The Annual Report on the Fishing Fleet of Estonia 2019

Summary on the balance between fishing opportunities and fishing capacity

The annual report evaluates the balance between fishing opportunities and fishing capacity of Estonia's fishing fleet in year 2019. Compared to 2018, the number of vessels increased by 98 vessels in 2019. At the same time, both total main engine power and gross tonnage decreased slightly, by 74 kW and 45 GT. Throughout the period, Estonia has followed the entry-exit scheme as foreseen under the common fisheries policy and fleet capacity is in compliance with the reference levels.

Estonia's marine fishery consists of 3 national fleet segments – Baltic Sea coastal fleet (DCF vessel segments PG VL0010 and PG VL1012), Baltic Sea trawling fleet (TM VL1218, TM VL1824, TM VL2440) and high seas fishing fleet (VL40XX).

For the calculation of the balance indicators the Guidelines of the 02.09.2014 document COM(2014) 545 final are used. The calculation of indicators is based on the latest data available on STECF JRC web-page, report STECF 19-13 - Balance Indicators Table 2019.xlsx. For the evaluation, altogether 6 indicators have been calculated – SHI, SAR, ROI, CR/BR, inactive fleet indicator and vessel utilisation indicator. All indicators observe changes over 5-year period, which can be different (2014-2018 for biological and economic indicators and 2015-2019 for vessel use indicator) due to the availability of data. Due to the lack of data under STECF JRC, the SHI and SAR are presented only for the Baltic Sea fleet segments and not for fleet segment VL40XX. The economic indicators for fleet segment VL40XX and VL1218 will be sent with a separate report due to the confidentiality restrictions (low number of vessels in segment).

Balance indicators

Fleet segments PG VL0010 and PG VL1012. SHI was above 1 in 2015-2018 in both segments. For SAR, fleet segment PG VL0010 is considered to be out of balance in years 2016-2018. While VL1012 depends entirely on Baltic herring, the negative values of SHI and SAR in segment VL0010 are not understandable as this fleet segment practices mixed fishery and the proportion of Baltic herring, both in catches and values, are not significant. During 2014-2018, there has been only two times (VL0010 in 2014 and 2015), when ROI hasn't been well above 5 year average low risk long term interest rate in both segments. CR/BER has also been above 1 in both segments all years. This means that both segments are viable both short-term and long-term. At the same time, vessel use indicator has been all years (2015-2019) very low - below 0.6 in VL1012 and below 0.4 in VL0010. For the reasons of high seasonality, diversification of economic activities and the dependence of vessel use on target species, fishing methods etc., the calculation of vessel use indicator has little value in coastal fishery with passive gears.

Fleet segments TM VL1218, TM VL1824, TM VL2440. SHI was above 1 in 2014-2018 in all segments. All Baltic Sea trawling vessels depend on Baltic herring and sprat stocks and thus the state of these stocks affects these fleet segments directly. ROI has been above 1, but below 5-year average low risk long term interest rate most of the viewed years and above interest in years 2017 and 2018 in clustered segment VL2440 (Vessels of length classes VL1824 and VL2440 have been clustered together to form a segment TM VL2440). CR/BER has been above 1 since 2015. Thus, these segments are considered to be more or less

economically viable, both in short-term and long-term. For vessel use indicator, fleet segments TM VL1824, TM VL2440 have been rather stable, with low number of inactive vessels and vessel use indicator above 0.7 for the whole period of 2015-2019. Fleet segment TM VL1218 has high number of inactive vessels (50% of the segment) and very low vessel use indicator for the whole period. Two inactive vessels were deleted from this segment in 2019.

Fleet segment VL40XX. There is no data available on SAR and SHI. Considering that the share of catches of Northern prawn in the Barents sea has been around 50% of all distant fleet catches, and the state of the Northern prawn stock in the Barents sea is good according to the ICES, then large share of the fishery can be considered to be sustainable in terms of biological indicators. Groundfish fishery taking place in the NAFO RA is more dependent on fish stocks, which need more attention to stay in balance. Fleet segment VL40XX has the highest and most homogenous vessel use of all Estonia's fleet segments. The results of economic indicators are presented in a separate report.

Conclusions

Based on the calculations and analysis of the balance indicators presented in section F, it can be stated that in general, all fleet segments, except TM VL1218, are balanced. The evaluation of balance indicators shows that an overall assessment of the situation in Estonia's fleet is rather positive – the structural balance has been achieved and there is some room left for adapting with the changes in stocks. Negative values for single years or for single indicators should not be overemphasized as they may not accurately reflect general trends in fleet segments. The number of vessels in fleet segment TM VL1218 has decreased steadily for years, which means that fishing operators already adapt themselves with the changing conditions. In conclusion, no structural overcapacity exists in Estonia's fishing fleet segments.

In analysing balance indicators, it is important to also refer to the statement by the Expert group in Expert Working Group EWG-17-08 report (in document STECF-18-14), that *the indicator values for all of the indicators being used to assess the balance between capacity and fishing opportunities merely inform on whether fleet segments should be scrutinised further to determine whether an action plan is warranted. The indicator values (either singly or in combination) cannot be considered reliable metrics to identify which fleet segments require an action plan.*

Due to above mentioned reasons the assessment does not clearly demonstrate that the fishing capacity is not effectively balanced with fishing opportunities and does not identify structural overcapacity. Moreover, all Baltic Sea stocks analysed in the assessment are subject to quota management and the Estonian fisheries management is based on ITQ-s and ITE-s which are effective tools for vessel owners for keeping capacity in structural balance with their fishing opportunities. Therefore, preparation of the action plan is not relevant.

Section A

Description of fleets

On EU level, all Estonian marine fishing vessels belong into the MFL segment. On national level, the Regulation of the Minister of Rural Affairs No 79 of 28.11.2017 determines the criteria for grouping fishing vessels into national fleet segments based on overall length (LOA), fishing gear, main target species and fishing grounds. The national segments for marine fishing vessels are: the Baltic Sea trawling segment (4S1), high seas fishery segment (4S3) and coastal fishing segment (4S2). The number of fishing vessels in the Estonian

marine fishing fleet at the end of 2019, together with their main characteristics, is given in the table below.

Table 1. Estonian marine fishing fleet in 2019 according to the DCF.

National segment	DCF fleet segment	Clustered segment	No of vessels	kW	GT	Average age	Average kW	Average GT	Average length (m)
4S2	PG VL0010		1713	18255	1796	23	11	1	5
	PG VL1012		71	3627	487	29	51	7	12
4S1	TM VL1218		3	374	58	27	125	19	14
	INACTIVE VL1218		3**	405	52	33	135	17	14
	TM VL1824*	TM VL2440	6	1914	746	29	319	124	23
	TM VL2440*		19	6804	2782	34	358	146	27
	INACTIVE TM VL2440		1**	221	117	42	221	117	25
4S3	VL40XX		5	15385	9834	24	3077	1967	65
Total			**1 821**	**46 985**	**15 872**				

* Following fleet segments are clustered together as the number of vessels in a segment is low: TM VL1824 with TM VL2440. The clustering has been done according to the Chapter III.5 of 12 July 2016 Commission Implementing Decision (EU) 2016/1251, which states that in cases where there is a risk of natural persons and/or legal entities being identified, clustering may be applied to report economic variables in order to ensure statistical confidentiality. ** Two vessels out of three in segment INACTIVE VL1218 were deleted from the fleet register in March 2019 and the only vessel in segment INACTIVE TM VL2440 was deleted from fleet register in May 2019.

