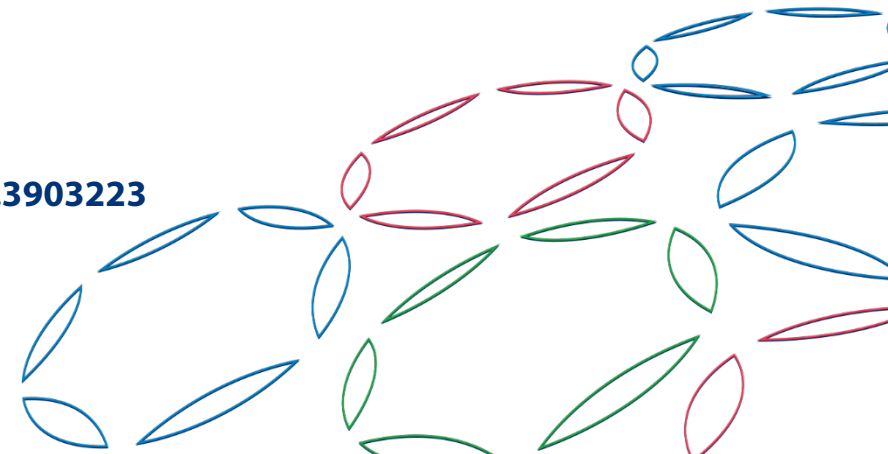
Cross-ownership in the Icelandic seafood industry and the potential effects on UK supply: A Matis report for Seafish and the Grimsby Seafood Cluster

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Report summary

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Summary:	This report is commissioned by Seafish and the Grimsby seafood cluster in the UK with the aim to get and overall understanding of connections and dependencies in ownership of the largest seafood companies in Iceland, and how these can potentially affect supply to the UK. Quota consolidation has been a feature of Iceland's fisheries sector since 1991, when the government introduced individual transferable quotas (ITQs) across all species. This allowed some companies to buy up quotas from others, and catch them in a way which, in theory, ought to be more efficient. The concept is that overall economic return from the resource will be maximised by allowing for such optimisation. Now, almost three decades later, the economy of scale has resulted in extreme consolidation across the seafood sector, where smaller companies have merged into larger ones or been bought up by the big vertically integrated seafood companies. The catching and processing sectors have been going through major development phase in recent years, as vessels and processing technologies have advanced and become much more efficient. This however comes with a price tag that only the larger companies can afford, which in return has escalated consolidation. As example, in 1991 the ten largest companies owned 24% of the overall quota in cod-equivalent but have now possession of 52% of the quota; and the twenty largest companies own 72%. In order to maintain diversity in the industry and to avoid ending up with only a handful of companies possessing the entire quota, the government placed a cap (quota ceiling) on how much individual companies are allowed to own of the quota. For the main ITQ system this cap is 12% in cod-equivalent and for the coastal fleet (vessels below 15 meters) the quota ceiling is at 5%. However, at present, if a company holds a stake of less than 50% in another firm, that latter firm's quota holdings do not count towards the quota ceiling. As results, many of the larger companies have now cross-ownership that are not very transparent. Clusters of connected companies have therefore emerged, which are dependent on each other. In the spring of 2019, the government formed a committee that was to review and suggest on how "connected companies" should be defined with regard to the quota ceiling. The committee returned its suggestions in end of 2019. The main results were that majority ownership should still be needed to count quotas against the ceiling. Increased transparency is however suggested, obligating companies that possess more than 6% of the quota (2.5% of the coastal fleet quota) to disclose cross-ownership with the Directorate of fisheries. This report gives a brief overview of cross-ownership and dependencies between the largest seafood companies in Iceland and concludes how these may affect supply to the UK, particularly in regard to supplies of fresh whole fish. The report also provides information on major investments that have occurred in the last few years that are likely to effect supply of fresh whole fish to UK.		
Keywords:	*ITQ, consolidation, optimisation, cross ownership*		

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Table of Contents

FORWARD **1**

INTRODUCTION **2**

CONSOLIDATION AND OPTIMISATION **4**

SAMHERJI, SÍLDARVINNSLAN & LINKED COMPANIES **8**

SAMHERJI HF. 8
ÚTGERÐARFÉLAG AKUREYRINGA EHF. (ÚA) 8
SÍLDARVINNSLAN HF (SVN) 9
GJÖGUR HF. 10

BRIM & LINKED COMPANIES **13**

BRIM HF. 13
ÖGURVÍK 13
ÚTGERÐARFÉLAG REYKJAVÍKUR HF. (ÚR) 14
KG FISKVERKUN EHF 15

FISK SEAFOOD, VINNSLUSTÖÐIN & LINKED COMPANIES **17**

FISK SEAFOOD 17
VINNSLUSTÖÐIN HF (VSV) 17

VÍSIR, ÞORBJÖRN & LINKED COMPANIES **20**

VÍSIR HF. 20
ÞORBJÖRN HF 21

OTHER COMPANIES OF INTEREST FOR UK SUPPLY OF FRESH WHOLE FISH **24**

GUÐMUNDUR RUNÓLFSSON HF. 24
ÓS EHF 25

GOVERNMENTAL INITIATIVES TO MAINTAIN DIVERSITY IN THE SEAFOOD INDUSTRY **27**

DISCUSSION **28**

Forward

This report was commissioned by Seafish Industry Authority and prepared by the Reykjavik based research organisation, Matis OHF, on behalf of the Grimsby Seafood Cluster.

The importance of whitefish supplies from Iceland to the Grimsby processing cluster is of significant importance. There are approximately 70 approved processing facilities in Grimsby and the wider Humber region and the vast majority process whitefish from Iceland.

The report is a deep dive into the ownership of quotas and companies based in Iceland. With company ownership a fluid and dynamic situation, this report provides a snapshot, unravelling the structure of how businesses who own quota, catch and sometime process themselves are functioning.

In 2019 Iceland exported over 50,000 tonnes of whitefish to the United Kingdom and a significant proportion of this fish is destined for Grimsby. The fish is processed and can be found in major retailers, food service, including fish and chip shop, and turned into traditionally smoked haddock which has the Protected Geographical Indicator (PGI) status.

The whitefish is supplied to processors on a direct sale or dispatched to the Grimsby auction market where selling agents sell to over 30 micro, small and medium sized processors.

The trade relationship between Iceland and Grimsby has, and will continue to have, significant importance.

Enjoy the read and thanks again to Seafish Industry Authority and Matis.

Simon Dwyer

Grimsby Seafood Cluster Representative

Introduction

This report is commissioned by SEAFISH in the UK with the aim to get and overall understanding of connections and dependencies in ownership of the largest seafood companies in Iceland, and how these can potentially affect supply to the UK; especially fresh whole fish that is sourced primarily by processors in the Humber area.

Quota consolidation has been a feature of the Icelandic fisheries sector since 1991, when the government introduced individual transferable quotas (ITQs) across all species. This allowed some companies to buy up quotas from others and catch them in a way which ought to be more economically efficient. The concept is that overall economic return from the resource, for the nation as a whole, will be maximised by allowing for such optimisation. Now, almost three decades later, the economy of scale has resulted in extreme consolidation across the seafood sector, where smaller companies have merged into larger ones or been bought up by the big vertically integrated seafood companies.

