

Monthly Highlights

No. 10 / 2023

EUMOFA

European Market Observatory for Fisheries and Aguaculture Products

During January–August 2023, 15 EU Member States (MS), Norway and the United Kingdom reported first-sales data for 10 commodity groups.

In the reporting countries, first sales of crustaceans in August 2023 totalled EUR 49,3 million and 4.366 tonnes, representing a 35% decrease in value and 43% decrease in volume compared to August 2022.

Over the 36-month observation period (September 2020 – August 2023), the weighted average first-sales price of Norway lobster in France was 12,82 EUR/kg, 108% higher than in the Netherlands (6,17 EUR/kg), and 1% above the average price in Sweden (12,67 EUR/kg).

Over the past three years, household consumption of fresh plaice in Germany was 2.875 tonnes, which is an average of 958 tonnes/year.

Denmark is recognised as a leading producer of highquality fishmeal and fish oil used in various sectors including fish farming, animal feed and dietary supplements.

In 2022, EU-27 catches of both Greenland halibut and Atlantic halibut reached 14.371 tonnes, of which 98% comprised Greenland halibut and 2% Atlantic halibut.

On October 17th 2023 new fisheries control rules for the electronic monitoring of European fishing vessels were approved by the European Parliament.



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1. First sales in Europe

During **January–August 2023**, 15 EU Member States (MS), Norway and the United Kingdom reported first-sales data for 10 commodity groups¹. First-sales data are based on sales notes and data collected from auction markets. First-sales data analysed in the section "First sales in Europe" are extracted from EUMOFA².

1.1. January-August 2023 compared to the same period in 2022

Increases in value and volume: Belgium, Cyprus, Denmark, Estonia, Latvia and the United Kingdom recorded an increase in both first-sales value and volume. Highest increases were observed in Estonia, due mainly to herring and sprat.

Decreases in value and volume: France, Spain and Sweden recorded decreases in first-sales value and volume. Sweden stood out with the most significant drops in absolute terms, due to lower first sales of sprat, herring and coldwater shrimp.

Table 1. JANUARY-AUGUST OVERVIEW OF FIRST SALES FROM THE REPORTING COUNTRIES (volume in tonnes and value in million EUR) *

	January – <i>F</i> 2021	_	January – 2022	_	January – Au	gust 2023	Change January – 202	August
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	8.371	43,1	8.991	57,2	9.693	59,7	8%	4%
Bulgaria	3.182	1,9	1.753	1,1	2.199	1,0	25%	-9%
Cyprus	723	2,8	539	2,3	547	2,4	2%	6%
Denmark	503.643	277,8	483.353	313,3	551.323	350,4	14%	12%
Estonia	40.573	11,0	24.000	7,7	43.840	15,3	83%	99%
France	180.304	450,8	189.247	497,6	170.235	468,8	-10%	-6%
Germany	40.412	59,6	19.464	56,1	22.118	37,4	14%	-33%
Italy	58.409	242,1	53.483	249,4	53.452	242,8	0%	-3%
Latvia	28.929	6,1	24.925	5,3	26.823	7,0	8%	32%
Lithuania	1.483	0,8	753	0,5	280	0,6	-63%	20%
Netherlands	129.688	190,2	134.096	157,6	140.841	135,6	5%	-14%
Portugal	77.151	184,1	76.060	208,7	78.856	203,3	4%	-3%
Spain	345.032	1018,9	312.414	1078,1	302.570	995,9	-3%	-8%
Sweden	105.961	57,9	101.396	58,5	39.642	37,0	-61%	-37%
Norway	2.036.457	1.786,3	2.009.898	2.285,1	2.057.095	2.069,1	2%	-9%
United Kingdom	203.110	375,7	187.385	413,6	215.304	428,8	15%	4%

Possible discrepancies in % changes are due to rounding.

^{*} Volumes are reported in net weight for EU Member States, and in live weight equivalent (LWE) for Norway. Prices are reported in EUR/kg (without VAT). For Norway, prices are reported in EUR/kg of live weight. Data for Denmark are subject to confidentiality measures, so they may not fully correspond to total first sales in the country.

¹ Bivalves, other molluscs and aquatic invertebrates, cephalopods, crustaceans, flatfish, freshwater fish, groundfish, other marine fish, crustaceans, tuna and tuna-like species.

² First-sales data updated on 25.10.2023.



1.2. August 2023 compared to August 2022

Increases in value and volume: First sales increased in Estonia and the Netherlands. In Estonia other freshwater fish, sprat and herring were behind the increases, while in the Netherlands they were due to herring, blue whiting and mackerel.

Decreases in value and volume: First sales decreased in Belgium, Cyprus, France, Germany, Italy, Latvia, Lithuania, Spain and Norway. Cyprus and Sweden recorded the most significant drops. The sharp decrease in Cyprus was mainly due to falls in first sales of Albacore tuna and other marine fish, while in Sweden it was mainly due to sprat, Norway lobster and herring.

Table 2. AUGUST OVERVIEW OF FIRST SALES FROM THE REPORTING COUNTRIES (volume in tonnes and value in million EUR) *

	August	2021	August	2022	August	2023	Change fro	
Country	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Belgium	1.103	7,2	1.272	8,7	897	6,0	-29%	-31%
Bulgaria	434	0,3	152	0,2	342	0,159	124%	-4%
Cyprus	190	0,5	234	0,7	101	0,4	-57%	-47%
Denmark	49.515	40,4	73.144	63,2	68.459	69,1	-6%	9%
Estonia	921	0,5	775	0,6	915	0,8	18%	38%
France	25.300	67,5	23.929	67,8	19.463	56,0	-19%	-17%
Germany	8.572	8,1	1.434	7,3	1.033	5,8	-28%	-20%
Italy	6.162	27,5	6.417	30,5	6.059	26,6	-6%	-13%
Latvia	1.502	0,3	2.515	0,5	1.711	0,3	-32%	-28%
Lithuania	1	0,002	5	0,008	2	0,006	-55%	-32%
Netherlands	25.869	33,7	16.154	21,4	26.801	22,2	66%	4%
Portugal	19.316	34,7	17.782	34,0	14.370	30,2	-19%	-11%
Spain	43.660	146,3	41.975	157,8	41.847	136,8	0%	-13%
Sweden	8.090	10,1	10.861	12,1	2.789	5,8	-74%	-52%
Norway	256.226	254,6	267.318	311,4	208.631	237,4	-22%	-24%
United Kingdom	28.302	61,9	29.697	68,6	33.481	62,9	13%	-8%

Possible discrepancies in % changes are due to rounding.

The most recent weekly first-sales data (up to week 47 of 2023) are available via the EUMOFA website and can be accessed here.

The most recent monthly first-sales data for **September 2023** are available via the EUMOFA website and can be accessed **here**.

^{*} Volumes are reported in net weight for EU Member States and the UK, and in live weight equivalent (LWE) for Norway. Prices are reported in EUR/kg (without VAT). For Norway, prices are reported in EUR/kg of live weight. Data for Denmark are subject to confidentiality measures, so they may not fully correspond to total first sales in the country.



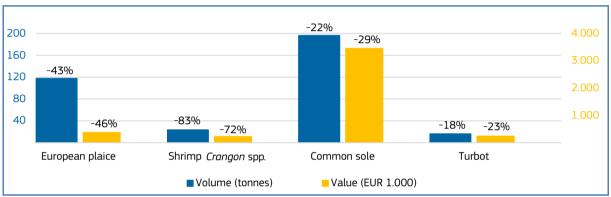
1.3. First sales in selected countries

First sales data analysed in this section are extracted from EUMOFA³.

Table 3. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BELGIUM

Belgium	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 59,7 million,	9.693 tonnes,	Squid, cuttlefish, common sole, scallop.
Jan-Aug 2022	+4%	+8%	
Aug 2023 vs	EUR 6,0 million,	897 tonnes,	European plaice, shrimp <i>Crangon</i> spp., common sole, turbot.
Aug 2022	-31%	-29%	

Figure 1. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BELGIUM, AUGUST 2023

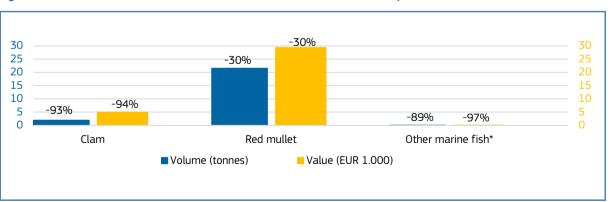


Percentages show change from the previous year.

Table 4. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA

Bulgaria	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 1,0 million,	2.199 tonnes,	Value: clam, other marine fish*.
Jan-Aug 2022	-9%	+25%	
Aug 2023 vs	EUR 0,2 million,	342 tonnes,	Volume: sprat, other molluscs and aquatic invertebrates*, red mullet.
Aug 2022	-4%	+124%	

Figure 2. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN BULGARIA, AUGUST 2023



Percentages show change from the previous year. *EUMOFA aggregation for species (see Metadata 2, Annex 3: https://eumofa.eu/supply-balance-and-other-methodologies).

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

4. The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

³ First-sales data updated on 25.10.2023.

Table 5. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS

Cyprus	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 2,4 million,	547 tonnes,	Swordfish, other seabream*, other marine fish*, squid.
Jan-Aug 2022	+6%	+2%	
Aug 2023 vs	EUR 0,4 million,	101 tonnes,	Albacore tuna, other marine fish*, miscellaneous small pelagics, swordfish.
Aug 2022	-47%	-57%	

Figure 3. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN CYPRUS, AUGUST 2023

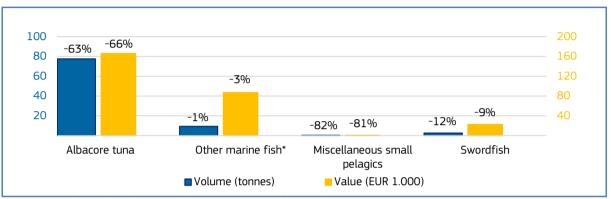
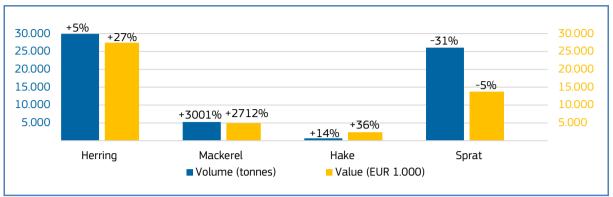


Table 6. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN DENMARK

Denmark	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan-Aug 2023 vs Jan-Aug 2022	EUR 350,4 million, +12%	551.323 tonnes, +14%	Blue whiting, other groundfish*, cod, mackerel.	In August 2023, mackerel first sales increased significantly compared to August 2022. Mackerel is a highly
Aug 2023 vs Aug 2022	EUR 69,1 million, +9%	68.459 tonnes, -6%	Volume: herring, mackerel, hake. Value: sprat, European plaice, saithe.	migratory species, and its abundance can vary a lot from one year to another. Fishing in the North Sea generally starts in August, but with a peak in production for the Danish fleet observed mostly during October-November (around 12.000 tonnes in 2022; 13.200 tonnes in 2021; 12.900 tonnes in 2020; 18.700 tonnes in 2019). In the context of rather good stock status ⁴ , it appears that fishing of North Sea mackerel started earlier this year, with an increase from 170 tonnes in August 2021 to 5.300 tonnes in August 2022, even more than the increase registered in July 2022. High quality landings were observed from the last week of July, in particular in Norway and Denmark.

⁴ ICES Advice 2022 – mac.27.nea – https://doi.org/10.17895/ices.advice.19772392

Figure 4. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN DENMARK, AUGUST 2023

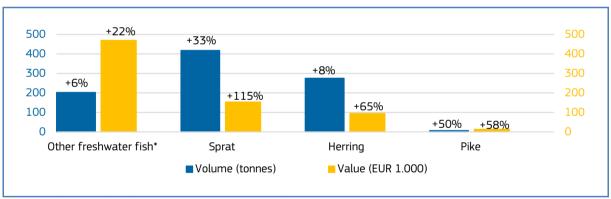


Percentages show change from the previous year.

Table 7. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ESTONIA

Estonia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 15,2 million,	43.840 tonnes,	Herring, sprat, other freshwater fish*, smelt.
Jan-Aug 2022	+99%	+83%	
Aug 2023 vs	EUR 0,8 million,	915 tonnes,	Other freshwater fish*, sprat, herring, pike.
Aug 2022	+38%	+18%	

Figure 5. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ESTONIA, AUGUST 2023



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 8. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN FRANCE

France	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 468,8 million,	170.235 tonnes,	Albacore tuna, Norway lobster, hake, seaweed and other algae.
Jan-Aug 2022	-6%	-10%	
Aug 2023 vs	EUR 56,0 million,	19.462 tonnes,	Albacore tuna, octopus, other marine fish*, seaweed and other algae.
Aug 2022	-17%	-19%	

Figure 6. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN FRANCE, AUGUST 2023

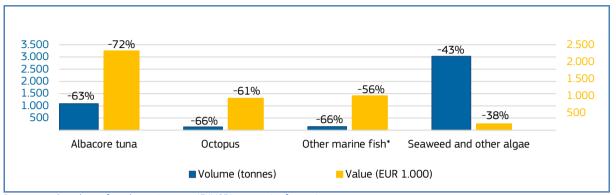
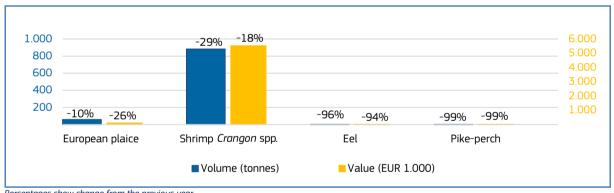


Table 9. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN GERMANY

Germany	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 37,4 million,	22.118 tonnes,	Value : shrimp <i>Crangon</i> spp., cod, herring. Volume: blue whiting, mackerel, Greenland halibut.
Jan-Aug 2022	-33%	+14%	
Aug 2023 vs	EUR 5,8 million,	1.033 tonnes,	European plaice, shrimp <i>Crangon</i> spp., eel, pike-perch.
Aug 2022	-20%	-28%	

Figure 7. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN GERMANY, AUGUST 2023



Percentages show change from the previous year.

Table 10. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ITALY

Italy	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 242,8 million,	53,5 tonnes,	Miscellaneous shrimps, clam, anchovy, sardine.
Jan-Aug 2022	-3%	0%	
Aug 2023 vs	EUR 26,6 million,	6.059 tonnes,	Miscellaneous shrimps, clam, other marine fish*, sardine.
Aug 2022	-13%	-6%	

Figure 8. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN ITALY, AUGUST 2023

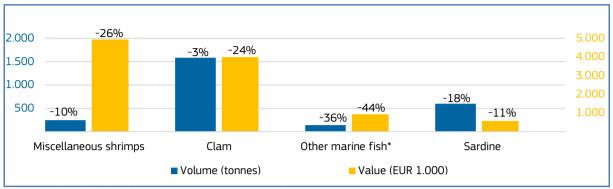
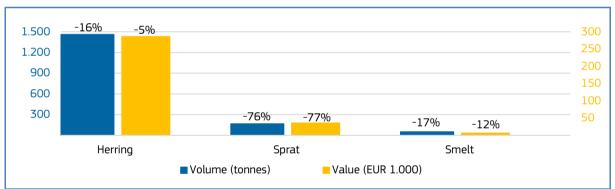


Table 11. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LATVIA

Latvia	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 7,0 million,	26.823 tonnes,	Herring, sprat, other marine fish*, European flounder.
Jan-Aug 2022	+32%	+8%	
Aug 2023 vs	EUR 0,3 million,	1.711 tonnes,	Herring, sprat, smelt.
Aug 2022	-28%	-32%	

Figure 9. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LATVIA, AUGUST 2023



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 12. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA

Lithuania	First-sales value / trend %	First-sales volume/ trend %	Main contributing species
Jan-Aug 2023 vs Jan-Aug 2022	EUR 0,6 million, +20%	280 tonnes, -63%	Value : Smelt, turbot, miscellaneous small pelagics. Volume: Herring, sprat, other groundfish*.
Aug 2023 vs Aug 2022	EUR 0,006 million, -32%	2 tonnes, -55%	European flounder, other freshwater fish*, herring.