Fleet segments PG VL0010 and PG VL1012

The Baltic Sea coastal fishing segment is divided between two distinctive fleet segments PG VL0010 and PG VL1012. These vessels are used in the Baltic Sea coastal waters up to 12 nautical miles or up to the 20-metre isobaths.

Fleet segment PG VL0010 has the largest number of vessels, 94% of the whole Estonian marine fishing fleet and their total engine power and gross tonnage make up 39% and 11% of the fleet respectively. As can be seen from the Table 2 below, total landings by vessels in fleet segment PG VL0010 are relatively small considering the number of vessels, making only 4% of the total landings of marine fisheries. These vessels are used for fishing for different species (European perch, smelt, Baltic herring, flounder, pike-perch, roach, northern pike, etc.) with various passive gears.

Fleet segment PG VL1012 comprises of vessels used for fishing for Baltic herring in the Baltic Sea with stationary uncovered pound nets, mostly in a short spring season from April to June. The total number of vessels in fleet segment PG VL1012 is relatively small, comprising 4% of the whole fleet, and their total engine power and gross tonnage make up only 8% and 3% of the fleet respectively, but quantities landed by these vessels make 9% of the total landings of marine fisheries and 22% of all Baltic herring landings.

Fleet segments TM VL1218, TM VL1824 and TM VL2440

By DCF classification, the Baltic Sea trawling segment consists of three fleet segments: TM VL1218, TM VL1824 and TM VL2440. These vessels are used for fishing sprat and Baltic herring in the Baltic Sea. Cod fishing has lost its importance as cod stocks are in decline and fishing grounds are farther away, thus making fishing for cod not profitable. There were no vessels specialised on cod fishing in 2019. Vessels that were used for cod fishing before are fishing now for sprat and Baltic herring or have been removed from the fleet. Combined, vessels of segments TM VL1218, TM VL1824 and TM VL2440 make up only 2% of the total number of vessels, but their total engine power and gross tonnage make up 21% and 24% of

the fleet respectively. Total landings by the Baltic Sea trawling fleet were 55 343 tonnes, which corresponds to 66% of total landings from marine commercial fisheries in 2019.

Fleet segment VL40XX

Length class VL40XX comprises of distant water trawling vessels used for fishing various regulated and non-regulated species in the Atlantic Ocean. Five vessels in length class VL40XX make up to 33% of the total engine power and 62% of the total gross tonnage of the whole fleet. Total landings by these vessels were 17 835 tonnes in 2019, which made 21% of total landings from marine commercial fisheries.

Table 2. Main fisheries and total landings in year 2019.

DCF fleet segment	National segment	Main fishing area(s)	Main target species	Main gear	Total landings (t)
PG VL0010	4S2	Baltic Sea, coastal	European perch, Baltic herring, smelt, European flounder	FYK, FPN, GNS	3 584
PG VL1012			Baltic herring	FPN	7 225
TM VL1218	4S1	Baltic Sea	Baltic herring, sprat	OTM, PTM	149
TM VL1824				OTM	14 072
TM VL2440				OTM	41 122
VL40XX	4S3	NAFO, NEAFC, SVA, GRL	Northern prawn, redfish, cod, Greenland halibut, American plaice	OTB	17 835
Total					**83 987**

Link with fisheries

Commercial fishery in Estonia is based on the system of individual transferrable quotas (ITQ) and individual transferrable effort (ITE), allocated to companies, i.e. fishing rights owners, based on their 3-year historical fishing rights.

Baltic Sea trawling fleet catches mainly herring and sprat, which are subject to quotas agreed in EU level and allocated as individual fishing rights to companies based on their 3-year historical fishing rights. This kind of management ensures that companies themselves are keeping optimal capacity for utilization of their fishing opportunities.

In case of ITE, national limits on gears in order to limit fishing effort are set based on national scientific advice, and the total number is divided between fishing rights owners based on their 3-year historical fishing rights.

It is allowed to swap given year's fishing quotas with other companies or with other countries. Since the beginning of 2018, fishing rights owner cannot swap quota, received from another Estonian company, to another country. A company has the right to waive or sell its historical fishing rights. If the fishing rights owner has not paid for its current year's allocation, the owner will not be granted a fishing authorisation and the allocated quantity is divided between other applicants. If a fishing authorisation has not been issued or catches have not been reported under the fishing authorisation for a three consecutive years, the fishing rights owner loses its historical fishing rights.

Fishing is allowed only if a relevant fishing authorisation has been issued, irrespective whether fishing for regulated or non-regulated species. There are two types of fishing authorisations: fisherman's fishing authorisation and fishing vessel's fishing authorisation. Fishing vessel's fishing authorisation is issued for a specific fishing vessel when fishing with vessels in fleet segments 4S1 and 4S3 and that vessel must have a valid fishing licence.

Fisherman's fishing authorisation is in use in coastal fisheries for vessels below 10 m length overall, where ITE system is in use and allowed fishing effort - the type and number of fishing gears – is marked on a fishing authorisation. Fishing authorisations are issued to a fishing rights owner and authorisation is not directly linked with a specific vessel. Not all fishing is conducted with fishing vessels (for example ice-fishing in winter, fishing in shallow waters). Starting from 1 December 2017, fisherman's fishing authorisation is given for a specific vessel for vessels of fleet segment PG VL1012 using pound nets to fish for Baltic herring or demersal saine to fish for European flounder. As coastal fishing uses mostly passive gears, capacity management through vessel kW and GT is not appropriate tool for regulating effort in this kind of fisheries. Fishing effort in the fishery where passive gear is used depends on number of gear multiplied with time when gear is actually fishing. Therefore, limitation of capacity in this kind of fishery is not relevant at all and has no reasonable justification for management and protection of fish stocks. However, vessels that are used must be registered in the fishing fleet register and must have a valid fishing licence.

Estonia has fishing opportunities in the Baltic Sea, in the NAFO and NEAFC Regulatory Areas, and shrimp fishing days in the Svalbard area. In addition, Estonia's distant water fishing vessels fish for non-regulated species in the Barents Sea and NAFO. In coastal fishery, most of the target species are non-regulated on EU-level, but regulated by national effort limitation scheme (ITE).

Baltic Sea fisheries

The evolution of Estonia's initial fishing opportunities (before swaps, as adopted with the EU TAC regulation) in the Baltic Sea in the last five years is shown below in chart 2. After steady increase since 2012, Subdivisions 25-27, 28.2, 29 and 32 Baltic herring TAC was decreased substantially in 2019. At the same time Gulf of Riga Baltic herring quota increased slightly in 2019 compared to 2018. Sprat quota has been increasing in the last three years. In general, there has been no improvements in cod and salmon fishing opportunities.