The Icelandic catching and processing sectors have been going through a major development phase in recent years, as vessels and processing technologies have advanced and become much more efficient. This however comes with a price tag that only the larger companies can afford, which in return has escalated consolidation in the sector. As example, in 1991 the ten largest companies owned 24% of the overall quota in cod-equivalent but have now possession of 52% of the quota; and the twenty largest companies own now 72% of the overall quota.

In order to maintain diversity in the industry and to avoid ending up with only a handful of companies possessing the entire quota, the government placed a cap (quota ceiling) on how much individual companies are allowed to own of the overall quota. For the main ITQ system this cap is 12% in cod-equivalent and for the coastal fleet (vessels below 15 meters) the ceiling is set at 5%. The current legislations however have a “loophole” because if a company holds a stake of less than 50% in another firm, that latter firm’s quota holdings do not count towards the quota ceiling. As results, many of the larger companies have now cross-ownership that are not necessarily particularly transparent. Clusters of connected companies have therefore emerged, which are in one form or another dependent on each other.

For almost a century, Icelandic vessels were key suppliers of fresh fish to auction markets in the UK, particularly in Hull and Grimsby. Early on the vessels sailed to the UK with their catches, but in the

1980's the supply changed, as the fish started to be transported by container vessels. The total supply from Iceland peaked in 2008, surpassing 50 thousand tonnes. But fell then drastically in 2009-2011. Haddock has been a dominant species in this supply and the condition of the haddock stock (allocated ITQ), which has fluctuated significantly between years, has therefore major impact on the supply. Figure 1 shows Icelandic supply of whole fresh cod and haddock to the UK since 2007. Historically, the supply has been very low from 2011, but haddock supply has however slightly increased in the last three years.

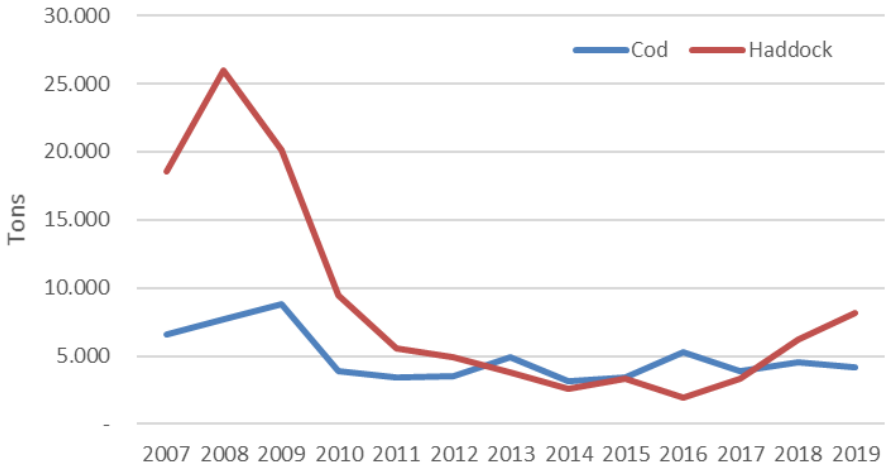


Figure 1: Supply of whole fresh cod and haddock from Iceland to the UK 2007-2019

The supply of fresh whole fish from Iceland to the UK is impacted by a number of factors. The peak in supply in 2008 was for example largely caused by a strong haddock stock and the economic crises, as the Grimsby fish market was able to offer good prices and very quick payments. The decline in the following years was however caused by a weaker haddock stock, lower wages in the Icelandic processing (because of the depreciation of the Icelandic currency), and increased demand for fresh fillets from mainland Europe, France in particular. The consolidation and increased throughput in Icelandic processing plants described in this report is also having effect on supply of fresh whole fish to the UK. Also, many of the Icelandic suppliers that used to supply the Humber area have gone out of business in recent years or been taken over by larger companies. The slight increase in the supply of haddock to the UK in the last three years might come as surprise when considering the previously discussed consolidation, optimisation and investments in automation that has occurred in Iceland. There are a number explanations for this e.g. exceptionally good cod catches that processors put emphasis on processing over haddock, increasing portion of small haddock that is not as profitable to process, important buyers at Icelandic auction markets have gone out of business (Toppfiskur and Frostfiskur) etc. As there are many contributing factors that affect supply of fresh whole fish from

Iceland to the UK, it can be difficult to predict what the future holds in this respect. It is though clear that consolidation of quotas and investment in processing capabilities in Iceland will be a major factor.

This report gives a brief overview of cross-ownership and dependencies between the largest seafood companies in Iceland and concludes how these may affect supply to the UK. The report also provides information on major investments that have occurred in the last few years that are likely to effect supply of fresh whole fish to the UK. The aim of the report is only to give an overall understanding of cross-ownership in the largest Icelandic seafood companies/clusters and how it is likely to affect the UK. It is not an in-depth analysis intended to capture all cross-ownerships within the entire industry, nor does it provide any information on ownership or cross-ownership in companies outside of Iceland.

The names of individuals are not presented in this report, on the basis of personal privacy. The names of individuals are instead presented as alphabetic letters (A, B, C….etc.).

Consolidation and optimisation

The Icelandic fisheries management act (116/2006) has the overall objectives to contribute to sustainable and profitable utilisation of marine resources that provides stable employment across the country. There is little debate that the ITQ system has facilitated sustainable utilisation and there are few seafood sectors in the world that are run with as much profitability as the one in Iceland. The emphasis on maximising profitability has however resulted in consolidation and optimisation across the sector, where fishing and processing companies have reduced in number, employment has reduced by approximately 60% in processing and 35% in the catching sector since the implementation of the ITQ in 1991. Processing companies have invested heavily in automatization and throughput has as result multiplied. In the early days of the ITQ system it was common that processing companies were able to produce 12-15 kg of final products per person-hour, this number has now passed 250 kg in the most technologically advanced companies. Fishing vessels have also become more efficient, as one vessel is now typically fishing what 2-4 vessels fished before. The number of fishing vessels over 100 GT have for example reduced by 50% since the year 2000, as result of this.

The largest seafood companies have overall been returning exceptionally good profits in the last 10-15 years. Important factors for the profitability of these companies are that they are diversified (groundfish, pelagics, crustaceans), they are able to invest in the most recent technology, they are vertically integrated i.e. they have the entire supply chain in their hands (from catching to marketing)

and they have economy of scale. Smaller companies that are not as diversified have on the other hand been struggling, which has resulted in the bigger companies buying up the smaller ones.

As previously mentioned, there is a cap on how much an individual company can own of the overall quotas in Iceland. The fifty largest quota holders today are in possession of 90% of the quotas, but none is officially over the 12% quota ceiling, as shown in Table 1.

