

Annual Report on fishing fleet capacity 2019 - Denmark

The format of the Danish capacity report concerning 2019 follows the headlines mentioned in article 14 of Commission Regulation (EEC) No. 1013/2010 (no longer in force).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 2019, whereas data on economic performance and technical indicators are from 2018.

Biological indicators provided by the Commission in 2019 include the time series of Danish catches from 2009-2017.

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

Section A

Description of fleets

The statistics include all Danish vessels during the year and not only by the 31st of December as fleet statistics usually do. There was 2,185 vessels registered in the Danish vessel register during 2019, cf. Table A.1.

Out of these 2,185 vessels, 127 of these were not registered at the end of 2019, but had been that during the year. In total, 2,058 vessels were registered the 31st December 2019. Of these, 739 vessels were not active during the year, i.e. did not have any registered landings value. There were 486 commercial vessels, each having a total landings value above the threshold level of € 36,000 in 2019. The remaining 833 vessels were non-commercial vessels with landing values below € 36,000.

Table A.1. Number of registered Danish fishing vessels in 2019

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
VL0010m	DTS	2	4	2	1	9
	PGP	79	703	658	86	1,526
	PMP	27	83	52	14	176
	Total	108	790	712	101	1,711
VL1012m	DRB	3	1	2		6
	DTS	13	2			15
	PGP	31	15	2	3	51
	PMP	20	7	2	1	30
	Total	67	25	6	4	102
VL1218m	DRB	31	2	3		36
	DTS	97	9	7	3	116
	PGP	20	2	5	1	28
	PMP	22	4	4	5	35
	TBB	9				9

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
	TM ⁵⁾	6				6
	Total	185	17	19	9	230
VL1824m	DTS	38		2	1	41
	PMP	9			1	10
	TBB	15	1			16
	Total	62	1	2	2	67
VL2440m	DTS ⁶⁾	36			4	40
	PMP	3				3
	Total	39			4	43
VL40XXm	DTS	14			4	18
	TM ⁷⁾	11			3	14
	Total	25			7	32
Total		486	833	739	127	2,185

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

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

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

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

⁵⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

⁷⁾ 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, but reduced in 2019 from 89% and 73% in 2018.

Section A

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 2019 on overall fisheries (%)

Length	Gear	Round fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings value ⁵⁾	
									€ 1,000	%
VL0010m	DTS	36	29	34	0	1	0	0	489	0.1
	PGP	18	30	10	2	37	0	2	11,857	2.7

Length	Gear	Round fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings value ⁵⁾	
									€ 1,000	%
	PMP	23	51	13	0	12	0	1	2,826	0.6
VL1012m	DRB	1	6	0	0	1	2	91	730	0.2
	DTS	15	40	35	0	6	4	0	1,639	0.4
	PGP	46	43	0	0	9	0	2	5,025	1.1
	PMP	23	58	12	1	2	3	0	2,786	0.6
VL1218m	DRB	0	0	0	0	1	0	99	13,298	3.0
	DTS	17	25	52	0	1	4	0	36,760	8.4
	PGP	32	59	4	0	5	0	0	8,415	1.9
	PMP	23	25	49	0	1	2	0	5,980	1.4
	TBB	0	9	0	0	0	6	85	1,854	0.4
	TM ³⁾	1	2	12	21	0	65	0	7,197	1.6
VL1824m	DTS	28	33	29	1	1	8	0	33,953	7.8
	PMP	24	43	18	0	2	14	0	11,280	2.6
	TBB	2	29	9	0	1	0	59	4,712	1.1
VL2440m	DTS ⁴⁾	51	18	20	1	1	9	0	73,533	16.8
	PMP	81	18	0	0	1	0	0	8,464	1.9
VL40XXm	DTS	0	0	0	19	0	54	28	67,912	15.5
	TM	0	0	0	66	0	34	0	138,695	31.7

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

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

³⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

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

⁶⁾ Based on the average Euro exchange rate for 2019 being 7.4660 DKK/€.

Table A.3. Distribution of landing live weight in 2019 on overall fisheries (%)

Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings live weight	
									Tonnes	%
VL0010m	DTS	42	40	17	0	1	0	0	134	0.0
	PGP	24	38	3	9	25	0	2	3,219	0.5
	PMP	23	69	4	0	4	0	0	943	0.1
VL1012m	DRB	0	2	0	0	0	4	93	1,274	0.2
	DTS	16	38	9	0	1	36	0	780	0.1
	PGP	45	48	0	1	4	0	1	1,688	0.3
	PMP	17	47	2	9	2	23	0	1,768	0.3
VL1218m	DRB	0	0	0	0	2	0	98	48,682	7.6
	DTS	18	26	17	0	1	37	0	16,660	2.6
	PGP	32	63	2	0	3	0	0	2,381	0.4

Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landings live weight	
									Tonnes	%
	PMP	36	29	17	0	1	16	0	2,361	0.4
	TBB	0	4	0	0	0	44	51	1,071	0.2
	TM ³⁾	0	0	1	19	0	80	0	20,982	3.3
VL1824m	DTS	17	19	8	5	1	50	0	19,960	3.1
	PMP	9	18	4	0	0	68	0	7,915	1.2
	TBB	2	28	5	0	1	0	64	1,486	0.2
VL2440m	DTS ⁴⁾	30	9	5	2	1	53	0	47,847	7.5
	PMP	82	16	0	0	2	0	0	2,812	0.4
VL40XXm	DTS	0	0	0	11	0	86	3	160,252	25.1
	TM	0	0	0	42	0	57	0	296,255	46.4

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

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

³⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

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

Section A

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 29% from 2008 to 2019. The capacity of the Danish fishing fleet decreased 3% in GT and 22% in kW in the same period.

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

Length	Gear	2008			2012			2016			2019		
		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	9	68	948
	PGP	2,108	4,512	50,124	1,985	4,148	49,275	1,668	3,667	44,584	1,526	3,243	42,070
	PMP	143	646	7,144	204	827	9,235	187	749	8,807	176	703	8,554
	Total	2,268	5,253	58,453	2,207	5,080	59,709	1,870	4,514	54,557	1,711	4,015	51,572
VL1012m	DRB	31	422	3,337	27	391	2,933	15	222	1,506	6	77	563
	DTS	14	173	1,747	13	172	1,652	14	196	1,904	15	217	2,129
	PGP	78	827	6,872	70	781	6,698	58	655	5,614	51	590	5,067
	PMP	31	361	3,126	39	470	4,134	36	447	3,858	30	366	3,076
	Total	154	1,783	15,082	149	1,813	15,417	123	1,521	12,882	102	1,249	10,835
VL1218m	DRB	35	1,095	5,228	32	1,061	4,664	32	1,180	4,681	36	1,495	5,129

