1. APPLICATION DETAILS AND SUMMARY OF THE ASSESSMENT OUTCOME

Name: P/F Havsbrun. IFFO144. 10/04/2020.			
Address:			
Country: Faroe Islands		**Zip:**	
Tel. No.		**Fax. No.**	
Email address:		**Applicant Code**	
Key Contact:		**Title:**	

Certification Body Details			
Name of Certification Body:	**SAI Global Ltd.**		
Assessor Name	**Peer Reviewer**	**Assessment Days**	**Initial/Surveillance/ Re-certification**
Virginia Polonio	Jim Daly		Surveillance Yr. 2
Assessment Period	2017-2018		

Scope Details	
1. Scope of Assessment	IFFO Global Standard for Responsible Supply Issue 1 Revision 6 (June, 2014)
2. Fishery	Capelin (*Mallotus villosus)*
3. Fishery Location	Faroe Islands, Subareas 5 and 14 and Division 2a west of 5°W (Iceland and Faroes grounds, East Greenland, Jan Mayen (IGJM) area)
4. Fishery Method	Purse seine / Pelagic trawl
Outcome of Assessment	
5. Overall Fishery Compliance Rating	High
6. Sub Components of Low Compliance	None
7. Information deficiency	None

8. Peer Review Evaluation	ICES have advised that the initial TAC for the fishing season July 2019–March 2020 should be zero tonnes, thus protecting the immature stock. MFRI (Iceland) is expected to provide updated catch advice in autumn 2019. Preliminary catches for Faroes in the last report (Nov 2018) published by ICES was 14, 300t. While approval is granted (Fishmeal/Fish oil production) directed fishing for this stock in 2019 according to ICES advice is currently not permitted.
9. Recommendation	Maintain approval

FISHERY ASSESSMENT REPORT

IFFO GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL

R1

FISHERY:	**Capelin *(Mallotus villosus)***
LOCATION:	**Faroe Islands (ICES Subareas V and XIV and Division IIa west of 5°W)**
DATE OF REPORT:	**December 2018**
ASSESSOR:	**Virginia Polonio**

2. QUALITY OF INFORMATION

Good: primarily Marine and Freshwater Research Institute of Iceland (MRI) and International Council for the Exploration of the Sea (ICES) reports.

3. COMPLIANCE LEVEL ACHEIVED

High

Recommendation

Approve

4. GUIDANCE FOR ONSITE ASSESSMENT

Based on HIGH compliance findings

Based on MEDIUM compliance findings

Based on LOW compliance findings

5. ASSESSMENT DETERMINATION

The capelin stock is studied and managed primarily by Icelandic authorities, and Faroese removals currently represent only around 5% of total landings or less. In February 2018 Iceland's Competent Authority the Marine and Fisheries Research Institute (MFRI) advised that when the agreed management plan is applied, catches in 2017/2018 should be no more than 285 000 tonnes. However following an assessment undertaken later in 2018 ICES advised that when the harvest control rule agreed by the Coastal States is applied, the initial TAC for the fishing season July 2019–March 2020 should be zero tonnes. The autumn survey in 2018 had extensive spatial coverage hence the observed low abundance estimates of immature fish is considered a reliable estimate.

This initial catch advice (TAC advice) is for the period July 2019 to March 2020. ICES is only requested to provide initial catch advice and the Marine and Freshwater Research Institute in Iceland is expected to provide updated catch advice based on acoustic survey information in autumn 2019 and winter 2019/2020 to form the basis for the final TAC for 2019/2020.

As in previous years, Capelin fishery is managed in agreement by Coastal States. The Coastal States (Iceland, Greenland, and Norway), have agreed (Anon., 2015) to use the following harvest control rule as the basis for management: an initial TAC is set following the rule developed by ICES (2015), with a very low probability of being higher than a regression estimated final TAC. This is followed by an intermediate TAC set in autumn and a final TAC set each winter, which will lead to >95% probability of SSB being greater than or equal to Blim at spawning time the following spring.

In the last ICES assessment posted on November 2018 (March assessment) the stock appears to remain in good shape; the spawning-stock biomass (SSB) was estimated at 364.000 tonnes at the time of spawning which corresponded to 95% probability of the SSB being above Blim (150.000 t). The estimates from the acoustic survey in autumn 2018 of immature 1- and 2-year-old capelin are low. The precautionary approach is in place and an initial TAC of zero catches has been set up for the beginning of the fishing season (July) in 2019.

