

# The Annual Report on the Fishing Fleet of Estonia 2013

## Summary

Decreasing of the fishing opportunities in the Baltic Sea trawling segment (4S1) in the period of 2009-2012 has had an impact on the fleet balance, but with the slight increase in the quotas in 2013 and with adjustments made in the fishery sector (exit of vessels from the fleet), the balance between fleet capacity and fishing opportunities has been reached. Distant water fishing fleet has decreased over the period of 2007-2013 from 10 vessels to 5, but fishing opportunities accessible to the fleet have decreased too.

## Section A

### Description of fleets

On EU level, the Estonian marine fishing vessels belong into the MFL segment. On national level, the Government Regulation of 09.03.2004 No 62 determines the criteria for grouping fishing vessels into 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, vessels with an overall length above 12 metres), high seas fishery segment (4S3, overall length over 24 m) and coastal fishing segment (4S2, less than 12 metres in length).

Table 1. Estonian marine fishing fleet on 31.12.2013.

Length class (m)	National segment	No of vessels	kW	GT	Average age	Average kW	Average GT	Average length (m)
VL0010	4S2	1 320	16 834	1 550	22	13	1	6
VL1012		82	4 477	560	24	55	7	11.6
VL1218	4S1	12	1 361	184	23	113	15	14
VL1824		5	1 546	633	22	309	127	23
VL2440		21	6 601	2 764	30	314	132	26
VL40XX	4S3	5	13 174	7 697	28	2635	1539	60
<b>Total</b>		<b>1 445</b>	<b>43 993</b>	<b>13 388</b>				

The Baltic Sea coastal fishing segment is divided between two distinctive length classes: VL0010 and VL1012. These vessels are used in the Baltic Sea coastal waters up to 12 nautical miles or up to the 20-metre isobaths. Length class VL0010 has the largest number of vessels, 91 % of the whole Estonian marine fishing fleet and their total engine power and gross tonnage make up 38 % and 12 % of the fleet respectively. As can be seen from the Table 2 below, the total landings by vessels in length class VL0010 is relatively small considering the number of vessels, making only 4 % (2 903 tonnes) of the total landings. These boats are used for fishing for different species (perch, smelt, Baltic herring, flounder, pike-perch, roach, northern pike etc.) mostly with different passive, static gear.

The length class VL1012 comprises of vessels used for fishing for Baltic herring in the Baltic Sea, mostly in a short spring season from May to June. The total number of vessels in length class VL1012 is relatively small and their total engine power and gross tonnage make up only 10 % and 4 % of the fleet respectively, but the quantity of fish (Baltic herring) landed by these vessels makes 10 % (6 711 tonnes) of the total landings.

By DCF classification, the Baltic Sea trawling segment is divided between three length classes: VL1218, VL1824 and VL2440. These vessels are mostly used for fishing sprat and Baltic herring in the Baltic Sea. Some of vessels of the length classes VL1824 and VL2440 target cod as well. When combined, vessels of these three length classes make up only 3 % of the total number of vessels, but their total engine power and gross tonnage make up 22 % and 27 % of the fleet respectively. Total landings of the three length classes was 44 943 tonnes, which is 68 % of all landings by Estonian fishing vessels in 2013.

The length class VL40XX comprises of distant water trawling vessels used for fishing various regulated and non-regulated species in the Atlantic. Although vessels in length class VL40XX make up to 30 % of the total engine power and 57 % of the total gross tonnage of the whole fleet, the total of landings by these vessels was 11 956 tonnes, which is 18 % of all landings by Estonian fishing vessels in 2013.

Table 2. Main fisheries and total landings in year 2013 (target species and main gear are sorted in decreasing order).

Length class (m)	National segment	Main fishing area(s)	Target species	Main gear	Total landings (t)
VL0010	4S2	Baltic Sea, coastal	Perch, smelt, Baltic herring, other	FYK*, GNS	2 903
VL1012			Baltic herring	FPN*	6 711
VL1218	4S1	Baltic Sea	sprat, Baltic herring	OTM, PTM, OTB	932
VL1824			sprat, Baltic herring, cod	OTM	10 588
VL2440				OTM, OTB	33 423
VL40XX	4S3	NAFO, NEAFC, SVA, GRL	Northern prawn, redfishes, mackerel, other	OTB	11 956
<b>Total</b>					<b>66 513</b>

\* FYK – Fyke nets, FPN - Stationary uncovered pound nets

### Link with fisheries

The organisation of Estonian commercial fishery is based on the system of individual transferable quotas (ITQ) and individual transferable effort (ITE), allocated to companies based on their historical fishing rights. It is allowed to swap given year's fishing rights with other companies or with other EU countries (and with other contracting parties in case of RFMO). A company has the right to waive or sell its historical fishing rights. In addition to the general requirement of having a valid fishing licence, in order to conduct fishing activities, one must have been issued a valid fishing permit and in certain cases an authorisation to fish.