Table 1: Fifty largest quota holders in Iceland 2019-2020

Nr.	Company	ITQs allocated 1.9.2019		Total ITQ*	
		Cod-equivalent (ton)	Cod-equivalent (%)	Cod-equivalent (ton)	Cod-equivalent (%)
1	Brim hf.	35.039	9,43%	46.749	10,47%
2	Samherji Ísland ehf.	24.490	6,59%	29.091	6,51%
3	Síldarvinnslan hf.	12.355	3,33%	23.758	5,32%
4	FISK-Seafood ehf.	22.485	6,05%	22.485	5,04%
5	Skinney-Þinganes hf.	15.150	4,08%	21.609	4,84%
6	Þorbjörn hf.	20.447	5,51%	20.447	4,58%
7	Vinnslustöðin hf.	15.197	4,09%	20.237	4,53%
8	Eskja hf.	4.240	1,14%	17.012	3,81%
9	Útgerðarfélag Reykjavíkur hf.	16.239	4,37%	16.239	3,64%
10	Ísfélag Vestmannaeyja hf.	8.930	2,40%	15.977	3,58%
11	Rammi hf.	14.957	4,03%	15.898	3,56%
12	Vísir hf.	15.839	4,26%	15.839	3,55%
13	Hraðfrystihúsið - Gunnvör hf.	12.071	3,25%	12.071	2,70%
14	Nesfiskur ehf.	11.002	2,96%	11.002	2,46%
15	Loðnuvinnslan hf. Fáskrúðsfirði	5.125	1,38%	10.147	2,27%
16	Bergur-Huginn ehf.	9.980	2,69%	9.980	2,24%
17	Jakob Valgeir ehf	6.540	1,76%	6.540	1,46%
18	Útgerðarfélag Akureyringa ehf.	5.798	1,56%	5.798	1,30%
19	Ögurvík ehf.	5.463	1,47%	5.463	1,22%
20	Gjögur hf.	1.976	0,53%	5.399	1,21%
21	KG Fiskverkun ehf	4.498	1,21%	4.498	1,01%
22	Hraðfrystihús Hellissands hf	4.371	1,18%	4.371	0,98%
23	Ós ehf.	4.133	1,11%	4.133	0,93%
24	Guðmundur Runólfsson hf.	3.926	1,06%	3.926	0,88%
25	Fiskkaup hf.	3.827	1,03%	3.827	0,86%
26	Stakkavík ehf.	3.680	0,99%	3.680	0,82%
27	Runólfur Hallfreðsson	594	0,16%	3.636	0,81%
28	Frosti ehf	3.136	0,84%	3.136	0,70%
29	Huginn	-	0,00%	3.064	0,69%
30	Oddi hf.	2.821	0,76%	2.821	0,63%
31	Sæból fjárfestingafélag ehf.	2.782	0,75%	2.782	0,62%
32	GPG Seafood ehf.	2.686	0,72%	2.686	0,60%
33	Grunnur ehf.	2.168	0,58%	2.168	0,49%
34	Einhamar Seafood ehf.	1.829	0,49%	1.829	0,41%
35	Hjálmar ehf.	1.822	0,49%	1.822	0,41%
36	Þórsnes ehf.	1.816	0,49%	1.816	0,41%
37	Útgerðarfélagið Vigur ehf.	1.783	0,48%	1.783	0,40%
38	Saltver ehf.	1.780	0,48%	1.780	0,40%
39	Salting ehf.	1.656	0,45%	1.656	0,37%
40	Vestri ehf.	1.644	0,44%	1.644	0,37%
41	Bergur ehf.	1.577	0,42%	1.577	0,35%
42	Bylgja VE 75 ehf	1.552	0,42%	1.552	0,35%
43	Kleifar ehf.	1.545	0,42%	1.545	0,35%
44	Kristinn J Friðþjófsson ehf	1.485	0,40%	1.485	0,33%
45	Gullrún ehf.	1.424	0,38%	1.424	0,32%
46	Þórsberg ehf.	1.392	0,37%	1.392	0,31%
47	Útnes ehf.	1.349	0,36%	1.349	0,30%
48	Steinunn hf	1.284	0,35%	1.284	0,29%
49	Norðureyri ehf.	1.266	0,34%	1.266	0,28%
50	Hásteinn ehf	1.214	0,33%	1.214	0,27%
Total		**328.367**	**88,41%**	**402.891**	**90,23%**

** Quotas allocated 1.9.2019 for the quota year 2019/20 + quotas in species allocated later in the quota year, as allocated in quota year 2018/19*

Table 1 shows quota allocations 1.9.2019, in the beginning of the quota year 2019/20, as well as quotas that are allocated later in the quota year, most significant of which are mackerel, blue whiting, Norwegian spring-spawning herring, capelin and Norway lobster[*]. As the quotas in these species have not been allocated when this report is published, the numbers for those species in Table 1 are referring to the quota year 2018/19.

The table clearly shows that the Icelandic seafood industry is made up of only a handful of large companies and then considerable number of small or medium sized enterprises. In addition, some of the larger companies are connected through ownership and/or long-term collaboration; creating "clusters" that work together. Following is a brief overview of four of these "clusters", identification of their primary owners, how the cross-ownership effects their operations, and in particular how that may potentially effect supply of fresh whole fish to UK. These four clusters have possession of 52.11% of the overall quota. They are:

- Samherji, SVN & linked companies – combined quota share 17.39%.
- Brim & linked companies – combined quota share 16.34%.
- FISK, VSV & linked companies – combined quota share 10.25%.
- Vísir, Þorbjörn & linked companies – combined quota share 8.13%.

In addition, the report also includes brief overview of major developments that have occurred at two companies that have traditionally been major suppliers of whole fresh fish to the UK. These developments are likely to have an effect on that supply. These companies are Guðmundur Runólfsson and Ós.

[*] *The period is question is somewhat abnormal in comparison with long-term averages in the respect that there was no capelin quota allocated in 2019 and the Norway lobster quota was only about 20% of what has been considered normal.*

Samherji, Síldarvinnslan & linked companies

Samherji hf. is by far the biggest seafood company in Iceland, if its operations abroad are taken into account. Samherji has major operations across Europe, Africa and Asia, making it one of the largest seafood companies in Europe. The operations in Iceland and abroad have though recently been separated into two companies, even though the owners are the same. The Icelandic branch, Samherji Island ehf, is the second largest seafood company in Iceland, measured in quota shares. The company was founded in 1983 by three cousins from Akureyri. In 2000 one of the founders sold his part in the company and Samherji has since then been in majority ownership of the two remaining cousins and their families.

Útgerðarfélag Akureyringa ehf. (ÚA) is a seafood company founded in Akureyri in 1945. The company was taken over by Samherji in 2011. ÚA is 100% in ownership of Samherji and considered as a daughter company. The quotas of both companies are therefore counted as one in regard to the quota ceiling.

Samherji and ÚA operate two state-of-the-art processing factories in Dalvík and Akureyri, a fish drying factory at Laugar in Reykjadal, five bottom trawlers, one long liner and one pelagic vessel. They have also on occasion "flagged-in" vessels that their subsidiaries own abroad if necessary. Table 2 shows who the main shareholders in Samherji are, and what vessels and quotas they have.

