



PrimeFish



Horizon 2020
Programme

WP3 VALUE CHAIN ANALYSIS

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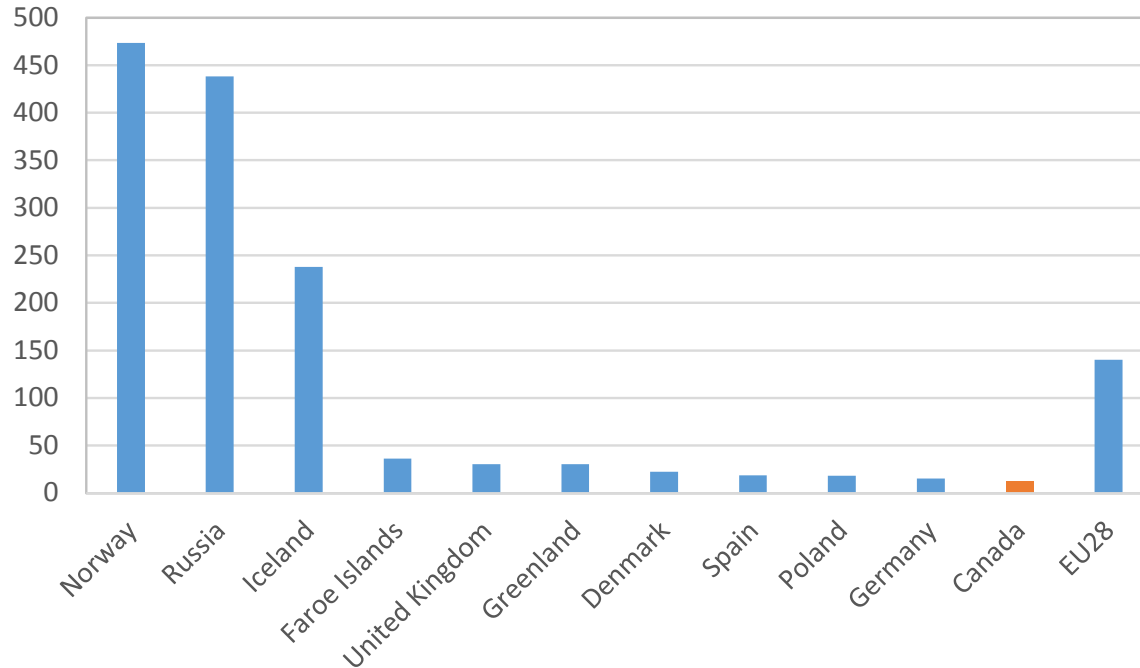
PrimeFish Canada Strategic Advisory Board Meeting
St. John's, Newfoundland, March 10th 2017

WP3 Value chain analysis

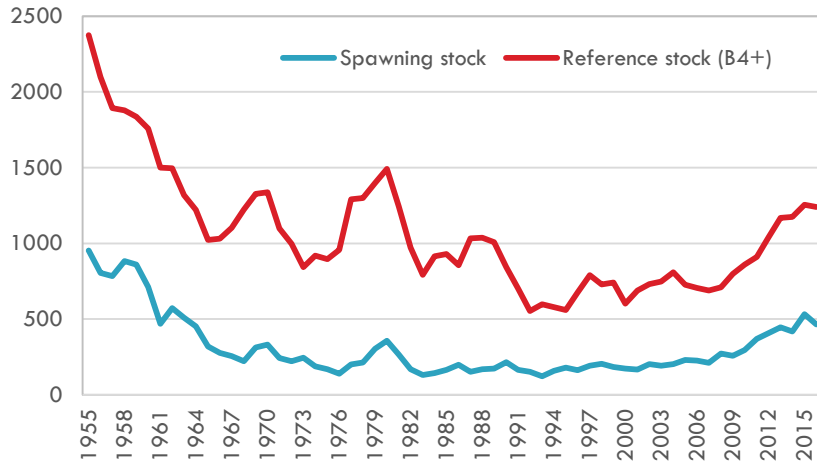
- **Objectives:**
 - Seafood supply chain relations
 - Input-output structure
 - Drivers of strategic decisions
 - Impact of regulatory systems
 - Market-based labelling and certification schemes
 - Industry dynamics affecting competitiveness
 - Valuation of non-market effects