In length classes VL1218-VL40XX (national segments 4S1 and 4S3), the fishing opportunities allocated to Estonia are divided between companies based on their 3-year historical fishing rights. Fishing permits are issued only for vessels that have a valid fishing licence and the quantity the vessel is allowed to catch is marked on the fishing permit.

In length classes VL0010 and VL1012, (national segment 4S2), fishing effort is regulated by the type and number of fishing gear. Since coastal fishing mostly uses passive gears, regulating effort through vessel kW and GT is not relevant in this kind of fisheries. National limits on gears in order to limit fishing effort are set by scientific advice, and the total number is divided between fishing rights owners based on their 3-year historical fishing rights. Fishing permits are issued to a fishing rights owner and permit is not directly linked with a specific vessel, because not all fishing is conducted with fishing vessels (for example ice-fishing in winter). However, vessels that are used must have a valid fishing licence. In addition to the validity period and allowed fishing areas, the number and type of gear allowed to use by the fishing rights owner is marked to the fishing permit. In the case of regulated

species (for example Baltic herring), quota uptake is monitored closely by the Ministry of Agriculture and fishing for a certain species, or with certain fishing gear or in a certain fishing area is stopped when at least 90 % of the quota is utilized in order to ensure that allowable catch allocated for coastal fishery will not be exceeded.

Estonia has fishing opportunities in the Baltic Sea, in the NAFO and NEAFC Regulatory Area, and in Svalbard. In addition to Estonia's fishing opportunities set and allocated by the EU, Estonia's distant water fishing vessels fish for non-regulated species (mostly shrimp) in the Barents Sea and shrimp in Greenland waters under the Greenland fishing permit (Estonian fishing permit must be also issued). Also, in the coastal fishery, several target species are non-regulated on EU-level, but regulated by national effort limitation scheme (limit to number of fishing gears allowed to use). Baltic Sea fishing opportunities allocated to Estonia are divided between coastal and trawling segments. Baltic herring is an important species both for the coastal and trawling segments. Catches of sprat and cod by coastal fishery have been marginal as well as catches of Atlantic Salmon which is only caught in coastal fishery.

Table 3. Total landings in Baltic Sea coastal and trawling fisheries in year 2013.

Length class (m)	Baltic herring	Sprat	Cod	Atlantic salmon	Perch	Other species	Total landings (t)
VL0010	377	1	5	9	1 217	1 294	<b>2 903</b>
VL1012	6 711	0	0	0	0	0	<b>6 711</b>
VL1218	349	583	0	0	0	0	<b>932</b>
VL1824	3 720	6 844	22	0	0	2	<b>10 588</b>
VL2440	10 783	22 376	222	0	0	42	<b>33 423</b>
<b>Total</b>	<b>21 940</b>	<b>29 804</b>	<b>249</b>	<b>9</b>	<b>1 217</b>	<b>1 338</b>	<b>54 557</b>

According to the interim report from the Estonian Marine Institute of the University of Tartu<sup>1</sup>, there haven't been big changes in the state of fish stocks compared to previous years. Therefore, the number and type of fishing gear allowed to use in coastal fishery in the year 2013 was the same as in year 2012. Comparison of catch levels in years 2010-2013 are shown in chart 1. The state of the stock of Baltic herring has the greatest influence on the catch levels of coastal fishery. As the fishing opportunity of the Baltic herring declined in years 2011 and 2012, the total catches declined as well, for 2013 the fishing opportunity of Baltic herring increased slightly and the change is visible also in the catch level.

