



## **Annual Report on fishing fleet capacity 2021 - Denmark**

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 possibilities.

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 Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy.

Fleet data used in the report are from 2021, and data on economic performance and technical indicators are from 2021 where available. If data from 2021 are not available, data from 2020 are used instead.

Biological indicators are calculated for the period 2011-2020 based on updated landings and ICES stock data.

The report has been prepared by the national authority; the Danish Fisheries Agency and the Department of the Ministry of Food, Agriculture and Fishery with inputs from the Department of Food and Resource Economics, University of Copenhagen and 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 multiannual management or recovery plans.

### Description of fleets

The statistics include all Danish vessels registered during the year and not only as of the 31<sup>st</sup> of December as fleet statistics usually do. There were 2,049 vessels registered in the Danish vessel register during 2021, cf. Table A.1.

Out of these 2,049 vessels, 116 of these were not registered by the end of 2021, but had previously been registered during the year. In total, 1,933 vessels were registered the 31<sup>st</sup> December 2021. Of these, 662 vessels were not active during the year, i.e., did not have any registered landing value. There were 464 commercial vessels, each having a total landings value above the threshold level of € 36,000 in 2021. The remaining 807 vessels were non-commercial vessels with landing values below € 36,000.

**Table A.1. Number of registered Danish fishing vessels in 2021**

Length	Gear	Commercial <sup>1)</sup>	Non-commercial <sup>2)</sup>	Inactive <sup>3)</sup>	Not registered 31 <sup>st</sup> December <sup>4)</sup>	Total
VL0010m	DTS	4	2	2		8
	PGP	82	676	591	86	1,435
	PMP	22	79	39	13	153
	Total	108	757	632	99	1,596
VL1012m	DTS	8	5	3	1	17
	PGP	30	17	2	2	51
	PMP	12	11	4		27
	Total	50	33	9	3	95
VL1218m	DRB <sup>5)</sup>	33	4	4		41
	DTS	95	7	8	2	112
	PGP	19	1	3	3	26
	PMP	25	2	3	1	31
	TBB	9	1			10
	TM <sup>6)</sup>	4				4
	Total	185	15	18	6	224
VL1824m	DTS	37	1	1		39
	PMP	10				10
	TBB	15	1			16
	Total	62	2	1		65
VL2440m	DTS <sup>6)</sup>	33			4	37
	PMP	3				3
	Total	36			4	40
VL40XXm	DTS	16		1	1	18
	TM <sup>7)</sup>	7		1	3	11
	Total	23		2	4	29
Total		464	807	662	116	2,049

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

- Notes:
- <sup>1)</sup> Includes vessels with a yearly catch value above € 36,000.
  - <sup>2)</sup> Includes vessels with a yearly catch value below € 36,000 but above € 0.
  - <sup>3)</sup> Includes vessels not having any catch value within the year.
  - <sup>4)</sup> Includes vessels not being active by the end of the year.
  - <sup>5)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.
  - <sup>6)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
  - <sup>7)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

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 80% of total GT and 67% of total kW. These shares have been increasing over the years, however not compared to 2020 where the fractions were 83% and 71%.

### 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, except for VL1218m TM that is mostly dependent on reduction species. The fleets above 40 metres are solely dependent on mackerel, herring, and reduction species. The VL40XXm is also dependent on an entry-restricted fishery, but this is attributable to one vessel catching shrimps in the waters around Greenland. The DRBs and TBBs are in entry-restricted fisheries for mussels and shrimps.

**Table A.2. Distribution of landing value in 2021 on overall fisheries (%)**

Length	Gear	Round fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landings value <sup>6)</sup>	
									€ 1,000	%
VL0010m	DTS	42	22	30	0	6	0	0	484	0.1
	PGP	12	26	13	4	46	0	0	11,311	3.0
	PMP	24	41	18	0	16	0	0	2,577	0.7
VL1012m	DTS	14	34	46	0	5	0	0	1,479	0.4
	PGP	22	50	2	0	26	0	0	4,001	1.1
	PMP	11	34	41	1	9	5	0	1,697	0.5
VL1218m	DRB <sup>3)</sup>	0	0	0	0	2	0	98	10,618	2.9
	DTS	10	28	49	1	3	9	0	30,879	8.3
	PGP	25	61	4	0	9	0	0	8,026	2.2
	PMP	8	22	60	0	3	7	0	5,160	1.4
	TBB	0	10	0	0	0	9	81	1,778	0.5
	TM	3	2	26	6	1	62	0	3,018	0.8
VL1824m	DTS	21	26	37	2	2	12	0	30,312	8.1
	PMP	29	48	14	0	2	7	0	12,571	3.4
	TBB	1	16	1	0	0	0	81	4,745	1.3
VL2440m	DTS <sup>5)</sup>	42	16	27	1	1	15	0	57,124	15.4
	PMP	78	17	4	0	1	0	0	7,129	1.9
VL40XXm	DTS	1	1	1	34	0	44	19	86,430	23.2
	TM <sup>6)</sup>	0	0	0	71	0	28	0	92,668	24.9

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

Notes: <sup>1)</sup> Species such as sandeel, blue whiting, sprat, horse mackerel and Norway pout.

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

<sup>3)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

<sup>4)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

<sup>6)</sup> Based on the average Euro exchange rate for 2020 being 7.4370DKK / €.

**Table A.3. Distribution of landing live weight in 2021 on overall fisheries (%)**

Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landings live weight	
									Tonnes	%
VL0010m	DTS	59	23	15	0	3	0	0	152	0,0
	PGP	14	34	3	19	29	0	0	2,784	0,6
	PMP	27	60	6	1	6	0	0	645	0,1
VL1012m	DTS	17	60	20	0	2	1	0	329	0,1
	PGP	27	64	0	0	7	0	0	992	0,2
	PMP	8	30	10	8	1	43	0	801	0,2
VL1218m	DRB <sup>3)</sup>	0	0	0	0	3	0	96	37,356	8,0
	DTS	7	20	12	5	1	54	0	17,157	3,7
	PGP	25	69	1	0	4	0	0	1,999	0,4
	PMP	8	22	17	2	1	50	0	2,478	0,5
	TBB	2	5	0	0	0	59	34	838	0,2
	TM <sup>4)</sup>	2	0	2	8	0	88	0	7,091	1,5
VL1824m	DTS	14	13	8	8	1	56	0	19,894	4,3
	PMP	20	29	4	2	1	44	0	5,722	1,2
	TBB	1	21	1	0	0	0	77	1,040	0,2
VL2440m	DTS <sup>4)</sup>	21	6	5	4	0	63	0	43,118	9,2
	PMP	82	15	2	0	1	0	0	2,162	0,5
VL40XXm	DTS	1	0	0	23	0	72	3	169,177	36,3
	TM <sup>5)</sup>	1	0	0	50	0	50	0	152,562	32,7

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

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

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

<sup>3)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

<sup>4)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM

## Development 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 have gradually been introduced into other pelagic fisheries, and as 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 33% from 2008 to 2021. The capacity of the Danish fishing fleet decreased 7% in GT and 19% in kW in the same period, although a slight reversal of this trend can be observed in the period 2016 to 2021.