Capelin *(Mallotus villosus)* has not yet been assessed for the IUCN Red List and is not on the current list of

CITES endangered species (websites accessed 19.12.18) Capelin *(Mallotus villosus)* is approved by the assessment team (whole fish) for the production of fishmeal and fish oil (whole fish) under the IFFO-RS v 2.0 standard.
HIGH Compliance
A1, A2, A3, B1, B2, C1, D1, D2, D3, E1, E2
MEDIUM Compliance
LOW Compliance

SUMMARY OF LEVEL OF COMPLIANCE					
	The Management Framework and Procedures	**Stock assessment procedures and management advice**	**Precautionary approach**	**Management measures**	**Implementation**
Legal and administrative basis	A1				
Fisheries management should be concerned with the whole stock unit	A2				
Management actions should be scientifically based	A3				
Research in support of fisheries conservation and management should exist		B1			
Best scientific evidence available should be taken into account when designing conservation and management measures		B2			
The precautionary approach is applied in the formulation of management plans			C1		
The level of fishing permitted should be set according to management advice given by research organisations				D1	
Where excess fishing capacity exist, mechanisms should be in established to reduced capacity				D2	
Management measures should ensure that fishing gear and fishing practices do not have a significant impact on				D3	

non-target species and the physical environment					
A framework for sanctions of violation of laws and regulations should be efficiently exists					E1
A management system for fisheries control and enforcement should be established					E2

KEY: Low Compliance: Medium Compliance: High Compliance:

6. RATIONALE OF THE ASSESSMENT OUTCOME

A. THE MANAGEMENT FRAMEWORK AND PROCEDURE

LEVEL OF COMPLIANCE	
A1. The management of the fishery must include a legal and administrative basis for the implementation of measures and controls to support the conservation of the fishery.	
LOW	An administrative framework that ensures an efficient management of the fishery for its conservation is not established.
MEDIUM	An administrative framework that ensures an efficient management of the fishery for its conservation is somehow established, but there is evidence of not being efficient to ensure the conservation of the stock.
HIGH	A legal and administrative framework that ensures an efficient management of the fishery for its conservation is established and works efficiently toward the conservation of the stock.

Determination: There is no evidence of any substantial changes to the Faroese fishery management frameworks since the reassessment. A legal and administrative framework that ensures efficient management of the capelin fishery is established and works efficiently toward the conservation of the stock.

The Faroe Islands are a self-governing nation under the sovereignty of the Kingdom of Denmark. They have exclusive competence to legislate and govern independently in a wide range of areas, including the conservation and management of living marine resources within the EEZ, protection of the marine environment, sub-surface resources, trade, fiscal and industrial relations, transport, communications, culture, education and research. Although Denmark is a member state of the European union, the Faroe Islands have chosen to remain outside the union, and as such negotiate their own trade and fisheries agreements with the EU and other countries.

The primary governmental body with responsibility for the management of Faroese fisheries is the Ministry of Fisheries and Natural Resources (MFNR). The framework for the regulation of commercial fisheries, in domestic, foreign and international waters, is the Commercial Fisheries Act of 1994 and its subsequent amendments. Based on this legislation, detailed regulations are implemented governing vessel and fishing licences, area closures, gear and data requirements and other technical regulations for commercial fisheries.

The stated objective of Faroese fisheries management is “to conserve and utilise marine fish stocks in order to ensure biological and economic sustainability and secure optimal socio-economic benefits from fisheries”. Scientific management advice for the fishery is provided by both the North-Western Working Group (NWWG) of ICES, and the Icelandic national fisheries scientific body Marine & Freshwater Research Institute (MFRI).

R2 – R5

LEVEL OF COMPLIANCE	
A2. Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account fishery removals and the biology of the species.	
LOW	Fisheries management is not concerned with the whole stock unit over its entire area of distribution and do not take into account any of the matters listed in ‘A1’.
MEDIUM	Fisheries management is concerned with matters listed in ‘A1’ but not entirely. Fisheries, in relation to ‘A1’ statement, should improve to ensure the long term conservation of the marine resource.
HIGH	Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account: • All fishery removals • The biology of the species

Determination: There have been no changes in either the scientific understanding of the biological stock, or the geographical stock unit. Fisheries management is concerned with the whole stock unit over its entire area

of distribution and takes into account all fishery removals and the biology of the species. A high compliance rating remains appropriate.

Capelin in the Iceland/East Greenland/Jan Mayen area (**Figure 1**) is considered by ICES to be a separate stock. ICES has a good understanding of the distribution and life history of the stock. The design of management measures takes extensive account of the biology of the species. For example, as a precautionary measure to protect juveniles, all fishing with pelagic trawl has been banned in the Icelandic waters where juveniles are generally found, either separately or mixed with the adults. Further, the Beginning in 2021 the fishing season shall begin on October 15 (instead of June 20) to stop fishing during the Summer when the capelin is fairly mixed in terms of size, age and maturity. As before the season ends on April 15. This agreement allows to protect the recruitment and guarantee the $B_{escapement}$ at the beginning of the followed fishing season:

Figure 1: Fishing zones (adapted from FAO Fisheries and Aquaculture-Country Profiles) **R1**

Fishery-dependent data include detailed landings information and are used in the formulation of management actions and the production of scientific advice. ICES considers all the removals of the stock in its distribution area.

