

POLAND

Annual report on Poland's efforts to achieve a sustainable balance between fishing capacity and fishing opportunities

for the period from 1 January to 31 December 2017

Introduction

Pursuant to Article 22(2) of Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 *on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC ('Regulation No 1380/2013')*, EU Member States are required to send to the European Commission, by 31 May each year, a report on the balance between the fishing capacity of their fleets and their fishing opportunities.

I. SUMMARY OF REPORT

As at 31 December 2017, the Polish fishing fleet consisted of 834 fishing vessels (including vessels fishing in the Vistula Lagoon and the Szczecin Lagoon). The total fishing capacity of these vessels was 27 559.30 GT and 76 286.58 kW. The Polish fishing sector is generally divided into two main parts: Baltic Sea fisheries (where the majority of the Polish fleet operates) and deep-sea fisheries.

The main fish species caught by Polish fishermen in the Baltic Sea are: cod, sprat, herring, salmon, sea trout and flatfish. The main species targeted by Polish deep-sea vessels are: horse mackerel, cod, blue whiting, saithe, sardine, haddock and mackerel.

Since its accession to the European Union, Poland has strictly complied with the entry/exit scheme for fishing vessels as referred to in Article 23(1) of Regulation (EU) No 1380/2013.

II. Opinion on the balance between fleet capacity and resources

Given the status of marine biological resources and the fishing opportunities available to Poland in the Baltic Sea, the existing fleet structure must be changed.

Between its accession to the European Union and the end of 2013, Poland reduced its fishing capacity by more than 40 %.

Given the findings of the annual reports for 2014, 2015 and 2016 showing that fishing capacity of individual fleet segments is not in balance with available fishing opportunities, corrective actions have been taken to achieve this balance.

The fleet segments for which an imbalance between fishing capacity and available fishing opportunities is identified in these annual reports were covered by the programme for permanent cessation of fishing activities referred to in Article 34 of Regulation (EU) No 508/2014 of the European Parliament and of the Council of 15 May 2014 *on the European Maritime and Fisheries Fund and repealing Council Regulations (EC) No 2328/2003, (EC) No 861/2006, (EC) No 1198/2006 and (EC) No 791/2007 and Regulation (EU) No 1255/2011 of the European Parliament and of the Council* (OJ L 149, 20.5.2014, p. 1) – implemented under Measure 1.6. *Permanent cessation of fishing activities* of the 2014-2020 Operational Programme 'Fisheries and the Sea' (OP

FISH 2014–2020). On the other hand, the fleet segments identified in the above annual reports as being slightly imbalanced with available fishing opportunities have been covered by the programme for temporary cessation of fishing activities referred to in Article 33 of Regulation (EU) No 508/2014 – implemented under Measure 1.10. *Temporary cessation of fishing activities* (OP FISH 2014-2020).

Measure 1.6. *Permanent cessation of fishing activities* was implemented in 2016-2017. A total of 33 fishing vessels with a total fishing capacity of 865.24 GT and 2 699.20 kW were withdrawn from commercial fishing from 1 January to 31 December 2016. 29 vessels were permanently withdrawn through scrapping, 2 vessels – without scrapping by being reclassified to land-based non-profit-making activities related to cultural heritage and 2 vessels – without scrapping by being reclassified to non-profit-making activities other than commercial fishing. A total of 8 fishing vessels with a total fishing capacity of 166.78 GT and 505.00 kW were withdrawn from commercial fishing from 1 January to 31 December 2017. 6 vessels were permanently withdrawn through scrapping and 2 vessels – without scrapping by being reclassified to non-profit-making activities other than commercial fishing.

To conclude, from 1 January 2016 to 31 December 2017, a total of 41 fishing vessels with a total fishing capacity of 1 032.02 GT and 3 204.20 kW were permanently withdrawn from commercial fishing activities under Measure 1.6. *Permanent cessation of fishing activities* (OP FISH 2014-2020).

Pursuant to Article 34(5) of Regulation (EU) No 508/2014, which states that such support measures as permanent cessation of fishing activities may be granted until 31 December 2017, Measure 1.6. *Permanent cessation of fishing activities* will not be implemented after this date.

