



## Annual Report on fishing fleet capacity 2020 - Denmark

The format of the Danish capacity report concerning 2020 follows the headlines mentioned in article 14 of Commission Regulation (EEC) No. 1013/2010 (no longer in force).

Fleet data used in the report are from 2020, whereas data on economic performance and technical indicators are from 2019. Biological indicators provided by the Commission in 2020 include the time series of Danish catches from 2009-2018.

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

### Description of fleets

The statistics include all Danish vessels during the year and not only by the 31<sup>st</sup> of December as fleet statistics usually do. There was 2,118 vessels registered in the Danish vessel register during 2020, cf. Table A.1.

Out of these 2,118 vessels, 121 of these were not registered at the end of 2020, but had been that during the year. In total, 1,997 vessels were registered the 31<sup>st</sup> December 2020. Of these, 690 vessels were not active during the year, i.e. did not have any registered landings value. There were 459 commercial vessels, each having a total landings value above the threshold level of € 36,000 in 2020. The remaining 848 vessels were non-commercial vessels with landing values below € 36,000.

**Table A.1. Number of registered Danish fishing vessels in 2020**

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	1	3		8
	PGP	71	717	611	84	1,483
	PMP	21	85	47	9	162
	Total	96	803	661	93	1,653
VL1012m	DTS	11	4	2	1	18
	PGP	29	18	2	1	50
	PMP	14	10	2	2	28
	Total	54	32	6	4	96
VL1218m	DRB <sup>5)</sup>	34	2	5	3	44
	DTS	92	7	9	6	114
	PGP	19	1	5	2	27
	PMP	25	2	3	1	31
	TBB	9				9
	TM <sup>6)</sup>	5				5
	Total	184	12	22	12	230
VL1824m	DTS	37		1	3	41
	PMP	10				10
	TBB	15	1			16
	Total	62	1	1	3	67
VL2440m	DTS <sup>7)</sup>	35			4	39
	PMP	3				3
	Total	38			4	42
VL40XXm	DTS	16			3	19
	TM <sup>8)</sup>	9			2	11
	Total	25			5	30
<b>Total</b>		<b>459</b>	<b>848</b>	<b>690</b>	<b>121</b>	<b>2,118</b>

See Annex 1 for explanation of Gear Codes

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

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, VL1824m TM has been included in VL1218m TM.

<sup>7)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>8)</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 83% of total GT and 71% of total kW. These shares have been increasing over the years, and also increased 2020 compared to 80% and 67% in 2019.

## 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, with the exception of VL1218m TM that is mostly dependent on reduction species and pelagic consumption species (mackerel and herring). 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 2020 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>7)</sup>	
									€ 1,000	%
VL0010m	DTS	31	26	34	0	9	0	0	411	0.1
	PGP	13	27	13	3	43	0	1	10,836	2.6
	PMP	26	45	15	0	13	0	1	2,348	0.6
VL1012m	DTS	11	50	35	3	1	0	0	1,373	0.3
	PGP	31	52	1	0	14	0	1	3,467	0.8
	PMP	10	45	23	1	10	11	0	1,963	0.5
VL1218m	DRB <sup>3)</sup>	0	0	0	1	1	0	98	6,476	1.5
	DTS	13	25	42	1	2	16	0	28,696	6.8
	PGP	30	60	3	0	7	0	0	7,504	1.8
	PMP	16	23	52	0	1	8	0	5,098	1.2
	TBB	0	8	0	0	0	9	82	1,905	0.5
	TM <sup>4)</sup>	1	1	8	8	0	81	0	6,061	1.4
VL1824m	DTS	22	32	24	2	2	19	0	28,122	6.7
	PMP	19	40	18	1	2	20	0	10,984	2.6
	TBB	0	18	0	0	0	2	80	4,437	1.1
VL2440m	DTS <sup>5)</sup>	40	15	20	2	1	22	0	65,076	15.5
	PMP	82	17	0	0	1	0	0	7,243	1.7
VL40XXm	DTS	2	1	0	21	0	58	18	88,642	21.0
	TM <sup>6)</sup>	0	0	0	66	0	33	0	140,554	33.4

See Annex 1 for explanation of Gear Codes

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

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, VL1824m TM has been included in VL1218m TM.

<sup>5)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>6)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

<sup>7)</sup> Based on the average Euro exchange rate for 2020 being 7.4542DKK / €.