D3.1 Value chains and input-output structure; cod

Most important Atlantic cod nations in 2014

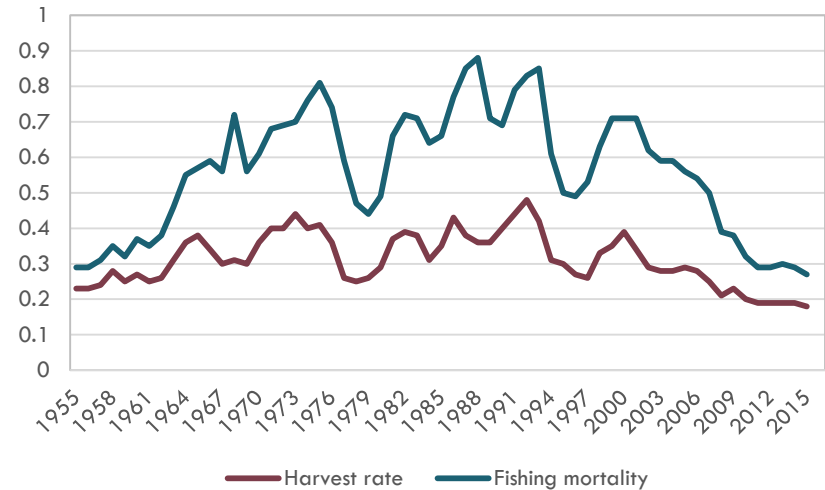


D3.1 Value chains and input-output structure; cod

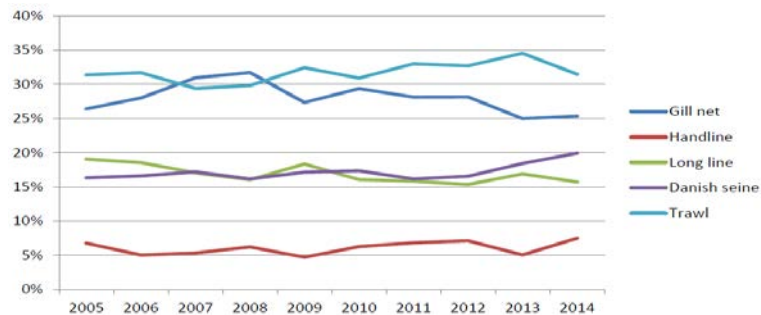
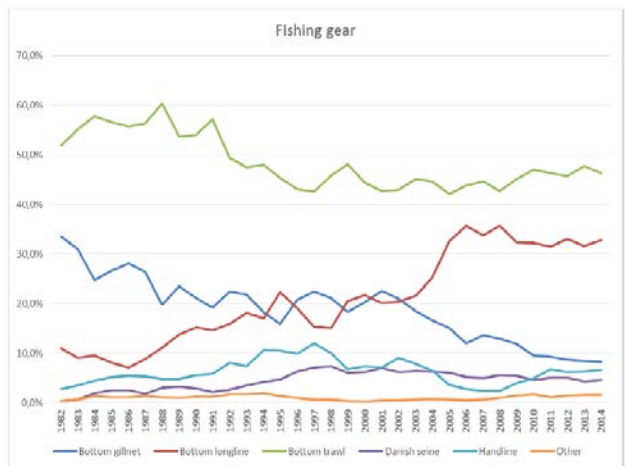


Icelandic cod; spawning stock and reference stock (fisible stock). Thousand tons.

Icelandic cod; harvest rate and fishing mortality, %.