**Table A.4. Development in the capacity of registered Danish fishing vessels<sup>1)</sup>**

Length	Gear	2008			2012			2016			2021		
		No.	GT	kW	No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	DTS	17	95	1,185	18	106	1,199	15	98	1,166	8	63	903
	PGP	2,108	4,512	50,124	1,985	4,148	49,275	1,668	3,667	44,584	1,435	3,015	41,793
	PMP	143	646	7,144	204	827	9,235	187	749	8,807	153	634	7,763
	Total	2,268	5,253	58,453	2,207	5,080	59,709	1,870	4,514	54,557	1,596	3,711	50,459
VL1012m	DRB	31	422	3,337	27	391	2,933	15	222	1,506			
	DTS	14	173	1,747	13	172	1,652	14	196	1,904	17	233	2,381

Length	Gear	2008			2012			2016			2021		
		No.	GT	kW	No.	GT	kW	No.	GT	kW	No.	GT	kW
	PGP	78	827	6,872	70	781	6,698	58	655	5,614	51	569	5,472
	PMP	31	361	3,126	39	470	4,134	36	447	3,858	27	336	2,959
	Total	154	1,783	15,082	149	1,813	15,417	123	1,521	12,882	95	1,138	10,812
VL1218m	DRB <sup>2)</sup>	35	1,095	5,228	32	1,061	4,664	32	1,180	4,681	41	1,710	5,685
	DTS	209	6,756	37,407	142	4,735	25,866	129	4,634	23,607	112	4,618	22,279
	PGP	80	2,378	11,778	46	1,524	7,071	29	954	4,423	26	914	4,312
	PMP	58	1,332	8,801	54	1,478	9,005	44	1,315	7,464	31	959	5,675
	TBB	18	752	3,231	11	548	2,126	11	548	2,121	10	464	2,001
	TM <sup>3)</sup>				19	864	3,516	10	606	1,871	4	234	1,175
	Total	400	12,313	66,445	304	10,210	52,248	255	9,237	44,167	224	8,900	41,127
VL1824m	DTS	90	7,634	27,585	64	6,442	19,395	48	4,977	13,867	39	4,771	13,530
	PMP	15	1,395	3,895	15	1,517	4,452	11	1,399	3,958	10	1,529	4,792
	TBB	13	827	2,393	16	1,094	2,877	17	1,137	3,081	16	1,114	2,852
	Total	118	9,856	33,873	96	9,095	26,934	76	7,513	20,906	65	7,414	21,174
VL2440m	DTS <sup>3)</sup>	74	18,578	48,035	44	12,025	26,231	35	10,761	22,954	37	12,070	29,384
	PMP	8	1,992	4,124	7	1,597	2,998	5	1,429	2,967	3	1,135	1,789
	Total	82	20,569	52,159	51	13,622	29,229	40	12,190	25,921	40	13,205	31,173
VL40XXm	DTS	32	22,615	45,932	13	9,537	17,783	10	7,957	15,789	18	18,937	42,107
	TM <sup>4)</sup>	7	9,911	22,625	16	19,311	41,193	23	31,859	58,827	11	23,638	42,253
	Total	39	32,526	68,557	29	28,848	58,976	33	39,816	74,616	29	42,575	84,360
Total		3,061	82,299	294,569	2,835	68,625	242,303	2,397	74,790	233,049	2,049	76,945	239,105

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

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

<sup>2)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB in 2020.

<sup>3)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>4)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

## Section B

Section B describes the impact on fishing capacity of fishing effort reduction schemes adopted under multiannual management or recovery plans, if appropriate, under national schemes.

### Statement of effort reduction schemes

No longer in effect since 2018<sup>1</sup>.

## Section C

Section C contain the information om 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 20,719 GT and 98,759 kW. In percentage, the capacity is approximately 23,3 % in GT below the ceiling and in kW more than 31,5 % below the ceiling.

<sup>1</sup> See the Danish Annual Report on fishing fleet capacity for 2018,

[https://fiskeristatistik.fiskeristyrelsen.dk/stat/flaaderapport/DK\\_Fleetreport\\_2018.pdf](https://fiskeristatistik.fiskeristyrelsen.dk/stat/flaaderapport/DK_Fleetreport_2018.pdf)

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

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

National register	GT	kW
Fleet ceiling according to annex II	88,762	313,333
Capacity of the fleet on 31 December 2021	68,043	214,574
<b>Capacity ceiling minus actual capacity</b>	20,719	98,759

Source: The Danish Fishery Agency Vessel Register per 31<sup>th</sup> December 2021.

Note 1: No exits financed with public aid in 2021

## Section D

Section D is a summary of the weakness 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.

### Fisheries management system

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 species with industrial usage (e.g. fishmeal, fish oil, and animal feed). VQS includes demersal species (e.g. cod, sole and lobster). The rules for the transfer of VQS-shares and associated annual volumes are more restrictive than the rules for transfer of ITQ and their associated annual volumes.

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 Danish fishing quotas, in order to promote a diverse, local and coastal fishery 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 other 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 fishery 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 erased from 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 point 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. It 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 modernizations. 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 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 in the Baltic Sea through the scrapping of vessels in order to reduce capacity in this particular fleet.

Both scrapping schemes are planned to be carried out in 2022 and the concerned capacity is expected to be reduced at the latest by the end of 2023. The effect of the schemes will be observed over time.

### **Information on general level of compliance with fleet policy instruments**

Compliance is ensured by an active fisheries inspection by control vessels, control units in the fishing port as well as administrative checks and control activity.

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 in the Council Regulation 1224/2009. This sampling plan sets the framework for an all new approach to engine power verification, which 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 13 physical verifications on board fishing vessels.

Furthermore, the Danish fishing authorities have 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 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 operation, which is not part of the sampling plan but carried out as a separate campaign.
- 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 control of engine power and follow-up with physical verification has been introduced together with the Danish Maritime Authority.
- A study on the prospects of continuously monitoring of engine power has been initiated.
- On the basis of the aforementioned study, a pilot project of continuously monitoring of engine power on fishing vessels will be carried out, possibly in late 2022 or the beginning of 2023.

Below is a table showing information on infringements and inspections on the main management measures in 2021.

