

26 June 2015

## Annual Report on fishing fleet capacity 2014 - Denmark

The format of the Danish capacity report concerning 2014 follows the headlines mentioned in article 14 of Commission Regulation (EEC) No. 1013/2010.

Fleet data used in the report are from 2014, whereas data on economic performance is from 2013.

Biological indicators provided by the Commission are from 2012. The interpretation takes into account recent developments in stocks.

### Section A

#### *Description of fleets*

The statistics of table A.1 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 2,679 vessels registered in the Danish vessel register during 2014, cf. Table A.1.

Out of these 2,679 vessels, 224 of these were not registered at the end of 2014, but had been that during the year. In total, 2,455 vessels were registered the 31<sup>st</sup> December 2014. Of these, 880 vessels had not been active during the year, i.e. didn't have any registered landings value. A total of 566 vessels are considered as commercial vessels, i.e. their total landings value was above the threshold level of € 36,000 in 2014, while the remaining 1,009 vessels were non-commercial vessels with landing values below € 36,000 in 2014.

**Table A.1. Number of registered Danish fishing vessels in 2014**

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	11	4	0	19
	PGP	87	840	775	183	1,885
	PMP	19	102	65	13	199
	Total	110	953	844	196	2,103
VL1012m	DRB	16	3	2	1	22
	DTS	9	3	0	0	12
	PGP	39	14	5	4	62
	PMP	19	19	2	1	41
	Total	83	39	9	6	137
VL1218m	DRB	26	0	3	0	29
	DTS	116	7	8	4	135
	PGP	28	3	5	5	41
	PMP	32	6	6	2	46
	TBB	11	0	0	0	11
	TM	14	0	0	0	14
	Total	227	16	22	11	276
VL1824m	DTS	52	0	3	6	61
	PMP	10	0	0	1	11
	TBB	16	0	0	0	16
	Total	78	0	3	7	88

VL2440m	DTS <sup>5)</sup>	33	1	1	1	36
	PMP	6	0	0	0	6
	Total	39	1	1	1	42
VL40XXm	DTS	14	0	1	0	15
	PS	2	0	0	2	4
	TM	13	0	0	1	14
	Total	29	0	1	3	33
Total		566	1,009	880	224	2,679

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 VL24XXm TBB has been included in VL2440m DTS.

The distribution of tonnage and engine power is shown in Appendix 2. For both capacity measures, the commercial vessels make up the majority of these with 83% of total GT and 68% of total kW.

## Section A

### Link with fisheries

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

The fleet segments 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 fleet segments 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 landing value in 2014 on overall fisheries in %**

Length	Gear	Codfish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landings value <sup>4)</sup>	
									€ 1,000	%
VL0010m	DTS	47	20	29	0	3	0	1	555	0,1%
	PGP	32	18	8	3	39	0	1	12,028	3,0%
	PMP	36	30	22	0	10	0	1	2,528	0,6%
VL1012m	DRB	0	0	0	0	0	0	100	4,127	1,0%
	DTS	32	15	31	6	0	16	0	1,249	0,3%
	PGP	49	39	1	1	9	0	1	4,885	1,2%
	PMP	39	40	10	1	1	9	0	2,833	0,7%
VL1218m	DRB	0	0	0	0	0	0	100	7,249	1,8%
	DTS	27	17	40	4	1	12	0	32,229	8,2%
	PGP	46	51	0	0	3	0	0	11,230	2,8%
	PMP	38	25	26	0	1	9	0	8,016	2,0%
	TBB	0	0	0	0	0	0	100	4,207	1,1%
	TM	2	1	7	20	0	70	0	7,959	2,0%
VL1824m	DTS	28	27	20	2	1	22	1	42,917	10,9%
	PMP	31	46	23	0	1	0	0	9,243	2,3%
	TBB	0	0	0	0	0	0	100	6,816	1,7%
VL2440m	DTS <sup>3)</sup>	40	19	19	0	0	21	0	54,931	13,9%
	PMP	73	24	3	0	1	0	0	9,008	2,3%
VL40XXm	DTS	0	0	0	21	0	49	29	40,431	10,2%
	PS	0	0	0	71	0	29	0	21,579	5,5%
	TM	0	0	0	66	1	34	0	110,458	28,0%

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 a license, i.e. mussels, oysters, brown shrimps and shrimps in the waters around Greenland.

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

<sup>4)</sup> Based on the average Euro exchange rate for 2014 being 7.4547 DKK / €.

**Table A.3. Distribution landing whole weight in 2014 on overall fisheries in %**

Length	Gear	Codfish	Flatfish	Lobster and shrimp	Mackel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landings whole weight	
									tonnes	%
VL0010m	DTS	52	36	10	0	3	0	0	202	0,0%
	PGP	39	22	1	11	26	0	0	4.927	0,7%
	PMP	42	43	5	0	9	0	0	1.119	0,1%
VL1012m	DRB	0	0	0	0	1	0	99	14.933	2,0%
	DTS	20	11	2	13	0	53	0	1.864	0,2%
	PGP	47	45	0	3	5	0	0	2.421	0,3%
	PMP	25	30	1	5	0	39	0	2.792	0,4%
VL1218m	DRB	0	0	0	0	0	0	100	32.949	4,4%
	DTS	19	12	5	8	0	56	0	33.920	4,5%
	PGP	44	54	0	0	2	0	0	4.679	0,6%
	PMP	27	21	4	1	0	47	0	7.543	1,0%
	TBB	0	0	0	0	0	0	100	1.156	0,2%
	TM	0	0	0	14	0	85	0	31.391	4,2%
VL1824m	DTS	10	11	2	4	2	71	0	64.114	8,6%
	PMP	27	59	13	0	1	0	0	3.402	0,5%
	TBB	0	0	0	0	0	0	100	1.888	0,3%
VL2440m	DTS <sup>3)</sup>	14	9	3	1	0	73	0	77.626	10,4%
	PMP	72	27	1	0	0	0	0	3.985	0,5%
VL40XXm	DTS	0	0	0	15	0	82	3	122.560	16,4%
	PS	0	0	0	47	0	53	0	55.031	7,4%
	TM	0	0	0	44	0	56	0	279.163	37,3%

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 a license, i.e. mussels, oysters, brown shrimps and shrimps in the waters around Greenland.

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

## 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 property/user rights. These management changes is believed to be a 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 12% from 2008 to 2014. The capacity of the Danish fishing fleet decreased 9% in GT and 17% in kW in the same period.

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

Length	Gear	2008			2011			2014		
		No.	GT	kW	No.	GT	kW	No.	GT	kW
VL0010m	DTS	17	95	1,185	16	91	1,091	19	122	1,604
	PGP	2,108	4,512	50,124	2,018	4,259	49,744	1,885	3,964	47,551
	PMP	143	646	7,144	198	831	9,219	199	796	9,301

	Total	2,268	5,253	58,453	2,232	5,181	60,054	2,103	4,882	58,456
VL1012m	DRB	31	422	3,337	31	433	3,375	22	339	2,325
	DTS	14	173	1,747	10	143	1,231	12	175	1,572
	PGP	78	827	6,872	66	716	6,167	62	694	6,058
	PMP	31	361	3,126	33	395	3,346	41	499	4,471
	Total	154	1,783	15,082	140	1,686	14,119	137	1,706	14,426
VL1218m	DRB	35	1,095	5,228	34	1,257	5,326	29	981	4,226
	DTS	209	6,756	37,407	166	5,702	30,228	135	4,615	24,444
	PGP	80	2,378	11,778	57	1,762	8,579	41	1,375	6,426
	PMP	58	1,332	8,801	57	1,382	8,923	46	1,360	7,688
	TBB	18	752	3,231	11	548	2,126	11	548	2,126
	TM							14	721	2,813
Total	400	12,313	66,445	325	10,650	55,182	276	9,600	47,723	
VL1824m	DTS	90	7,634	27,585	68	6,721	21,110	61	6,143	18,150
	PMP	15	1,395	3,895	15	1,517	4,336	11	1,276	3,693
	TBB	13	827	2,393	17	1,137	3,087	16	1,094	2,877
	Total	118	9,856	33,873	100	9,374	28,533	88	8,512	24,720
VL2440m	DTS <sup>2)</sup>	74	18,578	48,035	46	12,760	28,547	36	10,398	22,984
	PMP	8	1,992	4,124	5	1,140	2,143	6	1,532	3,028
	Total	82	20,569	52,159	51	13,900	30,690	42	11,929	26,012
VL40XXm	DTS	32	22,615	45,932	25	21,189	41,564	15	11,140	20,945
	PS	7	9,911	22,625	4	6,526	16,738	4	5,697	12,343
	TM							14	21,368	39,031
	Total	39	32,526	68,557	29	27,715	58,302	33	38,205	72,319
Total		3,061	82,299	294,569	2,877	68,506	246,880	2,679	74,834	243,656

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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

<sup>2)</sup> For discretionary purposes, VL24XXm TBB has been included in VL2440m DTS.

<sup>3)</sup> From 2008-2011, gear type TM was included in gear type DTS.

## Section B

### ***Statement of effort reduction schemes - impact of the cod recovery plans for the North Sea and the Baltic in 2014***

An overview of the data with respect to this section is given in Annex 4. Data includes figures for activity concerning the cod recovery plan for the Baltic and the cod recovery plan for the North Sea.

When describing the effects on the Danish fishing fleet for vessels involved in fishing with gear covered by rules for kilowatt days, it must be borne in mind that there were great variations in effort within each segment which to a large extent is caused by a clash between quota and effort management. The reason for the significant variation was that the Danish regulation with VQS (Vessel Quota Shares) from 2007 allowed vessels to pool their quotas on fewer vessels.