**Table A.3. Distribution of landing live weight in 2020 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	39	37	19	0	5	0	0	126	0.0
	PGP	16	39	4	12	28	0	1	3,001	0.4
	PMP	24	65	5	0	5	0	0	786	0.1
VL1012m	DTS	9	63	11	14	0	2	0	615	0.1
	PGP	30	62	0	0	6	0	1	1,251	0.2
	PMP	4	32	4	6	1	53	0	1,694	0.2
VL1218m	DRB <sup>3)</sup>	0	0	0	0	2	0	97	28,090	3.8
	DTS	6	14	7	4	1	67	0	26,877	3.7
	PGP	28	68	1	0	3	0	0	2,357	0.3
	PMP	11	22	13	0	1	52	0	3,095	0.4
	TBB	0	4	0	1	0	61	34	1,131	0.2
	TM <sup>4)</sup>	1	0	0	7	0	91	0	20,203	2.8
VL1824m	DTS	9	13	4	4	1	69	0	27,536	3.8
	PMP	6	12	3	3	0	76	0	11,170	1.5
	TBB	0	19	0	0	0	19	61	1,441	0.2
VL2440m	DTS <sup>5)</sup>	15	5	3	6	0	71	0	75,922	10.4
	PMP	83	16	0	0	1	0	0	2,613	0.4
VL40XXm	DTS	1	0	0	13	0	83	2	233,093	31.8
	TM <sup>6)</sup>	0	0	0	42	0	57	0	291,615	39.8

See Annex 1 for explanation of Gear Codes

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

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, VL1824m TM has been included in VL1218m TM.

<sup>5)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>6)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

## 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 31% from 2008 to 2020. The capacity of the Danish fishing fleet decreased 9% in GT and 22% in kW in the same period.

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

Length	Gear	2008			2012			2016			2020		
		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	1,483	3,153	41,949
	PMP	143	646	7,144	204	827	9,235	187	749	8,807	162	674	8,287
	Total	2,268	5,253	58,453	2,207	5,080	59,709	1,870	4,514	54,557	1,653	3,889	51,139

Length	Gear	2008			2012			2016			2020		
		No.	GT	kW	No.	GT	kW	No.	GT	kW	No.	GT	kW
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	18	258	2,601
	PGP	78	827	6,872	70	781	6,698	58	655	5,614	50	550	5,318
	PMP	31	361	3,126	39	470	4,134	36	447	3,858	28	344	3,052
	Total	154	1,783	15,082	149	1,813	15,417	123	1,521	12,882	96	1,151	10,971
VL1218m	DRB <sup>2)</sup>	35	1,095	5,228	32	1,061	4,664	32	1,180	4,681	44	1,750	6,051
	DTS	209	6,756	37,407	142	4,735	25,866	129	4,634	23,607	114	4,449	21,665
	PGP	80	2,378	11,778	46	1,524	7,071	29	954	4,423	27	917	4,403
	PMP	58	1,332	8,801	54	1,478	9,005	44	1,315	7,464	31	928	5,526
	TBB	18	752	3,231	11	548	2,126	11	548	2,121	9	450	1,781
	TM <sup>3)</sup>				19	864	3,516	10	606	1,871	5	423	1,397
	Total	400	12,313	66,445	304	10,210	52,248	255	9,237	44,167	230	8,917	40,823
VL1824m	DTS	90	7,634	27,585	64	6,442	19,395	48	4,977	13,867	41	5,101	13,509
	PMP	15	1,395	3,895	15	1,517	4,452	11	1,399	3,958	10	1,529	4,720
	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	67	7,744	21,081
VL2440m	DTS <sup>4)</sup>	74	18,578	48,035	44	12,025	26,231	35	10,761	22,954	39	12,260	29,390
	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	42	13,395	31,179
VL40XXm	DTS	32	22,615	45,932	13	9,537	17,783	10	7,957	15,789	19	18,188	37,946
	TM <sup>5)</sup>	7	9,911	22,625	16	19,311	41,193	23	31,859	58,827	11	21,635	36,338
	Total	39	32,526	68,557	29	28,848	58,976	33	39,816	74,616	30	39,823	74,284
Total		3,061	82,299	294,569	2,835	68,625	242,303	2,397	74,790	233,049	2,118	74,920	229,477

See Annex 1 for explanation of Gear Codes

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

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>2)</sup> For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

<sup>5)</sup> For discretionary purposes, VL40XXm PS has been included in VL2440m TM.

## Section B

### Statement of effort reduction schemes

Not in effect any longer since 2018.

## 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 21,902 GT and 100,727 kW. In percentage, the capacity is approximately 25% in GT below ceiling and in kW more than 32% below ceiling.

*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**

<b>National register</b>	<b>GT</b>	<b>kW</b>
Fleet ceiling according to annex II	88,762	313,333
Capacity of the fleet on 31 December 2020	66,860	222,606
<b>Capacity ceiling minus actual capacity</b>	<b>21,902</b>	<b>100,727</b>

Source: The Danish Fishery Agency Vessel Register per 31<sup>th</sup> December 2020.

Note 1: No exits financed with public aid in 2020.

## Section D

### Plan for improvement in fleet management system

The current Danish management system is considered to be well functioning in order to secure a balance between fishing opportunities and capacity. However, since Brexit has caused a shift in the quota allocations between the EU and the UK in 2021 and in the years to come, Denmark is at the moment contemplating whether there is a need to consider adjustments to the fleet structure to ensure profitability for the fleet. In the Baltic Sea, poor stock conditions for mainly cod and herring also pose a problem for the fleet in recent years, and Denmark is considering possible measures to adjust the fleet capacity in the Baltic.