Table 2: Samherji

Samherji & ÚA	**Quota %**	**Cod-equivalent tonnes**	**Comments**
	7.81	**34,889**	
Shareholder	**Owner of interest**	**Sharing %**	
Eignarhaldsfélagið Steinn ehf.	Owner A	36.12	Cousin of B
Private owner B	Owner B	35.76	Cousin of A
Fjárfestingafélagið Fjörður ehf.	Ltd. company owned by A & B	14.83	
Bliki ehf.	Ltd. company owned by A&B, their families and key employees	11.72	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Anna EA-305	1,468	Long-liner	Samherji
Björg EA-7	7,095	Trawler	Samherji
Björgúlfur EA-312	6,826	Trawler	Samherji
Björgvin EA-311	6,184	Trawler	Samherji
Harðbakur EA-3	0*	Trawler	ÚA
Kaldbakur EA-1	6,060	Trawler	ÚA
Margrét EA-710	3,697	Pelagic	Samherji

** New vessel that was not registered 1.9.2019*

Samherji also owns aquaculture stations in several locations across Iceland. They are also major shareholders in a large number of companies in Iceland, spanning from newspapers, retail and insurance companies to logistics & transportation companies. Samherji also owns Snæfell hf. which is a major shareholder in Hólmadrangur, which operates a shrimp factory in Hólmavík. Both Snæfell and Hólmadrangur are examples of medium sized enterprises in small fishing villages that have been taken over by bigger companies and the operations for the most part phased out.

Síldarvinnslan hf (SVN) is the largest pelagic fishing company in in Iceland. The company operates a state-of-the-art pelagic freezing plant, fishmeal factory, two pelagic vessels, one wetfish trawler and one freezing trawler in Neskaupstaður. SVN also owns fishmeal factories in Seyðisfjörður and Helguvík.

SVN bought all shares in Gullberg ehf. in Seyðisfjörður in 2014. Gullberg owned the wetfish trawler Gullver, which for decades had been a major supplier of fresh whole fish to the Humber area. Gullberg was deactivated in 2017 and merged into SVN. When buying Gullberg, SVN also bought the fish processing plant Brimberg in Seyðisfjörður, which was largely owned by the same individuals that owned Gullberg. SVN has therefore also been operating a groundfish processing plant in Seyðisfjörður since 2017.

SVN bought all shares in Bergur-Huginn ehf. in 2012. Bergur-Huginn operates three wetfish trawlers, two of which are brand-new. Bergur-Huginn has for decades been a major supplier of fresh whole fish to the Humber area. From the time SVN took over Bergur-Huginn, there have not been major changes in operation of the company. They have continued to send significant part of the catches to the Grimsby Fish Market, but large parts of the catches are however now being processed in the SVN processing plants in Seyðisfjörður and Neskaupsstaður.

SVN owns 75% in Runólfur Hallfreðsson, which operates the pelagic vessel Bjarni Ólafsson AK, which is registered in Akranes.

The main shareholders in SVN are Samherji hf., Kjálkanes ehf. and SÚN. Kjálkanes ehf. is owned by the seafood company Gjögur hf. SÚN is a cooperative founded by vessel owners in Neskaupstaður in the 1950's to boost local investments in industry and infrastructure and to support the community in various social issues. Table 3 shows who the main shareholders in SVN are, and what vessels and quotas they have.

Table 3: Síldarvinnslan

Síldarvinnslan hf	**Quota %**	**Cod-equivalent tonnes**	
	8.37	37,374	
Shareholder	**Owners of interest**	**Sharing %**	**Comments**
Samherji hf	A & B	44.64	
Kjálkanes ehf.	Gjögur hf.	34.23	Largest shareholders are siblings B & C
Samvinnufélag Útgerðarmanna í Neskaupstað (SÚN)	Cooperative	10.97	Cooperative that "owns itself"
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Beitir NK-123	1,387	Pelagic	SVN
Börkur NK-122	944	Pelagic	SVN
Blængur NK-125	4,674	Freezing trawler	SVN
Gullver NS-12	5,436	Trawler	SVN
Vestmannaey VE-54	0*	Trawler	Bergur-Huginn
Smáey VE-444	2,817	Trawler	Bergur-Huginn
Bergey VE-144	2,773	Trawler	Bergur-Huginn
Bjarni Ólafsson AK-70	594	Pelagic	Runólfur Hallfreðsson

** New vessel that was not registered 1.9.2019*

SVN is also a major shareholder in Úthafssjávarfang ehf. that invests in fisheries abroad, Laxá hf. that produces aquaculture feed, Polar Pelagic AS that is located in Greenland and has allocated 1/3rd of the Greenlandic capelin quota.

Gjögur hf. is a family owned company that was founded in Grenivík in 1946. The company operates two wetfish trawlers, one pelagic vessel and processing plants in Grenivík and Grindavík. The wetfish trawlers Vörður and Áskell have been major suppliers of fresh whole fish to the Humber area for decades, but recent investments in new vessels and processing technology, along with effects of the cross-ownership in SVN and Samherji is likely to affect supply to the Humber.

The major shareholders in Gjögur are siblings from three families, but C and D are the biggest shareholders. Table 4 shows who the main shareholders in Gjögur are, and what vessels and quotas they have.

Table 4: Gjögur

Gjögur hf.	Quota %	Cod-equivalent tonnes	
	1.21	5,399	
Shareholder	**Owners of interest**	**Sharing %**	**Comments**
Private owner C	C	21.89	Siblings
Private owner D	D	21.89	
Private owner E	E	8.42	Siblings
Private owner F	F	8.42	
Private owner G	G	8.42	
Private owner H	H	8.42	
Private owner I	I	8.42	
Private owner J	J	3.74	Brothers
Private owner K	K	3.74	
Private owner L	L	3.74	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Hákon EA-148	2,033	Pelagic	
Vörður EA-748	0*	Trawler	New vessel
Áskell ÞH-44	0*	Trawler	New vessel

** New vessels that were not registered 1.9.2019*

The above-mentioned companies, Samherji, Síldarvinnslan and Gjögur, are not considered as linked companies in regard to limitations on quota ownership (quota ceiling), but there are significant dependencies caused by the cross-ownership. The companies do work together in many respects, such as in taking decisions regarding sourcing of raw materials, investments in vessels and processing technologies etc. This cluster of companies spans throughout a significant part of Iceland, as shown in Figure 2. This shows how this cluster of companies spans throughout different locations of Iceland, having operations in ten locations and operating 17 vessels.



Figure 2: Samherji, SVN, Gjögur and linked companies have operations in at least ten locations around Iceland and operate 17 vessels

Brim & linked companies

Brim hf. is the biggest quota holder in Iceland. It has its headquarters in Reykjavík. Majority shareholder (46.26%) and CEO is M. His ownership in Brim hf. is through several companies, with the largest part (36.12%) coming through Útgerðarélag Reykjavíkur hf (ÚR), which is by overwhelming majority* owned by M. Brim hf. has gone through series of mergers since it was originally founded and has also bought up a number of smaller companies. The company has also changed names a few times. It was known as HB Grandi until late 2019. Brim hf. operates a large demersal fish processing plant in Reykjavik and a pelagic fish processing plant in Vopnafjörður.

