



Annual Report on fishing fleet capacity 2022 - Denmark

According to Regulation 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy, the report should include the annual assessment of fleet capacity and identify structural over-capacity for each segment. This assessment should be based on the balance between capacity and fishing opportunities.

The format of the Danish capacity report follows the common guidelines as presented in a communication from the Commission (COM (2014) 545 final) concerning the analysis of the balance between fishing capacity and fishing opportunities according to Article 22 of Regulation (EU) No 1380/2013.

Fleet, activity and landings data used in the report are from 2022, whereas data on economic performance are from 2021.

Biological indicators are calculated for the period 2012-2021 based on updated landings and ICES stock data.

The report has been prepared by the national authority, the Danish Fisheries Agency, with inputs from the Department of Food and Resource Economics, University of Copenhagen and the National Institute of Aquatic Resources, Technical University of Denmark.

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Section A

Section A describes the fishing fleet segments in relation to fisheries and development(s) during the previous year, including fisheries covered by national multiannual management or recovery plans.

Description of fleets

The statistics include all Danish fishing vessels during the year and not only by the 31st of December as fleet statistics usually do. There were 1,968 vessels registered in the Danish vessel register during 2022, cf. Table A.1.

Out of these 1,968 vessels, 126 of these were not registered at the end of 2022, but had been registered during the year. In total, 1,842 vessels were registered on 31st December 2022. Of these, 648 vessels were not active during the year, i.e., did not have any registered landings value. Furthermore, there were 436 commercial vessels, each having a total landings value above the threshold level of € 36,000 in 2022. The remaining 758 vessels were non-commercial vessels with landing values below € 36,000.

Table A.1. Number of registered Danish fishing vessels in 2022

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
VL0010m	PGP	81	640	565	91	1,377
	PMP	23	70	40	8	141
	Total	104	710	605	99	1,518
VL1012m	DTS ^{8), 9)}	11	6	6	2	25
	PGP	26	14	7	3	50
	PMP	9	12	4	2	27
	Total	46	32	17	7	102
VL1218m	DRB ⁵⁾	30	4	6	1	41
	DTS	91	6	8	5	110
	PGP	19	2	1	1	23
	PMP	22	2	3	3	30
	TBB	10	1			11
	TM	3				3
	Total	175	15	18	10	218
VL1824m	DTS	34		3	2	39
	PMP	10				10
	TBB	15		1		16

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
	Total	59		4	2	65
VL2440m	DTS ⁶⁾	30		1	2	33
	PMP	3				3
	Total	33		1	2	36
VL40XXm	DTS	12	1	2	4	19
	TM ⁷⁾	7		1	2	10
	Total	19	1	3	6	29
Total		436	758	648	126	1,968

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Includes vessels with a yearly catch value above € 36,000.

²⁾ Includes vessels with a yearly catch value below € 36,000 but above € 0.

³⁾ Includes vessels not having any catch value within the year.

⁴⁾ Includes vessels not being active by the end of the year.

⁵⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁶⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁷⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁸⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

⁹⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS.

The distribution of tonnage and engine power is shown in Annex 2. For both capacity measures, the commercial vessels make up the majority of these with 71% of total GT and 62% of total kW. These shares were 80% and 67% in 2021, thus a slight decrease.

Link with fisheries

The linkages between the different fleets and the kind of fisheries they conduct are shown in Table A.2 based on landing value and Table A.3 based on landing live weight. A detailed overview for the commercial and non-commercial vessels can be found in Annex 3.

The fleets below 40 metres are primarily dependent on demersal species, even though VL1218m DTS, PMPT and TM catch a certain amount of reduction species. The fleets above 40 metres are solely dependent on mackerel, herring, and reduction species. The VL40XXm DTS is also dependent on an entry-restricted fishery, but this is attributable to one vessel catching northern prawns in the waters around Greenland. The DRBs and TBBs are in entry-restricted fisheries for mussels and brown shrimps.

Table A.2. Distribution of landing value in 2022 on overall fisheries (%)

Length	Gear	Round fish	Flatfish	Norway lobster, prawns	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings value ⁸⁾	
									€ 1,000	%
VL0010m	PGP	10	24	18	5	43	0	0	10,091	2.5
	PMP	22	43	17	0	17	0	0	2,637	0.7
VL1012m	DTS ^{6), 7)}	21	29	46	1	2	0	0	1,905	0.5
	PGP	24	56	2	0	18	0	0	3,296	0.8
	PMP	4	37	40	0	9	9	0	1,570	0.4
VL1218m	DRB ³⁾	0	0	0	1	1	0	98	11,574	2.9
	DTS	11	19	52	2	2	15	0	35,283	8.8
	PGP	25	60	6	0	9	0	0	8,751	2.2
	PMP	11	18	56	0	5	10	0	5,122	1.3
	TBB	0	10	0	0	0	7	83	3,000	0.8
	TM	10	6	66	3	1	14	0	1,598	0.4
VL1824m	DTS	25	25	37	2	2	10	0	34,522	8.6
	PMP	32	47	13	0	2	5	0	13,656	3.4
	TBB	0	10	0	0	0	0	89	5,809	1.5
VL2440m	DTS ⁴⁾	44	15	28	2	1	10	0	58,087	14.5
	PMP	73	17	4	0	6	0	0	7,962	2.0
VL40XXm	DTS	0	0	1	31	0	40	28	88,355	22.1
	TM ⁵⁾	0	0	0	66	0	33	0	106,627	26.7

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Species such as sand eel, blue whiting, sprat, horse mackerel and Norway pout.

²⁾ Species that can only be caught with an authorization, i.e., mussels, oysters, brown shrimps, and northern prawns in the waters around Greenland.

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

⁷⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS.

⁸⁾ [Based on the average Euro exchange rate for 2022 being 7.4396DKK / €.](#)

Table A.3. Distribution of landings live weight in 2022 on overall fisheries (%)

Length	Gear	Round-fish	Flatfish	Norway lobster, prawns	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings live weight	
									Tonnes	%
VL0010m	PGP	12	24	5	28	31	0	0	2,238	0.5
	PMP	26	58	6	0	8	0	0	535	0.1

Length	Gear	Round-fish	Flatfish	Norway lobster, prawns	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings live weight	
									Tonnes	%
VL1012m	DTS ^{6), 7)}	32	41	19	6	1	2	0	404	0.1
	PGP	29	63	1	0	7	0	0	657	0.1
	PMP	2	22	7	3	2	63	0	870	0.2
VL1218m	DRB ³⁾	0	0	0	1	1	0	98	36,016	7.9
	DTS	6	9	8	5	1	72	0	25,810	5.6
	PGP	33	60	3	0	5	0	0	1,663	0.4
	PMP	8	12	10	1	2	67	0	3,027	0.7
	TBB	0	5	0	2	0	64	29	1,281	0.3
	TM ⁴⁾	7	2	10	7	0	74	0	1,169	0.3
VL1824m	DTS	16	11	7	5	3	58	0	20,381	4.4
	PMP	22	24	5	1	1	47	0	5,279	1.2
	TBB	0	15	0	0	0	0	84	919	0.2
VL2440m	DTS ⁴⁾	25	7	8	7	0	54	0	33,271	7.3
	PMP	82	12	2	0	3	1	0	2,126	0.5
VL40XXm	DTS	1	0	0	23	0	73	4	142,587	31.1
	TM ⁵⁾	0	0	0	43	0	56	0	180,237	39.3

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Species such as sand eel, blue whiting, sprat, horse mackerel and Norway pout.

²⁾ Species that can only be caught with an authorization, i.e., mussels, oysters, brown shrimps, and northern prawns in the waters around Greenland.

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS

⁷⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS.

Developments in fleets

The structure of the Danish fishing fleet has changed considerably since 2003, where the first ITQ regulation was implemented in the herring fishery. Since then, ITQs has gradually been introduced in other pelagic fisheries, and from 2007 demersal fisheries were also managed with vessel quota shares (VQS). These management changes are the major reason for the following reductions in the fishing capacity of the Danish fishing fleet, as displayed in Table A.4.

The number of registered vessels has been reduced with 36% from 2008 to 2022. The capacity of the Danish fishing fleet decreased 5% in GT and 20% in kW in the same period.

Table A.4. Development in the capacity of registered Danish fishing vessels¹⁾

Length	Gear	2008			2012			2016			2022		
		No.	GT	kW	No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	DTS	15	77	914	17	104	1,191	13	85	958			
	PGP	1,999	4,264	47,234	1,926	4,008	47,528	1,585	3,465	43,333	1,286	2,775	39,063
	PMP	134	605	6,742	193	783	8,768	179	711	8,502	133	586	7,338
	Total	2,148	4,946	54,890	2,136	4,895	57,487	1,777	4,261	52,793	1,419	3,361	46,401
VL1012m	DRB	31	422	3,337	26	371	2,805	13	201	1,293			
	DTS ^{5),6)}	15	180	1,931	11	154	1,419	13	180	1,785	23	287	3,077
	PGP	75	798	6,591	68	760	6,550	56	635	5,420	47	532	5,118
	PMP	31	361	3,126	39	470	4,134	32	399	3,403	25	309	2,706
	Total	152	1,761	14,985	144	1,754	14,908	114	1,415	11,901	95	1,129	10,901
VL1218m	DRB ²⁾	35	1,095	5,228	31	1,047	4,492	31	1,168	4,576	40	1,698	5,572
	DTS	187	6,060	33,606	136	4,590	24,764	114	4,139	21,323	105	4,476	21,883
	PGP	72	2,073	10,644	42	1,378	6,464	27	872	4,138	22	819	3,716
	PMP	52	1,209	8,033	52	1,440	8,607	39	1,170	6,566	27	890	5,073
	TBB	17	712	3,032	11	548	2,126	11	548	2,126	11	529	2,211
	TM ³⁾				16	743	2,960	10	606	1,875	3	209	955
	Total	363	11,149	60,543	288	9,745	49,413	232	8,503	40,604	208	8,621	39,410
VL1824m	DTS	85	7,256	26,348	64	6,419	19,120	43	4,617	12,707	37	4,484	13,105
	PMP	14	1,261	3,597	13	1,394	4,068	11	1,399	3,964	10	1,529	4,792
	TBB	13	827	2,393	16	1,094	2,877	17	1,137	3,087	16	1,114	2,852
	Total	112	9,345	32,338	93	8,907	26,065	71	7,153	19,758	63	7,127	20,749
VL2440m	DTS ³⁾	67	16,744	43,412	37	10,360	22,155	33	10,137	21,358	31	10,223	24,667
	PMP	7	1,671	3,314	6	1,382	2,575	4	1,186	2,537	3	1,135	1,789
	Total	74	18,414	46,726	43	11,742	24,730	37	11,323	23,895	34	11,358	26,456
VL40XXm	DTS	25	18,732	35,817	13	9,537	17,783	10	7,957	15,797	15	14,512	33,685
	TM ⁴⁾	6	8,700	19,684	16	19,311	41,193	20	27,230	46,696	8	23,421	33,016
	Total	31	27,432	55,501	29	28,848	58,976	30	35,187	62,493	23	37,933	66,701
Total		2,880	73,046	264,983	2,733	65,891	231,579	2,261	67,843	211,444	1,842	69,528	210,618

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Covers vessels in the register within a year but does not include virtual capacity.

²⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB in 2022.

³⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS in 2022.

⁴⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM in 2022.

⁵⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS in 2022.

⁶⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

Section B

Statement of national effort reduction schemes

No longer in effect since 2018¹.

Section C

Section C contains information on the compliance with the entry/exit scheme.

Statement of compliance with entry / exit scheme

The present fleet capacity is below the entry-exit ceiling as laid down in annex II of Regulation 1380/2013. The margin in terms of tonnage is 19,405 GT and 103,504 kW. In percentage, the capacity is approximately 21.87% in GT below the ceiling and 33.04% in kW below the ceiling.

Denmark is following the entry-exit levels for tonnage as well as for engine power.

Table C1. Management of capacity according to Regulation 1380/2013

National register	GT	kW
Fleet capacity according to annex II	88,762	313,333
Capacity of the fleet on 31 st . of December 2022	69,356	209,829
Capacity ceiling minus actual capacity	19,405	103,504

Source: The Danish Fisheries Agency Vessel Register per 31st of December 2022

Note 1: No exits were financed with public aid in 2022

Section D

Section D is a summary of the weaknesses and strengths of the fleet management system together with a plan for improvements and information on the general level of compliance with fleet policy instruments.

¹ See the Danish Annual Report on fishing fleet capacity for 2018, https://fiskeristatistik.fiskeristyrelsen.dk/stat/flaaderapport/DK_Fleetreport_2018.pdf

Fisheries management system

The fisheries management in Denmark is largely market-based on transferable fishing rights and quotas. The Danish fishing quotas are divided into ITQ (Individual Transferable Quotas) and VQS (Vessel Quota Shares). ITQ include pelagic species, as well as reduction species, i.e. species for industrial purposes (e.g. fishmeal, fish oil, and animal feed). VQS includes demersal species (e.g. cod, sole and Norway lobster).

Denmark has national legislation, as well as control measures in place to avoid excessive concentration of the fishing quotas. This seeks to ensure a diversification of the Danish fishing quotas, in order to promote a diverse, local and coastal fisheries sector.

Fleet management system

The fleet management system in Denmark is based on an entry-exit regime. All fishing vessels have to be registered in the vessel register of The Danish Maritime Authority as well as the vessel register of the Danish Fisheries Agency.

A vessel may be allowed to enter the fishing fleet only if one or more vessels have been removed from the aforementioned registers. It is a precondition that tonnage and engine power (measured in kW) of the vessel used for fishing does not exceed the tonnage and engine power from that or those vessels, which were or are to be cancelled.

It is not allowed to increase tonnage, size or engine power of a vessel without the permission of the Danish Fisheries Agency. The Danish Fisheries Agency can only allow the increase in tonnage or engine power of a vessel, if the owner of the vessel also withdraws the same quantity in the form of virtual capacity or as physical capacity from the fleet.

Virtual capacity is defined as tonnage and engine power, which used to be connected to vessels now cancelled in the aforementioned registers and as such, virtual capacity is held by persons as a legal right and not placed in physical vessels. It is allowed to sell virtual capacity. There is no virtual capacity from vessels which have received any subsidy regarding final exit of the fleet since this would defeat the purpose of for instance a scrapping scheme.

The concept of virtual capacity means that the entitlement to capacity can be kept even when a vessel is scrapped (without economic aid) or sold outside the EU. If the virtual capacity is not used, within 5 years after a vessel is scrapped or sold outside the EU, the capacity accrues to the Danish Fisheries Agency. This works as an incentive to keep unnecessary capacity out of the physical fleet. On the other hand, the possibility to increase the fleet is limited by the market-based system of fishing rights, to the effect that holders of virtual capacity will only enter new capacity into the fleet, if they have the fishing rights to keep the vessel active.

The vessel owners have to forward documentation concerning the capacity involved in replacements and modernisations. This documentation is verified in the Danish Fisheries Agency's database for fleet management.

The regulation of capacity ensures that capacity can never increase above the level at the starting point.

The administrative system as such, concerning the administration of the fisheries management and the fleet management is considered to work satisfactorily.

Plan for improvement in the fleet management system

The immediate challenges facing Danish fisheries as a result of Brexit are addressed through the Brexit Adjustment Reserve, including structural adjustments through support for the scrapping of vessels in order to mitigate the negative effects from Brexit. Likewise, the situation in the Baltic Sea is also a concern that has led to the decision to implement a structural adjustment scheme in the Baltic Sea through the scrapping of vessels in order to reduce capacity in this particular fleet.

Both scrapping schemes were initiated in 2022 and the concerned capacity is expected to be reduced at the latest by the end of 2023. Commitments to support for scrapping have been given to 30 vessels, through the Brexit Adjustment Reserve. The effect of the schemes is expected to be observed by the end of 2023.

Action plan for the Baltic Sea

The establishment of a separate capacity ceiling for the Eastern Baltic is under way, in accordance with the EMFF scrapping scheme. The initial steps for the permanent cessation scheme have been undertaken during 2022. Commitments to supports for scrapping have been given to 33 vessels. It is expected that the scrapping will reduce the capacity by 639,7 GT and 3986 kW. The support will however only be paid out in 2023, and consequently the capacity will be reduced during 2023. This will thus be included and reported in future fleet reports, for the first time in the fleet report for 2023.

Information on general level of compliance with fleet policy instruments

Compliance of reference level and the entry-exit level is ensured by fleet management. Since permits for new capacity are only issued if there is a previous withdrawal of capacity, total physical capacity will never be higher than the ceilings.

Unused capacity, including safety capacity and the capacity premium for decommissioning, is not re-allocated. In combination with the market-based management of a substantial part of the

fishing opportunities the fleet management will tend to ensure a long-term balance between fishing capacity and fishing opportunities.

Compliance is furthermore ensured by the ongoing fisheries control efforts, physically by control vessels and control units in the fishing port, as well as administrative checks.

Denmark has taken a number of steps in order to strengthen the monitoring of engine power.

Most importantly, Denmark has from 2020 and onwards implemented a revised national sampling plan on engine power verifications, in accordance with article 41 of Regulation 1224/2009 of the Council establishing a Union control system. This sampling plan establishes the framework for engine power verifications, in a manner that is more operational and systematic than before. As part of implementing the sampling plan, the Danish Fisheries Agency has carried out a tender for the performance of engine power verification in order to gain the necessary expertise to complete physical verifications on board fishing vessels.

Furthermore, the Danish fisheries Agency has carried out the following initiatives in order to further strengthen the monitoring of engine power:

- A special operation has been targeting the fjord, Limfjorden, which in accordance with Danish national legislation is the subject to limitations of engine power. In total, 15 physical engine power verifications have been carried out in 2021 and 2022 as part of this special campaign, which is not part of the sampling plan, but carried out as a separate campaign.
- Additionally, 17 physical engine power verifications have been carried out during 2020 to 2022, as part of the sampling plan, according to the guidelines mentioned in the Commission Implementing Regulation No. 404/2011, Article 62, subsection 1.²
- An intergovernmental working group has been established in order to lay down the foundation for a strengthened Danish certification system, that is more precise and thorough than before.
- A new procedure for initiation of administrative controls of engine power and follow-up with physical verification has been introduced together with the Danish Maritime Authority.
- A study on the possibilities for continuous monitoring of engine power has been commissioned and received. The conclusions of the study are being analysed, and further actions on this basis are being considered.

The table below, shows information on infringements and inspections concerning the main management measures in 2022.

² Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy

Table D1. Number of infringements and inspections in 2022

Number of infringement cases	Administrative controls	Inspections in port	Inspections at sea	Total
1.1. Registration – license, authorisation etc.	5	1	1	7
1.2.1. Fishing capacity		2	1	3
1.2.2 Illegal marking and identification of fishing vessels			1	1
1.3. Quotas and quantitative rationing	6			6
1.4. Limitations relating to gear and catch method	1	6	22	29
1.5. Area restrictions	9	3	2	14
2. Gear and fishing method limitations			3	3
2.1 Refusal of control		1	1	2
3.1 Other information obligations	1			
3.2 Concealing, tampering or disposal of evidence (sales notes and logbook, section 5 and 11)				
3.3 Manipulation of the system for satellite-tracking of Vessels	4	1	2	7
3.5 Missing or incorrect operation and maintenance of VMS		2		2
3.6 Other infringements of rules pertaining VMS	2	3	4	9
3.8 Infringement of applicable control rules (third country vessel)		1		1
4. Illegal catch composition, undersized, Landing obligation and other	3	11	15	29
5.1 Logbook Order and other matters	322	21	7	350
5.2. Control Order and other matters	21	3		24
5.3. Notifications	64	17	1	82
6.1. Infringements at landing and marketing of fish	2	4		6
6.2 Lack of authorisation for first sale		1		1
A.9.1 Violation of Danish fishing zone limits (12, 6, 4 and 3 nautical miles)			2	2
9.2 Other conditions for the master and the owner of third country vessel		1		1
9.5 Conditions regarding IUU fishing		3		3
9.6 Not complying with the rules laid down by NEAFC	1			1
10. Other criminal offenses	3	5	3	11
Total	444	86	65	595
Number of inspections	711	1.868	403	2.982

Source: Data compiled from the DK national register of infringements, per 31st December 2021.

Section E

Section E contains information on changes of the administrative procedures relevant to the management of the fleet.

Changes of the administrative procedures relevant to fleet management

In 2018, a number of changes were made regarding the national fleet management. A new requirement for vessels with ITQ's was introduced. This requires these vessels to fish at least 25 % of the value of their quotas to avoid so-called "slipper skippers". "Slipper skippers" are fishermen who do not land their fish, but instead lease their quotas to other fishermen. There were also introduced limits on how much quota a fishing company may own, supplementing the already existing limits for vessels and individual fishermen. For a number of ITQ quotas without limits on ownership, such limits were introduced, and for some quotas the limits were reduced. This means that all ITQ quotas are now covered by limits on ownership. Also, the restrictions on how much demersal quota a pelagic fisherman can own were tightened. Finally, a part of the herring quota was reserved for a coastal fishery with small vessels in the North Sea and Skagerrak/Kattegat.

In 2019, a number of minor changes were made to the administration of capacity. None of them had a large impact on the fishermen, but they strengthened the legal basis of the administration, and clarified a number of rules that had earlier had an uncertain legal basis. As an example, it can be mentioned that the Fisheries Agency's practice of allowing a permit for vessel substitution to go unused for a maximum of 9 months was codified in the national order, thus strengthening the legal basis.

