estimation procedures⁸

Employment data

Number of FTE jobs is estimated based on numbers of full time, part time, and seasonal staff at the time of the survey (snapshot in time).

Financial data

Publicly available data from Companies House is merged with additional financial data collected directly from businesses. Where financial survey and published accounts data are inconsistent for particular variables, the officially published figures supersede survey data. The merging of financial survey and published accounts data is 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).

In some cases, survey returns are only partially completed, meaning that data for all variables for all participating companies are not always comprehensive. In certain cases, entire observations are dropped, while in others, this is accepted.

Once the financial sample is finalised, R software for statistical computing is used to create a procedure to produce processing financial estimates for all majority seafood processing sites. It contains a number of data transformations, checks and adjustments needed to ensure the dataset is as comprehensive as possible. Only data for companies in scope are kept, e.g. companies with at least one majority seafood processing site in the reference year.

The estimation procedure has two stages:

- 1. Missing variables within the sample are estimated based on available data from businesses with similar characteristics;**
- 2. Financial data is estimated for businesses not included in the sample.**

The sample is split into 4 FTE size bands or segments defined by employment (micro enterprise, small to medium enterprise, medium to large enterprise or large

⁸ Continuous and significant improvements in data collection, management, estimation procedures and increasing the robustness of definitions mean that direct comparisons with data for earlier years may not always be possible, even where seemingly comparable figures have been previously published. However, general trends are believed to be reflective of actual business activity.

enterprise). For each specific size band a per-FTE average at the company level is calculated. The per-FTE average is applied to companies not in the sample. This is done independently for each financial variable and is based on the assumption that financial performance is linked to employment. Company data is then allocated to the respective owned site(s). For companies with multiple sites this is done according to each site's proportion of the company's total FTE jobs.

The resulting dataset contains all processing sector data from all sources, including financial estimates, at the site level. This approach is used, as it enables analysis of financial data by region, type of processing, fish type category and other site characteristics (not applicable at the company level for multi-site companies).

Data limitations

Among the limitations of the approach are the relatively simplistic estimation of financials on a per-FTE basis and equally the allocation of company-level financial data to sites in scope, purely based on seafood processing FTEs identified as part of the census.

Other limitations include:

- sample bias arising from low response rates and self-selection and the fact that only accounts for larger companies are publicly available;
- in some company size bands, turnover has a weak relationship with number of FTE jobs and the difference in levels of productivity when specialising in different types of processing is not taken into account;
- there is a different sample of companies for the basis of estimation for each year, changing the relationship between company financial data and census FTE jobs for each year;
- in some FTE bands there is a great deal of variation in which companies are included in the sample in each year;
- the financial data reported relates to the full accounts of majority seafood processing companies which may cover business activity other than seafood processing undertaken by these companies;
- slight changes in the wording of definitions on the financial survey form over time may affect comparison of particular figures across different reference years.

Our data collection process and methods for estimation are developing and improving over time and as a result there may be some differences between current and previously reported figures.

Appendix A. Definitions

The following definitions have been used throughout the most recent publications and underlying research. For the most part, these are consistent with previous years. Any changes are driven by a continuous effort to improve data quality, including accuracy and consistency over time. Where definitions were changed, the respective changes have been applied going back in time whenever possible.

Processing type - sites are categorised as primary processor, secondary processor or mixed processor (mix of primary and secondary). Seafish definitions differ slightly from definitions applied under EU Hygiene Regulations. The definitions and characteristics of these processing types are outlined in Table 1.

Table 1. Seafood processing types: definitions and characteristics.