HB Grandi (now Brim hf.) has a long history in Icelandic fishery and is a publicly traded company in the Main Market of VASDAQ OMX. Grandi hf. was originally formed with the merger of Bæjarútgerð Reykjavíkur and Ísbjörninn in 1985. With a merger of Haraldur Böðvarsson hf. in Akranes the company name was changed to HB Grandi in 2004. Haraldur Böðvarsson hf. had then previously also merged with, or taken over, a number of smaller companies. The fishing company Brim hf. bought 33% in HB Grandi in April 2018. The name of Brim hf. was then changed to Útgerðarfélag Reykjavíkur (ÚR) and the name (brand) Brim was handed over to HB Grandi and the company name was subsequently changed to Brim. Brim then bought the fishing company Ögurvík ehf., owned by ÚR, in the fall of 2018 with 1,47% share of cod-equivalent quota.

Ögurvík was a family company founded in 1971 that used to operate up to three large freezer trawlers, Ögri RE, Freri RE and Vigri RE. In 2012 the company reduced its fleet down to one vessel, Vigri RE. Brim / ÚR bought all shares in the company in 2016. Öguvík is now counted as part of Brim in regard to the quota ceiling, as Brim owns 100% of the shares in the company.

In 2019 Brim also purchased marketing companies that ÚR operated in Asia. Later that year the company purchased two small fishing companies, Kambur hf and Grábrók ehf. N, who is the borther of M, is also a major shareholder (6.5%) in Brim hf. through his company KG Fiskverkun. The brothers hold therefore majority of shares in Brim hf. In addition to the two brothers, major shareholders consist primarily of pension funds. Table 5 shows who the main shareholders in Brim hr. are, and what vessels and quotas they have.

* *The sister of M & N owns a small share in ÚR.*

Table 5: Brim

Brim hf	Quota %	Cod-equivalent tonnes	Comments
	11.69	52,213	
Shareholder	**Owner of interest**	**Sharing %**	
Útgerðafélag Reykjavíkur, FISK-Seafood eignarhaldsfélag ehf. Brim hf.	M	46.26	
Pension fund of governmental employees		11.16	
Pension fund of commerce		10.69	
KG Fiskverkun ehf	N	6.50	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Akurey AK 10	9,388	Trawler	Brim
Viðey RE 50	8,243	Trawler	Brim
Örfirisey RE 4	5,061	Trawler	Brim
Höfrungur lll AK 250	8,095	Trawler	Brim
Venus NS 50	2,169	Pelagic	Brim
Vikingur SI 78	2,143	Pelagic	Brim
Vigri RE 71	5,463	Freezing trawler	Ögurvík

Útgerðarfélag Reykjavíkur hf. (ÚR) was founded in 1998 (the name of the company at that time was Brim hf.). It was founded by O and his sons, M & N. In the beginning the company operated one longliner, Tjaldur SH, but soon they bought the company Básafell, as well as shrimp freezer trawlers Eldborg RE and Orri ÍS. In 2003 ÚR sold their shrimp operations and bought the Freezer trawlers Guðmundur í Nesi RE and Brimnes RE, which primarily targeted Greenland halibut. When ÚR started to work toward buying Ögurvík and HB Grandi, they sold Guðmundur í Nesi and Brimnes, and today they only own one freezer trawler, Kleifaberg, and one longliner/gillnetter Sólborg. O passed away in 2012 and his daughter, P, inherited a share in ÚR then. Through a series of takeovers, buyouts and mergers the cooperation between the brothers has changed and in end of year 2019 M bought N's shares in ÚR. ÚR is therefore today owned solely by M and his sister. Table 6 shows who the main shareholders in Útgerðarfélag Reykjavíur are, and what vessels and quotas they have.

Table 6: Útgerðarfélag Reykavíkur

Útgerðarfélag Reykjavíkur hf.	**Quota %**	**Cod -equivalent tonnes**	**Comments**
	3.64	16,239	
Shareholder	**Owner of interest**	**Sharing %**	
Útgerðarfélag Reykajavíkur hf.	M & S	87.5 12.5	Siblings
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Kleifaberg RE-70	10,109	Freezing trawler	
Sólborg RE-27	6,130	Long-liner / gill netter	

KG Fiskverkun ehf. is owned by N. As previously mentioned, N is the bother of M and he owns 6.5% share in Brim hf. through KG fiskvekun. The company operates two vessels from Rif, Faxaborg and Tjaldur and a fish processing plant in Rif, which is a small fishing village in Snæfellsnes. The processing plant specialises primarily in production of salted fish for S-European markets. Table 7 shows who the shareholder in KG fiskverkun is, and what vessels and quotas the company has

Table 7: KG Fiskverkun

KG fiskverkun ehf	**Quota %**	**Equivalent tonnes**	**Comments**
	1.01	**4,498**	
Shareholder	**Sharing %**		
Private owner N	100		
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Faxaborg SH 207	0	Long-liner	
Tjaldur SH 270	4,498	Long-liner	

As shown above, the combined quota of companies controlled by M (Brim, Ögurvík and ÚR) amounts to 15.33 of the overall quotas in cod-equivalent. In addition, his brother and business partner owns KG fiskverkun, which controls 1,01% of the overall quota. Combined quota shares of companies linked to M & N is therefore around 16.34%.

Bim, Ögurvík, ÚR and KG fiskverkun form a cluster of companies that are dependent on each other. They have operations in three locations around Iceland and own 12 vessels, as shown in Figure 3.



Figure 3: Brim and linked companies have 12 vessels in operation and processing facilities in three locations in Iceland

Brim signed an agreement with Marel in 2019 for the installation of high-tech equipment and software that will make its Reykjavik facility the most advanced whitefish processing facility in the world[1]. The installation is scheduled for mid-2020 and includes several new developments in processing technology, including a powerful quality control system and the latest robot technology that will automate and streamline production significantly.

[1] https://marel.com/articles/brim-signs-historic-agreement-with-marel/

FISK Seafood, Vinnslustöðin & linked companies

FISK seafood was founded in 2005 when the companies Skagstrendingur and Fiskiðjan Skagfirðingur merged. The company has since then purchased several seafood companies, mostly in the Northwest and West of Iceland. These are companies such as Skjöldur, Hraðfrystihús Grundarfjarðar and Soffanías Cecilsson. FISK seafood also purchased 32.88% share in Vinnslustöðin í Vestmannaeyjum in November 2019.

FISK seafood runs a large demersal fish processing factory in Sauðárkrókur and a saltfish processing plant in Grundarfjörður (operated under the name of Soffanías Cecilsson). FISK Seafood operates four wetfish trawlers and one freezer trawler. FISK seafoods does as well own aquaculture stations at Hólar and in Þorlákshöfn.

FISK seafood is 100% owned by the Skagafjörður Co-operative. Table 8 shows who the shareholder in FISK seafood is, and what vessels and quotas the company has.

