

# Seafood Processing Methodology Report

3<sup>rd</sup> Edition May 2021 Authors: Arina Motova, Ana Witteveen © Copyright Seafish 2021



# Introduction

The seafood processing sector is an important part of the seafood value chain. According to the European Commission 2020 Factsheet<sup>1</sup>, 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 Tool<sup>2</sup> 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 July to September 2020. The most recent financial data refers to the 2018<sup>3</sup> financial year<sup>4</sup>.

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.

<sup>1</sup> <u>Facts and figures on the common fisheries policy: Basic statistical data</u>, 2020 edition. European Commission.

https://ec.europa.eu/fisheries/sites/fisheries/files/docs/body/pcp\_en.pdf

<sup>&</sup>lt;sup>2</sup> <u>https://public.tableau.com/profile/seafish#!/</u>

<sup>&</sup>lt;sup>3</sup> 2018 data are preliminary.

<sup>&</sup>lt;sup>4</sup> Data must cover at least six months of the reference year e.g. financial accounts must cover at least 6 months of 2018 to be counted as 2018 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 person<sup>5</sup>. During interviews researchers first identify whether a business is a majority seafood processing site based on our definition. Operational and employment data are collected at the site level to enable analysis of regional processing activity.

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

<sup>&</sup>lt;sup>5</sup> N.b. no in person interviews were conducted in 2020 due to the Covid-19 pandemic.



no financial details are requested during this part of the survey. The 2020 census questionnaire can be found in Appendix B.

In 2020, due to the Covid-19 pandemic, Seafish took the decision to delay the processing survey and financial data collection from spring until summer to limit the burden on industry. Therefore, except for 2018, from 2008 to 2020 the survey took place during the summer (July-August) in all even years. In 2018, due to other data collection requirements, the survey 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 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 2020 survey that may have existed, but were not identified during previous censuses, are only included in the industry numbers for 2020 (despite existing in previous years). 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. 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 (July-September 2020), we collected 2018 financial data from companies identified as majority seafood processors in the 2018 processing survey.

Financial data collection has two phases. 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 the 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 2018 financial data collected in 2020 can be found in Appendix C.

Multisite companies<sup>6</sup> 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 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 (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 2015 to 2018 are provided in Appendix E.

<sup>&</sup>lt;sup>6</sup> In 2018, 16 multisite companies were identified through the census.



# **Estimation procedures**<sup>7</sup>

## **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**

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 as comprehensive a dataset 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 three stages:

- 1. Publicly available data from Companies House is merged with additional financial data collected directly from businesses;
- 2. Missing variables within the sample are estimated based on available data from businesses with similar characteristics;
- 3. Financial data is estimated for businesses not included in the sample.

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. In clearly defined cases missing financial variables are estimated for those non-responses based on other similar companies' information provided.

Once the financial datasets are merged and definitions harmonised, each of the financial variables is estimated for all companies not in the merged sample.

<sup>&</sup>lt;sup>7</sup> 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.



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 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.

Туре	Primary	Secondary	Mixed Processor
	Processor	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> <li>Adding limited alterations to the raw material when bought</li> <li>Low margins but high volume</li> <li>Primarily serving live and chilled market outlets</li> </ul>	<ul> <li>Adding value to the original raw material</li> <li>Primary processing done elsewhere – often on the fishing boat if imported or at another primary processing plant (processor does not internalise primary processing operation)</li> <li>Some secondary processors may keep primary processing capability in case of changes in circumstance</li> </ul>	<ul> <li>Both primary and secondary activity undertaken in- house</li> <li>Both secondary and mixed processors may undertake additional business activities of branding/packaging and product design</li> </ul>

#### Table 1. Seafood processing types: definitions and characteristics.



**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 (Figure 1).



Figure 1. Regions of the UK (NUTS2 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 2020 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 – The sum of wages of staff (including director and management remuneration) 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, pretax).

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 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 (trade customers).