The description is based on the effort register kept by the Danish AgriFish Agency. While reading this presentation, it must be borne in mind that the Danish fleet in general conduct mixed fishery, both with regard to species and geography.

#### **Fleet in cod recovery plan for the North Sea, Skagerrak, Kattegat, Irish Sea and West of Scotland**

In 2014, 337 vessels took part in fisheries using gears covered by the regulation, as opposed to 780 vessels in 2003. That corresponds to a reduction of 57%. In 2014, 38,186 days at sea were used as opposed to 86,962 days at sea in 2003, which corresponds to a reduction of 56%. The reduction, in terms of total kilowatt days used was 56%.

From 2013 to 2014 the situation was rather stable although there were minor reductions in terms of days at sea and in terms of kW days.

In the fishery with **trawl  $\geq$ 100 mm. (TR1)**, 7,121,732 kilowatt days were used in 2003 compared to 4,347,640 kilowatt days in 2014 – a 39% reduction. The number of vessels fishing in this category fell by 65% to 124 vessels. There was an increase in kilowatt days per vessel by 76%.

In the **trawl** fishery between **70 mm and 99 mm (TR2)**, 3,941,539 kilowatt days were used in 2014 as opposed to 10,808,334 kilowatt days in 2003 – a 64% reduction. The number of vessels was reduced by 60% to 173 vessels. The kilowatt days per vessel were 10% down compared with 2003.

In the **trawl** fishery between **16 mm and 31 mm (TR3)**, 1,030,914 kilowatt days were used in 2014 compared to 3,867,765 kilowatt days in 2003 – a reduction of 82%. The number of vessels in this fishery fell by 82% to 31 vessels. The kilowatt days per vessel were increased by 50%.

In the fishery with **beam trawl  $\geq$ 120 mm (BT1)**, 376,576 kilowatt days were used in 2014 as opposed to 1,342,965 kilowatt days in 2003 – a 72% reduction. The number of vessels fishing in this segment fell 92% to 1 vessel. The increase in kilowatt days per vessel was 90%.

In the fishery with **beam trawl** between **80 mm and 119 mm (BT2)**, 0 kilowatt days were used in 2014 compared to 98,897 kilowatt days in 2003.

In the fishery with **nets (GN1)**, 1,191,307 kilowatt days were used in 2014 as opposed to 2,456,364 kilowatt days in 2003, which was a 52% reduction. The number of vessels fell by 66% to 79 vessels. There was an increase in kilowatt days per vessel by 44%.

In the fishery with **trammel nets (GT1)**, 553,797 kilowatt days were used in 2014 as opposed to 170,865 kilowatt days in 2003, which was a 224% increase. The number of vessels was in line with last year, 37 vessels. There was an increase in kilowatt days per vessel by 224%.

In the segment **liners (LL1)**, there was no activity in 2014.

*In summary, a substantial decrease of effort overall and for all types of gear, except trammel nets, has taken place since the cod recovery plan was adopted. The situation has "stabilized" in recent years with a tendency of fewer vessels conducting a more efficient fishery.*

#### **Fleet in cod recovery plan for the Baltic**

In 2014, 258 vessels took part in fisheries using gears covered by the regulation, as opposed to 479 vessels in 2003. That corresponds to a reduction of 46%. In 2014 19,295 days at sea were used as opposed to 35,571 days at sea in 2003, which corresponds to a reduction of 46%. The reduction in terms of total kilowatt days used was 54%.

From 2013 to 2014, the number of kilowatt days per vessel fell by 14%.

In the **Western Baltic**, 1,867,445 kilowatt days were used in 2014 compared to 4,375,698 kilowatt days in 2003 – a reduction of 57%. The number of vessels in this fishery fell by 45% to 256 vessels. The kilowatt days per vessel fell by 23%.

In the **Eastern Baltic**, 820,774 kilowatt days were used in 2014 compared to 1,438,671 kilowatt days in 2003 – a reduction of 43%. The number of vessels in this fishery fell by 63% to 69 vessels. Kilowatt days per vessel increased by 55%.

In summary, a substantial decrease of effort over all in the period. The situation for the recent years indicates a tendency of a minor reduction in the fishing effort for the entire Baltic.

## Section B

### ***Impact on fishing capacity of effort reduction schemes***

An overview of the data with respect to this section is given in Annex 5. Data includes figures for activity concerning the cod recovery plan for the Baltic and the cod recovery plan for the North Sea.

#### **Fleet in cod recovery plan for the North Sea, Skagerrak, Kattegat, Irish Sea and West of Scotland**

Vessels that took part in fisheries using gears covered by the regulation represented 28,527 GT and 85,869 kW in 2014 as opposed to 63,225 GT and 204,356 kW in 2003. That corresponds to a reduction of 55% in GT and a reduction of 58% in kW. There was a reduction in all gear segments except for GT1 where the increase in GT was 19% and kW 9% respectively. *The situation has "stabilized" in recent years. The fleet capacity has been reduced with more than 50% both in terms of GT and kW.*

#### **Fleet in cod recovery plan for the Baltic**

Vessels that took part in fisheries using gears covered by the regulation represented 7,319 GT and 34,625 kW in 2014 as opposed to 18,165 GT and 83,748 kW in 2003. That corresponds to a reduction of 60% in GT and 59% kW respectively. There was a reduction in both the western and eastern Baltic. The situation for the recent years indicates a tendency of minor reductions. The fleet capacity for the vessels has been reduced with more 50% in terms of both GT and kW.

However, for both recovery plans the effort reduction has worked in combination with the Danish regulation using transferable Vessel Quota Shares (VQS) from 2007.

## 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 19,630 GT and 87,142 kW. In percentage the capacity in GT and kW is more than 22% in GT and 28% kW below the ceiling. Denmark is in compliance with the entry-exit levels for tonnage as well as engine power.

Since Regulation 1013/2010 is still in force, the capacity calculation according to this regulation is presented in table C2.

**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 2014	69,132	226,191
3	<b>Capacity ceiling minus actual capacity</b>	19,630	87,142

Source: The Danish AgriFish Agency Vessel Register

Note 1: For National Register: Virtual capacity is not included in 2 and 3. Virtual capacity per 28<sup>th</sup> April 2015 is 18,514 GT and 84,247 kW.

Note 2: No exits financed with public aid in 2014.

**Table C2. Management of capacity according to Regulation 2371/2002 and Regulation 1013/2010**

		National register			
		GT		kW	
1	Capacity of the fleet on 1 January 2003	GT <sub>fr</sub>	103,361	kW <sub>fr</sub>	369,267
2	Capacity level for the application of the entry-exit regime	GT <sub>03</sub>	103,361	kW <sub>03</sub>	369,267
3	Entries of vessels of more than 100 GT financed with public aid	GT <sub>100</sub>	0	kW <sub>100</sub>	0
4	Other entries or capacity increases (not included in 3 & 5).			kWr	1,762
5	Increases in tonnage GT for reasons of safety	GT <sub>s</sub>	0		
6	<b>Total entries ( 3 + 4 + 5 )</b>		0		1,762
7	Exits financed with public aid 2003-2006	GT <sub>a1</sub>	9,255	kW <sub>a</sub>	50,021
7a	Exits financed with public aid 2007-2013	GT <sub>a2</sub>	4,568		-
8	Other exits (not included in 7)				
9	<b>Total exits ( 7 + 8 )</b>		13,823		50,021
10	<b>Capacity of the fleet on 31 December 2014</b>		69,132		226,191
11	<b>Fleet ceiling 31 December 2013</b> <b>GTt=GT03-(0.99*GTa1)-(0.96*GTa2)-</b> <b>(0.35*GT100)+GTs+Δ(GT-GRT)</b> <b>kWt=kW03-kWa-(0.2*kWr)-(0.35*kW100)</b>	GT	93,374	kW	318,894

Source: The Danish AgriFish Agency Vessel Register

Note 1: A capacity of 2,379 GT and 10,302 kW was granted aid for decommissioning in 2002, but is provisionally not included in exits with public aid.

Note 2: GTa1 is not multiplied with 0.99 in point 7, but in point 11 GTa1 has been multiplied by 0.99.

Note 3: Re-measurement from GRT to GT is included in 11 with 3,561 GT.

Note 4: Aid for new construction was granted in 2004 and some of the new vessels have entered the fleet in 2005. However, a reduction of 4.1% (tonnage) and 5.6% (power) has already been realized, so no further reduction is required.

Note 5: For National register: Virtual capacity is included neither in baseline 2003 nor in fleet ceiling 2014. Virtual capacity per 28<sup>th</sup> April 2015 is 18,514 GT and 84,247 kW.

## Section D

### **Summary of weaknesses and strengths of the management system**

#### *a. Fisheries management system*

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,

- 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,

- 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.

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 DKK, 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.

The possibility to transfer quotas has resulted in a decrease in the number of commercial vessels and in the capacity of the commercial fleet.

#### *b. Fleet management system*

The fleet management system in Denmark is based on an entry-exit regime.

All commercial vessels have to be registered in the vessel register of The Danish Maritime Authority as well as the vessel register of the Danish AgriFish Agency (Order no. 124 of 27th of February 2004 on vessels used for commercial fishery, § 3).

A vessel is only allowed to enter the commercial 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 commercial fishery does not exceed the tonnage and engine power from that or those vessels, which were or are to be cancelled (§ 7).

