Promotion of fish trade between South Korea and the EU

Exploring opportunities for the export of fish products from South Korea to the EU

F.F. (Geert) Hoekstra
Wageningen (the Netherlands), January 2021

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Executive summary (1)

- **South Korea is currently not a major trade partner for the EU** regarding Fisheries and Aquaculture Products (FAPs). In general, South Korea ranked 31st in the EU import partners for Harmonized System (HS) category 03 (Fish and crustaceans, molluscs and other aquatic invertebrates)
- In 2019, the EU was a minor trade partner with only 6% of the exported value of South Korean FAPs, while Japan was the no.1 export market for South Korea with 31% of the total export value of 1.9bn euros.
- While the imported volumes by the EU from South Korea decreased by 56% between 2003 (31,000 tonnes) and 2019 (13,500 tonnes), the trade value increased by 55% (to a total of 96m euros). This reveals a change in the import structure, with an increase in unit prices (euro/kilo) involved between 2003 (2.00 euros/kilo) and 2019 (7.11 euros/kilo). **The most exported South Korean FAP to the EU is tuna fillets**. Of all South Korean FAPs exported to the EU (2019), tuna comprised about 70% of the total value (144m euros).
- Tuna is cited as South Korea's most renowned fish product internationally. However, according to interviewed agents there is almost a surplus of tuna products supplied to the EU market by Spanish and Chinese companies. According to the interviewed EU importers, it is challenging to become a dominant player or to **distinguish yourself as a South Korean exporter** set apart from others in the large volume flows of tuna to the EU market.
- **France** (36%), **Italy** (21%) and **Spain** (13%) were the **most important EU importers of South Korean FAPs** (as % of total South Korean FAP exports to the EU in value).
- There is a **mismatch** between the envisaged species of interest for this research (Tuna, Cod, Squid, Surimi, Oysters and seaweed), and the most imported species by the EU: Salmonids, Alaska Pollock, Cod (where the interest is matching, but where also the trade flows are currently limited from South Korea to EU), Warm water shrimps and Scallops.
- High **convenience and ready-to-cook** products are trendy and having potential today in EU stores.
- Current **South Korean exports and the EU imports clearly indicates gaps and overrepresentation of tuna products** in the EU imports, and an **underrepresentation for other products** such as Seaweed, Crab, Oyster, Cod or even Abalone.
- The EU is highly dependent of imports from third countries. On average only 43% of the total EU supply (in volume weight) is provided by own supply of fisheries fleet and aquaculture. **The trend of importing FAPs from outside the EU is expected to grow**. This provides potential to exports of FAPs from South Korea to EU.

Executive summary (2)

- However, some of the EU importers perceive South Korean FAPs as rather price expensive compared to other imported FAPs from third countries/extra-EU. Also a majority of EU purchasers was not aware of an FTA (Free Trade Agreement) between South Korea and the EU, whereas the FTA between South Korea and the EU has a high potential to strengthen trade relations by relaxing trade barriers (e.g. zero trade tariffs and non-tariff measures). To successfully access the EU market as a South Korean seafood exporter, **a good price-quality ratio** is necessary.
- Another way to fulfil the increasing EU demand for FAPs is via **ATQs (Autonomous Tariff Quota).** These ATQs are used by EU companies to import raw materials for FAPs by making use of reduced import tariffs. It is important to analyse how to jump into this need for more raw material by the EU market. Which FAPs could match this need of EU importers and how is a stable flow of sufficient volumes and of good quality for the EU market ensured?
- **Collaboration with EU buying agents** could enhance building professional relationships with EU importers. Visiting and showcasing your FAPs at EU seafood fairs and expos could help to build trust and relationships.
- Another basic need is to have the required trade certificates as EU importer and South Korean exporter in accordance with EU regulation. Technical barriers to trade (TBTs) as **Non-Tariff Measures (NTMs)** like sustainability labels or food and safety certificates are required to ensure market access from EU retailers and importers. **Sanitary and Phytosanitary Standards (SPSs)** are mainly involved as Non-Tariff Measures when it comes to trade between the EU and South Asia.
- **Information and knowledge by EU seafood importers of South Korean FAPs is lacking**. Therefore the South Korean government could initiate trade missions with EU countries via embassies. Also investments into further research collaboration and promotion campaigns could enhance the awareness of South Korean seafood among EU countries. Moreover, South Korean cuisine is more and more in favour among EU consumers (e.g. within Poland). In general, convenience and ready-to-cook products are promoted by EU retailers. South Korean seaweed could be a potential ingredient in particular as a plant-based alternative for other protein like meat, as more and more vegan products are promoted.
- Stimulating **Special Economic Zones** (especially the current one with Poland) could be used to strengthen collaboration between European and South Korean companies. An inspiring example is the Dongwon and Salmon Evolution in South Korea for investments for salmon production.

Project team

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Economist fisheries and seafood markets

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Wageningen University & Wageningen Research

Wageningen University
12,337 BSc/MSc students from > 100 countries;
About 2,000 PhD candidates and 3,228 faculty and staff (2,838 FTE);
Revenue in 2019: 385m euros. WUR ranking in Higher Education Selection Guide in full-time university education 2020: 1 (15 years running).

Wageningen Research
3.047 staff (2,787 FTE);
Revenue in 2019: 344m euros.

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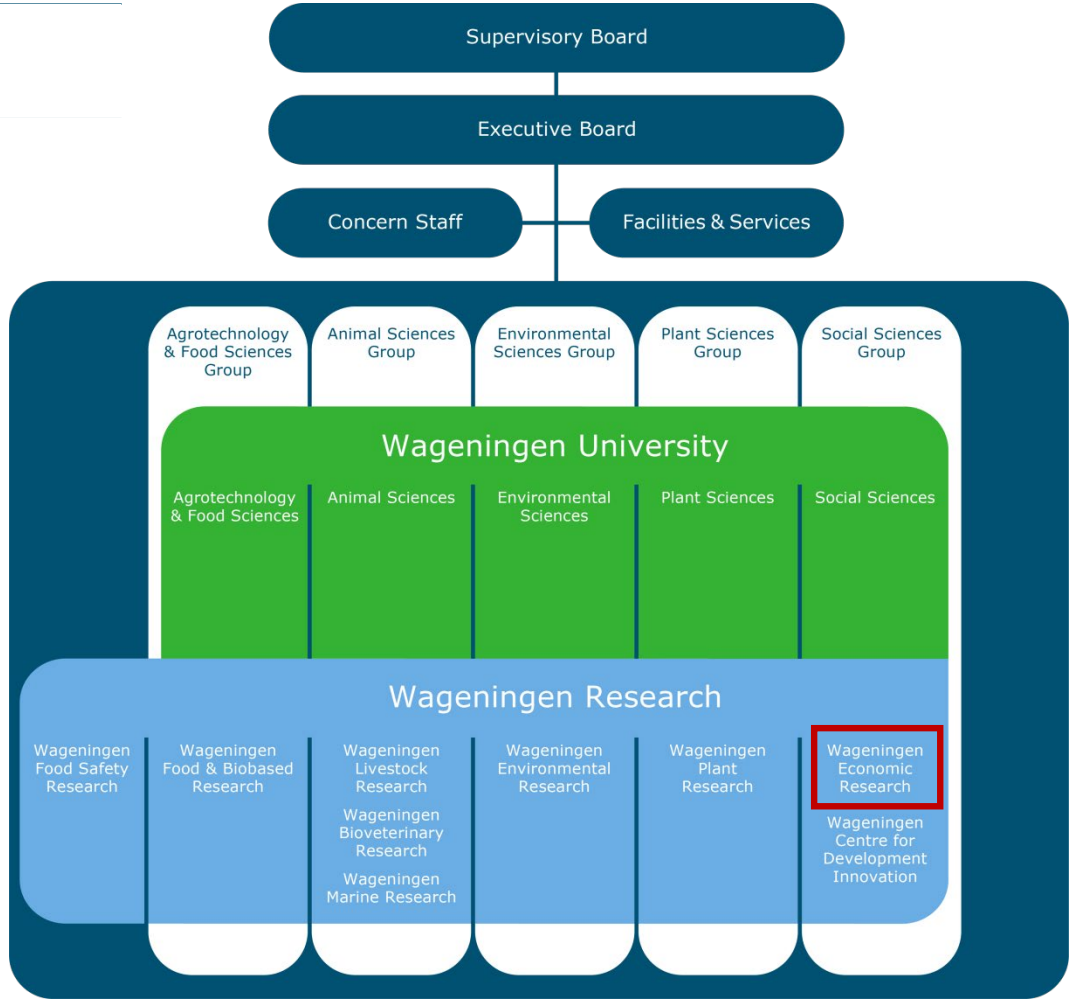
Organigram

Established in 1947 as LEI, Wageningen Economic Research is now part of the Social Sciences Group of Wageningen University & Research.

There is a close connection and interrelation between the 10 research institutes and the 5 university groups, resulting in a unique and bold combination as the internationally renowned university for agriculture and food with a campus in Wageningen and several offices
in the Netherlands.



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Exploring potential fish export to the EU (1)

KMI KOREA MARITIME INSTITUTE

This research study is commissioned by the Korean Maritime Institute.