Table 8: Fisk Seafood

FISK-Seafood ehf	**Quota %**	**Equivalent tonnes**	
	5.04	22.485	
Shareholder	**Owners of interest**	**Sharing %**	**Comments**
Skagafjörður Co-operative.		100%	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Drangey SK-2	8,183	Trawler	FISK
Málmey SK-1	7,166	Trawler	FISK
Farsæll SH-30	1,570	Trawler	Soffanías Cecilsson
Sigurborg SH-12	1,139	Trawler	Soffanías Cecilsson
Arnar HU-1	5,566	Freezing trawler	FISK

Vinnslustöðin hf (VSV) was founded in Vestmannayjar in 1946 by numerous fishermen, most of which owned their own fishing boats. VSV is a fishing and processing company that operates a groundfish processing factory, pelagic freezing plant and a fish-meal factory in Vestmannaeyjar. The company operates three pelagic vessels and four wetfish trawlers. The company has throughout the years bought and merged with smaller companies, most significant ones are Fiskiðjan, Meitillinn, Ufsaberg, Gandí, Eyjavík/Drangavík, Ísleifur, Stígandi, Jón Vídalín and Glófaxi.

Seil ehf. is a limited company that owns 40.89% of all shares in VSV; but Seil ehf. is majority owned by the CEO of VSV. The second largest owner is FISK Seafood, with 32.88% of the shares. Table 9 shows who the main shareholders in VSV are, and what vessels and quotas the company has.

Table 9: Vinnslustöðin

Vinnslustöðin hf	**Quota %**	**Equivalent tonnes**	
	4.53	20,237	
Shareholder	**Owners of interest**	**Sharing %**	**Comments**
Seil ehf.	Q	40.89	The CEO of VSV
FISK Seafood	Cooperative	32.88	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Ísleifur VE 63	185	Pelagic	
Kap VE 4	231	Pelagic	
Sighvatur Bjarnason VE-81		Pelagic	
Brynjólfur VE 3	2,634	Trawler	
Drangavík VE 80	3,088	Trawler	
Kap ll VE 7	2,221	Trawler	
Breki VE 61	6,904	Trawler	

VSV owns 48% share in Huginn ehf. which owns the pelagic fishing vessel Huginn VE. Huginn is a traditional family company, and that family still controls 52% of the shares in the company. Huginn's quota depends on allocation of pelagic species, which fluctuates significantly between years. In the quota year 2018/19 the company's quota amounted to just over 3 thousand cod-equivalent tonnes or 0,7% of the overall quota. The cross-ownership between FISK seafood and VSV is a fairly recent development and it is therefore uncertain what effect that will have on operations.

VSV and Soffanías Cecilsson (as well as many of the companies that have been taken over by VSV and FISK seafood) have been major suppliers of fresh whole fish to the Humber area throughout the years. Most fish merchants in Grimsby are familiar with vessel names such as Sóley, Sigurborg, Drangavík, Gandí, Gullberg and Stígandi, all of which have been operated by companies that are now part of the FISK seafood and VSV cluster. This cluster of companies has main operations in Sauðárkrókur, Grundarfjörður and Vestmannaeyjar, as shown in Figure 4; they operate 13 vessels and the combined quota shares amount to 10.25% of the overall quota.



Figure 4: FISK Seafood, VSV and linked companies have operations in at least three locations around Iceland and operate 13 vessels

Vísir, Þorbjörn & linked companies

Vísir hf. and Þorbjörn hf. are both vertically integrated seafood companies located in Grindavík, on the Reykjanes peninsula. The companies have cooperated for many years when it comes to investments and other operations, they do for example own together subsidiaries in processing of rest raw materials (RRM)[*] and marketing. The companies came out of unsuccessful merger discussions in the beginning of 2020, after months of discussions. Despite failure to merge the companies, they agreed to continue their close cooperation. Companies that Vísir and Þorbjörn own together are Haustak, Codland and a sales company in Greece for salt-fish products.

Haustak is state-of-the-art fish drying company, which produces dried heads and frames. The raw materials are by-products from the processing of Vísir, Þorbjörn and other suppliers. The main markets for the products are in Nigeria.

Codland is an innovation company that was founded by Vísir and Þorbjörn to develop products from RRM. The main focus of Codland in recent years has been on collagen production, which they are now taking to industry scale production. Codland plans to start a collagen factory in 2020 that will utilize majority of the fish skins that are available in Iceland.

Vísir hf. was founded in 1965 in Grindavík by a fisherman, Pétur Jónsson. The company is family owned and is today run by Pétur's descendants. Vísir runs a state-of-the-art processing facility for whitefish. They specialise in fresh fillets and portions for the European and US market. Vísir also runs a salt fish factory (bacalao) for Spanish, Italy and the Greek markets. It is the company's policy to use only raw materials from long-liners for its production.

Vísir has worked closely with Marel in development of automation solutions, such as the jet cutters. Vísir is therefore probably the most technologically advanced whitefish processing company in Iceland (if not the world). Vísir operates seven long-line vessels that have a combined quota of 15,839 cod-equivalent tonnes. Table 10 shows who the main shareholders in Vísir hf. are, and what vessels and quotas the company has.

[*] *RRM are underutilised raw materials used for by-products, such as skin, bones, heads, frames, viscera, milt, swim bladder, and species of no/little commercial value.*

Table 10: Vísir

Vísir hf	Quota %	Cod-equivalent tonnes	Comments
	3.55	15,839	
Shareholder	**Owner of interest**	**Sharing %**	
R		20	Siblings
S		16	
T		16	
U		16	
V		16	
W		16	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Daðey GK 777	565	Long-line	
Fjölnir GK 157	3,113	Long-line	
Jóhanna Gísladóttir GK 557	4,278	Long-line	
Kristín GK 457	1,418	Long-line	
Páll Jónsson GK 7	3,251	Long-line	New 2020
Sighvatur GK 57	3,215	Long-line	
Sævík GK 757	1,184	Long-line	

Vísir hf. had operations in four locations around Iceland and also owned a big part of OCI in Canada a few years back. In 2014 they however decided to concentrate on just one location and closed down everything else, including selling their share in OCI.

Þorbjörn hf was founded in 1953 by four fishermen and their families. The company used to run several fishing boats and production facilities in Grindavík, processing herring, shrimp, salt fish and stock fish. Today Þorbjörn focuses on salt fish production, but they also offer fresh and frozen fish. Þorbjörn hf took over the company Bakki from Bolungarvík in 1997. Þorbjörn hf. operates three longliners, one wetfish trawler and two freezer trawlers. The company's combined quota is 20,477 cod-equivalent tonnes. The company is family owned but shares are split by companies owned by family members. Table 11 shows who the main shareholders in Þorbjörn hf. are, and what vessels and quotas the company has.