**Table D1. Number of infringements and accomplished inspections in 2021**

Number of infringement cases	Administrative controls	Inspections in port	Inspections at sea	Total
1.1. Registration – license, authorisation etc.	3	2	2	7
1.2.1. Fishing capacity	1	9	1	11
1.2.2 Illegal marking and identification of fishing vessels		1		1
1.3. Quotas and quantitative rationing	19	2		21
1.4. Limitations relating to gear and catch method	1	8	15	24
1.5. Area restrictions	9	2	5	16
2.1 Denial of control		3		3
3.1 Other information to be provided	1	1	1	3
3.2 Concealing, tampering or disposal of evidence (sales notes and logbook, section 5 and 11)	1			1
3.3 Manipulation of the system for satellite-tracking of vessels		2	1	3
3.4 Noninstallation of VMS			1	1
3.5 Missing or incorrect operation and maintenance of VMS		2		2
3.6 Other infringements of rules pertaining VMS	2	2		4
3.8 Infringement of applicable control rules (third country vessel)		1		1
4. Illegal catch composition, undersized, Landing obligation and other	2	27	3	32
5.1 Logbook Order and other matters	308	40	5	353
5.2. Control Order and other matters	15	4		19
5.3. Notifications	60	28	1	89
5.4. Recordings from Aquaculture or PO fish	1	1		2
6.1. Infringements at the landing and marketing of fish	6	30		36
6.2 lack of authorization for first sale		1		1
9.2 Other conditions for the master and the owner of third country vessel		3		3
9.5 Conditions regarding IUU fishing	1	5		6
9.6 Not comply with the rules laid down by NEAFC		2		2
10. Other criminal offenses	6	6		12
<b>Total</b>	<b>436</b>	<b>182</b>	<b>35</b>	<b>653</b>
<b>Number of inspections</b>	<b>685</b>	<b>2,336</b>	<b>443</b>	<b>3,464</b>

Source: Data compiled from the DK national register of infringements, per 31th 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 2017, a scheme making it easier for young fishermen to obtain a fishing vessel was introduced. The scheme allocates a part of the Danish allocation of kW and BT in a reserve, which can be applied for on a temporary basis by young fishermen hoping to buy their first vessel.

This made it easier for them, since they will not have to buy all of the needed capacity (kW and BT) at market prize. The new rules were introduced by the national order no. 886 28 June 2017 on vessels used for commercial fishery (chapter 6, §§ 19-21). In continuation of this all capacity (kW and BT) not registered with the Danish Fisheries Agency no later than 1 July 2018 was allocated to the reserve.

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". 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 2021, Denmark introduced a fictional quota (so called B-quota) based on a commercial fishing company- or fishers financial balances (loans, guarantees and collateral). B-quotas are included in the total quota statement. Commercial fishing companies or fishers, whose financial balances amount to more than DKK 5 million, are obligated to report B-quotas. For example, B-quotas will be credited to a lender, based on the value of the borrower's quota shares. The loan in question is then considered as used for buying quotas from the borrower. The B-quota counts towards the lenders total concentration of quotas, as if the lender had purchased the quotas. This does not allow the lender to fish using the b-quotas. This system limits the opportunities for circumventing the concentration rules by means of indirect ownership (i.e. lending out, guarantees and collateral). All established quota ceilings must be complied with, counting both legally owned quotas and B-quotas.

## 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 are 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 is fishing for brown shrimp in the Wadden Sea, and the VL1012m DRB and VL1218m DRB that is fishing mussels are included, but they are not subject to quotas set at the EU level. These four fleets are 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 EC guidelines: 1) The inactive fleet indicator and 2) The vessel utilisation indicator is presented in the following.

#### The Inactive fleet indicator

The first indicator describes the proportion of vessels that are not actually active at all.

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 2021 are presented in Table F.1. By taking the share between the inactive vessels and the total vessels, the inactive fleet indicator is calculated. The length group VL0010m has a relative high percentage of inactivity, regardless of it is measured in number of vessels (42%), gross tonnage (28%) or engine power (29%). According to the EC guidelines, an inactivity level more than 20% indicates technical inefficiency. If this measure is used, the VL0010m is technical inefficient, however it has been reduced over the years, but not from 2019 to 2020, where the inactivity indicators were 42% for vessels, and 27% for both gross tonnage and engine power. The other length groups do have a lower share of inactivity (below 10%), regardless of the measure. Although the total Danish fleet has a high number of inactive vessels (34%), the total inactivity of physical capacity is still relatively low with 6% of GT and 11% of kW, which in 2020 was 2% of GT and 8% of kW.

**Table F.1. Ratios between inactive and total number of vessels in 2021**

Length	Inactive <sup>1)</sup>			Total <sup>2)</sup>			Share of inactivity (%)		
	No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	632	999	13,967	1,497	3,544	47,934	42	28	29
VL1012m	9	107	1,022	92	1,105	10,548	10	10	10
VL1218m <sup>3)</sup>	18	348	2,413	218	8,799	40,297	8	4	6
VL1824m	1	92	213	65	7,414	21,174	2	1	1
VL2440m <sup>4)</sup>				36	12,145	28,442	0	0	0
VL40XXm <sup>5)</sup>	2	2,257	5,825	25	35,054	66,161	8	6	9
<b>Total</b>	<b>662</b>	<b>3,802</b>	<b>23,440</b>	<b>1,933</b>	<b>68,061</b>	<b>214,556</b>	<b>34</b>	<b>6</b>	<b>11</b>

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

Notes: <sup>1)</sup> Includes vessels not having any catch value in 2021, but in the Vessel Register per 31<sup>st</sup> December 2021.

<sup>2)</sup> Includes vessels in the Vessel Register per 31<sup>st</sup> December 2021.

<sup>3)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

<sup>4)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

## The vessel utilisation indicator

The second indicator concerns the average activity of vessels that did fish at least once a year, taking into account the seasonality of the fishery and other restrictions.

The ratio between days at sea and maximum days at sea for each length group and gear type is presented in Table F.2. By taking the ratio between average and maximum number of sea days, an expression for technical capacity utilisation is calculated. The maximum number of days at sea within a fleet has been set equal to the most active vessel within each year. This method is chosen, because there is a large variation in the maximum possible of days at sea between the fleets and within fleets. For example, the larger vessels will usually have more days at sea per year than the smaller vessels, operated only by one fisher. By using the maximum observed days at sea for each fleet, this will be taken into account. At the same time, it ensures that the ratio between average days at sea and maximum days at sea does not exceed a value of 1.

**Table F.2. Ratios between average days at sea and maximum days at sea<sup>1) 2)</sup>**

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
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
	PMP		0.25	0.23	0.21	0.23	0.25	0.21	0.27	0.23	0.20	0.21
VL1012m	DRB	0.65	0.75	0.53	0.59	0.57	0.65	0.50	0.37	0.64		
	DTS		0.81	0.73	0.58	0.55	0.62	0.52	0.62	0.59	0.56	0.53
	PGP	0.42	0.43	0.47	0.44	0.45	0.43	0.39	0.39	0.36	0.35	0.41
	PMP	0.56	0.48	0.56	0.42	0.43	0.49	0.49	0.42	0.50	0.39	0.44
VL1218m	DRB <sup>3)</sup>	0.52	0.49	0.39	0.39	0.44	0.40	0.45	0.38	0.40	0.34	0.35
	DTS	0.45	0.47	0.47	0.49	0.43	0.45	0.45	0.46	0.48	0.50	0.47
	PGP	0.45	0.51	0.48	0.45	0.49	0.44	0.48	0.53	0.48	0.59	0.53
	PMP	0.52	0.37	0.35	0.43	0.45	0.49	0.40	0.41	0.48	0.58	0.56
	TBB	0.66	0.76	0.78	0.79	0.73	0.77	0.80	0.84	0.80	0.76	0.64
	TM		0.53	0.49	0.70	0.58	0.63	0.79	0.87	0.87	0.81	0.83
VL1824m	DTS	0.47	0.48	0.47	0.55	0.54	0.52	0.56	0.57	0.61	0.56	0.56
	PMP	0.62	0.66	0.77	0.74	0.70	0.64	0.72	0.66	0.87	0.71	0.72
	TBB	0.66	0.76	0.72	0.78	0.72	0.81	0.80	0.80	0.61	0.74	0.69
VL2440m	DTS <sup>4)</sup>	0.62	0.67	0.69	0.72	0.78	0.75	0.72	0.74	0.76	0.69	0.71
	PMP				0.72	0.63	0.87	0.80	0.79	0.81	0.79	0.84
VL40XXm	DTS	0.64	0.63	0.74	0.76	0.92	0.47	0.56	0.51	0.48	0.64	0.59
	TM <sup>5)</sup>		0.67	0.66	0.65	0.68	0.57	0.62	0.68	0.74	0.84	0.66

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2021.