D3.1 Value chains and input-output structure; cod



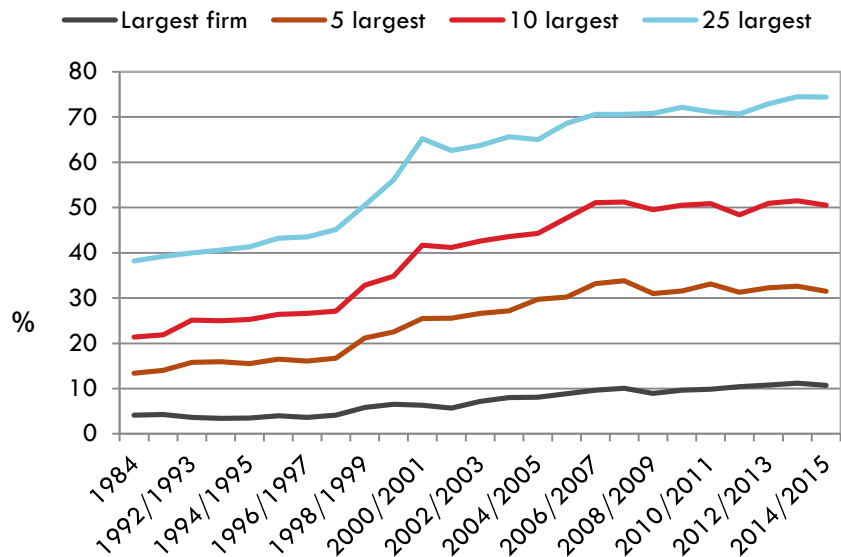
Norway

Iceland

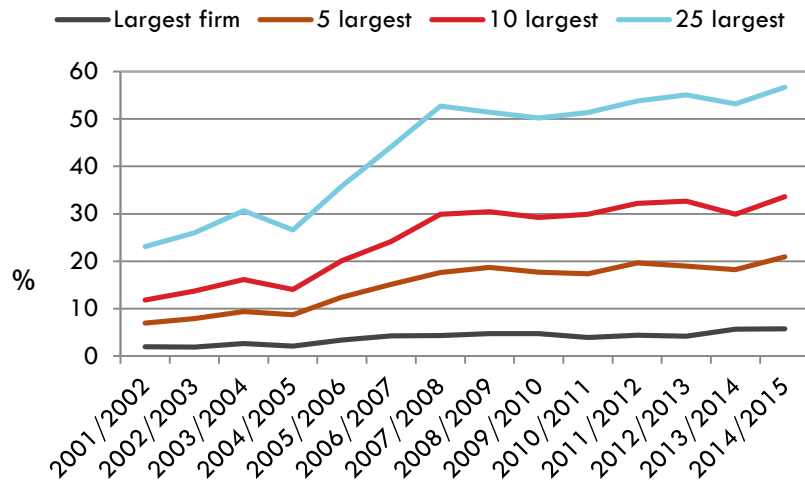
In 2015, 71% of Newfoundland cod catches were registered by vessels smaller than 35' operating line, gillnet, longline.
Most UK-catches were registered by trawlers.