R2 – R5

LEVEL OF COMPLIANCE	
A3. Management actions should be based on long-term conservation objectives	
LOW	Management actions are not based on long term management objectives.
MEDIUM	Management actions are based on long term management objectives. However the actions are not scientifically formulated.
HIGH	Management actions are based on long term management objectives, and actions are science based.

Determination: There has been a change in the basis of the management actions since the reassessment. The beginning of the fishing season will be pushed back until October to avoid catches of Capelin in the summer time. The new harvest rule proposed by ICES in 2015 is still in place and an initial quota is set on the basis of immature abundance in the autumn acoustic survey. Therefore, management actions are based on long term management objectives, and actions are science based and precautionary.

The regulatory framework and fisheries management are based on the agreement between Iceland, Greenland and Norway. This agreement was renewed in June 2018. The main changes made in this last version of the agreement are: 1) Greenland's share of the TAC is to be 15% (was 11% before), Iceland's share is to be 80% (was 81%) and Norway's 5% (was 8%). The reason for these changes is that capelin migrates much less than before to the eastern part of the North Atlantic and more to Greenland's waters; and 2) Beginning in 2021 the fishing season shall begin on October 15 (instead of June 20) to stop the fishing during the Summer when the capelin is fairly mixed in terms of size, age and maturity. As before the season ends on April 15. This agreement includes the harvest control rule for capelin and the measure for determining the initial quota (if any) which presently permits fishing from June 20 when the season starts.

The basis of the advice is the harvest control rule agreed by the Coastal States in 2015 (Anon., 2015). An Agreed Record of Conclusions of Coastal State consultations on the management of the capelin stock in the Iceland–East Greenland–Jan Mayen area was published (Anon., 2015). This agreement did not include that part of the fishing grounds allocated to the Faroese. Faroese vessels fishing in Icelandic waters are required to adhere to Icelandic fishery legislation.

The fishery in winter 2017/2018 is determined based on the harvest control rule which requires data from two surveys) an autumn survey providing a recruitment index and a winter survey providing an estimate of the SSB. Both these surveys were executed in 2017/2018, MFRI (2018) provided the appropriate advice and the corresponding TAC agreed and implemented. Mostly the research for this stock is carried out by Icelandic government and Scientifics but there is a Coastal States Agreement. The data available were of the same type and high quality as in previous years.

R2 – R5

B. STOCK ASSESSMENT PROCEDURES AND MANAGEMENT ADVICE	
LEVEL OF COMPLIANCE	
B1. Research in support of fisheries conservation and management should exist.	
LOW	Research to support the conservation and management of the stock, non-target species and physical environment does not exist
MEDIUM	Research to support the conservation and the management of the stock, non-target species and

	physical environment exists, however research programmes could be significantly improved to decrease scientific advice uncertainty.
HIGH	Research to support the conservation and the management of the stock, non-target species and physical environment exist, and existent research is considered most adequate for the long-term conservation of the target, non-target and physical environment

Determination: Research to support the conservation and the management of the stock, non-target species and physical environment exist, and existent research is considered most adequate for the long-term conservation of the target, non-target and physical environment. A high compliance rating remains appropriate.

ICES conducts an annual stock assessment and the MFRI provides advice throughout the year based on the results of ongoing survey efforts. Data from a number of surveys (fishery-independent) and landings data (fishery-dependent) are available to ICES and the MFRI. Information about the Icelandic landings of the fishery fleet is collected by the Icelandic Directorate of Fisheries. They have access to both landings in the harbours (the official landing) and the registered catch in the digital logbook kept by all the vessels. Samples record length, weight, age (from scales), sex, maturation, and weight of sexual organs. The information from the samples is then used along with the total landings and logbook data to generate landings composition estimates. Similar data are collected by the other States which prosecute the fishery, although the Icelandic catch represents the large majority.

Several acoustic surveys aimed at different age groups of capelin have been conducted through the history of the fishery. The purpose of the surveys on young capelin is to locate and estimate the abundance of young capelin. They take place late October-December. The results from these surveys are used to predict a starting quota for the fishing season starting in the year after the surveys are conducted. The surveys aimed at the fishable part of the stock are conducted in the fishing season, most often in winter, but can take place in autumn.