Research question: *How could South Korea advance trade in FAPs* with EU?*

Korean Maritime Institute (KMI) is exploring how to advance the trade in fisheries and aquaculture products (FAPs) between South Korea and EU. Therefore, KMI wants to have a better understanding of the current export gaps by gaining insights into EU consumption of FAPs, import and production profiles, Free Trade Agreements and ways to promote export FAPs.

Key insights:

A. Imports of FAPs from South Korea by the EU could be reduced to three EU countries: France, Spain and Italy. These three countries contain 80% of the imported value of FAPs from South Korea in 2018 (Le Gallic, 2019). Total imports of FAPs from South Korea by the EU were 107m euros (2018). France was leading with 44m euros, followed by Spain (24m euros) and Italy (23m euros). Among imports from third (non-EU) countries, South Korea was not among the top 10 of import markets for these 3 EU countries. Other EU countries imported less than 5m euros annually. Therefore, there could be a large potential for South Korean FAPs to export to the EU. However, a better understanding is required of the EU trade market before promoting FAPs.

Certain factors like policies (Free Trade Agreements, non-tariff measures etc.) and differing consumption and production profiles could clarify a mismatch between supply and demand of FAPs between South Korea and the EU (Le Gallic, 2019). More research into these factors could provide insights into these 'export gaps' and also into why EU buyers and importers ignore to a great extent the FAPs from South Korea. Finally, this research should be the backbone for future opportunities to promote trade in FAPs between South Korea and the EU. Without research and therefore a prior understanding, a potentially large promotion budget could be misspent and invested sales efforts might be suboptimally used or even wasted.

*FAPs = Fisheries & Aquaculture Products

Exploring potential fish export to the EU (2)

B. Better understanding of export gaps to effectively promote trade of FAPs:
The desired situation for KMI is a better understanding of the EU seafood market (trade agreements, fish consumption, -production and trade networks) to discover the export gaps and future opportunities for trade with FAPs.

South Korea has the ambition to increase trade of FAPs with the EU in the nearby future by promoting it in an effective manner. The desired outcome of this research should lay the foundations for establishing a strategy for South Korean seafood exports to the EU by analysing export gaps between South Korea and the EU.

C. Which opportunities are there for promoting trade of FAPs between South Korea and the EU?
As described (A) there are multiple assumed factors that prevent EU countries to import and consume South Korean FAPs. To understand this, it is necessary to study these factors.

The following research questions need to be answered:

- Which 'export gaps' can be identified?
- Understanding the 'export gaps': why aren't EU buyers more interested in South Korean FAPs?
- Which ways could be identified to promote export of South Korean FAPs?

The key question, then, is: 'How could South Korea advance trade in FAPs with EU?'

Exploring potential fish export to the EU (3)

To answer the research question the following three sections are applied as a structure throughout this research study:

1. Identifying ‘export gaps’
2. Understanding ‘export gaps’ (why EU buyers could be (less) interested in South Korean FAPs?)
3. Identifying ways to promote export of South Korean FAPs

Methodology

Two methodologies has been applied. First, desk research by reviewing literature and published data(bases). Second, (digital) interviews have been conducted. Both methodologies will be the input and source for the synthesis to deliver a concise summary by this presentation slide deck.

1. Identifying ‘export gaps’

The bigger picture of the EU fish market:

The EU as a **major market** for FAPs

- 5th largest producer of fish products globally
- 9th largest producer globally of aquaculture products
- EU FAPs self-sufficiency rate is low (on average 43% over 2009-2018)

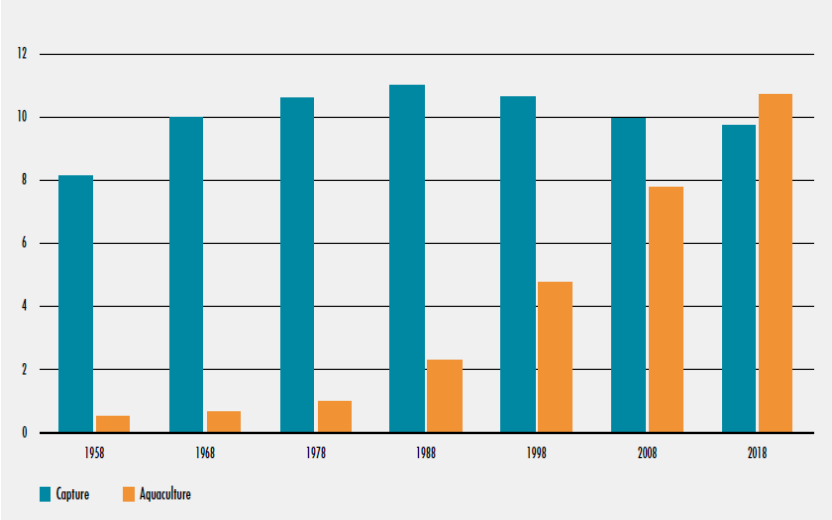
(1.000 tonnes)	World	EU-28	% EU-28 / world
Catches	93.204	5.253	5,6%
Aquaculture	111.966	1.372	1,2%
Total	**205.170**	**6.625**	**3,2%**

EU in the world for FAPs producing as Live weight equivalent. Source: Eurostat and FAO (2017)

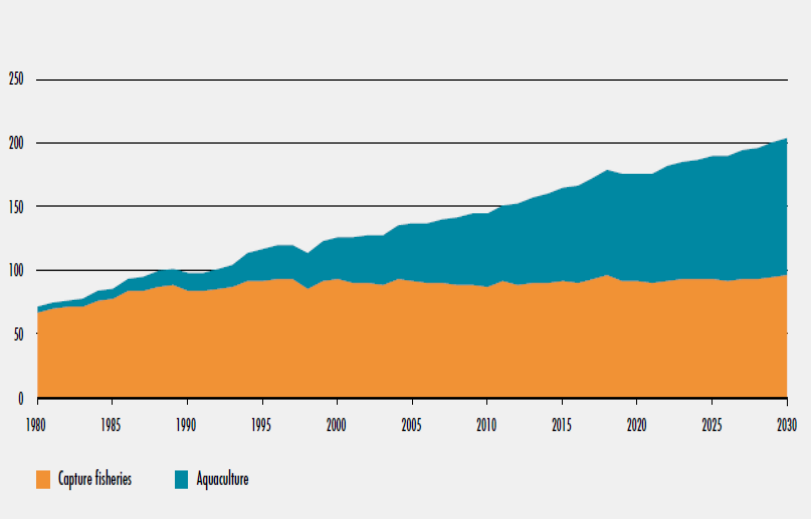
Photo: Shutterstock

Global production (prediction until 2030)

Aquaculture will fulfil growing demand for proteins via FAPs.



Global production of FAPs available for human consumption (kg/capita).
Source: FAO (2020)



Expected global production of FAPs available (million tonnes, live weight equivalent).
Source: FAO (2020)

Projection of global production (until 2030)

Production of FAPs to 2030 (predicted)

- -2.9% South Korea (in 1,000 tonnes, live weight equivalent)
- EU +2.5% (in 1,000 tonnes, live weight equivalent)
- Asia is by far the largest producer of FAPs (+19.2%) and has a share of 71% of total global production of FAPs (in 2030).

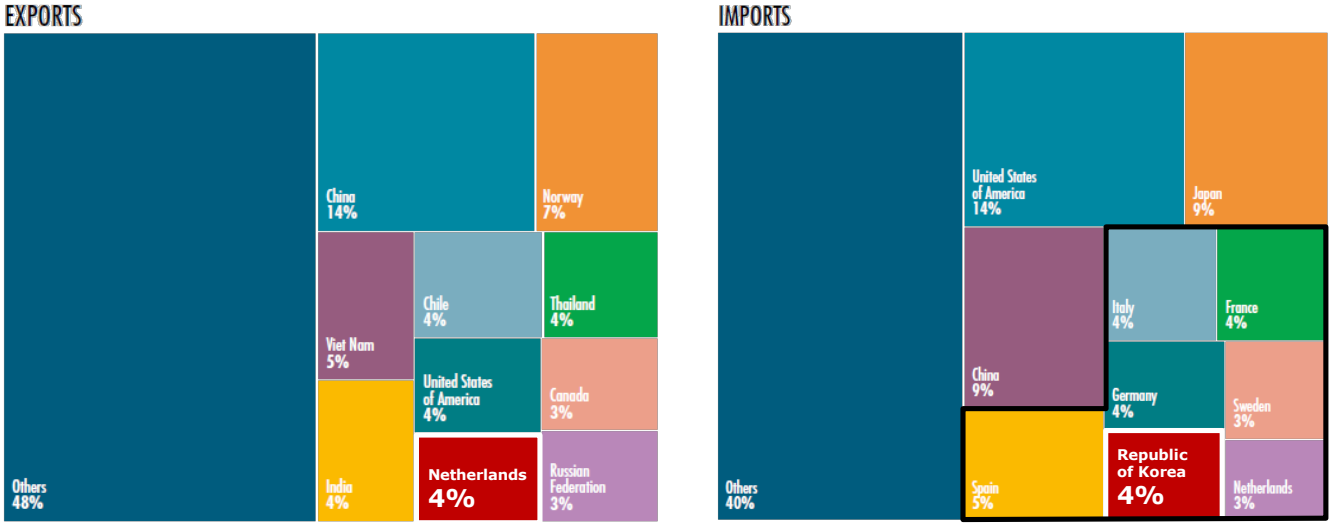
	2018	2030	Growth of 2013 vs. 2018
Asia	122,404	145,850	+19.2%
South Korea	1,905	1,850	-2.9%
EU	5.879	6.025	+2.5%
World	**178,529**	**204,421**	**+14.5%**

Projected FAP production (x 1,000 tonnes), 2030 (live weight equivalent).
Source: FAO (2020)

Gobal trade flows of FAPs (2018)

Top 10 countries imports and exports of FAPs (in value, 2018)

- The Netherlands (4%) as the only EU member state in top 10 exporters (in value; left figure);
- (South) Korea (4%) ranked 8th in top 10 importers of FAPs next to many EU member states (in value; right figure). South Korea imported an estimated USD 5bn and exported an estimated USD 1.5bn USD (ranked 24th of global FAP exports) in 2018;
- Therefore, South Korea is a major net importer rather than an exporter.