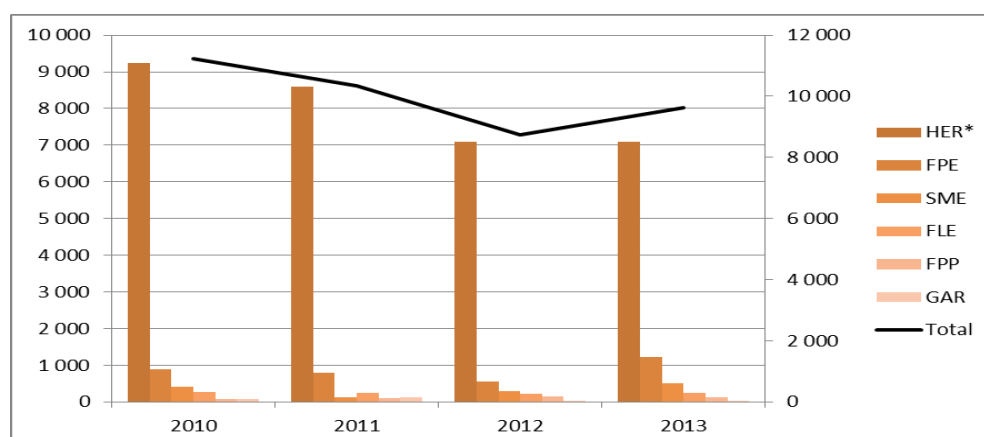


Chart 1. Total landings in tonnes of most important fish species in coastal fishery in the period of 2010-2013.

<sup>1</sup> Saat, T. 2012. „Implementation of the Estonia's national fisheries data collection programme in 2011/2012“. Interim report. Estonian Marine Institute of the University of Tartu

In the Baltic Sea trawling segment, changes in the fishing opportunities of sprat as well of the Baltic herring's have an impact on the volume of total catches, since all vessels (including those also targeting cod) fish for both at some time during the year. As can be seen in table 4 below, the fishing opportunities of Baltic herring and sprat declined in years 2011 and 2012, and have increased slightly in 2013; both herring and sprat stocks are considered to have reached MSY- or near-MSY levels.

Table 4. Estonia's Baltic Sea Baltic herring and sprat fishing opportunities in tonnes in the period of 2010-2013.

Area	Species	Zone	2010	2011	2012	2013
Baltic Sea	Baltic herring	25-27, 28.2, 29 and 32	14 198	12 068	8 810	10 131
	Baltic herring	28.1	16 809	16 809	14 120	14 120
	Sprat	22-32	43 522	33 077	25 800	28 634

Since the decrease in NAFO 3L Northern prawn quota and the moratorium on 3M Northern prawn, fishing for non-regulated species (Northern prawn in the Barents Sea), quota swaps (and charter agreements) and finding new fishing possibilities (Northern prawn fishery and mackerel experimental fishery in Greenland waters) have become increasingly important for Estonia's distant water fishing fleet in recent years to keep the fleet economically feasible until the prawn stocks improve. The proportion of other fishing possibilities besides Estonia's own fishing opportunities is shown in the table below (Table 5).

Table 5. The proportion of other fishing possibilities besides Estonia's own fishing opportunities in distant water fleet segment in year 2013.

Area	Estonia's fishing opportunities (t)	Total landings (t)
NAFO	2 869	4 533
NEAFC	365	4 021
East-Greenland	0	2 573
Svalbard	377*	828

\* Number of shrimp fishing days

### Developments in fleet

By the end of 2013, there were 1 445 vessels in the Estonian marine fishing vessels fleet. The total number of vessels has increased because of entries of new vessels into length class VL0010 in years 2012 and 2013; in all other length classes besides VL0010 and VL1824, the number of vessels has decreased. Although the number of vessels has increased over the period of 2007-2013 (Table 6), the total gross tonnage and engine power have decreased due to the exit of larger trawling vessels from the fleet and entry of coastal fishing vessels, marking the shift towards smaller coastal fishing vessels using passive gear.

Table 6. Developments in Estonian marine fishing vessel fleet in the period of 2007-2013.

Year		2007			2009			2011			2013		
Length class (m)	National segment	No of vessels	kW	GT	No of vessels	kW	GT	No of vessels	kW	GT	No of vessels	kW	GT
VL0010	4S2	790	9 964	1 144	791	9 949	1 138	787	9 982	1 135	1 320	16 834	1 550
VL1012		92	5 100	641	91	4 958	628	84	4 658	580	82	4 477	560
VL1218	4S1	31	2 489	470	22	2 054	342	15	1 544	221	12	1 361	184
VL1824		2	885	282	3	1 106	399	4	1 326	516	5	1 546	633
VL2440		38	10 727	4 584	33	10 712	4 305	27	8 734	3 549	21	6 601	2 764
VL40XX	4S3	10	19 923	12 215	5	11 766	7 726	6	12 670	8 281	5	13 174	7 697
<b>Total</b>		<b>963</b>	<b>49 088</b>	<b>19 336</b>	<b>945</b>	<b>40 545</b>	<b>14 538</b>	<b>923</b>	<b>38 914</b>	<b>14 282</b>	<b>1 445</b>	<b>43 993</b>	<b>13 388</b>

During 2013, 8 vessels were deleted from the length class VL0010, none with public aid and a total of 99 fishing vessels entered the segment. Overall, the number of vessels in length class VL0010 increased by 91 vessels compared to year 2012. From the length class VL1012 5 vessels were deleted, none with public aid and 4 vessels entered the segment. The number of vessels in length class VL1012 decreased by 1 vessel compared to year 2012.