Length	Gear	2008			2012			2016			2019		
		No.	GT	kW	No.	GT	kW	No.	GT	kW	No.	GT	kW
	DTS	209	6,756	37,407	142	4,735	25,866	129	4,634	23,607	116	4,444	21,579
	PGP	80	2,378	11,778	46	1,524	7,071	29	954	4,423	28	928	4,395
	PMP	58	1,332	8,801	54	1,478	9,005	44	1,315	7,464	35	1,018	5,861
	TBB	18	752	3,231	11	548	2,126	11	548	2,121	9	450	1,781
	TM ²⁾				19	864	3,516	10	606	1,871	6	506	1,370
	Total	400	12,313	66,445	304	10,210	52,248	255	9,237	44,167	230	8,840	40,115
VL1824m	DTS	90	7,634	27,585	64	6,442	19,395	48	4,977	13,867	41	4,931	12,692
	PMP	15	1,395	3,895	15	1,517	4,452	11	1,399	3,958	10	1,363	3,737
	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	7,409	19,281
VL2440m	DTS ³⁾	74	18,578	48,035	44	12,025	26,231	35	10,761	22,954	40	12,881	28,260
	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	43	14,016	30,049
VL40XXm	DTS	32	22,615	45,932	13	9,537	17,783	10	7,957	15,789	18	16,966	34,733
	TM ⁴⁾	7	9,911	22,625	16	19,311	41,193	23	31,859	58,827	14	27,009	42,786
	Total	39	32,526	68,557	29	28,848	58,976	33	39,816	74,616	32	43,975	77,519
Total		3,061	82,299	294,569	2,835	68,625	242,303	2,397	74,790	233,049	2,185	79,504	229,371

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

²⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

⁴⁾ For discretionary purposes, VL40XXm PS has been included in VL2440m TM.

Section B

Statement of effort reduction schemes

Not in effect any longer.

Section C

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 20,711 GT and 110,730 kW. In percentage, the capacity is approximately 23% in GT below ceiling and in kW more than 35% 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

		National register	
		GT	kW
1	Fleet ceiling according to annex II	88,762	313,333
2	Capacity of the fleet on 31 December 2019	68,051	202,613
3	Capacity ceiling minus actual capacity	20,711	110,720

Source: The Danish Fishery Agency Vessel Register per 31th December 2019.

Note 1: No exits financed with public aid in 2019.

Section D

From 2007 the fisheries management underwent a change from a regime based on rations per period (individual non-transferable rations) to a regime based on primarily Individual Transferable Quotas (ITQ) and Vessel Quota Shares (VQS). This change caused a fall in the number of vessels as well as tonnage and engine power.

The purpose of the "New management" system was to create a new regulation of the Danish fishery to:

- initiate and develop a regulatory system (management model) that promotes a more sustainable exploitation of fish stocks, primarily by adapting the fishing capacity to fishing opportunities and reduce discards of fish.
- give the individual fishermen better opportunity to plan and run a fishery that fits his vessel and fishing activities,
- ensure basis for the fishery's total earnings,

The New management system divided the Danish fishing fleet into three segments:

- VQS – vessels that in the reference period 2003 - 2005 had been fishing for over 224,000 DKK¹, and landing one or more selected species included in the "New management". The vessels were assigned a Vessel Quota Share that can be transferred along with the vessel. Annual quotas based on Vessel Quota Shares can be transferred to other VQS vessels.
- LAV vessels - Less Active Vessels that in the reference period 2003 - 2005 had been fishing for under 224,000 DKK, and landing one or more of the VQS species included in the new management system. The vessels may enter the fishery of VQS species on ration terms.
- OV – Other vessels that in the reference period 2003-2005 did not land VQS species. The vessels may not land VQS species, unless that species is covered by the landing obligation.

The possibility to transfer quotas has resulted in a decrease in the number of vessels and in the capacity of the fleet without using decommission as a financial instrument.

¹ The threshold for commercial vessels in 2005.

a. 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 Agency² (Order no. 1083 of 30th of October 2019 on vessels used for commercial fishery, § 3).

A vessel is only allowed to enter the fishing fleet if one or more other vessels have been removed from the above mentioned registers. It is a precondition that tonnage and engine power 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 (§ 11).

It is not allowed to increase tonnage, size or engine power of a vessel without the permission of the Danish Fisheries Agency (§ 15). 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 (§ 14).

Virtual capacity is defined as tonnage and engine power (measured in kW), which used to be connected to vessels now erased from the above mentioned registers (§ 2) and as such virtual capacity is held by persons as a legal right and not 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 (§ 16).

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.

A general weakness concerning all EU fleets in the EU fleet management system is the verification of engine power. In the Danish management system the definition of engine power of Regulation 1130/2017 is implemented and derating of engine power is not allowed.

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

The administrative system as such, concerning the administration of the entries and exits in the fleet is considered to work satisfactorily.

b. kW in Kattegat and North Sea/Skagerrak – effort regulation

² The Danish Fisheries Agency was extracted from the Danish Agriculture and Fisheries Agency by royal resolution of 8th of August 2018.

As of August 2018 Member States are required to stay within the overall limits of the capacity ceiling defined in the Basic Regulation.

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. Therefore, there are no current plans for changes.

Section D

Information on general level of compliance with fleet policy instruments

Respect of reference level and entry-exit level is ensured by the 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. And since the system works with individual permits which can be kept as virtual capacity, physical capacity tends to be well below the ceilings.

Unused capacity, including safety capacity and the capacity premium for decommissioning, is not reallocated. 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.

Below is a table showing information on infringements and inspections on the main management measures in 2019.

Table D1. Number of infringements and accomplished inspections in 2019

Number of infringement cases	Administrative controls	Inspections in port	Inspections at sea	Total
1.1. Registration – license, authorisation etc.	2	7		9
1.2. Vessel not license as fishing vessel	1	2	3	6
1.3. Quotas and quantitative rationing	4			4
1.4. Limitations relating to gear and catch method		9	20	29
1.5. Area restrictions	4	6	6	16
2.1 Refusal of control				1
3.7 Tampering with VMS or non-functioning VMS		2		2
4. Illegal catch composition, undersized, Landing obligation and other	1	18	9	28
5.1 Logbook Order and other matters	41	56	3	100
5.2. Control Order and other matters	4	1		5
5.3. Notifications	17	25	1	43
5.4. Infringements from aquaculture or PO fish		2		2
6.1. Infringements at the landing and marketing of fish	1	14		15
10. Other criminal offenses	1			1

Number of infringement cases	Administrative controls	Inspections in port	Inspections at sea	Total
Total	76	143	42	261
Number of inspections	1,023	2,407	435	2,842

Section E

Information on changes of the administrative procedures relevant to fleet management

There have 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 then 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 of 28th 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 1st 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 small 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.

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 2019 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 (44%), gross tonnage (30%) or engine power (31%). 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. The other length groups do have a lower share of inactivity (below 9%), regardless of the measure. Although the total Danish fleet has a high amount of inactive vessels (36%), the total inactivity of physical capacity is rather low with 3% of GT and 9% of kW, which in 2018 was 5% of GT and 11% of kW.