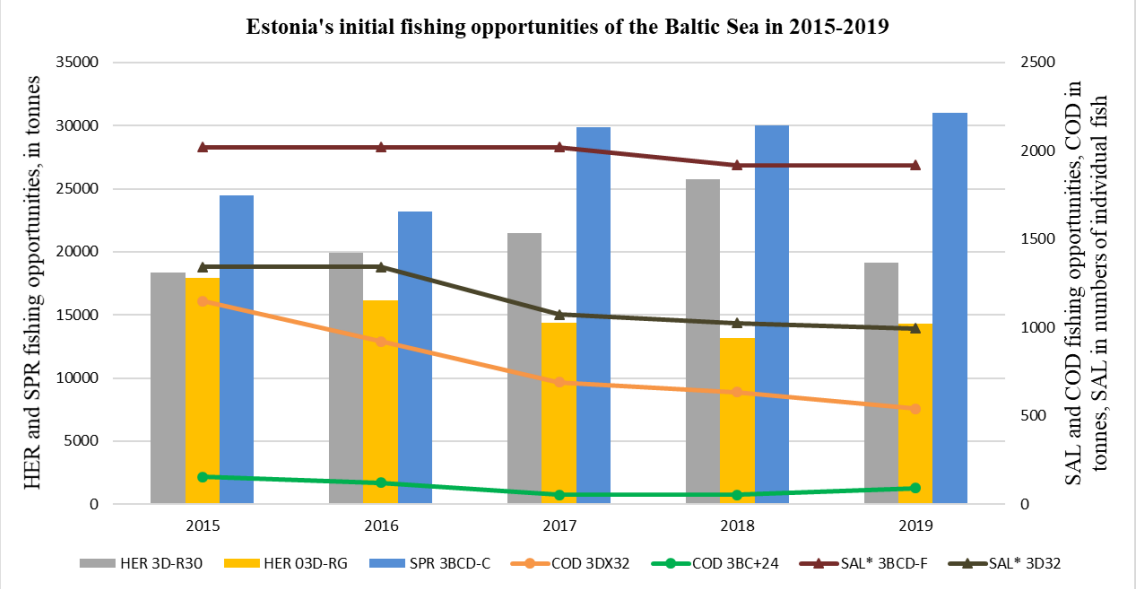

Chart 2. Estonia's initial fishing opportunities in the Baltic Sea in the years 2015-2019.

Landings of regulated species and total landings in 2019 by the Baltic Sea coastal and trawling fleets are shown in the table 3 below. Baltic herring is an important species both for the coastal and trawling fleets. 77% of all landed quantities in the Baltic Sea coastal fleet and 44% in the Baltic Sea trawling fleet, is Baltic herring. Catches of the Atlantic salmon and cod have been marginal in all Baltic Sea fleet segments. Atlantic salmon was caught only by the coastal fleet segment PG VL0010 as a by-catch in mixed fishery. The dependence on species regulated on EU-level is the smallest in the fleet segment PG VL0010, which targets various

high-valued species. Other Baltic Sea fleet segments specialize on the exploitation of the EU-level regulated species – sprat and Baltic herring.

Table 3. Landings of regulated species and total landings in the Baltic Sea in 2019 (in tonnes).

DCF fleet segment 2019	COD 3DX32	COD 3BC+24	HER 3D-R30	HER 03D-RG	SAL 3BCD-F	SAL 3D32	SPR 3BCD-C	Total landings (t)
PG VL0010	1.3	0	739.33	426.99	1.5	6.95	0.049	3 583.64
PG VL1012	0	0	536.24	6 590.55	0	0	0	7 225.27
TM VL1218	0	0	95.01	0	0	0	53.52	148.53
TM VL1824	0	0	4 777.48	1 568.32	0	0	7 717.34	14 071.58
TM VL2440	0.56	0	13 364.44	4 734.32	0	0	22 878.26	41 122.13
Total	**1.86**	**0**	**19 512.5**	**13 320.18**	**1.5**	**6.95**	**30 649.17**	**66 151.15**

Overall, 92% of HER 3D-R30, 97% of HER 03D.RG, 97% of SPR, 1.1% of COD 3DX32, 0 % of COD 3BC+24, 31% of SAL 3BCD-F and 100% of SAL 3D32 Estonia's year 2019 quotas (final quotas after quota swaps with other Member States) were exhausted. Therefore, excluding both cod stocks and SAL 3BCD-F stock, all other stocks were used up almost at the maximum level.

Concerning species targeted by coastal fleet, which are not regulated at the EU-level, according to the 2019 report from the University of Tartu Estonian Marine Institute, the general recommendation is not to increase fishing effort. The report includes also the recommendation to decrease fishing effort, to decrease catches of juveniles and to increase the efficiency of protecting fish during spawning season. The number and type of fishing gear allowed to use in coastal fishery in 2019 was kept mostly at the same level as in previous years.

Catches of the main species, excluding Baltic herring, and total catch by coastal fleet (PG VL0010 and PG VL1012) in 2015 - 2019 are shown in chart 3 below. As can be seen from the chart 3 below, the main species other than Baltic herring caught by coastal fleet are European perch, European smelt, European flounder, pike-perch, roach and garfish.

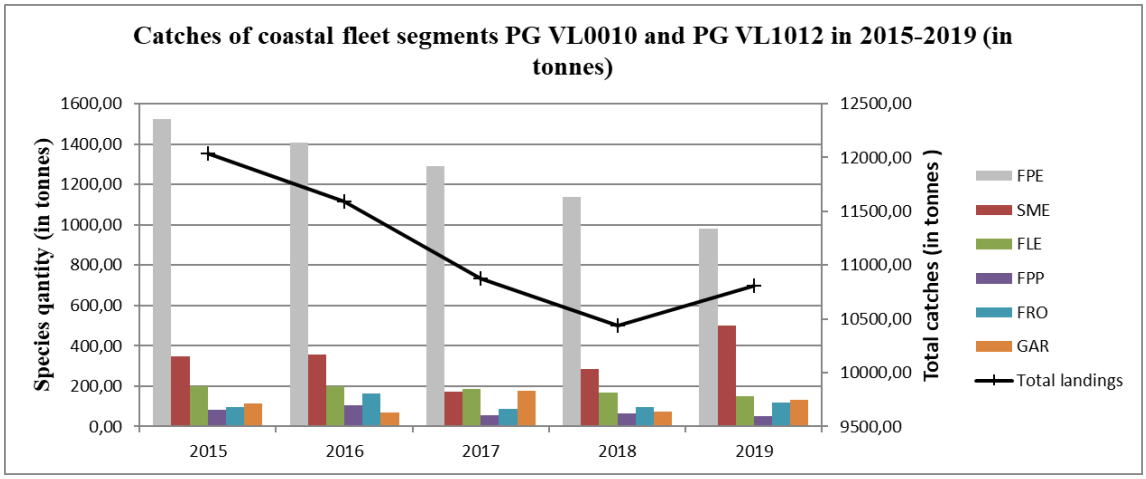

Chart 3. Catches of main non-regulated species, excluding Baltic herring, and total catch by coastal fleet (PG VL0010 and PG VL1012) in 2015 – 2019.

Distant water fisheries (VL 40XX)

After several years of reductions in NAFO 3L Northern prawn quota the fishery closed finally in 2015. That together with the continuing moratoria of NAFO 3M Northern prawn in 2019 means that there hasn't been any shrimp fishing in NAFO RA by Estonian fishing vessels since 2015. Thus, fishing for non-regulated species (mostly Northern prawn in the Barents Sea), cooperation for quota swaps, charter agreements and finding new fishing techniques have become more important for Estonia's distant water fishing fleet. Also, the importance of combined fishery of Northern prawn, American plaice and cod in Barents Sea has increased over the years. NAFO RA has remained important fishing ground for various groundfish species – cod, redfish, Greenland halibut, skates.