Type	Primary Processor	Secondary Processor	Mixed Processor
Definition of activities	Includes: cutting, filleting, deboning, picking, peeling, washing, chilling, packing, heading and gutting	Includes: brining, smoking, cooking, freezing, canning, breading, vacuum and controlled packaging, drying, production of ready meals.	Processing units that carry out a mix of primary and secondary processes are classed as 'mixed' processors
Characteristics: (basic characteristics based on Seafish understanding)	<ul style="list-style-type: none"> - Adding limited alterations to the raw material when bought - Low margins but high volume - Primarily serving live and chilled market outlets 	<ul style="list-style-type: none"> - Adding value to the original raw material - Primary processing done elsewhere – often on the fishing boat if imported or at another primary processing plant (processor does not internalise primary processing operation) - Some secondary processors may keep primary processing capability in case of changes in circumstance 	<ul style="list-style-type: none"> - Both primary and secondary activity undertaken in-house - Both secondary and mixed processors may undertake additional business activities of branding/packaging and product design

Species type categories - the following categories have been designed to classify seafood 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.**
- **Pelagic – Herring, mackerel, pilchard, sprat, whitebait, tuna and others.**
- **Shellfish – Nephrops (scampi, langoustine), scallops, crabs, oysters, cockles, mussels, winkles, lobster, crawfish, prawn (shrimp), squid, cuttlefish and octopus, among others.**
- **Saltwater exotic – Snapper, barracuda, barramundi (giant sea perch), croakers, drums, emperor/emperor breams, groupers, jacks, parrotfish, pomfret, snappers and swordfish, among others.**
- **Salmon – All salmon species.**
- **Trout – All trout species.**
- **Other freshwater – 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.**
- **Mixed – For processors handling mixed species, e.g. from more than one of the above categories.**

Seafish reports processing activity at a regional level in accordance with the Nomenclature of Territorial Units for Statistics (NUTS) (Figure 1). NUTS is a geocode standard for referencing the subdivisions of European countries for statistical purposes.