It is not allowed to increase tonnage, size or engine power of a commercial vessel without the permission of the Danish AgriFish Agency (§ 10). The Danish AgriFish 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 (§ 9).

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 on vessels which have received any subsidy regarding final exit of the commercial fleet (§ 11).

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. So 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 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 works satisfactorily. The vessel owners have to be able to forward documentation concerning the capacity involved in replacements and modernizations. This documentation is verified in the Danish AgriFish 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 2930/86 is implemented and derating of engine power is not allowed.

#### *c. kW-days – effort regulation*

KW-days are defined as the number of days a vessel is at sea times the efficiency in kW of the vessel engine. In the kW-days regulation the Member States are allocated an effort ceiling for the involved gear categories, afterwards the kW regulation is administered nationally. A model for allocation to the fishermen was decided upon in 2009. The rules are currently stated in national order no. 278 of 24th march 2015. The allocation was based on vessels effort in 2008 within the different gear segments. The new regulation covers vessels over 10 meters in Kattegat and North Sea/Skagerrak.



## Section D

### ***Plan for improvement in fleet management system***

The current Danish management system is at the moment considered to be well functioning in order to secure a better balance between fishing opportunities and capacity. Therefore there are no current plans for changing this.

## 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 create 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 2014.

**Table D1. Number of infringements and accomplished inspections in 2014**

Number of infringement cases	Administrative controls	Inspections in port	Inspections at sea	Total
1.1. Registration – license, authorisation etc.	15	6	4	25
1.2.1. Capacity		3	1	4
1.2.2 Illegal marking and identification of vessel			1	1
1.3. Quotas and quantitative rationing	4	4		8
1.4. Limitations relating to gear and catch method	1	3	13	17
1.5. Area restrictions	7	7	2	16
2.1 Refusal of control		1		1
3.1 Other information obligations			1	1
3.5 Lacking or incorrect operation and maintenance of VMS equipment			1	1
4.1. Matters relating to the fish per se		13		13
4.3. Illegal catch composition	1	9		10
5.1 Logbook Order and other matters	69	38	2	109
5.2. Control Order and other matters	3	4		7

5.3. Notifications	59	17	1	77
6.1. Infringements at the landing and marketing of fish		8		8
10.1 Illegal participation	1			1
10.3 Falsification of reports	2			2
<b>Total</b>	<b>162</b>	<b>113</b>	<b>26</b>	<b>301</b>
<b>Number of inspections</b>	<b>1.163</b>	<b>3.140</b>	<b>767</b>	<b>3.907</b>

## Section E

### ***Information on changes of the administrative procedures relevant to fleet management***

The former rule that virtual capacity has to be used within a period of five years after the vessel was cancelled from the register was repealed in 2011. The amendment is not expected to have any effect on the size of the physical capacity of the fleet.

In 2012, the Danish AgriFish Agency issued new rules regarding the concentration of transferable fishing rights (ITQs and VQs). These rules set in place maximum rates regarding ownership for the most important quotas of demersal, pelagic and industrial species. The maximum rates apply to both fishermen and vessels. For example, a fisherman is allowed to own a maximum share of 5% of the Danish quota of cod in the North Sea, and similarly a vessel is not allowed to have more than 5% of the Danish quota of cod in the North Sea attached to the vessel. The old rules regarding concentration of transferable Vessel Quota Shares (VQs) prohibited the concentration of fishing rights from more than 4 vessels, which had the effect, that some vessel owners have more than 4 vessels, but only use 1 or 2 of these vessels for actual fishing. Through the fish pool system they can transfer their yearly quantity of fish from their inactive vessels to their active vessels. The new rules removed the 4-vessel rule, so there is no longer any incentive for the fisherman to have an inactive vessel in a fishing pool. Further the Maritime Authority requires an yearly administrative fee for being registered in their vessel register. Now the fishermen can simply transfer the Transferable Vessel Quota Shares from the inactive vessels permanently to their active vessels, and they will no longer have any use for the inactive vessels.

No relevant administrative changes were introduced in 2014.

## 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 segment level. The results are presented for 19 fleet segments, according to the Data Collection Regulation. The fleets VL1218 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 fleet segments 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 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 (47%), gross tonnage (32%) or engine power (32%). According to the EC guidelines, an inactivity level more than 20% indicates technical inefficiency. If this measure is used, the VL0010m is technical inefficient. The other length groups do have a lower share of inactivity than 10%, regardless of the measurement. Although the total Danish fleet has a high amount of inactive vessels (38%), the total inactivity of physical capacity is rather low (4% of GT and 11% of KW).

**Table F.1. Ratios between inactive number of vessels and total number of vessels, 2014**

Length	Inactive <sup>1)</sup>			Total <sup>2)</sup>			Share of inactivity (%)		
	No.	GT	kW	No.	GT	kW	No.	GT	KW
VL0010m	844	1,406	17,517	1,907	4,603	55,292	44	31	32
VL1012m	9	87	759	131	1,651	13,818	7	5	5
VL1218m	22	539	3,148	265	9,244	45,675	8	6	7
VL1824m	3	217	835	81	7,964	22,601	4	3	4
VL2440m	1	325	901	41	11,659	25,570	2	3	4
VL40XXm	1	856	1,961	30	34,017	63,324	3	3	3
Total	880	3,430	25,121	2,455	69,138	226,280	36	5	11

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

<sup>1)</sup> Includes vessels not having any catch value within the year.

<sup>2)</sup> Includes vessels in the Vessel Register per 31 December 2014

### 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 sea days within a fleet segment 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 fleet segments. For example, the larger vessels will usually have more sea days per year than the smaller vessels, operated only by one fisherman. By using the maximum observed days at sea for each fleet segment, 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	2008	2009	2010	2011	2012	2013
VL0010	DTS	0.42	0.59	0.34	0.30	0.51	0.38
	PGP	0.17	0.17	0.17	0.19	0.17	0.16
	PMP	-	-	-	-	0.25	0.24
VL1012	DRB	0.51	0.43	0.50	0.65	0.76	0.54

	DTS	0.45	0.53	0.83	-	0.77	0.77
	PGP	0.45	0.44	0.43	0.42	0.49	0.49
	PMP	0.54	0.49	0.58	0.56	0.37	0.53
VL1218	DRB	0.35	0.45	0.38	0.52	0.44	0.41
	DTS	0.50	0.44	0.42	0.45	0.52	0.51
	PGP	0.47	0.48	0.61	0.45	0.56	0.52
	PMP	0.54	0.55	0.48	0.52	0.34	0.42
	TBB	0.69	0.70	0.79	0.66	0.78	0.82
	TM	-	-	-	-	0.53	0.63
VL1824	DTS	0.47	0.52	0.50	0.47	0.50	0.53
	PMP	0.43	0.60	0.62	0.62	0.70	0.54
	TBB	0.87	0.85	0.79	0.66	0.78	0.73
VL2440	DTS	0.66	0.67	0.64	0.62	0.66	0.93
VL40XX	DTS	0.46	0.51	0.60	0.52	0.50	0.50
	TM	-	-	-	-	0.67	0.79

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015

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

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

From Table F.2 it is observed that both ratios are generally increasing with the vessel length. The major part of the vessels in the fleet segments 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 is expected in the coming years, and to some extent partly already reflected in the figures.

Making strong conclusions about presence of technical overcapacity are difficult, because each fleet segment 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 19 fleet segments in 2013. The 5 fleets that do not indicate technical overcapacity in 2013 include 2 entry restricted fisheries for mussels and shrimps (VL1218m TBB, and VL1824 TBB) as well as VL1012 DTS, VL2440m DTS and VL40XX TM. The low technical utilisation rate of the smaller fleet segments 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.

## ii) Biological indicators

The Commission has accepted that Denmark can use the biological indicators by STECF last year for the 2014 report, as The Sustainable Harvest Indicator (SHI) and the Stock At Risk Indicator (SAR) have not been calculated by the Commission/STECF this year. The most recent available biological indicators for Denmark were for 2012, and are therefore considered obsolete.

In 2012, SAR values of 1 were obtained for some segments from Sandeel in Area 3 and 4, for which a monitoring fishery (to obtain biological samples) was established. It can be discussed if a monitoring fishery for scientific purposes should be included in the SAR at all; however for 2014 a monitoring fishery was advised for Sandeel in Area 2 and 4, which will trigger a higher

SAR for some Danish fleets. Cod in Kattegat was another stock that triggered an increase in the SAR value for some fleets last year. Even though the SAR value for this stock was calculated on the wrong basis (using catches from Skagerrak and Kattegat) the state of the Kattegat Cod has not changed considerably since 2012 and a SAR value of 1 from Kattegat cod will be obtained for some segments in 2014.

The SHI values for the individual segments in 2012 were mainly determined by the proportion of landings value from the North Sea and Western Baltic cod stocks (overfished), the flatfish (mainly North Sea plaice, fished around  $F_{MSY}$ ) and the pelagic stocks (mainly North Sea herring, sprat and mackerel, generally fished below  $F_{MSY}$ ). Fishing mortalities have in general decreased slightly for the individual stocks since 2014. This and the introduction in 2015 of  $F_{MSY}$  as a range for the Baltic stocks, where  $F$  exceeding the upper end of the range is interpreted as "overfishing" will probably have decreased the SHI slightly for most segments.

The Sustainable Harvest Indicator and Stock-at-risk indicator presented in this report is copied from the data material presented to STECF in the spring 2014. The Sustainable Harvest Indicator was updated with information provided by the Commission on 4 June 2015.