The proportion between Estonia's own initial fishing opportunities and total landings in 2019 is shown in the table 4 below. The biggest difference in Estonia's own fishing opportunities and actual landings is in NEAFC RA, where Estonia owns various small fishing opportunities, most of them for deep sea species. Estonia has not used these deep sea fishing opportunities since 2007 as the allocated quantities are too small to conduct targeted fishing. These fishing opportunities are exchanged for other fishing opportunities in the NAFO RA and NEAFC RA. Northern prawn constitutes the largest part of the landed quantities of the distant water fishing fleet - 55% (9795 t out of 17 835 t). Overall, 92% of RED 3LN, 96% of RED 3M, 99% of COD 3M, 98% of GHL 3LMNO, 0.3% of SKA 3LNO, 4% of WIT 3NO and 0% of SQI 3 and 4 Estonia's year 2019 quotas (final quota after quota swaps with other Member States) in NAFO RA were exhausted.

Table 4. The comparison between total landed quantities (both regulated and non-regulated species) and the amount of Estonia's own initial fishing opportunities (excluding swaps) in distant water fleet segment in year 2019.

Fishing Area	Estonia's initial fishing opportunities (t)	Total landings (t)
NAFO	3419	5923
NEAFC	256	11912
Svalbard shrimp fishing days	377	

The evolution of Estonia's fishing opportunities is shown below. As can be seen from chart 4, COD 3M and RED 3LN quotas increased in 2019 compared to 2018, others remained at the same level. In NEAFC, most of the quotas declined in 2019 compared to 2018.

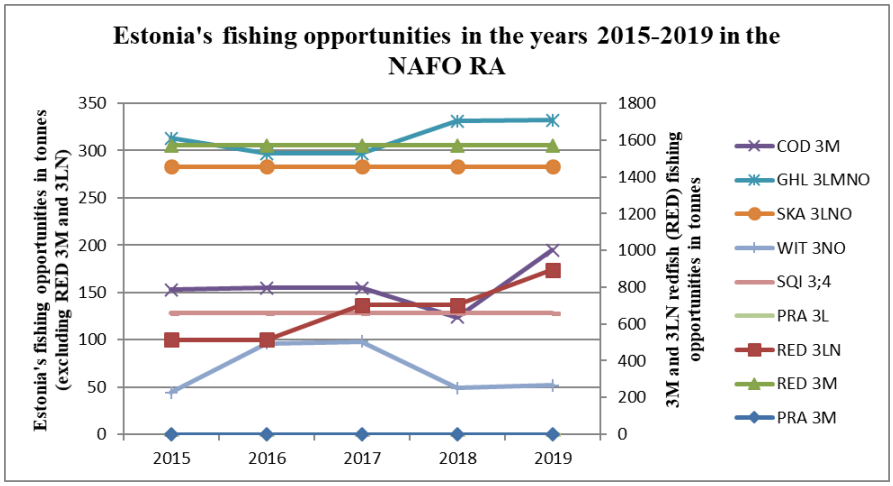

Chart 4. Initial fishing opportunities allocated to Estonia in the NAFO RA in years 2015-2019.

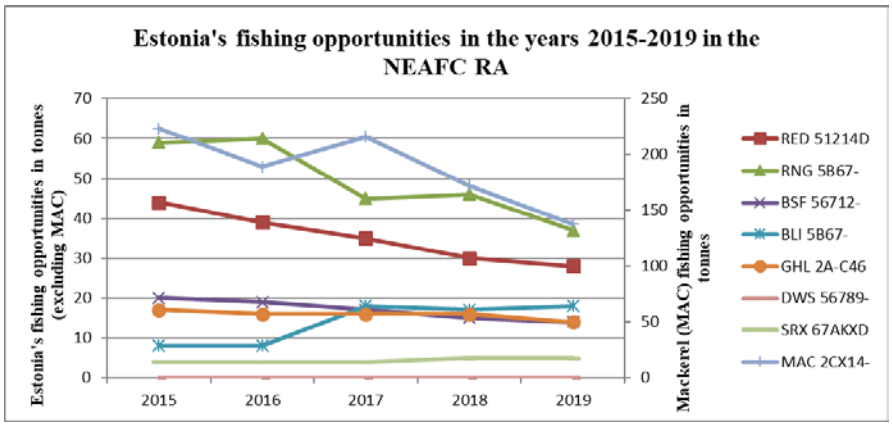

Chart 5. Initial fishing opportunities allocated to Estonia in the NEAFC RA in years 2015-2019.

Over the period of last five years (2015-2019) the main changes in landed species' composition has been the increasing importance of combined fisheries in the Barents Sea. Northern prawn is the most important species in catch volume making on average 53% of all fleet segment VL 40XX catches in last five years (2015-2019). Catches of Northern prawn in the Barents Sea have increased steadily during the period. Also, COD 3M and RED 3LN catches were considerably higher in 2019 than in previous years. Total landed quantity has increased from 11 084 t in 2015 to 17 835 t in 2019. Landed quantities of the main species during 2015-2019 is shown below in chart 5.

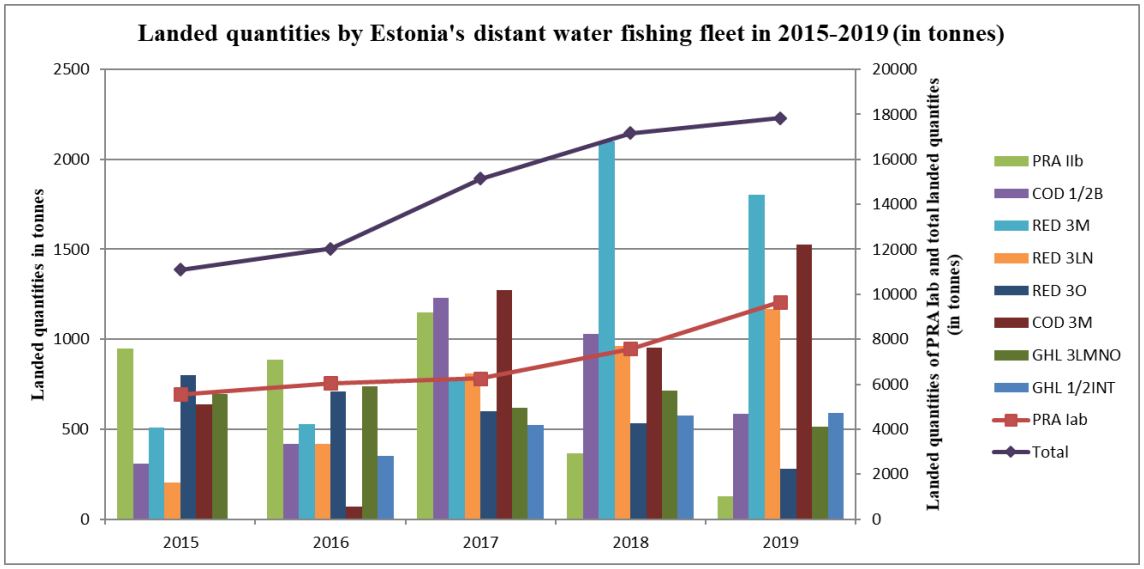

Chart 6. Landed quantities by Estonia's distant water fishing fleet (VL 40XX) in 2015-2019, in tonnes. Only the most important stocks are shown together with the total landed quantity.

Developments in fleet

By the end of 2019, there were 1 818 vessels in the Estonian marine fishing fleet. The total number of vessels increased compared to 2018 because of entries of new vessels into length class VL0010. One vessel was added into segment VL1218. All other segments saw a reduction of the number of vessels or the number of vessels remained the same.