Furthermore, Denmark has taken a number of steps in order to strengthen the control of engine power, as described above in section D.

In 2022 the Ministry simplified the rules regarding the trading of ITQ's and VQS's. Before the revision, a vessel owner could sell all VQS shares at once, or a maximum of 25 % of them to another vessel. After the revision, VQS can be sold in whatever quantity the vessel owner finds suitable. This has been the case for ITQ's the whole time.

Section F

Section F is an overall estimation and discussion of balance indicators.

Estimation and discussion of balance indicators

The technical, biological, and economic indicators are calculated in accordance with the guidelines issued by the Commission, considering that data is available at fleet level. The results are presented for 20 fleets, according to the Data Collection Regulation. The fleets VL1218m TBB and VL1824 TBB that are fishing for brown shrimp in the Wadden Sea, and the VL1012m DRB and VL1218m DRB that are fishing for mussels are included, but they are not subject to TACs and quotas set at the EU level. These four fleets are instead subject to specific entry restrictions. It should also be noted that the DTS gear type from 2008 to 2011 also included TM, while separate specification of TMs is included from 2012. Comparison of fleet performance between years should therefore be done with caution.

i) **Technical indicator(s)** The two technical indicators recommended in the European Commission guidelines: 1) The inactive fleet indicator and 2) The vessel utilisation indicator, are presented in the following.

The Inactive fleet indicator

The number (No.), gross tonnage (GT) and engine power (kW) of inactive vessels, total vessels and share of inactive vessels within each length group covering 2022 are presented in Table F.1. By taking the shares of these indicators between the inactive vessels and the total vessels, the inactive fleet indicators are calculated. The length group VL0010m has a relative high percentage of inactivity, regardless of whether it is measured in number of vessels (43%), gross tonnage (30%) or engine power (29%). According to the EC guidelines, an inactivity level of more than 20% indicates technical inefficiency. If this measure is used, the VL0010m is technically inefficient, however it has been reduced over the years, but not from 2021 to 2022, as the inactivity indicators in 2021 were 42% for vessels, 28% for gross tonnage, and 29% for engine power. The other length groups have inactivity levels below 20%, regardless of the measure. However, all have increased from 2021 to 2022, a trend that has continued since 2020.

Table F.1. Ratios between inactive and total number of vessels in 2022

Length	Inactive ¹⁾			Total ²⁾			Share of inactivity (%)		
	No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	605	1,007	13,413	1,419	3,361	46,401	43	30	29
VL1012m ^{6),7)}	17	168	1,869	95	1,129	10,901	18	15	17
VL1218m ³⁾	18	447	2,538	208	8,621	39,410	9	5	6
VL1824m	4	265	871	63	7,127	20,749	6	4	4
VL2440m ⁴⁾	1	399	890	34	11,358	26,456	3	4	3

VL40XXm ⁵⁾	3	6,735	9,405	23	37,933	66,701	13	18	14
Total	648	9,021	28,986	1,842	69,528	210,618	35	13	14

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Includes vessels not having any catch value in 2022, but in the Vessel Register per 31st December 2022.

²⁾ Includes vessels in the Vessel Register per 31st December 2022.

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

⁷⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

The vessel utilisation indicator

The vessel utilisation indicator is calculated using two different reference point: (i) maximum days at sea observed for a vessel within a given fleet segment, and (ii) 220 days at sea for each fleet segment. For each length group and gear type, the technical vessel utilisation indicator is presented in Table F.2A and F.2B respectively.

By taking the ratio between the average and these two measures for days at sea, two measures of technical capacity utilisation are calculated. The maximum number of days at sea within a fleet segment represents the most active vessel within the fleet segment each year. Thus, the ratio between the average number and the maximum number of observed days at sea within the fleet segment represents a measure of the vessel utilisation, relative to other vessels within the segment.

On the other hand, the reference point of 220 sea days represents the average of the maximum number of days at sea for all fleet segments. Thus, the ratio between the average number of days at sea for a fleet segment and 220 days at sea represents a measure of the vessel utilisation relative to the whole fleet.

Table F.2A. Ratios between average days at sea and maximum days at sea^{1) 2)}

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VL0010m	DTS	0.30	0.54	0.46	0.29	0.29	0.32	0.31	0.35	0.38	0.58	0.47	
	PGP	0.19	0.15	0.16	0.14	0.13	0.11	0.12	0.12	0.12	0.12	0.09	0.08
	PMP		0.25	0.23	0.21	0.23	0.25	0.21	0.27	0.23	0.20	0.21	0.20
VL1012m	DRB	0.65	0.75	0.53	0.59	0.57	0.65	0.50	0.37	0.64			
	DTS ^{6),7)}		0.81	0.73	0.58	0.55	0.62	0.52	0.62	0.59	0.56	0.53	0.46
	PGP	0.42	0.43	0.47	0.44	0.45	0.43	0.39	0.39	0.36	0.35	0.41	0.36
	PMP	0.56	0.48	0.56	0.42	0.43	0.49	0.49	0.42	0.50	0.39	0.44	0.43
VL1218m	DRB ³⁾	0.52	0.49	0.39	0.39	0.44	0.40	0.45	0.38	0.40	0.34	0.35	0.33
	DTS	0.45	0.47	0.47	0.49	0.43	0.45	0.45	0.46	0.48	0.50	0.47	0.45
	PGP	0.45	0.51	0.48	0.45	0.49	0.44	0.48	0.53	0.48	0.59	0.53	0.49
	PMP	0.52	0.37	0.35	0.43	0.45	0.49	0.40	0.41	0.48	0.58	0.56	0.54

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	TBB	0.66	0.76	0.78	0.79	0.73	0.77	0.80	0.84	0.80	0.76	0.64	0.61
	TM		0.53	0.49	0.70	0.58	0.63	0.79	0.87	0.87	0.81	0.83	0.90
VL1824m	DTS	0.47	0.48	0.47	0.55	0.54	0.52	0.56	0.57	0.61	0.56	0.56	0.57
	PMP	0.62	0.66	0.77	0.74	0.70	0.64	0.72	0.66	0.87	0.71	0.72	0.71
	TBB	0.66	0.76	0.72	0.78	0.72	0.81	0.80	0.80	0.61	0.74	0.69	0.88
VL2440m	DTS ⁴⁾	0.62	0.67	0.69	0.72	0.78	0.75	0.72	0.74	0.76	0.69	0.71	0.74
	PMP				0.72	0.63	0.87	0.80	0.79	0.81	0.79	0.84	0.86
VL40XXm	DTS	0.64	0.63	0.74	0.76	0.92	0.47	0.56	0.51	0.48	0.64	0.59	0.42
	TM ⁵⁾		0.67	0.66	0.65	0.68	0.57	0.62	0.68	0.74	0.84	0.66	0.56

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Covers only active vessels

²⁾ See Annex 4 for the figures used for the calculations

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m TM.

⁷⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

Table F.2B. Ratios between average days at sea and 220 days at sea^{1) 2)}

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VL0010m	DTS	0.19	0.26	0.27	0.20	0.25	0.32	0.29	0.32	0.34	0.46	0.39	
	PGP	0.18	0.16	0.16	0.14	0.14	0.13	0.12	0.13	0.13	0.12	0.12	0.10
	PMP		0.22	0.22	0.19	0.18	0.18	0.18	0.19	0.17	0.16	0.16	0.15
VL1012m	DRB	0.31	0.35	0.25	0.28	0.37	0.31	0.22	0.23	0.21			
	DTS ^{6),7)}		0.54	0.53	0.43	0.40	0.45	0.44	0.50	0.44	0.43	0.38	0.35
	PGP	0.53	0.54	0.52	0.50	0.53	0.49	0.43	0.47	0.43	0.37	0.43	0.35
	PMP	0.42	0.35	0.41	0.34	0.41	0.48	0.42	0.42	0.47	0.36	0.38	0.34
VL1218m	DRB ³⁾	0.35	0.43	0.37	0.37	0.35	0.30	0.33	0.27	0.35	0.29	0.31	0.30
	DTS	0.57	0.60	0.59	0.62	0.58	0.60	0.57	0.60	0.61	0.56	0.63	0.58
	PGP	0.55	0.61	0.57	0.57	0.59	0.56	0.57	0.62	0.62	0.67	0.64	0.59
	PMP	0.46	0.49	0.51	0.56	0.51	0.54	0.50	0.52	0.53	0.53	0.59	0.53
	TBB	0.49	0.72	0.69	0.79	0.62	0.83	0.77	0.79	0.49	0.53	0.47	0.52
	TM		0.43	0.43	0.56	0.52	0.56	0.68	0.74	0.71	0.66	0.66	0.66
VL1824m	DTS	0.72	0.75	0.72	0.86	0.84	0.81	0.86	0.89	0.89	0.85	0.90	0.89
	PMP	0.71	0.86	0.96	0.96	0.95	0.87	1.00	0.99	1.08	0.97	1.10	1.01
	TBB	0.53	0.75	0.70	0.79	0.68	0.87	0.83	0.83	0.54	0.59	0.63	0.67
VL2440m	DTS ⁴⁾	1.00	1.04	1.05	1.04	1.15	1.08	1.13	1.16	1.20	1.14	1.14	1.08
	PMP				0.93	1.00	1.31	1.11	1.32	1.35	1.22	1.30	1.20
VL40XXm	DTS	0.78	0.55	0.74	0.67	0.83	0.79	0.73	0.79	0.78	0.88	0.84	0.64
	TM ⁵⁾		0.67	0.91	0.77	0.87	0.69	0.85	0.87	0.84	1.02	0.76	0.68

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Covers only active vessels

²⁾ See Annex 4 for the figures used for the calculations

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m TM.

⁷⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

From Table F.2A and F.2B, it is observed, that vessel utilization indicators are generally increasing with the vessel length, but also fluctuates over time. A major part of the vessels in the fleets above 24 meters has been managed through Individual Transferable Quotas (ITQ) since 2003, and a relatively high ratio, both concerning maximum days at sea and 220 days at sea is observed for these vessels. All other fleets (except DRBs and TBBs) have since 2007 been managed with transferable Vessel Quota Shares (VQS), and increasing ratios have generally been observed for vessels above 18 meters, despite many fluctuations occurring for a range of reasons. Generally, it is expected that fishers, like in other businesses, have a behaviour towards optimizing their economic performance, thus trying to utilise their capacity in the most optimal way. However, quota levels, regulations, weather, changing fuel prices, and various other costs will within a specific year influence the activity level of fishers.