**Table F.3. Sustainable Harvest Indicator**

Segment/year		2008	2009	2010	2011	2012
VL0010	DTS	2,85	2,37	2,93	2,51	2,11
	PGP	2,65	2,42	2,37	2,35	2,14
	PMP*	-	-	-	-	2,35
VL1012	DRB	3,41	0,28	0,69	0,79	1,09
	DTS	1,56	2,15	2,19	na	1,43
	PGP*	2,68	2,46	2,27	2,30	2,32
	PMP*	2,12	1,97	1,95	1,95	1,53
VL1218	DRB	0,47	1,86	2,67	0,97	1,27
	DTS	2,16	1,95	1,64	1,70	1,76
	PGP*	2,41	2,27	2,13	1,93	1,6
	PMP*	2,53	2,38	2,10	1,86	1,83
	TBB	1,30	3,02	1,59	1,04	0,97
	TM	-	-	-	-	0,73
VL1824	DTS*	1,98	1,77	1,70	1,63	1,37
	PMP*	2,06	2,17	2,17	1,94	1,59
	TBB	1,04	-	0,95	0,94	0,99
VL2440	DTS*	1,65	1,62	1,54	1,47	1,32
VL40XX	DTS*	1,07	0,82	0,76	0,77	0,62
	TM	-	-	-	-	0,69

SHI index for Danish fleet segment. Segments where more than 40% of the landings value is from stocks with estimated  $F$  and  $F_{MSY}$  are marked by an asterisk.

For most fleet segments, the indicator is between 1 and 2 and without a clear temporal trend (Table F.3). The indicator value for the individual segments is mainly determined by the proportion of landings value from the North Sea and Western Baltic Sea cod stocks (overfished), the flatfish (mainly North Sea plaice, fished around  $F_{MSY}$ ) and the pelagic stocks (mainly North Sea herring, sprat and mackerel, generally fished below  $F_{MSY}$ ).

The DTS segments (vessels larger than 18 m) are in general less dependent on cod landings and have higher landings proportion of pelagic stocks which results in an indicator value between 0.9 and 1.6 for the period 2008-2012. The smaller vessels (VL1012) of PGP segment has a significantly higher indicator value compared to the slightly larger (VL1218) PGP vessels. This is due to a higher proportion of cod and a lower proportion of flatfish in the VL1012 group. The same tendency with decreasing indicator with increasing vessel length is also seen for the PMP segments.

**Table F.4. Stocks-at-risk indicator**

Segment/year	2008	2009	2010	2011	2012
DNK DRB VL1012	0	NA	0	0	0
DNK DRB VL1218	NA	0	NA	0	0
DNK DTS VL0010	0	0	0	0	1
DNK DTS VL1012	0	0	0	0	0
DNK DTS VL1218	1	1	2	2	2
DNK DTS VL1824	1	1	2	4	4
DNK DTS VL2440	2	1	3	2	5
DNK DTS VL40XX	1	1	0	3	1
DNK PGP VL0010	0	0	1	1	0
DNK PGP VL1012	0	0	0	0	0
DNK PGP VL1218	1	1	1	1	1
DNK PMP VL0010	0	0	0	0	0
DNK PMP VL1012	0	0	0	0	0
DNK PMP VL1218	0	0	0	1	0
DNK PMP VL1824	1	1	1	2	1
DNK TBB VL1218	0	0	0	1	1
DNK TBB VL1824	0	NA	0	1	1
DNK TM VL1218	NA	NA	NA	NA	1
DNK TM VL40XX	NA	NA	NA	NA	1

The SAR indicator for the Danish segments is mainly determined by landings of 5 stocks (North Sea cod, Kattegat cod, sandeel ns1, sandeel ns2 and sandeel ns3-ns4 combined). Sandeel in the North Sea was first divided into 6 stocks in 2011, which makes it difficult to make firm conclusion from the full time series.

### iii) Economic indicators

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

#### Return on investment (ROI)

Return on investment (ROI) is defined as profit after capital stock depreciation and interest payment and then divided by total investment. The ROI for the Danish fleet for the years 2008-2013 is shown in Table F.5.

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

Length	Gear	2008	2009	2010	2011	2012	2013
VL0010	DTS	-0.49	-0.12	-0.06	-0.09	-0.06	-0,03
	PGP	-0.26	-0.14	-0.11	-0.08	-0.09	-0,05
	PMP	-	-	-	-	-0.09	-0,09
VL1012	DRB	-0.03	0.00	-0.03	-0.01	-0.01	0,07
	DTS	-0.05	-0.10	-0.06	-	-0.05	-0,04
	PGP	-0.18	-0.08	-0.10	-0.05	-0.05	-0,02
	PMP	-0.26	-0.15	-0.05	-0.06	-0.06	-0,06
VL1218	DRB	-0.03	-0.09	-0.07	-0.04	-0.03	-0,01
	DTS	-0.03	-0.04	0.00	-0.02	-0.01	0,00
	PGP	-0.12	-0.05	-0.01	-0.01	-0.03	0,01
	PMP	-0.04	-0.05	-0.02	-0.02	-0.02	0,01
	TBB	0.10	-0.15	-0.05	-0.10	0.05	0,06
	TM	-	-	-	-	0.00	0,06
VL1824	DTS	-0.01	-0.02	-0.01	0.01	-0.01	0,01
	PMP	-0.05	-0.04	0.00	0.00	0.00	0,03
	TBB	0.06	-0.09	-0.10	-0.08	0.04	0,04
VL2440	DTS	-0.04	0.00	0.03	0.00	-0.01	0,02
VL40XX	DTS	0.01	0.01	0.11	0.11	0.05	0,09
	TM	-	-	-	-	0.06	0,07

Source: Call for fleet economic scientific data concerning 2008-2014, EC, Ref. Ares(2015)421690 - 03/02/2015

According to the Commission guidelines the indicator should be adjusted for the current long term interest rate. This is done in table F.5. A below:

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

Interest rate		4,29	3,59	2,93	2,73	1,4	1,75	0,25
Length	Gear	2008	2009	2010	2011	2012	2013	2015 <sup>*)</sup>
VL0010	DTS	-0.53	-0.16	-0.09	-0.12	-0.07	-0.05	-0.03
	PGP	-0.30	-0.18	-0.14	-0.11	-0.10	-0.07	-0.05
	PMP	-	-	-	-	-0.10	-0.11	-0.09
VL1012	DRB	-0.07	-0.04	-0.06	-0.04	-0.02	0.05	0.07
	DTS	-0.09	-0.14	-0.09	-	-0.06	-0.06	-0.04
	PGP	-0.22	-0.12	-0.13	-0.08	-0.06	-0.04	-0.02
	PMP	-0.30	-0.19	-0.08	-0.09	-0.07	-0.08	-0.06
VL1218	DRB	-0.07	-0.13	-0.10	-0.07	-0.04	-0.03	-0.01
	DTS	-0.07	-0.08	-0.03	-0.05	-0.02	-0.02	0.00
	PGP	-0.16	-0.09	-0.04	-0.04	-0.04	-0.01	0.01
	PMP	-0.08	-0.09	-0.05	-0.05	-0.03	-0.01	0.01
	TBB	0.06	-0.19	-0.08	-0.13	0.04	0.04	0.06
	TM	-	-	-	-	-0.01	0.04	0.06
VL1824	DTS	-0.05	-0.06	-0.04	-0.02	-0.02	-0.01	0.01
	PMP	-0.09	-0.08	-0.03	-0.03	-0.01	0.01	0.03
	TBB	0.02	-0.13	-0.13	-0.11	0.03	0.02	0.04
VL2440	DTS	-0.08	-0.04	0.00	-0.03	-0.02	0.00	0.02
VL40XX	DTS	-0.03	-0.03	0.08	0.08	0.04	0.07	0.09
	TM	-	-	-	-	0.05	0.05	0.07

<sup>\*)</sup> For 2015 data from 2013 is combined with the current interest rate

When the interest rate is included there is a stronger trend over time towards higher or more positive values.

Especially the fleets below 12 meters are seen to consistently have negative ROIs, thus indicating economic over-capitalisation. The dredgers (DRB) are an entry restricted fishery, but negative ROIs are observed during almost the entire period from 2008 to 2012, but in 2013 it becomes positive. The other entry restricted fisheries, the TBBs, did also experience negative ROIs from 2009-2011, while positive ROI was observed for 2008, 2012 and 2013. The remaining fleet segments between 12 and 24 meters has ROIs varying around zero, thus indicating a reasonable balance. The fleets above 40 meters, which for many years have been managed with ITQs, are having positive ROIs, thus indicating economic under-capitalisation. It should be noted that vessels below 24 metres are operated by 1-3 crew members including the owner. The standard salary is often than the realistic income for fishermen working in the small scale fishery. Moreover, in many cases the owner does not have capital costs. The market value of the boat is often lower than assumed in the calculation and the owner does not expect a return on his investment in fishing rights.

Data used here is from 2013. In the remaining time, during 2014 and the beginning of 2015 there has been a strong positive development. Prices have stabilized or increased and fuel costs have fallen sharply.



## 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 (fixed costs / 1- (variable costs/current revenue)), according to the EC guidelines. Two versions of CR/BER are estimated. The first version includes opportunity cost of capital in the fixed costs (see Table F.6., right side), whereas the second version excludes the opportunity cost of capital (see Table F.4., left side). The break-even revenue shows the level of revenue needed to cover all costs, thereby having a net profit of zero. 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, so the activity is not economic balance and sustainable.