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

Respect of reference level and 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 regulation of a substantial part of the fishery the fleet management will tend to ensure a long term balance between fishing capacity and fishing possibilities.

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. From 2020 and onwards, a new sampling plan on engine power has been implemented.

Below is a table showing information on infringements and inspections on the main management measures in 2020.

**Table D1. Number of infringements and accomplished inspections in 2020**

<b>Number of infringement cases</b>	<b>Administrative controls</b>	<b>Inspections in port</b>	<b>Inspections at sea</b>	<b>Total</b>
1.1. Fishing without a valid license, authorisation or permit issued by the flag state.	21	6		27
1.2.1. Issues related to engine power	13	7	3	23
1.3. Non-compliance with national quota management	12		1	13
1.4. Use of gear with mesh size not in accordance with the requirements, or gear not in accordance with the requirements	1	5	17	23
1.5. Fishing in a closed area or during a closed season	12	1	2	15
2.1 Obstruction of officials' work in the exercise of their duties in inspection for compliance with the applicable conservation and management measures		1		1
3.3 Not fulfilling of obligation in accordance with the frequency of data to be transmitted by satellite vessel monitoring system, or non-functioning of the satellite vessel monitoring system		6		6
4. Taking on board or landing of undersized fish in the contravention of the legislation in force, or not fulfilling the obligation to land undersized fish	8	9		17
5.1 Not submitting required logbook, nor submitting required landing declaration or margin of tolerance outside the 10 %.	234	40		274
5.2. National "control order" and other matters	8	6		14
5.3. Failure to submit a prior notification of arrival to port	8	24		32
6.1. Infringements of the landing and marketing of fish	3	24		27
6.2 Failure to have the required authorization as buyer of fishery products		4		4
9.2 Catch not weighed at landing before transport and marketing.		14		14
9.6 Not comply with the rules laid down by NEAFC		1		1
10. Other criminal offenses	25	2		27
<b>Total</b>	<b>345</b>	<b>150</b>	<b>23</b>	<b>518</b>
<b>Number of inspections</b>	<b>2,194</b>	<b>1,900</b>	<b>311</b>	<b>4,405</b>

Source: Data compiled from the DK national register of infringements, per 31<sup>th</sup> December 2020.

## Section E

### **Changes of the administrative procedures relevant to fleet management**

In recent years, there has been introduced a scheme making it easier for young fishermen to obtain a fishing vessel, by allocating 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 will make 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 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 will be 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 was also introduced limits on how much quota a fishing company can 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 to order to strengthen the control of engine power, which was implemented from 2020. Most importantly, the national sampling plan for control on the basis of specific risk parameters has been revised, and a new procedure for initiation of administrative control of engine power and follow-up with physical verification has been introduced.

## Section F

### **Estimation and discussion of balance indicators**

The technical, biological and economic indicators are calculated in accordance with the guidelines issued by the Commission, taking into account 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 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 are 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 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 2020 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 if measured in number of vessels (42%), gross tonnage (27%) or engine power (27%). 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, and also from 2019 to 2020. 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 amount of inactive vessels (35%), the total inactivity of physical capacity is rather low with 2% of GT and 8% of kW, which in 2019 was 3% of GT and 9% of kW.

**Table F.1. Ratios between inactive and total number of vessels in 2020**

Length	Inactive <sup>1)</sup>			Total <sup>2)</sup>			Share of inactivity (%)		
	No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	661	1,000	13,161	1,560	3,646	48,332	42	27	27
VL1012m	6	67	914	92	1,092	10,426	7	6	9
VL1218m	22	462	3,022	218	8,607	38,792	10	5	8
VL1824m	1	92	213	64	7,350	20,422	2	1	1
VL2440m				38	12,348	28,865	0	0	0
VL40XXm				25	33,789	65,451	0	0	0
<b>Total</b>	<b>690</b>	<b>1,620</b>	<b>17,310</b>	<b>1,997</b>	<b>66,831</b>	<b>212,288</b>	<b>35</b>	<b>2</b>	<b>8</b>

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

Notes: <sup>1)</sup> Includes vessels not having any catch value in 2020, but in the Vessel Register per 31<sup>st</sup> December 2020.

<sup>2)</sup> Includes vessels in the Vessel Register per 31<sup>st</sup> December 2020.

### The vessel utilisation indicator

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
VL0010m	DTS	0.30	0.54	0.46	0.29	0.29	0.32	0.31	0.35	0.38	0.58
	PGP	0.19	0.15	0.16	0.14	0.13	0.11	0.12	0.12	0.12	0.12
	PMP		0.25	0.23	0.21	0.23	0.25	0.21	0.27	0.23	0.20
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
	PGP	0.42	0.43	0.47	0.44	0.45	0.43	0.39	0.39	0.36	0.35

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

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

From Table F.2, it is observed that ratios are generally increasing with the vessel length, but also fluctuates over time. The 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 utilise their capacity in the most optimal way. However, expecting that the vessel utilisation indicator will in the end be equal to one is not likely. There is many economically rational reasons for always having some overcapacity.