As regards the 4S1 segment, 1 vessel left the length class VL1218 without public aid during the year 2013, no vessel exited from the length class VL1824 and 5 vessels exited from the length class VL2440, three of them with public aid. Two new vessels entered the 4S1 segment in 2013, both into length class VL2440, one of them was imported from another Member State. Overall, the number of vessels in segment 4S1 decreased by 4 vessels compared to year 2012, resulting in decline of gross tonnage and engine power by 11 % and 13 % respectively.

One vessel left the segment 4S3 in 2013 with public aid, no new vessel entered the segment. Hence, the total number of vessels decreased by one in segment 4S3 and the total engine power and total gross tonnage decreased by 18 % and 15 % respectively compared to year 2012.

## **Section B**

### **Effort reduction schemes**

Estonia adheres to numerous different effort control and reduction schemes established by legal acts of national, EU or RFMO level, for example different seasonal/regional temporary fishing restrictions, reduction of the number of fishing gear used for catching eel, establishing yearly list of vessels allowed to fish for cod in the Baltic Sea and vessels allowed to fish in the Gulf of Riga.

An important measure for adjusting effort is removing vessels permanently from the fleet with public aid. This is foreseen in the Estonia's National Fishing Effort Adjustment Plan. The plan is compiled in accordance with Article 22 of the Council Regulation (EC) No 1198/2006 and Article 11.1 of the Council Regulation (EC) No 2371/2002 for adjustment of the Estonia's fleet capacity with the fishing opportunities. The first plan was endorsed by the Ministry of Agriculture on 5. November 2008 and the second plan was endorsed on 12. February 2013. Both plans were compiled based on the analysis of the fleet capacity by the Estonian Marine Institute of the University of Tartu.

The first plan encompassed national segments 4S1 (Baltic Sea length classes VL1218, VL1824 and VL2440) and 4S3 (distant waters length class VL40XX), while the second plan concentrated only on national segment 4S1. The exclusion of segment 4S2 (Baltic Sea coastal fishery length classes VL0010 and VL1012) from both plans is based on the 2008 analysis of the feasibility of the Estonian fishing fleet by the Estonian Marine Institute<sup>2</sup>. Since coastal fishing uses mainly passive gear, the effectiveness of fishing activities in Baltic Sea coastal fishery is not related to the engine power and gross tonnage of the vessel, but to the number of fishing gears allowed to use by the fishing rights owner.

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

Estonia's National Fishing Effort Adjustment Plan endorsed in 2013 foresees the decrease of the fishing capacity of the segment 4S1 (length classes VL1218, VL1824 and VL2440) by 1 980 kW and 1 052 GT. The calculation was based on the fleet situation at the end of year 2011, when the total fleet capacity (including vessels that are deleted from the register, but

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<sup>2</sup> Vetemaa, M. 2008. A feasibility analysis of the Estonian fishing fleet. Estonian Marine Institute

could be replaced by new vessels) of the segment 4S1 was 15 677 kW and 5 858 GT. A total of 5 vessels (2 in 2012 and 3 in 2013) have been deleted from segment 4S1 in years 2012 and 2013 with the public aid under the Estonia's National Fishing Effort Adjustment Plan. The total capacity of these 5 vessels is 1 232 kW and 468 GT. In addition, considering the applications made by fishing rights owners, 4 more vessels is expected to exit fleet with public aid in the period of 2014 – 2015.

The engine of one 4S1 vessel was replaced with public aid in 2013. The provisions of Article 13.1.c of the Council Regulation (EC) No 2371/2002 were applied and the replacement of the engine was compensated by a reduction of capacity in terms of power equal to 20 % of the power of the engine replaced. Therefore, 44.2 kW were deducted from fleet capacity. One vessel in 4S3 was removed from the fleet with public aid (2 808 kW and 1 403 GT) in the second half of the year 2013.