Trade flows of FAPs top 10 countries (in terms of value).
Source: FAO (2020)

Main EU trade partners (in value, 2018)

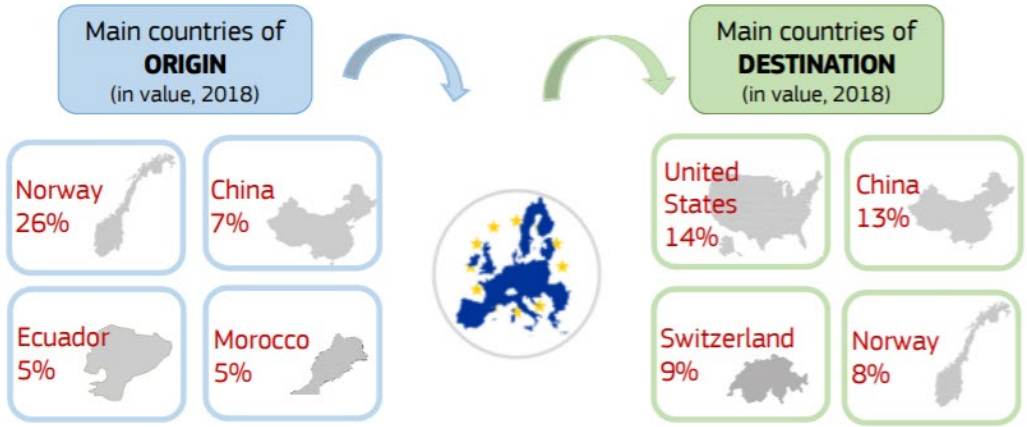
To have a clear overview of the major trade partners and species of FAPs for the EU, see the figure below.

EU has as major import partner countries:

- Norway (26%) in particular salmon
- China (7%) e.g. white fish species
- Ecuador (5%) e.g. warm water shrimps
- Morocco (5%) e.g. small pelagics and peeled shrimps

EU has as major export partner countries:

- United States (14%) several species (salmon, groundfish etc.)
- China (13%) e.g. several ground and white fish species
- Switzerland (9%) e.g. salmonidae, crusteceans etc.
- Norway (8%) in particular fishmeal, fish oil and fish feed.

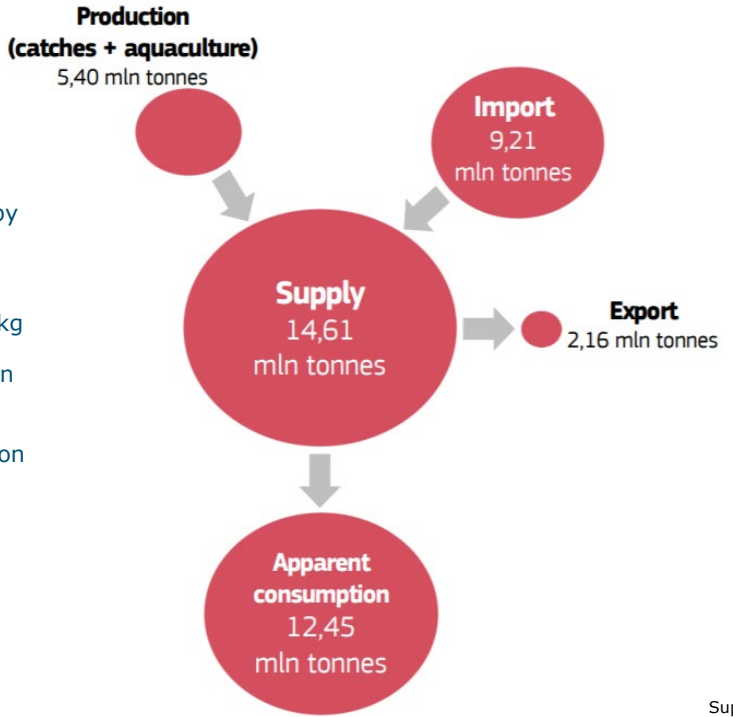


Major trade partners of FAPs for the EU (in terms of value).
Source: EUMOFA (2019)

The bigger picture of the EU fish market

EU as a **major market** for FAPs

- Supply of 14,6m tonnes
- **63%** of EU supply is import
- 85% of supply is **for own consumption** by EU countries (12.5m tonnes). Only 15% (2.2m tonnes) is exported.
- On average per capita consumption of 24 kg
- >100 euros (KRW 1,350) annually spent on FAPs by EU households
- FAPS expenditure = 25% of money spent on meat



Supply balance (2017) live weight equivalent. Source: EUMOFA

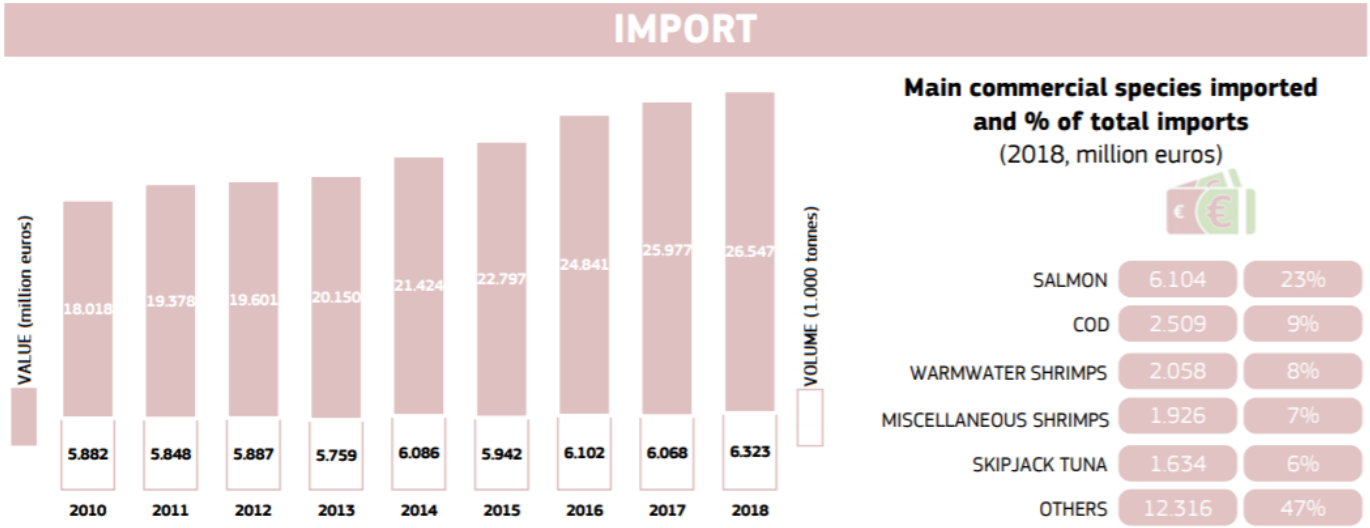
EU countries highly dependent on imports

After intracontinental trade within Europe (63% in 2017), Asia was the world's largest supplier to the EU (14%).