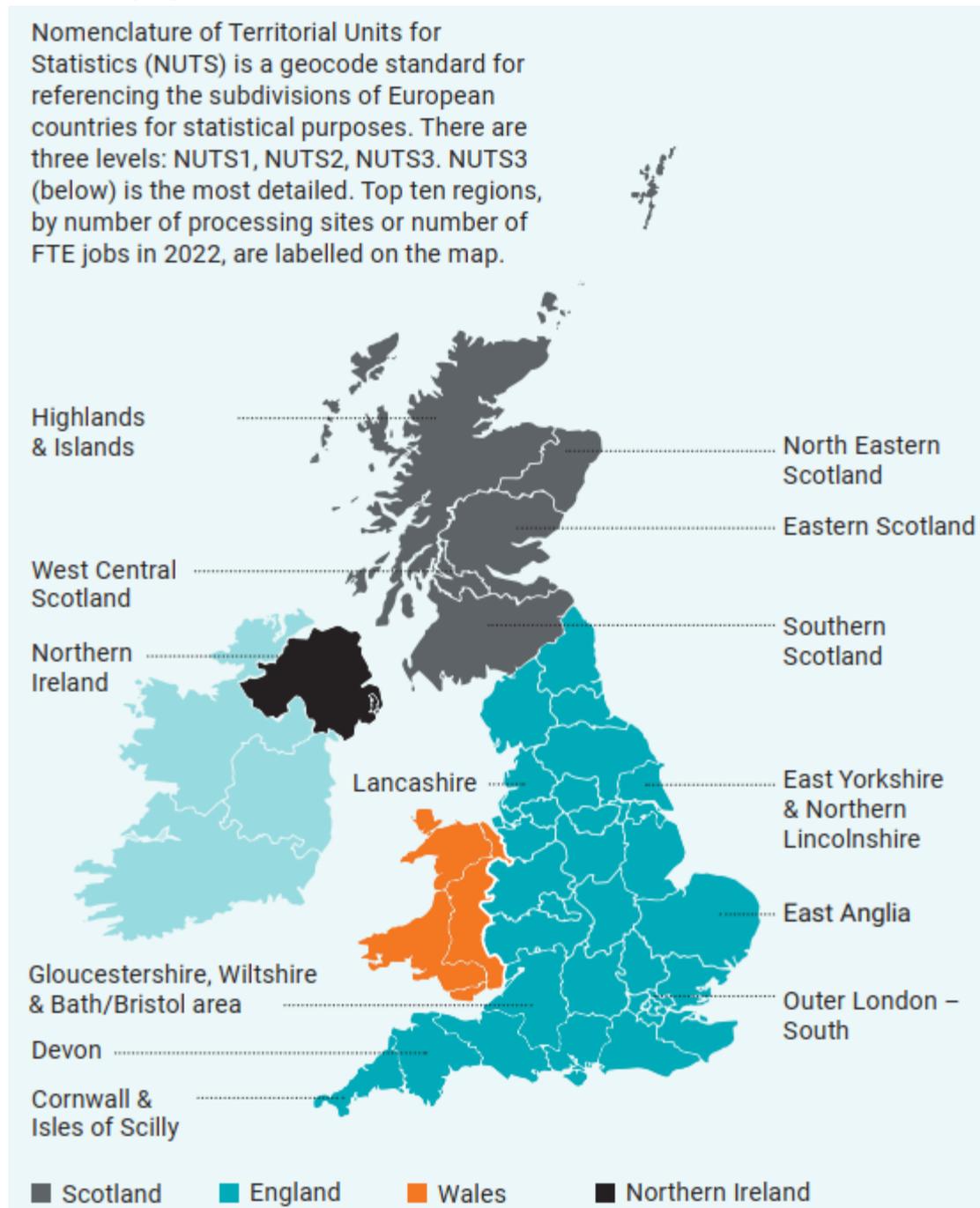


Figure 1. Regions of the UK (NUTS3 level). The top 10 regions by number of majority seafood processing sites and by number of FTE jobs supported at majority seafood processing sites in 2022 are labelled on the map.

Further definitions provided below. 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).

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 Data Collection Framework.

Demersal/whitefish (species type category) – See species type categories above.

EBIT – Earnings before interest and tax have been deducted.

Employee - Employees are defined as those persons who work for an employer and who have a contract of employment and receive compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. Employees include part-time workers, seasonal workers, persons on strike or on short-term leave, but excludes those persons on long-term leave. Employees does not include voluntary workers.

Employment – Sometimes used interchangeably with number of FTE jobs in reporting, apart from when specifically used in the context of total headcount employment. Total headcount employment is 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 one each). On-site administrative staff are included but not office staff at office-only sites. This is a consequence of viewing each processing plant as a separate unit and is consistent across surveys.

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

Fixed capital/tangible fixed assets – 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:

Number of FTEs = Number of full-time jobs + (Number of part-time jobs (days per week / 5)) + (Number of seasonal jobs* (number of seasonal staff weeks / 52))*

Gross Value Added (GVA) – Net economic contribution of the industry measured as the value of goods and services produced in the industry and calculated here as wages (labour costs) plus operating profit (same as ONS income approach). GVA plus taxes is the contribution of that industry to Gross Domestic Product (GDP).

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

Intangible fixed capital – Total estimated value of non-physical capital such as intellectual property (patents, trademarks, copyright), goodwill or other form of intangible asset.

Labour costs – Total cost of staff to the business, including employers pensions, National Insurance contributions, director's salaries and bonuses, casual or agency staff costs, other arrangements where employees are paid indirectly and the estimated value of unpaid labour, calculated using the following formula:

*Value of unpaid labour = number of unpaid people * number of unpaid hours * UK national minimum wage rate for over 21-year olds*

Mixed (species type category) – See species type categories above.

Mixed (type of processor) – See processing type definitions in Table 1 above.

Net pre-tax profit – Turnover 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 profit – Turnover less operating costs.

Other freshwater (species type category) – All non-saltwater species other than salmon and trout. See fish type categories above.

Pelagic (species type category) – See species type categories above.

Primary (type of processor) – See processing type definitions in Table 1 above.

Processing – Processing is materially changing a 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 in this definition as they materially change the seafood.

Processor/processing site – Individual factory or facility for processing seafood. The sites in scope of the research are majority processors, e.g. derive 50% or more of their turnover from seafood 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.

Raw material costs – Cost of seafood and other raw materials for production.

Retailing – Selling seafood to final consumers (members of the public).