Notes: <sup>1)</sup> Covers only active vessels

<sup>2)</sup> See Annex 4 for the figures used for the calculations

<sup>3)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

<sup>4)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

From Table F.2, it is observed that ratios 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 with Individual Transferable Quotas (ITQ) since 2003, and a relative high ratio is observed for these vessels. All other fleets (except DRBs and TBBs) has since 2007 been managed with transferable Vessel Quota Shares (VQS), and an increasing ratio has generally been observed, despite many fluctuations occur for a range of reasons. Generally, it is expected that fishers like in other business have a behaviour towards optimizing their economic performance, thus trying to utilise their capacity in the most optimal way. Quota levels, regulation, weather, changing fuel prices and various other costs will within a specific year influence the activity level of fishers. Thus, expecting that the vessel utilisation indicator

will in the end be equal to one is not likely. There are many economically rational reasons for always retaining some overcapacity.

Furthermore, drawing strong conclusions about presence of technical overcapacity is difficult, because each fleet is not homogeneous, thereby having a large variation in the maximum 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 15 of the 19 fleet segments in 2021, 13 segments in 2020, 14 segments in 2019 and 15 segments in 2018. The three fleets that do not indicate technical overcapacity in 2020 include VL1218m TM, VL1824m PMP, VL2440 DTS and VL2440m PMP. The low technical utilisation rate of the smaller fleets generally below 12 metres, but specifically 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

Two indicators are used to assess whether vessels are relying on overfished stocks, or involved in causing a high biological risk to depleted stocks.

### Sustainable Harvest Indicator (SHI)

The sustainable harvest indicator is a measure of how much a fleet segment relies on stocks that are overfished.

The SHI values for the individual segments in 2020 are mainly determined by the proportion of landings value from the cod stocks in the North Sea and Western Baltic (overfished in relation to  $F_{MSY}$ ), the flatfish (mainly North Sea plaice and SD 20-24 Sole, fished below  $F_{MSY}$ ), and Norway lobster (mainly in Kattegat and Skagerrak fished considerably below  $F_{MSY}$ ). For the pelagic stocks, the main contributions are from North Sea herring and Atlantic mackerel both fished below  $F_{MSY}$ , sprat in the Baltic fished above  $F_{MSY}$  and blue whiting in the north east Atlantic fished above  $F_{MSY}$ . Most of the industrial species, North Sea sprat, Norway pout and sandeel stocks, fished by Denmark have no defined  $F_{MSY}$ , so SHI cannot be calculated for a large proportion of the Danish landings.

**Table F.3. Sustainable Harvest Indicator (SHI)**

Length	Gear	2012	2013	2014	2015	2016	2017	2018	2019	2020	Trend (5%) 2015/2020	Status 2020
VL0010m	DTS	1.37	0.96	0.86	0.99	0.99	0.76	0.68	0.67	0.60	-	-
	PGP	2.15	2.06	2.05	2.00	1.83	1.78	1.64	1.66	1.29	-	-
	PMP	2.01	1.65	1.63	1.65	1.59	1.42	1.47	1.33	1.22	decreasing	out of balance
VL1012m	DRB	-	1.36	1.34	1.37	1.46	-	0.73	0.62	1.44	-	-
	DTS	1.86	1.85	1.87	1.69	1.57	1.42	1.41	0.91	1.06	decreasing	out of balance
	PGP	2.89	2.53	2.24	2.43	2.37	2.35	2.19	2.12	1.83	decreasing	out of balance
	PMP	1.57	1.55	1.40	1.45	1.45	1.17	1.37	1.40	1.08	-	-
VL1218m	DRB	0.94	-	-	-	-	0.61	0.73	-	-	-	-
	DTS	1.53	1.18	0.99	1.00	0.85	0.71	0.76	0.92	1.11	increasing	out of balance
	PGP	1.52	1.37	1.30	1.43	1.44	1.59	1.51	1.24	1.07	decreasing	out of balance
	PMP	1.65	1.50	1.51	1.17	0.90	0.83	0.99	1.12	1.31	increasing	out of balance
	TBB	1.13	0.83	-	0.85	1.03	1.10	-	0.97	0.82	-	-
	TM	1.04	1.26	1.08	1.10	1.14	1.33	1.19	1.37	1.24	-	-

VL1824m	DTS	1.32	1.25	1.17	1.16	1.05	1.04	0.96	0.96	0.94	no trend	in balance
	PMP	1.26	1.14	1.16	1.16	1.26	1.45	1.43	1.22	1.05	decreasing	out of balance
	TBB	1.12	0.92	0.68	0.93	1.05	1.13	1.11	0.87	0.80	-	-
VL2440m	DTS	1.15	1.15	1.20	1.16	1.19	1.29	1.30	1.30	1.14	no trend	out of balance
VL40XXm	DTS	0.77	0.82	0.73	0.78	0.81	0.96	1.01	0.90	1.01	-	-
	TM	0.85	0.93	0.89	0.83	0.80	0.95	0.92	1.00	1.01	no trend	out of balance

Trend and status 2020 are not shown for fleets where less than 40 % of catch value are from species used in the SHI calculation.

Fourteen out of nineteen fleets may not be in balance (SHI >1) with their fishing opportunities in 2020 (Table F.3). The smaller vessels with a high proportion of the overfished cod stocks have a SHI >1 ("out of balance"). The fishing techniques PGP and PMP (mainly passive gears) have in general a higher SHI than the fleet using active gears. The large pelagic trawlers have a SHI closer to 1.0 due to their high proportion of e.g. North Sea herring. 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 2020 is not provided.

The SHI indices show mainly a decreasing trend for the smaller (demersal species) vessels and no trend for the larger (pelagic species) vessels.

The newly calculated SHI values 2012-2019 in table F.3 are the same as the (rounded) SHI values provided by STECF-21-16.

### The SAR indicator

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

Table F.4 for the Danish segments in 2020 is mainly determined by catch of Western Baltic cod. Sandeel stocks (SA 1r, and SA 2r) were also at risk in 2020. Eleven out of nineteen fleets had in 2020 at least one stock at risk ("out of balance"). The sum of SAR, all fleet combined, has decreased slightly within the last 5 years.

The presented SAR values are considerably lower than the 2009-2019 values presented by STECF-21-16. The main reason is that sandeel landings data are here provided by stock whereas STECF uses a fixed stock distribution key for all sandeels caught in the North Sea, which is incorrect as the seven sandeel stocks in the North Sea are managed by an area specific quota. Another difference is that the SAR criteria of minimum 10% landings from a stock calculated on the basis of fleet landings and the total international landings reported to ICES. STECF seems to use the sum of international fleet landings reported to STECF, which may be lower as not all (low quantity) species seem to be reported to STECF internationally, such that Danish proportions become too high for some stocks.