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

Length	Gear	CR/BER, incl. opportunity cost of capital						CR/BER, excl. opportunity cost of capital					
		2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
VL0010	DTS	-1.47	-1.48	0.47	0.31	0.20	-0.02	-1.84	-3.57	0.57	0.37	0.24	-0.03
	PGP	-0.20	-0.20	0.11	0.08	0.26	0.27	-0.25	-0.26	0.14	0.11	0.29	0.32
	PMP	-	-	-	-	0.24	0.03	-	-	-	-	0.27	0.04
VL1012	DRB	0.59	0.64	0.59	0.74	0.77	1.44	0.78	0.99	0.74	0.90	0.89	1.71
	DTS	0.67	0.14	-0.38	-	0.37	0.31	0.79	0.18	-0.73	-	0.44	0.38
	PGP	0.32	0.16	0.28	0.31	0.44	0.39	0.37	0.22	0.34	0.39	0.52	0.47
	PMP	-0.26	-0.19	0.44	0.30	0.34	0.16	-0.32	-0.25	0.55	0.38	0.39	0.19
VL1218	DRB	0.54	0.43	0.45	0.68	0.62	0.78	0.73	0.51	0.54	0.77	0.70	0.90
	DTS	0.67	0.40	0.86	0.70	0.61	0.70	0.84	0.57	1.13	0.95	0.81	0.96
	PGP	0.53	0.44	0.73	0.70	0.63	0.77	0.63	0.61	1.00	0.98	0.74	0.92
	PMP	0.39	0.34	0.75	0.50	0.58	0.65	0.59	0.52	0.98	0.68	0.74	0.85
	TBB	1.28	-0.10	0.54	0.28	1.26	1.23	1.60	-0.13	0.65	0.33	1.38	1.37
	TM	-	-	-	-	0.69	1.31	-	-	-	-	0.96	1.69
VL1824	DTS	0.82	0.62	0.85	0.94	0.75	0.78	1.06	0.89	1.11	1.26	0.94	1.04
	PMP	0.66	0.42	0.92	0.87	0.91	1.08	0.87	0.62	1.29	1.22	1.12	1.41
	TBB	1.11	0.32	0.36	0.34	1.24	1.14	1.43	0.40	0.42	0.40	1.37	1.30
VL2440	DTS	0.72	0.70	1.05	0.81	0.79	1.00	0.90	1.06	1.46	1.10	0.95	1.23
VL40XX	DTS	0.82	0.76	1.76	1.63	1.69	1.41	1.11	1.10	2.35	2.02	2.42	1.92
	TM	-	-	-	-	1.68	1.54	-	-	-	-	2.03	1.96

Source: Call for fleet economic scientific data concerning 2008-2014, EC, Ref. Ares(2015)421690 - 03/02/2015

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 above 1 for 2008, 2012 and 2013, indicating that the economic performance of these fisheries has a large variation. The DRBs, fishing for mussels, have values below 1 for the first five years, but then becomes above 1 in 2013. A more unclear picture is seen for remaining fleet segments. The only fishery that are economic viable through the entire period and thus able to cover current costs are the VL40XX DTS, and that is only when looking at the CR/BER method that includes opportunity cost of capital. The VL10-12 DTS has a negative value in 2010, indicating that the variable costs are higher than the revenue. In 2012 and 2013, the CR/BER indicator was positive, indicating that the fleet has improved. Several other fisheries have experienced a negative CR/BER in some years, but in 2013 it was only VL0010 DTS. It can also be observed that a total of nine fleet segments had

a CR/BER above 1 in 2013, which is the highest number looking at the period from 2008-2013.

## **v) 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, i-iv. A summary of the most recent indicators are presented in table F.7. below.

The table includes indicators for 19 segments. To facilitate the understanding the segments are numbered 1-19.

The segments 4, 8, 12, 16 are segments specialised in mussels and shrimps fisheries. These fisheries are closed access and closely regulated and monitored. Furthermore these segments show good economic results.

The remaining segments are really statistical categories defined by JRC. In this context they are addressed in 4 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:

- 1) Mussels
- 2) Shrimps
- 3) >24 metres
- 4) 12-24 metres
- 5) <12 metres
- 6) 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 closed access and iTQ managed. Fisheries are limited to specific areas and quotas are set according to assessment of the local stock. Earnings may vary but are generally good.

### *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. ITQ-managed fishery.

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

The vessels fish for pelagic and industrial species. The smaller ones also take some codfish, flatfish and shrimp. 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. The SAR indicator is between 1 and 5, but this is due to stocks which are not critical to the performance of the fleet and

some of the SAR values are based on non-commercial monitoring fisheries. In conclusion, there is a good balance for these segments.

Economic indicators are also positive and have improved over time.

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 cod fish, flat fish, shrimp and industrial species. The SHI indicator is higher than 1 which shows that the vessels fish on stocks with fishing mortality somewhat higher than the MSY based assessment.

The SHI indicator is based on data from 2012 and the situation has improved somewhat since then. Management of stocks is in transition to MSY based management and for this reason the SHI indicator exaggerates the imbalance. The SHI indicator only covers part of the fishery. It should also be taken into consideration that the capacity of this group of vessels has already been reduced considerably.

Quotas for some of the important species are not fully utilised. In particular there are unfished quotas of flatfish, but also Norway lobster and some stocks of herring and cod could be fished more according to EU-quotas for Denmark. Below is shown the exploitation of some stocks of interest for medium sized vessels.

#### *Exploitation of some important fisheries quotas allocated to Denmark in 2014*

Stock	Quota - tonnes	Fished %	Unfished - tonnes
Cod III b,c,d24	8.088	91,2	712
Cod d25-29	15.945	37,3	9.998
Sole III	352	80,5	69
Sole IV	351	89,9	35
Herring IIIa	15.524	38,2	9.594
Plaice IIIb,c,d	2.433	62,7	908
Plaice IIIb,aN	8.506	86	1.191
Plaice IIIb,aS	1.922	17,6	1.584
Plaice IV	19.514	60,2	7.767
Haddock III	1.909	92,5	143
Haddock IV	1.192	90,5	113
Hake III	1.150	22,5	891
Hake IV	1.307	42,4	753
Flounder IV	1.838	17,6	1.515
Whiting III	929	5,3	880
Whiting IV	1.055	15,2	895
Horse mackerel IV b,c,d	12.508	4,4	11.958
Norway lobster (IV Norway)	947	16,6	790
Norway lobster (III)	4.118	69,1	1.272
Norway lobster (IV EU)	915	51,4	445

The economic indicators are acceptable. ROI minus current interest rate is close to zero for all statistical segments, but slightly better for the bigger vessels.

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. It seems that prices are improving from late 2014 and fuel costs have fallen sharply in 2014.

In conclusion, there is considered to be an acceptable balance between capacity and fishing possibilities as well as unexploited fishing opportunities, and accordingly this group of vessels is marked as green in the traffic lights 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, codfish, 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 Kattegat. However, fishing possibilities remain for cod stocks in the Baltic, as well as for flat fish stocks and for Norway lobster. The distribution of landings values show that a variety of species are fished by the small scale vessels. Most of these stocks are in a biological good state:

Landings value vessels <12 metres

Codfish	Flatfish	Nephrops and shrimp	Other species
37%	26%	9%	28%

As shown above unfished quotas are available for flat fish and Norway lobster. The small vessels also have the possibility of fishing species outside the fisheries management system such as some flatfish and crab species.

Although return on investment is negative, it must be kept in mind, that this is based on an high standard salary which is probably higher than the realistic income for fishermen operating small vessels.

The economic indicators cover active vessels with commercial earnings. Despite the modest earnings and dependency of some stock under rebuilding the balance between capacity and fishing possibilities, it cannot be clearly demonstrated that there is an imbalance between capacity of the active commercial vessels and fishing possibilities. The situation for the commercial vessels is shown by yellow in the traffic lights system.

As part of the new EMFF programme for Denmark, a number of measures will be taken to improve the situation for small vessels. These include port facilities, innovative project in the value chain (including for new species) and market promotion measures. In the regulatory system coastal vessels are given special consideration and these vessels also receive special treatment in the aid scheme for fishing ports and article 38 investments.

The remaining non-commercial vessels under 12 metres include about 1,800 vessels and many of these have no registered activity. Although the number of vessels is high they are not involved in fishery of any importance.

Almost all the non-commercial and inactive vessels are less than 10 metres and the quantities fished are so small that they are not important for the 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 in order to keep some activity in small ports and coastal communities. But their activity is low and has no significant impact on the stocks.

It is believed that many owners of small inactive vessels keep their boat 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 big 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 in theory more than 2,000 vessels, almost 5,000 GT and nearly 50,000 kW. In reality only 100 vessels in the small scale fleet are active at a commercial level and they fish around 3,400 tonnes of fish.

Annex 7 explains the action in response to situations of imbalance.