Furthermore, making strong conclusions about presence of technical overcapacity are difficult, because each fleet is not very 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 13 of the 19 fleets in 2020, 14 segments in 2019 and 15 segments in 2018. The six fleets that do not indicate technical overcapacity in 2020 include one entry-restricted fishery for mussels and shrimps (VL1218m TBB) as well as VL1218m TM, VL1824m PMP and TBB, VL2440m PMP, and VL40XXm TM. 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 amount 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

The SHI values for the individual segments in 2018 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, fished at  $F_{MSY}$ ), and Norway lobster (mainly in Kattegat and Skagerrak fished at  $F_{MSY}$ ). For the pelagic stocks, the main contributions are from

North Sea herring fished at  $F_{MSY}$ , sprat in the Baltic fished above  $F_{MSY}$  and mackerel and blue whiting in the northeast 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	2010	2011	2012	2013	2014	2015	2016	2017	2018	Trend (5%) 2013/2018	Status 2018
VL0010m	DTS	1.04	0.98	1.40	0.98	0.87	1.03	1.01	0.73	0.64	decreasing	
	PGP	2.65	2.44	2.34	2.45	2.40	2.24	2.1	1.89	1.62	decreasing	
	PMP			2.27	1.99	1.78	1.78	1.71	1.39	1.33	decreasing	
VL1012m	DRB	0.68	1.02		1.37	1.52	1.48	1.55		0.73	-	
	DTS	2.25		1.78	1.99	1.94	1.74	1.6	1.31	1.18	decreasing	out of balance
	PGP	2.55	2.66	2.89	2.86	2.44	2.53	2.44	2.16	1.72	decreasing	out of balance
	PMP	2.07	1.87	1.57	1.64	1.45	1.48	1.49	1.09	1.22	decreasing	out of balance
VL1218m	DRB	3.29	0.89	0.9					0.62	0.73	-	
	DTS	1.16	1.13	1.53	1.24	1.01	1.03	0.86	0.65	0.68	decreasing	in balance
	PGP	1.68	1.59	1.56	1.4	1.33	1.47	1.44	1.46	1.28	no trend	out of balance
	PMP	1.63	1.44	1.64	1.6	1.57	1.19	0.91	0.75	0.84	decreasing	in balance
	TBB	1.12	0.82	1.03	0.97		0.88	0.97	1.01		-	
	TM			1.02	1.26	1.11	1.11	1.13	1.32	1.13	no trend	out of balance
VL1824m	DTS	1.18	1.16	1.31	1.26	1.17	1.15	1.02	0.97	0.87	decreasing	in balance
	PMP	1.65	1.37	1.30	1.15	1.21	1.20	1.26	1.32	1.30	no trend	out of balance
	TBB	0.80	0.87	1.04	0.85	0.68	0.88	1	1.01	0.95	increasing	
VL2440m	DTS	1.20	1.22	1.17	1.15	1.22	1.17	1.21	1.23	1.27	no trend	out of balance
VL40XXm	DTS	1.11	1.04	0.79	0.86	0.75	0.84	0.81	0.98	0.98	increasing	in balance
	TM			0.88	0.99	0.97	0.87	0.84	0.97	0.92	no trend	in balance

Source: STECF-20-11.

Seven out of nineteen segments may not be in balance ( $SHI > 1$ ) with their fishing opportunities in 2018 (Table F.3). The smaller vessels with a high proportion of North Sea cod or Western Baltic cod have a  $SHI > 1$  ("out of balance"). The large pelagic trawlers have  $SHI \leq 1$  ("in balance") due to their high proportion of North Sea herring. Vessels using the gear 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 2018 are not provided.

The SHI indices by segment show mainly a decreasing trend for the smaller vessels and no trend for the larger vessels, which is in line with the overall trend of a decreasing fishing mortality for most stock in recent years.

The SAR indicator (Table F.4) for the Danish segments in 2018 is mainly determined by catches of cod from the stocks in the North Sea and in the Eastern and Western Baltic. Catches of Western Baltic herring contributes to SAR for pelagic fisheries. Other stocks at risk with a low total catch but high proportion by Danish segments, e.g. spurdog and thornback ray contribute also. Sandeel Area 5r, with no international catches since 2007 according to ICES, has erroneously contributed to SAR indicator for 4 segments in 2018.

Ten out of eighteen segments have a SAR "out of balance" in 2018. Correcting for the sandeel error, the "TM VL1218m" has no stock at risk. The sum of SAR indicators for 2018 is the lowest since 2011, but there is no general temporal trend in SAR values.

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

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018	Status 2018
VL0010m	DTS										
	PGP	2	2	1	4	1	1	2	2	2	out of balance
	PMP				2			1	1	1	out of balance
VL1012m	DRB										
	DTS	1			1			1	1		
	PGP	1	1		4		1	1	1	1	out of balance
	PMP	1	1		5				1	1	out of balance
VL1218m	DRB										
	DTS	7	3	1	7	4	3	3	5	5	out of balance
	PGP	1	1	1	2	1			1		
	PMP	5	2	1	3	1		1	1	2	out of balance
	TBB		1	3	4		2				
	TM			4	5	5	2	2	3	1	out of balance
VL1824m	DTS	6	4	4	6	5	7	5	5	4	out of balance
	PMP	1	2	1	1	1		1	2	2	out of balance
	TBB		1	3	4		2				
VL2440m	DTS	6	2	5	6	5	3	4	4	2	out of balance
VL40XXm	DTS	5	1	3	4	3	2	2	1		
	TM			3	4	4	2	3	3		

Source: STECF-20-11.