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

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Status 2020
VL0010m	DTS	-	-	-	-	-	-	-	-	-	-	
	PGP	1	-	2	-	-	1	1	1	1	-	
	PMP	-	-	1	-	-	1	1	1	1	-	
VL1012m	DRB	-	-	-	-	-	-	-	-	-	-	
	DTS	-	-	-	1	-	1	1	1	-	1	out of balance
	PGP	1	-	1	-	-	1	1	1	1	1	out of balance
	PMP	1	-	1	-	-	-	1	2	-	1	out of balance
VL1218m	DRB	-	-	-	-	-	-	-	-	-	-	
	DTS	1	-	2	1	1	2	2	2	2	2	out of balance



	PGP	-	-	-	-	-	-	-	-	-	-	-
	PMP	-	-	2	1	-	-	1	2	2	2	out of balance
	TBB	-	-	-	-	1	-	-	-	2	1	out of balance
	TM	-	-	1	1	1	2	2	1	-	-	
VL1824m	DTS	2	1	1	1	1	2	3	3	1	1	out of balance
	PMP	-	-	-	-	-	-	1	2	1	2	out of balance
	TBB	-	-	-	-	1	-	-	-	-	1	out of balance
VL2440m	DTS	1	2	1	2	2	2	2	1	1	1	out of balance
VL40XXm	DTS	-	-	-	3	2	2	1	-	2	2	out of balance
	TM	-	-	-	3	3	2	1	-	1	-	

### 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)

The first indicator compares the long-term profitability of the fishing fleet segment to other available investments.

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 guidelines<sup>2</sup>. ROI for the Danish fleet for the years 2011-2020 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
VL0010m	DTS	-9.24	-11.19	-3.20	-1.29	1.94	0.71	0.85		0.02	0.60
	PGP	-8.30	-9.60	-6.54	-10.87	-8.97	-11.97	1.52	-1.84	-4.20	-2.99
	PMP		-9.75	-10.61	-11.70	-3.87	-2.11	-0.93	-3.64	-0.97	-2.20
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
	PGP	-5.48	-5.69	-4.12	-5.50	-3.79	-1.54	-1.81	-0.48	-0.37	-5.30
	PMP	-6.19	-7.01	-9.65	-8.10	-0.90	-2.01	-2.58	-3.18	-2.01	-2.88
VL1218m	DRB	-4.41	-3.06	-1.21	13.49	22.96	16.73	22.95	7.62	10.55	-4.94
	DTS	-1.51	-1.98	-1.17	-1.04	1.26	1.72	0.87	0.19	-0.07	-0.36
	PGP	-1.33	-4.48	-1.62	-3.70	-1.65	1.44	4.26	2.28	0.76	-1.36
	PMP	-1.86	-2.39	-1.09	-1.57	0.80	0.49	2.60	-0.88	-1.20	-1.16
	TBB	-10.15	5.40	4.89	4.18	-5.49	17.02	13.00	17.56	-13.13	-4.96
	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
	PMP	-0.06	-0.10	1.28	0.19	3.56	3.13	1.41	1.15	0.71	0.85
	TBB	-8.20	4.26	3.17	1.42	1.67	22.67	14.85	9.81	-3.66	-2.80
VL2440m	DTS	0.14	-1.00	1.07	3.34	4.15	4.38	2.54	0.84	0.75	1.85

<sup>2</sup> 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)

VL40XXm	DTS	10.50	9.99	11.79	2.62	9.60	10.91	3.19	5.35	2.59	8.96
	TM		7.36	6.89	4.76	8.26	7.65	5.47	7.24	4.55	6.14

Source: 2022 Data call for economic, employment, effort datasets on the EU fishing fleets, EC Ref. Ares(2022)7121155 – 31/01/2022.

Note: \* the large value is primarily driven by one vessel selling a major amount of its fishing rights.

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, but then again negative in 2020.

The other entry-restricted fisheries, the TBBs, experienced negative ROIs in 2011, 2019, and 2020, but has been positive the other years, except in 2015 for the VL1218.

The remaining fleets between 12 and 24 meters have ROIs varying around zero, 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 second indicator concerns the average activity levels of vessels that did fish at least once in the year, taking account of the seasonality of the fishery and other restrictions.

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 guidelines<sup>3</sup>. 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 2020 are shown in Table F.6. 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.

<sup>3</sup> 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



**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
VL0010m	DTS	0.37	0.25	-0.03	0.44	1.49	1.37	6.98		0.11	-1.02
	PGP	0.11	0.30	0.29	-0.15	-0.09	-0.05	0.01	0.73	-0.02	0.17
	PMP		0.28	0.03	0.02	0.56	-0.06	-0.13	0.06	0.30	0.23
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
	PGP	0.39	0.53	0.45	0.25	0.61	0.87	0.66	0.93	1.07	-0.26
	PMP	0.38	0.42	0.18	0.30	0.98	0.74	0.40	0.30	0.36	0.17
VL1218m	DRB	0.77	0.75	0.83	2.09	3.34	3.18	3.78	2.03	2.50	0.39
	DTS	0.95	0.86	0.90	0.86	1.25	1.52	1.23	1.10	1.03	0.78
	PGP	0.98	0.78	0.86	0.57	0.86	1.14	1.52	1.66	1.45	0.59
	PMP	0.68	0.80	0.79	0.72	1.09	1.15	1.15	0.81	0.65	0.66
	TBB	0.32	1.47	1.26	1.02	0.59	2.16	2.08	2.43	-0.14	0.41
	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
	PMP	1.21	1.16	1.34	1.34	2.01	2.13	2.01	1.77	1.65	1.19
	TBB	0.40	1.47	1.19	1.00	1.06	2.71	2.80	2.31	0.49	0.63
VL2440m	DTS	1.10	0.99	1.17	1.36	1.94	2.23	2.23	1.42	1.36	1.38
VL40XXm	DTS	2.02	2.55	1.81	1.41	2.79	3.73	2.00	2.19	1.87	2.65
	TM		2.11	1.86	1.59	2.12	2.61	2.66	2.31	2.64	2.44

Source: 2022 Data call for economic, employment, effort datasets on the EU fishing fleets, EC Ref. Ares(2022)7121155 – 31/01/2022.

\*Interest rate used to calculate the opportunity cost of capital is the Danish long-term interest rate for convergence purposes, European Central Bank. In 2019, it was -0.36%

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 2019-2020, where it was below one 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 one. In 2015, it was 6 fleets and it has remained at this level more or less since then. In 2018, no fleets had negative CR/BER values, while one fleet in 2019, and four fleets in 2020 had negative CR/BER. The only fleets that have been economically viable through the entire period and thus able to cover current costs is VL1824m PMP, 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 possibilities.

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 20,719 GT and 98,759 kW. In percentage, the capacity is approximately 23,3% in GT below the ceiling and in kW

more than 31,5% below the ceiling. In conclusion, Denmark is in compliance with entry-exit levels for tonnage as well as engine power.