Imports by the EU of FAPs
(as share of total imports, in terms of value).
Source: FAO (2020)

Extra-EU import profile

- Import value by the EU from third countries has been growing over the last 10 years (6% annual growth)
- In 2018 extra-EU imports amounted to 26.5bn euros
- That was 6.323 metric tonnes of FAPs
- Salmon by far the most imported species with 6.1 billion Euro (2018)



Extra-EU Imports by the EU of FAPs (in terms of value).
Source: EUMOFA (2019)

Extra-EU imports (1)

Extra-EU imports by category of FAPs (in 1,000 euros)

Commodity Group	2005	2006	2017	2018	2019
Total	13,743,188	15,769,978	25,273,518	25,642,527	26,205,141
Bivalves and other molluscs and aquatic invertebrates	455,868	586,481	550,292	454,171	461,587
Cephalopods	1,196,029	1,195,957	2,591,377	2,751,572	2,459,426
Crustaceans	3,038,462	3,443,916	4,936,575	4,789,539	4,743,111
Flatfish	169,388	196,683	327,488	383,756	461,994
Freshwater fish	492,12	662,318	603,919	572,948	617,78
Groundfish	3,197,144	3,610,756	4,388,078	4,602,104	5,145,698
Miscellaneous aquatic products	377,353	381,427	449,272	486,117	548,741
Other marine fish	1,075,890	1,313,270	1,282,241	1,345,092	1,402,884
Salmonids	1,798,752	2,258,898	6,210,560	6,250,723	6,418,987
Small pelagics	505,511	563,96	797,727	778,895	778,625
Tuna and tuna-like species	1,436,673	1,556,313	3,135,989	3,227,611	3,166,307

2005-2019 (in 15 years)
+91% (in euros)

5. (Squid etc.)
3. (Shrimps, lobster, crab)
2. (Cod, Alaska pollock, Hake)
1. (Salmon)
4. (Skipjack, Yellowfin)

Most imported categories

Imports by the EU of FAPs (in terms of value). Source: EUMOFA (2019)

Extra-EU imports (2)

- Surimi EU imports from 135m euros (2005) to 191m euros (2019) (+42%), often derived from Alaska pollock.
- Despite higher prices (from 1.60 to 2.60 euros/kg), less volume imported (from 84,000 tonnes to 78,000 tonnes) over 2005-2019.
- Less seaweed (-51%) has been imported (from 44,752 to 21,971 tonnes)

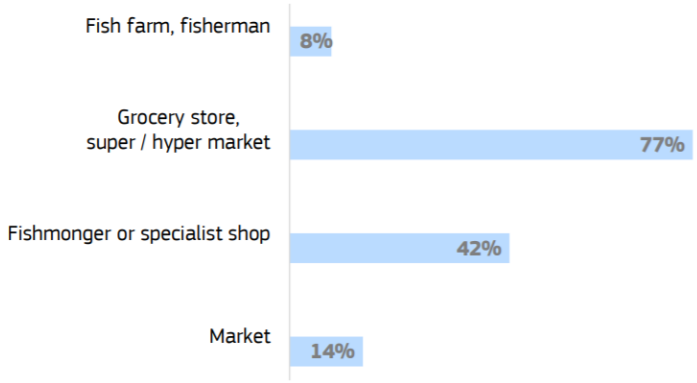
Main Commercial Species	2005	2006	2017	2018	2019
Caviar, livers and roes	102,496	93,543	109,642	124,099	148,619
Other products	95,41	96,454	159,1	168,045	187,245
Seaweed and other algae	44,752	46,314	23,287	23,048	21,971
Surimi	134,696	145,116	157,244	170,926	190,906

Extra-EU imports of FAPs (in terms of volume). Source: EUMOFA (2019)

EU consumers' preferences

Consumer preferences of FAPs

- Most of EU consumers prefer to buy their FAPs via Retail channel (figure left below)
- Most important purchasing factors were 1) product appearance, 2) price and 3) origin of product (right figure below).
- Landlocked countries prefer pre-packed FAPs, EU states with long coastline prefer loose products.

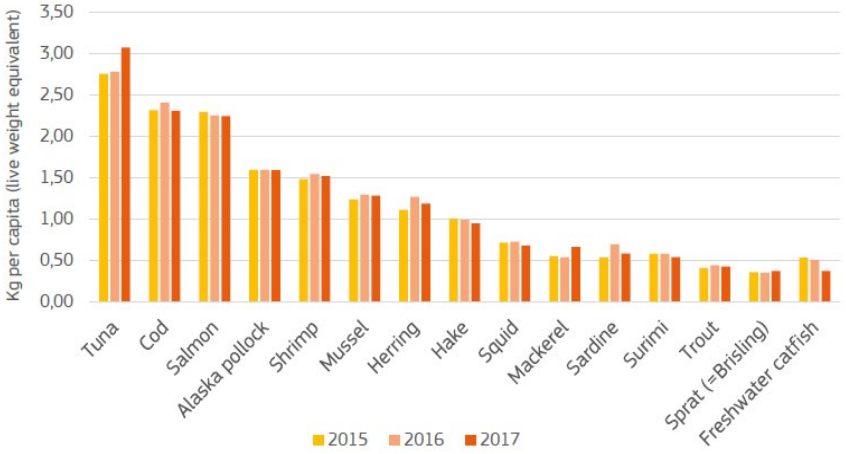


Distribution of consumer preferences of fish products by channel. Source: Eurobarometer (2018)

Purchasing factors for buying FAPs by EU households. Source: Eurobarometer (2018)

Most consumed products in the EU

- Most consumed FAPs in the EU were tuna, cod and salmon (in volume, 2017; right figure).
- These 3 products are of particular interest for the development of South Korean exports of seafood products.
- Consumed FAPs were stable in 2015-2017 (left figure).



Apparent consumption of most consumed products, three-yearly trend. Source: EUMOFA (2019).

Products	Per capita consumption (kg, live weight equivalent)	% wild	% farmed
Tuna	3,07	99,17%	0,83%
Cod	2,31	99,97%	0,03%
Salmon	2,24	0,05%	99,95%
Alaska pollock	1,59	100%	0%
Shrimps	1,51	50,87%	49,13%
Mussel	1,28	8,44%	91,56%
Herring	1,18	100%	0%
Hake	0,94	100%	0%
Squid	0,67	100%	0%
Mackerel	0,65	100%	0%
Sardine	0,58	100%	0%
Surimi[25]	0,53	100%	0%
Trout	0,42	0,21%	99,79%
Sprat (=Brisling)	0,37	100%	0%
Freshwater catfish	0,36	0,30%	99,70%
Others	6,65	79,09%	20,91%
Total	**24,35**	**73,9%**	**26,1%**

Apparent consumption of most consumed products in 2017. Source: EUMOFA (2019).

EU imports from South Korea

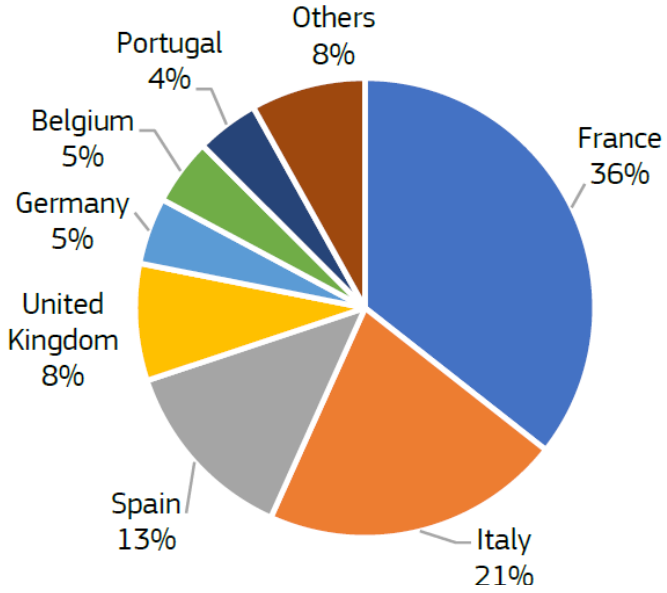
Imports by the EU from South Korea

- In 2019 estimated 16,686 tonnes from South Korea
- With a value of 115m euros (KRW 115,400m)
- Total EU imports of FAPs was 60,780m euros, which is 0.2% of the total imports from South Korea.
- Most of the imported FAPs by the EU from South Korea were frozen (84% of total import value)

Frozen products	84%
Prepared/preserved products	13%
Other	3%

Imports of FAPs by the EU from South Korea by preservation state (as % of value).
Source: EUMOFA (2020)

- France, Italy and Spain together account for 70% of total EU import value from South Korea.
- While Germany, the Netherlands and Poland are the main fish processing countries in the EU, these countries appear to be rather minor trade partners of South Korea.