Table 11: Þorbjörn

Þorbjörn hf	Quota %	Cod-equivalent tonnes	Comments
	4.58	20,477	
Shareholder	**Owner of interest**	**Sharing %**	
Blika ehf		33	
Skagen ehf		33	
Tabula Rasa ehf		33	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Sturla GK 12	3,619	Long-line	
Valdimar GK 195	3,677	Long-line	
Hrafn GK 111	2,713	Long-liner	
Tómas Þorvaldsson GK 10	0	Factory trawler	New vessel
Gnúpur GK 11	5,354	Factory trawler	
Hrafn Sveinbjarnarson GK 255	5,083	Factory trawler	

Unlike with the three clusters previously described, there is no actual cross-ownership between Vísir and Þorbjörn, with the exception of subsidiaries that they own together. They do however take many decisions together and cooperate on numerous fronts. They can therefore to some extent be viewed as linked companies. The combined quota of these two companies amount to just over 36 thousand cod-equivalent tonnes, which is 8.13% of the total allocated quota, and they operate 13 vessels, as shown in Figure 5.

These companies have not been among the main suppliers of fresh whole fish to the Humber area for many years and it is unlikely that it will change.



Figure 5: Vísir and Þorbjörn are both located in Grindavík and cooperate on many fronts. They have 13 vessels in total and combined quota of over 36 thousand cod-equivalent tons.

Other companies of interest for UK supply of fresh whole fish

Two companies that are not a part of the clusters previously discussed but have traditionally been important suppliers of fresh whole fish to the Humber area, have invested heavily in processing facilities in recent years. This is likely to have an effect on their supply to UK in the future. The following is a brief discussion on the developments within these companies, as one aspect of this report is to review how ownership and investments are likely to effect supply to UK. These companies are Guðmundur Runólfsson hf. in Grundarfjörður and Ós ehf. in Vestmannaeyjar.

Guðmundur Runólfsson hf. or G.RUN is a family owned (eight siblings) fishing and processing company in Grundarfjörður. The company was established in 1974 but the company has a history since 1947 and has always been located in Grundafjörður. G-RUN opened a new high-tech fish processing factory in 2019, focusing on fresh whitefish portions and red fish production. The new processing plant focuses on automatization, which has doubled the throughput capabilities. As a result they have invested in a new vessel and quotas to secure raw material supply. The company operates three vessels, all 29-meter-long trawlers. G.Run is a family owned company that has a quota of 4 thousand cod-equivalent tonnes, as shown in Table 12.

Table 12: Guðmundur Runólfsson

G.RUN hf	**Quota %**	**Cod-equivalent tonnes**	
	0.88	3,926	
Shareholder	**Owners of interest**	**Sharing %**	**Comments**
Guðmundur Runólfsson and family		100	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Helgi SH 235	1,664	Trawler	
Hringur SH 153	2,262	Trawler	
Runólfur SH-135	0*	Trawler	Recently bought

G.Run is not subjected to cross-ownership or dependencies with other seafood companies, like most other companies in this report. G.Run is included in the report because it has been an important supplier of fresh whole fish to the Humber area for decades. The investment that the company made in processing facilities in 2019 is however likely to have effect on their supply of fresh whole fish to

* G.RUN did not own Runólfur SH when quotas were allocated 1.9.2019

Grimsby fish market, as they will need to focus on having sufficient supply of raw material for their own operations. Figure 6 shows where G.Run is located and the vessels that they have in operation.

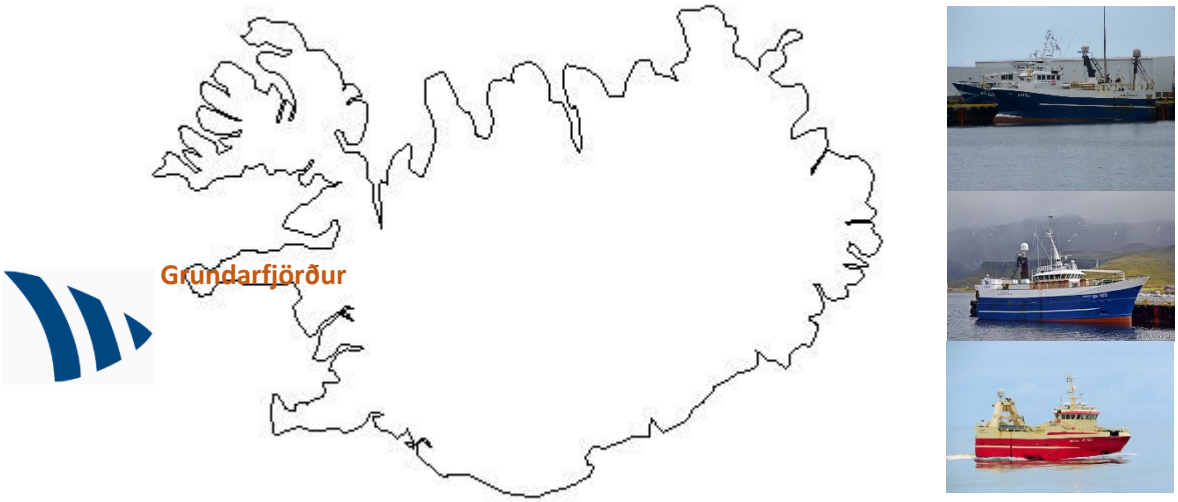


Figure 6: Guðmundur Runólfsson hf. is a family owned seafood company in Grundarfjörður that has been an important supplier of fresh whole fish to Grimsby for decades

Ós ehf was founded in 1971 in Vestmannaeyjar by the captain Sigurjón Óskarsson and his family. The family still owns the company, five of them each having a 20% share. The company operates one wetfish trawler Þórunn Sveinsdóttir VE, with a quota of 4,133 cod-equivalent tonnes.

Table 13: Ós ehf.

Ós ehf.	**Quota %**	**Cod-equivalent tonnes**	
	0.93	4,133	
Shareholder	**Owners of interest**	**Sharing %**	**Comments**
Sigurjón's family	Sigurjón & family	100	
Vessels	**Cod-equivalent tonnes 1.9.2019**	**Type**	
Þórunn Sveinsdóttir VE-401	4,133	Trawler	

Sigurjón's family does as well own the fish processing plant Leo Seafoods. Leo Seafoods does source some of its raw materials from Þórunn Sveinsdóttir VE, but significant parts of the catches are still sold at Grimsby Fish Market. Leo Seafoods have been investing in its processing facilities in recent years and purchased a water-jet cutter in 2019 that has increased throughput capabilities significantly. It is difficult to say if this will have effect on Þórunn Sveinsdóttir's supply of fresh whole fish to the UK.



Figure 7: Ós ehf. is a family owned company from Vestmannaeyjar that owns the trawler Þórunn Sveinsdóttir, which has been supplying Grimsby with fresh whole fish for decades. The family also owns the fish processing plant Leo Seafood.

There are many other medium sized seafood companies that have been investing in vessels and processing equipment in the last few years. Over 20 new fishing vessels have been bought in the last 2-3 years and most medium sized fish processing companies have invested in jet-cutters, either from Marel or Valka. These companies include for example Skinney-Þinganes, Ísfélag Vestmannaeyja, Oddi, Nesfiskur and many more. These companies are however neither a part of any of the "clusters" described earlier in this report, nor have they been major suppliers of fresh whole fish to the UK, which is why they will not be discussed further in this report.