Table F.1. Ratios between inactive and total number of vessels in 2019

Length	Inactive ¹⁾			Total ²⁾			Share of inactivity (%)		
	No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	712	1,152	148,67	1,610	3,792	48,445	44	30	31
VL1012m	6	62	444	98	1,196	10,477	6	5	4
VL1218m	19	334	2,500	221	8,609	38,816	9	4	6
VL1824m	2	199	513	65	7,276	18,860	3	3	3
VL2440m				39	12,688	27,231	0	0	0
VL40XXm				25	34,489	58,783	0	0	0
Total	739	1,747	18,324	2,058	68,051	202,612	36	3	9

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

Notes: ¹⁾ Includes vessels not having any catch value in 2019, but in the Vessel Register per 31st December 2019.

²⁾ Includes vessels in the Vessel Register per 31st December 2019.

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^{1) 2)}

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
VL0010m	DTS	0.34	0.30	0.54	0.46	0.29	0.29	0.32	0.31	0.35	0.38
	PGP	0.17	0.19	0.15	0.16	0.14	0.13	0.11	0.12	0.12	0.12

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	PMP			0.25	0.23	0.21	0.23	0.25	0.21	0.27	0.23
VL1012m	DRB	0.50	0.65	0.75	0.53	0.59	0.57	0.65	0.50	0.37	0.64
	DTS	0.83		0.81	0.73	0.58	0.55	0.62	0.52	0.62	0.59
	PGP	0.43	0.42	0.43	0.47	0.44	0.45	0.43	0.39	0.39	0.36
	PMP	0.58	0.56	0.48	0.56	0.42	0.43	0.49	0.49	0.42	0.50
VL1218m	DRB	0.38	0.52	0.49	0.39	0.39	0.44	0.40	0.45	0.38	0.40
	DTS	0.42	0.45	0.47	0.47	0.49	0.43	0.45	0.45	0.46	0.48
	PGP	0.61	0.45	0.51	0.48	0.45	0.49	0.44	0.48	0.53	0.48
	PMP	0.48	0.52	0.37	0.35	0.43	0.45	0.49	0.40	0.41	0.48
	TBB	0.79	0.66	0.76	0.78	0.79	0.73	0.77	0.80	0.84	0.80
	TM			0.53	0.49	0.70	0.58	0.63	0.79	0.87	0.87
VL1824m	DTS	0.50	0.47	0.48	0.47	0.55	0.54	0.52	0.56	0.57	0.61
	PMP	0.62	0.62	0.66	0.77	0.74	0.70	0.64	0.72	0.66	0.87
	TBB	0.79	0.66	0.76	0.72	0.78	0.72	0.81	0.80	0.80	0.61
VL2440m	DTS	0.64	0.62	0.67	0.69	0.72	0.78	0.75	0.72	0.74	0.76
	PMP					0.72	0.63	0.87	0.80	0.79	0.81
VL40XXm	DTS	0.90	0.64	0.63	0.74	0.76	0.92	0.47	0.56	0.51	0.48
	TM			0.67	0.66	0.65	0.68	0.57	0.62	0.68	0.74

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

Notes: ¹⁾ Covers only active vessels

²⁾ 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. 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 14 of the 20 fleets in 2019, 15 segments in 2018 and 14 segments in 2017. The six fleets that do not indicate technical overcapacity in 2019 include one entry-restricted fishery for mussels and shrimps (VL1218m TBB) as well as VL1218m TM, VL2440m DTS and 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 Sustainable Harvest Indicator (SHI) and Stock-at-risk Indicator (SAR) presented in this report are copied from "Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-19-13)".

The SHI values for the individual segments in 2017 are mainly determined by the proportion of landings value from the North Sea and Western Baltic cod stocks (overfished in relation to F_{MSY}), the flatfish (mainly North Sea plaice and IIIa sole, fished at F_{MSY}), 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 fished above F_{MSY} . Most of the industrial species, North Sea sprat, Norway pout and sandeel stocks, fished by Denmark do not have a 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	2009	2010	2011	2012	2013	2014	2015	2016	2017	Trend (5%) 2012/2017	Status 2017 according to guidelines
VL0010m	DTS	0.26	0.69	1.01		1.30	1.45	1.42	1.37			
	PGP	2.48	2.50	2.54	2.57	2.70	2.15	2.23	2.00	1.59	decreasing	out of balance
	PMP	1.96			1.86	1.77	1.58	1.53	1.41	1.21	decreasing	out of balance
VL1012m	DRB	0.26	0.69	1.01		1.30	1.45	1.42	1.37		-	
	DTS	2.30	2.27		1.73	2.02	1.82	1.59	1.41	1.16	decreasing	out of balance
	PGP	2.48	2.50	2.54	2.57	2.70	2.15	2.23	2.00	1.59	decreasing	out of balance
	PMP	2.06	2.09	1.85	1.54	1.65	1.41	1.40	1.35	1.07	decreasing	out of balance
VL1218m	DTS	1.48	1.28	1.23	1.49	1.27	1.02	1.02	0.89	0.74	decreasing	in balance
	PGP	1.88	1.68	1.58	1.48	1.36	1.29	1.35	1.27	1.21	no trend	out of balance
	PMP	1.86	1.73	1.51	1.60	1.61	1.49	1.19	0.97	0.80	decreasing	in balance
	TBB	2.17	1.20	1.12	1.10	1.00		0.92	0.95	0.95	no trend	in balance*
	TM		0.95	1.11	1.13	0.96	0.70	0.95	0.98	0.94	no trend	in balance*
VL1824m	DTS	1.43	1.25	1.25	1.33	1.30	1.18	1.16	1.03	0.99	decreasing	in balance
	PMP	1.86	1.73	1.51	1.60	1.61	1.49	1.19	0.97	0.80	decreasing	in balance
	TBB		0.95	1.11	1.13	0.96	0.70	0.95	0.98	0.94	no trend	in balance*
VL2440m	DTS	1.30	1.21	1.22	1.16	1.16	1.21	1.14	1.14	1.18	no trend	out of balance
VL40XXm	DTS	1.10	1.21	1.06	0.86	0.92	0.81	0.88	0.80	1.10	no trend	out of balance
	TM				0.90	0.97	0.98	0.95	0.89	1.08	no trend	out of balance

SHI for Danish fleet segment where on average more than 40% of the landings value are from stocks with estimated F and F_{MSY} and with SHI for 2017. Status 2017 indicators followed by a "*" indicates that status is not provided by STECF, but $SHI < 1$.

Nine out of eighteen segments may not be in balance (SHI >1) with their fishing opportunities in 2017 (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 ≤1 (“in balance”) due to their high proportion of North Sea herring. 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 2017 is mainly determined by landings of Western Baltic cod and herring with SSB below Blim and species where ICES advised no catch or as low catches as possible (e.g. Kattegat cod). Other stocks at risk with a low total catch but high proportion by Danish segments, e.g. sandeel (san.sa.2), contribute also. Twelve segments have a SAR “out of balance” in 2017. The remaining seven segments have no stocks at risk. There is no general temporal trend in SAR values.