Furthermore, making strong conclusions about the presence of technical overcapacity are difficult, because each fleet is not very homogeneous, thereby having a large variation in the observed days at sea. A value below 0.7 is in the Commission guidelines considered to indicate the presence of technical overcapacity, and if this is applied to the above figures, technical overcapacity is present in 13 / 14 (max days at sea / 220 days at sea used as reference) segments in 2022, 15 / 13 segments in 2021, 13 / 13 segments in 2020, 14 / 13 segments in 2019 and 15 / 11 segments in 2018. In 2022. Five fleet segments do not indicate technical overcapacity with respect to maximum days at sea within the segment, namely VL1218m TM, VL1824m PMP and TBB, and VL2440m DTS and PMP. Moreover, four segments do not indicate technical overcapacity with respect to the overall measure of maximum days at sea equal to 220 days, namely VL1824m DTS and PMP, and VL2440m DTS and PMP. Low technical utilisation rates are generally observed for the smaller fleets below 12 metres, which especially for VL0010m PGP and VL0010m PMP is due to the presence of a relatively large number of non-commercial vessels in these groups. A more appropriate way of estimating the technical efficiency of these segments will be to calculate the technical indicator based on only commercial vessels, which also have the largest impact on the stocks fished on. Especially for the fleets below 12 metres, this will lead to an improvement of the vessel utilisation indicator.

ii) Biological indicators

Sustainable Harvest Indicator (SHI)

The SHI values for the individual segments in 2021 are mainly determined by the proportion of landings value from the cod stock in the Western Baltic (overfished in relation to F_{MSY}), the flatfish (mainly North Sea plaice and SD 20-24 Sole, both fished below F_{MSY}), and Norway lobster in Kattegat and Skagerrak fished considerably below F_{MSY} . For the pelagic stocks, the main contributions are from North Sea herring (F below F_{MSY}), sprat in the Baltic and blue whiting and the overfished Atlantic mackerel. The short-lived species like North Sea sprat, Norway pout and the sandeel stocks, where the main share is fished by Denmark have no defined F_{MSY} , so SHI cannot be calculated for a large proportion of the Danish industrial landings. For these stocks, the scientific advice is instead given in relation to $B_{escapment}$, to ensure a sustainable exploitation of these short-lived stocks.

Table F.3. Sustainable Harvest Indicator (SHI)

Length	Gear	2013	2014	2015	2016	2017	2018	2019	2020	2021	Trend (5%) 2017/2021	Status 2021
VL0010m	DTS	0.94	0.84	0.93	0.99	0.82	0.71	0.71	0.62	0.75	-	-
	PGP	1.99	2.02	1.96	1.81	1.76	1.67	1.66	1.29	1.09	-	-
	PMP	1.63	1.61	1.65	1.59	1.44	1.56	1.45	1.29	1.00	decreasing	out of balance
VL1012m	DRB	1.29	1.34	1.36	1.45	-	0.71	0.61	1.31	0.64	-	-
	DTS	1.84	1.87	1.70	1.59	1.45	1.5	0.95	1.09	0.70	decreasing	in balance
	PGP	2.48	2.21	2.42	2.39	2.38	2.29	2.19	1.89	1.43	decreasing	out of balance
	PMP	1.48	1.36	1.41	1.43	1.18	1.46	1.48	1.16	0.98	-	-
VL1218m	DRB	-	-	-	-	0.59	0.71	-	-	-	-	-
	DTS	1.17	0.98	1.00	0.85	0.72	0.76	0.94	1.12	0.75	no trend	in balance
	PGP	1.30	1.24	1.39	1.39	1.51	1.47	1.19	1.03	0.86	decreasing	in balance
	PMP	1.46	1.50	1.15	0.89	0.79	1.00	1.13	1.32	0.76	no trend	in balance
	TBB	0.78	-	0.80	0.90	0.90	-	0.84	0.77	0.71	-	-
	TM	1.26	1.07	1.10	1.14	1.33	1.18	1.35	1.24	-	-	-
VL1824m	DTS	1.23	1.13	1.13	1.03	1.01	0.95	0.95	0.93	0.81	no trend	in balance
	PMP	1.06	1.07	1.10	1.19	1.29	1.35	1.13	0.96	0.81	decreasing	in balance
	TBB	0.79	0.67	0.81	0.93	0.87	0.91	0.77	0.75	0.66	-	-
VL2440m	DTS	1.07	1.12	1.11	1.12	1.17	1.24	1.22	1.05	0.87	decreasing	in balance
VL40XXm	DTS	0.80	0.70	0.74	0.79	0.93	1.00	0.87	1.07	1.01	no trend	out of balance
	TM	0.92	0.87	0.81	0.78	0.94	0.91	1.01	1.04	1.10	no trend	out of balance

Trend and status for 2021 are not shown for fleets where less than 40 % of catch value in 2021 are from species used in the SHI calculation.

The SHI values (Table F.3) show that most fleets have a fishery “in balance” (SHI less than 1.0) in 2021, and a decreasing or no trend for the years 2017-2021. The year before, in 2020, most of the fleets were “out of balance” and some had an increasing trend in SHI. The large improvement in status is mainly due to a much lower catch in 2021 of Western Baltic cod with a very high F/F_{MSY} , and a steep decrease in F to below F_{MSY} for the economical important North Sea cod stock.

Fleets using the gears TBB (targeting brown shrimp) and DRB (mainly mussels) have very low catches of species with assessed F relative to F_{MSY} and their status for 2021 is not provided.

The newly calculated SHI values 2013-2020 in Table F.3 are practically the same as the SHI values provided by STECF-22-15.

The SAR indicator

The stock-at-risk (SAR) indicator is a measure of how many stocks, that are being affected by the activities of the fleet segment, are biologically vulnerable.

Table F.4 for the Danish fleet segments in 2021, is mainly determined by catches of Western Baltic cod and a sandeel stock (SA 2r). Twelve out of nineteen fleets had no stocks at risk (“in balance”) in 2021. The sum of SAR, all fleets combined, has more than halved from 2020 to 2021, mainly due to a better stock status for the sandeel stock SA 1r.

The presented SAR values are considerably lower than the 2009-2020 values presented by STECF-22-15. The main reason is that sandeel landings data are here provided by sandeel management areas, in accordance with the EU sandeel management approach. STECF, on the other hand, uses a fixed stock distribution key for all sandeels caught in the North Sea, which is considered incorrect, as the seven sandeel management areas in the North Sea are managed by area specific quotas. Another difference is that the SAR criteria of minimum 10% landings from a stock is calculated here on the basis of fleet landings and the total international landings reported to ICES. STECF instead seems to use the sum of international fleet landings reported to STECF, which may be lower than the ICES landings. This means that fleet landings of some stocks, e.g. Atlantic eel, do not exceed 10% of ICES landings for any Danish fleet segment.

Table F.4. Stocks-at-risk indicator (SAR)

Length	Gear	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Status 2021
VL0010m	DTS	1	1	1	1	0	0	0	1	1	1	out of balance
	PGP	0	2	0	0	1	1	1	1	0	1	out of balance
	PMP	0	1	0	0	1	1	1	1	0	0	in balance
VL1012m	DRB	0	0	0	0	0	0	0	0	0	0	in balance

	DTS	0	1	0	0	1	1	1	0	1	0	in balance
	PGP	0	1	0	0	1	2	1	1	1	1	out of balance
	PMP	0	2	0	0	0	1	2	0	1	0	in balance
VL1218m	DRB	0	0	0	0	0	0	0	0	0	0	in balance
	DTS	0	4	1	1	2	3	3	2	2	2	out of balance
	PGP	0	0	0	0	0	0	0	0	0	0	in balance
	PMP	0	1	1	0	0	1	2	2	2	1	out of balance
	TBB	0	1	0	1	0	0	0	2	1	0	in balance
	TM	0	1	1	1	2	2	2	1	1	0	in balance
VL1824m	DTS	1	2	1	1	2	3	3	1	2	1	out of balance
	PMP	0	0	0	0	0	1	2	1	2	0	in balance
	TBB	0	2	0	1	0	0	0	0	1	0	in balance
VL2440m	DTS	2	3	3	2	1	2	2	2	4	1	out of balance
VL40XXm	DTS	0	2	3	2	1	1	0	2	2	0	in balance
	TM	0	2	3	2	2	0	0	3	2	0	in balance

iii) Economic indicators

The two indicators recommended in the EC guidelines: 1) Return on investment (ROI) per fleet and 2) Current revenue in proportion to break-even revenue per fleet, are presented in the following.

Return on investment (ROI)

Return on investment (ROI) is defined as net profit, which is profit after capital stock depreciation, divided by the capital asset value, which consists of the vessel replacement value and the estimated value of fishing rights (net profit/capital asset value), according to EC guidelines³. ROI for the Danish fleet for the years 2011-2021 is shown in Table F.5 below.

Table F.5. Return on investments (ROI)

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
VL0010m	DTS	-9.24	-11.19	-3.20	-1.29	1.94	0.71	0.85		0.02	0.60	-1.75
	PGP	-8.30	-9.60	-6.54	-10.87	-8.97	-11.97	1.52	-1.84	-4.20	-2.99	-5.22
	PMP		-9.75	-10.61	-11.70	-3.87	-2.11	-0.93	-3.64	-0.97	-2.20	-2.49
VL1012m	DRB	-1.28	-1.05	6.64	14.55	29.53	18.14	24.83	-9.92	8.35	-9.76	
	DTS	0.00	-6.25	-4.78	-5.19	-0.42	-2.77	1.58	-0.71	-2.59	-2.42	-1.66

³ RoI calculated as: Net profit / (fleet depreciated replacement value + estimated value of fishing rights)

where, Net profit* = (Income from landings + other income + income from fishing rights) - (crew wage + unpaid labour + energy + repair + other variable costs + non variable costs + fishing rights costs + annual depreciation)

	PGP	-5.48	-5.69	-4.12	-5.50	-3.79	-1.54	-1.81	-0.48	-0.37	-5.30	-3.51
	PMP	-6.19	-7.01	-9.65	-8.10	-0.90	-2.01	-2.58	-3.18	-2.01	-2.88	-5.98
VL1218m	DRB	-4.41	-3.06	-1.21	13.49	22.96	16.73	22.95	7.62	10.55	-4.94	4.41
	DTS	-1.51	-1.98	-1.17	-1.04	1.26	1.72	0.87	0.19	-0.07	-0.36	-1.17
	PGP	-1.33	-4.48	-1.62	-3.70	-1.65	1.44	4.26	2.28	0.76	-1.36	-0.04
	PMP	-1.86	-2.39	-1.09	-1.57	0.80	0.49	2.60	-0.88	-1.20	-1.16	-1.67
	TBB	-10.15	5.40	4.89	4.18	-5.49	17.02	13.00	17.56	-13.13	-4.96	-16.17
	TM		1.24	5.83	3.81	7.04	7.71	5.07	4.89	17.98	47.70*	
VL1824m	DTS	0.82	-1.93	-2.08	1.54	3.33	2.99	2.21	1.19	-0.23	-0.58	-0.06
	PMP	-0.06	-0.10	1.28	0.19	3.56	3.13	1.41	1.15	0.71	0.85	1.05
	TBB	-8.20	4.26	3.17	1.42	1.67	22.67	14.85	9.81	-3.66	-2.80	-8.32
VL2440m	DTS	0.14	-1.00	1.07	3.34	4.15	4.38	2.54	0.84	0.75	1.85	0.16
VL40XXm	DTS	10.50	9.99	11.79	2.62	9.60	10.91	3.19	5.35	2.59	8.96	8.30
	TM		7.36	6.89	4.76	8.26	7.65	5.47	7.24	4.55	6.14	3.49

Source: 2023 Data call for economic, employment, effort datasets on the EU fishing fleets, EC Ref. Ares (2023)1453111 – 28/02/2023.