The development of the fleet in last 16 years since joining the EU in May 1, 2004, is given below in charts 6 to 8. Although the number of vessels has increased over the period of 2004-2019, the total gross tonnage and engine power have decreased considerably due to the exit of larger trawling vessels from the fleet and replacing them with small coastal fishing vessels with length under 10 m and using passive gears. By length classes, the number of vessels has decreased in all length classes except in length class VL0010. As can be seen from the charts

6 to 8 below, the most stable vessel length classes over the 16-year period have been VL1012 and VL1824, where only minor changes have occurred by all three characteristics. Sharpest decline in the number of vessels, engine power and gross tonnage have taken place in the Baltic Sea trawling fleet length classes VL1218 and VL2440 and also in the distant water fleet VL40XX. The main drivers behind the decline in those length classes have been both economic and environmental as to better adjust with smaller fishing opportunities and to ensure sector's profitability.

During 2019, 23 vessels (526 kW, 161 GT) were deleted from the fleet, out of which 2 were from DCF fleet segment TM VL1218 (133 kW, 24 GT), 1 from segment TM VL2440 (221 kW, 117 GT) and 20 from segment PG VL0010 (20 kW, 66 GT).

Total of 121 vessels (715 kW, 116 GT) entered the fleet in 2019, except one of them, all vessels (918 kW, 119 GT) entered into DCF fleet segment PG VL0010. One vessel was registered in DCF fleet segment TM VL 1218 (272 kW, 28 GT).

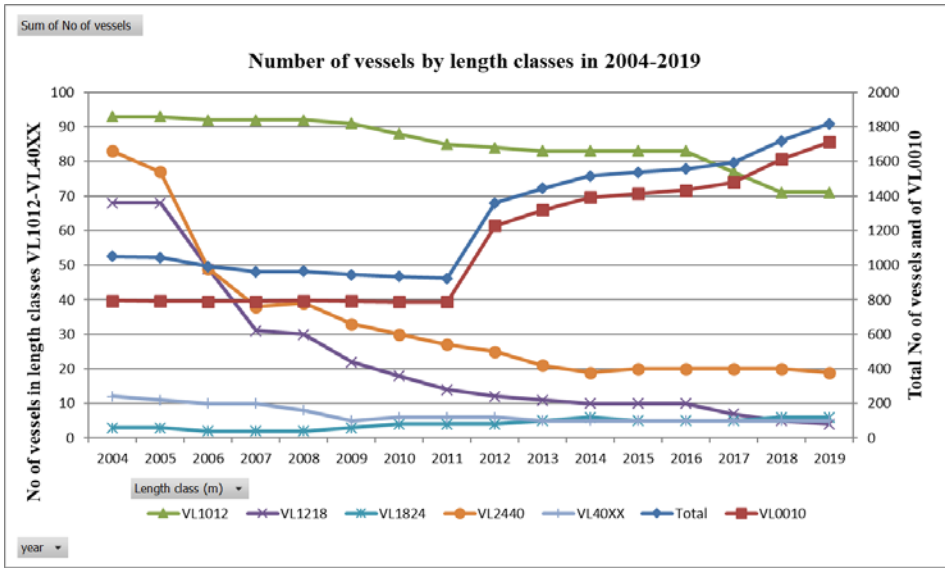

Chart 7. Developments in the number of vessels in Estonian marine fishing fleet by vessel length classes in 2004-2019.

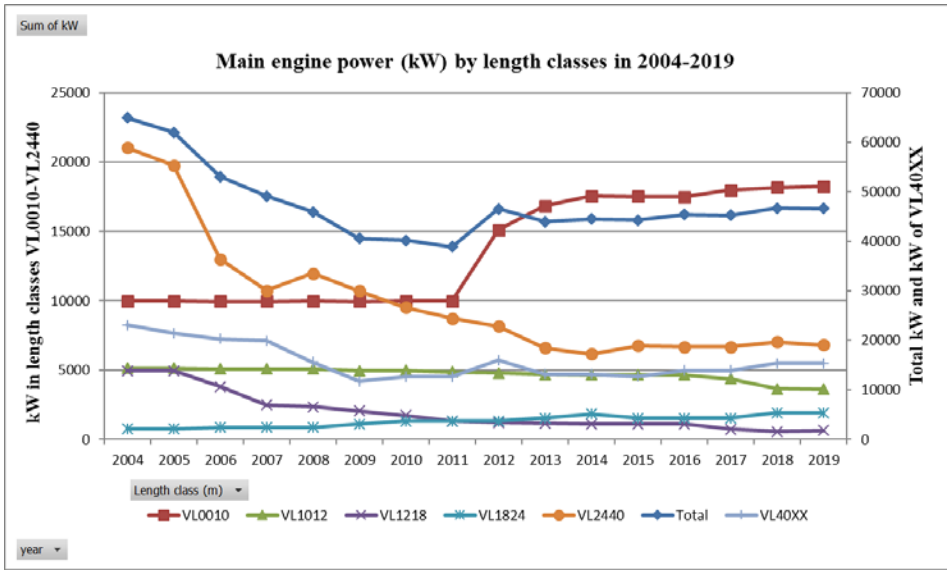

Chart 8. Developments in the main engine power of vessels in Estonian marine fishing fleet by vessel length classes in 2004-2019.

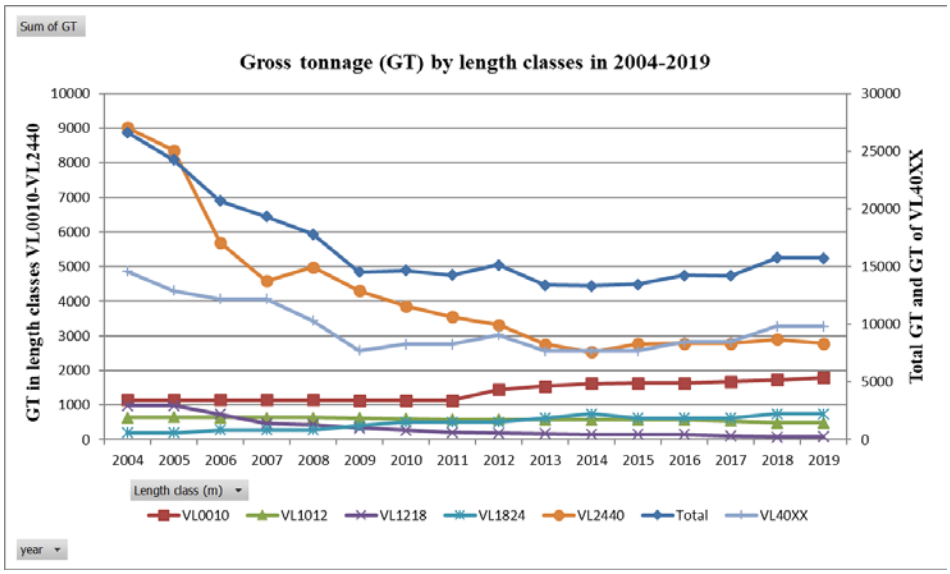

Chart 9. Developments in the gross tonnage of vessels in Estonian marine fishing fleet by vessel length classes in 2004-2019.

Section B

Effort reduction schemes and impact on fishing capacity of effort reduction schemes

Estonia adheres to numerous effort control and reduction schemes established by legal acts of national, EU or RFMO level. Different seasonal/spatial fishing restrictions apply, as well establishing yearly list of vessels allowed to fish in the Gulf of Riga. Every year, temporary fishing restrictions for the effort reduction are enforced in the Baltic Sea coastal and trawl fisheries to ensure sustainable use of fishery resources. In Svalbard fishing area, the number of shrimp fishing days and the number of vessels that may fish at the same time in the area, are limited.