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

Length	Gear	2009	2010	2011	2012	2013	2014	2015	2016	2017	Status 2017 according to guidelines
VL0010m	DTS		2		2	2	1		2	1	out of balance
	PGP	1	3	3	1	7	1	1	3	3	out of balance
	PMP		2	2	2	10					
VL1012m	DRB										
	DTS	2		2		2	1		2	1	out of balance
	PGP		2	2		7			2	2	out of balance
	PMP		2	2	2	10					
VL1218m	DRB										
	DTS	1	6	2		10	5	6		3	out of balance
	PGP	2	4	4	2	6	2		2	4	out of balance
	PMP		8	2		5	1				
	TBB			2	6	8		6			
	TM				8	10	7	6	2	5	out of balance
VL1824m	DTS	3	8	5	5	8	5	10	8	6	out of balance
	PMP	2	4	5	2	4	2		2	4	out of balance
	TBB			2	6	8		6			
VL2440m	DTS	3	8	4	7	9	6	7	4	8	out of balance
VL40XXm	DTS	1	6	3	6	8	5	6	6	3	out of balance
	TM				6	8	6	6	6	4	out of balance

iii) Economic indicators

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

Return on investment (ROI)

Return on investment (ROI) is defined as net profit, which is profit after capital stock depreciation, divided by the capital asset value, which consists of the vessel replacement value and the estimated value of fishing rights (net profit/capital asset value), according to EC guidelines. The ROI for the Danish fleet for the years 2010-2018 is shown in Table F.5.A.-F.5.D below for various approaches.

Table F.5.A. Return on investments excl. income and costs from fishing rights

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL0010m	DTS	-0.06	-0.09	-0.10	-0.05	-0.02	0.02	0.01	0.01	0.00
	PGP	-0.10	-0.10	-0.09	-0.07	-0.11	-0.10	-0.12	-0.06	-0.03
	PMP	.	.	-0.08	-0.10	-0.12	-0.03	-0.02	-0.02	-0.15
VL1012m	DRB	-0.03	-0.01	-0.01	0.07	0.15	0.29	0.17	0.25	-0.12
	DTS	-0.05	.	-0.05	-0.05	-0.04	0.00	-0.01	0.02	-0.02
	PGP	-0.09	-0.06	-0.04	-0.04	-0.06	-0.03	-0.01	-0.02	-0.01
	PMP	-0.05	-0.07	-0.06	-0.07	-0.07	0.00	-0.01	-0.03	-0.12
VL1218m	DRB	-0.07	-0.04	-0.03	-0.01	0.14	0.22	0.17	0.23	0.12
	DTS	0.01	0.00	-0.01	0.00	-0.01	0.02	0.02	0.00	0.01
	PGP	0.00	0.00	-0.02	-0.01	-0.04	-0.01	0.01	0.02	0.09
	PMP	0.00	-0.03	-0.01	-0.01	-0.01	0.01	0.01	0.00	-0.03
	TBB	-0.05	-0.11	0.06	0.06	0.01	-0.06	0.17	0.13	0.19
	TM	.	.	0.00	0.04	0.05	0.08	0.07	0.04	0.22
VL1824m	DTS	0.01	0.02	0.00	0.00	0.02	0.05	0.03	0.02	0.07
	PMP	0.02	0.02	0.01	0.03	0.03	0.06	0.06	0.03	0.14
	TBB	-0.10	-0.09	0.05	0.04	0.01	0.01	0.23	0.15	0.15
VL2440m	DTS	0.03	0.01	0.00	0.02	0.03	0.06	0.06	0.04	0.05
VL40XXm	DTS	0.12	0.12	0.08	0.05	0.03	0.12	0.14	0.04	0.17
	TM	.	.	0.10	0.08	0.04	0.08	0.07	0.05	0.16

Source: 2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

Table F.5.B. Return on investments incl. income and costs from fishing rights

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL0010m	DTS	-0.06	-0.09	-0.11	-0.03	-0.01	0.02	0.01	0.01	0.00
	PGP	-0.11	-0.08	-0.09	-0.06	-0.11	-0.09	-0.12	0.02	-0.02
	PMP	.	.	-0.09	-0.10	-0.12	-0.04	-0.02	-0.01	-0.13
VL1012m	DRB	-0.03	-0.01	-0.01	0.07	0.15	0.30	0.18	0.25	-0.12
	DTS	-0.06	.	-0.06	-0.05	-0.05	0.00	-0.03	0.02	-0.01

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
	PGP	-0.10	-0.05	-0.05	-0.03	-0.06	-0.04	-0.02	-0.02	0.00
	PMP	-0.05	-0.06	-0.07	-0.08	-0.08	-0.01	-0.02	-0.03	-0.09
VL1218m	DRB	-0.07	-0.04	-0.03	-0.01	0.13	0.23	0.17	0.23	0.12
	DTS	0.00	-0.02	-0.02	-0.01	-0.01	0.01	0.02	0.01	0.03
	PGP	-0.01	-0.01	-0.03	-0.01	-0.04	-0.02	0.01	0.04	0.10
	PMP	-0.02	-0.02	-0.02	-0.01	-0.02	0.01	0.00	0.03	-0.02
	TBB	-0.05	-0.10	0.05	0.05	0.04	-0.05	0.17	0.13	0.20
	TM	.	.	0.01	0.04	0.04	0.07	0.08	0.05	0.22
VL1824m	DTS	-0.01	0.01	-0.01	-0.01	0.02	0.03	0.03	0.02	0.08
	PMP	0.00	0.00	0.00	0.01	0.00	0.04	0.03	0.01	0.14
	TBB	-0.10	-0.08	0.04	0.03	0.01	0.02	0.23	0.15	0.15
VL2440m	DTS	0.03	0.00	-0.01	0.01	0.03	0.04	0.04	0.03	0.07
VL40XXm	DTS	0.11	0.11	0.09	0.08	0.03	0.10	0.11	0.03	0.19
	TM	.	.	0.09	0.08	0.05	0.08	0.08	0.05	0.22

Source: 2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

According to the Commission guidelines, the indicator should be adjusted for the current long-term interest rate. This is done in Table F.5.C. and Table F.5.D. below.