### 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 guidelines<sup>1</sup>.

ROI for the Danish fleet for the years 2011-2019 is shown in Table F.5.

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, and after a long positive period from 2013 to 2017, then it was again negative in 2018 for dredgers between 10-12 meter, but positive again in 2019. For dredgers between 12-18 meters ROI is negative between 2011-2013, being positive in the following years.

<sup>1</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)

**Table F.5. Return on investments (ROI)**

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019
VL0010m	DTS	-9.24	-11.19	-3.20	-1.29	1.94	0.71	0.85		
	PGP	-8.30	-9.60	-6.54	-10.87	-8.97	-11.97	1.52	-1.84	-3.27
	PMP		-9.75	-10.61	-11.70	-3.87	-2.11	-0.93	-3.64	-0.94
VL1012m	DRB	-1.28	-1.05	6.64	14.55	29.53	18.14	24.83	-9.92	8.44
	DTS	0.00	-6.25	-4.78	-5.19	-0.42	-2.77	1.58	-0.71	-2.20
	PGP	-5.48	-5.69	-4.12	-5.50	-3.79	-1.54	-1.81	-0.48	0.72
	PMP	-6.19	-7.01	-9.65	-8.10	-0.90	-2.01	-2.58	-3.18	-1.91
VL1218m	DRB	-4.41	-3.06	-1.21	13.49	22.96	16.73	22.95	7.62	10.54
	DTS	-1.51	-1.98	-1.17	-1.04	1.26	1.72	0.87	0.19	0.33
	PGP	-1.33	-4.48	-1.62	-3.70	-1.65	1.44	4.26	2.28	1.40
	PMP	-1.86	-2.39	-1.09	-1.57	0.80	0.49	2.60	-0.88	-0.93
	TBB	-10.15	5.40	4.89	4.18	-5.49	17.02	13.00	17.56	-11.38
	TM		1.24	5.83	3.81	7.04	7.71	5.07	4.89	18.43
VL1824m	DTS	0.82	-1.93	-2.08	1.54	3.33	2.99	2.21	1.19	0.23
	PMP	-0.06	-0.10	1.28	0.19	3.56	3.13	1.41	1.15	1.48
	TBB	-8.20	4.26	3.17	1.42	1.67	22.67	14.85	9.81	-4.11
VL2440m	DTS	0.14	-1.00	1.07	3.34	4.15	4.38	2.54	0.84	1.60
VL40XXm	DTS	10.50	9.99	11.79	2.62	9.60	10.91	3.19	5.35	3.86
	TM		7.36	6.89	4.76	8.26	7.65	5.47	7.24	5.32

Source: 2021 Data call for economic, employment, effort datasets on the EU fishing fleets, EC Ref. Ares(2021)707058 - 28/01/2021.

The other entry-restricted fisheries, the TBBs, experienced negative ROIs in 2011 and 2019, 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. However, positive developments for these fleets in ROI are observed. 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 guidelines<sup>2</sup>. CR/BER is considered a good measures 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.

<sup>2</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

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 2019 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.

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

Length	Gear	2011	2012	2013	2014	2015	2016	2017	2018	2019
VL0010m	DTS	0.37	0.25	-0.03	0.44	1.49	1.37	6.98		
	PGP	0.11	0.30	0.29	-0.15	-0.09	-0.05	0.01	0.73	0.11
	PMP		0.28	0.03	0.02	0.56	-0.06	-0.13	0.06	0.39
VL1012m	DRB	0.90	0.97	1.54	2.34	3.67	3.33	4.68	0.05	2.08
	DTS		0.47	0.34	0.42	1.01	0.76	1.49	0.89	0.37
	PGP	0.39	0.53	0.45	0.25	0.61	0.87	0.66	0.93	1.17
	PMP	0.38	0.42	0.18	0.30	0.98	0.74	0.40	0.30	0.38
VL1218m	DRB	0.77	0.75	0.83	2.09	3.34	3.18	3.78	2.03	2.26
	DTS	0.95	0.86	0.90	0.86	1.25	1.52	1.23	1.10	1.14
	PGP	0.98	0.78	0.86	0.57	0.86	1.14	1.52	1.66	1.55
	PMP	0.68	0.80	0.79	0.72	1.09	1.15	1.15	0.81	0.69
	TBB	0.32	1.47	1.26	1.02	0.59	2.16	2.08	2.43	-0.07
	TM		1.01	1.54	1.80	3.06	2.25	2.73	3.04	4.71
VL1824m	DTS	1.26	1.00	0.97	1.28	1.80	1.84	1.71	1.50	1.15
	PMP	1.21	1.16	1.34	1.34	2.01	2.13	2.01	1.77	1.83
	TBB	0.40	1.47	1.19	1.00	1.06	2.71	2.80	2.31	0.41
VL2440m	DTS	1.10	0.99	1.17	1.36	1.94	2.23	2.23	1.42	1.42
VL40XXm	DTS	2.02	2.55	1.81	1.41	2.79	3.73	2.00	2.19	1.89
	TM		2.11	1.86	1.59	2.12	2.61	2.66	2.31	2.68

Source: 2021 Data call for economic, employment, effort datasets on the EU fishing fleets, EC Ref. Ares(2021)707058 - 28/01/2021.