**Table F. 7. Overview and traffic lights**

No.	Length	Gear code	Number of vessels			Landings 1,000 tonnes		ROI-indicator	Current/Break even		Sustainable Harvest Indicator	Stocks at Risk indicator	Technical indicators		Main Charac- teristics	
			ITQ managed	Not ITQ man- aged	Inac- tive	Com- mercial	Non- com- mercial		Incl. opp.	Excl. opp.			Inac- tivity	Utili- sation		
1	VLOO10	DTS	10	8	1	0.2	0.0	-0.05	-0.02	-0.03	2,11	1(0)	44	0.38	Mainly inactive vessels	
2	VL0010	PGP	316	719	667	2.5	2.5	-0.07	0.27	0.32	2,14	0(1)				0.16
3	VL0010	PMP	80	72	34	0.7	0.4	-0.11	0.03	0.04	2,35 <sup>*)</sup>	0(0)				
4	VL1012	DRB		21	0	14.9	0.0	0.05	1.44	1.71	1,09	0(0)	7	0.54	Mussels	
5	VL1012	DTS	11	1	0	1.9	0.0	-0.06	0.31	0.38	1,43	0(0)			0.77	Demersal Small scale
6	VL1012	PGP	54	4	0	2.3	0.1	-0.04	0.39	0.47	2,32 <sup>*)</sup>	0(0)				
7	VL1012	PMP	35	5	0	2.6	0.1	-0.08	0.16	0.19	1,53 <sup>*)</sup>	0(0)			0.52	
8	VL1218	DRB		33	3	32.9		-0.03	0.78	0.90	1,27	0(0)	8	0.41		Mussels
9	VL1218	DTS	122	3	2	33.9	0.1	-0.02	0.70	0.96	1,76	2(2)			0.51	Mixed Demersal
10	VL1218	PGP	38	0	1	4.7	0.0	-0.01	0.77	0.92	1,6 <sup>*)</sup>	1(1)				
11	VL1218	PMP	37	1	0	7.5	0.1	-0.01	0.65	0.85	1,83 <sup>*)</sup>	0(1)			0.42	
12	VL1218	TBB	9	2	0	1.2		0.04	1.23	1.37	0,97	1(1)				0.82
13	VL1218	TM	14	0	0	31.4		0.04	1.31	1.69	0,73	0(1)			0.63	
14	VL1824	DTS	54	1	0	64.1		-0.01	0.78	1.04	1,37 <sup>*)</sup>	4(4)	4	0.53		Mixed
15	VL1824	PMP	10	0	0	3.4		0.01	1.41	1.41	1,59 <sup>*)</sup>	1(2)			0.54	
16	VL1824	TBB	14	2	0	1.9		0.02	1.30	1.30	0,99	1(1)				0.73
17	VL2440	DTS	41	0	0	81.6		0.00	1.23	1.23	1,32 <sup>*)</sup>	2(5)	2	0.93	Mixed	
18	VL40XX	DTS	14	1	0	122.6		0.07	1.92	1.92	0,62 <sup>*)</sup>	1(3)	3	0.5	Pelagic +	
19	VL40XX	TM	15	0	0	334.2		0.05	1.96	1.96	0,69	1(na)			0.79	Industrial

<sup>\*)</sup> Segments where more than 40% of the landings value is from stocks with estimated F and Fmsy.

No.	Length	Gear code	ROI	Current/Break even		Sustainable Harvest Indicator	Stocks at Risk indicator	Technical indicators		Over all
				Incl. opp.	Excl. opp.			Inactivity	Utilisation	
1	VLOO10	DTS	-0.05	-0.02	-0.03	2,11	1(0)	44	0.38	Mainly inactive Vessels
2	VL0010	PGP	-0.07	0.27	0.32	2,14	0(1)		0.16	
3	VL0010	PMP	-0.11	0.03	0.04	2,35 <sup>*)</sup>	0(0)		0.24	
4	VL1012	DRB	0.05	1.44	1.71	1,09	0(0)	7	0.54	Mussels
5	VL1012	DTS	-0.06	0.31	0.38	1,43	0(0)		0.77	Mixed Demersal
6	VL1012	PGP	-0.04	0.39	0.47	2,32 <sup>*)</sup>	0(0)		0.49	
7	VL1012	PMP	-0.08	0.16	0.19	1,53 <sup>*)</sup>	0(0)		0.52	
8	VL1218	DRB	-0.03	0.78	0.90	1,27	0(0)	8	0.41	Mussels
9	VL1218	DTS	-0.02	0.70	0.96	1,76	2(2)		0.51	Mixed Demersal
10	VL1218	PGP	-0.01	0.77	0.92	1,6 <sup>*)</sup>	1(1)		0.52	
11	VL1218	PMP	-0.01	0.65	0.85	1,83 <sup>*)</sup>	0(1)		0.42	
12	VL1218	TBB	0.04	1.23	1.37	0,97	1(1)		0.82	Shrimps
13	VL1218	TM	0.04	1.31	1.69	0,73	0(1)		0.63	Pelagic
14	VL1824	DTS	-0.01	0.78	1.04	1,37 <sup>*)</sup>	4(4)	4	0.53	Mixed
15	VL1824	PMP	0.01	1.41	1.41	1,59 <sup>*)</sup>	1(2)		0.54	
16	VL1824	TBB	0.02	1.30	1.30	0,99	1(1)		0.73	Shrimps
17	VL2440	DTS	0.00	1.23	1.23	1,32 <sup>*)</sup>	2(5)	2	0.93	Mixed
18	VL40XX	DTS	0.07	1.92	1.92	0,62 <sup>*)</sup>	1(3)	3	0.5	Pelagic +
19	VL40XX	TM	0.05	1.96	1.96	0,69	1(na)		0.79	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

## 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, 2014

### Tonnage in GT

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	44	58	20	0	122
	PGP	515	2,008	1,213	227	3,964
	PMP	151	421	173	52	796
	Total	710	2,487	1,406	279	4,882
VL1012m	DRB	281	35	14	10	339
	DTS	146	29	0	0	175
	PGP	449	160	47	37	694
	PMP	246	218	26	8	499
	Total	1,122	442	87	56	1,706
VL1218m	DRB	910	0	72	0	981
	DTS	4,150	142	220	105	4,615
	PGP	1,018	50	98	208	1,375
	PMP	1,022	146	150	43	1,360
	TBB	548	0	0	0	548
	TM	721	0	0	0	721
	Total	8,368	338	539	355	9,600
VL1824m	DTS	5,453	0	217	473	6,143
	PMP	1,200	0	0	76	1,276
	TBB	1,094	0	0	0	1,094
	Total	7,747	0	217	549	8,512
VL2440m	DTS <sup>5)</sup>	9,600	203	325	270	10,398
	PMP	1,532	0	0	0	1,532
	Total	11,131	203	325	270	11,929
VL40XXm	DTS	10,284	0	856	0	11,140
	PS	3,689	0	0	2,008	5,697
	TM	19,188	0	0	2,180	21,368
	Total	33,161	0	856	4,188	38,205
<b>Total</b>		<b>62,239</b>	<b>3,469</b>	<b>3,430</b>	<b>5,696</b>	<b>74,834</b>

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 VL24XXm TBB has been included in VL2440m DTS.

### Engine power in kW

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	463	837	304	0	1,604
	PGP	5,652	24,289	15,029	2,581	47,551
	PMP	1,677	4,857	2,184	583	9,301
	Total	7,792	29,983	17,517	3,164	58,456
VL1012m	DRB	1,787	254	157	127	2,325
	DTS	1,269	303	0	0	1,572
	PGP	3,915	1,375	414	354	6,058
	PMP	2,354	1,802	188	127	4,471
	Total	9,325	3,734	759	608	14,426
VL1218m	DRB	3,877	0	349	0	4,226
	DTS	21,950	842	915	737	24,444
	PGP	4,468	291	689	978	6,426
	PMP	5,173	987	1,195	333	7,688



	TBB	2,126	0	0	0	2,126
	TM	2,813	0	0	0	2,813
	Total	40,407	2,120	3,148	2,048	47,723
VL1824m	DTS	15,438	0	835	1,877	18,150
	PMP	3,451	0	0	242	3,693
	TBB	2,877	0	0	0	2,877
	Total	21,766	0	835	2,119	24,720
VL2440m	DTS <sup>5)</sup>	21,273	368	901	442	22,984
	PMP	3,028	0	0	0	3,028
	Total	24,301	368	901	442	26,012
VL40XXm	DTS	18,984	0	1,961	0	20,945
	PS	5,998	0	0	6,345	12,343
	TM	36,381	0	0	2,650	39,031
	Total	61,363	0	1,961	8,995	72,319
Total		164,954	36,205	25,121	17,376	243,656

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 VL24XXm TBB has been included in VL2440m DTS.

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

#### Distribution landing value in 2014 in %

Group	Length	Gear	Codfish	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>4)</sup>
Commercial	VL0010m	DTS	51	19	29	0	0	0	0	456
		PGP	38	16	6	3	36	0	0	6,682
		PMP	37	29	28	0	6	0	0	1,725
	VL1012m	DRB	0	0	0	0	0	0	100	4,046
		DTS	32	14	31	6	0	16	0	1,229
		PGP	49	39	1	1	9	0	1	4,652
		PMP	40	39	9	2	1	9	0	2,598
	VL1218m	DRB	0	0	0	0	0	0	100	7,249
		DTS	27	17	40	4	1	12	0	32,129
		PGP	46	51	0	0	3	0	0	11,212
		PMP	38	26	26	0	1	9	0	7,952
		TBB	0	0	0	0	0	0	100	4,207
		TM	2	1	7	20	0	70	0	7,959
	VL1824m	DTS	28	27	20	2	1	22	1	42,917
		PMP	31	46	23	0	1	0	0	9,243
TBB		0	0	0	0	0	0	100	6,816	
VL2440m	DTS <sup>3)</sup>	40	19	19	0	0	21	0	54,915	
	PMP	73	24	3	0	1	0	0	9,008	
VL40XXm	DTS	0	0	0	21	0	49	29	40,431	
	PS	0	0	0	71	0	29	0	21,579	
	TM	0	0	0	66	1	34	0	110,458	
Non-commercial	VL0010m	DTS	26	26	26	0	17	0	5	99
		PGP	24	20	10	3	42	0	2	5,346
		PMP	33	33	10	1	19	0	4	803
	VL1012m	DRB	11	7	2	0	1	0	79	80
		DTS	3	75	22	0	0	0	0	20
		PGP	44	31	0	0	15	0	10	233
		PMP	31	46	18	0	4	0	1	235
	VL1218m	DTS	31	40	22	0	5	0	3	101

	PGP	88	9	2	0	1	0	0	17
	PMP	12	23	21	0	23	21	0	64
VL2440m	DTS	0	0	100	0	0	0	0	16

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 a license, i.e. mussels, oysters, brown shrimps and shrimps in the waters around Greenland.