Table F.5.C. Return on investments (ROI) adjusted with long term interest rate* and excl. income and costs from fishing rights

Interest rate		2.93	2.73	1.40	1.75	1.33	0.69	0.32	0.48	0.46
Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL0010m	DTS	-0.09	-0.12	-0.11	-0.06	-0.03	0.02	0.01	0.00	0.00
	PGP	-0.13	-0.13	-0.10	-0.09	-0.12	-0.11	-0.12	-0.06	-0.03
	PMP	.	.	-0.10	-0.12	-0.14	-0.04	-0.02	-0.03	-0.15
VL1012m	DRB	-0.06	-0.04	-0.02	0.05	0.14	0.29	0.16	0.25	-0.13
	DTS	-0.08	.	-0.07	-0.07	-0.06	0.00	-0.01	0.02	-0.03
	PGP	-0.12	-0.09	-0.05	-0.06	-0.07	-0.04	-0.01	-0.02	-0.02
	PMP	-0.08	-0.09	-0.07	-0.08	-0.08	-0.01	-0.02	-0.03	-0.13
VL1218m	DRB	-0.10	-0.07	-0.04	-0.03	0.13	0.22	0.17	0.23	0.12
	DTS	-0.02	-0.03	-0.02	-0.02	-0.02	0.01	0.02	0.00	0.01
	PGP	-0.03	-0.03	-0.03	-0.03	-0.05	-0.02	0.01	0.02	0.09
	PMP	-0.03	-0.05	-0.03	-0.03	-0.03	0.00	0.00	0.00	-0.03
	TBB	-0.08	-0.13	0.04	0.04	0.00	-0.06	0.16	0.13	0.19
	TM	.	.	-0.02	0.02	0.04	0.07	0.07	0.04	0.21
VL1824m	DTS	-0.02	-0.01	-0.02	-0.01	0.01	0.04	0.03	0.01	0.06
	PMP	-0.01	-0.01	0.00	0.01	0.02	0.05	0.06	0.03	0.13
	TBB	-0.13	-0.11	0.03	0.02	0.00	0.01	0.22	0.15	0.15
VL2440m	DTS	0.01	-0.02	-0.02	0.00	0.02	0.05	0.05	0.03	0.05

VL40XXm	DTS	0.09	0.09	0.07	0.03	0.02	0.11	0.14	0.04	0.17
	TM	.	.	0.09	0.06	0.03	0.07	0.07	0.05	0.16

Source: 2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

* The long-term interest rate for convergence purposes, European Central Bank

Table F.5.D. Return on investments (ROI) adjusted with long term interest rate* and incl. income and costs from fishing rights

Interest rate		2.93	2.73	1.40	1.75	1.33	0.69	0.32	0.48	0.46
Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL0010m	DTS	-0.09	-0.12	-0.13	-0.05	-0.03	0.01	0.00	0.00	0.00
	PGP	-0.14	-0.11	-0.10	-0.08	-0.12	-0.10	-0.12	0.01	-0.03
	PMP	.	.	-0.10	-0.12	-0.13	-0.05	-0.02	-0.01	-0.13
VL1012m	DRB	-0.06	-0.04	-0.02	0.05	0.13	0.29	0.18	0.24	-0.13
	DTS	-0.09	.	-0.08	-0.06	-0.07	-0.01	-0.03	0.01	-0.01
	PGP	-0.13	-0.08	-0.06	-0.05	-0.07	-0.04	-0.02	-0.02	0.00
	PMP	-0.08	-0.09	-0.08	-0.10	-0.09	-0.02	-0.02	-0.03	-0.09
VL1218m	DRB	-0.10	-0.07	-0.04	-0.03	0.12	0.22	0.16	0.22	0.12
	DTS	-0.03	-0.04	-0.03	-0.03	-0.02	0.01	0.01	0.00	0.03
	PGP	-0.04	-0.04	-0.04	-0.03	-0.05	-0.02	0.01	0.04	0.09
	PMP	-0.05	-0.05	-0.03	-0.02	-0.03	0.00	0.00	0.02	-0.03
	TBB	-0.08	-0.13	0.04	0.03	0.03	-0.06	0.17	0.13	0.19
	TM	.	.	-0.01	0.02	0.02	0.06	0.07	0.05	0.22
VL1824m	DTS	-0.04	-0.02	-0.03	-0.03	0.00	0.03	0.03	0.02	0.08
	PMP	-0.03	-0.03	-0.01	-0.01	-0.01	0.03	0.03	0.01	0.14
	TBB	-0.13	-0.11	0.02	0.01	0.00	0.01	0.22	0.14	0.15
VL2440m	DTS	0.00	-0.03	-0.02	-0.01	0.02	0.03	0.04	0.02	0.06
VL40XXm	DTS	0.08	0.08	0.07	0.07	0.01	0.09	0.11	0.03	0.19
	TM	.	.	0.08	0.07	0.03	0.08	0.07	0.05	0.21

Source: 2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

* The long-term interest rate for convergence purposes, European Central Bank

When the long-term interest rate is included, there is a stronger trend over time towards larger negative values or smaller positive values. Including any income or costs from renting fishing quantities within a year does not change the overall picture. This income or cost may vary from year to year.

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 2009 to 2012, and after a long positive period from 2013 to 2017, it was again negative in 2018 for dredgers between 10-12 meter. For dredgers between 12-18 meters ROI is negative between 2009-2013, being positive in the following years.

The other entry-restricted fisheries, the TBBs, experienced negative ROIs from 2009-2011, but has been positive since then, 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 from 2017 to 2018. 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 (fixed costs / $1 - (\text{variable costs}/\text{current revenue})$), according to the EC guidelines. Current revenue consists of income from fishing and other income while excluding any subsidies. The break-even revenue shows the level of revenue needed to cover all costs, thereby having a net profit of zero. Two versions of CR/BER are estimated. The first version includes opportunity cost of capital in the fixed costs (see Table F.6.), whereas the second version excludes the opportunity cost of capital (see Table F.7.). The opportunity cost of capital is calculated by the capital asset value and the long-term interest rate for Denmark. Both measures of CR/BER are 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. 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 incl. opportunity cost of capital (CR/BER)

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL0010m	DTS	0.47	0.31	0.22	-0.02	0.33	1.32	1.28	1.18	0.65
	PGP	0.11	0.08	0.26	0.27	-0.14	-0.09	-0.05	0.01	0.68
	PMP	.	.	0.24	0.03	0.02	0.53	-0.05	-0.10	0.05
VL1012m	DRB	0.59	0.74	0.77	1.44	2.22	3.55	3.25	4.15	0.05
	DTS	-0.38	.	0.39	0.31	0.38	0.96	0.74	1.30	0.86
	PGP	0.28	0.31	0.44	0.39	0.22	0.57	0.85	0.58	0.89
	PMP	0.44	0.30	0.34	0.16	0.27	0.92	0.72	0.35	0.29
VL1218m	DRB	0.45	0.68	0.62	0.78	2.00	3.22	3.13	3.44	1.93
	DTS	0.86	0.70	0.64	0.73	0.75	1.14	1.42	0.98	1.06
	PGP	0.73	0.70	0.63	0.79	0.53	0.81	1.11	1.31	1.59
	PMP	0.75	0.50	0.59	0.68	0.61	1.04	1.09	0.97	0.77
	TBB	0.54	0.28	1.26	1.23	0.99	0.58	2.16	1.92	2.32
	TM	.	.	0.79	1.32	1.56	2.68	2.17	2.23	2.86