Figure 10. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN LITHUANIA, AUGUST 2023

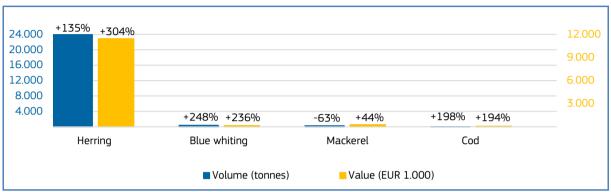
Table 13. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS

the Netherlands	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan-Aug 2023 vs Jan-Aug 2022	EUR 135,6 million, -14%	140.841 tonnes, +5%	Value: Common sole, shrimp Crangon spp., Atlantic horse mackerel, European plaice. Volume: Herring, blue whiting, sardine, squid.	In August 2023 a substantial increase in first sales of herring was registered compared to August 2022. Herring is a pelagic species, and abundance can vary a lot from year to year. Dutch production increased from 10.200 tonnes in August 2022 to 24.000 tonnes in August 2023, more in line with the production recorded in August during the previous years (18.000 tonnes in August 2021; 18.900 tonnes in 2020; 22.200 tonnes in August
Aug 2023 vs Aug 2022	EUR 22,2 million, +4%	26.801 tonnes, +66%	Herring, blue whiting, mackerel, cod.	2019). According to the most recent ICES advice ⁵ the North Sea herring stock is in good shape. In August 2023 a notable increase of blue whiting first sales was recorded compared to August 2022. Blue whiting is a groundfish species that behaves like most of the small pelagic species and is targeted by the Dutch large freezer-trawler fleet, mostly between February and April/ May, with around 63.500 tonnes produced over this period in 2023 (55.000 tonnes in 2022 over the same period; 50.000 tonnes in 2021; 51.000 tonnes in 2020). The increase observed between August 2022 (120 tonnes) and August 2023 (410 tonnes) is thus considered rather insignificant by the industry, as it results mostly from by-catch. In August 2023, there was a significant increase in first sales of cod compared to August 2022. Cod fishing is not listed in the top 5 Dutch fishing activities, either in value or volume and represented only 0,2% of the North Sea cod production in August 2023 (22 tonnes compared to 13.000 tonnes). Cod fishery in the Netherlands thus depends more on external factors, such as fuel price and weather, rather than the state of the North Sea stocks (which are still in a complicated situation, especially the northwestern and Viking sub-stocks, where the Dutch (cutter) fleet mostly

⁵ ICES Advice 2023 – her.27.3a47d – https://doi.org/10.17895/ices.advice.21907947



Figure 11. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE NETHERLANDS, AUGUST 2023

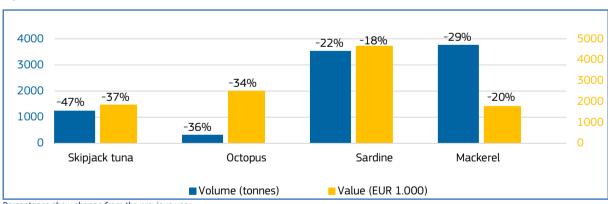


Percentages show change from the previous year. Percentages show change from the previous year.

Table 14. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL

Portugal	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs Jan-Aug 2022	EUR 203,3 million, -3%	78.856 tonnes, +4%	Value : octopus, squid, sardine, Atlantic horse mackerel. Volume: mackerel, blue whiting, anchovy, miscellaneous tuna.
Aug 2023 vs Aug 2022	EUR 30,2 million, -11%	14.370 tonnes, -19%	Skipjack tuna, octopus, sardine, mackerel.

Figure 12. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN PORTUGAL, AUGUST 2023



Percentages show change from the previous year.

⁶ ICES Advice 2023 - cod.27.46a7d20 - https://doi.org/10.17895/ices.advice.21840765

⁷ EC, 2023. COUNCIL REGULATION (EU) 2023/194 fixing for 2023 the fishing opportunities for certain fish stock, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters, as well as fixing for 2023 and 2024 such fishing opportunities for certain deep-sea fish stocks.

^{4.} The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species

Table 15. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN

Spain	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs Jan-Aug 2022	EUR 995,9 million, -8%	302.570 tonnes,	Swordfish, mackerel, squid, Atlantic horse mackerel.
Aug 2023 vs	EUR 136,8 million	41.847 tonnes,	Swordfish, albacore tuna, other sharks*, squid.
Aug 2022	-13%	0%	

Figure 13. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SPAIN, AUGUST 2023

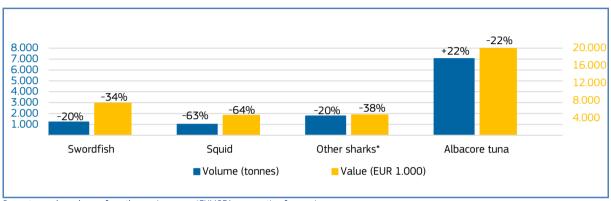
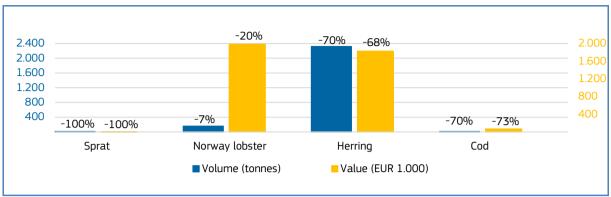


Table 16. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN

Sweden	First-sales value / trend %	First-sales volume / trend %	Main contributing species	Notes
Jan-Aug 2023 vs Jan-Aug 2022	EUR 37,0 million, -37%	39.642 tonnes, -61%	Sprat, herring, cold- water shrimps, mackerel.	In August 2023 there was a significant decrease in first sales of sprat compared to August 2022. In August
Aug 2023 vs Aug 2022	EUR 5,8 million, -52%	2.789 tonnes, -74%	Sprat, Norway lobster, herring, cod.	2023, the sales quantities of sprat were 0,6% of all sprat catches by the Swedish fleet, whilst in August 2022 sales volume was 76% of the sprat catch by the Swedish fleet. When comparing sales of August 2021, 2022, and 2023, the high increase in volume was only noticeable in August 2022. Sales in August 2021 and 2022 are similar, so it could be concluded that sales by volume in 2023 were unusually low. The price in August 2022 was quite high, which indicates that market demand was not satisfied. Catches of sprat in August 2022 and 2023 were similar. It might be assumed that first sales were registered in Sweden and fish then transported for production in other countries.

Figure 14. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN SWEDEN, AUGUST 2023

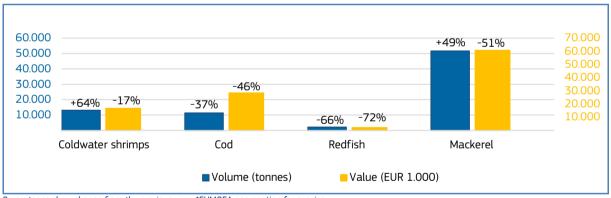


Percentages show change from the previous year.

Table 17. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY

Norway	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs Jan-Aug 2022	EUR 2.069,1 million,	2.057.095 tonnes, +2%	Value: Cod, mackerel, crab, haddock. Volume: blue whiting, herring, cod, other crustaceans*.
Jan-Aug 2022	370	1270	3, 3, .
Aug 2023 vs	EUR 237,4 million	208.631 tonnes,	Cod, coldwater shrimps, redfish, mackerel.
Aug 2022	-24%	-22%	

Figure 15. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN NORWAY, AUGUST 2023



Percentages show change from the previous year. *EUMOFA aggregation for species.

Table 18. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM

The United Kingdom	First-sales value / trend %	First-sales volume / trend %	Main contributing species
Jan-Aug 2023 vs	EUR 428,8 million,	215.304 tonnes,	Cod, blue whiting, other molluscs and aquatic invertebrates*, haddock.
Jan-Aug 2022	+4%	+15%	
Aug 2023 vs	EUR 62,9 million,	33.481 tonnes,	Value: Norway lobster, lobster <i>Homarus</i> spp., scallop, crab. Volume: herring, haddock, cod, clam.
Aug 2022	-8%	+13%	

+25% 15.000 +31% -32% 12.000 9.000 -28% 6.000 -26% -4% 3.000 -25% -26% Herring Scallop Norway lobster Lobster Homarus spp. ■ Volume (tonnes) Value (EUR 1.000)

Figure 16. FIRST SALES OF THE MAIN COMMERCIAL SPECIES IN THE UNITED KINGDOM, AUGUST 2023

1.4. Comparison of first sales prices of selected species in selected countries8

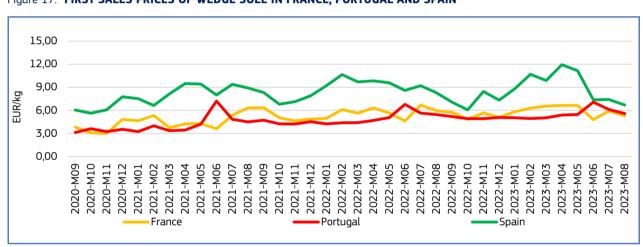


Figure 17. FIRST SALES PRICES OF WEDGE SOLE IN FRANCE, PORTUGAL AND SPAIN

EU first sales of **wedge sole** occur mainly in **France**, **Portugal** and **Spain**. In August 2023, the average first-sales prices of wedge sole were 5,30 EUR/kg in France (down by 11% from both the previous month and year), 5,59 EUR/kg in Portugal (down from July 2023 by 8% and up from August 2022 by 2%), and 6,70 EUR/kg in Spain (down from the previous month by 10% and from the previous year by 19%). In August 2023, supply relative to the previous year increased in Spain (+29%) and in France (+40%) while it decreased in Portugal (-62%). In the three countries analysed, volumes seem to peak in similar periods of the year: in June in France, in January, April-May and October in Portugal, and in August in Spain. Between months 09/2020 to 08/2023, prices fluctuated strongly and increased in the three markets analysed. In Portugal a peak in prices seems to occur in June, which corresponds with the lowest peaks in prices in France. In Spain the highest price of 11,93 EUR/kg was reached in April 2023.

⁸ First sales data updated on 25.10.2023.

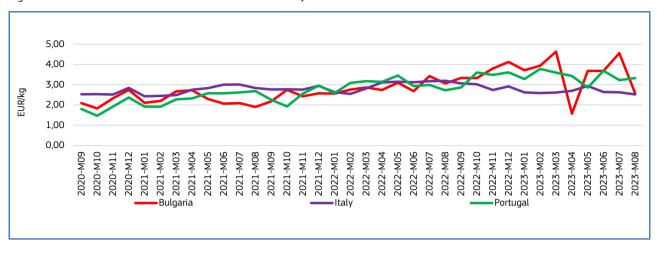


Figure 18. FIRST SALES PRICES OF CLAM IN BULGARIA, ITALY AND PORTUGAL

EU first sales of **clam** occur in several countries including **Bulgaria**, **Italy** and **Portugal**. In August 2023, the average first-sales prices of clam were: 2,58 EUR/kg in Bulgaria (down by 43% from the previous month and down by 16% from August 2022); 2,52 EUR/kg in Italy (down by 4% from previous month and by 21% from August 2022) and 3,33 EUR/kg in Portugal (up by 3% from the previous month and by 24% from the previous year). In August 2023, supply decreased in the three markets analysed: -93% in Bulgaria, -3% in Italy and -12% in Portugal. Supply fluctuates strongly in the three countries analysed and does not show a clear seasonality in Portugal. In Bulgaria supply has been decreasing in the period analysed and it seems to peak in May-July and between August and October, while in Italy the highest peaks are in December. Between months 09/2020 to 08/2023, prices fluctuated strongly and have been increasing in Portugal and Bulgaria. In Bulgaria the highest price of 4,63 EUR/kg was reached in March 2023 followed by a dop in prices in April 2023 reaching the minimum price of 1,57 EUR7kg. Prices showed a stable trend in Italy.

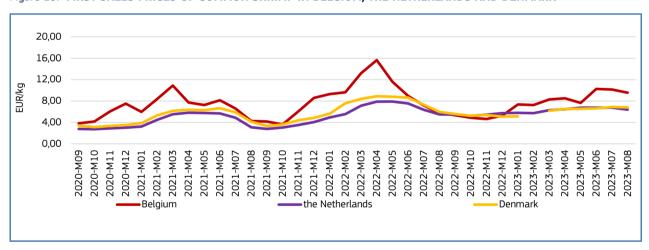
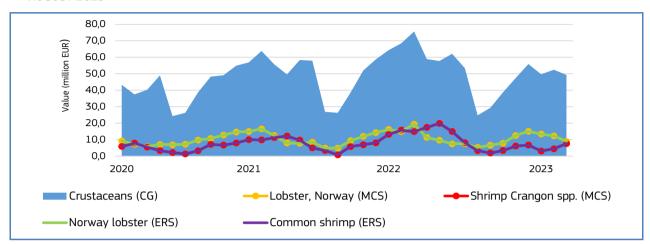


Figure 19. FIRST SALES PRICES OF COMMON SHRIMP IN BELGIUM, THE NETHERLANDS AND DENMARK

EU first sales of **common shrimp** occur in several countries including **Belgium, the Netherlands** and **Denmark**. In August 2023, the average first-sales prices of common shrimp were: 9,57 EUR/kg in Belgium (down from the previous month by 6% and up from the previous year by 67%), 6,40 EUR/kg in the Netherlands (down from the previous month by 5% and up from August 2022 by 16%), and 6,83 EUR/kg in Denmark (down by 1% from July 2023, and up by 14% from August 2022). In August 2023, supply decreased in the three countries assessed: in Belgium (-83%), the Netherlands (-78%) and in Demark (-8%), relative to the previous year. Supply is strongly seasonal with the highest peaks occurring between September-November in Belgium, September-October in the Netherlands and between April and June in Denmark. Between months 09/2020 to 08/2023, prices fluctuated strongly and increased in the three countries analysed, with highest peaks in prices occurring between April and June in the Netherlands. The highest price of 15,66 EUR/kg was recorded in Belgium in April 2022. In the three countries highest peaks in prices for clams were recorded in 2022.

1.5. Commodity group of the month: Crustaceans9

Figure 20. FIRST-SALES COMPARISON AT CG, MCS, AND ERS LEVELS FOR REPORTING COUNTRIES¹⁰, SEP 2020 - AUGUST 2023



In August 2023, the **crustaceans** commodity group (CG¹¹) recorded the highest first-sales value and 5th highest volume out of the 10 CGs in the countries monitored by EUMOFA¹². In August 2023 in the reporting countries covered by the EUMOFA database, first sales of this group of species totalled EUR 49,3 million and a volume of 4.366 tonnes, representing a 35% decrease in value and 43% decrease in volume compared to August 2022. In the past 36 months, the highest first-sales value of crustaceans was registered in August 2022 at about EUR 75,7 million.