In conclusion, according to assessment of capacity needed for utilization of quotas allocated to Estonia, a balance between fishing capacity and fishing opportunities has been reached, taking into account the long-term dynamics of the relevant fish stocks, including long term average of quotas of relevant fish stocks and there is no structural overcapacity.

## Section C

### Compliance with entry/exit scheme and with level of reference

In 2013, Estonia followed the entry-exit scheme defined in Article 13 of Council Regulation (EC) No 2371/2002. Every entry into the fleet register or increase in tonnage and/or engine power is covered by the removal of at least the same quantity of capacity from the fleet. The fishing capacity of a vessel deleted from the register with public aid cannot be replaced. All entries of a new vessel into the fleet and all capacity increases have been compensated by the removal of an equivalent or larger capacity from the fleet. Estonia is in compliance with reference level.

Table 7. Compliance with entry/exit scheme and with level of reference in year 2013.

<b>Management of the entry/exit scheme on 31.12.2013</b>		<b>GT</b>		<b>kW</b>	
1	Capacity of the fleet on 01/05/2004	<b>GTFR</b>	26 622	<b>kWFR</b>	64 937
2	Capacity level for the application of the entry-exit regime	<b>GT04</b>	26 622	<b>kW04</b>	64 937
3	Entries of vessels of more than 100 GT financed with public aid	<b>GT100</b>	0	<b>kW100</b>	0
4	Other entries or capacity increases (not included in 3 & 5)		9 532		29 501
5	Increases in tonnage GT for reasons of safety	<b>GTS</b>	0		
6	<b>Total entries ( 3 + 4 + 5 )</b>		9 532		29 501
7	Exits before 1/1/2007 financed with public aid	<b>GTa1</b>	1 779	<b>kWa</b>	4 691
8	Exits after 1/1/2007 financed with public aid	<b>GTa2</b>	5 170		11 547
9	Other exits (not included in 7 and 8)		15 817		34 207
10	<b>Total exits ( 7 + 8 + 9 )</b>		22 766		50 445
11	Power of engines replaced with public aid conditional to power reduction*			<b>kWr</b>	44.20
12	<b>Capacity of the fleet on 31/12/2013 (1 + 6 - 10)</b>	<b>GTt</b>	13 388	<b>kWt</b>	43 993
13	<b>Fleet ceiling on 31/12/2013</b>		19 906		48 655

\* Engine replaced was 221 kW.

We would also like to point out that the reference levels in Annex II of the CFP regulation 1380/2013 are incorrect as they do not take into account the removal of four vessels with public aid (3 911 kW and 1 845 GT).

## **Section D**

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

The main strength of the Estonian fleet management system is the system of transferable fishing concessions (TFC), which allows owner of the fishing rights to decide when to fish by it based on the market situation (demand, fish prices) or give the right to someone else; the allocation of quotas based on historical fishing rights give 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. Some technical and administrative issues that complicate data checks between different national registers can be seen as weakness of the fleet management system.

### **Plans for improvements in fleet management system**

Changes in national fleet management system concern the implementation of the point system for serious infringements according to the Article 92 of the Council Regulation (EC) No 1242/2004. The implementation of the point system for serious infringements is nationally divided between two authorities: the Environmental Inspectorate is authorized to assign points for serious infringements and informs the Ministry of Agriculture of the number of points assigned to the holder of the fishing licence. The Ministry of Agriculture is authorized to make decisions to suspend or permanently withdraw the fishing licence. The ways of information sharing between Member States concerning importation and exportation of vessels with points needs to be further improved.

### **General level of compliance with fleet policy instruments**

Entry/exit scheme is fully applied and reference levels have not been exceeded.

## **Section E**

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

There were no major changes in administrative procedures concerning Estonia's fleet management in year 2013.

## **Section F**

### **Application of the balance indicators**

The technical indicator is calculated in terms of ratio between the average effort per vessel and the observed maximum effort actually expended by a vessel (in kWdays). The biological indicator is calculated in catch per unit of effort (CPUE in days at sea). Both, technical and biological indicator data has been calculated based on data from those fishing vessels in segments 4S1 (length classes VL1218, VL1824 and VL2440) and 4S3 (length class VL40XX) that performed fishing operations in 2009 – 2013 (the vessels with zero fishing days have been excluded).