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL1824m	DTS	0.85	0.94	0.78	0.81	1.13	1.64	1.72	1.39	1.43
	PMP	0.92	0.87	0.95	1.14	1.19	1.84	2.05	1.71	1.71
	TBB	0.36	0.34	1.23	1.14	0.96	1.04	2.70	2.53	2.18
VL2440m	DTS	1.05	0.81	0.82	1.01	1.21	1.78	2.11	1.85	1.35
VL40XXm	DTS	1.76	1.63	1.96	1.42	1.22	2.58	3.56	1.73	2.09
	TM	.	.	1.77	1.62	1.40	1.98	2.49	2.22	2.19

Source: 2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

*Interest rate used to calculate the opportunity cost of capital is the long-term interest rate for convergence purposes, European Central Bank

Table F.7. Ratio between current revenue and break-even revenue excl. opportunity cost of capital (CR/BER)

Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018
VL0010m	DTS	0.57	0.37	0.24	-0.03	0.47	1.54	1.56	2.18	1.10
	PGP	0.14	0.11	0.29	0.32	-0.16	-0.09	-0.05	0.01	0.72
	PMP	.	.	0.27	0.04	0.02	0.58	-0.06	-0.12	0.05
VL1012m	DRB	0.74	0.90	0.89	1.71	2.52	3.79	3.40	4.41	0.05
	DTS	-0.73	.	0.44	0.38	0.45	1.04	0.79	1.43	0.88
	PGP	0.34	0.39	0.52	0.47	0.26	0.62	0.89	0.64	0.92
	PMP	0.55	0.38	0.39	0.19	0.31	1.00	0.75	0.38	0.30
VL1218m	DRB	0.54	0.77	0.70	0.90	2.22	3.46	3.26	3.63	2.00
	DTS	1.13	0.95	0.81	0.96	0.91	1.28	1.55	1.18	1.09
	PGP	1.00	0.98	0.74	0.92	0.60	0.87	1.16	1.46	1.64
	PMP	0.98	0.68	0.74	0.85	0.77	1.12	1.18	1.11	0.79
	TBB	0.65	0.33	1.38	1.37	1.09	0.61	2.21	1.99	2.39
	TM	.	.	0.96	1.69	1.92	3.17	2.30	2.61	2.98
VL1824m	DTS	1.11	1.26	0.94	1.04	1.36	1.84	1.87	1.66	1.47
	PMP	1.29	1.22	1.12	1.41	1.40	2.06	2.17	1.94	1.75
	TBB	0.42	0.40	1.37	1.30	1.08	1.10	2.77	2.67	2.27
VL2440m	DTS	1.46	1.10	0.95	1.23	1.43	1.99	2.27	2.12	1.40
VL40XXm	DTS	2.35	2.02	2.42	1.92	1.50	2.85	3.79	1.92	2.16
	TM	.	.	2.03	1.96	1.67	2.18	2.67	2.52	2.27

Source: 2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

*Interest rate used to calculate the opportunity cost of capital is the long-term interest rate for convergence purposes, European Central Bank

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 not observed for the entry-restricted fisheries, DRB and TBB. The TBBs had values below 1 for 2009-2011, but values around or above 1 for the following years for both vessel lengths incl. opportunity costs of capital. In 2014, the CR/BER was close to 1 for the 12-18 meters TBB vessels

(and above 1 excl. opportunity costs of capital), decreasing in 2015 to below 1, while increasing to more than 2 in 2016 and 2017. For the larger 18-24 meters TBB vessels, CR/BER has been above 1 since 2012 increasing to 2.67 and 2.27 in 2017 and 2018 respectively. The DRBs, fishing for mussels, below 12 metres have values below 1 for the first five years, but then becomes above 1 in 2013 and onwards. However, the value was reduced to 0.05 in 2018. 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 2017, 15 fleets had a CR/BER above 1, while the number was 5 in 2012, and 2 in 2009. In 2018 no fleet had negative CR/BER values. The only fleets that have been economically viable through the entire period and thus able to cover current costs is the VL40XXm DTS and TM.

It can be observed that the CR/BER is improving over time for all fleets. 2018 was first year where all values for CR/BER was positive.

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 negative for some segments and positive for others. However, earnings are generally good and improving. **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. **The situation has improved during the years and the situation is regarded stable and there is no need for action, 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. Economic indicators are also positive and have improved over time. 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, 16):

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.

The SHI indicator only covers parts of the stocks taken by the fishery 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 all segments.

In assessing the economic indicators, it should be taken into account that these vessels are operated by 1-3 crew members 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. 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, but close to zero, 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.

The economic indicators cover active vessels with commercial earnings and these indicators have improved considerable recent years. Despite the modest earnings and dependency of some stock under rebuilding, it is considered that there is balance between capacity of the active commercial vessels and fishing possibilities.

As part of the EMFF programme for Denmark, a number of measures aim at improving the situation for small vessels. These include support for investments on vessels, in facilities in ports and landing places supporting small scale fishery, innovative project in the value chain (including markets for new species) and market promotion measures. 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 1,500 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 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 (less than 1% of Danish landings). The potential capacity of the small scale fleet is around 1,700 vessels, 4,000 GT and 52,000 kW. In reality, only 108 vessels in the small scale fleet were active at a commercial level in 2019. All the 1,711 vessels under 10 m, including the less active ones, caught around 4,500 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, 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. 8. Traffic lights

No.	Length	Gear code	ROI	Current/Break-even		Sustainable Harvest Indicator	Stocks at Risk indicator	Technical indicators		Over all assesment
				Incl. opp.	Excl. opp.			Inactivity	Utili- sation	
1	VLOO10	DTS	0.00	0.65	1.10		1	44	0.38	Mainly inactive or less active vessels non commercial vessels
2	VL0010	PGP	-0.03	0.68	0.72	1.59	3		0.12	
3	VL0010	PMP	-0.15	0.05	0.05	1.21	0		0.23	
4	VL1012	DRB	-0.13	0.05	0.05		0	6	0.64	Mussels
5	VL1012	DTS	-0.03	0.86	0.88	1.16	1		0.59	Mixed
6	VL1012	PGP	-0.02	0.89	0.92	1.59	2		0.36	Demersal
7	VL1012	PMP	-0.13	0.29	0.30	1.07	0		0.50	
8	VL1218	DRB	0.12	1.93	2.00		0	9	0.40	Mussels
9	VL1218	DTS	0.01	1.06	1.09	0.74	3		0.48	Mixed
10	VL1218	PGP	0.09	1.59	1.64	1.21	4		0.48	Demersal
11	VL1218	PMP	-0.03	0.77	0.79	0.80	0		0.48	
12	VL1218	TBB	0.19	2.32	2.39	0.95	0		0.80	Brown Shrimps
13	VL1218	TM	0.21	2.86	2.98	0.94	5		0.87	Pelagic
14	VL1824	DTS	0.06	1.43	1.47	0.99	6		3	0.61
15	VL1824	PMP	0.13	1.71	1.75	0.80	4	0.87		
16	VL1824	TBB	0.15	2.18	2.27	0.94	0	0.61		Brown Shrimps
17	VL2440	DTS	0.05	1.35	1.40	1.18	8	0	0.76	Mixed
18	VL40XX	DTS	0.17	2.09	2.16	1.10*	3	0	0.48	Pelagic +
19	VL40XX	TM	0.16	2.19	2.27	1.08*	4		0.74	Industrial
	COM guideline		>0	>1	>1	<1	0	< 10	>0,9	
				>0<1	>0<1		>0			
				<0	<0	<0	>40% from assessed stocks >1 for 3 years	>10 % from SAR	>20	<0,7

*SHI in 2017 is above 1, but 3 years average value is below 1.