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

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

4444



# Appendix B. 2020 Processing survey questionnaire

Sealood Processing S	ector Census 2020	seafish
1. General Information		
a. Company ID:		
b. Site ID:		
c. Company name:		
d. Site/facility/unit name*:		
e. Site address*:		
f. Site postcode*:		
g. Census contact name:		
h. Contact email:		
į. Contact phone:		
NOTES FOR CALL		
*If this company operates multiple s	eafood processing sites, complete a survey sheet for <u>ea</u>	ch site and ensure addresses & postcodes for
each are up to date.	eement. The interviewee has agreed to share this data	
<ul> <li>I have read the participant agrees seafood processing industry.</li> </ul>	eement. The interviewee has agreed to share this data	
<ul> <li>I have read the participant agrees seafood processing industry.</li> <li>2. Processing Activity</li> </ul>	-	with Seafish for the analysis of the UK
<ul> <li>I have read the participant agrees seafood processing industry.</li> <li>2. Processing Activity</li> <li>2a. With regards to fish and slip</li> </ul>	eement. The interviewee has agreed to share this data the sement. The interviewee has agreed to share this data	with Seafish for the analysis of the UK
<ul> <li>I have read the participant agrees seafood processing industry.</li> <li>2. Processing Activity</li> </ul>	-	with Seafish for the analysis of the UK
<ul> <li>I have read the participant agrees seafood processing industry.</li> <li>2. Processing Activity</li> <li>2a. With regards to fish and shapply)</li> </ul>	-	with Seafish for the analysis of the UK
I have read the participant agrees seafood processing industry.     Processing Activity     2a. With regards to fish and shapply)     Processing	hellfish, which of the following activities is you	with Seafish for the analysis of the UK <i>Ir business involved in? (tick all that</i> Importing Exporting
I have read the participant agrees seafood processing industry.     Processing Activity     2a. With regards to fish and shapply)     Processing	hellfish, which of the following activities is you rading/wholesaling	with Seafish for the analysis of the UK <i>Ir business involved in? (tick all that</i> Importing Exporting <i>al turnover this year will be from</i>
I have read the participant agrees seafood processing industry.     Processing Activity     Za. With regards to fish and slapply)     Processing	hellfish, which of the following activities is you rading/wholesaling	with Seafish for the analysis of the UK <i>Ir business involved in? (tick all that</i> Importing Exporting <i>al turnover this year will be from</i>
I have read the participant agrees seafood processing industry.     Processing Activity     2a. With regards to fish and slapply)     Processing	hellfish, which of the following activities is you rading/wholesaling	with Seafish for the analysis of the UK In business involved in? (tick all that Importing Exporting al turnover this year will be from essor Non processor
I have read the participant agresseafood processing industry.     Processing Activity     Za. With regards to fish and slapply)     Processing Intervention Intervention     Processing Intervention     Seafood processing (as oppose	hellfish, which of the following activities is you rading/wholesaling	with Seafish for the analysis of the UK In business involved in? (tick all that Importing Exporting al turnover this year will be from essor Non processor species list sheet and staple it to this

2d. Which types of processing are undertaken at your site? (tick all that apply)

Primary	Cutting	Filleting	Deboning 🗌 Chi	illing 🗆	] Heading/gutting		
Primary (shellfish-specific)	Picking	Trimming	Shucking 🗌 Pee	eling 🗆	] Washing		
Secondary	Freezing	Breading	Marinating				
	Canning	Smoking	Battering				
	Brining	Vacuum/contro lled packing	Making ready meals/cooking				



#### 3. Source and Supply

3a. Approximately what proportion of your total raw materials (in terms of <u>value</u>) and what proportion of your product sales (in terms of <u>value</u>), are from/to the UK, <u>FU</u> and the rest of the world, respectively:

Source of raw materials:	UK	%	EU/EEA	%		Rest of World	%
Includi	ng NI?	Y/N		1			I
Sales of your products:	UK	%	EU/EEA	%		Rest of World	%
Includi	ng NI?	Y/N					
3b. Can Seafish get back i including the Northern Ire		-	uture trade arrar	igements,	٥	]Yes 🗆 No	D 🗆 NA
3c. If any of your raw sea	food m	aterial come	s from abroad, w	hich countries	s is i	t imported from (	country of origin)?
Please list all (separate w	ith con	nmas):					
3d. If any of your product	is sent	abroad, whi	ich countries is it	exported to (e	nd	destination)?	
Please list all (separate w	ith con	nmas):					
3e. Does your business so	urce n	aw materials	from vessels ow	ned by you/th	e ni	ocessina husiness	? If yes how
many?	anec n	aw materials	from vessels ow	neu by you, in	- p,	occosing basiness	
🗆 Yes 🗆 No		vessels	Vessel				
			names				
			& PLN:				
3f. Do you have any contr	acts or	r informal aa	reements with sp	ecific vessels	to s	ource raw materio	al? If ves how
many?	4015 07	ngonnar ag	cements with sp				
🗆 Yes 🗆 No		vessels	Vessel				
			names				
			& PLN:				
			<i>c u</i>		-,		
3g. Does your business so business? If yes, how man		iw materiais	from aquacultur	e production s	ites	ownea by you/th	e processing
🗆 Yes 🗌 No		sites	Site names,				
			location &				
			postcode				
Notes:							



#### 4. Current workforce composition

4a. How many workers are employed at this site <u>today</u> (including admin/support staff, <u>staff on furlough and</u> <u>seasonal and agency workers</u>)?

Employees

Is this the usual number of people you would employ at this time of the year? (i.e., less staff because of COVID?)

4b. Please break the figure in 4a below, ensuring that the figures for employees add up to the total figure above If unwilling/unable to provide break down, at least collect number of full time/part time/seasonal employees

Gender	Full time	Part time	Seasonal	Nationality	Full time	Part time	Seasonal
Male				UK			
Female				EU/EEA			
Undeclared				Other non- EU/EEA			
TOTAL				Unknown			
TOTAL				TOTAL			
Age	Full time	Part time	Seasonal	Skill level	Full time	Part time	Seasona
15-24				Highly skilled			
25-34				Skilled			
35-44				Semi-skilled			
45-54				Lower-skilled			
55-64				Unskilled			
65+				Unknown			
Unknown							
TOTAL				TOTAL			

Notes:

			-		tional help to t ow many hour		ss who isn't an official employee?	such as family
	Yes		No		people		Hours per person per year	
5. Sea	isonal w	orkford	e (if appli	cable)				
5a. Di	uring wh	ich mo	nths do yo	u typically	employ seasor	nal worke	rs?	
5b. During how many weeks each year do you typically employ seasonal workers? (maximum 52) weeks								

5c. During seasonal period(s) how many additional seasonal positions are typically required?

16

positions



# Appendix C. 2018 Financial survey form

	seafish		2020 Seafood Pro
	sealish		
			Income Statement
ompany Registration Number	9999	Revenue	
eafish Company Id		Turnover 🕕	
egistered Company Name	SeaRM	Operating Income Value	
ite Or Trading Name	SeaRM	Income Subsidies 🕕	
ear Of Accounts	2020	Other Income 🕕	
		Operating Costs	
The survey is divided in subsections and ta	ibs, answer each question to the best of your	Total Cost of Sales	
knowledge. You Switch between the differ		Raw Material Cost 🕕	
If you need extra guidance, you can hover information about the question.	over the 🕕 if available to get further	Labour Cost 🕕	
You can save the current state of the survey the Balance Sheet tab). There is no limit to come back to change your answers via the	the number of saves, and you can always	Energy Cost 🜖	
The survey must be submitted by the deadl		Rental & Operating Lease Cost	
access it.		Storage Cost	
		Distribution Cost	
		Packaging Cost	
		Business Rates	
		Other Operating Cost ()	
		Overhead Costs Depreciation & Amortization ()	
		Finance Cost ()	
		Finance Income 🕕	
		Totals Total Costs	
		Pre-tax Profit	
		Tax	
		Profit After Tax	
	seafish		2020 Seafood Pro
nformation			Income Statement
ompany Registration Number	9999	Assets	Income Statement
eafish Company Id		Total Current Assets ()	
legistered Company Name	SeaRM	Inventories	
ite Or Trading Name	SeaRM	Total Fixed (non-current) Assets 🃢	
Tear Of Accounts	2020		
Guidance		Tangible Assets (property, plant, e	quipment)
The survey is divided in subsections and ta		Intangible Assets	
knowledge. You Switch between the different		Capital Investment ()	
If you need extra guidance, you can hover o information about the question.	over the 🜖 if available to get further	Total Assets	
You can save the current state of the survey Balance Sheet tab). There is no limit to the	y by clicking on the save button (located in the number of saves, and you can always come	Liabilities Total Current Liabilities 🕕	
back to change your answers via the same l The survey must be submitted by the deadl		Total non-current liabilities 🕕	
access it.	····· ········· · · · · · · · · · · ·	Total Liabilities	
		Net Assets	
		Save Submit	
		Save	