Imports of FAPs by the EU from South Korea (as % of value).
Source: EUMOFA (2020)

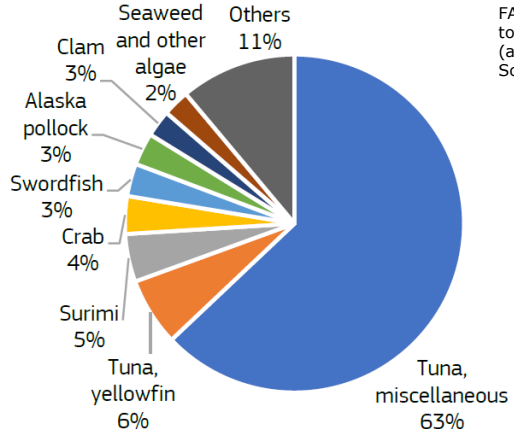
Imported species and trade prices

Imports by the EU from South Korea

- South Korea ranked 31st of EU import partners for HS03 category products in 2019. South Korea is not among EU's major partners for FAPs

Strong fluctuations over 2003-2019	Average HS03 import prices by the EU from South Korea:
31,000 tonnes, 62m euros (2003)	2.00 euro/kg
37,700 tonnes, 124m euros (2007)	3.29 euro/kg
13,500 tonnes, 96m euros (2019)	**7,11 euro/kg**

- Despite lower imported volumes, average imported price/kg increased due to more added value products (tuna fillets) or higher prices fish species. Another clarification could be of less re-exports from South Korea to EU, as cities (e.g. Busan) are important re-export hubs for China and Russia.
- Tuna was the most imported species (63% in value; right figure)
- EU trade balance with South Korea (in value) remained stable the last decade from deficit to positive balance (profit of 30m euros in 2019 of EU exports minus costs of imports) (Table below)



FAPs export to the EU by South Korea (as % of value in m euros)
Source: EUMOFA (2020)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Exports to South Korea	48	46	59	69	76	114	124	158	127	144
Imports into the EU	86	75	79	63	84	103	125	144	125	115
Balance	-38	-30	-20	6	-8	11	-1	13	2	30

EU trade balance with South Korea for FAPs (value in million Euro). Source: EUMOFA (2020)

What South Korea has to offer (1)

- South Korea fisheries fleet in Yellow Sea (west), East China Sea (south) and East Sea (east).
- Capture fisheries production 1.35m tonnes (2018)
  - Tuna species (28% of total landed weight)
  - Small pelagics (16% of total landed weight)
  - Miscellaneous pelagic fish (14% of total landed weight)

Source: Korea.net (Flickr.com)

Decreasing landed volumes last decade: **-28%** between 2009-2018.

Product	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Tuna, bonito, billfish	376.422	364.344	283.260	347.426	311.543	363.409	374.098	397.965	337.208	378.780
Herring, sardine, anchovy	247.375	276.489	320.536	260.580	260.061	254.739	249.081	175.029	253.351	221.660
Miscellaneous pelagic fish	201.840	174.882	228.799	198.313	183.838	203.190	216.208	222.177	165.862	192.752
Squid, cuttlefish, octopus	313.469	256.652	269.059	292.475	281.487	356.246	334.223	167.951	165.037	91.542
Miscellaneous demersal fish	142.823	114.295	91.758	89.894	99.082	95.452	91.458	86.675	98.339	90.692
Miscellaneous coastal fish	114.080	111.484	132.849	96.572	95.161	77.057	70.475	56.928	51.126	60.308
Crabs, sea-spiders	73.314	75.432	69.813	73.340	76.421	71.857	65.950	56.284	50.210	43.823
Clams, cockles, arkshells	45.259	33.572	27.492	21.290	21.798	21.362	23.192	19.886	24.048	38.944
Oysters	24.254	22.686	24.985	18.424	12.751	19.794	21.484	14.076	14.539	38.341
Others	333.068	305.164	308.568	278.957	261.209	291.106	211.462	173.524	202.071	187.945
Total	1.871.904	1.735.000	1.757.119	1.677.271	1.603.351	1.754.212	1.657.631	1.370.495	1.361.791	1.344.787

Landed species by South Korean fisheries fleet (volumes in tonnes). Source: FAO (2020)

What South Korea has to offer (2)

- In 2018 South Korean aquaculture production reached around 2,28m tonnes (mostly marine aquaculture)
- Seaweed comprised around 75% of total production volume: Japanese kelp, nori and wakame. Followed by molluscs (in particular Pacific cupped oyster with 72% of total volume of molluscs)
- Other large volume cultivated species were bastard halibut (olive flounder) and South Korean rockfish. Cultivated marine fishes amounted to 80,000 tonnes in 2018.
- Over 2009-2018 South Korean aquaculture significant increased. Mostly due to seaweed and oysters.

Product	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aquatic plants	858.659	901.672	992.283	1.022.326	1.131.305	1.087.048	1.197.125	1.351.258	1.761.525	1.710.500
Molluscs	329.298	359.784	394.502	373.488	293.773	359.292	338.115	361.706	430.397	417.644
Marine fishes	109.507	80.133	72.333	76.210	73.036	83.318	85.251	79.755	86.114	80.145
Miscellaneous aquatic animals	16.438	15.014	19.165	17.672	16.161	15.906	30.558	39.314	28.324	43.326
Diadromous fishes	9.440	10.602	10.372	7.494	8.678	9.117	12.323	13.342	14.938	14.450
Freshwater fishes	6.458	7.271	7.807	9.198	6.645	8.221	7.547	8.027	8.235	8.260
Crustaceans	1.919	2.757	2.873	2.838	3.848	4.540	5.566	5.818	5.186	4.525
Total	1.331.719	1.377.233	1.499.335	1.509.226	1.533.446	1.567.442	1.676.485	1.859.220	2.334.719	2.278.850

South Korean aquaculture production by main species groups in tonnes. Source: FAO (2020)

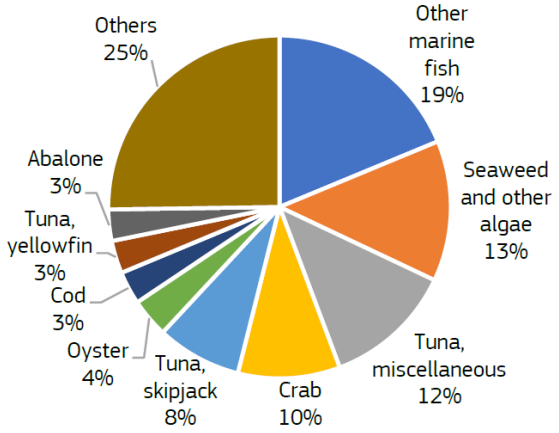
South Korea exports

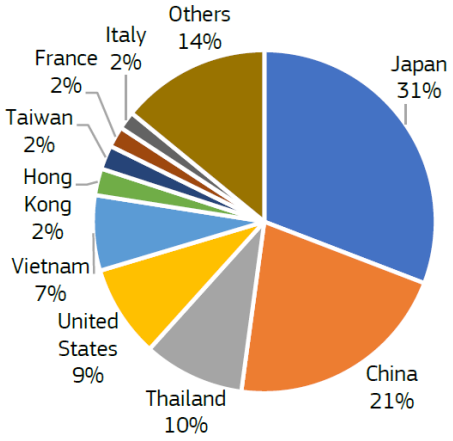
- In 2019 South Korean exports of FAPs reached 623.894 tonnes (1.9bn euros)
- Most of it were frozen products (53% of total value)
- Trade South Korea and the EU (in m euros): the EU imported 115m euros and exported 144m euros to South Korea.
- Japan was the most important export partner for South Korean FAPs in value (31%), while the EU was a minor export partner (6%) of the total 1.9bn euros in 2019.

Top 5 export markets:

1. **Japan (31%),** tuna, other marine fish and seaweed
2. **China (21%),** other marine fish, crab, cod and seaweed
3. **Thailand (10%),** Skipjack tuna and seaweed
4. **USA (9%),** other marine fish and toothfish
5. Other (29%)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Exports to South Korea	48	46	59	69	76	114	124	158	127	144
Imports into the EU	86	75	79	63	84	103	125	144	125	115
Balance	-38	-30	-20	6	-8	11	-1	13	2	30





Source: EUMOFA (2020)

2. Understanding ‘export gaps’
(why EU buyers could be (less) interested in South Korean FAPs?)

To understand why EU importers and consumers are or are not be interested in South Korean FAPs, multiple interviews have been conducted with agents. These EU ‘agents’ consisted of national Embassies, importers, seafood processing and trade companies, European and national federation/producer organisation, food wholesalers and fisheries and seafood economists as national sector experts.

Insights from interviews:

- None of the interviewed representatives of EU countries had much experience with the import of South Korean products. The imported volumes from South Korea are rather limited in their experience (also in terms of value for EU member states). Therefore it was challenging for the agents to come up with specific feedback or recommendations for South Korean government and business to enhance trade with the EU for seafood.
- EU seafood importers and processors have heard of **positive experiences** of the **increasing good-quality South Korean FAPs** from other continents, in particular from African seafood importers.
- **Price-quality competitiveness** is of major importance to EU seafood importers and processors. It was the first and main factor mentioned in all interviews with producer organisations and the national seafood enterprises themselves. They always asked if there was a **reduced import tariff** or **Free Trade Agreement (FTA)** in place for South Korean seafood products. The example of a recently formalised FTA between the EU and Vietnam was mentioned by agents as a way that could be competitive as overseas country for exporting to the EU market. If there is no FTA or a reduced import tariff it is challenging for South Korean exporters to deliver good-quality products with competitive prices and reasonable profit margins for themselves according to many interviewed agents.

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In total 17 interviews were conducted within the following countries: The Netherlands, Germany, Poland, Spain, France and cross-EU country (European fish process and trade association).

The following questions were asked in the interviews:

1. Do seafood companies in your country already import (or imported in past recent years) South Korean seafood products?
    - If yes: which species?
    - What have been your experiences with the import process
        - Quality and health safety of the product
        - Price levels (in terms of low, moderate or high)
        - Quality of the process (e.g. Relationship/contact with South Korean parties, reliability, in time deliveries, transparency)
2. Is there a Free Trade Agreement in place with South Korea for seafood products?
3. Which import and tariff duties are there for your country for enabling importing seafood from South Korea?
4. Which Non- or Reduced Tariff Measures (NTM/RTM) and Sanitary and Phytosanitary (SPS) are valid for seafood trade with South Korea?
5. Are there relevant certificates and labels to ensure sustainability or social issues (e.g. IUU fisheries etc.)?
6. What would you recommend the South Korean Seafood Industry to stimulate long-term relationships and trade in seafood products with companies in your country?