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, 2019

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
VL0010m	DTS	23	30	10	6	68
	PGP	435	1,634	1,007	167	3,243
	PMP	215	303	135	51	703
	Total	673	1,966	1,152	223	4,015
VL1012m	DRB	45	16	16		77
	DTS	199	17			217
	PGP	365	155	30	39	590
	PMP	247	91	15	14	366
	Total	856	279	62	53	1,249
VL1218m	DRB	1,432	20	42		1,495
	DTS	3,930	302	106	106	4,444
	PGP	771	32	114	10	928
	PMP	747	85	72	115	1,018
	TBB	450				450
	TM ⁵⁾	506				506
	Total	7,836	439	334	231	8,840
VL1824m	DTS	4,662		199	71	4,931
	PMP	1,301			62	1,363
	TBB	1,066	48			1,114
	Total	7,029	48	199	133	7,409
VL2440m	DTS ⁶⁾	11,553			1,328	12,881
	PMP	1,135				1,135
	Total	12,688			1,328	14,016
VL40XXm	DTS	14,113			2,853	16,966
	TM ⁷⁾	20,376			6,633	27,009
	Total	34,489			9,486	43,975
Total		63,571	2,733	1,747	11,453	79,504

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

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

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

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

⁵⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

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

Engine power in kW, 2019

Length	Gear	Commercial ¹⁾	Non-commercial ²⁾	Inactive ³⁾	Not registered 31 st December ⁴⁾	Total
VL0010m	DTS	299	460	115	74	948
	PGP	5,164	21,547	12,845	2,514	42,070
	PMP	2,531	3,577	1,907	539	8,554
	Total	7,994	25,584	14,867	3,127	51,572
VL1012m	DRB	351	125	87		563
	DTS	1,923	206			2,129
	PGP	3,332	1,308	162	265	5,067
	PMP	2,147	641	195	93	3,076
	Total	7,753	2,280	444	358	10,835
VL1218m	DRB	4,562	223	344		5,129
	DTS	18,872	1,470	813	424	21,579
	PGP	3,345	237	695	118	4,395
	PMP	3,898	558	648	757	5,861
	TBB	1,781				1,781
	TM ⁵⁾	1,370				1,370
	Total	33,828	2,488	2,500	1,299	40,115
VL1824m	DTS	12,010		513	169	12,692
	PMP	3,485			252	3,737
	TBB	2,727	125			2,852
	Total	18,222	125	513	421	19,281
VL2440m	DTS ⁶⁾	25,442			2,818	28,260
	PMP	1,789				1,789
	Total	27,231			2,818	30,049
VL40XXm	DTS	28,196			6,537	34,733
	TM ⁷⁾	30,587			12,199	42,786
	Total	58,783			18,736	77,519
Total		153,811	30,477	18,324	26,759	229,371

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

- Notes:
- ¹⁾ Includes vessels with a yearly catch value above € 36,000.
 - ²⁾ Includes vessels with a yearly catch value below € 36,000 but above € 0.
 - ³⁾ Includes vessels not having any catch value within the year.
 - ⁴⁾ Includes vessels not being active by the end of the year.
 - ⁵⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.
 - ⁶⁾ For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.
 - ⁷⁾ 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 2019 (%)

Group	Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landing value (€ 1,000) ⁶⁾
Commercial	VL0010m	DTS	41	32	26	0	1	0	0	425
		PGP	25	32	9	3	28	0	4	6,593
		PMP	24	55	14	0	7	0	0	2,278
	VL1012m	DRB	1	6	0	0	1	2	91	702
		DTS	15	40	35	0	5	4	0	1,618
		PGP	46	44	0	0	8	0	1	4,750
		PMP	24	58	11	1	1	3	0	2,634
	VL1218m	DRB	0	0	0	0	1	0	99	13,257
		DTS	17	25	52	0	1	4	0	36,550
		PGP	32	59	4	0	5	0	0	8,352
		PMP	23	24	50	0	1	2	0	5,891
		TBB	0	9	0	0	0	6	85	1,854
		TM ³⁾	1	2	12	21	0	65	0	7,197
	VL1824m	DTS	28	33	29	1	1	8	0	33,953
		PMP	24	43	18	0	2	14	0	11,278
TBB		2	29	9	0	1	0	58	4,697	
VL2440m	DTS ⁴⁾	51	18	20	1	1	9	0	73,533	
	PMP	81	18	0	0	1	0	0	8,464	
VL40XXm	DTS	0	0	0	19	0	54	28	67,892	
	TM ⁵⁾	0	0	0	66	0	34	0	138,695	
Non-commercial	VL0010m	DTS	7	5	85	0	3	0	0	63
		PGP	10	28	13	1	47	0	1	5,264
		PMP	16	33	10	1	35	0	4	548
	VL1012m	DRB	0	0	0	0	0	0	100	29
		DTS	3	17	15	0	65	0	0	21
		PGP	40	24	6	0	19	0	11	275
		PMP	5	58	21	0	16	0	0	152
	1218m	DRB	0	0	0	0	0	0	100	42
		DTS	14	34	24	0	2	13	13	210
		PGP	12	43	2	0	43	0	0	63
		PMP	4	90	6	0	0	0	0	90
	VL1824m	PMP	0	0	0	0	100	0	0	2
TBB		0	0	0	0	0	0	100	15	
40XXm	DTS	0	0	0	0	0	100	0	20	

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

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

³⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

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

⁶⁾ Based on the average Euro exchange rate for 2019 being 7.4660DKK / €.