National fishing capacity reduction schemes have been used for reducing fishing capacity and consequently fishing effort. Between 2006 and 2014, total of 62 (16998 kW and 7312 GT) vessels were removed from Estonia's fishing fleet with public aid. Most of them, 60 vessels, were removed from the Baltic Sea trawling fleet, out of which 16 belonged into length class VL1218 and 44 into length class VL2440. No vessels were removed with public aid from the length class VL1824. Other two vessels out of the total 62 vessels were removed from the distant water fleet VL40XX. Effort reduction schemes did not include coastal fleet segments, length classes VL0010 and VL1012, as fishing in coastal fishery is regulated by ITE system.

Taking into account the long-term dynamics of the relevant fish stocks, no further decommissioning schemes are foreseen in Estonia as fishing capacity has generally reached the targets set by National Fishing Effort Adjustment Plans and there is no structural overcapacity.

Section C

Compliance with entry/exit scheme and with level of reference

As in previous years, in 2019, Estonia followed the entry-exit scheme as foreseen under the common fisheries policy. Every entry into the fleet register or increase in tonnage and/or engine power is compensated by the removal of at least equal quantity of capacity from the

fleet. The fishing capacity of a vessel deleted from the register with public aid cannot be replaced. Since the accession to the European Union in 2004, Estonia has always been in compliance with the reference levels.

Table 5. Compliance with the entry/exit scheme and with level of reference in year 2019.

	Management of the entry/exit scheme in 2017	**GT**	**kW**
1	**Fleet ceiling on 01/01/2014 according to Annex II of the European Parliament and the Council Regulation (EU) No 1380/2013**	**21 677**	**52 566**
2	Capacity of the fleet on 01/01/2019	15 775	46 644
3	Entries of vessels of more than 100 GT financed with public aid	0	0
4	Other entries or capacity increases (not included in 3 & 5)	117	782
5	Increases in tonnage GT for reasons of safety	0	
6	**Total entries (3 + 4 + 5)**	117	782
7	Exits financed with public aid*	0	0
8	Other exits (not included in 7)	161	795
9	**Total exits (7+8)**	161	795
10	Power of engines replaced with public aid conditional to power reduction		0
11	**Capacity of the fleet on 31/12/2019 (2+6 - 9)**	15 731	46 631
12	**Fleet ceiling on 31/12/2019 ****	**21 329**	**51 850**

* All exits with public aid were finalised in 2014.

** With reference to our 15 June 2016 letter No 6.2-2/996 and 30 June 2016 letter No 3130753 from the Commission, when subtracting the capacity of 4 vessels removed from the fleet with public aid between 17 October 2013 and 30 December 2013, **the actual fleet ceiling on 31/12/2019 was 19 543 GT and 47 939 kW**.

Section D

Summary of weaknesses and strengths of fleet management system and plans for improvements

The main strength of the Estonian fleet management system is the system of transferable fishing concessions in the form of both ITQ and ITE, which allows owner of the fishing rights to decide when to fish or give the right to someone else, thus helping to optimize the use of fishing opportunities and to help to balance fishing opportunities with the fishing capacity. Allocation of quotas based on historical fishing rights gives a certain stability regarding long-term investments. This is also an initiative for the companies to use the optimal number of vessels in order to utilize their fishing possibilities in economically reasonable way. IT developments of the Fisheries Information System (FIS) were made in 2019 to enhance the management of Estonia's fishing fleet register.

General level of compliance with fleet policy instruments

Entry/exit scheme is fully applied and the fleet ceiling set for the Estonian fishing fleet has not been exceeded.

Section E

Changes of the administrative procedures relevant to fleet management

As of 1st December 2017, the management of fishing fleet register is done by the Fishing Regulation Office of the Veterinary and Food Board, which belongs to the area of government of the Ministry of Rural Affairs.

Since the beginning of 2019, fishing logbook data of the fleet segment PG VL0010 are inserted into the FIS separately for each day fishing activities were conducted. Before that,

fishers reported detailed data on paper, but only aggregated monthly data was inserted into FIS. From negative side, this has increased considerably the amount of data processed and the time- and workload of Veterinary and Food Board officials. From the positive side, the data in FIS is more detailed and has more uses for science and administrative decision making.

Section F

Application of the balance indicators

For the calculation of the balance indicators the Guidelines of the 02.09.2014 document COM(2014) 545 final are used. Where appropriate, a traffic light system for visualising the results is used. Under the DCF, the data on expenditure, income and capital value for distant water fleet segment (length class VL40XX) and small Baltic Sea trawling segment (VL1218) are not included as the number of active vessels in these length classes is too small. Thus, the calculations of economic indicator for the length classes VL40XX and VL1218 is not presented in this report and is submitted separately.

As was referred to in Section A, there is currently one clustered fleet segment, which is formed due to a small number of vessels. TM VL1824 and TM VL2440 are clustered to form segment TM VL2440. Clustering is possible as vessels in both of these length classes fish in the same area, for the same species and they use the same gear. In case the data is available, time-period of 5 years is used for calculating the indicators.

In general, it is important to stress that vessels belonging to the same fishery (i.e. fishing in the same area, for the same species/stocks, using similar gear) should be analysed together as dividing them into smaller subsets (e.g. based on DCF fleet segments) might distort the results, especially in case the number of vessels is very low as is both the case with fleet segments TM VL1218 and TM VL1824.

Biological sustainability indicators

The calculation of biological sustainability indicators is based on the latest data available on STECF JRC web-page, report STECF 19-13 - Balance Indicators Table 2019.xlsx. Two indicators are given – sustainable harvest indicator – SHI, and stocks at risk indicator – SAR. Both indicators are given for each DCF fleet segment, except VL40XX.

Sustainable Harvest Indicator, SHI

According to the Guidelines, SHI > 1 may indicate that fleet segment is relying on a stock of which fishing opportunity is set above MSY if this has occurred in 3 consecutive years.

Table 6. Sustainable Harvest Indicator for each DCF fleet segment in period of 2014-2018 according to the report STECF 19-13.

DCF fleet segment	2014	2015	2016	2017	2018
PG VL0010	0,74	1,02	1,20	1,11	1,28
PG VL1012	0,74	1,02	1,18	1,09	1,23
TM VL1218	1,23	1,25	1,19	1,17	1,26
TM VL1824	1,34	1,35	1,19	1,17	1,25
TM VL2440	1,32	1,34	1,18	1,17	1,25

As can be seen from table 6, all active Baltic Sea fleet segments have values above 1 on a period of 2014-2018. Nevertheless, according to the STECF report 19-13, in segments TM VL1218, TM VL1824 and TM VL2440, there seems to be no clear trend. According to the Guidelines, SHI > 1 may indicate that fleet segment is relying on a stock of which fishing opportunity is set above MSY if this has occurred in 3 consecutive years.

Fleet segment PG VL0010 is a small-scale mixed fishery, where the dependence on EU-regulated species is not significant. For example, landed quantities of HER 3D-R30 and HER 03D-RG made 21% and 12%, respectively, of the total landed quantities of the segment PG VL0010 in 2019. At the same time, in first-sale prices, the value of the total Baltic herring catches (both from HER 3D-R30 and HER 03D-RG) made only 6% of the total value of segment PG VL0010 catches in 2019.