In the last report it has been shown that the stock is in a good shape and the historical SSB series of data shows that since the 90's the stock have been fluctuating at the reference points and is well above limits (**Figure 2**):

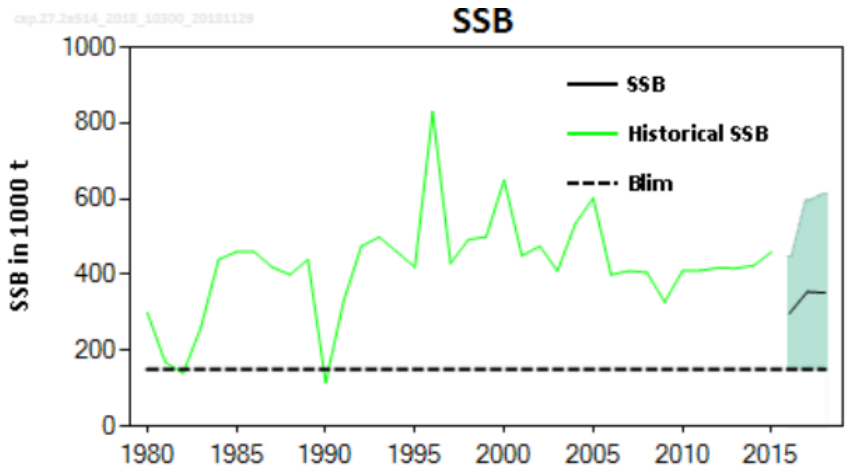

Figure 2. Summary of the stock assessment, SSB (thousand t, with 90% confidence intervals (shaded) for the last two years) at spawning time (March–April). Note that SSB values for 2016 and onwards are not directly comparable to historical values because they are based on different assumptions about natural mortality. **R4**

		Fishing pressure				Stock size			
		2015	2016	2017		2016	2017	2018	
Maximum sustainable yield	F_{MSY}	?	?	?	Undefined	MSY $B_{trigger}$	?	?	? Undefined
Precautionary approach	F_{pa},F_{lim}	?	?	?	Undefined	B_{pa},B_{lim}	✓	✓	✓ Full reproductive capacity
Management plan	F_{MGT}	?	?	?	Undefined	B_{MGT}	✓	✓	✓ Above

Figure 3. Capelin in subareas 5 and 14 and Division 2.a west of 5°W.
State of the stock and fishery relative to reference points **R4**

The basis of the advice is the harvest control rule agreed by the Coastal States in 2015. This implies applying the advice rule established by ICES in 2015 for setting an initial TAC on the basis of immature abundance (ages 1–2) in the autumn acoustic survey (**Figure 4**). ICES recommends that the initial TAC is revised based on acoustic survey information in autumn 2019 (intermediate TAC), with the final TAC being set based on the results of the autumn and/or winter surveys in 2019/2020:

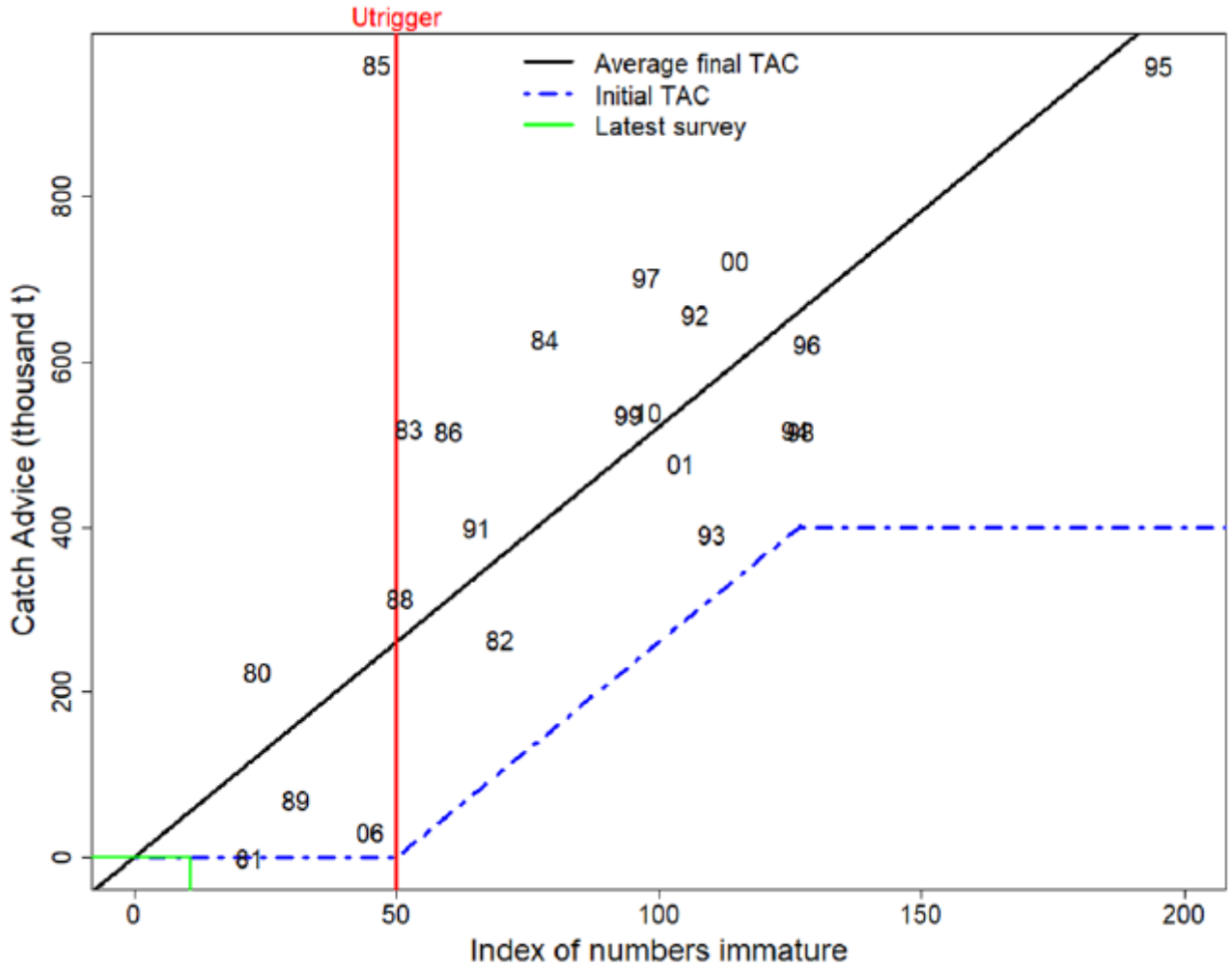

Figure 4 Capelin in subareas 5 and 14 and Division 2.a west of 5°W. Catch advice (initial TAC) according to the rule developed by ICES based on the measured number of immature capelin the previous autumn (about 16 months earlier than the winter survey used for the final TAC; ICES, 2015). The predicted final TAC is shown as the black solid line (based on immature index and the final TAC for the period 1980–2006) and the initial TAC as the blue dashed line. The latter is set using an index abundance trigger point (Utrigger, red vertical line) of 50 billion immature fish, with a cap on the initial TAC of 400 000 t. The green lines show the index value from the autumn acoustic survey in 2018, with the corresponding initial TAC for 2019/2020 shown on the *y*-axis.

R2 – R6

LEVEL OF COMPLIANCE	
B2. Best scientific evidence available should be taken into account when designing conservation and management measures.	
LOW	Scientific advice is not taken into account when designing conservation and management measures.
MEDIUM	Scientific advice is taken into account, when designing conservation and management measures. However some areas of discrepancy are identified that could have a significant impact in the long term conservation of the marine environment.
HIGH	Scientific advice is taken into account, when designing conservation and management measures, in a comprehensively manner.

Determination: No significant changes have been found since the last surveillance report. Scientific advice is taken into account, when designing conservation and management measures, in a comprehensive manner. High compliance remains appropriate.

Fishery management decisions are informed by annual stock assessments conducted by ICES and the MFRI, and by in-year advice which is provided by the MFRI and updated to reflect survey results. In addition to following MFRI quota recommendations, a number of technical measures have been implemented in the fishery in line with scientific advice, including minimum mesh sizes and closed areas.

There is extensive cooperation between MFRI and marine research institution in other coastal states in the North Atlantic on pelagic species, including capelin.

The advice from MFRI on capelin each June is the basis of the TAC for the summer and autumn season. The advice for the most important season, the winter season from January to March, is based on estimates, using acoustic sonars, of the stock of mature capelin migrating to the spawning areas South-West of Iceland. These estimates are made in December-January and may even be revised later.

The main objective of the HCR as previous years, is to leave at least 150,000 t (B_{lim}) for spawning for that reason three different TAC are proposed in each fishing season.

R2 – R5

C. THE PRECAUTIONARY APPROACH

LEVEL OF COMPLIANCE	
C1. The precautionary approach is applied in the formulation of management plans.	
LOW	The precautionary approach is not applied in the formulation of management plans.
MEDIUM	The precautionary approach is applied, however not all uncertainties are taken into account.
HIGH	The precautionary approach is applied, taking into account uncertainties relating to the dynamic of fish population (recruitment, mortality, growth and fecundity), and the impact of the fishing activities, such as discards and by-catch of non-target species as well as on the physical environment (Habitats).