According to section D, the Danish administrative system as such, concerning the administration of the fisheries management and administration of 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 common regulation 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 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.

The segments 4, 8, 12, 16 are segments specialised in mussels and brown shrimps fisheries. These fisheries have restricted access and closely regulated and monitored.

The remaining segments are statistical categories defined by JRC.

In this context, there are 5 groups which reflect the size and type of fishery as well as the mix of stocks fished by the statistically defined segments within the group. Over 24 metres, 12-24 metres and 0-12 metres. Within the group of small scale vessels is a subgroup consisting of non-commercial and inactive vessels. For the purpose of assessment of the balance, the fleet is divided into the following fisheries relevant segments or groups:

- ✓ Mussels
- ✓ Brown shrimps
- ✓ >24 metres
- ✓ 12-24 metres
- ✓ <12 metres
- ✓ Inactive and non-commercial vessels

Explanations given for each group applies to all statistical segments within the group.

#### ***Mussels fishery (4, 8):***

This fishery is restricted access and ITQ managed. The fisheries are limited to specific areas and quotas are set according to assessment of the local stock and environmental protection needs such as eel-grass, area swept etc. Firstly, looking at the economic indicators. The return to investment (ROI) indicator for category 4 and 8 is negative, where the current-break even indicator (CR/BER) is positive or close to zero. Despite year 2018 and 2020 both ROI and CR/BER was positive. It is not unusual that the earnings in the mussels fishery vary considerably from year to year. Secondly, the SAR indicator shows no catch of stocks at risk. Taking this into account we found that there is no need for action based on a single year with negative economic indicators.

In conclusion, there is an acceptable balance between capacity and fishing possibilities. Though, we note the negative trend and this will be monitored carefully, which is indicated by a yellow colour in the traffic lights table.

#### ***Brown shrimps fishery (12, 16):***

This fishery is limited to vessels on the list of beam trawlers specialised in brown shrimp fishery in the Wadden Sea area. Like the mussel fishery, the brown shrimps fishery is restricted access fishery. In 2019 and 2020 the vessels had a negative ROI, though less

negative in 2020 than 2019 and in years prior to that, it was positive. CR/BER is also positive. As the mussel fishery it is not unusual that the earning in the brown shrimp fishery vary considerable from year to year. Taking this into account and the slightly positive trend we found that there is no need for action based on two years with negative economic indicators, however we note the negative trend.

In conclusion, there is an acceptable balance between capacity and fishing possibilities. Though, we note the negative trend and this will be monitored carefully, which is indicated by a yellow colour in the traffic lights table.

***Vessels over 24 metres (17, 18 and 19):***

The vessels over 24 meters fish for pelagic and industrial species. The smaller ones also take some round fish, flatfish and prawns. Firstly, the economic indicators ROI and CR/BER are positive, stable and the trend is even increasing. Secondly, most of the stocks are in good condition, which is also reflected in the SHI indicator by being close to 1. We do note that the SHI indicator this year is just above 1. However, this has not been the case for consecutive years and we see no negative trend.

In conclusion, there is a good balance for this group, which is indicated by a green colour in the traffic lights table.

***Vessels 12-24 metres (9, 10, 11, 13, 14, 15):***

These vessels between 12-24 meters fish for a variety of species including round fish, flatfish, prawn and fish intended for fishmeal purposes.

Firstly, the sustainable harvest indicator (SHI) is slightly above 1 for most segments, and below 1 for one segment

Secondly, for some fleets the return on investment (ROI) is negative; while for other segments positive. Likewise, we see both a positive trend and negative trend depending on the segment. This is due to the fact, that this category consists of a large variety of vessels and fisheries.

In assessing the economic indicators, it should be taken into account that these vessels are operated by 1-3 crewmembers including the owner. The owner's remuneration is set at a standard salary, which in many cases is higher than the real and realistic income for fishermen operating small scale vessels. At a more realistic pay to the owner the economic result would be higher.

However, regardless of this it cannot be overlooked that in some of the segments in this category there is an imbalance between capacity and fishing possibilities, especially for vessels depending on cod stocks in the Baltic Sea. During the last years the bad state of the stock and hence adopted emergency measures prohibiting fishing for cod in the most concerned areas has limited the fisheries dramatically in the Baltic Sea. Unfortunately, as there is no sign of improvement and vessels fishing on cod stocks in the Baltic Sea is a segment that require further attention.

Likewise, the immediate challenges facing Danish fisheries as a result of Brexit has led to reduction in fishing opportunities and loss of income during the first three months of 2021.

In conclusion, the variety for the category is large and no overall assessment can be made. For some segments, there is considered to be an acceptable balance between capacity and fishing possibilities. This is mainly the case for vessels above 18 metres. Whilst other segments, there is considered to be an imbalance between capacity and fishing possibilities. This is mainly the case for vessels between 12 and 18 metres. The traffic lights show the interpretation for each segment.

**Vessels 0-12 metres, including inactive and non-commercial vessels (1, 2, 3, 5, 6, 7):**

These vessels between less than 12 metres fish on demersal stocks for flatfish, round fish, and Norway lobster.

The remaining non-commercial vessels less than 12 metres include about 1,500 vessels and many of these have no registered activity. Although the number of vessels is high, they are not involved in fishery of any significance for the stocks. Almost all of these vessels are non-commercial and in some cases inactive vessels are less than 10 metres and the quantities fished are small and with low importance for the overall stocks.

A great share of the smaller vessels is owned by part-time fishermen. Part time fishermen are allowed to continue their activity at a low level provided they can keep an income of 5 % from fishery. They are important for the regional development in Denmark in order to ensure an activity in small ports and coastal communities. However, their activity is very low and has no significant impact on the overall stocks.

Many owners of small non-commercial vessels keep their vessel for social and recreational purposes. Although they have the status of a fisherman or a part-time fisherman, they are not economically dependent on the fishery. This is confirmed by a large number of inactive vessels under 10 metres and the inferior quantities landed by the non-commercial part of the small scale fleet (much less than 1% of Danish landings). The potential capacity of the small scale fleet is around 1,700 vessels, 4,849 GT and 61,271 kW. In reality, only 158 vessels in the small scale fleet were active at a commercial level in 2021. All the 1,596 vessels under 10 m, including the less active ones, caught only 3,581 tonnes of fish in total.

Finally, when analysing the indicators for vessels between 10 and 12 meters we find some of the same patterns as the category of vessels between 12 and 24 meters.

The biological indicators reflect a negative situation for some of the stocks fished by these vessels, mainly for cod stocks. The distribution of landings values show that a variety of species are fished by the small scale vessels, although the quantities are low.

The indicator return on investment (ROI) is negative for most segments. Likewise, we find no segments with a current break-even indicator (CR/BER) close to 1. Although both economic indicators are mainly negative, for most segments, it must be kept in mind, that this is based on a high standard salary which is higher than the realistic income for fishermen operating small vessels. *See previous argument regarding this above.*

Regardless of these facts it cannot be overlooked that for some of the segments in this category there is an imbalance between capacity and fishing possibility. For instance vessels depending on cod stocks in the Baltic Sea. *See previous explanation above.*

Taking this into account, the capacity of vessels below 10 meters is not associated with commercial over-capacity and that they do not represent a real fishing capacity, which could lead to increased fishery. Even if they wanted to become commercial vessels, they had to obtain quotas from other vessels and this is not believed to be a realistic scenario.