The crustaceans commodity group includes 11 main commercial species (MCS): crab, lobster *Homarus* spp., Norway lobster, rock lobster and sea crawfish, shrimp *Crangon* spp., coldwater shrimp, deep-water rose shrimp, warmwater shrimp, other miscellaneous shrimps, squillid, and the grouping "other crustaceans" ¹³. At the Electronic Recording and Reporting System (ERS) level, common shrimp (15%) and Norway lobster (18%) together accounted for 33% of the total first-sales value of CG crustaceans recorded in August 2023.

1.6. Focus on common shrimp



Common shrimp (*Crangon crangon*) is a benthic species of the family of Crangonidae. It occupies both marine and oligohaline waters and inhabits brackish lagoons. It prefers fine or slightly muddy sand but can also occur over coarse sand. Juveniles are epifaunal living on seagrass and bare sand flats. The species is mobile and free-living but is also able to occupy areas with high exposure and low salinity. It is carnivorous, feeding on small benthic organisms (small crustaceans, annelids and molluscs) and fishery discards¹⁴. Common shrimp is found in the Northeast Atlantic, and in the Mediterranean and the Black Sea¹⁵. According to EU rules, fishing vessels authorised to catch

common shrimp may use beam trawls with an aggregate beam length greater than 9 m and a mesh size between 80 and 99 mm^{16} .

⁹ First sales data updated on 17. 10. 2023.

¹⁰ Norway and the UK excluded from the analyses.

¹¹ Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies

 $^{^{12}}$ More data on commodity groups can be found in Table 1.2 of the Annex.

¹³ EUMOFA aggregation for species (Metadata 2, Annex 3: http://eumofa.eu/supply-balance-and-other-methodologies).

¹⁴ https://www.sealifebase.se/summary/Crangon-crangon.html

¹⁵ https://www.conxemar.com/en/species/common-shrimp/

¹⁶ Regulation (EU) 2019/1241: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1241&rid=4



We have covered **common shrimp** in previous *Monthly Highlights*:

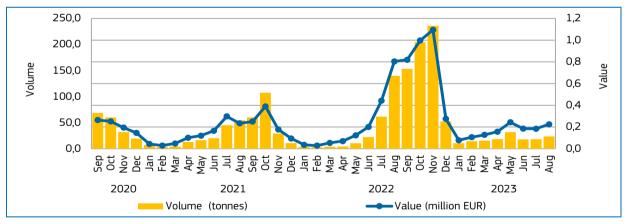
First sales: MH 1/2014 (the United Kingdom), MH 10/2015 (the United Kingdom), MH 1/2015 (France), MH 1/2017 (Italy), MH 1/2020 (Italy, Portugal, Spain), MH 4/2022 (France, the Netherlands, Spain).

Selected countries

Table 19. COMPARISON OF COMMON SHRIMP FIRST-SALES PRICES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF "CRUSTACEANS" IN SELECTED COUNTRIES

Common s	Common shrimp		imon shrimp Aug 2023 (%)	Contribution of Common shrimp to	Principal places of sale Jan-Aug 2023 in terms of first-sales value		
		Compared to Jan-Aug 2022	Compared to Jan-Aug 2021	total "crustaceans" first sales in August 2023 (%)			
Belgium	Value	-26%	+26%	63%	Oostende, Nieuwpoort, Zeebrugge.		
	Volume	-40%	-9%	60%	These three ports were responsible for 100% of sales.		
Germany	Value	-47%	-24%	98%	Büsum, Cuxhaven, Greetsiel.		
•	Volume	-36%	-35%	98%			
Netherlands	Value	-56%	-40%	59%	Zoutkamp, Harlingen, Stellendam.		
Netnerlands	Volume	-56%	-58%	59%	, , , , , , , , , , , , , , , , , , ,		

Figure 21. FIRST SALES: COMMON SHRIMP: FIRST SALES IN THE BELGIUM, SEPTEMBER 2020 – AUGUST 2023



Over the past 36 months in **Belgium**, the highest first sales of common shrimp were in 2022. The peak was registered in November 2022 when about 236 tonnes were sold for about EUR 1,1 million. In general, common shrimp fishery is seasonal, usually starting around early summer and closing in November.

Figure 22. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN BELGIUM IN VALUE AND VOLUME, AUGUST 2023

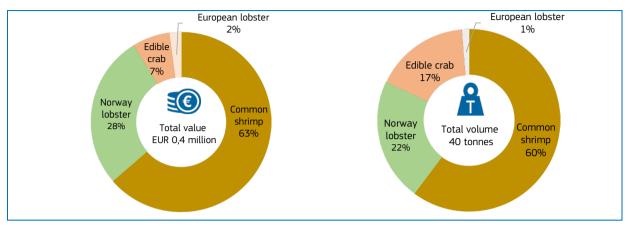
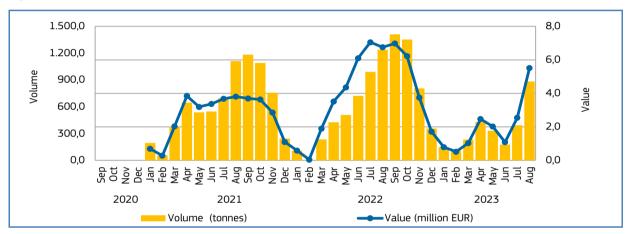
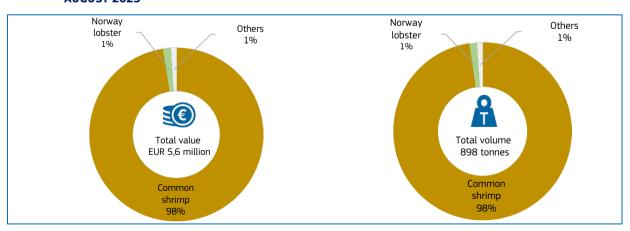


Figure 23. COMMON SHRIMP: FIRST SALES IN THE GERMANY, SEPTEMBER 2020 – AUGUST 2023



Over the past 36 months in **Germany**, the highest first sales of common shrimp were in the summer and autumn in each observed year. The peak was registered in September 2022 when about 1.410 tonnes were sold for about EUR 7,0 million. Common shrimp fishery is generally seasonal and is the most valuable coastal fishery in Germany.

Figure 24. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN GERMANY IN VALUE AND VOLUME, AUGUST 2023



Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

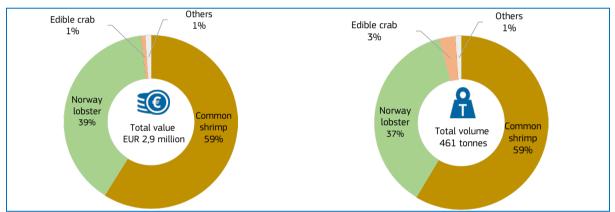
4. The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species

3.000 12,0 2.500 10,0 2.000 8,0 Volume 1.500 6,0 ۱al 1.000 4.0 500 2,0 0,0 0 2020 2021 2022 2023 Volume (tonnes) → Value (million EUR)

Figure 25. COMMON SHRIMP: FIRST SALES IN THE NETHERLANDS, SEPTEMBER 2020 - AUGUST 2023

In the **Netherlands** in the observed 36-month period, first sales of common shrimp were highest in October 2020 when 2.711 tonnes were sold for about EUR 7,4 million. Similar to other countries surveyed, the common shrimp fishery is seasonal and was most intense in the summer and autumn 2021 and 2022.

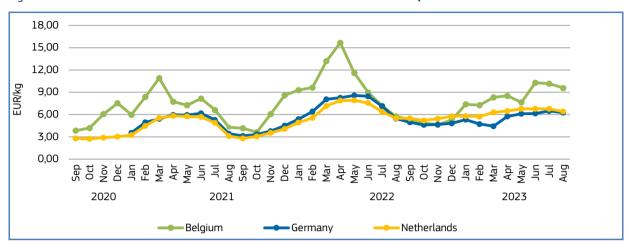




6. Global highlights | 7. Macroeconomic context

Price trend

Figure 27. COMMON SHRIMP: FIRST-SALES PRICES IN SELECTED COUNTRIES, SEPTEMBER 2020 - AUGUST 2023



Over the 36-month observation period (September 2020 to August 2023), the weighted average first-sales price of common shrimp in **Belgium** was 5,66 EUR/kg, 7% higher than in **Germany** (5,31 EUR/kg) and 30% higher than in **the Netherlands** (4,37 EUR/kg).

In **Belgium** in August 2023, the average first-sales price of common shrimp (9,57 EUR/kg) increased by 67% compared to August 2022, and by 123% compared with August 2021. Over the past 36 months, the average price ranged from 3,63 EUR/kg for 107,4 tonnes in October 2021 to 15,66 EUR/kg for 4,5 tonnes in April 2022.

In **Germany** in August 2023, the average first-sales price of common shrimp was 6,25 EUR/kg, representing an increase of 15% compared to August 2022, and 82% compared with August 2021. In the observed period from January 2021 to August 2023, the lowest average price at 3,12 EUR/kg for 1.184,3 tonnes was registered in September 2021, while the highest average price (8,58 EUR/kg for 508 tonnes) was recorded in May 2022.

In the **Netherlands** in August 2023, the average first-sales price of common shrimp (6,40 EUR/kg) increased by 16% compared to August 2022 and by 107% compared to August 2021. During the period observed, the average price ranged from 2,72 EUR/kg for 2.710,7 tonnes in October 2020 to 7,91 EUR/kg for 284,3 tonnes in May 2022.

1.7. Focus on Norway lobster



Norway lobster (Nephrops norvegicus) is an omnivorous species of the family Nephropidae which feeds on just about anything edible it can find such as other crustaceans, molluscs, polychaete worms, as well as carrion. In turn it is eaten by a variety of bottom dwelling fish such as cod. Norway lobster lives at depths of 20-

500 m, on seabed consisting of suitable muddy substrate where it can dig its burrows. The burrows can be 20 cm to 30 cm deep. Given its dependence on suitable soft substrate, it shows a patchy distribution and stocks are geographically separated 17. Norway lobster occurs in the Western Mediterranean Sea and in the Northeast Atlantic from Morocco to Lofoten.

Norway lobster catches are managed in the EU through technical measures under a regulation on the conservation of fisheries resources and the protection of marine ecosystems¹⁸. The species is also covered by the EU fisheries control regulation¹⁹, according to the terms of which a fisheries closure was established in one ICES subarea 7 for vessels flying the flag of Ireland, which had exhausted their quota.²⁰

We have covered Norway lobster in previous Monthly Highlights:

First sales: MH March 2013 (Denmark); MH October 2013 (France), MH 4/2014 (Sweden), MH 4/2015 (Norway), MH 1/2016 (Sweden), MH 9/2016 (France), MH 2/2017 (Denmark, Latvia, Lithuania, Norway, Sweden), MH 5/2018 (Denmark, France, the United Kingdom), MH 4/2021 (Denmark, France, Sweden).

Selected countries

Table 20. COMPARISON OF NORWAY LOBSTER FIRST-SALES PRICES, MAIN PLACES OF SALE, AND CONTRIBUTION TO OVERALL SALES OF "CRUSTACEANS" IN SELECTED COUNTRIES

Norway lobster		Changes in Norway lobster first sales Jan-Aug 2023 (%) Compared to Jan-Aug Jan-Aug 2021 2022		Contribution of Norway lobster to total "Crustaceans" first sales in August 2023 (%)	Principal places of sale Jan-Aug 2023 in terms of first-sales value	
_	Value	-17%	-30%	53%	Lorient, Guilvinec, Concarneau.	
France	Volume	-23%	-41%	40%		
the	Value	-31%	+14%	39%	Urk, Wieringen/Den Oever, Lauwersoog.	
Netherlands	Volume	-26%	-15%	37%	Laan C. 300g.	
Sweden	Value	-8%	-4%	58%	Göteborg, Smögen.	
Sweden	Volume	+13%	-5%	48%		

https://www.hi.no/en/hi/temasider/species/norway-lobster
 Regulation (EU) 2019/124: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R1241&rid=4

¹⁹ Regulation (EU) 1224/2009 https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=0J:L:2009:343:0001:0050:en:PDF

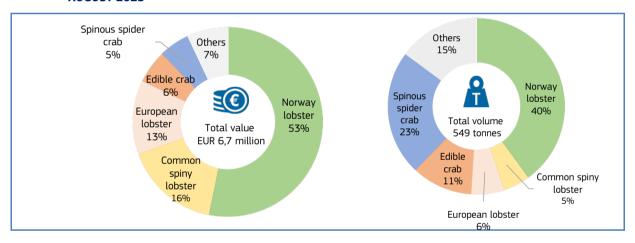
²⁰ Commission Regulation (EU) 2023/208: https://www.stradalex.eu/en/se_src_publ_leg_eur_jo/toc/leg_eur_jo_3_20230201_29/doc/ojeu_2023.029.01.0011.01

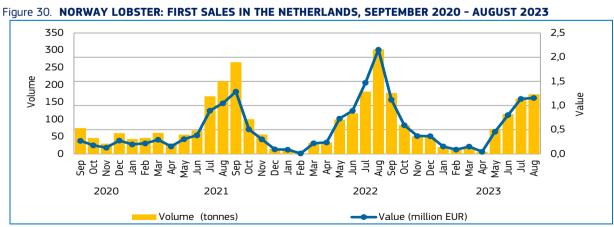
600,0 6,0 500,0 5,0 400,0 4,0 Volume 300,0 3,0 Value 2,0 200.0 100,0 1,0 0,0 0,0 2020 2021 2022 2023 Volume (tonnes) → Value (million EUR)

Figure 28. NORWAY LOBSTER: FIRST SALES IN FRANCE, SEPTEMBER 2020 - AUGUST 2023

In France over the observed 36-month period, the highest first-sales value and volume of Norway lobster were recorded in June 2021 at about 544 tonnes sold for EUR 5 million. The Norway lobster season as well as first sales generally occur in the warmer period of the year.

Figure 29. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN FRANCE IN VALUE AND VOLUME, **AUGUST 2023**





In the Netherlands over the observed 36-month period, the highest first-sales value and volume of Norway lobster were recorded in August 2022 at about 303 tonnes for EUR 2,2 million. The Norway lobster season generally occurs in the warmer period of the year, mainly from June to September in the months observed.

200 4,0 150 3,0 /olume Value 100 2,0 50 1,0 0 0,0 2020 2021 2022 2023 Value (million EUR) Volume (tonnes)

Figure 31. NORWAY LOBSTER: FIRST SALES IN SWEDEN, SEPTEMBER 2020 - AUGUST 2023

In Sweden over the observed 36-month period, the highest first-sales value and volume of Norway lobster were recorded in August 2021 at about 191 tonnes for EUR 2,7 million. The Norway lobster fishery generally occurs throughout the year peaking in August of each observed year.