D3.1 Value chains and input-output structure; cod

Trend towards fewer and larger vessels and companies in all countries

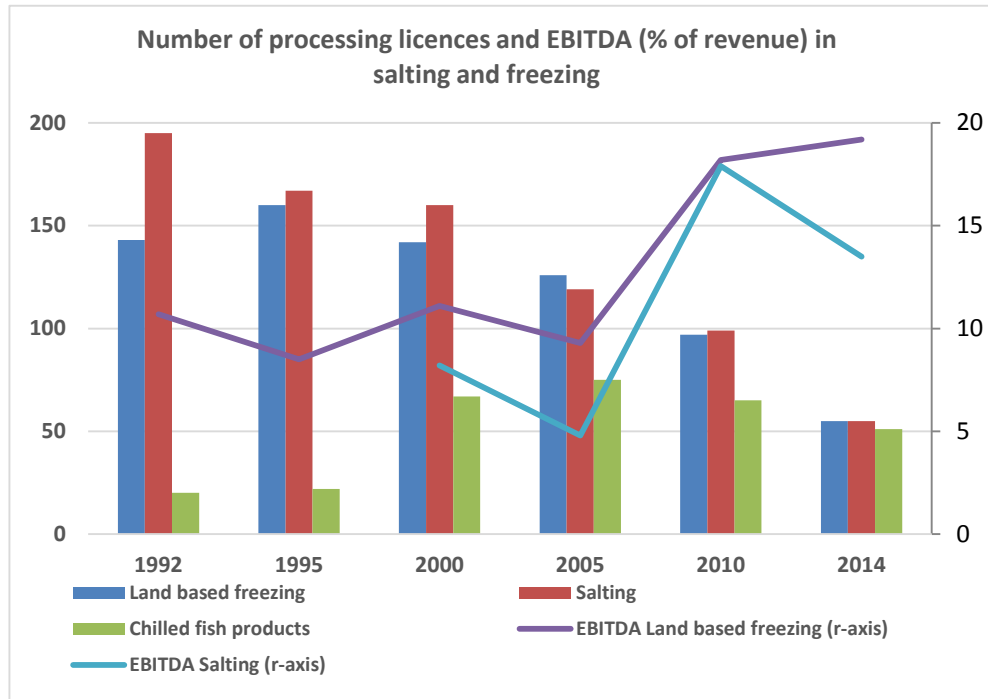


Iceland: Regular quota system



Iceland: Hook and line quota system

D3.1 Value chains and input-output structure; cod

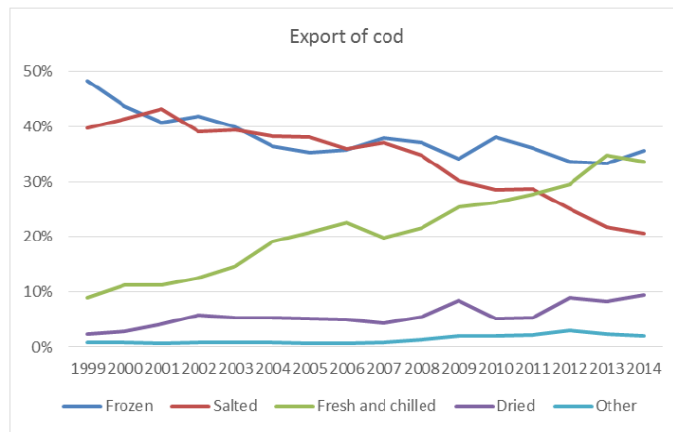
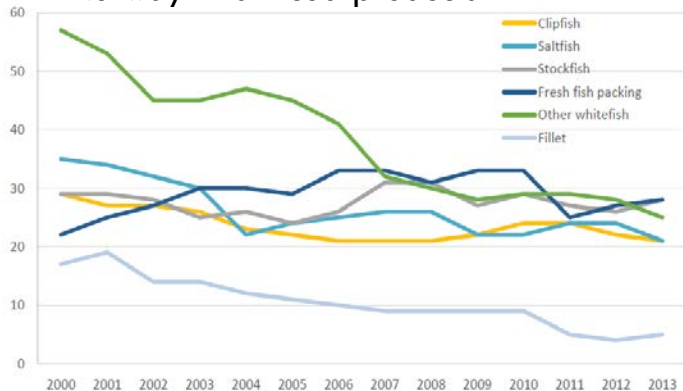


In Iceland, vertical integration is very common. Market-driven fisheries.

Vertical integration is forbidden in Norway and Canada.

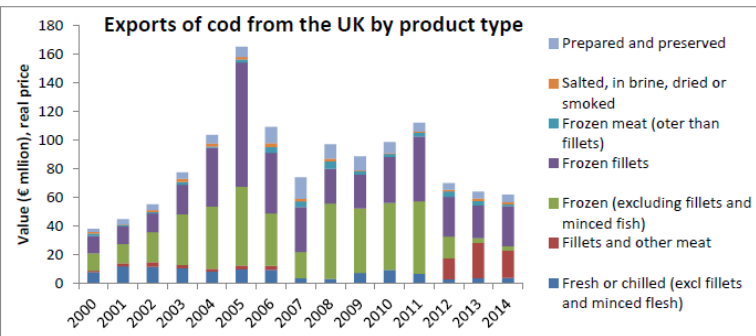
D3.1 Value chains and input-output structure; cod

Norway: Main cod products



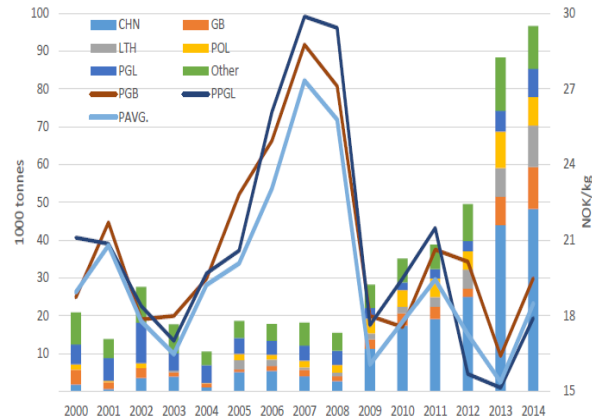
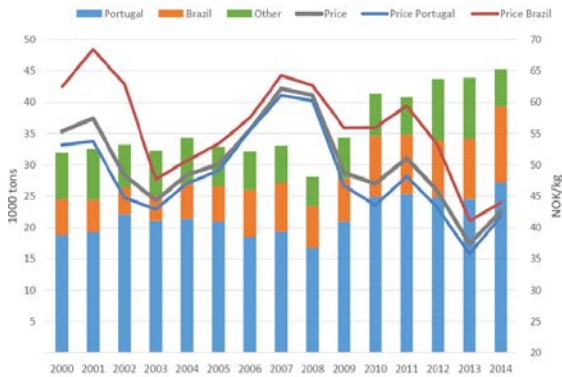
Iceland