\*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 until 2019, 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 and 2018, but the other years it was above 1. The DRBs between 12 and 18 metres have values below 1 until 2014.

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 and it was one fleet in 2019. 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 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, F8, 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 shrimps fisheries. These fisheries are 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.

So for the purpose of assessment of the balance the fleet is divided in 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. Fisheries are limited to specific areas and quotas are set according to assessment of the local stock. ROI is positive for all segments. **The situation is stable and there is no need for action, which is indicated by a green 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 shrimp fishery in the Wadden Sea area. Restricted access fishery. In 2019, the vessels had a negative ROI, but in the years prior to that, it was positive. It is not unusual that the earnings in the brown shrimp fishery vary considerably from year to year. It is therefore our conclusion that **there is no need for action based on a single year with negative ROI's, which is indicated by a green colour in the traffic lights table.**

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

The vessels fish for pelagic and industrial species. The smaller ones also take some round fish, flatfish and prawn. Most of those stocks are in good condition, which is also reflected in the SHI indicator for which is close to 1 for vessels over 24 metres, especially for the vessels over 40 meters. Economic indicators are also positive and are relatively stable. In conclusion, there is a good balance for these segments.

**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 fish for a variety of species including round fish, flatfish, prawn and industrial species. The SHI indicator is around 1 which shows that the vessels both fish on stocks with fishing mortality somewhat higher than the MSY based assessment, but also lower. Vessels fishing on cod stocks in the Baltic Sea have a higher SHI indicator and is a segment that may require further attention going forward.

The SHI indicator only covers parts of the stocks taken by the fishery, however, and for this reason the SHI indicator may exaggerate the imbalance. It should also be taken into consideration that the capacity of this group of vessels has already been reduced considerably. The economic indicators have improved and ROI minus current interest rate is close to zero and the current break-even ratio is higher than 1 for almost all segments.

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 vessels below 10 meters. At a more realistic pay to the owner the economic result would be higher. The earnings of these vessels are also strongly influenced by short-term economic developments in prices and costs.

**In conclusion, there is considered to be an acceptable balance between capacity and fishing possibilities, which is indicated by a green colour in the traffic light table.**

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

These vessels fish on demersal stocks for flatfish, round fish, and Norway lobster. The biological indicators reflect a negative situation for some of the stocks fished by these vessels, mainly for cod stocks in the North Sea and the Baltic. The distribution of landings values show that a variety of species are fished by the small scale vessels, although the quantities are low.

Although return on investment mainly is 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.

Despite the modest earnings and dependency of some stock under rebuilding, it is considered that there for most of the stocks are balance between capacity of the active commercial vessels and fishing possibilities.

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.

The remaining non-commercial vessels less than 12 metres include about 1,600 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 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 small 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 1,750 vessels, 5,040 GT and 62,110 kW. In reality, only 150 vessels in the small scale fleet were active at a commercial level in 2020. All the 1,653 vessels under 10 m, including the less active ones, caught around 3,900 tonnes of fish in total.

**It is concluded that the capacity of these vessels 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.

On the basis of the assessment above, **it is concluded that despite weaknesses in a few segments such as smaller vessels in the Baltic Sea, for the fleet in general there is a good balance between capacity and fishing possibilities. The traffic lights show the interpretation for each segment.**

**Table F. 7. Traffic lights**

No.	Length	Gear code	ROI	Current/Break-even	Biological Indicators		Technical Indicators		Over all assesment
					Sustainable Harvest Indicator	Stocks at Risk indicator	Inactivity	Utilisation	
1	VLOO10	DTS			0.64	0	42	0.58	Mainly inactive or less active vessels non commercial vessels
2	VL0010	PGP	-3.27	0.11	1.62	2			
3	VL0010	PMP	-0.94	0.39	1.33	1			
4	VL1012	DRB	8.44	2.08	0.73	0	7	0.56	Mussels
5	VL1012	DTS	-2.20	0.37	1.18	0			Mixed
6	VL1012	PGP	0.72	1.17	1.72	1			Demersal
7	VL1012	PMP	-1.91	0.38	1.22	1			
8	VL1218	DRB	10.54	2.26	0.73	0	10	0.34	Mussels
9	VL1218	DTS	0.33	1.14	0.68	5			Mixed
10	VL1218	PGP	1.40	1.55	1.28	0			Demersal
11	VL1218	PMP	-0.93	0.69	0.84	2			
12	VL1218	TBB	-11.38	-0.07		0			0.76
13	VL1218	TM	18.43	4.71	1.13	1	0.81	Pelagic	
14	VL1824	DTS	0.23	1.15	0.87	4	2	0.56	Mixed
15	VL1824	PMP	1.48	1.83	1.30	2			
16	VL1824	TBB	-4.11	0.41	0.95	0			
17	VL2440	DTS	1.60	1.42	1.27	2	0	0.69	Mixed
18	VL40XX	DTS	3.86	1.89	0.98	0	0	0.64	Pelagic +
19	VL40XX	TM	5.32	2.68	0.92	0			
	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, 2020