2. Understanding ‘export gaps’
(why EU buyers could be (less) interested in South Korean FAPs?)

From the interviews the following insights were provided:

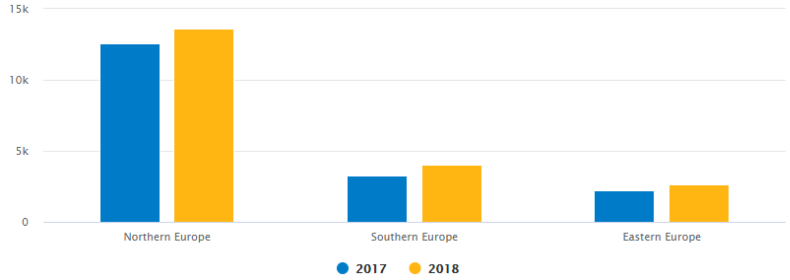
- EU processors (in particular North EU countries) are sourcing for more raw materials. **ATQ (Autonomous Tariff Quota)** system is a way for EU importers and processors to import FAPs from non-EU countries with a reduced tariff quota (see also chapter 3.3). In particular whole fish are highly preferred by EU processor in order to add value to these products by preparing it tailor made to EU high standards and their clients (often EU Retailers or wholesales). ATQs for e.g. Alaska pollock (Theragra chalcogramma) has become the most traded species amongst other things due to the trade friendly ATQs.
- For **small pelagic species** it is assumed to be challenging for South Korean exporters to compete with the EU’s own supply according to agents. Firstly, the **taste and texture** of Pacific mackerel (Scomber japonicus) is **differing** from the Atlantic mackerel (Scomber scombrus) supplied by EU fisheries. In the EU market this relatively higher priced Atlantic mackerel is preferred over the lower priced Pacific mackerel. South Korea is exporting this Pacific mackerel. Secondly, Blue whiting (Micromesistius poutassou) is another small pelagic species but challenging to compete with EU suppliers due to low prices. Blue whiting is a large volume available species supplied as well by Asian fisheries fleets as EU fleets. However, this one is already in the EU a low priced commercialized species. Often it is exported as frozen whole fish to African countries in large batches. Or it used by EU processors as a low cost ingredient for surimi. Therefore it could be challenging for South Korean exporters to compete with the EU own supply for this small pelagic species. South Korea is an important (re)exporter of FAPs (e.g. Alaska Pollock, Blue whiting and other white fish) as ingredients or as processed surimi.
- **Sufficient volume per batch** to supply EU companies is another frequently discussed variable by the interviewed agents, in particular when processing and fish wholesales companies supply large food retail groups or other food wholesales. These purchasers of their fish product expect high standards and minimised out of stock risk for the customers. Therefore a stable and consistent flow of volumes is required. Also the **uninterrupted cooling system** is essential to guarantee good quality of frozen or fresh products and also to avoid food safety issues. For the South Korean fleet this means that a secured HACCP and sufficient cooling facilities aboard and after landing is needed to convince EU importers for EU market access.

2. Understanding ‘export gaps’
(why EU buyers could be (less) interested in South Korean FAPs?)

- **Ecolabelling** and **quality certificates** were another point that should be no discussion. Many EU Retailers have a policy that without ecolables (e.g. MSC and ASC) and food safety and quality certificates (e.g. BRC, IFS, SQF, ACC etc.) there is no common ground to be allowed to sell your fish product to these retailers.
- **Tuna** is cited as South Korea’s most renowned fish product internationally. However, according to interviewed agents there is almost a surplus of tuna products supplied to the EU market by Spanish and Chinese companies. It is highly competitive to become a dominant player or to distinguish yourselves as outstanding from others in the large volume flows of tuna at the EU market.
- Asking agents which type of products are trendy and having potential today in EU stores, the answer is high **convenience** and **ready-to-cook** products. However, during COVID lockdowns you would expect people having more time to cook more and more studies (Nielsen: https://www.nielsen.com/au/en/insights/article/2019/beyond-fish-fingers/).
- Often from origin South Korean seafood products were re-exported by EU countries as intra-EU flows. **Traceability** is an issue in these cases. **Initial origin** of the (South Korean) products are not always known by final economic agents.
- It is recommended to build relationships by **visiting EU seafood fairs and expos**. By showcasing the South Korean products and face to face encounters this could be a potential start according to the interviewed agents for first trade deals. Vice versa holds, after a first pilot of trade deal a visit at South Korean companies by EU importers and embassies could be beneficial for future trade deals.
- Is there any IUUF in place is questioned by one interview agent. Via labelling and certificates this kind of questions could be solved.

Labelling and certificates (licence to sale)

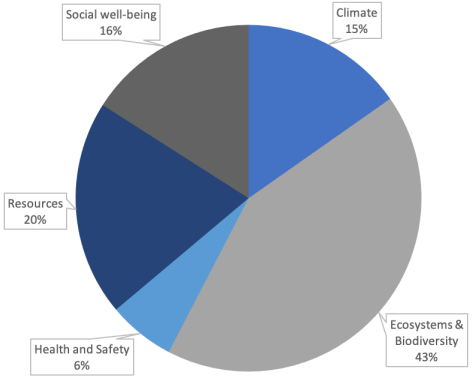
- European retailers, together with the US ones, are **leading the trend of only selling sustainably certified seafood**. For a long time in Europe, this trend was limited to North Western Europe and the Nordic countries. In 2019, however, Southern and Eastern Europe continued the recent **strong growth in their sustainably certified seafood offering**.
- An important development in recent years has been the increased interest in sustainably caught fishery products and responsibly farmed seafood. Sustainability labels are becoming increasingly important for all food products, but one of the most popular sustainability labels in the Netherlands for both retailers and consumers are Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC). If MSC or ASC certified products are not available to retailers, they will turn to the VISWijzer for sourcing sustainable seafood. Several Dutch fish species are certified, including, herring, mussels and oysters. Northern EU countries are frontrunners with sustainability labelling and certificating, however Southern EU countries are following this trend according to CBI (https://www.cbi.eu/market-information/fish-seafood/frozen-pre-cooked-tuna/market-entry).
- In financial year 2018/2019, around 805,000 tonnes of MSC-certified seafood were sold on the European market, compared to about 720,000 tonnes in 2017/2018. This is an increase of 12%. North western Europe and Scandinavia still account for the largest share of the European sales of MSC-certified fish and seafood, with a volume of about 670,000 tonnes. This share by these Northern EU countries was between 80-95% of the total MSC certified FAPs in the EU last years. After Germany and the United Kingdom, France has now become Europe's third largest market for MSC products, taking over from the Nordic block (Denmark, Finland, Iceland, Norway and Sweden), which MSC collects data for as a group.
- The 12% growth in the volume of MSC-certified seafood sold was mainly accounted for by Southern Europe. The volume of MSC products sold in France grew by 56%, Italy by 30% and Spain and Portugal by 27%. Although still small, Eastern European countries doubled their sales of MSC-certified products to around 50,000 tonnes.
- The main factor for this evolution is the **commitment that international retail groups have made at the corporate level**. While their commitments originated from consumer demands in North Western Europe, or in some cases the United States, they now require their group companies in other markets to meet the same targets.



The number of FAPs sold in EU with MSC label. Source: Marine Stewardship Council (2019).

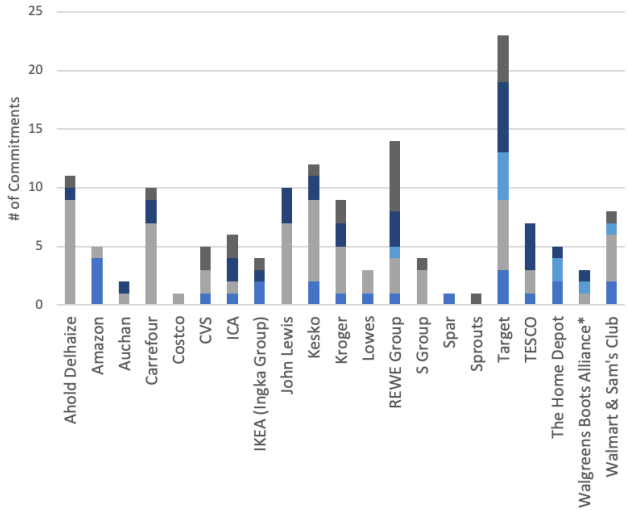
Labelling and certificates (license to sale)

- In line with the increasing number of certified and labelled FAPs, there are **more and more commitments to climate-proof by retailers:** The Sustainable Consortium is a global organisation that analyses the number of public commitments made by a representative cross-section sampling of retailers in Europe and the United States. This analysis is limited to SMART (specific, measurable, achievable, relevant, and time bound) supply chain goals that are expected to be achieved between 2020 and 2050. Each SMART aspect of a goal is considered as a single commitment.
- In 2019 the most commitments by retailers were made about 'ecosystems and biodiversity' with 43% off all commitments (left figure). Think of Deforestation, sustainable agriculture, and palm oil commitments are the most common issues within the leading impact group.
- The number of commitments differed between retailers (right figure). However, for all retailers there is at least one or more commitment with regarding to climate impact.
- Although there are significantly fewer Health and Safety commitments, the majority address chemicals of concern for consumer safety. Another trend to consider is certifications. More than 50% of the analysed retailers referenced Fair Trade, Forest Stewardship Council, Marine Stewardship Council, Programme for the Endorsement of Forest Certification, Rainforest Alliance, and Roundtable on Sustainable Palm Oil.