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

<sup>4)</sup> Based on the average Euro exchange rate for 2014 being 7.4547 DKK / €.

## Distribution landing whole weight in 2014 in %

Group	Length	Gear	Codfish	Flatfish	Lobster and shrimp	Mackerel and herring	Other species	Reduction species <sup>1)</sup>	Entry-restricted <sup>2)</sup>	Total landing whole weight (tonnes)
Commercial	VL0010m	DTS	54	36	9	0	0	0	0	174
		PGP	47	18	1	8	26	0	0	2,465
		PMP	44	43	7	0	6	0	0	730
	VL1012m	DRB	0	0	0	0	1	0	99	14,918
		DTS	20	10	2	13	0	54	0	1,852
		PGP	47	45	0	3	5	0	0	2,316
		PMP	24	28	1	5	0	41	0	2,628
	VL1218m	DRB	0	0	0	0	0	0	100	32,949
		DTS	19	12	5	8	0	56	0	33,867
		PGP	44	54	0	0	2	0	0	4,674
		PMP	28	21	4	1	0	47	0	7,455
		TBB	0	0	0	0	0	0	100	1,156
		TM	0	0	0	14	0	85	0	31,391
	VL1824m	DTS	10	11	2	4	2	71	0	64,114
		PMP	27	59	13	0	1	0	0	3,402
		TBB	0	0	0	0	0	0	100	1,888
	VL2440m	DTS <sup>3)</sup>	14	9	3	1	0	73	0	77,624
		PMP	72	27	1	0	0	0	0	3,985
VL40XXm	DTS	0	0	0	15	0	82	3	122,560	
	PS	0	0	0	47	0	53	0	55,031	
	TM	0	0	0	44	0	56	0	279,163	
Non-commercial	VL0010m	DTS	38	30	12	0	17	0	3	28
		PGP	31	26	2	15	26	0	0	2,461
		PMP	39	43	2	1	15	0	1	389
	VL1012m	DRB	25	17	1	0	3	0	55	15
		DTS	2	93	5	0	1	0	0	12
		PGP	56	35	0	0	6	0	3	105
		PMP	29	65	3	0	2	0	0	164
	VL1218m	DTS	36	55	4	0	3	0	1	53
		PGP	86	10	0	0	4	0	0	5
		PMP	6	13	2	0	1	78	0	88
VL2440m	DTS	0	0	100	0	0	0	0	2	

See Annex 1 for explanation of Gear Codes

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015.

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 a license, i.e. mussels, oysters, brown shrimps and shrimps in the waters around

Greenland.

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

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

Length	Gear	Days at sea <sup>1)</sup>						Number of vessels <sup>2)</sup>						Maximum obs. days at sea <sup>3)</sup>					
		2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
VL0010	DTS	770	478	400	594	552	549	12	10	12	14	10	11	154	81	97	140	108	130
	PGP	40,776	38,072	39,457	41,032	32,600	30,539	1,041	1,000	1,024	1,012	855	824	231	223	221	214	229	225
	PMP	-	-	-	-	5,974	5,796	-	-	-	-	126	116	215	190	178	183	189	210
VL1012	DRB	1,645	1,781	1,183	1,702	1,666	1,326	30	32	24	25	21	24	107	130	99	105	104	103
	DTS	889	1,108	950	-	1,018	1,100	10	13	8	-	9	9	198	162	143	149	147	158
	PGP	7,640	7,738	7,026	6,492	6,672	6,670	66	67	65	56	50	56	257	264	253	275	273	242
	PMP	2,681	2,703	2,808	3,121	2,642	2,559	30	31	29	34	44	30	166	178	166	163	162	161
VL1218	DRB	1,628	1,608	1,441	2,086	2,304	2,131	33	34	30	27	27	25	140	106	126	149	193	206
	DTS	21,510	21,827	21,010	19,677	18,801	18,173	184	177	168	156	127	128	234	280	298	278	282	276
	PGP	6,646	6,322	6,412	5,818	5,096	5,054	59	57	45	48	35	37	242	230	235	270	261	265
	PMP	5,004	4,947	4,775	4,796	4,538	5,144	47	46	51	47	46	38	199	195	196	196	291	321
	TBB	2,309	2,463	1,748	1,185	1,771	1,752	16	14	11	11	11	11	210	253	200	164	207	194
	TM	-	-	-	-	1,505	1,711	-	-	-	-	16	14	0	0	0	0	177	194
VL1824	DTS	11,783	12,250	11,741	11,123	11,106	10,920	79	77	68	70	64	61	320	306	345	340	345	339
	PMP	1,789	2,027	2,300	2,348	2,424	2,351	16	15	16	15	12	16	263	225	232	254	287	272
	TBB	2,314	2,417	2,546	2,105	2,868	2,806	13	13	17	18	17	18	204	218	190	176	217	213
VL2440	DTS	11,198	11,128	9,550	8,564	8,531	10,660	51	46	42	39	38	34	333	363	353	356	340	336
VL40XX	DTS	5,483	5,628	6,025	5,321	1,856	2,889	32	32	29	31	12	17	369	347	349	333	310	340
	TM	-	-	-	-	2,488	3,119	-	-	-	-	17	13	-	-	-	-	219	303

Source: The Danish AgriFish Agency Vessel Register and Sales Notes Register 7<sup>th</sup> April 2015

Call for fleet economic scientific data concerning 2008-2014, EC, Ref. Ares(2015)421690 - 03/02/2015

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 segment, using the 24 hours method.

## Annex 5. Development in effort in relation to cod recovery plan in the North Sea and the Baltic 2003, 2013 and 2014

### North Sea, Skagerrak, Kattegat, Irish Sea and West of Scotland:

Number of days at sea and kilowatt days for Danish vessels 10 metres and above in the regulated area 2003, 2013 and 2014.

	Kattegat									North Sea									Irish Sea		
	Days at sea			kW-days			No. Vessels			Days at sea			kW-days			No. Vessels			Days at sea	kW-days	No. Vessels
	2003	2013	2014	2003	2013	2014	2003	2013	2014	2003	2013	2014	2003	2013	2014	2003	2013	2014	2003	2003	2003
<b>Total</b>	19.652	8.905	8.251	3.969.539	1.754.078	1.557.266	366	141	160	67.172	28.632	29.935	21.830.602	9.489.013	9.884.507	690	285	282	2	915	1
<b>TR1</b>	809	366	349	132.857	56.046	52.561	96	15	20	17.394	10.611	10.737	6.988.875	4.027.536	4.295.080	296	115	108	.	.	.
<b>TR2</b>	14.957	8.210	7.425	3.020.289	1.656.068	1.434.153	253	124	143	26.292	7.531	9.168	7.788.045	2.041.460	2.507.386	369	115	123	.	.	.
<b>TR3</b>	2.049	74	218	629.240	10.111	39.783	71	6	9	5.276	1.684	1.294	3.089.609	1.325.614	991.131	135	33	26	2	915	1
<b>BT1</b>	.	.	.	.	.	.	.	.	.	1.371	299	256	1.342.965	424.313	376.576	12	2	1	.	.	.
<b>BT2</b>	.	.	.	.	.	.	.	.	.	114	3	.	98.897	4.413	.	11	1	.	.	.	.
<b>GN1</b>	1.675	223	229	169.471	26.186	26.388	75	9	10	15.276	6.248	6.045	2.286.893	1.199.274	1.164.919	213	76	75	.	.	.
<b>GT1</b>	150	33	31	14.713	5.668	4.382	9	2	3	957	2.254	2.435	156.152	466.114	549.415	32	35	35	.	.	.
<b>LL1</b>	13	.	.	2.968	.	.	2	.	.	492	2	.	79.166	290	.	31	1	.	.	.	.

	West of Scotland			Total									Change (%) in kW-days 2003-2014									
	Days at sea	kW-days	No. Vessels	Days at sea			kW-days			No. Vessels			Days at sea			kW-days			No. Vessels			
	2003	2003	2003	2003	2013	2014	2003	2013	2014	2003	2013	2014	Kattegat	North Sea	Total	Kattegat	North Sea	Total	Kattegat	North Sea	Total	
<b>Total</b>	136	148.001	5	86.962	37.537	38.186	25.949.057	11.243.091	11.441.773	780	344	337	-58	-55	-56	-61	-55	-56	-56	-56	-59	-57
<b>TR1</b>	.	.	.	18.203	10.977	11.086	7.121.732	4.083.581	4.347.640	358	129	124	-57	-38	-39	-60	-39	-39	-39	-79	-64	-65
<b>TR2</b>	.	.	.	41.249	15.740	16.593	10.808.334	3.697.527	3.941.539	429	164	173	-50	-65	-60	-53	-68	-64	-64	-43	-67	-60
<b>TR3</b>	136	148.001	5	7.463	1.758	1.511	3.867.765	1.335.725	1.030.914	174	39	31	-89	-75	-80	-94	-68	-73	-87	-81	-82	
<b>BT1</b>	.	.	.	1.371	299	256	1.342.965	424.313	376.576	12	2	1	.	-81	-81	.	-72	-72	.	-92	-92	
<b>BT2</b>	.	.	.	114	3	.	98.897	4.413	.	11	1	.	.	.	.	.	.	.	.	.	.	
<b>GN1</b>	.	.	.	16.951	6.471	6.274	2.456.364	1.225.460	1.191.307	235	82	79	-86	-60	-63	-84	-49	-52	-87	-65	-66	
<b>GT1</b>	.	.	.	1.107	2.287	2.466	170.865	471.782	553.797	37	35	37	-79	154	123	-70	252	224	-67	9	0	
<b>LL1</b>	.	.	.	504	2	.	82.134	290	.	32	1	.	.	.	.	.	.	.	.	.	.	