UK



A large and increasing share of the Norwegian catch is landed frozen, while in Iceland the number of freeze trawlers has declined, in a move towards fresh landing and processing on land. The UK fleet lands its catches of cod whole fresh or gutted Canadian catches of cod are landed exclusively as fresh fish

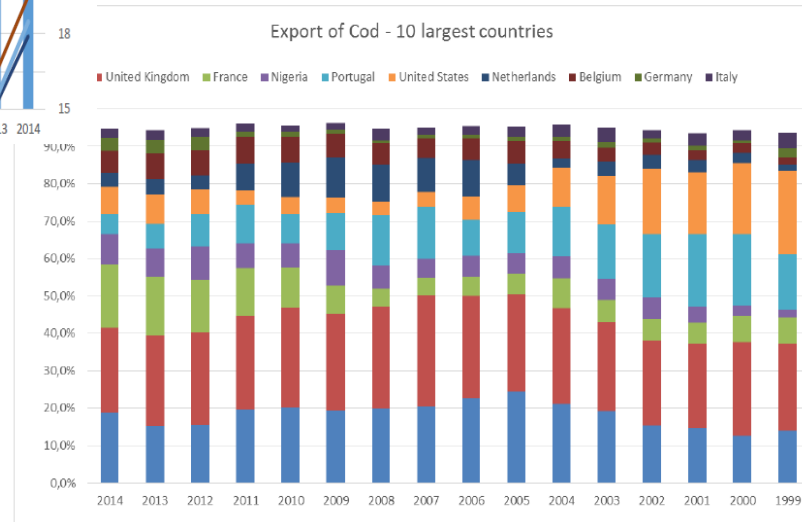
D3.1 Value chains and input-output structure; cod



Norway: Main export countries; clipfish (left) and frozen (H&G)

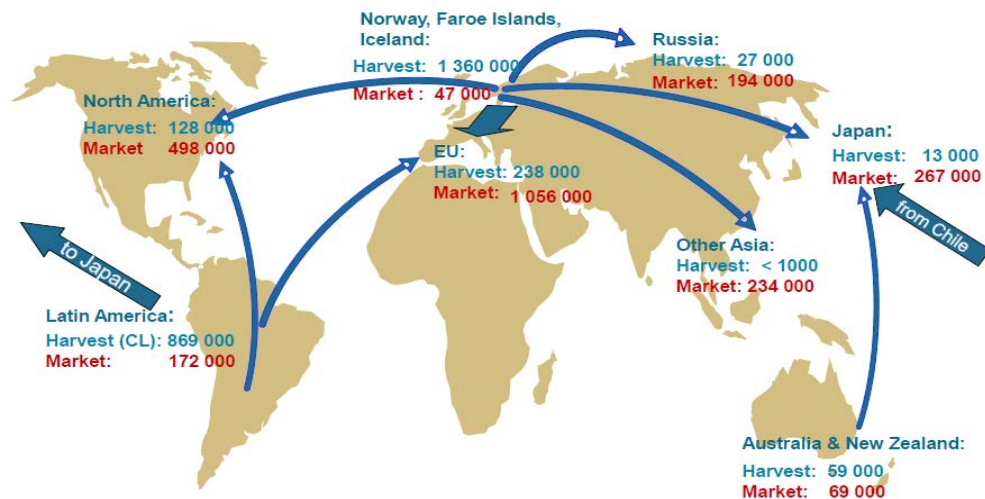
Newfoundland: US (47% in 2014) and UK (39%) are the main markets