Note: * the large value is primarily driven by one vessel selling a major amount of its ITQ's and VQS's.

Especially the fleets below 12 meters have almost consistently negative ROIs, thus indicating economic over-capitalisation. The dredgers (DRB) are an entry-restricted fishery, but negative ROIs are observed during the period from 2011 to 2012 for DRB between 10-12 meters, and after a long positive period from 2013 to 2017, then it was again negative in 2018 and 2020, but positive in 2019. For dredgers between 12-18 meters, ROI is negative between 2011-2013, positive until 2019, negative in 2020, but then again positive in 2021.

The other entry-restricted fisheries, the TBBs, experienced negative ROIs in 2011, 2019-2021, but have been positive in other years, except in 2015 for the VL1218.

The remaining fleets between 12 and 24 meters have ROIs varying around zero, with few exceptions, thus indicating a reasonable balance. The fleets above 40 meters, which for many years have been managed with ITQs, are having positive ROIs, thus indicating economic under-capitalisation.

It should be noted that vessels below 24 metres are operated by 1-3 crew members, including the owner. The standard salary is often higher than the realistic income for fishers working in the small-scale fishery. Moreover, in many cases the owner does not have capital costs. The market value of the vessel is often lower than assumed in the calculation and the owner does not expect a return on his investment in fishing rights.

Ratio between current revenue and break-even revenue

The ratio between current revenue and break-even revenue (CR/BER) is estimated as the current

revenue divided by break-even revenue according to the EC guidelines⁴. CR/BER is considered a good measure of economic sustainability. When the ratio is below 1, the current cash flow is not sufficient to cover the current costs, and so the activity is not economically balanced and sustainable.

The break-even revenue shows the level of revenue needed to cover all costs, thereby having a net profit of zero, and the figures from 2011 to 2021 are shown in Table F.6. As mentioned above the vessels below 24 metres have between 1-3 crew members including the owner. For these vessels, the realistic income for fishers working in the small-scale fishery is often lower than the standard salary. Furthermore, the capital costs for the vessels and thus the owners are often zero. Therefore, the market value of the vessel is often lower than assumed in the calculation and the owner does not expect a return on his investment in fishing rights.

Table F.6. Ratio between current revenue and break-even revenue (CR/BER)

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
VL0010m	DTS	0.37	0.25	-0.03	0.44	1.49	1.37	6.98		0.11	-1.02	0.15
	PGP	0.11	0.30	0.29	-0.15	-0.09	-0.05	0.01	0.73	-0.02	0.17	0.22
	PMP		0.28	0.03	0.02	0.56	-0.06	-0.13	0.06	0.30	0.23	0.14
VL1012m	DRB	0.90	0.97	1.54	2.34	3.67	3.33	4.68	0.05	2.17	-0.04	
	DTS		0.47	0.34	0.42	1.01	0.76	1.49	0.89	0.29	-0.13	0.30
	PGP	0.39	0.53	0.45	0.25	0.61	0.87	0.66	0.93	1.07	-0.26	0.20
	PMP	0.38	0.42	0.18	0.30	0.98	0.74	0.40	0.30	0.36	0.17	0.08
VL1218m	DRB	0.77	0.75	0.83	2.09	3.34	3.18	3.78	2.03	2.50	0.39	1.25
	DTS	0.95	0.86	0.90	0.86	1.25	1.52	1.23	1.10	1.03	0.78	0.40
	PGP	0.98	0.78	0.86	0.57	0.86	1.14	1.52	1.66	1.45	0.59	0.65
	PMP	0.68	0.80	0.79	0.72	1.09	1.15	1.15	0.81	0.65	0.66	0.29
	TBB	0.32	1.47	1.26	1.02	0.59	2.16	2.08	2.43	-0.14	0.41	-0.01
	TM		1.01	1.54	1.80	3.06	2.25	2.73	3.04	4.79	8.70	
VL1824m	DTS	1.26	1.00	0.97	1.28	1.80	1.84	1.71	1.50	1.09	0.71	0.60
	PMP	1.21	1.16	1.34	1.34	2.01	2.13	2.01	1.77	1.65	1.19	0.78
	TBB	0.40	1.47	1.19	1.00	1.06	2.71	2.80	2.31	0.49	0.63	0.02
VL2440m	DTS	1.10	0.99	1.17	1.36	1.94	2.23	2.23	1.42	1.36	1.38	0.62
VL40XXm	DTS	2.02	2.55	1.81	1.41	2.79	3.73	2.00	2.19	1.87	2.65	1.76
	TM		2.11	1.86	1.59	2.12	2.61	2.66	2.31	2.64	2.44	1.20

Source: 2023 Data call for economic, employment, effort datasets on the EU fishing fleets, EC Ref. Ares(2023)1453111 – 28/02/2023.

*Interest rate used to calculate the opportunity cost of capital is the Danish long-term interest rate for convergence purposes, European Central Bank. In 2022, it was 1.48%

⁴ CR/BER is calculated as: Current revenue (CR) / Break Even Revenue (BER), where, CR = income from landings + other income and BER = fixed costs / (1-[variable costs / current revenue]) and Fixed costs = non variable costs + annual depreciation + opportunity cost of capital and Variable costs = crew wage + unpaid labour + energy costs + repair costs + other variable costs

There is a tendency that the CR/BER values increase with vessel size within each gear type, indicating that the larger vessels generally have better economic performance. This tendency is generally not observed for the entry-restricted fisheries, DRB and TBB. The TBBs had values below 1 in 2011, but values around or above 1 for the following years (except TBB 12-18 meters in 2015) until 2019-2021, where it was below 1 again for both vessel lengths. The DRBs, fishing for mussels, below 12 metres have values below 1 in 2011, 2012, 2018 and 2020, but the other years it was above 1. The DRBs between 12 and 18 metres have values below 1 from 2011-2013 and again in 2020.

In general, the CR/BER is improving for the various fleets. In 2011, 11 fleets had a CR/BER below 1. In 2015, this was the case for 6 fleets and it has remained at this level more or less since then. In 2018, no fleets had negative CR/BER values, while two fleets in 2019, four fleets in 2020, and one fleet in 2021 had negative CR/BER. The only fleets that have been economically viable through the entire period and thus able to cover current costs are VL40XXm DTS and TM.

iv) Summary and evaluation

According to Regulation 1380/2013, the report should include the annual assessment of fleet capacity and identify structural over-capacity for each segment. This assessment should be based on the balance between capacity and fishing opportunities. It should be noted, that the capacity assessment for each segment, is the assessment of the Danish Fisheries Agency, having used the advice of the Danish scientific institutions, for each segment based on the knowledge of the fleet and the calculated technical, biological and economic indicators.

According to section C the present fleet capacity is below the entry-exit ceiling as laid down in annex II of Regulation 1380/2013. The margin in terms of tonnage is 19,405 GT and 103,504 kW. In percentage, the capacity is approximately 21.87% in GT below the ceiling and 33.04% in kW below the ceiling.

In conclusion, Denmark is in compliance with the entry-exit levels for tonnage, as well as for engine power.

According to section D, the Danish administrative system as such, concerning both the administration of the fisheries sector and the fleet management is considered to work satisfactorily.

Furthermore, Denmark has taken a number of steps in order to strengthen the monitoring of engine power. In that way, Denmark now enforces the Commission Implementing Regulation No. 404/2011, regarding engine power verifications and is still seeking ways to further strengthening the setup.

According to the common guidelines as presented in a communication from the Commission (COM (2014) 545 final), the report should use a set of economic and biological indicators in combination to draw conclusions on any imbalance for each fleet segment separately. The indicators are presented for the Danish fleet in section F.

The traffic light table, F7, includes indicators for 19 segments. The segments are numbered 1-19 to facilitate the understanding.

Demersal trawlers 00-10 m, DTS VL0010 (1)

(a) Economic indicators

The segment had a negative ROI and a CR/BER of 0.15. The economic indicators for this fleet segment thus point to overcapacity.

(b) Biological indicators

For discretionary purposes, the landings value and weight for this segment have been included in VL1012m. The segment is primarily dependent on demersal species such as flatfish and Norway lobster. The segment had a SHI of 0.75 and one stock for this segment was considered at risk, the Western Baltic cod.

(c) Technical indicators

The calculated inactivity indicator of 43, is an overall indicator for the VL0010. It was not possible to calculate a utilization indicator for this segment.

(d) Overall assessment

This segment is considered to be in imbalance with the fishing opportunities.

Demersal trawlers 10-12 m, DTS VL1012(5)

(a) Economic indicators

The segment had a ROI of -1.66 and a CR/BER of 0.3. The economic indicators for this fleet segment thus point to overcapacity.

(b) Biological indicators

The calculated SHI value of 0.7 for this segment was in balance, with no stocks at risk of being overfished.

The segment fishes mainly on stocks of flatfish, demersal round fish and Norway lobster.

(c) Technical indicators

The calculated inactivity indicator of 18, is an overall indicator for the VL1012. The utilization indicator for this segment is calculated to be 0.46.

(d) Overall assessment

No clear assessment can be made for this segment. The ROI for the segment was negative, while the CR/BER was midrange. Biological indicators point toward a segment in balance, while the technical indicators fluctuate in midrange.

Demersal trawlers 12-18 m, DTS VL1218 (9)

(a) Economic indicators

The segment had a ROI of -1.17 and a CR/BER of 0.4. The economic indicators for this fleet segment thus point to overcapacity.

(b) Biological indicators

The segment fishes mainly on Norway lobster, stocks of flatfish, demersal round fish and also some reduction species.

While the SHI for this segment was in balance with value of 0.75, two stocks for the segment were considered at risk, the western Baltic cod and sandeel from the management area 2r.

(c) Technical indicators

The calculated inactivity indicator of 9, is an overall indicator for the VL1218. The utilization indicator for this segment is calculated to be 0.45.

(d) Overall assessment

There is considered to be an imbalance between capacity and fishing opportunities in this segment.