Salmon (species type category) – All salmon species. See species type categories above.

Saltwater species – 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 definitions in Table 1 above.

Shellfish (species type category) – See species type categories above.

Total capital employed/Net assets – Money directly used to finance business.

Total costs – The sum of operating and capital costs.

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

Trading/Wholesaling – Buying and selling seafood without materially changing the product or distributing the manufacturers' own products at the wholesale level to anyone other than the end consumer (trade customers).

Trout (species type category) – All trout species. See species type categories above.

Turnover/Operating income – Revenues, or sales, from business activity.

Appendix B. 2022 Processing survey questionnaire

Survey status notes	
2021 Status	
2022 Status	
Survey completed	

Seafood Processing Sector Survey 2022



1. General Information			
a. Site ID:		f. Site postcode:	
b. Company ID:		g. Site address:	
c. Companies House ID:		h. Contact name:	
d. Company name:		i. Contact email:	
e. Site/facility/unit name:		j. Contact phone:	
CALL NOTES sdf			
<i>If the company operates multiple seafood processing sites, complete a survey sheet for each, ensuring addresses & postcodes are up to date.</i>			
<input type="checkbox"/> Agree to share this data with Seafish for analysis of the UK seafood processing industry.			
Name of interviewer:		Date of interview:	

2. Processing Activity	
<i>2a. With regards to fish and shellfish which of the following activities is this site involved in? (tick all that apply)</i>	
<input type="checkbox"/> Processing (includes all activities in question 2d)	<input type="checkbox"/> Importing
<input type="checkbox"/> Trading/wholesaling	<input type="checkbox"/> Exporting
<input type="checkbox"/> Retailing	
<input type="checkbox"/> No Answer	
<i>2b. If you included 'Processing' above, approximately what proportion of the turnover at this site in the last 12 months was from seafood processing activity (as opposed to trading, retailing, wholesaling, etc.)?</i>	
%	
<input type="checkbox"/> Majority processor (≥50%)	<input type="checkbox"/> Minority processor (<50%)
<input type="checkbox"/> Non-processor (0%)	
<input type="checkbox"/> No Answer	
IF THIS SITE DOES NOT PROCESS SEAFOOD (NON-PROCESSOR), END THE SURVEY HERE	
<i>2c. What type of seafood is processed at this site? (tick all that apply)</i>	
Saltwater:	<input type="checkbox"/> Pelagic <input type="checkbox"/> Shellfish <input type="checkbox"/> Demersal (whitefish)
	<input type="checkbox"/> Saltwater exotics
Diadromous and fresh water:	<input type="checkbox"/> Salmon <input type="checkbox"/> Trout <input type="checkbox"/> Other freshwater (inc. exotics)
Tick all species that apply in the list to the right:	
<input type="checkbox"/> No Answer	
<i>2d. Which types of processing are undertaken at this site? (tick all that apply)</i>	
Primary:	<input type="checkbox"/> Cutting <input type="checkbox"/> Filleting <input type="checkbox"/> Deboning <input type="checkbox"/> Chilling
	<input type="checkbox"/> Heading/gutting
Primary (shellfish-specific):	<input type="checkbox"/> Picking <input type="checkbox"/> Trimming <input type="checkbox"/> Shucking <input type="checkbox"/> Peeling
	<input type="checkbox"/> Washing
Secondary:	<input type="checkbox"/> Freezing <input type="checkbox"/> Breading <input type="checkbox"/> Marinating <input type="checkbox"/> Canning
	<input type="checkbox"/> Smoking <input type="checkbox"/> Battering <input type="checkbox"/> Brining <input type="checkbox"/> Drying
	<input type="checkbox"/> Vacuum controlled packaging
	<input type="checkbox"/> Making ready meals/cooking
Other (specify): <input type="text"/>	
<input type="checkbox"/> No Answer	

List of species:

Demersal (whitefish)	Pelagic
<input type="checkbox"/> Bass (sea bass)	<input type="checkbox"/> Blue whiting
<input type="checkbox"/> Bream (sea bream)	<input type="checkbox"/> Herring
<input type="checkbox"/> Brill	<input type="checkbox"/> Horse mackerel (soad)
<input type="checkbox"/> Catfish (sea water)	<input type="checkbox"/> Mackerel (Spanish, Japanese, Kingfish)
<input type="checkbox"/> Cod	<input type="checkbox"/> Other pelagic
<input type="checkbox"/> Dogfish	<input type="checkbox"/> Pilchard
<input type="checkbox"/> Gurnard	<input type="checkbox"/> Sprat
<input type="checkbox"/> Haddock	<input type="checkbox"/> Tuna
<input type="checkbox"/> Hake	<input type="checkbox"/> Whitebait
<input type="checkbox"/> Halibut	
Saltwater exotics	
<input type="checkbox"/> John Dory	<input type="checkbox"/> Barracuda
<input type="checkbox"/> Lemon sole	<input type="checkbox"/> Barramundi (giant sea perch)
<input type="checkbox"/> Ling	<input type="checkbox"/> Croaker
<input type="checkbox"/> Marine eel	<input type="checkbox"/> Drum
<input type="checkbox"/> Megrim	<input type="checkbox"/> Emperor
<input type="checkbox"/> Monk (anglerfish)	<input type="checkbox"/> Grouper
<input type="checkbox"/> Muller	<input type="checkbox"/> Jobfish
<input type="checkbox"/> Other whitefish	<input type="checkbox"/> Moonfish
<input type="checkbox"/> Plaice	<input type="checkbox"/> Mullet
<input type="checkbox"/> Pollack	<input type="checkbox"/> Other saltwater exotic
<input type="checkbox"/> Ray	<input type="checkbox"/> Parrotfish
<input type="checkbox"/> Redfish	<input type="checkbox"/> Pomfret
<input type="checkbox"/> Saithe (coles)	<input type="checkbox"/> Snapper
<input type="checkbox"/> Shark	<input type="checkbox"/> Swordfish
<input type="checkbox"/> Skate	<input type="checkbox"/> Trevally (jack)
Salmon	
<input type="checkbox"/> Sole	<input type="checkbox"/> Salmon - all varieties
Trout	
<input type="checkbox"/> Turbot	<input type="checkbox"/> Trout - all varieties
<input type="checkbox"/> Whiting	
<input type="checkbox"/> Witch	
Shellfish	Other freshwater (including exotics)
<input type="checkbox"/> Clams	<input type="checkbox"/> Carp
<input type="checkbox"/> Cockles	<input type="checkbox"/> Crawfish
<input type="checkbox"/> Crab	<input type="checkbox"/> Crawfish
<input type="checkbox"/> Cuttlefish	<input type="checkbox"/> Freshwater catfish
<input type="checkbox"/> Lobster	<input type="checkbox"/> Freshwater eel
<input type="checkbox"/> Mussel	<input type="checkbox"/> Freshwater prawns
<input type="checkbox"/> Nephrops (scampi, langoustine, Norway lobster)	<input type="checkbox"/> Other freshwater
<input type="checkbox"/> Octopus	<input type="checkbox"/> Pangasius (basa)
<input type="checkbox"/> Other shellfish	<input type="checkbox"/> Perch
<input type="checkbox"/> Oyster	<input type="checkbox"/> Pike
<input type="checkbox"/> Prawn (shrimp)	<input type="checkbox"/> Tilapia
<input type="checkbox"/> Scallop	<input type="checkbox"/> Zander
<input type="checkbox"/> Sand	
<input type="checkbox"/> Vihelk	
<input type="checkbox"/> Vinkle/periwinkle	

3. Source of Raw Materials

3a. Approximately what proportion of total seafood raw materials processed at this site (in terms of **value**) are from the UK, EEA and the rest of the world, respectively (e.g. country of origin)? *This should sum to 100%

Source of raw materials:

UK <input style="width: 40px;" type="text"/>	EEA* <input style="width: 40px;" type="text"/>	Rest of World <input style="width: 40px;" type="text"/>
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No Answer

3b. If any seafood raw material processed at this site comes from abroad, please list which countries it is imported from (e.g. country of origin):

No Answer

*EEA = European Economic Area. The EEA includes EU countries and also Iceland, Liechtenstein and Norway.