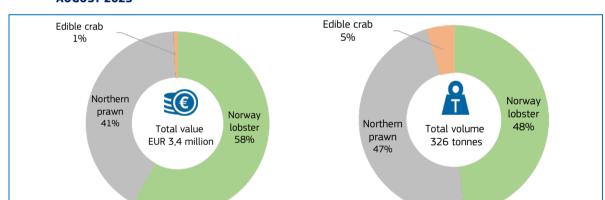
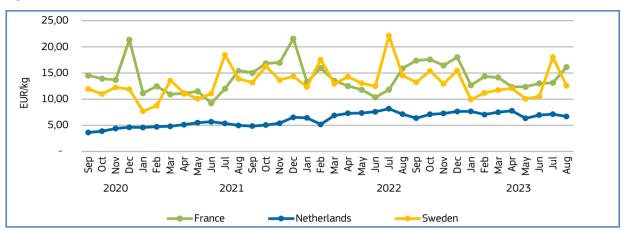


Figure 32. FIRST SALES: COMPOSITION OF "CRUSTACEANS" (ERS LEVEL) IN SWEDEN IN VALUE AND VOLUME, **AUGUST 2023**

Price trend

Figure 33. NORWAY LOBSTER: FIRST-SALES PRICES IN SELECTED COUNTRIES, SEPTEMBER 2020 - AUGUST 2023



Over the 36-month observation period (September 2020 – August 2023), the weighted average first-sales price of Norway lobster in **France** was 12,82 EUR/kg, 108% higher than in **the Netherlands** (6,17 EUR/kg), and 1% above the average price in **Sweden** (12,67 EUR/kg).

In **France** in August 2023, the average first-sales price of Norway lobster (16,15 EUR/kg) increased by 2% compared to August 2022, and by 4% compared with August 2021. Over the past 36 months, the average price ranged from 9,23 EUR/kg for 544 tonnes in June 2021 to 21,59 EUR/kg for 49 tonnes in December 2021.

In **the Netherlands** in August 2023, the average first-sales price of Norway lobster was 6,69 EUR/kg, representing a 6% decrease % from August 2022, and a 34% increase compared to August 2021. In the observed period from January 2021 to August 2023, the lowest average price of 3,63 EUR/kg for 75 tonnes was registered in September 2020, while the highest average price of 8,17 EUR/kg for 180 tonnes was recorded in July 2022.

In **Sweden** in August 2023, the average first-sales price of Norway lobster (12,55 EUR/kg) decreased by 14% compared to August 2022 and by 1% compared to August 2021. During the period observed, the average price ranged from 7,68 EUR/kg for 131 tonnes in January 2021 to 22,14 EUR/kg for 62 tonnes in July 2022.

Extra-EU imports

The weekly extra-EU import prices (weighted average values per week, in EUR per kg) for nine different species are examined every month. The three most relevant species in terms of value and volume remain consistent: fresh or chilled Atlantic and Danube salmon from Norway, frozen Alaska pollock fillets from China, and frozen tropical shrimp (Penaeus spp.) from Ecuador. The other six species change each month; three are chosen from the commodity group of the month, and three are randomly selected. The commodity group for this month is crustaceans²¹.

Data analysed in the section "Extra-EU imports" are extracted from EUMOFA, as collected from the European Commission²².

Table 21. EVOLUTION OF WEEKLY PRICE AND VOLUME OF THE THREE MOST RELEVANT FISHERIES AND **AQUACULTURE PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imp	orts	Week 38/2023	Preceding 4- week average	Week 38/2022	Notes
7 1 0 1 0 1 0 1 0 1	Price (EUR/kg)		6,70 (+2%)	6,37 (+8%)	From weeks 01/2023 to 38/2023 prices have been fluctuating and showing a decreasing trend. Prices ranged between 4,32 EUR/kg (week 44/2020) and 11,28 EUR/kg (week 16/2022). In the period analysed prices showed seasonality with the highest peaks occurring between weeks 10 and 18.
Norway (Salmo salar, Hucho hucho CN code 03021400)	Volume (tonnes)		17.755 (-7%)	15.947 (+3%)	Supply is seasonal with peaks occurring most often in weeks 35/37, 40/42 and 49/50. Lowest peak seems to occur in weeks 13/15 and 51/52. Volumes fluctuated strongly with values ranging between 5.672 tonnes (week 15/2022) and 19.497 tonnes (week 35/2022).
	(EUR/kg)		2,94 (-5%)	3,99 (-30%)	Between weeks 01/2023 and 38/2023 prices showed some fluctuations and followed a decreasing trend. Prices ranged between 1,84 EUR/kg registered in week 48/2022 and 4,03 EUR/kg registered in week 41/2022.
CN code 03047500)	Volume (tonnes)		2.454 (-10%)	3.561 (-38%)	Supply fluctuated strongly but does not seem to follow a clear seasonality. Over the period of time analysed, weekly volumes ranged between 843 tonnes (week 17/2022) to 6.758 tonnes (week 48/2022).
imported from Ecuador (genus <i>Penaeus</i> , CN code 03061792)	Price (EUR/kg)	5,26	5,18 (+1%)	6,71 (-22%)	From week 01/2023 and week 38/2023 prices fluctuated slightly while they showed an increasing trend over the past three years. Prices fluctuated strongly between 4,48 EUR/kg (week 40/2020) to 7,19 EUR/kg (week 41/2022).
	Volume (tonnes)		3.822 (-1%)	2.581 (+46%)	In the period analysed volumes showed high fluctuations, where peaks in supply seemed to occur most often between weeks 14/17, 20/22, 30/33 and 45/46. Volumes fluctuated between 891 tonnes (week 09/2023) and 4.925 tonnes (week 33/2021).

²¹ The featured species of the commodity group of the month are frozen lobsters "Homarus spp.", even smoked from Canada, frozen cold-water shrimps and prawns "Pandalus spp." from Greenland and frozen deepwater rose shrimps "Parapenaeus longirostris" from Morocco. The three randomly selected species this month are frozen sockeye salmon "Oncorhynchus nerka" from United States, smoked Pacific salmon, Atlantic salmon and Danube salmon from Norway and frozen monkfish "*Lophius* spp." From Namibia. ²² Last update: 19.10.2023

^{4.} The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

Figure 34. IMPORT PRICE OF FRESH AND WHOLE ATLANTIC SALMON FROM NORWAY, 2020 - 2023

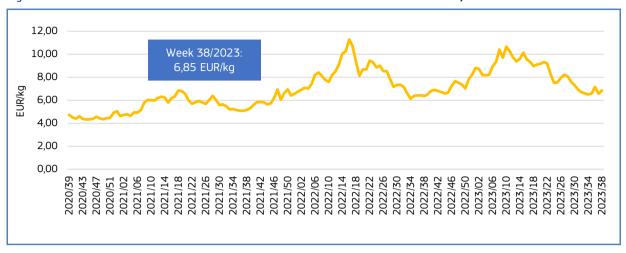


Figure 35. IMPORT PRICE OF FROZEN ALASKA POLLOCK FILLETS FROM CHINA, 2020 - 2023

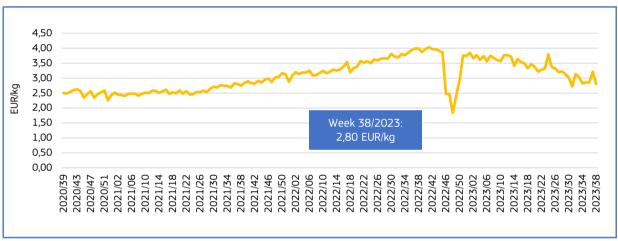
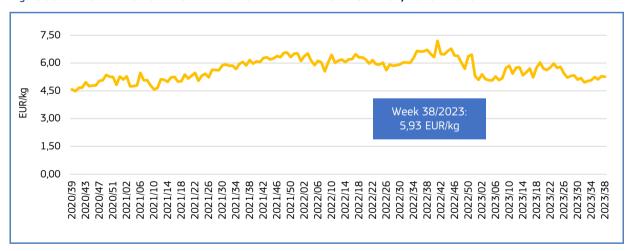


Figure 36. IMPORT PRICE OF FROZEN TROPICAL SHRIMP FROM ECUADOR, 2020 - 2023



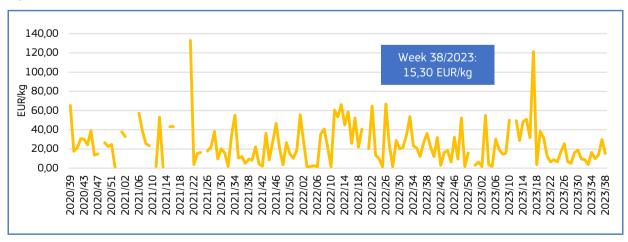
Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

4. The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

Table 22. **EVOLUTION OF WEEKLY PRICE AND VOLUME OF THIS MONTH'S THREE FEATURED COMMODITY PRODUCTS IMPORTED INTO THE EU**

Extra-EU Imports			Preceding 4- week average	Week 38/2022	Notes
Frozen lobsters , even smoked, whether in shell or not, incl. lobsters in shell, cooked by steaming or by boiling in water (excl. whole) from	(EUR/kg)	15,30	17,54 (-13%)	36,15 (-58%)	Between weeks 39/2020 and 38/2023 prices fluctuated strongly following availability of supply. The maximum price of 133,11 EUR/kg was registered in week 21/2021, while the minimum price of 1,11 EUR/kg was recorded in week 19/2021. 48% of the weekly prices were below 20,00 EUR/kg EUR/kg.
Canada ("Homarus spp." CN code 03061290)	Volume (tonnes)		36 (+118%)	56 (+40%)	Volumes showed high fluctuations ranging from 5 kilos (week 39/2020) to 145 tonnes (week 30/2022). 53% of the weekly supply was less than 20 tonnes. Supply showed strong fluctuations with highest peaks occurring most often in weeks 25/29/30 and the highest were registered in 2022.
	Price (EUR/kg)		4,82 (-15%)	4,57 (-11%)	Between weeks 39/2020 and 38/2023 prices fluctuated following an increasing trend. Prices ranged from 2,88 EUR/kg (week 13/2021) to 5,35 EUR/kg (week 11/2023). 36% of the weekly prices were between 4,00 EUR/kg and 4,50 EUR/kg.
shell, cooked by steaming or by boiling in water from Greenland (" <i>Pandalus</i> spp.", CN code 03061699)	Volume (tonnes)		1.183 (+67%)	1.744 (+14%)	Volumes showed high fluctuations ranging from 104 tonnes (week 09/2023) to 3.149 tonnes (week 09/2021). 49% of the weekly supply was more than 1.000 tonnes. No clear seasonality is registered. However, in 2021 and 2022 highest peaks were registered in weeks 3 and 9 respectively.
Frozen deepwater rose shrimps, even smoked, whether in shell or not, incl. shrimps in shell, cooked by steaming or		9,09	10,68 (-15%)	16,91 (-46%)	Prices fluctuated strongly in the period analysed ranging between 7,64 EUR/kg (week 16/2022), and 21,48 EUR/kg (week 46/2021). Highest peaks in prices seemed to occur in weeks 27/29, 41/46. 64% of the weekly prices were between 10,00 and 15,00 EUR/kg.
by boiling in water from Morocco ("Parapenaeus longirostris", CN code 16041100)			58 (+61%)	39 (+138%)	Very high fluctuations in supply from 234 kg (week 28/2023) to 279 tonnes (week 03/2022). 43% of the weekly supply was below 50 tonnes. No clear seasonality was registered. The highest peak was registered in 2022.

Figure 37. IMPORT PRICE OF LOBSTERS FROM CANADA, 2020 - 2023



Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

4. The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

Figure 38. FROZEN COLD-WATER SHRIMPS AND PRAWNS FROM GREENLAND, 2020 - 2023

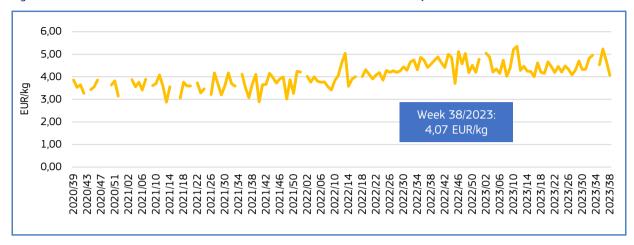
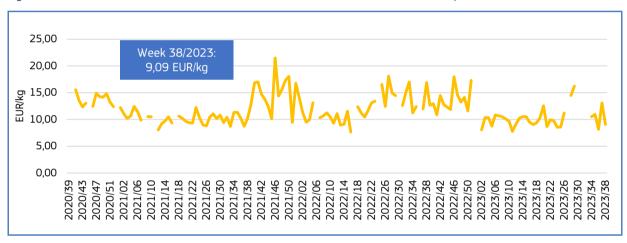


Figure 39. IMPORT PRICE OF FROZEN DEEPWATER ROSE SHRIMPS FROM MOROCCO, 2020 - 2023



Between weeks 01/2023 and 38/2023, the price of frozen **lobster** from **Canada** showed high fluctuations and a downward trend. The price ranged from 3,55 EUR/kg to 121,40 EUR/kg, and volume fluctuated highly between 436 kg to 85 tonnes.

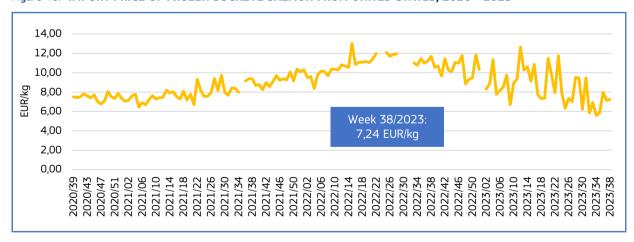
Between week 01/2023 and week 38/2023, the price of frozen **cold-water shrimps** and **prawns** from **Greenland** fluctuated and decreased. The price ranged from 4,01 EUR/kg to 5,35 EUR/kg. Supply fluctuated strongly between 104 tonnes and 2.283 tonnes.

In 2023, the price of frozen **deepwater rose shrimps** from **Morocco** showed a fluctuating increasing trend. Price ranged from 7,78 EUR/kg to 16,23 EUR/kg, and volume fluctuated strongly between 234 kg and 229 tonnes.