Demersal trawlers 18-24 m, DTS VL1824 (14)

(a) Economic indicators

The segment had a small negative ROI of -0.06, which is a slightly improvement compare to last year. With a CR/BER value of 0.6 for this segment, the segment seems to be in balance.

(b) Biological indicators

The segment fishes mainly on stocks of flatfish, demersal round fish and Norway lobster. Some small portions of reduction species are also landed by the segment. While the SHI value of 0.81 for this segment was in balance, sandeel from the management area 2r, which is fished by the segment, was considered to be at risk.

(c) Technical indicators

The calculated inactivity indicator of 6, is an overall indicator for the VL1824. The utilization indicator for this segment is calculated to be 0.57.

(d) Overall assessment

No clear assessment can be made for this segment. While the inactivity indicator for the segment is acceptable, the utilization indicator for the segment is low. Although the SHI for the segment is in balance, one stock at risk was fished.

Demersal trawlers 24-40 m, DTS VL2440 (17)

(a) Economic indicators

Both the CR/BER and the ROI for this segment are above zero and calculated to be 0.16 and 0.62, respectively. The economic indicators for the segment point toward a segment in balance.

(b) Biological indicators

The segment fishes mainly on stocks of flatfish, demersal round fish and Norway lobster. Some small portions of reduction species are also landed by the segment. While the SHI value for the segment is decreasing and in balance sandeel from the management area 2r, which is fished by the segment, was considered to be at risk.

(c) Technical indicators

The calculated inactivity indicator of 3, is an overall indicator for the VL2440. The utilization indicator for this segment is calculated to be 0.74. These indicators show a segment in balance.

(d) Overall assessment

Overall the segment seems to be in balance with the fishing opportunities.

Demersal trawlers 40-XX m, DTS VL40XX (18)

(a) Economic indicators

In this segment both the CR/BER and the ROI have been on a positive trend for years. The calculated ROI and CR/BER value for the segment were 8.3 and 1.76, respectively.

(b) Biological indicators

Landings of this segment consist mainly of mackerel and herring, reduction species and entry restricted species. Although the segment does not fish on any stock at risk, the calculated SHI value for the segment was 1.01 and in imbalance.

(c) Technical indicators

The calculated inactivity indicator of 13, is an overall indicator for the VL40XX. The utilization indicator for this segment is calculated to be 0.42.

(d) Overall assessment

The segment is in balance with the fishing opportunities.

Vessels using polyvalent passive gears 0-10 m, PGP VL0010 (2)

(a) Economic indicators

A great share of vessels in this segment are less active or noncommercial vessels. ROI value of -5.22 and CR/BER value of 0.22, indicate a segment in imbalance.

(b) Biological indicators

The segment had a SHI value of 1.29, it was not possible to determine the SHI balance for this segment. The western Baltic cod, which is exploited by this segment, was considered to be at risk.

(c) Technical indicators

The calculated inactivity indicator of 43, is an overall indicator for the VL0010. The utilization indicator is calculated to be 0.08. Thus, the segment is in imbalance.

(d) Overall assessment

Indicators suggest that this segment is in imbalance with the fishing opportunities.

Vessels using polyvalent passive gears 10-12 m, PGP VL1012 (6)

(a) Economic indicators

The segment had a ROI of -3.51 and a CR/BER of 0.2. The economic indicators for this fleet segment thus, point to overcapacity.

(b) Biological indicators

The segment primarily fishes flatfish and demersal round fish. The SHI value for the segment was out of balance and calculated to be 1.43. The segment fished on western Baltic cod, which was considered to be at risk.

(c) Technical indicators

The calculated inactivity indicator of 18, is an overall indicator for the VL1012. The utilization indicator for the segment was 0,36.

(d) Overall assessment

This is segment is considered to be in imbalance with the fishing opportunities.

Vessels using polyvalent passive gears 12-18 m, PGP VL1218 (10)

(a) Economic indicators

The segment had a ROI value of -0.04 and a CR/BER value of 0.65, which indicate a segment in balance.

(b) Biological indicators

Landings from this segment were dominated by flatfish and some round fish. Some smaller portion of reduction species were also landed by this segment. The SHI for the segment was decreasing and in balance with a calculated value of 0.86. The segment did not fish on any stock at risk.

(c) Technical indicators

The calculated inactivity indicator of 9, is an overall indicator for the VL1218. The utilization indicator for this segment is calculated to be 0.49.

(d) Overall assessment

Indicators suggest that this segment is in balance with the fishing opportunities.

Vessels using active and passive gears 00-10 m, PMP VL0010 (3)

(a) Economic indicators

The segment had a ROI value of -2.49 and a CR/BER value of 0.14, which indicate a segment in imbalance. Most of the vessels in this segment are noncommercial or inactive.

(b) Biological indicators

The segment fishes mainly flatfish and demersal round fish. The SHI value for the segment was 1.0 and in imbalance. No stock at risk was fished by the segment.

(c) Technical indicators

The calculated inactivity indicator of 43, is an overall indicator for the VL0010. The utilization indicator is calculated to be 0.2. Thus, the segment is in imbalance.

(d) Overall assessment

Indicators suggest that this segment is in imbalance with the fishing opportunities.

Vessels using active and passive gears 10-12 m, PMP VL1012 (7)

(a) Economic indicators

The segment had a ROI value of -5.98 and a CR/BER value of 0.08, which indicate a segment in imbalance. Most of the vessels in this segment are noncommercial or inactive.

(b) Biological indicators

The segment's landings consist mainly of Norway lobster and flatfish. The calculated SHI value for the segment is 0.98, but it was not possible to determine if the value was in balance. No stock at risk was fished by the segment.

(c) Technical indicators

The calculated inactivity indicator of 18, is an overall indicator for the VL1012. The utilization indicator for the segment was 0,43.

(d) Overall assessment

Indicators suggest that this segment is in imbalance with the fishing opportunities.

Vessels using active and passive gears 12-18 m, PMP VL1218 (11)

(a) Economic indicators

The segment had a ROI value of -1.67 and a CR/BER value of 0.29.

(b) Biological indicators

Landings of this segment consist mainly of Norway lobster and flatfish. Also, some round fish and reduction species are landed by the segment. The SHI for the segment was in balance and is calculated to be 0.76. One stock at risk was fished by the segment.

(c) Technical indicators

The calculated inactivity indicator of 9, is an overall indicator for the VL1218. The utilization indicator for the segment was 0,54.

(d) Overall assessment

No clear assessment can be made for this segment.

Vessels using active and passive gears 18-24 m, PMP VL1824 (15)

(a) Economic indicators

In this segment both the CR/BER and the ROI have been on a positive trend for years. The calculated ROI and CR/BER for this segment were 1.05 and 0.81, respectively.

(b) Biological indicators

The segments fishes mainly on round fish and stocks of flatfish. The calculated SHI value of 0.81 for the segment showed a decreasing trend and was in balance. No stocks at risk was fished by the segment.

(c) Technical indicators

The calculated inactivity indicator of 6, is an overall indicator for the VL1824. The utilization indicator for this segment is calculated to be 0.71.

(d) Overall assessment

This segment is in balance with the fishing opportunities.

Dredgers 10-12 m, DRB VL1012 (4)

(a) Economic indicators

Due to discretionary purposes, no economic indicators for this segment was calculated.

(b) Biological indicators

Vessels in this segment fish mainly on entry restricted species, such as mussels, that can only be fished on with an authorization. These species are closely monitored and the fisheries are regulated through Individual Transferable Quota (ITQ). The fisheries are limited to specific areas and quotas are set according to assessment of the local stocks and environmental protection needs. The segment did not fish on any stock at risk. The SHI value for the segment was not calculated.

(c) Technical indicators

The calculated inactivity indicator of 18, is an overall indicator for the VL1012. For discretionary purposes the utilization indicator for this segment has been included in DRB VL1218

(d) Overall assessment

The segment is in balance with the fishing opportunities.

Dredgers 12-18 m, DRB VL1218 (8)

(a) Economic indicators

The calculated ROI and CR/BER value for this segment are 4.41 and 1.25, respectively. These indicators suggest a segment in balance with fishing opportunities.

(b) Biological indicators

Vessels in this segment fish mainly on entry restricted species, such as mussels, that can only be fished on, with an authorization. These species are closely monitored and the fisheries are regulated through Individual Transferable Quota (ITQ). The fisheries are limited to specific areas and quotas are set according to assessment of the local stocks and environmental protection needs. The segment did not fish on any stock at risk. The SHI value for the segment was not calculated.

(c) Technical indicators

The calculated inactivity indicator of 9, is an overall indicator for the VL1218. The utilization indicator for this segment is calculated to be 0.33.

(d) Overall assessment

The segment is in balance with the fishing opportunities.

Beam trawlers 12-18 m, TBB VL1218 (12)

(a) Economic indicators

The calculated ROI value for this segment is -16.17 and the CR/BER is calculated to be -0.01.

(b) Biological indicators

Vessels in this segment fish mainly for brown shrimps in the Wadden Sea. Brown shrimp fishery is a restricted access fishery, which is monitored and regulated closely. The SHI value for this segment is calculated to be 0.71. The segment did not fish on any stock at risk.

(c) Technical indicators

The calculated inactivity indicator of 9, is an overall indicator for the VL1218. The utilization indicator for this segment is calculated to be 0.61.

(d) Overall assessment

Although, the ROI for the segment was negative, the CR/BER value was very close to zero. In brown shrimp fishery, it is not unusual that the earnings vary considerably from year to year.

No clear assessment can be made for this segment. However, the noticeable negative economic trend for this segment will be monitored closely.

Beam trawlers 18-24 m, TBB VL1824 (16)

(a) Economic indicators

The calculated ROI value for this segment is -8.32 and the CR/BER is calculated to be 0.02.

(b) Biological indicators

Vessels in this segment fish mainly for brown shrimps in the Wadden Sea. Brown shrimp fishery is a restricted access fishery, which is monitored and regulated closely. The SHI value for this segment is calculated to be 0.66. The segment did not fish on any stock at risk.

(c) Technical indicators

The calculated inactivity indicator of 6, is an overall indicator for the VL1824. The utilization indicator for this segment is calculated to be 0.88.

(d) Overall assessment

Although, the ROI for the segment was negative, the CR/BER value was positive. In brown shrimp fishery, it is not unusual that the earnings vary considerably from year to year.

Thus, it is concluded, that the segment is in balance with the fishing opportunities. However, the noticeable negative ROI value for this segment will be monitored closely.

Pelagic Trawlers 12-18 m, TM VL1218(13)

(a) Economic indicators

In this segment both the CR/BER and the ROI have been on a positive trend for years. However, it was not possible to calculate these values for 2022 for this segment.

(b) Biological indicators

No SHI value was calculated for this segment. The segment did not fish on any stock at risk.