Division by type of commitments by Western retailers

Source:
The Sustainability Consortium (2020)



Number of commitments by Western retailers

Source:
The Sustainability Consortium (2020)

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Food safety and quality

- Next to sustainability or ecolabelling there is an increased demand among EU seafood processors for food safety and quality certificates. The globalization and further liberalization of world fish trade, while offering several benefits and opportunities, also presents new safety and quality challenges. Fish safety and quality assurance in the new millennium will require enhanced levels of international co-operation in setting up standards and regulations. The SPS (Sanitary and PhytoSanitary)/TBT (Technical Barriers to Trade) agreements of the WTO (World Trade Organization) and the benchmarking role of the Codex provide an international platform in this respect. More recently, several countries have initiated national works on microbiological risk assessments.
- Retailer product specifications are usually treated as confidential as they are considered commercially sensitive in what is a highly competitive market (World Bank, 2005). However, the package of specifications is likely to include detailed:
  - **product specifications**: organoleptic and/or sensory and/or taste, metrological (size, block, dimension, etc.), chemical and physical, bacteriological;
  - **packing and packaging, labelling requirements**;
  - **delivery conditions** (where, when, how much); and
  - **demands for information about the supplier company's safety and sanitary**
  - **management capacities**: SOPs, safety and quality management process (including details on product controls), traceability and recall procedures.
- Therefore, in addition to their firm-specific product and process specifications, firms might also require their suppliers to be certified to: For processed fish and seafood: a national or international Food Safety Measures such as: **British Retail Consortium (BRC), International Food Standard (IFS), Safe Quality Food (SQF)**.
- The markets that are most demanding in terms of private standards are the markets where imports from developing countries are lowest. For example, the percentage of European imports from extra-EU countries that end up in Germany and the United Kingdom, where private labels and private standards are more dominant, is relatively low. These markets tend to prefer North Atlantic and North Pacific species to tropical species from developing countries (again, with the notable exception of shrimp, catfish and species typically sold as canned products – tuna, sardines etc.). (Washington et al, 2011; http://www.fao.org/3/i1948e/i1948e05.pdf).
- **HACCP** is a method to control your processing operations. The method helps you to identify possible issues, and teaches you how to prevent and resolve them, with the aim of ensuring hygiene, safety and traceability. Europe has one of the highest food safety standards in the world. Products that are found to be non-compliant will be registered and reported in the Rapid Alert System for Food and Feed (RASFF).

Anti-IUU mechanism and traceability

Anti-IUU mechanism: According to the European Union, IUU fishing is any fishing that is in forbidden areas, uses illegal methods or goes unreported. IUU fishing has a negative effect on the sustainable management of global (and local) fish stocks, and creates unfair competition against those that fish legally and responsibly. The European authorities have committed to increase their efforts to sustain the health of global oceans, which is reflected in the pressure that authorities put on countries to comply with the IUU Regulation to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing that came into effect on 1 January 2010.

Several key partner countries such have been confronted by yellow cards that require the authorities in countries to take action against IUU fisheries. If the government does not take action, European authorities might impose a red card, which means a ban on European imports of fish and seafood from that origin.

Traceability: EU Green deal: Farm to Fork Strategy has been introduced in 2019 within the EU. The EU Commission states that there is a need to redesign the food systems which today account for nearly one-third of global GHG emissions, consume large amounts of natural resources, result in biodiversity loss and negative health impacts (due to both under- and over-nutrition) and do not allow fair economic returns and livelihoods for all actors, in particular for primary producers. This also impacts the seafood chain as traceability and footprints are getting more attention. The Farm to Fork Strategy aims to accelerate the transition to a sustainable food system that should:

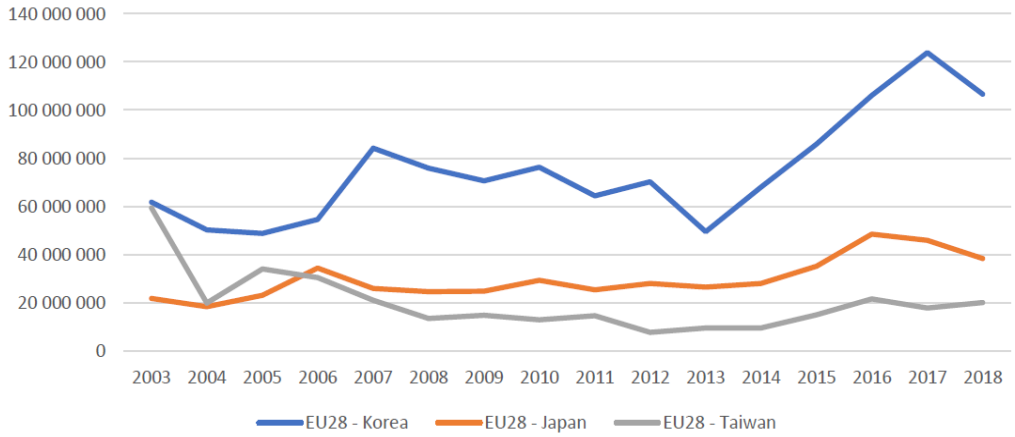
- have a neutral or positive environmental impact
- help to mitigate climate change and adapt to its impacts
- reverse the loss of biodiversity
- ensure food security, nutrition and public health, making sure that everyone has access to sufficient, safe, nutritious, sustainable food
- preserve affordability of food while generating fairer economic returns, fostering competitiveness of the EU supply sector and promoting fair trade.

The EU will support the global transition to sustainable agri-food systems through its trade policies and international cooperation instruments.

Source: European Commission (2019).

Free Trade Agreements (FTAs)

- Regarding zero tariff imports for the EU from third countries, there was an FTA between the EU and South Korea for FAPs from 2011-2017. Some preliminary work has been performed by EUMOFA, using the 'differences in differences' methodology. Following the DG Trade approach, the 'differences in differences' methodology consists in defining a 'control group' of countries, namely Japan and Taiwan.
- The analysis demonstrates that, compared to these 2 countries, the South Korean import curve strongly increased as from 2013; this mostly reveals the positive impacts of the bilateral trade agreement. For frozen fillet of Tuna of 'the genus Thunnus' (HS Code 03048700), France and Italy are the main markets, representing 78% of the South Korean exports in 2019. Of interest for this research, it looks evident that this trade developed strongly further the entry in force of the FTA. For France, which is the major South Korean trade partner in the EU, the increase principally involved frozen fillets of tuna, with import levels prior 2012 being zero.



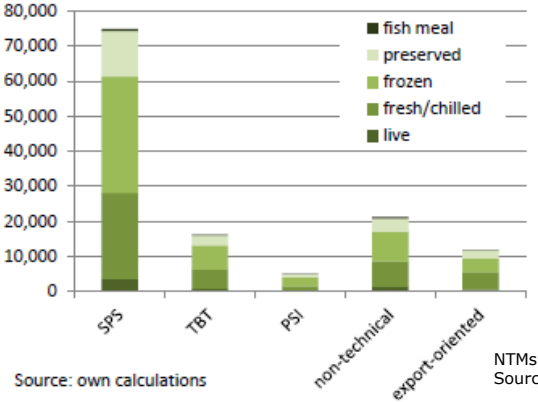
Export in value (euros) of FAPs HS category 3 from South Korea to the EU.
Source: EUMOFA (2019).

Non-Tariff Measures

- Trade of fish and fisheries products, including fish meal products, are influenced by both traditional trade policies, like tariffs, and non-tariff measures (NTMs). NTMs comprise several categories of measures such as sanitary and phytosanitary (SPS), technical barriers to trade (TBT) as well as non-technical measures.
- NTMs are governmental measures that determine the conditions under which trade takes place. They have become increasingly important as governments reacted to consumers' concerns about catching and production practices. Consumers are for example concerned about the application of feed and drugs that have been found as residues in fish and related products or the environmental effect of intensive aquaculture production or fishing (FAO, 2014). In some cases, NTMs have also been used as protectionist measures disguised by health, safety or other public purposes.
    - **SPS (Sanitary and PhytoSanitary) measures:** e.g. prohibitions of substances, maximum residue levels (MRLs), animal /plant health measures for preventing the dissemination of diseases/pests;
    - **TBT (Technical Barriers to Trade) measures:** e.g. labelling, technical specifications and quality requirements as well as environmental standards. For both SPS and TBT, conformity assessment, testing and inspection as well as certification are included.
    - **PSI (Pre-Shipment Inspection) measures:** include pre-listing of firms to be eligible for exporting or importing.
- Presents the number of NTMs on EU exports of fisheries products (perspective of EU exporters), mainly SPS but also quantitative restrictions and especially for frozen and fresh or chilled products. Note that the counts of NTMs per product and country are simply added, which explains the very large number. **For imports into the EU, the number of NTMs is lower, mainly SPS and TBT.** See next slide with figures.