In conclusion, the variety for the category is large and no overall assessment can be made. However, for most vessels between 10 and 12 meters there is considered to be an imbalance between capacity and fishing possibilities. The traffic lights show the interpretation for each segment.

## ***Plan for improvement of the fleet***

As part of the EMFAF programme for Denmark, a number of measures aim at improving the situation for small vessels. These include support for investments on smaller vessels, in facilities in smaller ports and landing places supporting small scale fishery 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 order to reduce capacity in this particular fleet.

Prior to *the scrapping scheme in the Baltic Sea*, the Department of Food and Resource Economics (IFRO), Copenhagen University, conducted an analysis on the Baltic Sea in order to analyse how the last years quota reductions have affected the economy of the fisheries in the Baltic Sea. The analysis is elaborated in the action plan<sup>4</sup> and concludes that the overcapacity for the specific segment in the Baltic Sea. The scrapping scheme will be carried out 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. But at the same time combined with how much gross tonnage is scrapped in order to help 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 TCA. 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 are planned to be carried out in 2022 and the concerned capacity is expected to be reduced at the latest at the end of 2023. The effect of the schemes will be observed over time and 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.

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<sup>4</sup> Action Plan sent to the Commission 23 May 2022.

**Table F. 7. Traffic lights**

No.	Length	Gear code	Economic indicators		Biological Indicators		Technical Indicators		Over all assesment
			Return on investments (ROI)	Current/Break-even	Sustainable Harvest Indicator (SHI)	Stocks at Risk Indicator (SAR)	Inactivity	Utilisation	
1	VLOO10	DTS	0.60	-1.02	0.60	-	42	0.47	Mainly inactive or less active vessels non commercial vessels
2		PGP	-2.99	0.17	1.29	-		0.09	
3		PMP	-2.20	0.23	1.22	-		0.21	
4	VL1012	DRB	-9.76	-0.04	1.44	-	10	0.53	Mussels
5		DTS	-2.42	-0.13	1.06	1			Demersal
6		PGP	-5.30	-0.26	1.83	1			
7		PMP	-2.88	0.17	1.08	1			
8	VL1218	DRB	-4.94	0.39	-	-	8	0.35	Mussels
9		DTS	-0.36	0.78	1.11	2		0.47	Mixed
10		PGP	-1.36	0.59	1.07	-		0.53	Demersal
11		PMP	-1.16	0.66	1.31	2		0.56	Brown Shrimps
12		TBB	-4.96	0.41	0.82	1		0.64	
13		TM	47.70*	8.70	1.24	-		0.83	Pelagic
14	VL1824	DTS	-0.58	0.71	0.94	1	2	0.56	Mixed
15		PMP	0.85	1.19	1.05	2		0.72	Brown Shrimps
16		TBB	-2.80	0.63	0.80	1		0.69	
17	VL2440	DTS	1.85	1.38	1.14	1	0	0.71	Mixed
18	VL40XX	DTS	8.96	2.65	1.01	2	8	0.59	Pelagic +
19		TM	6.14	2.44	1.01	-		0.66	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

Note: \*The large value is primarily driven by one vessel selling major amount of its fishing right.

## 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, 2021

Length	Gear	Commercial <sup>1)</sup>	Non-commercial <sup>2)</sup>	Inactive <sup>3)</sup>	Not registered 31 <sup>st</sup> December <sup>4)</sup>	Total
VL0010m	DTS	42	13	8		63
	PGP	412	1,573	896	134	3,015
	PMP	182	323	95	33	634
	Total	636	1,909	999	168	3,711
VL1012m	DTS	119	71	30	13	233
	PGP	378	150	21	21	569
	PMP	153	127	56		336
	Total	650	348	107	33	1,138
VL1218m	DRB <sup>5)</sup>	1,517	152	41		1,710
	DTS	4,254	160	168	36	4,618
	PGP	769	13	80	53	914
	PMP	850	39	58	12	959
	TBB	450	15			464
	TM <sup>6)</sup>	234				234
	Total	8,073	379	348	102	8,900
VL1824m	DTS	4,602	77	92		4,771
	PMP	1,529				1,529
	TBB	1,066	48			1,114
	Total	7,197	125	92		7,414
VL2440m	DTS <sup>6)</sup>	11,010			1,061	12,070
	PMP	1,135				1,135
	Total	12,145			1,061	13,205
VL40XXm	DTS	17,241		498	1,198	18,937
	TM <sup>7)</sup>	15,556		1,759	6,323	23,638
	Total	32,797		2,257	7,521	42,575
Total		61,497	2,761	3,802	8,884	76,945

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

- Notes:
- <sup>1)</sup> Includes vessels with a yearly catch value above € 36,000.
  - <sup>2)</sup> Includes vessels with a yearly catch value below € 36,000 but above € 0.
  - <sup>3)</sup> Includes vessels not having any catch value within the year.
  - <sup>4)</sup> Includes vessels not being active by the end of the year.
  - <sup>5)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.
  - <sup>6)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
  - <sup>7)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.



## Engine power in kW, 2021

Length	Gear	Commercial <sup>1)</sup>	Non-commercial <sup>2)</sup>	Inactive <sup>3)</sup>	Not registered 31 <sup>st</sup> December <sup>4)</sup>	Total
VL0010m	DTS	505	269	129		903
	PGP	5,589	21,536	12,574	2,094	41,793
	PMP	2,345	3,723	1,264	431	7,763
	Total	8,439	25,528	13,967	2,525	50,459
VL1012m	DTS	1,183	665	404	129	2,381
	PGP	3,234	1,912	191	135	5,472
	PMP	1,519	1,013	427		2,959
	Total	5,936	3,590	1,022	264	10,812
VL1218m	DRB <sup>5)</sup>	4,808	587	290		5,685
	DTS	19,853	891	1,232	303	22,279
	PGP	3,380	85	391	456	4,312
	PMP	4,776	328	500	71	5,675
	TBB	1,781	220			2,001
	TM <sup>6)</sup>	1,175				1,175
	Total	35,773	2,111	2,413	830	41,127
VL1824m	DTS	13,113	204	213		13,530
	PMP	4,792				4,792
	TBB	2,727	125			2,852
	Total	20,632	329	213		21,174
VL2440m	DTS <sup>6)</sup>	26,653			2,731	29,384
	PMP	1,789				1,789
	Total	28,442			2,731	31,173
VL40XXm	DTS	36,942		1,325	3,840	42,107
	TM <sup>7)</sup>	23,394		4,500	14,359	42,253
	Total	60,336		5,825	18,199	84,360
Total		159,558	31,558	23,440	24,549	239,105

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

- Notes:
- <sup>1)</sup> Includes vessels with a yearly catch value above € 36,000.
  - <sup>2)</sup> Includes vessels with a yearly catch value below € 36,000 but above € 0.
  - <sup>3)</sup> Includes vessels not having any catch value within the year.
  - <sup>4)</sup> Includes vessels not being active by the end of the year.
  - <sup>5)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.
  - <sup>6)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
  - <sup>7)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