(c) Technical indicators

The calculated inactivity indicator of 9, is an overall indicator for the VL1218. The utilization indicator for this segment is calculated to be 0.9.

(d) Overall assessment

The segment is considered to be in balance with the fishing opportunities.

Pelagic Trawlers 40-XX m, TM VL40XX (19)

(a) Economic indicators

The calculated ROI and CR/BER value for this segment are 3.49 and 1.2, respectively. These indicators suggest a segment in balance with the fishing opportunities.

(b) Biological indicators

Landings of the segment consist mainly of mackerel, herring and reduction species.

The SHI for this segment was calculated to be 1.1 and in imbalance. No stocks at risk were fished by the segment.

(c) Technical indicators

The calculated inactivity indicator of 13, is an overall indicator for the VL40XX. The utilization indicator for this segment is calculated to be 0.56

(d) Overall assessment

This segment is considered to be in balance with the fishing opportunities.

Plan for improvement of the fleet

As part of the EMFAF program for Denmark, a number of measures aim at improving the situation for small vessels. These include support for investments on smaller vessels and improved facilities in smaller ports and landing places, which support small scale fisheries with the aim of improving quality and sales of fish from coastal vessels.

In the regulatory system, coastal vessels are given special consideration and these vessels also receive special priority in the measure for fishing ports and landings places and the measure investments on vessels.

As already mentioned, the immediate challenges facing Danish fisheries as a result of Brexit are addressed through the Brexit Adjustment Reserve including structural adjustments through support for the scrapping of vessels in order to mitigate the negative effects from Brexit.

Likewise, the situation in the Baltic Sea is also a concern that has led to the decision to implement a structural adjustment in the Baltic Sea through the scrapping of vessels in accordance with the EMFF scrapping scheme.

The scrapping scheme was initiated for cod fishers in the Baltic Sea, favoring vessels that have the most dependency on cod fishing combined with the price of the gross tonnage of each vessel. Both parameters ensure that the funds are targeted towards fishers whose economy is most affected by the quota reductions. At the same time, the reduced tonnage through scrapping scheme, helps to achieve the overall reduction goal to reduce capacity in the Baltic Sea. The Brexit scrapping scheme favors vessels with the highest fishing activity, i.e. most days at sea, as well as vessels that choose to sell their quotas to the Danish Fisheries Agency of four species of special importance for coastal fisheries (cod, sole, saithe and turbot) and for which the quotas are reduced by the Trade and Cooperation Agreement (TCA) between the EU and the UK. The Danish Fisheries Agency will allocate the quotas to coastal fishermen in order to create an opportunity for this segment to improve their economy and eventually strengthen this segment. The aim is to achieve a better balance between fishing opportunities and capacity by removing vessels with high activity.

Only fishermen with vessels that are dependent on fisheries that are reduced by the TCA can apply.

Both scrapping schemes regarding Brexit and the Baltic Sea were initiated in 2022 and the concerned capacity is expected to be reduced at the latest at the end of 2023.

Commitment to support for scrapping, has been given to 30 vessels, through the Brexit Adjustment Reserve and 33 vessels in accordance with the EMFF scrapping scheme for the Baltic Sea. The expected reduction in capacity are 4179.5 GT and 10709 kW via Brexit Adjustment Reserve and 639.7 GT and 3986 kW via EMFF scrapping scheme for the Baltic Sea. The effects of the schemes are expected to be observed by the end of 2023. However, removing vessels from the fleet might not mean that all indicators immediately will turn to uncritical levels.

Besides, recovery of the cod stock will at best take some time and reducing the fleet is not the only way forward. Most importantly, work is also ongoing to adapt the fisheries to more selective gears and replace the lost fishing opportunities with other fishing opportunities.

Regarding the sandeel stock from the sandeel management area 2r, Denmark is following the advice provided by ICES.

Table F. 7. Traffic lights

No.	Length	Gear code	Economic indicators		Biological Indicators		Technical Indicators		Over all Assessment and comments
			Return on investments (ROI)	Current/Break-even (CR/BER)	Sustainable Harvest Indicator (SHI)	Stocks at Risk Indicator (SAR)	Inactivity	Utilisation	
1	VL0010	DTS	-1.75	0.15	0.75	1	43	-	Mainly inactive or less active noncommercial vessels
2	VL0010	PGP	-5.22	0.22	1.09	1		0.08	Mainly inactive or less active vessels noncommercial vessels
3	VL0010	PMP	-2.49	0.14	1.00	0		0.2	
4	VL1012	DRB	-	-	0.64	0	18	-	Mussels
5	VL1012	DTS	-1.66	0.3	0.70	0		0.46	Mixed
6	VL1012	PGP	-3.51	0.2	1.43	1		0.36	Demersal
7	VL1012	PMP	-5.98	0.08	0.98	0		0.43	
8	VL1218	DRB	4.41	1.25	-	0	9	0.33	Mussels
9	VL1218	DTS	-1.17	0.4	0.75	2		0.45	Mixed
10	VL1218	PGP	-0.04	0.65	0.86	0		0.49	Demersal
11	VL1218	PMP	-1.67	0.29	0.76	1		0.54	
12	VL1218	TBB	-16.17	-0.01	0.71	0		0.61	Brown Shrimps
13	VL1218	TM	-	-	-	0		0.9	Pelagic
14	VL1824	DTS	-0.06	0.6	0.81	1	6	0.57	Mixed
15	VL1824	PMP	1.05	0.78	0.81	0		0.71	
16	VL1824	TBB	-8.32	0.02	0.66	0		0.88	Brown Shrimps
17	VL2440	DTS	0.16	0.62	0.87	1	3	0.74	Mixed
18	VL40XX	DTS	8.30	1.76	1.01	0	13	0.42	Pelagic +
19	VL40XX	TM	3.49	1.2	1.1	0		0.56	Industrial
	COM guideline		>0	>1	Status Table F.3: in balance		< 10	>0,9	
				0<1					
				<0	<0	Status in Table F.3: out of balance	>0 / >10 % from SAR	>20	<0,7

Annex 1. Gear Codes and length classes

FISHING TECHNIQUE (Gear Codes)

DFN	=	Drift and/or fixed netters
DRB	=	Dredgers
DTS	=	Demersal trawlers and/or demersal seiners
PTS	=	Pelagic trawl and/or pelagic seiners
FPO	=	Vessels using pots and/or traps
HOK	=	Vessels using hooks
MGO	=	Vessel using other active gears
MGP	=	Vessels using polyvalent active gears only
PG	=	Vessels using passive gears only for vessels < 12m
PGO	=	Vessels using other passive gears
PGP	=	Vessels using polyvalent passive gears only
PMP	=	Vessels using active and passive gears
PS	=	Purse seiners
TM	=	Pelagic trawlers
TBB	=	Beam trawlers

VESSEL LENGTH classes

VL0006	=	Vessel less than 6 meters in length. *For Supra region 2 only.
VL0010	=	Vessel between 0 meters and 10 meters in length. **For Supra region 1 and 3 only.
VL0612	=	Vessel between 6 meters and 12 meters in length. *For Supra region 2 only.
VL1012	=	Vessel between 10 meters and 12 meters in length. **For Supra region 1 and 3 only.
VL1218	=	Vessel between 10 meters and 18 meters in length. All regions.
VL1824	=	Vessel between 18 meters and 24 meters in length. All regions.
VL2440	=	Vessel between 24 meters and 40 meters in length. All regions.
VL40XX	=	Vessel greater than 40 meters in length. All regions.

Annex 2. Capacity of registered Danish fishing vessels

Tonnage in GT, 2022

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
VL0010m	PGP	411	1,472	892	159	2,933
	PMP	178	292	115	19	605
	Total	589	1,765	1,007	178	3,538
VL1012m	DTS ^{8),9)}	163	74	50	22	309
	PGP	337	134	61	32	565
	PMP	117	135	57	26	336
	Total	618	343	168	80	1,209
VL1218m	DRB ⁵⁾	1,316	188	194	12	1,710
	DTS	4,170	148	159	122	4,598
	PGP	769	31	19	42	861
	PMP	766	49	75	57	947
	TBB	515	15			529
	TM	209				209
	Total	7,744	430	447	234	8,855
VL1824m	DTS	4,267		217	287	4,771
	PMP	1,529				1,529
	TBB	1,066		48		1,114
	Total	6,862		265	287	7,414
VL2440m	DTS ⁶⁾	9,824		399	787	11,010
	PMP	1,135				1,135
	Total	10,959		399	787	12,145
VL40XXm	DTS	12,883	561	1,068	5,735	20,247
	TM ⁷⁾	17,754		5,667	4,258	27,679
	Total	30,637	561	6,735	9,993	47,926
Total		57,409	3,098	9,021	11,559	81,087

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17^t February 2022.

Notes: ¹⁾ Includes vessels with a yearly catch value above € 36,000.

²⁾ Includes vessels with a yearly catch value below € 36,000 but above € 0.

³⁾ Includes vessels not having any catch value within the year.

⁴⁾ Includes vessels not being active by the end of the year.

⁵⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

6) For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

7) For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

8) For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

9) For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

Engine power in kW, 2022

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
VL0010m	PGP	5,969	21,203	11,891	1,982	41,045
	PMP	2,195	3,621	1,522	116	7,454
	Total	8,164	24,824	13,413	2,098	48,499
VL1012m	DTS ^{8),9)}	1,604	793	680	298	3,375
	PGP	2,873	1,436	809	285	5,403
	PMP	1,169	1,157	380	253	2,959
	Total	5,646	3,386	1,869	836	11,737
VL1218m	DRB ⁵⁾	4,248	510	814	113	5,685
	DTS	19,860	945	1,078	697	22,580
	PGP	3,380	209	127	140	3,856
	PMP	4,216	338	519	531	5,604
	TBB	1,991	220			2,211
	TM	955				955
	Total	34,650	2,222	2,538	1,481	40,891
VL1824m	DTS	12,359		746	645	13,750
	PMP	4,792				4,792
	TBB	2,727		125		2,852
	Total	19,878		871	645	21,394
VL2440m	DTS ⁶⁾	23,777		890	2,356	27,023
	PMP	1,789				1,789
	Total	25,566		890	2,356	28,812
VL40XXm	DTS	29,430	1,650	2,605	13,941	47,626
	TM ⁷⁾	26,216		6,800	8,998	42,014
	Total	55,646	1,650	9,405	22,939	89,640
Total		149,550	32,082	28,986	30,355	240,973

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Includes vessels with a yearly catch value above € 36,000.

²⁾ Includes vessels with a yearly catch value below € 36,000 but above € 0.

³⁾ Includes vessels not having any catch value within the year.

⁴⁾ Includes vessels not being active by the end of the year.