Table 23. EVOLUTION OF WEEKLY PRICE AND VOLUME OF EU IMPORTS OF THREE OTHER FISHERIES AND AQUACULTURE PRODUCTS RELEVANT TO THE EU MARKET

Extra-EU Imports		Week 38/2023	Preceding 4- week average	Week 38/2022	Notes
Frozen sockeye salmon [red salmon] from United States (" <i>Oncorhynchus nerka</i> ", CN code 03031100)		7,24	6,64 (+9%)	11,69 (-38%)	Between weeks 39/2020 and 38/2023 prices fluctuated reaching the maximum price of 13,01 EUR/kg (week 15/2022), falling to the minimum price of 5,59 EUR/kg (week 34/2023). 42% of the weekly prices were between 7,00 EUR/kg and 9,00 EUR/kg.
	Volume (tonnes)		49 (+77%)	96 (-9%)	Supply fluctuated greatly from 1 tonne (week 23/2023) to 1.242 tonnes (week 42/ 2021). Supply seemed to increase towards the end of the year with highest peaks registered between weeks 39 and 47. 39% of the weekly supply was less than 100 tonnes.
Smoked Pacific salmon Atlantic salmon and Danube salmon, incl. fillets from Norway (Oncorhynchus nerka,	Price (EUR/kg)	18,98	20,41 (-7%)	18,82 (+1%)	In the period analysed prices fluctuated strongly following an increasing trend ranging between 7,12 EUR/kg in week 42/2022 and 27,83 EUR/kg in week 35/2022. 45% of the weekly prices were between 18,00 EUR/kg and 23,00 EUR/kg.
Oncorhynchus nerka, Oncorhynchus gorbuscha, Oncorhynchus keta, Oncorhynchus tschawytscha, Oncorhynchus kisutch, Oncorhynchus masou and Oncorhynchus rhodurus, Salmo salar, Hucho hucho CN code 03054100)	Volume (tonnes)		6 (-41%)	13 (-74%)	Volumes showed high fluctuations ranging from 91 kilos (week 25/2021) to 50 tonnes (week 49/2021). Highest peaks in supply seemed to occur in weeks 11/12, 18/19, 23/24, 48/50. 57% of the weekly supply was below 10 tonnes.
	Price (EUR/kg)	8,76	8,52 (+3%)	7,92 (+11%)	Between weeks 39/2020 and 38/2023 prices fluctuated from 4,37 EUR/kg (week 14/2021) to 10,56 EUR/kg (week 25/2021). 47% of the weekly prices were between 7,00 EUR/kg and 8,00 EUR/kg.
	Volume (tonnes)		54 (+83%)	35 (+184%)	Supply does not show clear seasonality but the highest peaks were registered in 2023. Volumes showed high fluctuations ranging from 149 kilos (week 10/2023) to 221 tonnes (week 45/2022). 50% of the weekly supply was less than 50 tonnes

Figure 40. IMPORT PRICE OF FROZEN SOCKEYE SALMON FROM UNITED STATES, 2020 - 2023



Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

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Figure 41. IMPORT PRICE OF SMOKED PACIFIC, ATLANTIC AND DANUBE SALMON FROM NORWAY, 2020 - 2023

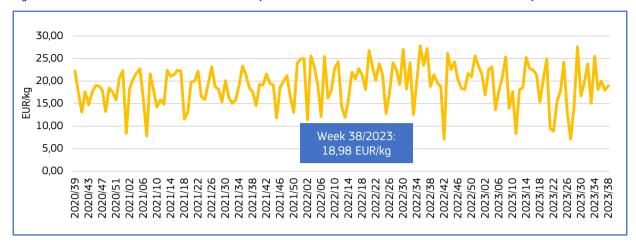
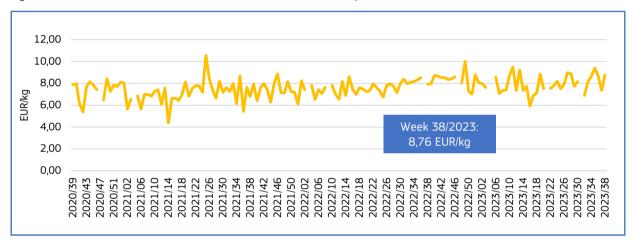


Figure 42. IMPORT PRICE OF FROZEN MONKFISH FROM NAMIBIA, 2020 - 2023



Between weeks 01/2023 and 38/2023, the price of frozen **sockeye salmon** from the **United States** showed high fluctuations and a downward trend. The price ranged from 5,59 EUR/kg to 12,64 EUR/kg, and volume fluctuated greatly and decreased ranging between 1 tonne to 675 tonnes.

Between weeks 01/2023 and 38/2023, the price of **smoked Pacific**, **Atlantic** and **Danube salmon** from **Norway** fluctuated and decreased. The price ranged from 7,14 EUR/kg to 27,63 EUR/kg. Supply fluctuated strongly between 2 tonnes and 42 tonnes.

In 2023, the price of frozen **monkfish** from **Namibia** showed a fluctuating increasing trend. Price ranged from 5,94 EUR/kg to 9,49 EUR/kg, and volume fluctuated strongly between 149 kg and 213 tonnes.

3. Consumption

3.1. HOUSEHOLD CONSUMPTION IN THE EU

Data analysed in the section "Consumption" are extracted from EUMOFA, as collected from Europanel²³.

In August 2023 compared with August 2022, there was a decrease in both volume and value of fresh fisheries and aquaculture products consumed in Germany, Hungary and Italy, while in France, the Netherlands, Poland, Portugal and Sweden an increase was observed in both parameters. The highest increase was observed in Sweden where flounder (140% of volume and 71% of value), haddock (77% of volume and 56% of value) and herring (59% of volume and 44% of value) were the main species responsible. The highest decrease was detected in Hungary due to lower consumption of other unspecified products (44% of volume and 28% of value).

Table 24. AUGUST OVERVIEW OF THE HOUSEHOLD CONSUMPTION OF FRESH FISHERY AND AQUACULTURE PRODUCTS IN THE REPORTING COUNTRIES (volume in tonnes and value in million EUR)

Country	Per capita apparent consumption 2021*	August 2021		August 2022		July 2023		August 2023		Change from August 2022 to August 2023	
	(live weight equivalent, LWE) kg/capita/yea r	Volum e	Value	Volum e	Value	Volum e	Value	Volum e	Value	Volume	Value
Denmark	20,00-25,00	1.048	17,98	1.007	18,27	885	18,06	957	18,73	5%	3%
France	32,18	17.393	195,12	15.367	190,13	13.978	182,38	16.036	193,74	4%	2%
Germany	12,51	4.911	76,26	4.279	73,76	4.398	79,39	3.690	69,07	14%	6%
Hungary	6,55	346	2,19	312	2,09	155	1,24	175	1,51	44%	28%
Ireland	14,56	898	13,72	834	13,78	835	15,14	820	14,99	2%	9%
Italy	30,15	21.962	228,44	18.547	214,10	17.876	213,62	16.958	197,61	9%	8%
Netherland	21,08	3.134	45,84	2.627	44,82	2.672	48,11	2.658	45,48	1%	1%
Poland	14,26	2.754	19,65	2.474	19,06	2.309	24,19	2.508	26,48	1%	39%
Portugal	56,52	5.964	38,34	5.343	39,06	5.635	41,54	5.380	39,51	1%	1%
Spain	42,98	43.000	352,56	37.966	344,67	39.128	384,24	36.303	345,73	4%	0%
Sweden	22,71	887	12,62	683	11,35	504	8,42	882	13,30	29%	17%

^{*} EUMOFA estimates. The supply balance is built on the basis of the equation catches + aquaculture production + imports – exports = apparent consumption and is calculated in live weight equivalent. The methodologies for estimating apparent consumption at EU and Member State levels are different, the first based on data and estimates, the latter also requiring the adjustment of abnormal trends due to the higher impact of stock changes. Where EUMOFA estimations on per capita apparent consumption continued to show high annual volatility even with these adjustments, national contact points were contacted to confirm these estimates or to provide their own figures. For the Netherlands and Poland, sources are the Dutch Fish Marketing Board and Institute of Agricultural and Food Economics - National Research Institute, respectively. The estimate for Denmark was provided by the University of Copenhagen.

Over the past three years, the average household consumption of fresh fisheries and aquaculture products in August has been below the annual average in both volume and value in all countries except Sweden, where volume increased by 6% and value by 16%.

²³ Last update: 23.10.2023.

^{4.} The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

The most recent weekly consumption data (up to **week 43 of 2023**) are available on the EUMOFA website and can be accessed **here**.

3.2. Fresh plaice

Habitat: Plaice lives on mixed bottoms, from a few metres to about 100 m. As they get older they occur at greater depths. They live at a temperature range of 2-15 °C. The species feeds mainly on thin-shelled molluscs and polychaetes. Spawning takes place when the temperature is about 6 °C.²⁴.

Catch area: Plaice is mainly found in the Northeast Atlantic Ocean: from the Bay of Biscay to Iceland and Norway, the North Sea, the Barents and White seas, as well as the Baltic Sea ²⁵.

Producing countries in the EU: Denmark, Belgium, France and Germany ²⁶.

Production method: Caught.

Main consumers in the EU: Denmark, the Netherlands and Germany.

Presentation: Whole and filleted. **Preservation:** Fresh and frozen.

Means of preparation: Steamed, fried, boiled, microwaved and baked²⁷.



3.2.1. Overview of household consumption in Germany and the Netherlands

According to estimates from recent years from the Dutch Fish Marketing Board and Institute of Agricultural and Food Economics - National Research Institute, per capita apparent consumption in the Netherlands has been 21,08 kg LWE, which is 9% lower than the EU average of 23,28 kg LWE. Based on EUMOFA estimates, consumption in Germany in 2021 was 12,51 kg LWE: 41% lower than the Netherlands and 46% lower than the EU average.

Over the past three years, household consumption of fresh plaice in Germany has been 2.875 tonnes, which is an average of 958 tonnes/year. Consumption in the Netherlands was 797 tonnes, with a yearly average of 266 tonnes. As for prices, in 2023 the average price of plaice is 18,52 EUR/kg in Germany, while in the Netherlands it is 12% higher at 20,75 EUR/kg.

We have covered **plaice** in previous *Monthly Highlights*:

First sales: Belgium 2/2016, 6/2014, January 2013; Denmark 11/2018, 8/2015, June 2013; France 6/2022; the Netherlands 6/2022, 11/2018; Sweden 6/2016; the UK 11/2018.

Consumption: Germany 1/2020, 11/2017, 2/2016; the Netherlands 1/2020, 11/2017, 2/2016, 5/2015; Sweden 2/2016, 5/2015; the UK 1/2020, 11/2017, 2/2016, 5/2015.

Extra-EU Import: Iceland 7/2022, 6/2022, 6/2021, 6/2020, 4/2019, 11/2018, 3/2018.

Topic of the month: Plaice in the Netherlands (9/2016, 4/2015).

²⁴ https://www.fao.org/fishery/en/aqspecies/3354/en

²⁵ https://www.fao.org/fishery/en/aqspecies/3354/en

²⁶ https://www.eumofa.eu/documents/20178/339391/MH1+2020.pdf

²⁷ https://www.fishbase.se/summary/pleuronectes-platessa.html

Figure 43. PRICES OF FRESH PLAICE PURCHASED BY GERMAN AND DUTCH HOUSEHOLDS

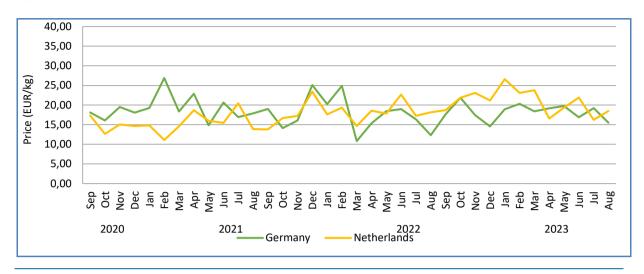
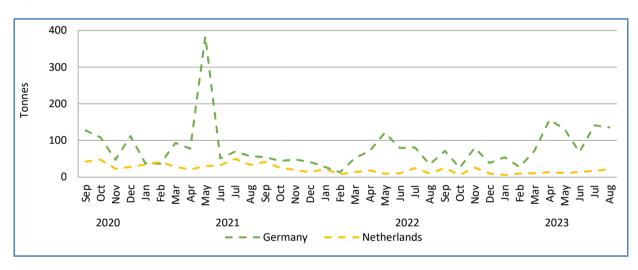


Figure 44. HOUSEHOLD PURCHASES OF FRESH PLAICE IN GERMANY AND THE NETHERLANDS



3.2.2. Household consumption trends in Germany

Long-term trend (Sep 2020 to August 2023): Downward trend in volume and fluctuating price.

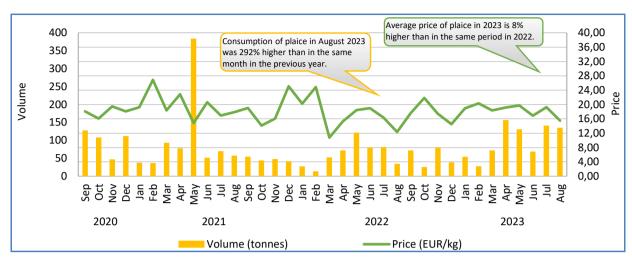
Yearly average price: 18,17 EUR/kg (2020), 19,33 EUR/kg (2021), 17,40 EUR/kg (2022).

Yearly consumption: 1.125 tonnes (2020), 996 tonnes (2021), 698 tonnes (2022).

Short-term trend (January to August 2023): Upward trend in volume and fluctuating price.

Price: 18,52 EUR/kg. **Consumption**: 787 tonnes.

Figure 45. RETAIL PRICE AND VOLUME OF FRESH PLAICE PURCHASED BY HOUSEHOLDS IN GERMANY, SEPTEMBER 2020 – AUGUST 2023



3.2.3. Household consumption trends in the Netherlands

Long-term trend (Sep 2020 to August 2023): Downward trend in volume and upward trend in price.

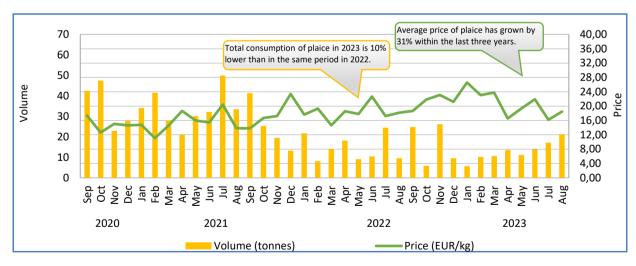
Yearly average price: 15,56 EUR/kg (2020), 16,33 EUR/kg (2021), 19,24 EUR/kg (2022).

Yearly consumption: 355 tonnes (2020), 370 tonnes (2021), 182 tonnes (2022).

Short-term trend (January to August 2023): Upward trend in volume and downward trend in price.

Price: 20,75 EUR/kg. **Consumption**: 104 tonnes.

Figure 46. RETAIL PRICE AND VOLUME OF FRESH PLAICE PURCHASED BY HOUSEHOLDS IN THE NETHERLANDS, SEPTEMBER 2020 – AUGUST 2023



Case study: The fishmeal and fish oil processing industry in Denmark

Denmark is in the northern region of Scandinavia, within Northern Europe. It consists of Jutland, which makes up 70% of Denmark's total land area, along with around 400 named islands that make up the remaining 30% of the land area, with only 82 of them inhabited²⁸. Denmark's stretches 7.314 kilometres, and there is no location within Denmark situated more than 52 kilometres from the coast. The country is surrounded by various bodies of water with distinct profiles and ecosystems, ranging from the North Sea through Skagerrak and Kattegat to the Baltic Sea, and which constitute Denmark's primary fishing areas.



Source: iStock @ Laris Duka.

Denmark has a long tradition as a fishing nation, and the industrial fishing activities associated with the production of fishmeal and fish oil play a significant role in the country's fishing industry²⁹. Denmark is among the leading global producers of fishmeal and fish oil. Danish production is crucial to the country's position as prominent exporter of fish feed and technology in the aquaculture sector worldwide. Maintaining a reliable production of such marine ingredients is key to supporting the continuous development of global aquaculture. Denmark is recognised as being a leading producer of high-quality fishmeal and fish oil used in various sectors including fish farming, animal feed and dietary supplements. This production process usually involves processing fish, often pelagic species such as herring and mackerel, to extract oil and flour. This practice helps to optimise the utilisation of the entire fish and reduce waste in the fishing industry.

4.1. Danish production of fishmeal and fish oil

Fishmeal is derived by means of a thorough process involving cooking, pressing, drying and grinding of freshly caught fish or shellfish, typically comprising small fatty species³⁰. After the cooking and drying phases, the result is transformed into a coarse brown flour known as fishmeal. The fishmeal provides serves as an exceptional source of protein, used primarily in aquaculture and livestock feed. Fish oil is extracted as a liquid substance by pressing the cooked fish. From 100 kg of raw material, a fishmeal and fish oil facility generally produces around 20 kg of fishmeal and 5 kg of fish oil. The production process relies heavily on catches of small, oily, short-lived species, including blue whiting, capelin, sand eel, Norway pout and sprat, together with by-products (trimmings) from the fish processing industry for human consumption. It is essential to note that all fish stocks employed for fishmeal and fish oil production in European countries are subject to stringent catch limitations, guided by scientific assessments from advisory bodies such as the International Council for the Exploration of the Sea (ICES) and the Scientific, Technical and Economic Committee for Fisheries (STECF).