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

#### Distribution landing value in 2021 (%)

Group	Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landing value (€ 1,000) <sup>6)</sup>
Commercial	VL0010m	DTS	42	22	31	0	5	0	0	481
		PGP	15	28	12	5	40	0	0	6,682
		PMP	27	42	21	0	10	0	0	1,997
	VL1012m	DTS	15	34	46	0	5	0	0	1,426
		PGP	22	50	2	0	26	0	0	3,797
		PMP	11	32	43	1	10	4	0	1,523
	VL1218m	DRB <sup>3)</sup>	0	0	0	0	2	0	98	10,560
		DTS	10	28	49	1	3	10	0	30,739
		PGP	26	62	4	0	9	0	0	7,992
		PMP	8	22	61	0	3	7	0	5,114
		TBB	0	10	0	0	0	9	81	1,777
		TM	3	2	26	6	1	62	0	3,018
	VL1824m	DTS	21	26	37	2	2	12	0	30,291
		PMP	29	48	14	0	2	7	0	12,571
TBB		1	16	1	0	0	0	81	4,744	
VL2440m	DTS <sup>4)</sup>	42	16	27	1	1	15	0	57,124	
	PMP	78	17	4	0	1	0	0	7,129	
VL40XXm	DTS	1	1	1	34	0	44	19	86,430	
	TM <sup>5)</sup>	0	0	0	71	0	28	0	92,668	
Non-commercial	VL0010m	DTS	22	7	0	4	67	0	0	3
		PGP	7	23	14	2	54	0	1	4,630
		PMP	15	39	9	0	36	0	1	580
	VL1012m	DTS	7	50	35	0	8	0	0	53
		PGP	22	47	2	0	28	0	0	204
		PMP	8	48	25	0	2	17	0	174
	1218m	DRB	0	0	0	0	4	0	96	59
		DTS	5	25	36	0	2	0	32	140
		PGP	0	24	2	0	73	0	0	33
		PMP	27	47	9	0	17	0	0	46
		TBB	0	0	0	0	0	0	100	1
VL1824m	DTS	62	38	0	0	0	0	0	21	
	TBB	0	0	0	0	0	0	100	1	

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

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

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

<sup>3)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.

<sup>4)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

<sup>6)</sup> Based on the average Euro exchange rate for 2020 being 7.4370DKK / €.

## Distribution landing live weight in 2021 (%)

Group	Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landing live weight (tonnes)
Commercial	VL0010m	DTS	60	23	15	0	2	0	0	151
		PGP	17	30	3	23	26	0	0	1,690
		PMP	28	60	7	1	4	0	0	507
	VL1012m	DTS	18	57	22	0	2	1	0	299
		PGP	27	65	0	0	7	0	0	918
		PMP	9	30	11	10	1	38	0	660
	VL1218m	DRB <sup>3)</sup>	0	0	0	0	3	0	96	37,132
		DTS	7	20	12	5	1	55	0	17,120
		PGP	25	69	1	0	4	0	0	1,996
		PMP	8	22	17	2	1	50	0	2,454
		TBB	2	5	0	0	0	59	34	838
		TM	2	0	2	8	0	88	0	7,091
	VL1824m	DTS	14	13	8	8	1	56	0	19,883
		PMP	20	29	4	2	1	44	0	5,722
TBB		1	21	1	0	0	0	77	1,040	
VL2440m	DTS <sup>4)</sup>	21	6	5	4	0	63	0	43,118	
	PMP	82	15	2	0	1	0	0	2,162	
VL40XXm	DTS	1	0	0	23	0	72	3	169,177	
	TM <sup>5)</sup>	1	0	0	50	0	50	0	152,562	
Non-commercial	VL0010m	DTS	26	4	0	15	55	0	0	1
		PGP	11	40	4	12	33	0	0	1,095
		PMP	21	62	3	1	12	0	1	138
	VL1012m	DTS	10	88	2	0	0	0	0	30
		PGP	31	50	1	0	18	0	0	74
		PMP	3	26	4	1	2	65	0	141
	1218m	DRB	0	0	0	0	0	0	100	225
		DTS	7	58	13	0	4	0	17	37
		PGP	0	24	1	0	74	0	0	3
		PMP	20	53	2	0	25	0	0	24
		TBB	0	0	0	0	0	0	100	0
	VL1824m	DTS	42	58	0	0	0	0	0	11
TBB		0	0	0	0	0	0	100	0	

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

- Notes:
- <sup>1)</sup> Species such as sand eel, blue whiting, sprat, horse mackerel and Norway pout.
  - <sup>2)</sup> Species that can only be caught with an authorization, i.e., mussels, oysters, brown shrimps, and shrimps in the waters around Greenland.
  - <sup>3)</sup> For discretionary purposes, VL1012m DRB has been included in VL1218m DRB.
  - <sup>4)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
  - <sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

#### Annex 4. Figures used to calculate the technical indicator

Length	Gear	Days at sea <sup>1) 2)</sup>										
		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
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
	PMP	-	6,060	5,557	5,093	4,914	5,277	5,056	4,851	4,060	3,658	3,561
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
	PGP	6,492	5,903	6,388	5,942	5,834	5,768	4,768	4,955	4,316	3,869	4,413
	PMP	3,121	3,415	2,691	2,828	3,059	3,378	2,840	2,875	2,765	1,903	1,899
VL1218m	DRB	2,086	2,543	2,017	2,141	1,826	1,892	2,445	2,061	2,506	2,259	2,497
	DTS	19,677	16,829	16,606	16,659	14,812	15,502	14,224	14,431	14,259	12,198	14,119
	PGP	5,818	4,682	4,669	3,913	3,793	3,315	3,142	3,128	3,009	2,951	2,809
	PMP	4,796	5,009	4,280	4,702	4,118	4,127	3,840	3,408	3,053	3,164	3,492
	TBB	1,185	1,731	1,662	1,901	1,644	2,018	1,688	1,737	965	1,054	1,027
	TM	-	1,506	1,326	1,848	1,499	1,233	904	979	935	729	577
VL1824m	DTS	11,123	10,554	9,693	9,655	9,039	8,061	7,222	7,470	7,476	6,889	7,546
	PMP	2,348	2,281	3,363	2,104	2,089	2,113	2,408	2,405	2,140	2,124	2,426
	TBB	2,105	2,788	2,772	2,764	2,550	3,067	2,917	2,932	1,885	2,087	2,235
VL2440m	DTS	8,564	8,664	7,851	7,782	7,579	8,081	9,209	9,701	9,494	8,759	8,301
	PMP	-	-	-	1,233	1,097	1,157	974	869	891	807	857
VL40XXm	DTS	5,321	1,440	2,762	2,073	2,005	1,728	3,035	2,959	2,403	3,110	2,974
	TM	-	2,496	2,607	2,538	3,439	3,468	2,419	2,501	2,027	2,026	1,170

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

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

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 22<sup>nd</sup> March 2022.

Notes: <sup>1)</sup> The days at sea is based on the Calendar Days method.

<sup>2)</sup> Covers only active vessels.

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