Economic and social indicators are calculated separately for different length classes, excluding the distant water fleet segment (length class VL40xx) as the number of active vessels in this length class is too small. Vessels of the length class VL1824 are added under the length class VL2440 under the DCF. The economic indicator - Return on Investment (ROI) is calculated based on data collected under the DCF by the Ministry of Environment. Economic indicator is calculated for the period 2010-2012. The social indicator is calculated for the period 2010-2012 by average crew share per full-time equivalent job (FTE). As the

DCF data for 2013 is available from the second half of 2014, the calculation of ROI and FTE for 2013 could not be included.

#### Technical indicator

The number of active fishing vessels in segment 4S1 has decreased from 55 in 2009 to 35 in 2013, the number of active vessels in segment 4S3 has increased from 4 in 2009 to 6 in 2013. The proportion of inactive vessels can be seen from the table below (Table 8). The only length class to have inactive vessels in 2013 was VL1218, where the number of active and inactive vessels was equal. As some vessels were deleted from the fleet during 2013, the number of vessels at the end of 2013 is smaller than the number of active vessels in 2013.

Table 8. Proportion of inactive vessels in the fleet in year 2013.

Year 2013		Active vessels			Inactive vessels			Proportion of inactive vessels	
Length class	National segment	No of vessels	kW	GT	No of vessels	kW	GT	kW (%)	GT (%)
VL1218	4S1	6	685	112	6	676	72	50	39
VL1824		5	1 546	633	0	0	0	0	0
VL2440		24	7 704	3 206	0	0	0	0	0
VL40XX	4S3	6	15 982	9 100	0	0	0	0	0
<b>Total</b>		<b>41</b>	<b>25 917</b>	<b>13 051</b>	<b>6</b>	<b>676</b>	<b>72</b>	<b>3</b>	<b>1</b>

Compared to year 2012, the number of average fishing days has decreased in length classes VL1824 and VL2440, while the number of average days has increased in length classes VL1218 and VL40XX. Compared to year 2012, the situation has stabilised in length class VL40XX, as the new vessel that entered the fleet at the end of the 2012 started to fish properly in 2013, therefore the minimum and average number of fishing days are closer to those of years 2009-2011.

Table 9. Minimum, maximum and average fishing days (FD) in length classes VL1218, VL1824, VL2440 and VL40XX in years 2009-2013.

Year	VL1218			VL1824			VL2440			VL40XX		
	Min FD	Max FD	Av FD	Min FD	Max FD	Av FD	Min FD	Max FD	Av FD	Min FD	Max FD	Av FD
2009	8	80	58	131	162	141	10	160	125	142	277	230
2010	40	98	72	30	142	111	60	151	123	173	284	235
2011	8	90	50	68	156	128	16	166	111	175	322	266
2012	9	80	56	103	199	141	7	187	129	4	284	204
2013	42	87	60	70	140	105	8	151	80	162	265	230

STECF guidelines suggest that ratio below 0.7 should be considered as showing structural overcapacity. As can be seen from the chart below (Chart 2), the ratios of two length classes – VL40XX and VL1824 have been over 0.7 the whole period of 2009-2013. Ratios of length classes VL1218 and VL2440 have fluctuated more over the period. A decline in quotas might be one reason why the ratio fell substantially below 0.7 in year 2011. Since then, fleets have adjusted themselves into the new situation and the ratio has started to rise, especially in segment VL1218 (the quotas have also risen slightly). The fall of ratio in segment VL2440 again in 2013 might be explained partly by the deletion of three vessels from the segment with public aid in the middle of the 2013, which affected the average ratio.



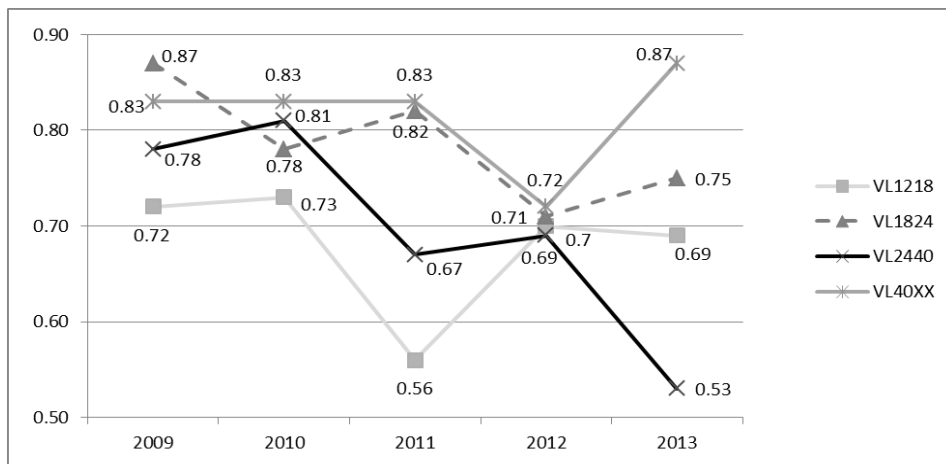


Chart 2. Technical indicator (Ratio in kWdays) for years 2009-2013.