Herring and sprat are caught in a mixed pelagic fishery in the Baltic Sea, North Sea, Skagerrak and Kattegat, while most of the sandeel is caught in the North Sea³⁰. Blue whiting is caught in a directed fishery in the North Sea and East Atlantic, while Norway pout is caught in the North Sea, Skagerrak and Kattegat. In 2021, 3,3 million tonnes of species important for the

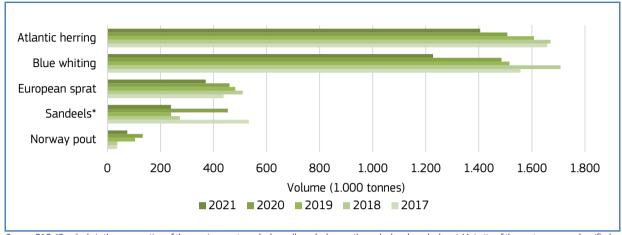
²⁸ European Parliament (2013). Fisheries in Denmark. europa.eu

²⁹ FAO (2004). The Kingdom of Denmark. fao.org

³⁰ EUMOFA (2023). *Fishmeal and fish oil.* eumofa.eu

fishmeal and fish oil industry were caught in the northeast Atlantic (FAO fishing area 27), which was an 18% reduction in catches compared to 2020. Most of the herring caught is destined for human consumption³¹.

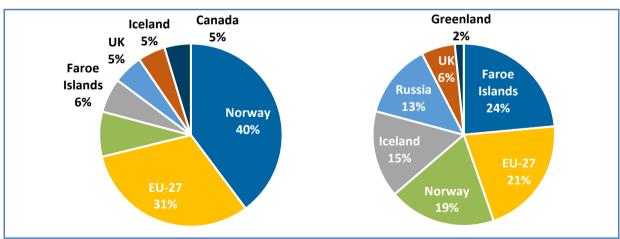
Figure 47. CAPTURES OF IMPORTANT PELAGIC SPECIES FOR THE FISHMEAL AND FISH OIL INDUSTRY IN THE NORTHEAST ATLANTIC (FAO fishing area 27) (volume in 1.000 tonnes)



Source: FAO. *Sandeels is the aggregation of the species great sandeel, small sandeel, smooth sandeel and sandeels nei. Majority of the captures were classified as sandeels nei, with no detail regarding species.

Important contributors to the pelagic fisheries for fishmeal and fish oil production in Denmark come from various sources, including both EU and non-EU countries, and involves major industry players. Of EU countries, Sweden, Germany and Poland collaborate with Denmark on the management and harvesting of pelagic species in the Baltic Sea³¹. The Netherlands is involved in the North Sea pelagic fisheries and interacts with Danish industry players in the fishmeal and fish oil sector. The cooperation between Denmark and these neighbouring countries is important to maintain healthy fish stocks and ensure sustainable harvesting. This includes joint research, monitoring of stocks and participation in fisheries agreements that determine how much of each pelagic species can be fished.

Figure 48. CAPTURES OF ATLANTIC HERRING AND BLUE WHITING BY COUNTRY IN FISHING AREA 27 IN 2021



Source: FAO.

Of non-EU countries, Norway borders the North Sea with Denmark and is a significant player in pelagic fisheries. Norway shares the fishing resources of the North Sea and works closely with Denmark and other EU countries to sustainably manage

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³¹ EUMOFA (2023). Fishmeal and fish oil. eumofa.eu

the stocks in this area. This includes participation in fisheries agreements and sharing scientific research and data³². Although the Faroe Islands are an autonomous part of Denmark, they have their own pelagic fishing industry³³. The Faroe Islands harvest pelagic species in their waters, and their production contributes to Denmark's total production capacity for fishmeal and fish oil. This creates close cooperation within the Kingdom of Denmark and supports the economy and the utilisation of resources.

In addition to participating in fishing activities, these countries also contribute to the industry by importing and using fishmeal and fish oil in their own markets. Overall, the cooperation and interaction between Denmark and these countries is crucial for maintaining sustainable pelagic fish resources and ensuring a reliable supply of fishmeal and fish oil.

In the period from 2013-2022, Danish landings for industrial use varied between 919.000 tonnes in 2017 and 425.000 tonnes in 2022, the lowest year in the decade. This large variation in landing volumes is due to stock size fluctuations and changes in the fishing quotas from year to year. Denmark is the largest industrial fishing nation in the EU and accounted for 78% of total EU landings for industrial use in 2021³⁴.

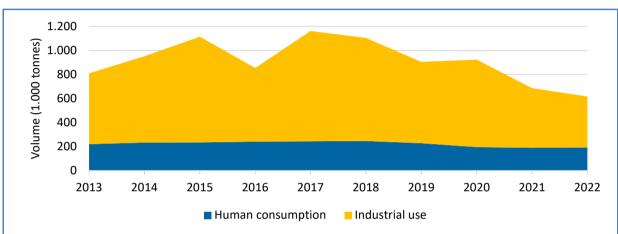


Figure 49. TOTAL LANDINGS IN DENMARK BY DESTINATION USE (volume in 1.000 tonnes)

Source: Fiskeristyrelsen Denmark

Industry structure in Denmark

TripleNine is one of Denmark's largest producers of fishmeal and fish oil. It has a significant production capacity and operates multiple processing plants in Denmark, including facilities in Thyborøn and Esbjerg. These state-of-the-art plants are equipped with advanced technology for extracting fishmeal and fish oil. FF Skagen is a major player in the Danish fishing and processing industry. It contributes significantly to Denmark's overall production of fishmeal and fish oil. FF Skagen operates a fishmeal and fish oil production facility in Skagen, Denmark. This plant plays a crucial role in processing pelagic fish species.

BioMar is a global leader in aquafeed production and was founded by Danish farmers in 1962. It uses significant amounts of fishmeal and fish oil in its feed formulations. While BioMar does not have its own fishmeal and fish oil processing plants, it is an important customer for these products which are incorporated into its aquafeed production. Aller Aqua is a Danish-based aquafeed company that incorporates fishmeal and fish oil in its feed production. Aller Aqua procures fishmeal and fish oil from processing plants in Denmark and other regions to include in its aquafeed formulations.

34 EUMOFA (2023). Fishmeal and fish oil. eumofa.eu

³² ICES (2022). *Greater North Sea ecoregion – fisheries overview.* figshare.com

³³ ICES (2023). Faroese ecoregion – fisheries overview. figshare.com

^{4.} The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

Fishmeal



These industry players operate processing plants equipped with advanced technology to efficiently extract fishmeal and fish oil from pelagic species. Their combined production capacity supports both domestic and international demand for these essential marine ingredients used in aquaculture, animal feed and dietary supplements.

Supply chain of fishmeal and fish oil

The supply chain of Denmark's fishmeal and fish oil industry involves a series of interconnected stages that contribute to the production, processing and distribution of these essential marine products. The chain begins with fishing operations, often in Denmark's waters, that target pelagic species such as herring, Norway pout and blue whiting. Once caught, the fish are transported to processing facilities, either directly from the fishing vessel or from local landing sites along the coast. Processing plants receive the freshly caught fish and begin the extraction process. Advanced machinery is used to separate the fish into fishmeal and fish oil. This stage involves heating and pressing to extract the oil and produce fishmeal. The process for extracting fishmeal and fish oil is standardised worldwide and consists of heat coagulation combined with mechanical fat separation and thermal dewatering steps 35.

Mincing Heating Strainer Pressing

Fish oil Centrifugation of solids Drying Grinding/cooling /packaging

Figure 50. FLOW CHART OF GENERAL PRODUCTION OF FISHMEAL AND FISH OIL

Source: Matis.

Quality control measures are implemented at every stage of the processing to ensure that the final products meet strict quality and safety standards. Samples are tested for contaminants and nutrient content³⁵. After processing, fishmeal and fish oil are packaged into appropriate containers. Fishmeal is typically packed in bags or bulk containers, while fish oil may be bottled or placed in bulk containers for further distribution. The packaged fishmeal and fish oil are then distributed to various markets and customers. This includes domestic distribution to aquaculture farms, animal feed producers, and dietary supplement manufacturers in Denmark. Denmark is a significant exporter of fishmeal and fish oil. A substantial share of the products is exported to international markets, including other European countries and regions worldwide. Fishmeal and fish oil are key ingredients in aquafeed and animal feed formulations. These products are used to provide essential nutrients to farmed fish, livestock and poultry. Fish oil is widely used in dietary supplements due to its omega-3 fatty acid content. It is included in various health and wellness products.

Evaporation

³⁵ Matis (2019). Nordic Centre of Excellence Network in Fishmeal and Fish oil. effop.org

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300 Volume (1.000 tonnes) 250 200 150 100 50 0 2013 2014 2015 2017 2019 2020 2021 2022 2016 2018 ■ Fishmeal ■ Fish oil

Figure 51. DANISH PRODUCTION OF FISHMEAL AND FISH OIL (volume in 1.000 tonnes)

Source: IFFO.

Over the past decade, production of fishmeal and fish oil in Denmark peaked in 2017 with 215.000 tonnes fishmeal and 53.000 tonnes fish oil produced. Since then, production has generally declined in tandem with landings for industrial use. In the decade reported production was at its lowest in 2022 when 120.000 tonnes of fishmeal and 35.000 tonnes of fish oil were produced in Denmark. This corresponds to a 44% decrease in fishmeal production and 34% decrease in fish oil production compared to 2017.

In 2021, the EU landed nearly 1,2 million tonnes of blue whiting, Atlantic herring and European sprat, of which 33%, or 381.116 tonnes were landed by Denmark. Most of the Danish landings were European sprat (42%), followed by Atlantic herring (37%) and blue whiting (21%). The average first sale price for blue whiting destined for industrial use in 2021 was 0,22 EUR/kg, with the highest prices occurring from April-July. For Atlantic herring and European sprat destined for industrial use, the average first sale prices were 0,32 EUR/kg for herring and 0,27 EUR/kg for sprat in 2021, with a peak of 0,44 EUR/kg in June for herring and a peak of 0,36 EUR/kg in May for sprat. Average first sale prices for all three species increased in 2022, by 56% for blue whiting, 18% for European sprat and 1% for Atlantic herring.

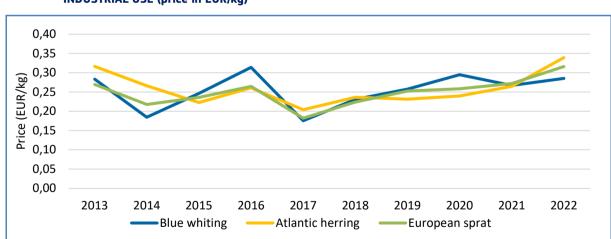


Figure 52. DANISH FIRST SALE PRICES OF BLUE WHITING, ATLANTIC HERRING AND EUROPEAN SPRAT FOR INDUSTRIAL USE (price in EUR/kg)

Source: EUMOFA. Note that first sales data for Denmark are subject to confidentiality measures, so they may not fully correspond to total first sales in the country.

Over the past decade, fishmeal and fish oil prices in the EU have been stable, with average annual prices for fishmeal ranging from 1,19 EUR/kg (in 2021) to 1,40 EUR/kg (in 2015) and average annual prices for fish oil ranging from 1,31 EUR/kg (in 2017) to 2,57 EUR/kg (in 2022). The price of fish oil increased substantially from 2021 to 2022 with a 58%

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increase in average annual price. This was related to decreased production in Peru and low oil yield from the landings³⁶. EU prices for fishmeal and fish oil are highly correlated to global prices, which depend on supply from South America (Peru and Chile) and demand from Asia (mainly China).

3,00 2,50 Price (EUR/kg) 2.00 1,50 1,00 0,50 0,00 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 Fish oil Fishmeal -

Figure 53. EU FISHMEAL AND FISH OIL PRICES (price in EUR/kg)

Source: Oilworld. Values are deflated by using the GDP deflator (base=2015).

4.2. International trade of fishmeal and fish oil

Danish trade flows and supply

In 2022, Danish extra-EU exports of fishmeal, fish oil and products classified within EUMOFA as "other non-food use" ³⁷ amounted to 313.112 tonnes at a value of EUR 583 million³⁸. Compared to 2021, this was a 28% decrease in Danish exports of these products. Fishmeal accounted for 32% of exports, fish oil accounted for 34% of exports and non-food use products accounted for 33% of exports in 2022.

The combined export value of these products was 583 million EUR, of which 31% of the value came from fishmeal, 45% from fish oil and 24% from non-food use products. Exports of fishmeal went mainly to Norway (53%), followed by China (10%), the UK (9%) and Canada (9%). Exports of fish oil went mainly to Norway (81%) and the UK (15%), while non-food use products went mainly to Norway (28%), the UK (13%), Iceland (12%) and Ukraine (10%).

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

³⁶ EUMOFA (2023). Fishmeal and fish oil. eumofa.eu

³⁷ The type of products known as non-food products are mainly fishmeal and fish oil, but also different types of live ornamental fish, fish waste, dead fish, seaweeds and algae unfit for human consumption, as well as frozen fish roes used for the manufacture of acids and sulphate.

³⁸ EUMOFA elaboration of Eurostat-Comext data.

500 700 Volume (1.000 tonnes) 600 Value (million EUR) 400 500 300 400 300 200 200 100 100 0 0 2015 2018 2019 2016 2014 2016 2014 2015 2018 2022 201 2017 201 Fish oil Other non-food use ■ Fishmeal ■ Fish oil ■ Other non-food use Fishmeal

Figure 54. DANISH EXTRA-EU EXPORT VOLUME AND VALUE OF FISHMEAL, FISH OIL AND OTHER NON-FOOD USE

Source: EUMOFA elaboration of Trade Data Monitor data.

In the same year, Denmark imported from extra-EU countries 54.529 tonnes of fishmeal at a value of about EUR 100 million, 83.640 tonnes of fish oil at a value of EUR 212 million and 74.878 tonnes of non-food use products at a value of EUR 88 million38. Compared to 2021, imports of these products decreased by 42%, due mainly to reduced imports of non-food use products (68%). The major suppliers of fishmeal to Denmark were Iceland (26%), Norway (21%) and the Faroe Islands (21%). Norway (29%), Peru (20%) and Chile (17%) were the main suppliers of fish oil, while China (53%), Norway (28%) and the UK (10%) supplied most of the non-food use products.

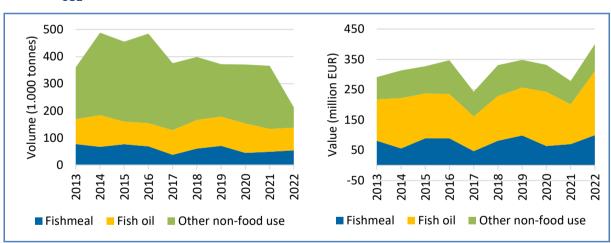


Figure 55. DANISH EXTRA-EU IMPORT VOLUME AND VALUE OF FISHMEAL, FISH OIL AND OTHER NON-FOOD USE

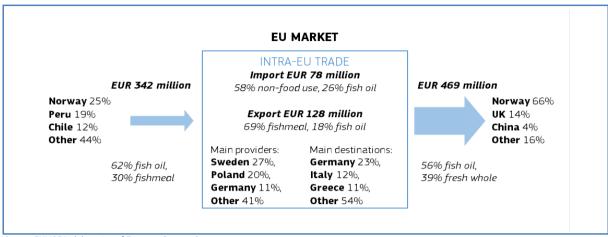
Source: EUMOFA elaboration of Trade Data Monitor data.