Determination: As in the last surveillance report from 2017, the precautionary approach is applied, taking into account uncertainties relating to the dynamics of fish population (recruitment, mortality, growth and fecundity), and the impact of the fishing activities, such as discards and by-catch of non-target species as well as on the physical environment (Habitats). A high compliance rating remains appropriate.

The objective of the harvest control rule for the stock is to set a final TAC which ensures, with a 95% probability, that a minimum of 150,000t (B_{lim}) remains for spawning.

One of the strengths in the management system is that in the context of long-term objectives, Capelin stock has

a precautionary management plan in place. This implements appropriate reference points to manage the exploitation rate in the fishery. The fishery management plan takes into account the uncertainty in the assessment model and the remaining 400,000 tonnes of spawning stock, in order for this to be a well-defined plan.

As mentioned as per previous years the method for setting the preliminary TAC involves a regression of immature capelin abundance measured on the autumn acoustic surveys against a precautionary fishable biomass value.

The fishable biomass value is based on the January acoustic survey taking into account catches taken before that survey, subtracting the biomass limit (the minimum mature biomass to be left to spawn) and also subtracting 150,000t for predation.

The harvest rule includes a trigger level of 50 billion immature capelin which provides a limit level of 0t for the initial TAC and a maximum initial TAC of 400Kt if the immature abundance is 127 billion or more.

The final TAC is set at a level that will generate a SSB which has a 95% probability of being above B_{lim}. Also, ecosystem needs uncertainties are taken into account when models are ran. This whole strategy has been reviewed by ICES and it is considered to be precautionary.

The final TAC advice is produced by Iceland, based on a model which takes into account uncertainty in surveys and predation from cod, haddock, and saithe on capelin to ensure that the advised catch will result in a less than 5% chance of SSB going below Blim. This whole strategy has been reviewed by ICES and it is considered to be precautionary.

The uncertainty of the surveys depend largely on their quality in terms of coverage, conditions for acoustic measurements and the aggregation (high patchiness leads to high variance) of capelin. Precautionary approaches may result in a first TAC of zero with subsequent TAC's designed to consider as much uncertainties as possible in models.

R2 – R5, R7

D. MANAGEMENT MEASURES

LEVEL OF COMPLIANCE	
D1. The level of fishing permitted should be set according to management advice given by research organisations.	
LOW	The level of fishing permitted is not set according to management advice given by research organisations.
MEDIUM	The level of fishing permitted is higher than management advice given by research organisations. However, the difference is not considered to have a significant impact of the sustainability of the stock
HIGH	The level of fishing permitted is set according to management advice given by research organisations.

Determination: The level of fishing permitted continues to be set according to management advice given by research organisations (MFRI and ICES); a high compliance rating remains appropriate.

The most important element underpinning the harvest strategy is to leave enough mature fish to ensure adequate recruitment levels for subsequent years. The strategy takes into account not only the impact of the fishery but also predation on all age groups.

The TAC is agreed by Coastal State members, in 2016/2017 the TAC was set up at 299,000t of the total Iceland was allocated with 285,000t (more than 90 % of the TAC) and the rest was caught by other Coastal State members. For this year, the initial TAC has been set up at zero catches in 2019 as it was in 2018 fishing season.

The preliminary catches for Faroes in the last report of November 2018 published by ICES was 14.300 t. Therefore, the level of fishing is always given following technical advice.

R2 – R5

LEVEL OF COMPLIANCE	
D2. Where excess fishing capacity exist, mechanisms should be in established to reduced capacity to allow for the recovery of the stock to sustainable levels.	
LOW	Mechanisms to allow for recovery of the stock to sustainable levels are not established.
MEDIUM	Mechanisms to allow for recovery of the stock to sustainable levels are somehow established. However there is no evidence of the efficiency of the methods used.
HIGH	Mechanisms are established to reduce capacity to allow for the recovery of the stock to sustainable levels and there are evidences of recovery.

Determination: The primary mechanism restricting fishing effort is the TAC. Faroese landings represent a small component of total international landings, and as at the time of the initial assessment there is no indication that that there is excess Faroese fishing capacity applied to the stock; a high compliance rating remains appropriate.

Since 1997, Faroese fisheries policy has limited the size of the fishing fleet (in terms of number of vessels) to the 1996 level, although increasing capacity of individual vessels has meant that the effective fleet size has increased. Further, fishing effort across the entire capelin stock is primarily limited by annual quotas, which are set as described in sections A3, B1 and D1.

There is a high level of compliance in Icelandic fisheries and in general in the capelin fishery. In Iceland where the highest removals take place, the Directorate of Fisheries (DOF, Icelandic: Fiskistofa) monitors all reporting of fishing areas, gear and catches, and regularly places observers on board fishing vessels. Observers from DOF frequently watch over landings and the weighing of the catch. The weighing methods are checked regularly, both in Iceland and abroad where landings of capelin takes place. There is no evidence of major non-compliance or systematic non-compliance. There is no evidence of any IUU fishing out of this stock of capelin in the last year.