Distribution landing live weight in 2019 (%)

Group	Length	Gear	Round-fish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species ¹⁾	Entry-restricted ²⁾	Total landing live weight (tonnes)
Commercial	VL0010m	DTS	45	43	12	0	0	0	0	123
		PGP	29	35	2	12	19	0	2	1,840
		PMP	23	71	4	0	2	0	0	785
	VL1012m	DRB	0	2	0	0	0	4	93	1,269
		DTS	16	38	9	0	1	36	0	778
		PGP	45	50	0	1	3	0	1	1,574
		PMP	18	47	2	9	0	24	0	1,689
	VL1218m	DRB	0	0	0	0	2	0	98	48,491
		DTS	18	26	17	0	1	37	0	16,475
		PGP	32	64	2	0	2	0	0	2,360
		PMP	36	28	18	0	1	17	0	2,325
		TBB	0	4	0	0	0	44	51	1,071
		TM ³⁾	0	0	1	19	0	80	0	20,982
	VL1824m	DTS	17	19	8	5	1	50	0	19,960
		PMP	10	18	4	0	0	68	0	7,914
TBB		2	28	5	0	1	0	64	1,480	
VL2440m	DTS ⁴⁾	30	9	5	2	1	53	0	47,847	
	PMP	82	16	0	0	2	0	0	2,812	
VL40XXm	DTS	0	0	0	11	0	86	3	160,175	
	TM ⁵⁾	0	0	0	42	0	57	0	296,255	
Non-commercial	VL0010m	DTS	12	6	76	0	6	0	0	11
		PGP	18	41	3	5	33	0	1	1,378
		PMP	22	57	2	1	14	0	3	158
	VL1012m	DRB	0	0	0	0	0	0	100	5
		DTS	9	56	7	0	28	0	0	2
		PGP	44	22	1	0	28	0	5	114
		PMP	5	59	5	0	32	0	0	78
	1218m	DRB	0	0	0	0	0	0	100	192
		DTS	12	23	3	0	0	59	3	185
		PGP	13	40	0	0	47	0	0	21
		PMP	4	94	2	0	0	0	0	36
	VL1824m	PMP	0	0	0	0	100	0	0	1
TBB		0	0	0	0	0	0	100	5	
40XXm	DTS	0	0	0	0	0	100	0	77	

See Annex 1 for explanation of Gear Codes

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

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

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

³⁾ For discretionary purposes, VL1824m TM has been included in VL1218m TM.

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

⁵⁾ 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 ^{1) 2)}									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
VL0010m	DTS	400	594	580	654	705	612	628	583	495	449
	PGP	39,457	41,032	30,245	28,903	29,212	26,469	25,703	22,306	22,918	21,604
	PMP	-	-	6,060	5,557	5,093	4,914	5,277	5,056	4,851	4,060
VL1012m	DRB	1,183	1,702	1,640	1,317	1,163	1,295	756	286	303	188
	DTS	950	-	1,070	1,042	1,132	1,157	1,280	1,461	1,634	1,450
	PGP	7,026	6,492	5,903	6,388	5,942	5,834	5,768	4,768	4,955	4,316
	PMP	2,808	3,121	3,415	2,691	2,828	3,059	3,378	2,840	2,875	2,765
VL1218m	DRB	1,441	2,086	2,543	2,017	2,141	1,826	1,892	2,445	2,061	2,506
	DTS	21,010	19,677	16,829	16,606	16,659	14,812	15,502	14,224	14,431	14,259
	PGP	6,412	5,818	4,682	4,669	3,913	3,793	3,315	3,142	3,128	3,009
	PMP	4,775	4,796	5,009	4,280	4,702	4,118	4,127	3,840	3,408	3,053
	TBB	1,748	1,185	1,731	1,662	1,901	1,644	2,018	1,688	1,737	965
	TM	-	-	1,506	1,326	1,848	1,499	1,233	904	979	935
VL1824m	DTS	11,741	11,123	10,554	9,693	9,655	9,039	8,061	7,222	7,470	7,476
	PMP	2,300	2,348	2,281	3,363	2,104	2,089	2,113	2,408	2,405	2,140
	TBB	2,546	2,105	2,788	2,772	2,764	2,550	3,067	2,917	2,932	1,885
VL2440m	DTS	9,550	8,564	8,664	7,851	7,782	7,579	8,081	9,209	9,701	9,494
	PMP	-	-	-	-	1,233	1,097	1,157	974	869	891
VL40XXm	DTS	6,025	5,321	1,440	2,762	2,073	2,005	1,728	3,035	2,959	2,403
	TM	-	-	2,496	2,607	2,538	3,439	3,468	2,419	2,501	2,027

Length	Gear	Number of vessels ²⁾									
		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
VL0010m	DTS	12	14	10	11	16	11	9	9	7	6
	PGP	1,024	1,012	855	824	928	883	905	855	827	782
	PMP	-	-	126	116	121	121	130	128	119	110
VL1012m	DRB	24	25	21	24	19	16	11	6	6	4
	DTS	8	-	9	9	12	13	13	15	15	15
	PGP	65	56	50	56	54	50	53	50	48	46
	PMP	29	34	44	30	38	34	32	31	31	27
VL1218m	DRB	30	27	27	25	26	24	29	34	35	33
	DTS	168	156	127	128	123	117	117	114	109	106
	PGP	45	48	35	37	31	29	27	25	23	22
	PMP	51	47	46	38	38	37	35	35	30	26
	TBB	11	11	11	11	11	12	11	10	10	9
	TM	-	-	16	14	15	13	10	6	6	6
VL1824m	DTS	68	70	64	61	51	49	45	38	38	38
	PMP	16	15	12	16	10	10	11	11	11	9
	TBB	17	18	17	18	16	17	16	16	16	16
VL2440m	DTS	42	39	38	34	34	30	34	37	38	36
	PMP	-	-	-	-	6	5	4	4	3	3
VL40XXm	DTS	29	31	12	17	14	11	10	19	17	14
	TM	-	-	17	13	15	18	23	13	13	11

		Maximum obs. days at sea ^{1) 3)}									
Length	Gear	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
VL0010m	DTS	97	140	108	130	154	190	221	206	204	196
	PGP	221	214	229	225	220	226	263	225	225	229
	PMP	178	183	189	210	200	175	160	186	150	158
VL1012m	DRB	99	105	104	103	103	141	105	95	137	73
	DTS	143	149	147	158	164	161	160	186	176	165
	PGP	253	275	273	242	250	260	256	246	262	262
	PMP	166	163	162	161	176	210	215	187	220	204
VL1218m	DRB	126	149	193	206	210	172	162	161	155	184
	DTS	298	278	282	276	279	295	296	275	286	281
	PGP	235	270	261	265	282	265	281	262	255	287
	PMP	196	196	291	321	285	250	242	272	277	237
	TBB	200	164	207	194	219	188	238	212	207	134
	TM	0	0	177	194	176	199	195	190	188	179
VL1824m	DTS	345	340	345	339	342	339	342	339	347	323
	PMP	232	254	287	272	283	300	298	303	333	274
	TBB	190	176	217	213	222	208	237	227	229	194
VL2440m	DTS	353	356	340	336	320	323	318	346	343	347
	PMP	-	-	-	-	285	351	333	304	365	365
VL40XXm	DTS	232	268	190	219	195	198	365	285	341	355
	TM	-	-	219	303	262	282	263	300	282	248

Source: The Danish Fisheries Agency Vessel Register and Sales Notes Register 11th April 2020.

2020 Data call for economic datasets on the EU fishing fleets, EC Ref. Ares(2020)316179 - 17/01/2020.

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

²⁾ Covers only active vessels.

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