Iceland: Main export countries

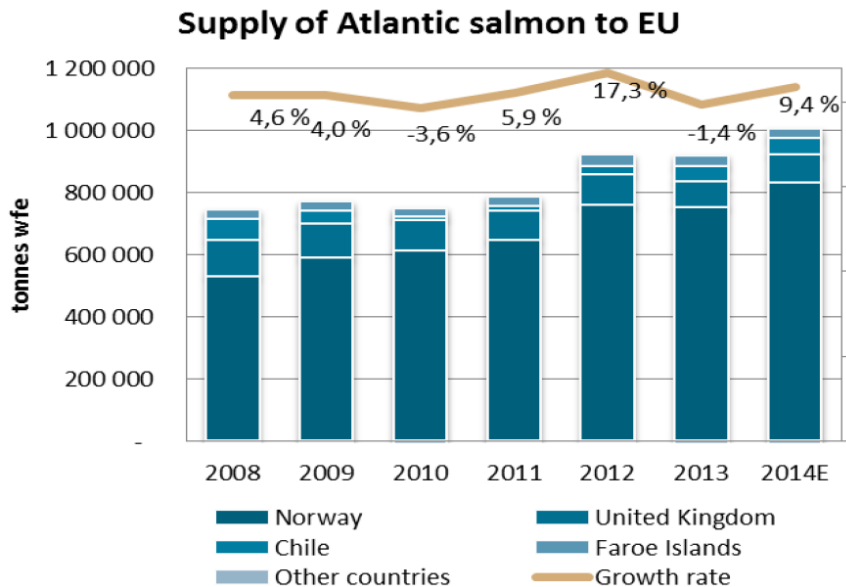


D3.1 Value chains and input-output structure; salmon

	Norway	UK	Chile	Canada	USA	Faroe Islands	Ireland	Australia	Others	Total
Atlantic salmon	1 198 900	171 500	582 900	101 000	20 400	82 800	12 300	39 000	18 100	2 226 900
Large trout	74 300	3 000	131 800	2 200			700	3 200	66 900	282 100
Coho			154 400	2 000					12 500	168 900
Small trout		10 000		10 000	27 000				302 900	349 900
Chinook			200	2 000					17 000	19 200
Total	1 273 200	184 500	869 300	117 200	47 400	82 800	13 000	42 200	417 400	3 047 000



D3.1 Value chains and input-output structure; salmon



D3.1 Value chains and input-output structure; salmon

The Salmon Supply Chain

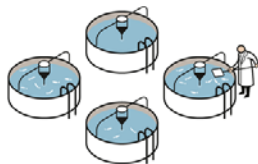
1



EGGS

Fertilised eggs are kept in incubation tanks in fresh water. There are approximately 5,000 eggs per litre. The eggs hatch into tiny fish (alevins), which have a yolk sac that provides nutrition until they are large enough to feed themselves.

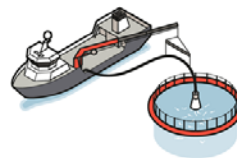
2



PARR

Once they weigh about six grams, the fish are moved to larger freshwater tanks or to an open net cage in a lake. The fish now develop into parr and once they weigh about 60–80 grams they're ready to move on to the smolt stage.

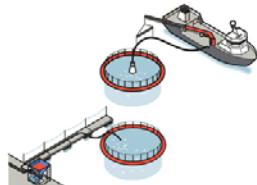
3



SMOLT

This stage is when the fish undergo a physiological change that enables them to move from fresh water to seawater and become young adult salmon. The smolts are kept in net pens in the sea until they mature into adult salmon.

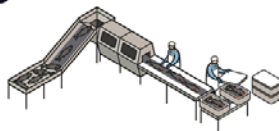
4



HARVEST

After just over a year in the sea the fish will have reached market weight (4.5 to 5.5kg) and are then harvested – in a variety of ways depending on the region.

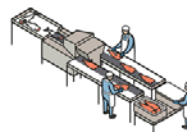
5



PROCESSING

Processing activities take place in their own specialised facilities around the world.

6



DISTRIBUTION

Sales and logistics managers use a combination of road, rail, ship and airfreight. Their priority through all stages of distribution is to maintain the freshness and quality of the fish and fish products and to minimise the amount of time and miles it travels.

Source: www.marineharvest.com

D3.1 Value chains and input-output structure; salmon