R2 – R5

LEVEL OF COMPLIANCE	
D3. Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment.	
LOW	There are no management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment.
MEDIUM	There are management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment. However it is not science based.
HIGH	There are management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment. Measures are based on scientific information.

Determination: There are management measures to prevent the impact of the fishing methods and fishing practices on non-target species and the physical environment. Measures are based on scientific information.

Faroese vessels fishing in Icelandic waters are required to adhere to Icelandic fishery legislation, the most relevant of which are described below. From the data reported by the fishery in the logbooks, it can be observed that there are a total of around 13 species retained by the Capelin fleet, although cod account for 92% by weight of non-target catches, the other non-target species are negligible forming ~0.012% by volume of the total catch.

A number of species of sharks and skates are known to be caught as by-catch in Icelandic waters, but

information on amount of the catches is incomplete, and the status of these species is not known. To prevent the removal of juvenile and spawning fish Iceland implements various technical measures such as mesh size regulation, real-time, temporary and permanent area closures. ICES states:

'*In the (Icelandic) pelagic fisheries catch other than the targeted species is considered rare.'*

While it is noted that a number of species of sharks and skates are known to be caught this does not mean that significant numbers are caught. The ICES statement that catches other than targeted species are rare is confirmed by the log book data. This is also confirmed for sharks and skates as vessels targeting capelin fish in the water column (pelagic) while sharks and especially skates are found close to the ocean bottom (benthic).

Icelandic legislation states that all fishing vessels must keep a fishery Log-Book. Birds and mammals caught in Icelandic fishing gear are to be reported and recorded in the Fishery Log-Book. This Fishery Log-Book is returned to the Directory of Fisheries (DOF) once a month. These reports are then sent onto the MFRI where the information is used in their scientific work.

In addition to the Individual Transferable Quota (ITQ) system, Icelandic fisheries management includes many other management measures such as area and fishing gear restrictions to ensure the fishery is targeting Capelin and other catches are reduced. Therefore all these measures in place take into account the reduction of catches of other retained species in the fishery; those regulations apply for all the vessels targeting Capelin in Icelandic waters.

ICES states that capelin plays a key role in the marine ecosystem in this area and is by far the most important pelagic fish stock in Icelandic waters. Capelin are the main single item in the diet of Icelandic cod (Mean weight at age of Icelandic cod have been shown to correlate well with the size of the capelin stock, and it is estimated that capelin may comprise 40% of the total food intake for cod).

Given the large weight increase in the summer before spawning it is likely that there will be more biomass of maturing fish in autumn than in summer, even though the level of natural mortality is not well known during this time period. This should be considered for optimal timing of fishery in relation to yield and ecological impact. Information for the Barents Sea capelin has shown that fishing during autumn would maximize the yield, but from the eco-system point of view a winter fishery was preferable. The biology and role in the ecosystem of these two capelin stocks are similar.

Capelin are also prey for several species of marine mammals and seabirds, and are also important as a food item for several other commercial fish species. Ecosystem impacts of capelin removals are factored into scientific advice and management decisions through the harvest strategy. Due to these ecosystems needs and the role of Capelin as a Low Trophic Level (LTL) species in the ecosystems more effort is being realised to reduce uncertainties in models and to include as much as variation as possible to reduce the impact in keys structures of the ecosystems. This is achieved by the use of a complex model to estimate the requirements of the three main demersal predators on capelin; cod, haddock and saithe. Marine mammals are being considered to be included in these models and more effort to know the impact in seabirds' population has been made.

R2 – R5; R7

E. IMPLEMENTATION	
LEVEL OF COMPLIANCE	
E1. There should be a framework for sanctions of violation of Laws and regulations.	
LOW	A framework for sanctions of violation of Laws and regulations do not efficiently exist.
MEDIUM	A framework for sanctions of violation of Laws and regulations do exist but do not work efficiently.
HIGH	A framework for sanctions of violation of Laws and regulations exists and is proven to be efficient.
Determination: A framework for sanctions of violation of Laws and regulations exists and is proven to be	

efficient.

There is no illegal, unreported and unregulated (IUU) fishing in Icelandic waters. All landing of fish from vessels that engage in IUU fishing and the servicing of such vessels is forbidden in Iceland where most of the catches take place. The regulations around the management of Capelin stock are well developed and implemented.