⁵⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

6) For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

7) For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

8) For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

9) For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

Annex 3. Link with fisheries for commercial and non-commercial vessels

Distribution landings value in 2022 (%)

Group	Length	Gear	Round-fish	Flatfish	Norway lobster and prawn	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landing value (€ 1,000) ⁸⁾
Commercial		PGP	12	26	18	7	37	0	0	6,143
		PMP	25	44	18	0	12	0	0	2,170
	VL1012m	DTS ^{6),7)}	22	29	46	1	2	0	0	1,837
		PGP	25	55	2	0	18	0	0	3,139
		PMP	4	32	42	1	10	11	0	1,322
		TM	10	6	66	3	1	14	0	1,598
	VL1218m	DRB ³⁾	0	0	0	1	1	0	98	11,497
		DTS	11	19	52	2	2	15	0	35,165
		PGP	25	60	6	0	9	0	0	8,740
		PMP	11	18	56	0	5	10	0	5,099
		TBB	0	10	0	0	0	7	83	2,995
		TM	10	6	66	3	1	14	0	1,598
		TM	10	6	66	3	1	14	0	1,598
	VL1824m	DTS	25	25	37	2	2	10	0	34,522
		PMP	32	47	13	0	2	5	0	13,656
		TBB	0	10	0	0	0	0	89	5,809
VL2440m	DTS ⁴⁾	44	15	28	2	1	10	0	58,087	
	PMP	73	17	4	0	6	0	0	7,962	
VL40XXm	DTS	0	0	1	31	0	40	28	88,348	
	TM ⁵⁾	0	0	0	66	0	33	0	106,627	
Non-Commercial		PGP	7	22	17	2	52	0	0	3,947
		PMP	10	38	11	1	39	0	0	467

VL1012m	DTS	2	31	66	0	1	0	0	69
	PGP	8	66	2	1	22	0	0	157
	PMP	3	60	31	0	5	0	0	248
1218m	DRB	0	0	0	0	7	0	93	77
	DTS	4	38	34	2	1	16	6	118
	PGP	0	15	1	0	84	0	0	12
	PMP	2	52	45	0	1	0	0	23
	TBB	0	0	0	0	0	0	100	5
VL40XXm	DTS	1	0	1	11	0	87	0	6

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Species such as sand eel, blue whiting, sprat, horse mackerel and Norway pout.

²⁾ Species that can only be caught with an authorization, i.e., mussels, oysters, brown shrimps, and shrimps in the waters around Greenland.

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

⁷⁾ For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

⁸⁾ [Based on the average Euro exchange rate for 2020 being 7.4396DKK / €.](#)

Distribution landings live weight in 2022 (%)

Group	Length	Gear	Round-fish	Flatfish	Norway lobster and prawn	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landing weight (tonnes)
Commercial		PGP	13	21	5	36	25	0	0	1,484
		PMP	29	58	6	0	7	0	0	439
	VL1012m	DTS ^{6),7)}	33	39	18	6	1	2	0	384
		PGP	31	62	1	0	6	0	0	612
		PMP	2	17	7	3	1	69	0	798
	VL1218m	DRB ³⁾	0	0	0	1	1	0	98	35,663
		DTS	6	9	8	5	1	72	0	25,696
		PGP	33	60	3	0	5	0	0	1,662
		PMP	8	12	10	1	2	67	0	3,019
		TBB	0	5	0	2	0	64	29	1,281
		TM	7	2	10	7	0	74	0	1,169
	VL1824m	DTS	16	11	7	5	3	58	0	20,381
		PMP	22	24	5	1	1	47	0	5,279
		TBB	0	15	0	0	0	0	84	919
	VL2440m	DTS ⁴⁾	25	7	8	7	0	54	0	33,271
		PMP	82	12	2	0	3	1	0	2,126
	VL40XXm	DTS	1	0	0	23	0	73	4	142,562
		TM ⁵⁾	0	0	0	43	0	56	0	180,237
Non-Commercial		PGP	9	32	6	12	41	0	0	754
		PMP	16	61	5	1	17	0	0	96
	VL1012m	DTS	2	75	22	0	1	0	0	20
		PGP	9	72	0	1	18	0	0	45
		PMP	3	76	10	0	12	0	0	72
	1218m	DRB	0	0	0	0	1	0	99	352
		DTS	2	18	2	7	0	70	1	114
		PGP	0	26	0	0	73	0	0	1
		PMP	2	80	17	0	1	0	0	8
		TBB	0	0	0	0	0	0	100	1
VL40XXm	DTS	1	0	1	11	0	87	0	25	

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ Species such as sand eel, blue whiting, sprat, horse mackerel and Norway pout.

²⁾ Species that can only be caught with an authorization, i.e., mussels, oysters, brown shrimps, and shrimps in the waters around Greenland.

³⁾ For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

⁴⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

⁵⁾ For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

⁶⁾ For discretionary purposes, VL1012m TM has been included in VL1012m DTS.

7) For discretionary purposes, VL0010m DTS has been included in VL1012m DTS in 2022.

Annex 4. Figures used to calculate the technical indicator

Length	Gear	Days at sea ^{1) 2)}											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VL0010m	DTS	594	580	654	705	612	628	583	495	449	508	520	
	PGP	41,032	30,245	28,903	29,212	26,469	25,703	22,306	22,918	21,604	21,145	19,413	16,630
	PMP	-	6,060	5,557	5,093	4,914	5,277	5,056	4,851	4,060	3,658	3,561	3029
VL1012m	DRB	1,702	1,640	1,317	1,163	1,295	756	286	303	188			
	DTS	-	1,070	1,042	1,132	1,157	1,280	1,461	1,634	1,450	1,424	1,087	1,313
	PGP	6,492	5,903	6,388	5,942	5,834	5,768	4,768	4,955	4,316	3,869	4,413	3,102
	PMP	3,121	3,415	2,691	2,828	3,059	3,378	2,840	2,875	2,765	1,903	1,899	1,566
VL1218m	DRB	2,086	2,543	2,017	2,141	1,826	1,892	2,445	2,061	2,506	2,259	2,497	2,249
	DTS	19,677	16,829	16,606	16,659	14,812	15,502	14,224	14,431	14,259	12,198	14,119	12,466
	PGP	5,818	4,682	4,669	3,913	3,793	3,315	3,142	3,128	3,009	2,951	2,809	2,708
	PMP	4,796	5,009	4,280	4,702	4,118	4,127	3,840	3,408	3,053	3,164	3,492	2,819
	TBB	1,185	1,731	1,662	1,901	1,644	2,018	1,688	1,737	965	1,054	1,027	1,252
	TM	-	1,506	1,326	1,848	1,499	1,233	904	979	935	729	577	436
VL1824m	DTS	11,123	10,554	9,693	9,655	9,039	8,061	7,222	7,470	7,476	6,889	7,546	6,667
	PMP	2,348	2,281	3,363	2,104	2,089	2,113	2,408	2,405	2,140	2,124	2,426	2,228
	TBB	2,105	2,788	2,772	2,764	2,550	3,067	2,917	2,932	1,885	2,087	2,235	2,220
VL2440m	DTS	8,564	8,664	7,851	7,782	7,579	8,081	9,209	9,701	9,494	8,759	8,301	7,100
	PMP	-	-	-	1,233	1,097	1,157	974	869	891	807	857	791
VL40XXm	DTS	5,321	1,440	2,762	2,073	2,005	1,728	3,035	2,959	2,403	3,110	2,974	1,835
	TM	-	2,496	2,607	2,538	3,439	3,468	2,419	2,501	2,027	2,026	1,170	1,053

Length	Gear	Number of vessels ²⁾											
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VL0010m	DTS	14	10	11	16	11	9	9	7	6	5	6	
	PGP	1,012	855	824	928	883	905	855	827	782	788	758	721
	PMP	-	126	116	121	121	130	128	119	110	106	101	93
VL1012m	DRB	25	21	24	19	16	11	6	6	4			
	DTS	-	9	9	12	13	13	15	15	15	15	13	17
	PGP	56	50	56	54	50	53	50	48	46	47	47	40
	PMP	34	44	30	38	34	32	31	31	27	24	23	21
VL1218m	DRB	27	27	25	26	24	29	34	35	33	36	37	34
	DTS	156	127	128	123	117	117	114	109	106	99	102	97
	PGP	48	35	37	31	29	27	25	23	22	20	20	21
	PMP	47	46	38	38	37	35	35	30	26	27	27	24
	TBB	11	11	11	11	12	11	10	10	9	9	10	11
	TM	-	16	14	15	13	10	6	6	6	5	4	3
VL1824m	DTS	70	64	61	51	49	45	38	38	38	37	38	34
	PMP	15	12	16	10	10	11	11	11	9	10	10	10
	TBB	18	17	18	16	17	16	16	16	16	16	16	15
VL2440m	DTS	39	38	34	34	30	34	37	38	36	35	33	30
	PMP	-	-	-	6	5	4	4	3	3	3	3	3
VL40XXm	DTS	31	12	17	14	11	10	19	17	14	16	16	13

	TM	-	17	13	15	18	23	13	13	11	9	7	7
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		Maximum obs. days at sea ^{1) 3)}											
Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
VL0010m	DTS	140	108	130	154	190	221	206	204	196	176	183	
	PGP	214	229	225	220	226	263	225	225	229	233	274	303
	PMP	183	189	210	200	175	160	186	150	158	171	166	164
VL1012m	DRB	105	104	103	103	141	105	95	137	73			
	DTS	149	147	158	164	161	160	186	176	165	170	159	168
	PGP	275	273	242	250	260	256	246	262	262	237	231	218
	PMP	163	162	161	176	210	215	187	220	204	202	186	172
VL1218m	DRB	149	193	206	210	172	162	161	155	184	187	192	200
	DTS	278	282	276	279	295	296	275	286	281	247	297	286
	PGP	270	261	265	282	265	281	262	255	287	249	263	263
	PMP	196	291	321	285	250	242	272	277	237	203	233	218
	TBB	164	207	194	219	188	238	212	207	134	155	161	186
	TM	0	177	194	176	199	195	190	188	179	181	173	162
VL1824m	DTS	340	345	339	342	339	342	339	347	323	331	354	347
	PMP	254	287	272	283	300	298	303	333	274	300	336	314
	TBB	176	217	213	222	208	237	227	229	194	177	203	169
VL2440m	DTS	356	340	336	320	323	318	346	343	347	362	355	318
	PMP	-	-	-	285	351	333	304	365	365	341	341	307
VL40XXm	DTS	268	190	219	195	198	365	285	341	355	304	313	334
	TM	-	219	303	262	282	263	300	282	248	269	252	267

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 17th February 2023.

Notes: ¹⁾ The days at sea are based on the Calendar Days method.

²⁾ Covers only active vessels.

³⁾ Based on the vessel with most observed days at sea within each year and fleet, using the 24 hours method.