Implementing Measure 1.6. <i>Permanent cessation of fishing activities</i> under the OP FISH 2014-2020			
	2016	2017	2016-2017
Fishing vessels permanently withdrawn through scrapping	29	6	35
Fishing vessels permanently withdrawn without scrapping by being reclassified to land-based non-profit-making activities related to cultural heritage	2	0	2
Fishing vessels permanently withdrawn without scrapping by being reclassified to non-profit-making activity other than commercial fishing	2	2	4
Permanently withdrawn fishing vessels in total	33	8	41

Notwithstanding the above, given the negative effects of the dynamic changes taking place in the composition of the fish fauna of the Baltic Sea and the lack of clear scientific guidance from the International Council for the Exploration of the Sea (ICES), especially with regard to cod from the eastern stock which is important for the Polish fishing sector, there is a temporary imbalance between fishing capacity and available fish stocks.

The latest assessments of the biological, technical and economic indicators relating to the Polish fishing fleet, which are presented in Chapter VIII, Section F, *Estimation and discussion of balance indicators*, and Chapter IX: *Analysis and evaluation of the balance between fishing capacity and fishing opportunities by fleet segment for three consecutive years* of this report show that certain segments of the fishing fleet have still not been effectively adjusted to available fishing opportunities.

Pursuant to Article 22(4) of Regulation (EU) No 1380/2013, an action plan has been prepared for the fleet segments with identified structural overcapacity. The action plan forms an integral part of

this report and is included in Chapter X.

III. SECTION A

Description of the fishing fleet

The Polish fishing sector is generally divided into two main parts:

- **Baltic Sea fisheries** (where the majority of the Polish fleet operates),
- **deep-sea fisheries**.

As at 31 December 2017, the Polish Baltic fleet consisted of 831 fishing vessels with a total fishing capacity of 15 978.74 GT and 62 570.58 kW. The fleet is made up of fishing vessels operating in the Baltic Sea and in the internal marine waters of Poland, including the Vistula Lagoons and the Szczecin Lagoon.

As at 31 December 2017, the Polish deep-sea fleet consisted of 3 fishing vessels with a total fishing capacity of 11 580.56 GT and 13 716.00 kW. The deep-sea fleet is made up of fishing vessels operating exclusively outside the Baltic Sea and the internal waters of Poland.

Types of fishing operations carried out

Baltic Sea fisheries

The main fish species caught by Polish fishermen in the Baltic Sea are: cod, sprat, herring, salmon, sea trout and flatfish. The Baltic Sea species important for Polish fishermen (in particular for the coastal fleet) are catches of cod which are subject to restrictions resulting, *inter alia*, from the recovery plan for these stocks (significant annual reductions in fishing quotas, biological recovery periods and restricted use of certain fishing gear). Catches of pelagic fish (sprat and herring) make up a significant portion of the income earned by Polish fishermen. Polish fishermen also fish for sea trout and flatfish, considered equally valuable in economic terms. Baltic Sea catches in 2017 as broken down by species: cod (sub-areas 22-32): 7 284 tonnes, salmon: 6 558 fish, sprat: 69 971.32 tonnes, plaice: 293.64 tonnes, western herring (sub-areas 22-24): 3 376.14 tonnes, central herring (sub-areas 25-27, 28.2, 29 and 32): 39 631.02 tonnes, sea trout: 37 665 fish and flounder: 10 831 tonnes.

Deep-sea fisheries

Deep-sea vessels operated mainly in areas managed by the North-East Atlantic Fisheries Commission (NEAFC) and in Norwegian waters. In 2017, Polish vessels also fished in African waters under the jurisdiction of the Kingdom of Morocco, the Islamic Republic of Mauritania and the Republic of Namibia. The main species caught by Polish deep-sea vessels in NEAFC fisheries are: cod, blue whiting, haddock, saithe, redfish and halibut. The main species harvested in West African fisheries are: mackerel, horse mackerel, sardine and Atlantic sardinella. The deep-sea quotas allocated to Poland have been fully utilised, either through catches or exchange of quotas – primarily with Germany, the United Kingdom, Latvia, Estonia, Spain and Portugal. The Polish deep-sea fleet's growth prospects depend on its ability to obtain fishing opportunities in deep-sea fisheries. In 2017, deep-sea catches amounted to a total of approx. 70.5 thousand tonnes.

Changes in the fleet

Changes in the Polish fleet, as broken down into Baltic and deep-sea fleets, are presented in the table below.