The interactions between Iceland's Marine Research Institute, Directorate of Fisheries, the Coast Guard and the Marine and Fisheries Research Institute function well. The role of each institution is well defined, with the Ministry taking political responsibility for decisions, and the Directorate performing the technical work at the behest of the Ministry. Decision-making procedures are well established and allow for expeditious and effective interactions. There is an established, tested and proven annual decision-making process, which ultimately results in the setting of regulations for the following year. The compliance with regulations is subject to a rigorous and efficient enforcement system.

The Commercial Fisheries Act of 1994 (Iceland) includes provisions for penalties to be applied in the event of transgression. Although inspection procedures do utilise warnings and can implement on-the-spot fines or confiscations, In practice reports are generally filed with the police and prosecutions occur through the court system. Fishing regulations permit the withdrawal of fishing licenses temporarily while such proceedings are underway. In the last report form (2017) posted by the Icelandic Coast Guard no violations were described by any vessel targeting Capelin in the Icelandic EEZ.

R2 – R5

LEVEL OF COMPLIANCE	
E2. A management system for fisheries control and enforcement should be established.	
LOW	A management system for fisheries control and enforcement is not established.
MEDIUM	A management system for fisheries control and enforcement is established but do not work efficiently.
HIGH	A management system for fisheries control and enforcement is established and work efficiently.

Determination: A management system for fisheries control and enforcement is established and works efficiently. Fisheries control and enforcement mechanisms continue to be applied effectively to the capelin fishery.

The fishing licence specifies the details of fishing activities (catch & area limitations and gear requirements) in which the vessel is permitted to participate, as well as outlining requirements for reporting of catch data and information on landings or transhipments. Additionally, all vessels larger than 15 GT must maintain a daily log of their activities in an authorised catch logbook issued for this purpose, recording data for each set or haul, and they must also have satellite vessel monitoring systems (VMS) in both national and international waters.

Discards are considered negligible (ICES): there is no discarding of capelin and there are no reported cases of slippages in the capelin fishery in Iceland (SAI Global Report 2017). As a consequence landings figures are considered by the ICES assessment working group to be a fair reflection of actual catch. The Icelandic Coast Guard monitors fishing activities in Icelandic waters, including surveillance of areas closed for fishing and inspection of mesh sizes and other gear related practices (SAI Global 2017).

The Faroese Fisheries Inspection Team is responsible for monitoring and inspecting catches and landings of individual vessels and the weighing of catches. This includes both onboard inspection and monitoring of transhipments and inspection of landings in port.

Faroese inspection and rescue vessels, in cooperation with Danish naval patrol vessels, provide for a constant patrol presence in Faroese waters. They also contribute to fisheries inspection in international waters of the North Atlantic at regular intervals in collaboration with the inspection services of other nations in the region.

The Ministry of Fisheries and Natural Resources (MFNR) consults with major fisheries stakeholders on fisheries legislation, regulations and international negotiations. Such consultations take place both through a number of formal standing advisory committees, as well as through focused consultative meetings dealing with specific issues.

Internationally, NEAFC has comprehensive port state measures that tackle IUU fishing under the NEAFC Control Scheme, monitor IUU activity in the zones of Contracting Parties, as well as in international waters. Vessels listed on the NEAFC IUU list ("blacklist") are not permitted to call at ports, receive services and supplies or change crew members in any port of the member countries of NEAFC. Also, NEAFC controls fishing pressure in high seas and can monitor any catch outside the areas where the Faroes or Icelandic governments are monitoring.
R2 – R5

7. KEY STAKEHOLDERS

8. REFERENCES

9.

R1 – Cover image source: http://www.fisheries.is/main-species/pelagic-fishes/capelin/

R2 – IFFO RS initial assessment, Faroe Islands Capelin, September 2014: http://www.iffo.net/files/iffoweb/approved-raw-materials/whole-fish/faroe-islands-capelin-initial-assessment-september.pdf

R3 – IFFO RS surveillance 1, Faroe Islands Capelin, July 2017.

R4 – ICES Advice on fishing opportunities, catch, and effort Arctic Ocean, Barents Sea, Celtic Seas, Faroes, Greenland Sea, Published 30 November 2018 Icelandic Waters, Norwegian Sea, and Oceanic Northeast Atlantic ecoregions https://doi.org/10.17895/ices.pub.4639 cap.27.2a514

R5 – MFRI advice, Capelin, February 2018: https://www.hafogvatn.is/static/extras/images/LodnaJan2018331367.pdf

R6 - FAO Fisheries and Aquaculture-Country Profiles) http://www.fao.org/fishery/facp/en#CountrySector-LegalFrameworkOverview

R7 - ICES NWWG Report 2018 Capelin in the Iceland-East Greenland-Jan Mayen area 26pp http://www.ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2018/NWWG/14%20NWWG%20Report%202018_Sec%2012_Capelin%20in%20the%20Iceland-East%20Greenland-Jan%20Mayen%20area.pdf