4. Markets for your Products

4a. Approximately what proportion of product sales from this site (in terms of **value**) are to the UK, EEA and the rest of the world, respectively? *Note - this should sum to 100%

Product sales:

UK <input style="width: 40px;" type="text"/>	EEA* <input style="width: 40px;" type="text"/>	Rest of World <input style="width: 40px;" type="text"/>
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No Answer

4b. If products are sold in the UK, please provide a break down (in terms of **value**) by market type:

<input style="width: 30px;" type="text"/> %	Foodservice/hospitality	<input style="width: 30px;" type="text"/> %	Direct sales to consumers
<input style="width: 30px;" type="text"/> %	Retail	<input style="width: 30px;" type="text"/> %	Wholesale
<input style="width: 30px;" type="text"/> %	Other (specify): <input style="width: 100px;" type="text"/>	<input style="width: 30px;" type="text"/> %	Secondary processor

No Answer

4c. If any product is sent abroad, please list which countries it is exported to (e.g. end destination):

No Answer

*EEA = European Economic Area. The EEA includes EU countries and also Iceland, Liechtenstein and Norway.

5. Current workforce composition

5a. How many workers are employed at this site **today** (including admin/support staff, seasonal & agency workers)?

Total number of employees

No Answer

5b. Please provide a break down of total employees by gender and contract type: *If unwilling/unable to provide gender break down, please report total number of full time/part time/seasonal employees for FTE estimation

Gender	Full-time	Part-time	Seasonal
Male	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
Female	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
Unknown/undisclosed	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
TOTAL	0	0	0

* Ensure that the figures in this table add up to the total figure listed in 5a. above.

No Answer

5c. Please provide a break down of employees by nationality:

Nationality	Full-time	Part-time	Seasonal
UK	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
EU/EEA	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
Other non-EU/EEA	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
Unknown/Undisclosed	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>	<input style="width: 40px;" type="text"/>
TOTAL	0	0	0

* Ensure that the figures in this table add up to the total figure listed in 5a. above.

No Answer

5d. Does anyone provide informal or additional help to the business who isn't an official employee? (e.g. family)

Yes No No answer

If yes, please indicate how many people and how many hours per year (by gender):

*If unwilling/unable to provide gender break down, please provide total number of people and average hours per person per year

Gender	Number of people	Average hours per person per year
Male		
Female		
Undisclosed		
TOTAL	0	0

No Answer

5e. If you employ any seasonal workers, please list which months you typically employ seasonal workers:

No Answer

5f. If you employ any seasonal workers, how many weeks each year do you typically employ seasonal workers in total? (maximum 52)

Number of weeks:

No Answer

Seafish is working with the Government on several projects to inform policy development. We need your assistance to help inform future policies, including migration and energy policies. If further topic-specific surveys were organised, would you be willing to share your data and knowledge with us on:

Labour force availability

If yes, who would be the best person for us to contact within your organisation?

Same person - *If not the same fill in below fields*

Name & surname Position held
Phone number E-mail

Energy intensity/costs

If yes, who would be the best person for us to contact within your organisation?

Same person - *If not the same fill in below fields*

Name & surname Position held
Phone number E-mail

Impact of Ukrainian War and sanctions on the seafood processing sector

If yes, who would be the best person for us to contact within your organisation?

Same person - *If not the same fill in below fields*

Name & surname Position held
Phone number E-mail

Other topics currently impacting your business that Seafish could support on

Specify:

I wish to receive outputs from the survey results

Don't want to be contacted

Appendix C: Historic data collection approach and estimation procedures (2008-2018)

Data collection approach 2008-2018

Prior to 2020, the main processing survey was run separately to processing financial data collection. Every 2 years a biennial census was run to define the population of majority seafood processing sites. Based on the population defined through the biennial census, financial data collection was undertaken annually.