Fleet segment PG VL1012 depends on HER 03D-RG stock. According to the latest ICES advice in 2018 and 2019, the TAC has been within the F limits set in the Regulation (EU) 2016/1139 and the stock size has been above MSY Btrigger in years 2016-2019. HER 03D-RG has been evaluated as being fished above Fmsy in years 2015 and 2016, but fished at Fmsy in 2017 and 2018.

Fleet segments TM VL1218, TM VL1824 and TM VL2440 depend mostly on two stocks – SPR 3BCD-C and HER 3D-R30, and also on HER 03D-RG stock, which was described in previous paragraph. According to the latest ICES advice in 2018 and 2019, for both stocks, fishing pressure has been above the Fmsy in years 2016-2018. Fmsy ranges set in the Regulation (EU) 2016/1139 were exceeded in all three years (2016-2018) for SPR 3BCD-C and in 2018 for HER 3D-R30. At the same time, for both stocks, the stock size has been above MSY Btrigger.

When discussing the results of SHI, it is important to stress that, with reference to the report on the 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 by the Joint Research Centre (STECF-15-15), before 2020, an SHI indicator above 1 may reflect political decisions to reach F_{MSY} not immediately, but by 2020, as long as the target to reach F_{MSY} in 2020 can be achieved. In the Baltic Sea, the sustainable management of stocks is foreseen with the new multi-annual plan which came into effect mid-July 2016 (Regulation (EU) 2016/1139 of the European Parliament and of the Council of 6 July 2016 establishing a multiannual plan for the stocks of cod, herring and sprat in the Baltic Sea and the fisheries exploiting those stocks, amending Council Regulation (EC) No 2187/2005 and repealing Council Regulation (EC) No 1098/2007). Thus, the target to reach F_{MSY} in 2020 is achievable.

According to the guidelines, in case of SHI, if more than 60 % of the value of the catch is made up of stocks for which values of F and Fmsy are unavailable the indicator is deemed to be unavailable. In such case, Member States should use available assessment information about one or more species that for reasons of historical abundance or consistency could be considered as indicators of the impact of fishing on an ecosystem. Primary stock harvested by vessels belonging to segment VL40XX during 2015-2019 was Northern prawn (PRA) in the NEAFC waters (Barents Sea). Main stocks harvested by distant water fishing fleet in the NAFO RA were redfish (RED) in 3M, cod in 3M and Greenland halibut (GHL) in 3LMNO.

Concerning Northern prawn in the ICES Subareas I and II, the stock has always been exploited far below F_{msy} and estimates of stock biomass have remained above MSYbtrigger according to the year 2019 advice from the ICES (Source: http://ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/pra.27.1-2.pdf).

According to the recent scientific advice for NAFO stocks (Source: https://www.nafo.int/Science/Science-Advice/Stock-advice), COD 3M current SSB is estimated to be well above Blim. However, since 2015 recruitment has been very low and in the near future, substantial decline in the stock size is expected. For RED 3M stock, the stock abundance and recruitment are declining. RED 3M TAC has remained the same over the period. Concerning GHL 3LMNO, new Management Strategy was adopted in 2017 and it will be in force from 2018-2023. GHL 3LMNO TAC remained basically the same in 2019 compared to 2018.

Stocks-at-risk indicator, SAR

The Stocks-at-risk (SAR) indicator should give an indication whether a fleet or a fleet segment catches stocks that are considered to be at risk. In that assessment, only stocks at risk that make up for more than 10% of the segment's landed quantities, or from which the segment takes more than 10%, are taken into account. SAR data was taken from the STECF report 19-13, where there was no SAR found for fleet segments PG VL1012, TM VL1218, TM VL1824 and TM VL2440. Segment PG VL0010 is considered to be out of balance in years 2016-2018.

Economic indicators

Economic indicators are calculated for the period of 2014-2018 as the DCF economic data for 2019 is not yet available. Two indicators are calculated: return on investment (ROI) showing long-term viability of the fleet and ratio between current revenue and break-even revenue (CD/BER) showing short-term viability. For the calculation of ROI indicator, an interest rate of a low risk long term investment has been calculated based on the five-year arithmetic average of Lithuanian and Latvian low risk long-term investment interest rates according to the European Central Bank as no harmonised long-term interest rate is available for Estonia.

Return on investment, ROI

The data on ROI in various fleet segments was taken from the STECF report 19-13. Table 7 shows, using a traffic light system, the values of ROI in four Baltic Sea segments. As can be seen from the table, fleet segments PG VL0010 and PG VL1012 have shown the most stable and profitable economic results in the long term. Although ROI value in fleet segment TM VL2440 has been low for the whole period under preview, it has been always positive and in recent years shows increasing trend.

Concerning both Baltic Sea trawling segments – TM VL1218 and TM VL2440 - it is important to note that most of the fish landed by trawlers is owned by producer organisations in charge of the whole chain from catch to processing to exports, therefore their profits are generated at the export stage and not at the moment of landing. Also, as Baltic sea trawling fleet has been historically more dependent on the eastern market, then the Russian embargo may have affected the economic results together with the overall economic standstill.

Table 7. Values of ROI in length classes VL0010, VL1012 and VL2440 in years 2014-2018. According to the Guidelines, green values indicate that extraordinary profits are being generated, orange values indicate possible lack of long-term viability and red indicate possible economic over-capitalisation. * Vessels of length classes VL1824 and VL2440 have been clustered together to form a segment TM VL2440.

DCF fleet segment	2014	2015	2016	2017	2018
PG VL0010	6,7	2,9	9,3	8,4	4,7
PG VL1012	7,6	16,5	9,2	11,2	10,5
TM VL2440*	2,8	1,9	3,5	2,3	15,3
5 year average low risk long term interest rate of LTU and LVA	**6,99**	**4,88**	**3,53**	**1,74**	**1,14**

Ratio between current revenue and break-even revenue, CR/BER

The data on CR/BER in various fleet segments was taken from the STECF report 19-13. For the calculation of CR/BER, opportunity cost of capital is excluded from the calculation, therefore, the indicator shows only the short-term viability of the Baltic Sea fishing fleets. According to the Guidelines, ratio greater than 1 indicates that in short-term the income is sufficient for covering variable and fixed costs, indicating that the segment is profitable. Ratio below 1 can indicate that insufficient income is generated to cover variable and fixed costs. Negative ratio means that variable costs exceed current revenue, indicating that the more revenue is generated, the greater the losses will be.

As can be seen from the chart 9 below, during the period of 2014-2018, only once (in TM VL1218 in 2014) has the ratio been negative and not once between 1 and 0. This indicates that in short term, all Baltic Sea fleets, both coastal and trawl, are profitable. In 2018, compared to 2017, short-term profitabilty has slightly decreased in all segments, except in TM VL1218.

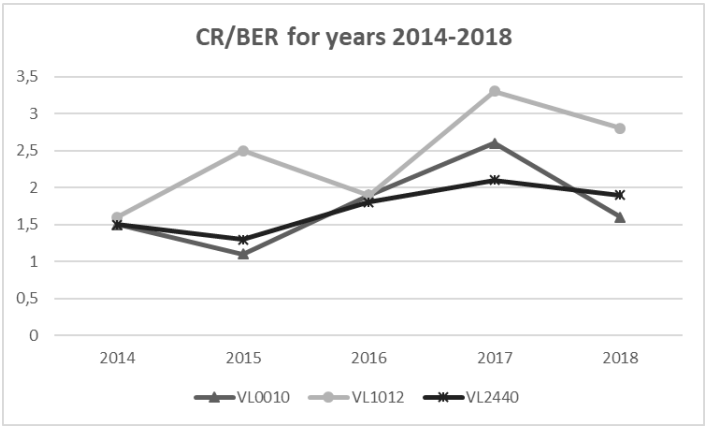

Chart 10. Ratio between current revenue and break-even revenue for years 2014-2018.