### Biological indicator

For the 4S1 segment (length classes VL1218, VL1824, VL2440), CPUE is calculated for two most important species – Baltic herring (HER) and sprat (SPR). All vessels targeted these two species. Cod is excluded, as only 6 vessels targeted cod in 2013 and for only one of them, cod comprised the largest part of the catches. As can be seen from charts 3 and 4, the CPUE is strongly affected by changes in quotas. Quotas declined from 2009-2012 substantially both for Baltic herring and sprat and the CPUE fell as well. Since 2013, the quotas are showing signs of slight increase, but the rise in CPUE has been more significant. This can be partly explained by the adjustment of the fleet to the conditions of smaller quotas (decrease in number of companies and vessels active in the Baltic Sea; quota swaps).

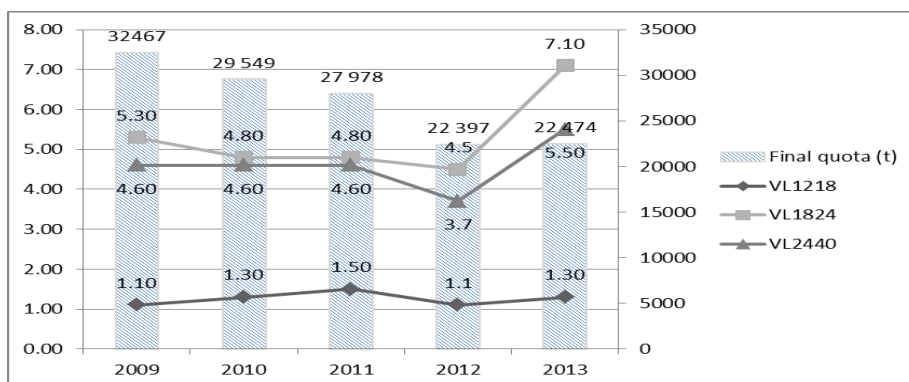


Chart 3. CPUE and final quota of Baltic herring in the Baltic Sea in 2009-2013.

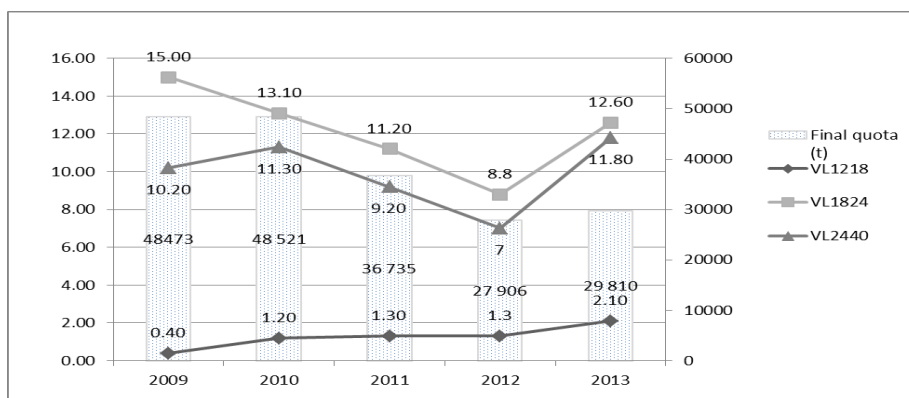


Chart 4. CPUE and final quota of Sprat in the Baltic Sea in 2009-2013.

The CPUE for distant waters fleet segment 4S3 (VL40XX) is calculated in relation to total landings. Species or catch-area specific CPUE are not shown, because of the small number of active vessels concerned. The average CPUE in segment 4S3 has fallen steadily from 12.31 in

2009 to 8.4 in 2013. This can be partly explained by smaller quotas in NAFO RA and smaller catches in the Barents Sea.