In 2022, Danish intra-EU exports of fishmeal, fish oil and non-food use products amounted to 76.964 tonnes at a value of EUR 128 million38. Danish export volumes mainly consisted of fishmeal (62%) and non-food use products (26%). Fishmeal exports went mainly to Germany (20%), followed by Italy (17%) and Poland (11%), while non-food use products went mainly to Ireland (35%), Germany (25%) and Sweden (11%). Exports of fish oil went mainly to Germany (34%), followed by Greece (19%) and the Netherlands (17%).

In the same year, Danish intra-EU imports of fishmeal, fish oil and non-food use products amounted to 153.989 tonnes at a value of EUR 78 million. Non-food use products made up 91% of the Danish import volume, followed by fishmeal (5%). Most of the non-food use products originated in Sweden (55%), followed by Poland (29%) and the Netherlands (6%).

Fishmeal came mainly from Germany (28%), Finland (27%) and Estonia (19%), while fish oil originated in France (25%), Germany (24%), Finland (17%) and Spain (17%).

Figure 56. DANISH TRADE MARKET IN VALUE FOR FISHMEAL, FISH OIL AND NON-FOOD USE PRODUCTS IN 2022



Source: EUMOFA elaboration of Eurostat-Comext data.

Case study: The EU market for halibut species

Greenland and Atlantic halibut are caught across the whole Northern Atlantic. In 2022, EU-27 catches for both species combined reached 14.371 tonnes, of which 98% consisted of Greenland halibut and 2% of Atlantic halibut. The main producing countries are Spain, Germany and Denmark. Extra-EU exports mainly go to the Asian market, with China alone accounting for 73% of the total. The EU main supplier countries are Canada and Norway. Greenland halibut is mostly traded whole and frozen, while a significant share of Atlantic halibut is also traded whole and fresh.

5.1. Biology and production methods

Biology

Halibut comprises three species of right-eved large flatfish. Two of these Atlantic halibut species. the (Hippoglossus hippoglossus) Greenland halibut (Reinhardtius hippoglossoides), are fished in the Atlantic Ocean, while only Pacific halibut (Hippoglossus stenolepis) is fished in the Pacific Ocean³⁹. They are relatively slow-growing and late-maturing species.



Greenland halibut is distributed

throughout the entire rim of the North Atlantic, from England to northern Norway, Faroe Islands, Iceland, and eastern Greenland in the east, and from Newfoundland to north-western Greenland in the west⁴⁰. It is a cold-water species found in temperatures between 1°C and 4°C, and at depths from 200 m to 2.200 m, but mainly inhabits depths of 500 m to 1.000 m. Its maximum length is approximately 120 cm and it can weigh up to 45 kg, but is more commonly between 80-100 cm and 11-25 kg. Greenland halibut is an active, pelagic hunter, feeding on prawns and fishes. Spawning takes place in February and March, at depths of around 1.000-1.500 m. The Davis Strait is the most important spawning area.

Atlantic halibut is commonly found in the Eastern Atlantic in the Bay of Biscay to Spitsbergen, the Barents Sea, Iceland and eastern Greenland. It lives at depths between 50 m and 2.000 m and can reach more than 4m and 300 kg. Atlantic halibut is mainly benthic but also pelagic, and feeds on other fish such as cod, haddock and herring, as well as cephalopods, large crustaceans, and other bottom-living animals⁴¹.

Production methods

These two *Hippoglossinae* species are mainly wild caught. A farmed production of Atlantic halibut has existed in the UK and Iceland and still exists in Norway, but its production is limited (1.622 tonnes in 2021).

Greenland and Atlantic halibut can be fished using either trawl gear, gillnet, longlines/bottom lines, or rod and reel/hand lines. The two species are both classified as "near threatened" by the IUCN and are not considered overfished. Atlantic and Greenland halibut are also caught by recreational fishing.⁴² Part of the production is MSC certified, with one Canadian fishery benefitting from the certification for Atlantic halibut and eight fisheries in Canada, Norway, Greenland and Russia for

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

³⁹ https://www.msc.org/what-you-can-do/eat-sustainable-seafood/fish-to-eat/halibut

⁴⁰ http://www.fao.org/fishery/species/2544/en

⁴¹ https://fishbase.mnhn.fr/summary/Hippoglossus-hippoglossus.html

⁴² https://www.fisheries.noaa.gov/species/atlantic-halibut

^{4.} The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |



Greenland halibut.⁴³ Atlantic halibut aquaculture production occurs in marine fish farms along the Norwegian coast. Fertilised egg production usually occurs between March and May, but it is possible to extend this period using artificial light. Atlantic halibut fry is fed live natural plankton as a starter feed in intensive hatcheries. Ongrowing is carried out at sea in cage culture or onshore in tanks. Most of the feed used during the ongrowing phase consists of formulated dry feed; most pellets are also used. Ongrowing at sea takes between 14 and 30 months.⁴⁴

Management

Greenland halibut (GHL) is covered by TACs. The TAC for Greenland halibut for 2023 is 2.571 tonnes in zone 4 of UK and EU waters, zone 2a of UK waters and zone 5b of UK and international waters, including 703 t for the EU countries. For zone 1 and 2 of international waters, the last available TAC for Greenland halibut (as of April 2023) is 1.711 tonnes.⁴⁵

Table 25. TOTAL ALLOWABLE CATCHES FOR GREENLAND HALIBUT IN TONNES (as for 2023)

Fishing zones for GHL	DK	DE	EE	ES	FR	IE	LT	PL	EU	NO	UK
Zones 4 (UK+EU), 2a (UK), 5b (UK+int)	29	51	29	29	478	29	29	29	703	-	1.868
Zones 1 (int), 2 (int)	NC	NC	NC	NC	NC	NC	NC	NC	1.711	NC	NC

Source: Council Regulation (EU)2023/194 of 30 January 2023, Commission Services non paper of 20 April 2023 amending Regulation (EU)2023/164. NC: non-communicated, as this TAC is available only for by-catches.

Fishing of Greenland halibut is subject to a **sustainable fisheries partnership agreement** (SFPA) between the EU, Greenland and Denmark, and which was revised in 2021 by a new EU-Greenland protocol for the period from 22/04/2022 to 21/04/2025. Fishing opportunities of GHL for EU vessels amount to a total of 2.250 t in west Greenland (zone 1, Atlantic N-W) and 4.950 t in east Greenland (zone 14, Atlantic N-E). The EU agreed to a financial contribution in three parts, including an access component, a sectoral support component and a licence fee component to be paid by vessel owners. Licence fees for GHL amount to 216 EUR/t in 2021-2022, 309 EUR/t in 2023-2024 and 402 EUR/t in 2025-2026.⁴⁶

There is no TAC for **Atlantic halibut** (AHL), but there has been a ban on fishing and landing AHL in Iceland since 2012.⁴⁷

Processing and marketing

After landing, halibut can be packaged fresh whole, frozen whole, or frozen in pieces (steaks or "blocks")^{48,49}. Processing can include cutting heads, tails, J-cuts, block processing and freezing.⁵⁰ Farmed cod and halibut have been very well accepted in both domestic and export markets. These species are all sold fresh, chilled on ice.

5.2. Production

The world production of **Greenland and Atlantic halibut** reached 134.785 tonnes in 2021, of which 92% (128.977 tonnes) consisted of Greenland halibut catches, 7% (9.364 tonnes) of Atlantic halibut catches and 1% (1.622 tonnes) of Atlantic halibut aquaculture production. As a comparison, Pacific halibut catches, which are not analysed in this case-study, accounted for 17.502 tonnes in 2021. Greenland halibut catches decreased by 4% between 2020 and 2021 and grew by 3% over the past decade. Overall production of Atlantic halibut increased by 6% between 2021 and 2022 and progressed significantly by 67% over the past decade. The evolution of Atlantic halibut production varies according to the production

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

4. The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

⁴³ https://fisheries.msc.org/en/fisheries/canada-atlantic-halibut/@@view

⁴⁴ https://firms.fao.org/fi/website/FIRetrieveAction.do?dom=countrysector&xml=naso_norway.xml&lang=en

⁴⁵ Council Regulation (EU)2023/194 of 30 January 2023, Commission Services non paper of 20 April 2023 amending Regulation (EU)2023/164

⁴⁶ European Commission, Sustainable fisheries partnership agreement with Greenland, 2021.: https://oceans-and-fisheries.ec.europa.eu/fisheries/international-agreements/sustainable-fisheries-partnership-agreements-sfpas/greenland_en

⁴⁷ https://www.mcsuk.org/goodfishguide/ratings/wild-capture/456/

⁴⁸ https://nsseafood.com/seafood/atlantic-halibut

⁴⁹ https://www.royalgreenland.com/royal-greenland/locations/production-sites/

⁵⁰ Ibid



method. Wild catches increased by 92% over the past decade (+10% between 2021 and 2022) while aquaculture production declined by 13% since 2012, and by 11% between 2021 and 2022.

The main producer of **Greenland halibut** (*Reinhardtius hippoglossoides*) is Greenland, accounting for 37% of global production in 2021, with over 45.000 tonnes. Other major producers are Russia (16%), Norway (13%), the EU (11%), Iceland (10%) and Canada (8%). Over the last decade (2012–2021), the world production of Greenland halibut remained relatively stable (+3%), and development varied according to country. Over the period, Greenland halibut production grew in Greenland and Norway by 31% and 23% respectively, while it decreased in Russia, the EU, Iceland and Canada by 18%, 6%, 6% and 29% respectively. Within the EU, the main producer countries are Germany and Spain (41% and 33% respectively of the EU total).

Table 26. WORLD PRODUCTION OF GREENLAND HALIBUT (volume in tonnes)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Greenland	34.583	34.862	39.429	38.203	42.284	37.797	42.353	47.272	42.756	45.393
Russian Fed.	24.632	26.931	24.827	27.479	26.219	24.787	25.206	23.982	23.005	20.164
Norway	12.717	12.596	14.055	14.649	16.784	16.890	17.772	17.609	17.430	15.584
EU27	14.916	13.280	13.207	12.925	13.737	11.622	14.941	15.137	15.253	14.077
Iceland	13.762	14.998	9.911	12.448	12.727	11.933	15.238	12.044	12.543	12.877
Canada	13.432	12.763	14.312	14.059	13.088	11.336	11.560	10.608	10.707	9.557
Others	8.659	5.695	6.305	6.943	9.312	9.510	6.809	6.758	7.284	6.074
Total	122.701	121.125	122.046	126.706	134.151	123.875	133.879	133.410	128.977	123.726

Source: FAO.

In 2021, Canada was the leading producer of **Atlantic halibut** (*Hippoglossus hippoglossus*), supplying more than half of the global production (64%, with over 7.000 tonnes). The second largest producer was Norway, with 28% of world production, 54% of which came from aquaculture. The EU accounts for 3% of global production, with 294 tonnes. Other producers reaching more than 100 tonnes of production in 2021 were Russia, the UK and Iceland each accounting for 1% of the total. Global production of Atlantic halibut grew by 92% over the past decade, and by 10% between 2020 and 2021. Among the main producers, Canada has experienced a spectacular increase in production over the decade (+145%), while Norwegian production has grown by 38%. EU catches of halibut remained stable over the decade (-1%) and were more than halved between 2020 and 2021 (-53%). Within the EU, the main producer countries are Denmark and Spain (38% and 28% respectively of the EU total).

Table 27. WORLD PRODUCTION OF ATLANTIC HALIBUT (volume in tonnes)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Canada	2.885	3.269	3.617	3.942	4.076	4.502	5.283	5.565	6.293	7.058
Norway	2.185	1.918	2.349	2.416	2.872	2.651	2.713	3.221	2.417	3.025
EU27	232	255	348	411	500	666	575	679	642	294
Russian Fed.	18	42	42	90	69	59	87	192	160	176
UK	72	51	36	55	131	207	249	250	203	161
Iceland	35	40	47	91	125	106	139	135	140	153
Others	295	271	261	323	277	230	178	201	143	119
Total	5.722	5.846	6.701	7.328	8.050	8.421	9.224	10.242	9.999	10.986

Source: FAO.

Landings in the EU

In 2021, landings of halibut in the EU-27 amounted to 7.618 tonnes (Greenland and Atlantic halibut combined). The fact that the volume of halibut caught by the EU fleet (in live weight equivalent) is much higher than the volume landed (in net weight) in the EU suggests that a share of EU catches are landed in third countries, for instance in the UK, Greenland or Norway. The main EU landing countries for halibut are Spain, Portugal and Germany, accounting for 51%, 25% and 22% respectively of total landing volumes in 2021. Landing volumes in the EU decreased by 34% over the past decade, mainly due to declines in Spain and Germany (both by 44%), while landings in Portugal increased by 128%.

In 2021, these landing volumes consisted of 96% Greenland halibut and 4% Atlantic halibut. Greenland halibut landings in the EU mainly occurred in Spain (50% with 3.797 tonnes). Denmark took most of the landings of Atlantic halibut (42% with 126 tonnes). The overall decline in halibut landings in the EU over the past decade is due to a strong decrease in landings of Greenland halibut (35%). Landings of Atlantic halibut increased by 3% over the same period.

Halibut landings in the EU almost exclusively consist of frozen fish (98% of the total volume). This proportion is over 99% of frozen fish for Greenland halibut. Atlantic halibut landings in the EU are almost equally shared between 52% of frozen fish and 48% of fresh fish.

Table 28. LANDINGS OF HALIBUT IN THE EU (volume in tonnes)⁵¹

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Spain	6.844	4.342	4.355	4.406	4.250	4.264	3.787	3.898	4.008	3.863
Portugal	844	940	870	462	615	954	662	1.657	2.170	1.926
Germany	2.914	2.394	1.878	2.555	2.540	3	4.029	4.015	4.131	1.641
Denmark	642	1.341	387	79	609	234	206	178	154	166
Others	128	54	51	24	23	31	45	36	36	23
Total	11.372	9.071	7.542	7.526	8.037	5.486	8.729	9.784	10.499	7.618

Source: EUROSTAT

5.3. First sales in the EU

In 2022, first sales of halibut in EU countries amounted to 5.716 tonnes and 29,9 million EUR⁵². They consisted of 5.545 tonnes of Greenland halibut and 171 tonnes of Atlantic halibut at values of 28,2 million EUR and 1,7 million EUR respectively. Greenland halibut was sold at an average price of 5,09 EUR/kg and Atlantic halibut at 10,13 EUR/kg. For Greenland halibut, the main EU landing country is Spain (64% with 3.576 tonnes), followed by Germany (29%) and France (3%). Denmark accounted for the most first sales volumes of Atlantic halibut (63% with 10.830 tonnes), followed by Spain (23%) and Sweden (5%).

In 2022, first sales volumes for Greenland halibut decreased by 11% compared to 2021. The strongest decline was for France (27%), while German first-sales increased by 11%. First sale volumes in Spain declined by 18%. Atlantic halibut first-sale volumes decreased significantly between 2021 and 2022 (39%), driven by declines in Denmark (14%), Spain (67%) and Sweden (16%). Among the smaller producer countries, volumes only increased in Belgium (168 tonnes, reaching 2% of the total volume) and France (25%, at 3% of the total volume). Over the past four years, first sales volumes in Spain increased significantly by 91% for Greenland halibut, while they decreased by 17% for Atlantic halibut. At the same time, volumes in France increased by 130% for Greenland halibut and decreased by 12% for Atlantic halibut. The decline of first sales volumes of Greenland halibut in Denmark between 2018 and 2022 is significant (47%). No first sales of Atlantic halibut have been reported for this country since 2016.