Note: The total is the actual number of vessels.

Source: The Danish AgriFish Agency Effort Register

**Annex 5. Continued...**

	Kattegat						North Sea						Irish Sea	
	Days/Vessel			Kw-days/vessel			Days/Vessel			Kw-days/vessel			Days/Vessel	Kw-days/vessel
	2003	2013	2014	2003	2013	2014	2003	2013	2014	2003	2013	2014	2003	2003
<b>Total</b>	53,7	63,2	51,6	10.846	12.440	9.733	97,4	100,5	106,2	31.639	33.295	35.051	1,7	915
<b>TR1</b>	8,4	24,4	17,4	1.384	3.736	2.628	58,8	92,3	99,4	23.611	35.022	39.769	.	.
<b>TR2</b>	59,1	66,2	51,9	11.938	13.355	10.029	71,3	65,5	74,5	21.106	17.752	20.385	.	.
<b>TR3</b>	28,9	12,3	24,2	8.863	1.685	4.420	39,1	51,0	49,8	22.886	40.170	38.120	1,7	915
<b>BT1</b>	.	.	.	.	.	.	114,3	149,5	256,0	111.914	212.157	376.576	.	.
<b>BT2</b>	.	.	.	.	.	.	10,4	3,0	.	8.991	4.413	.	.	.
<b>GN1</b>	22,3	24,7	22,9	2.260	2.910	2.639	71,7	82,2	80,6	10.737	15.780	15.532	.	.
<b>GT1</b>	16,7	16,5	10,3	1.635	2.834	1.461	29,9	64,4	69,6	4.880	13.318	15.698	.	.
<b>LL1</b>	6,3	.	.	1.484	.	.	15,9	2,0	.	2.554	290	.	.	.

	West of Scotland		Total						Change (%) in 2003-2014	
	Days/Vessel	Kw-days/vessel	Days/Vessel			Kw-days/vessel			Days/Vessel	Kw-days/vessel
	2003	2003	2003	2013	2014	2003	2013	2014		
<b>Total</b>	27,2	29.600	111,5	109,1	113,3	33.268	32.683	33.952	1,6	2
<b>TR1</b>	.	.	50,9	85,1	89,4	19.893	31.656	35.062	75,8	76
<b>TR2</b>	.	.	96,2	96,0	95,9	25.194	22.546	22.783	-0,2	-10
<b>TR3</b>	27,2	29.600	42,9	45,1	48,7	22.229	34.249	33.255	13,6	50
<b>BT1</b>	.	.	114,3	149,5	256,0	111.914	212.157	376.576	124,1	236
<b>BT2</b>	.	.	10,4	3,0	.	8.991	4.413	.	.	.
<b>GN1</b>	.	.	72,1	78,9	79,4	10.453	14.945	15.080	10,1	44
<b>GT1</b>	.	.	29,9	65,3	66,7	4.618	13.479	14.967	122,8	224
<b>LL1</b>	.	.	15,8	2,0	.	2.567	290	.	.	.

Note: The total is the actual number of vessels.  
 Source: The Danish Agrifish Agency Effort Register.



## Annex 5. Continued...

### The Baltic:

Number of days at sea and kilowatt days for Danish vessels 8 metres and above in the regulated area 2003, 2013 and 2014.

	Days at sea			kW-days			No. Vessels			Change (%) in 2003-2014		
	2003	2013	2014	2003	2013	2014	2003	2013	2014	Days at sea	kW-days	No. Vessels
<b>Total</b>	35.571	21.097	19.295	5.814.369	2.930.804	2.688.218	479	278	258	-46	-54	-46
<b>Western Baltic</b>	27.535	16.736	15.537	4.375.698	2.017.281	1.867.445	464	273	256	-44	-57	-45
<b>Eastern Baltic</b>	8.036	4.361	3.758	1.438.671	913.523	820.774	188	77	69	-53	-43	-63

	Days/Vessel			Kw-days/vessel			Change (%) in 2003-2014	
	2003	2013	2014	2003	2013	2014	Days/Vess	kW-days/Vessel
<b>Total</b>	74,3	75,9	74,8	12.139	10.542	10.419	1	-14
<b>Western Baltic</b>	59,3	61,3	60,7	9.430	7.389	7.295	2	-23
<b>Eastern Baltic</b>	42,7	56,6	54,5	7.653	11.864	11.895	27	55

Note: The total is the actual number of vessels.

Source: The Danish AgriFish Agency Effort Register.

## Annex 6. Development in capacity in relation to cod recovery plan in the North Sea and the Baltic 2003, 2013 and 2014

### North Sea, Skagerrak, Kattegat, Irish Sea and West of Scotland:

Capacity fluctuations for Danish vessels 10 metres and above in the regulated area 2003, 2013 and 2014.

	Total									Change (%) in 2003-2014	
	GT			kW			No. Vessels			GT	kW
	2003	2013	2014	2003	2013	2014	2003	2013	2014		
<b>Total</b>	63.255	31.219	28.527	204.356	93.518	85.869	780	344	337	-55	-58
<b>TR1</b>	29.117	13.188	12.423	99.810	35.011	34.481	358	129	124	-57	-65
<b>TR2</b>	39.461	13.939	14.814	159.359	53.320	58.178	429	164	173	-62	-63
<b>TR3</b>	34.513	10.840	8.094	88.264	25.499	16.791	174	39	31	-77	-81
<b>BT1</b>	2.488	597	498	7.891	1.649	1.471	12	2	1	-80	-81
<b>BT2</b>	2.434	498	.	7.672	1.471	.	11	1	.	.	.
<b>GN1</b>	7.763	3.333	3.428	37.615	13.372	13.453	235	82	79	-56	-64
<b>GT1</b>	1.707	1.831	2.034	6.264	6.471	6.848	37	35	37	19	9
<b>LL1</b>	1.128	25	.	5.433	145	.	32	1	.	.	.

### The Baltic:

Capacity fluctuations for Danish vessels 8 metres and above in the regulated area 2003, 2013 and 2014.

	GT			kW			No. Vessels			Change (%) in 2003-2014	
	2003	2013	2014	2003	2013	2014	2003	2013	2014	GT	kW
<b>Total</b>	18.165	8.762	7.319	83.748	38.371	34.625	479	278	258	-60	-59
<b>Western Baltic</b>	16.986	8.543	7.302	79.553	37.350	34.450	464	273	256	-57	-57
<b>Eastern Baltic</b>	8.505	5.480	3.818	38.447	17.873	13.849	188	77	69	-55	-64

Note: The total is the actual number of vessels.

Source: The Danish AgriFish Agency Vessel Register

## Annex 7. Action in response to situations of imbalance

The data presented in this report indicates two areas where there could be some imbalance between fleet capacity and fishing resources. This annex explains how this is dealt with in the management system.

### 1. Less active and inactive vessels under 10 metres

A number of vessels with low activity or even no activity may represent a potential fishing capacity. If this capacity is used for fishing, it could represent an imbalance between available resources and the size of the fleet. However, this is mitigated by the fact that:

- A great number of these vessels is permanently inactive or used by part-time fishermen who do not depend on fishery as their main source of income. Moreover, some vessels are not used for fishery, but are used for technical purposes in the pound net fishery.
- The less-active vessels also constitute an important social value for the coastal community and for the owners, who are often retired fishermen. A committee set up in the fisheries legislation can approve people with relevant experience as part time fishermen.

At the time of the introduction of the ITQ-management system in Denmark these vessels had a history of low activity at a level which was less than the commercial minimum (230.000 DKK in annual landing value). They were not allocated transferable fishing rights, but are only allowed to fish on non-quota species or on rations allocated to vessels outside the ITQ-management system. The rations are set according to a defined share of the quota allocated to Denmark. Monitoring and control ensures that the activity is kept strictly in line within fishing opportunities.

### 2. ITQ-managed vessels including medium sized vessels 12-18 metres

The biological and economic indicators show sign of some imbalance between capacity and fishing opportunities. However, in terms of interpretation, it is important to bear in mind that:

- Capacity of this part of the fleet has already been reduced substantially, especially after the introduction of ITQ-based management system in Denmark and which covers almost all these vessels.
- By including a rather high standard salary for the owner when calculating the indicator, the economic results appear worse than those experienced by the owner.
- The economic indicators for these vessels have been improving over time.

The ITQ-management system has contributed to a reduction in capacity and ensures that the fishing activity is automatically adjusted according to the fishing possibilities. Any reduction made to Danish quotas is immediately transferred to reduced quota shares for each individual vessel. Moreover, the possibility to permanently or temporarily sell quota shares means that less effective vessels will fish less and over time will be removed from the fleet.