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	5	16		63
	PGP	383	1,697	870	204	3,153
	PMP	174	345	115	40	674
	Total	600	2,047	1,000	243	3,889
VL1012m	DTS	160	62	17	19	258
	PGP	348	166	21	16	550
	PMP	180	110	30	24	344
	Total	688	338	67	59	1,151
VL1218m	DRB <sup>5)</sup>	1,571	28	109	42	1,750
	DTS	3,885	167	181	216	4,449
	PGP	750	13	114	41	917
	PMP	825	34	58	11	928
	TBB	450				450
	TM <sup>6)</sup>	423				423
	Total	7,904	241	462	310	8,917
VL1824m	DTS	4,614		92	395	5,101
	PMP	1,529				1,529
	TBB	1,066	48			1,114
	Total	7,210	48	92	395	7,744
VL2440m	DTS <sup>7)</sup>	11,213			1,048	12,260
	PMP	1,135				1,135
	Total	12,348			1,048	13,395
VL40XXm	DTS	16,685			1,503	18,188
	TM <sup>8)</sup>	17,104			4,531	21,635
	Total	33,789			6,034	39,823
Total		62,537	2,674	1,620	8,089	74,920

See Annex 1 for explanation of Gear Codes

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

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, VL1824m TM has been included in VL1218m TM.

<sup>7)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>8)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

## Engine power in kW, 2020

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	49	349		903
	PGP	4,863	23,531	11,307	2,248	41,949
	PMP	2,259	3,964	1,505	559	8,287
	Total	7,627	27,544	13,161	2,807	51,139
VL1012m	DTS	1,529	543	308	221	2,601
	PGP	3,096	1,788	360	74	5,318
	PMP	1,722	834	246	250	3,052
	Total	6,347	3,165	914	545	10,971
VL1218m	DRB <sup>5)</sup>	5,008	238	421	384	6,051
	DTS	18,250	887	1,406	1,122	21,665
	PGP	3,228	85	695	395	4,403
	PMP	4,673	223	500	130	5,526
	TBB	1,781				1,781
	TM <sup>6)</sup>	1,397				1,397
	Total	34,337	1,433	3,022	2,031	40,823
VL1824m	DTS	12,637		213	659	13,509
	PMP	4,720				4,720
	TBB	2,727	125			2,852
	Total	20,084	125	213	659	21,081
VL2440m	DTS <sup>7)</sup>	27,076			2,314	29,390
	PMP	1,789				1,789
	Total	28,865			2,314	31,179
VL40XXm	DTS	35,016			2,930	37,946
	TM <sup>8)</sup>	30,435			5,903	36,338
	Total	65,451			8,833	74,284
Total		162,711	32,267	17,310	17,189	229,477

See Annex 1 for explanation of Gear Codes

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

- 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, VL1824m TM has been included in VL1218m TM.
  - <sup>7)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
  - <sup>8)</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 2020 (%)

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>7)</sup>
Commercial	VL0010m	DTS	31	26	34	0	8	0	0	407
		PGP	17	29	12	4	38	0	1	5,715
		PMP	30	48	15	0	7	0	0	1,794
	VL1012m	DTS	11	50	35	3	1	0	0	1,326
		PGP	30	53	1	0	14	0	1	3,257
		PMP	10	43	23	1	11	12	0	1,815
	VL1218m	DRB <sup>3)</sup>	0	0	0	1	1	0	98	6,470
		DTS	14	25	42	1	2	16	0	28,566
		PGP	30	60	3	0	7	0	0	7,493
		PMP	16	22	53	0	1	8	0	5,051
		TBB	0	8	0	0	0	9	82	1,905
	TM <sup>4)</sup>	1	1	8	8	0	81	0	6,061	
	VL1824m	DTS	22	32	24	2	2	19	0	28,122
		PMP	19	40	18	1	2	20	0	10,984
		TBB	0	18	0	0	0	2	80	4,410
VL2440m	DTS <sup>5)</sup>	40	15	19	2	1	22	0	65,048	
	PMP	82	17	0	0	1	0	0	7,243	
VL40XXm	DTS	2	1	0	21	0	58	18	88,642	
	TM <sup>6)</sup>	0	0	0	66	0	33	0	140,554	
Non-commercial	VL0010m	DTS	0	0	0	0	100	0	0	3
		PGP	9	26	14	2	48	0	2	5,121
		PMP	14	37	14	0	32	0	2	554
	VL1012m	DTS	11	53	14	22	0	0	0	47
		PGP	43	27	15	0	15	0	0	210
		PMP	8	63	28	0	2	0	0	148
	1218m	DRB	0	0	2	0	20	0	77	6
		DTS	6	30	50	0	2	0	11	130
		PGP	0	21	2	0	76	0	0	11
		PMP	17	81	0	0	2	0	0	47
	VL1824m	TBB	0	0	0	0	0	0	100	28
40XXm	DTS	10	1	89	0	0	0	0	28	

See Annex 1 for explanation of Gear Codes

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

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, VL1824m TM has been included in VL1218m TM.