### 2020 Seafood Processing Financial Survey

	Data	ince Sheet	
£	10000000.0000		
£	150.0000		
£	120.0000		
£	200.0000		
£	5.0000		
£	6.0000	0.000000000	%
£	0.0000	0.000000000	%
£	0.0000	0.000000000	%
£	0.0000	0.0000000000	%
£	0.0000	0.000000000	%
£	0.0000	0.000000000	%
£	0.0000	0.000000000	%
£	0.0000	0.000000000	%
£	0.0000	0.000000000	%
£	0		
£	0		
£	0		
£	0.0000		
£	0.0000		
£	0.0000		
£	0.0000		

#### 2020 Seafood Processing Financial Survey

Income Statement		Balance Sheet
Assets		
Total Current Assets 🚯	£	12345.0000
Inventories	£	500.0000
Total Fixed (non-current) Assets 🚯	£	0.0000
Tangible Assets (property, plant, equipment)	£	0.0000
Intangible Assets	£	0.0000
Capital Investment 📀	£	0.0000
Total Assets	£	0.0000
Liabilities		
Total Current Liabilities 🕕	£	1.0000
Total non-current liabilities 🌖	£	0.0000
Total Liabilities	£	0.0000
Net Assets	£	0.0000
Save Submit		

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# Appendix D: 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 companies<sup>8</sup> with at least one majority seafood processing site are asked to submit financial information. These accounts are seen

<sup>&</sup>lt;sup>8</sup> In 2018, 16 multisite companies were identified through the census.



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 procedures**<sup>9</sup>

## **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 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

<sup>&</sup>lt;sup>9</sup> 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.



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 E. Financial survey sample rates 2015-2018

The following table shows the sample gathered from seafood processing financial surveys and Companies House published accounts (supplied by Merlin Scott Associates Ltd). 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 (2015-2018). Previous sample rates (2010-2014) are reported in the 2016 Seafood Processing Industry Report<sup>10</sup>.

2015				2016			2017			2018*		
Company FTE band	Sample	Population	% of population									
Band 1 (1-10 FTE jobs)	50	189	26.46%	42	179	23.46%	26	168	15.48%	38	150	25.33%
Band 2 (11-50 FTE jobs)	51	113	45.13%	42	113	37.17%	29	111	26.13%	57	111	51.35%
Band 3 (51-250 FTE jobs)	42	64	65.63%	28	50	56.00%	25	53	47.17%	41	52	78.85%
Band 4 (250+ FTE jobs)	9	12	75.00%	9	13	69.23%	8	13	61.54%	10	13	76.92%
Total	152	378	40.21%	121	355	34.08%	88	345	25.51%	146	326	44.79%

\*2018 data are preliminary.

<sup>&</sup>lt;sup>10</sup> 2016 Seafood Processing Industry Report. Seafish. <u>https://www.seafish.org/media/publications/2016\_Seafood\_Processing\_Industry\_Report.pdf</u>

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