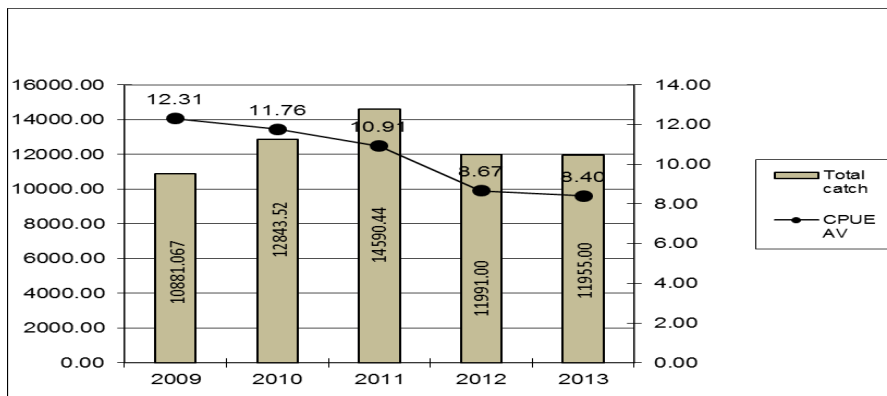


Chart 5. CPUE and total catch for 4S3 vessels in 2009-2013.

### Economic indicator

Over the three-year period, ROI in VL2440 has been low, but stable. ROI shows stable growth in both Baltic Sea coastal fishery segments (VL0010 and VL1012), but has greatly fluctuated in the vessel group 12-18 metres length group. The data concerning investments in physical capital was not present for year 2011 in vessel length group 12-18 metres, therefore the value of ROI is 0. Values of ROI in length class VL1218 fluctuate on a large scale for example, in 2009, the value of ROI was -5.52; in 2008, 6.73.

According to the guidelines, results greater than zero suggest that extraordinary profits are being generated. It should also be noted that most of the 4S1 fish landed is owned by producer organisations in charge of the whole chain from catches to processing to exports, therefore their profits are generated at the export stage and not at the moment of landing.

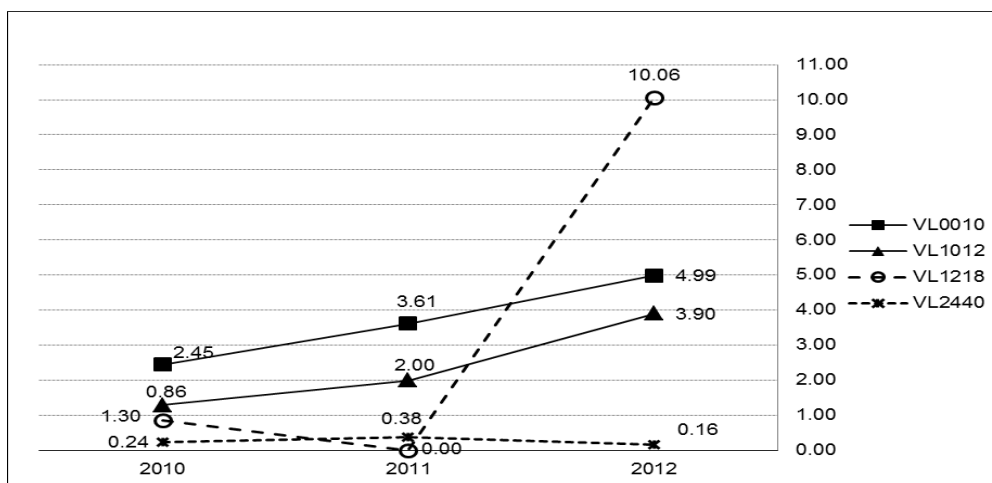


Chart 6. ROI for different vessel length groups in years 2010-2012.

### Social indicator

As can be seen from the table, the average wage per full-time equivalent job in coastal fisheries (length classes VL0010 and VL1012) is low compared to average wage in other length classes and compared also with the national average yearly wage. This can be explained by the nature of coastal fisheries, where commercial fishing is often not the only source of income (in part because fishing activity is often highly seasonal and concentrated to a short period) and not all catches are sold, but are used for own consumption.

Table 10. Average wage per full-time equivalent job (FTE) by vessel length classes.

Year	VL0010	VL1012	VL1218	VL2440	average yearly wage of all fields of occupation (EUR)*	average yearly wage in agriculture, fisheries and forestry sector (EUR)*
2010	3 419.55	2 974.15	7 392.90	17 162.57	9507.75	8010.69
2011	3 722.01	3 175.39	5 845.22	16 962.85	10068.00	8376.00
2012	3 565.76	3 846.42	6 267.33	20 870.22	10092.00	9024.00

\* by Statistics Estonia. Average yearly wage is the result of multiplying monthly average wage by 12.