<sup>5)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>6)</sup> For discretionary purposes, VL40XXm PS has been included in VL40XXm TM.

<sup>7)</sup> Based on the average Euro exchange rate for 2020 being 7.4542DKK / €.

## Distribution landing live weight in 2020 (%)

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	39	37	19	0	4	0	0	125
		PGP	19	39	4	16	22	0	0	1,564
		PMP	26	67	5	0	2	0	0	622
	VL1012m	DTS	10	64	12	11	0	2	0	554
		PGP	29	64	0	0	6	0	1	1,170
		PMP	4	30	4	6	1	55	0	1,632
	VL1218m	DRB <sup>3)</sup>	0	0	0	0	2	0	97	28,089
		DTS	6	14	7	4	1	67	0	26,838
		PGP	28	68	1	0	3	0	0	2,355
		PMP	11	21	13	0	1	53	0	3,076
		TBB	0	4	0	1	0	61	34	1,131
		TM <sup>4)</sup>	1	0	0	7	0	91	0	20,203
	VL1824m	DTS	9	13	4	4	1	69	0	27,536
		PMP	6	12	3	3	0	76	0	11,170
TBB		0	19	0	0	0	20	60	1,435	
VL2440m	DTS <sup>5)</sup>	15	5	3	6	0	71	0	75,916	
	PMP	83	16	0	0	1	0	0	2,613	
VL40XXm	DTS	1	0	0	13	0	83	2	233,093	
	TM <sup>6)</sup>	0	0	0	42	0	57	0	291,615	
Non-commercial	VL0010m	DTS	0	0	0	0	100	0	0	1
		PGP	13	39	4	8	35	0	1	1,437
		PMP	19	58	6	1	14	0	2	164
	VL1012m	DTS	7	52	0	41	0	0	0	61
		PGP	51	34	1	0	13	0	0	81
		PMP	6	82	9	0	3	0	0	61
	1218m	DRB	0	0	0	0	47	0	52	2
		DTS	6	62	21	0	3	0	8	39
		PGP	0	11	1	0	87	0	0	2
		PMP	14	83	0	0	2	1	0	19
VL1824m	TBB	0	0	0	0	0	0	100	6	
40XXm	DTS	21	1	78	0	0	0	0	6	

See Annex 1 for explanation of Gear Codes

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

- 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, VL1824m TM has been included in VL1218m TM.
  - <sup>5)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
  - <sup>6)</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
VL0010m	DTS	594	580	654	705	612	628	583	495	449	508
	PGP	41,032	30,245	28,903	29,212	26,469	25,703	22,306	22,918	21,604	21,145
	PMP	-	6,060	5,557	5,093	4,914	5,277	5,056	4,851	4,060	3,658
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
	PGP	6,492	5,903	6,388	5,942	5,834	5,768	4,768	4,955	4,316	3,869
	PMP	3,121	3,415	2,691	2,828	3,059	3,378	2,840	2,875	2,765	1,903
VL1218m	DRB	2,086	2,543	2,017	2,141	1,826	1,892	2,445	2,061	2,506	2,259
	DTS	19,677	16,829	16,606	16,659	14,812	15,502	14,224	14,431	14,259	12,198
	PGP	5,818	4,682	4,669	3,913	3,793	3,315	3,142	3,128	3,009	2,951
	PMP	4,796	5,009	4,280	4,702	4,118	4,127	3,840	3,408	3,053	3,164
	TBB	1,185	1,731	1,662	1,901	1,644	2,018	1,688	1,737	965	1,054
	TM	-	1,506	1,326	1,848	1,499	1,233	904	979	935	729
VL1824m	DTS	11,123	10,554	9,693	9,655	9,039	8,061	7,222	7,470	7,476	6,889
	PMP	2,348	2,281	3,363	2,104	2,089	2,113	2,408	2,405	2,140	2,124
	TBB	2,105	2,788	2,772	2,764	2,550	3,067	2,917	2,932	1,885	2,087
VL2440m	DTS	8,564	8,664	7,851	7,782	7,579	8,081	9,209	9,701	9,494	8,759
	PMP	-	-	-	1,233	1,097	1,157	974	869	891	807
VL40XXm	DTS	5,321	1,440	2,762	2,073	2,005	1,728	3,035	2,959	2,403	3,110
	TM	-	2,496	2,607	2,538	3,439	3,468	2,419	2,501	2,027	2,026

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



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

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

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.