First-sales data show no significant seasonality for Greenland halibut, and a low seasonality for Atlantic halibut. In Spain, monthly first sales of Greenland halibut peaked at approximately 900 tonnes in May 2020, at around 750 tonnes in December 2021 and at over 600 tonnes in February and November 2022. In Denmark, monthly first sales peaked in January

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

⁵¹ Totals do not correspond exactly to actual sums because of roundings.

⁵² Source: EUMOFA. To note, first sales data for Denmark are subject to confidentiality measures, so they may not fully correspond to total first sales in the country.

^{4.} The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species |

in both 2021 and 2022 (at 20 and 28 tonnes respectively). For 2020, 2021 and 2022, the three months with lowest first sale volumes were February, November and December.

First-sales prices recorded for Greenland halibut between January 2022 and December 2022 were relatively similar in all EU producer countries. The highest average price was for Spain, at 5,60 EUR/kg, and the lowest was for Germany, at 4,26 EUR/kg. Over the same period, first-sales prices for Atlantic halibut varied a lot depending on the country. Average 2022 prices were more than twice higher in Denmark and the Netherlands (at 12,57 and 12,64 EUR/kg respectively) than in Spain (5,19 EUR/kg). Prices in Belgium and France were approximately 10,11 and 10,03 EUR/kg.

Between 2021 and 2022, first-sales prices for Greenland halibut grew significantly in all EU producer countries. The strongest increases in yearly prices were for Germany (48%, at 4,30 EUR/kg), followed by France (24% at 4,50 EUR/kg) and Spain (21% at 5,51 EUR/kg). Atlantic halibut prices also increased in all major producing countries, by 29% in Denmark (12,04 EUR/kg), 19% in Sweden (13,05 EUR/kg), and 65% in Spain (5,27 EUR/kg).

In 2022, the most important places of sale for Greenland halibut in volume terms were Cangas in Spain (2.291 t), Bremerhaven in Germany (1.209 t) and Vigo in Spain (674 t). The most important place of sale for Atlantic halibut is Cangas (34 t), followed by smaller landing places in Vigo, Bremerhaven, Zeebrugge in Belgium and Lorient in France all below 5 tonnes), while volume of sale by ports is unknown for Denmark.



Figure 57. FIRST SALES: GREENLAND HALIBUT IN SPAIN

Source: EUMOFA.



Figure 58. FIRST SALES: ATLANTIC HALIBUT IN DENMARK

Source: EUMOFA

Overview | 1. First sales in Europe | 2. Extra-EU imports | 3. Consumption

4. The processing industry for fishmeal and fish oil in Denmark | 5. The EU market for halibut species

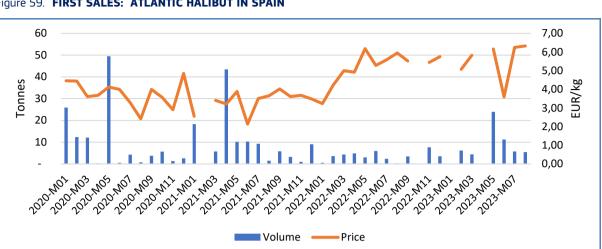


Figure 59. FIRST SALES: ATLANTIC HALIBUT IN SPAIN

Source: EUMOFA

5.4. Import - Export

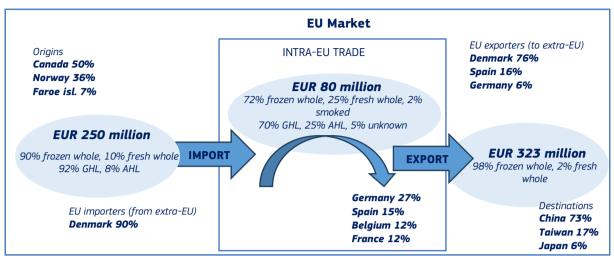
Halibut trade between the EU and third countries essentially consists of trade in frozen whole Greenland halibut. The EU is a net exporter of halibut products, with a trade surplus of 73 million EUR.

In 2022, extra-EU imports of halibut accounted for 250 million EUR and a volume of 43.966 tonnes. In value terms, 90% of these imports consisted of frozen whole fish (93% in volume), and 10% of fresh whole fish (7% in volume). Greenland halibut accounts for 92% of the value of extra-EU imports (95% of the volume) and Atlantic halibut 8% (5% of the volume). More than 90% of the extra-EU import value (92% in volume) consisted of Danish imports. Sweden and Poland accounted for 5% and 2% respectively of the value of these imports. The main supplier countries from outside the EU are Canada (50% of the value of halibut imported in the EU), Norway (36%) and the Faroe Islands (7%).

In 2022, extra-EU exports for both halibut species accounted for 323 million EUR and a volume of 54.080 tonnes. These exports almost entirely consist of frozen whole fish (98% in value, more than 99% in volume). Fresh whole fish account for only 1,7% of the extra-EU exports in value and 0,7% in volume. Extra-EU exports of halibut consisted of more than 99% (both in value and volume) Greenland halibut. Denmark accounted for 76% of the extra-EU export value with 245,7 million EUR. Spain, Germany and the Netherlands accounted for 16%, 6% and 1% respectively of this value. Halibut are exported from the EU mainly to the Asian market, with China representing 73%, Taiwan 17% and Japan 9% of the value of these exports.

Intra-EU exports of halibut species accounted for 80 million EUR in 2022, 62% of which consisted of frozen whole fish, 32% of fresh whole fish and almost 6% of smoked fish. Intra-EU exports reached a volume of 12.122 tonnes. Frozen whole halibut trade reached 72% of the total volume, fresh whole halibut 25% and smoked halibut 2%. 70% of the halibut trade value consisted of Greenland halibut (77% of the volume) and 25% of Atlantic halibut (17% of the volume). For 5% of the trade value, the halibut species was not identified (6% of the volume). In 2022, Denmark accounted for more than half of the intra-EU trade value (53% at 42,4 million EUR) and almost half of the intra-EU trade volume (49% with 5.940 tonnes). Other main countries for intra-EU halibut trade are Portugal and Sweden, with 12% and 11% respectively of the total value.

Figure 60. THE HALIBUT TRADE MARKET IN 2022, IN VALUE⁵³



Source: EUMOFA elaboration of Eurostat-COMEXT data

⁵³ GHL: Greenland halibut, AHL: Atlantic halibut, unkown: non-identified halibut (either Greenland or Atlantic halibut)



GLOBAL HIGHLIGHTS

6. Global highlights

EU / Fishery: On October 10th, 2023, the European Commission endorsed its proposal for fishing opportunities for 2024 promoting the sustainable management of fish stocks in the Mediterranean and the Black Seas and continued the political commitments made in the MedFish4Ever and Sofia Declarations. The fishing opportunities proposed, established under the Western Mediterranean multiannual management plan for demersal stocks, follow up on those from 2022 and 2023 which include fishing effort for trawlers and longliners as well as catch limits for deep-water shrimps. The aim of the measures introduced is to achieve maximum sustainable yield by 1st January 2025 at the latest to make fisheries in



these two sea basins sustainable, in line with the 2030 Strategy of the General Fisheries Commission for the Mediterranean⁵⁴.

EU / Fishery & aquaculture: On October 4th 2023 the European Commission implemented an amendment of the **Fishery** *de minimis* **Regulation** for the fishery and aquaculture sector. This regulation exempts small amounts of aid from State aid control as they are considered to have no impact on competition and trade in the Single Market. The revised regulation will enter into force 20 days after publication in the Official Journal⁵⁵.

EU / Kiribati / Fishery: A new fisheries protocol to the sustainable fisheries partnership agreement was signed on 2nd October 2023 by the European Union and the Republic of Kiribati. The protocol will grant the European Union fleet operating in the Pacific Ocean access to stocks of four tuna species – skipjack, yellowfin, bigeye and albacore – during the next five years. In the protocol the two parties agreed to implement an effort management regime (fishing days) instead of a regime based on catch management (reference tonnage). The decision follows Kiribati's domestic legislation and conforms with the Western and Central Pacific Fisheries Commission management of purse seine tropical tuna fisheries. The EU purse seiners will be allowed to fish up to 160 fishing days annually, with the opportunity for ship-owners to buy additional days based on scientific evidence⁵⁶.

Iceland / Fishery: In 2022 Iceland exported about 707.000 tonnes of marine products, an increase of 18.3% in value and 9% in volume compared to 2021. Of this value increase, 40% was due to the export of cod and cod products. United Kingdom was the largest export market for Icelandic fisheries products followed by France and Norway. Norway imported 167.000 tonnes, mostly pelagic species for fish meal production, while France imported 40 thousand tonnes, of which about 20.000 tonnes of cod products. In 2022 catch increased by 23% in volume and 20% in value. The total catch corresponded to 1,416 million tonnes and the increase observed was mostly due to an increase in pelagic catches⁵⁷.

EU / Fishery regulations: On October 17th 2023, new fisheries control rules for the electronic monitoring of fishing activities on European fishing vessels were approved by the European Parliament. The new control regulation requires all fishing vessels to have on board a tracking device enabling national authorities to locate and identify them at regular intervals. All EU boats will have to register and declare their catches in a digitalised form, to ensure full traceability. Recreational boats will also have to declare catches ⁵⁸

EU / Algae: Between 5th and 8th October 2023, the first EU Algae Awareness Summit was held in Paris. This first evet event in Europe was organised jointly by the European Commission, the French Government and the Global Seaweed Coalition (UN Global Compact) with the support of the Oceanographic Institute, Prince Albert I of Monaco Foundation. The event represented a promising milestone for the algae sector. The Summit played an important role in creating new opportunities and raising awareness among EU Member State administrations and the general public of the benefits that algae cultivation can bring to national and regional economies through new jobs, to people, and to the regeneration of marine ecosystems and mitigation of climate change⁵⁹.

https://ec.europa.eu/commission/presscorner/detail/en/IP_23_4861

⁵⁵ https://ec.europa.eu/commission/presscorner/detail/en/IP_23_4728

⁵⁶ https://oceans-and-fisheries.ec.europa.eu/news/eu-and-kiribati-agree-new-fisheries-protocol-their-sustainable-fisheries-partnership-agreement-2023-10-03_en

⁵⁷ https://www.statice.is/publications/news-archive/fisheries/fisheries-catch-and-exports-in-2022/

⁵⁸ https://www.europarl.europa.eu/news/en/press-room/20231013IPR07124/parliament-approves-new-eu-fisheries-control-

rules#: -: text=The %20 new %20 EU %20 law %20 will, transhipment %20 declarations %20 and %20 landing %20 declarations %20 and %20 law %

⁵⁹ https://maritime-forum.ec.europa.eu/contents/first-ever-eu-algae-awareness-summit_en

7. Macroeconomic Context

7.1. Marine fuel

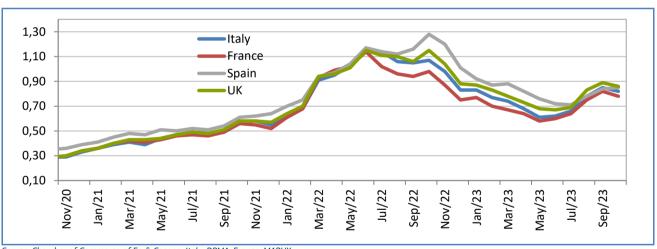
Average prices for Marine fuel in **October 2023** ranged between 0,78 and 0,86 EUR/litre in ports in **France, Italy, Spain** and the **UK**. Prices decreased by an average of about 2,6% compared with the previous month, and they also decreased by an average of 26,1% compared with the same month in 2022.

Table 29. AVERAGE PRICE OF MARINE DIESEL IN FRANCE, ITALY, SPAIN, AND THE UK (EUR/litre)

Member State	October 2023	Change from September 2023	Change from October 2022
France (ports of Lorient and Boulogne)	0,78	-5%	-20%
Italy (ports of Ancona and Livorno)	0,82	-4%	-23%
Spain (ports of A Coruña and Vigo)	0,85	1%	-34%
The UK (ports of Grimsby and Aberdeen)	0,86	-3%	-25%

Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.

Figure 61. AVERAGE PRICE OF MARINE DIESEL IN ITALY, FRANCE, SPAIN, AND THE UK (EUR/Litre)



Source: Chamber of Commerce of Forlì-Cesena, Italy; DPMA, France; MABUX.

7.2. Consumer prices

In September 2023, the EU annual inflation rate was at 4,9%, down from 5,9% in August 2023. A year earlier, the rate was 10,9%.

Inflation: lowest rates in September 2023, compared with August 2023.



Inflation: highest rates in September 2023, compared with August 2023.



Table 30. HARMONISED INDEX OF CONSUMER PRICES IN THE EU (2015 = 100)

	Sep 2021	Sep 2022	Aug 2023	Sep 2023	~	je from 2023	Change Sep 2	
Food and non- alcoholic beverages	111,17	128,29	140,32	140,30	•	0,01%	•	9,4%
Fish and seafood	114,99	129,44	139,49	138,84	+	0,5%	•	7,3%

Source: Eurostat.

7.3. Exchange rates

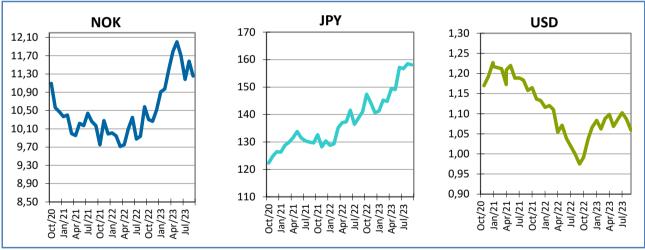
Table 31. EURO EXCHANGE RATES FOR SELECTED CURRENCIES

Currency	Sep 2021	Sep 2022	Aug 2023	Sep 2023
NOK	10,165	10,5838	11,5800	11,2535
JPY	129,67	138,72	158,49	158,10
USD	1,1579	1,0000	1,0868	1,0594

Source: European Central Bank.

In September 2023, the euro depreciated against the Norwegian krone (2,8%), the Japanese yen (0,2%), and the US dollar (2,5%), relative to the previous month. For the past six months, the euro has fluctuated around 11,5856 against the Norwegian krone. Compared with September 2022, the euro appreciated 6,3% against the Norwegian krone, 12,1% against the Japanese yen and 8,7% against the US dollar.

Figure 62. TREND OF EURO EXCHANGE RATES



Source: European Central Bank.

Manuscript completed in November 2023

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PDF ISSN: 2314-9671 KL-AK-23-010-EN-N ISBN: 978-92-76-98574-7 DOI: 10.2771/23132

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First sales: EUR-Lex, DG MARE – European Commission, EUR-Lex, ICES, FAO, Sealifebase.se, conxemar.com., Institute of Marine Research Bergen.

Consumption: Dutch Fish Marketing Board, Polish Institute of Agricultural and Food Economics - National Research Institute, University of Copenhagen, FAO, FishBase.

Case studies: European Parliament, FAO, ICES, Matis, Eurostat, MSC, Fishbase, NOAA Fisheries, European Commission, Marine Conservation Society, Nova Scotia Seafood, Royal Greenland.

Global highlights: European Commission, Oceans and Fisheries, Statics Iceland, The fishing daily, European Commission – Maritime forum.

Macroeconomic context: EUROSTAT, Chamber of Commerce of Forlì-Cesena, Italy: DPMA, France: ARVI, Spain: MABUX, European Central Bank.

The underlying first-sales data is in an annex available on the EUMOFA website. Analyses are made at aggregated (main commercial species) level and according to the EU Electronic recording and reporting system (ERS).

In the context of this Monthly Highlight, analyses are led in current prices and expressed in nominal values.

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