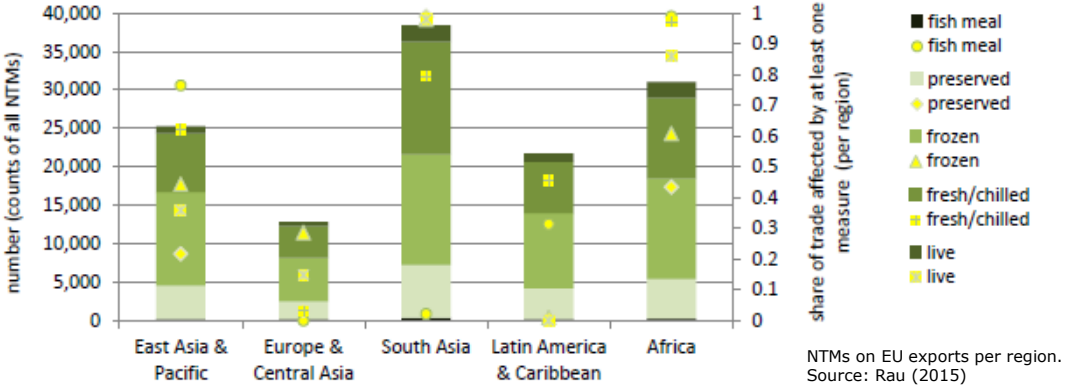
Non-Tariff Measures

- For FAPs, NTMs are important 'behind the border' measures determining EU trade opportunities and market access. EU trade is subject to many NTMs, as the considerable number of NTM counts indicates. Most NTM counts are reported for SPS measures. EU exports to South Asia and Africa seem to be most affected, with fewer NTMs for Europe and Central Asia. Overall, most NTMs are reported for fresh and frozen products, which makes these products more regulated than others (Rau, 2015). Although the figures below demonstrate export NTMs, similar figures holds for EU importers of FAPs from extra-EU countries (like South Korea).
- According to the review by Neeliah et al. (2011) it has become clear that studies dealing with the impact of SPS measures have shown that they are an issue of prime concern (Anders and Caswell, 2009; Henson, 2008; Henson and Mitullah, 2004) and such issues need to be addressed. There is also mounting evidence of the benefits that some developing country exporters have reaped through compliance with SPS measures (Henson and Jaffee, 2008; World Bank, 2005).



Source: own calculations

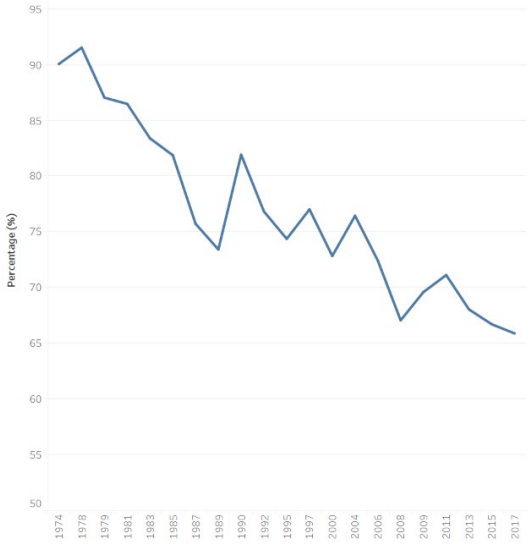
NTMs on EU export.
Source: Rau (2015)



NTMs on EU exports per region.
Source: Rau (2015)

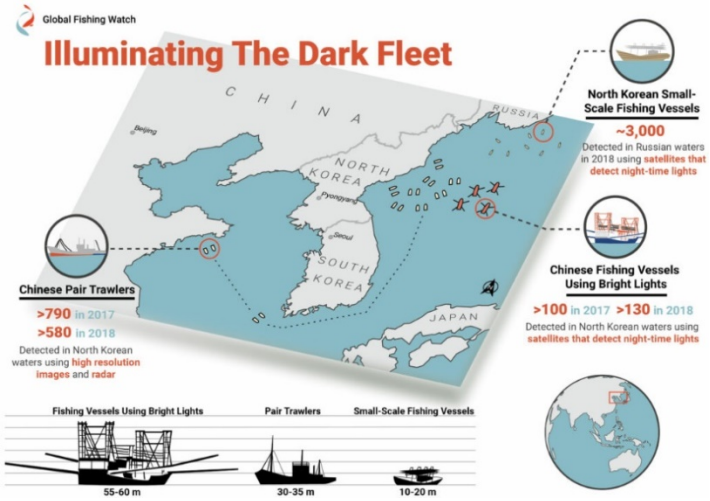
Sustainability and image of FAPs

- In general, the reputation of countries their fleet is important. There is increased awareness and information on responsible fish production (environmental and social impact).
- Sustainable Development Goals (e.g. no. 14 'Life below water' and no. 12 'Responsible consumption and production'). EU governmental, financial service providers (e.g. banks) as well as value chain stakeholders' initiatives are aiming for accomplishing the Paris agreement with regard to slowing down global climate change.
- Negative image/publicity by overfishing or illegal, unreported and unregulated (IUU) fishing practices.



Global % of fish stocks within biologically sustainable levels (1974-2017).

Source: FAO (2020)



Source: Global fishing watch (2020)

3. Identifying ways to promote export of South Korean FAPs

Opportunities for export FAPs from South Korea to EU

- High demand for raw materials by the EU fish processing industry. EU importers are sourcing for more raw materials for their added value production and assortments.
- EU FAP importers and consumers prefer salmon, tuna and white fish (Alaska pollock, cod etc.). However, strong price competition and large volumes already at EU markets by other main suppliers. By means of added value products South Korean exporters could distinguish themselves from the mass supplied volumes for these price competitive species.
- Sushi (tuna, salmon, seaweed etc.) and healthy convenience protein products expected to grow in the EU market.
- South Korea has an competitive advantage as large supplier of tuna compared to many other Asian countries (China, Vietnam etc.).
- Plant-based products (e.g. crisps, burger) with seaweed (vegan consumption trend) are growing in demand as meat alternatives by EU consumers. South Korean growing seaweed and algae production ambition could use this trend among EU consumers.
- Strategic partnerships between companies.
- Cooperation between Norwegian salmon company and Dongwon for producing 20,000 tonnes salmon with RAS system.
- FTA provide potential to increase trade volumes. For instance: European Union-Vietnam Free Trade
- Agreement (EVFTA): annual quotas for duty-free imports of 11,500 tonnes.

Recommendations: (South Korean business)

- Product innovation: convenience and ready-to-cook products + plant-based proteins (e.g. seaweed crisps) as meat alternative/vegan product.
- COVID and lockdowns increased Retail frozen fish consumption by EU households. Most South Korean FAPs exported to the EU are frozen.
- Hire EU-based buyers/agents to match EU demand.
- B2B strategic alliances: e.g. Dongwon ft. Norwegian salmon company. But also large seafood producers could enhance negotiations with EU retailers or wholesales.
- Guarantee certificates to EU market access as exporter.
- See: https://trade.ec.europa.eu/access-to-markets/en/content/
- Sustainability labelling: perceive MSC, ASC etc. not as a way for premium pricing but rather as a market access requirement for EU Retail market.
- Seafood trade fairs (Seafood expo Barcelona 2021, Bremen, Vigo, Poland).

Global Seafood Expo 2021 at Barcelona

Recommendations for the South Korean government)

- Raw materials supply for EU processing via ATQ system. Although the EU is highly dependent on imports from third countries, it wants to maintain employment within the EU FAPs processing industry. Exporting raw materials via ATQs could strengthen the trade between South Korea and the EU.
- Free Trade Agreements (FTA) with EU: to be price-quality competition.
- Assist South Korean seafood producers and exporters with certifying, eco- and quality labelling process for EU market access. Facilitate the accreditation of FAPs exporters.
- Trade missions (public affairs and embassies between countries e.g. Poland). Poland already has multiple Special Economic Zones with South Korea for electronic devices producers. Discover opportunities to use these networks and infrastructures.
- Increase knowledge about South Korea and South Korean products. E.g., tradeshows or webinars about South Korean seaweed or shellfish. South Korean tuna is more known than these relative new products for EU purchasers (e.g. seaweed etc.).
- Seed money projects (collaboration B2B, Agriculture and Fisheries Council and research) → innovative and circular projects: max. 25-40K euros subsidised by Dutch agri-food ministeries.

Seafood fair in EU
Photo: Geert Hoekstra
(Wageningen University & Research)

Source: https://www.eubulletin.com/618-time-for-an-eu-taiwan-free-trade-agreement.html

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Photography: Shutterstock.com, Wageningen University & Research

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