Beginning in 2020, Seafish took the decision to bundle these two data collection exercises and run them concurrently each year. The previous approach involved additional estimation procedures for odd (non-census) years. This earlier approach is outlined below.

Scope

In scope for seafood processing data collection are all majority seafood processing businesses in the UK. Majority seafood processing businesses are defined as those that self-report 50 percent or more of turnover generated by seafood processing activity as opposed to wholesaling, retailing, importing, exporting, etc.

Prior to the 2018 census the Channel Islands and the Isle of Man were not in scope. In 2018, Isle of Man processors were included for the first time. Seafish has not identified any majority seafood processing businesses in the Channel Islands. Three majority seafood processors were identified on the Isle of Man in 2018 and have been grouped with the "North England" region for reporting purposes.

As a result of limiting the scope of this study to majority processors, there is a clear industrial definition being applied. Please note that Seafish processing sector estimates are not directly comparable to ONS annual business survey statistics due to differences in the definition of a seafood processing business.

Census

Seafish conducts a biennial census of the UK seafood processing industry. During the census we contact every business we think may be processing seafood in the UK. The starting contact list is informed by previous censuses, the expert

knowledge of Seafish staff, and the Food Standards Agency's list of food processing companies with a licence to process seafood.

Most interviews are conducted over the phone. Some, more in depth interviews, are carried out in person. Census data is collected at the site level to enable analysis of regional processing activity. During interviews researchers first identify whether a business is a majority seafood processing site based on our definition. Only those identified as majority seafood processors are asked to provide further information about their business activity. This information includes employment levels, type of processing activity undertaken and the type of species being processed. At present no financial details are requested during the census.

In previous years the census took place during the summer (July-August); however due to other data collection requirements the 2018 census took place at the end of the year (November-December).

Participation in the survey is entirely voluntary in the UK. In the event that we are able to contact a business but they will not provide data we will use previous census data (if available) combined with our own expertise to create estimates. If we cannot contact a company which is reported to be trading but for which we have no previous census data, we estimate the full time equivalent (FTE) jobs for the reference year based on a combination of Seafish expertise and other available sources such as published accounts or data from a relevant trade association.

Census data is stored in a secure Seafish database at the site (unit) level. Operational data are also stored and collected as part of the census (e.g. whether the site has changed its name, address, company ownership, contact details, 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.

Any new sites identified in the 2018 census that may have existed, but were not identified during previous censuses, are only included in the industry numbers for 2018 (despite existing in previous years). Future improvements in methods will aim to address this limitation.

Financial Survey

The processing financial survey is carried out annually in February-March. Every company identified as a majority seafood processor in the most recent census is invited to complete the Seafish financial survey form or supply a copy of their

financial accounts. Multisite companies⁹ with at least one majority seafood processing site are asked to submit financial information. These accounts are seen as the most reliable data source for estimating the economic performance of the sector. The financial survey form for 2017 can be found in Appendix C.

Financial data is provided by a sample of majority seafood processing companies each year. The financial survey is a census requesting all companies identified in the population to provide their information. Involvement in the survey is voluntary. As such it involves a degree of self-selection and due to the low response rate could be classified as a non-probability sample survey. Seafish financial survey data are supplemented with data from published financial accounts of seafood processing businesses available from Companies House (covering at least six months of the relevant year). A high percentage of the largest processing companies in terms of turnover are included in the final sample each year due to the availability of data from these published financial accounts.

Due to expected low response rates from previous experience, sample targets are set at 10 percent or three companies per segment, whichever is greater. Segments are based on number of FTE jobs (FTE band). The four segments are: 1-10 FTEs, 11-50 FTEs, 51-250 FTEs, and 250+ FTEs. Segments and sample rates for each financial survey 2014-2017 are provided in Appendix E.

Estimation procedures¹⁰

Census data

Number of FTE jobs is estimated based on numbers of full time, part time, and seasonal staff at the time of the census (snapshot in time).