<u>Vessel use indicators</u>

Vessel use indicators have been calculated for years 2015-2019. The proportion of inactive vessels has been calculated for length classes VL1218-VL40XX only, as in coastal fisheries (VL0010 and VL1012) different vessels are used depending on the season, directed species and fishing gear used. For example, Baltic herring is targeted by coastal fisheries during a relatively short spring season and some of those vessels are not used in other fisheries throughout the year. In addition, fishing in coastal fisheries is an important way to diversify economic activities in peripheral areas and is not always the main economic activity for fishers. Therefore, it is not reasonable to calculate the proportion of inactive vessels in coastal fleet segments PG VL0010 and PG VL1012. For the same reasons, the results of the calculation of vessel use indicator in fleet segments PG VL0010 and PG VL1012 should be taken with caution.

Inactive Fleet Indicator

The number of active fishing vessels in length classes VL1218-VL2440 remained at the same level, 28, as in 2018. According to the Guidelines, it is considered normal that 10 % or less of the vessels in a fleet segment are inactive. There were 4 inactive vessels over the course of 2019. Two vessels reported only one fishing day during 2019. Three of these inactive vessels were in segment TM VL1218 and one in TM VL2440. Three of these inactive vessels – one from TM VL2440 and two from TM VL1218 – were deleted from the fishing fleet register during 2019 (one in May and two in March). Thus, by the end of the year, the number of

inactive vessels was only one. The number of active vessels in length class VL40XX has been stable during last 5 years, staying around 5 vessels. In 2019 there were 5 active vessels in VL40XX and no inactive vessels.

Vessel Utilisation Indicator

For calculation of vessel utilisation indicator, only active vessels, which have had at least one day at sea during a year, are included. For data comparability reasons an observed maximum activity level was chosen for calculations instead of theoretical. The ratio between the average effort per vessel in a fleet segment and the observed maximum effort actually exerted by a vessel in kWdays was calculated in length classes VL1218, VL1824, VL2440 and VL40XX.

Table 8 shows that the number of average fishing days has fluctuated in all fleet segments. In 2019, two vessels had only one fishing day. Both vessels belong to segment TM VL1218. This segment has had over the viewed period lowest maximum and average days at sea. Vessel use has been most homogenous in length class VL40XX in all five years. Also, minimum, maximum and average days at sea is the highest in length class VL40XX.

Table 8. Minimum, maximum and average days at sea in fleet segments TM VL1218, TM VL1824, TM VL2440 and VL40XX in years 2014-2018.

	VL1218			VL1824			VL2440			VL40XX		
Year	Min	Max	Average	Min	Max	Average	Min	Max	Average	Min	Max	Average
2015	1	103	47,5	35	151	123,5	5	179	129,6	292	348	323
2016	7	74	37	89	147	119	86	152	112	166	331	274
2017	2	117	34,4	119	161	146,8	56	173	132,6	218	329	279
2018	1	15	6	45	170	136	57	178	137	253	316	284
2019	1	37	13	21	165	135,5	75	172	129	264	347	284

The calculation of ratio between the average effort and the observed maximum effort in kWdays for different fleet segments in the period of 2015-2019 is shown in chart 10 below. The Guidelines suggest that ratio below 0.7 should be considered as showing structural overcapacity. The ratio of fleet segment VL1218 has been below 0.7 for the whole period. This indicates that vessels in that fleet segment are not sufficiently harnessed in fishing activities. Although throughout that period, the number of vessels in fleet segment VL1218 has decreased from 10 vessels to 4 vessels, there haven't been no signs of improvement. The ratios of two length classes – VL40XX and VL1824 - have been over 0.8 most of the period. Also, the ratio has been stable and over 0.7 for the last five years in length class VL2440. This means that these three Baltic Sea trawling fleet segments are stable and fishing opportunities are used rather efficiently.

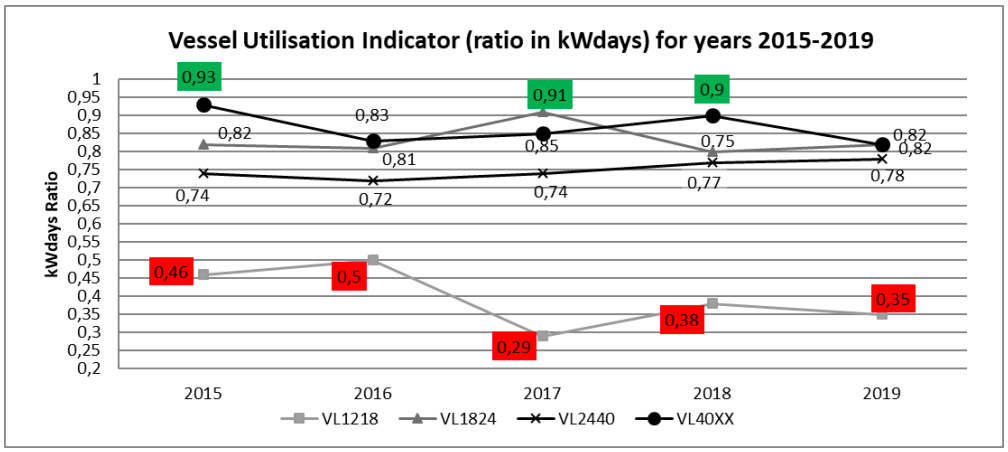

Chart 11. Vessel Utilisation Indicator (ratio in kWdays) for years 2015-2019. Red colour (below 0.7) indicates that there may be a substantial under-utilisation. Green colour (above 0.9) may refer to largely homogenous level of activity in the fleet segment according to the Guidelines.

There are several reasons why the ratio is low for length class VL1218. Number of average fishing days in length class VL1218 is considerably lower than that in VL1824 and VL2440 because these vessels are smaller and the usage of those vessels is more dependent on the weather conditions (e.g. ice, storms), thus they are less effective than larger trawlers. Still, weather conditions (strong winds), which are predicted to occur more and more often in the near future, affect also the activity of vessels in fleet classes VL1824 and VL2440.

For fleet segments PG VL0010 and PG VL1012, the vessel use indicator is given in GTdays (table 9). The indicator is low in those segments as fishing is often not the only economic activity, vessels are often used only for a specific fishing operation or fishing gear and in general fishing is very seasonal and dependent on weather conditions. In case of segment PG VL1012, the main target species is Baltic herring, which is harvested mostly on a relatively short period in spring. Also, fishing in shallow waters can be done without a vessel and fishing in the winter time is generally made without a vessel due to the ice coverage. Large heterogeneity of the vessel use in the segment has a considerable impact on the vessel use ratio especially in PG VL0010. This has been stressed also by STECF (STECF-13-28) that a low vessel utilisation rate for smaller vessels would be expected.

Table 9. Vessel use indicator in GTdays for segments PG VL0010 and PG VL1012 in 2014-2018.

DCF fleet segment	2015	2016	2017	2018	2019
PG VL0010	0.19	0.24	0.27	0.33	0.2
PG VL1012	0.57	0.48	0.46	0.44	0.46