Governmental initiatives to maintain diversity in the seafood industry

When the ITQ system in Iceland was implemented in 1991 the main fish stocks were overutilized and there was a major overcapacity in the harvesting and processing sectors. An important feature of the ITQ system was to address this, by enabling companies that are returning profits to buy up quotas from those struggling to make ends meet. The concept was that overall economic return from the resource, for the nation as a whole, would be maximised by allowing for such optimisation. Now, almost three decades later, the economy of scale has resulted in extreme consolidation across the seafood sector, where smaller companies have merged into larger ones or been bought up by the big vertically integrated seafood companies. The fishing sector as a whole is as a result returning good profits, but the number of companies and employment in the sector has however reduced significantly. Many traditional fishing communities are left without quotas and diversity in the sector is jeopardised.

In order to maintain diversity in the industry and to avoid ending up with only a handful of companies possessing the entire quota, the government placed a cap (quota ceiling) on how much individual companies can own of the overall quota. For the main ITQ system this cap is 12% in cod-equivalent and for the coastal fleet (vessels below 15 meters using hooks as fishing gear) the ceiling is set at 5%. The current legislations however have a “loophole” because if a company holds a stake of less than 50% in another firm, that latter firm’s quota holdings do not count towards the quota ceiling. As a result, many of the larger companies have now cross-ownership, making them in one form or another dependent on each other, as discussed earlier in this report.

Quotas that are counted towards the quota ceiling are only those held by majority owned companies. In effect, this means the formation of seafood clusters will most likely continue."

In the spring of 2019, the government formed a committee that was to review and suggest on how “connected companies” should be defined with regard to the quota ceiling. The committee returned its suggestions in the end of 2019[2]. The main results were that majority ownership should still be needed for counting quotas against the ceiling. A single company could therefore, in theory, own 49% share in all seafood companies in Iceland without being affected by the quota ceiling. As a result, the formation of “seafood clusters” will most likely continue. The changes suggested by the committee are primarily focused on increasing transparency, obligating companies that possess more than 6% of the quota (2.5% of the coastal fleet quota) to disclose cross-ownership to the Directorate of fisheries. The committee also suggested that married couples/couples living together, and their children should be defined as connected.

[2] https://www.stjornarradid.is/lisalib/getfile.aspx?itemid=58743b96-33ae-11ea-9456-005056bc4d74

There has been considerable criticism on how the ITQ system has failed to maintain diversity in the seafood sector, and how fewer and fewer people are getting ownership of the fish stocks, which in theory are a common resource. Recent decisions on how connected companies are defined, and should report quota ownership, suggests that there will be little change in the forming of clusters of large seafood companies, the downward spiral of small and medium sized companies, and the ongoing consolidation of the Icelandic seafood industry

Discussion

The ITQ system introduced in Icelandic fisheries in 1991 was designed to reduce overcapacity in the industry, by enabling the profitable companies to buy out those that were struggling to return profits. This led to **consolidation and optimisation**, as typically larger companies bought out smaller ones. Now, almost three decades later the Icelandic seafood industry is made up by handful of large **vertically integrated companies** and then a few dozen small and medium sized enterprises. In the early days of the ITQ system, the government decided to place a limit on what portion of the overall quota individual companies would be able to own. This was done to maintain diversity in the industry and to make sure that the entire quota would not end in the possession of a few individuals. The largest seafood companies have, however, found a way to circumvent these limits by forming **clusters of companies** that are in cross-ownership or work together in one form or another. This development is largely contributed to optimisation requirements that the Icelandic seafood industry has to work towards, because of **high investment and operational costs,** as well as taxes and wages.

Wages in Iceland are among the highest in the world, making it extremely challenging for the labour-intensive fish processing industry. **Automation** has been the key for Icelandic companies to react to this challenge, which has resulted in loss of jobs and created difficulties in many fisheries dependent communities. Increased **productivity** has been the solution to maintaining a **competitive advantage** for the Icelandic seafood sector. The investment cost in automation and increased productivity is however significant, which has escalated the consolidation of seafood companies in recent years.

The groundfish industry has been changing fast in recent years, where automatic water-jet cutters, robotics and portioning with high accuracy to customers specifications is the new norm. The robots use sophisticated software system with computer vision technology and intelligent production systems. Packaging robots have been introduced and are already in use and traceability & information systems are an intrinsic part of the value chains. As a result, throughput in state-of-art processing plants has increased more than twentyfold in the last 20 years, going from 12-15 kg per manhour to

over 250 kg today. This new development is part of the **fourth industrial revolution** in the Icelandic fish industry.

High **taxation** for the access to this common resource is also contributing to the consolidation, as the resource rent places increased need for returning profits. The resource rent (fishing fee) in Iceland is set at 32% of profits after taxes, which is an extreme burden on smaller fishing companies that struggle to compete in this challenging business environment. The survivors are larger vertically integrated companies that have enough throughput to justify investment in the newest technology. These are able to operate their business with a market orientated value chain, instead of a resource orientated one. For the Cod value chain, the key success factors are **reliability, quality, stability and efficiency**, where companies can bring the right quality raw material through high-tech processes with world class yield to deliver top products up to buyers' requirements in the right markets.

The consolidation that has occurred in the Icelandic fishing industry since the ITQ system was implemented has been subjected to severe criticism. Only a few people have now possession of majority of the quotas and employment has been reduced significantly. Many fishing villages have struggled for survival, as quotas have been sold away. On the other hand, the Icelandic seafood sector is now considered one of the most sustainable and profitable in the world. Politicians have been attempting to find solutions that would make the ITQ system more socially acceptable; but the economic importance of the seafood sector for Iceland makes it difficult to find solutions. The solution that seems to be most viable is to allow the seafood sector to optimise as much as possible, and then collect a relatively high resource rent (taxation for access to common resource) that can be used to some extent to assist those that are adversely affected. The newly provided suggestions of a committee that was to review ownership (particularly how to define connected companies) of seafood companies further confirms that it is unlikely that changes will be implemented to limit further consolidation and formation of clusters through cross-ownership.

For almost a century, Icelandic vessels were key suppliers of fresh fish to auction markets in the UK, particularly in Hull and Grimsby. Early on the vessels sailed to the UK with their catches, but in the 80's the supply changed, as the fish started to be transported by container vessels. The consolidation and increased throughput in Icelandic processing plants described in this report is having effect on supply of fresh whole fish to auction markets in the UK. Many of the Icelandic suppliers that used to supply the Humber area have now gone out of business, or been taken over by larger companies e.g. Soffanías Cecilsson, Bergur-Huginn, Gullberg, Gullver, Gandí, Stígandi, Dala-Rafn, Danski Pétur and more. Others have invested in processing technology and do therefore need to source catches from their own

vessels for their processing e.g. Guðmundur Runólfsson, Ós, Skinney-Þinganes, Ísfélag Vestmannaeyja and more. It is therefore likely that supply to Humber of fresh whole fish from Iceland will continue to diminish in the immediate future.