Censuses prior to 2018 were carried out at the end of summer (July - August), while the 2018 census was carried out at the end of the year (November - December). Depending on the type of processing activity, employment can vary considerably during the year and may partially explain changes in FTE estimates between the

⁹ In 2018, 16 multisite companies were identified through the census.

¹⁰ Continuing and significant improvements in data collection, management, estimation procedures and increasing the robustness of definitions mean that direct comparisons with data for earlier years may not always be possible, even where seemingly comparable figures have been previously published. However, general trends are believed to be reflective of actual business activity.

2016 and 2018 census. In the lead up to Christmas, for example, some processors may have employed more seasonal staff.

As the census is conducted each second year, number of sites and FTE jobs are estimated for non-census years as an average of the values given in the preceding and subsequent censuses. For FTE jobs this is taken as a simple average of the two years. For number of sites, if a site exists in one census but not the next census the site is given a weight of one half in the non-census year and this is taken into account when estimating number of sites in that non-census year.

Sites may exit and re-join the population of majority seafood processors from census to census if annual turnover oscillates above and below 50 percent from year to year.

Appendix D. 2020 Financial survey form

1. General information	
Companies House Registration Number	
Seafish Company ID	
Registered Company Name	
Site or Trading Name	

Please complete the below survey using information from your business accounts.

	Year of Accounts
	2020
2. Income Statement	
Revenue	
Total turnover	
Of which: Operating Income	
Of which: Income subsidies	
Of which: Other Income	
Total turnover CHECK	0
Operating costs	
Total cost of sales	
Of which: Raw material cost	
Of which: Labour cost	
Of which: Energy cost	
Of which: Rental & operating lease cost	
Of which: Storage cost	
Of which: Packaging cost	
Of which: Distribution cost	
Of which: Business rates	
Of which: Other operating cost	
Total cost of sales CHECK	0
Overhead costs	
Depreciation & amortization	
Finance cost	
Finance income	
Total Costs	0
Pre-tax profit	0
Tax	
Profit after tax	0
3. Balance sheet	
Assets	
Total Current Assets	
Of which: Inventories	
Total Fixed (non-current) Assets	
Of which: Tangible assets	
Of which: Intangible assets	
Of which: Capital Investment	
Total Assets	0
Liabilities	
Total Current Liabilities	
Total non-current liabilities	
Total Liabilities	0
Net Assets	0

Appendix E. Financial survey sample rates 2017-2020

The following table shows the sample gathered from seafood processing financial surveys and Companies House published accounts. The financial sample presented in Table 2 covers any company with a majority seafood processing site (including salmon). The sample size may be lower than reported in Table 2 for some variables where incomplete data forms were submitted.

Table 2. Financial sample by company FTE band, including companies where only Companies House (incomplete) data was available - number of companies in sample, total industry population of companies and financial sample as a percentage of the population of companies (2018-2020). Previous sample rates (2010-2017) are reported in the 2016 Seafood Processing Industry Report¹¹ and the third edition of this report¹².

Company FTE Band	2018			2019			2020*		
	Sample	Population	% of population	Sample	Population	% of population	Sample	Population	% of population
Band 1 (1-10 FTE jobs)	39	153	25.49%	79	162	48.77%	92	160	57.50%
Band 2 (11-50 FTE jobs)	55	105	52.38%	66	90	73.33%	78	90	86.67%
Band 3 (51-250 FTE jobs)	37	47	78.72%	35	50	70.00%	41	51	80.39%
Band 4 (250+ FTE jobs)	11	14	78.57%	9	13	69.23%	14	15	93.33%
Total	142	319	44.51%	189	315	60.00%	225	316	71.20%

*2020 data are preliminary.

¹¹ 2016 Seafood Processing Industry Report. Seafish. <https://www.seafish.org/document/?id=B79F60B5-C15A-4E44-9C62-62517E58D79F>

¹² Seafood Processing Methodology Report: 3rd Edition. Seafish. <https://www.seafish.org/document/?id=78dbb480-f015-4288-9907-a7f076381255>

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