	As at 31 December 2016			As at 31 December 2017			Change		
	GT	kW	Number of vessels	GT	kW	Number of vessels	GT	kW	Number of vessels
Total	34 871.25	83 047.28	843	27 559.30	76 286.58	834	- 7 311.95	- 6 760.70	- 9
Deep-sea fleet	18 718.56	20 011.00	4	11 580.56	13 716.00	3	- 7 138.00	- 6 295.00	- 1
Baltic fleet	16 152.69	63 036.28	839	15 978.74	62 570.58	831	- 173.95	- 465.70	- 8

The fishing fleet was also subject to modernisation measures involving engine rebuilding and replacement. The fishing vessels were modernised by their owners using their own financial resources.

In 2017, two fishing vessels were modernised following the allocation (before 4 March 2015) by the minister responsible for fisheries of an additional fishing capacity of 12 GT in total (in accordance with the *Allocation Rules for the Fishing Capacity Available to the Minister for Agriculture and Rural Development* adopted in 2010, developed by the Team of fishing community representatives appointed by Order No 3 of the Minister for Agriculture and Rural Development of 18 March 2010).

As at 31 December 2017, the Polish deep-sea fleet comprised three fishing vessels, one less than in the previous year. Of the four deep-sea fishing vessels included in the register as at 31 December 2016, two fishing vessels were withdrawn without public aid from commercial fishing in May and July 2017. The total fishing capacity of these vessels amounted to 9 486 GT and 9 295 kW. In October 2017, one fishing vessel with a fishing capacity of 2 348 GT and 3 000 kW was entered into the register, ultimately increasing the total number of deep-sea vessels to three at the end of 2017.

Following the implementation of Measure 1.6. *Permanent cessation of fishing activities* under the 2014-2020 Operational Programme ‘Fisheries and the Sea’, eight fishing vessels with a total fishing capacity of 166.78 GT and 505.00 kW were withdrawn from commercial fishing between 1 January and 31 December 2017.

IV. SECTION B

Impact on fishing capacity of effort reduction schemes

As a result of the implementation of Measure 1.6. *Permanent cessation of fishing activities* under the OP FISH 2014-2020 (which began in 2016), a total of 41 fishing vessels with a total fishing capacity of 1 032.02 GT and 3 204.20 kW had been permanently withdrawn from commercial fishing by 31 December 2017.

V. SECTION C

Statement of compliance with the entry / exit scheme and with the fishing capacity ceiling

In the reporting period, Poland strictly complied with the entry/exit scheme as set out in Article 23(1) of Regulation (EU) No 1380/2013.

As at 31 December 2017, the fishing capacity of the Polish fishing fleet included in the fishing vessel register was 27 559.30 GT and 76 286.58 kW.

Pursuant to Article 22(7) of Regulation (EU) No 1380/2013, the fishing capacity of the Polish fleet, as specified in the fishing vessel register, did not at any time exceed the fishing capacity ceiling set out for Poland in Annex II to that Regulation.

VI. SECTION D

Summary of weaknesses & strengths of the fleet management system

Plan for improvements in the fleet management system

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

Poland fully complies with the restriction rules on fishing capacity applicable to entry/exit schemes, as prescribed by EU law. The fishing capacity of the Polish fleet, as specified in the fishing vessel register, did not at any time exceed the fishing capacity ceiling set out for Poland in Annex II to Regulation (EU) No 1380/2013.

A key feature of the existing management system of the Polish fishing fleet is that it incorporates a complex IT system. The IT system consists of the central database containing the information necessary for the proper functioning of the fisheries administration system, which is also used to monitor fishing operations. The system is designed to take into account any existing links between vessel registration procedures, procedures for granting fishing licences and permits, and catch registration and accounting procedures. It has a statistical mechanism designed to generate a comprehensive set of reports. In addition, the system has a module for recording electronic reports in databases, which are submitted in accordance with Council Regulation (EC) No 1224/2009¹ and Commission Implementing Regulation (EU) No 404/2012. This system has been designed using the latest IT technology which, among other things, provides improved functionality and speed of operation, and can be accessed by all authorised users via the internet. A new ‘infringements module’ was added to the existing system in 2015 to allow users to record any infringements committed by Polish fishing vessels and document all stages of relevant administrative procedures.

Vtrack – a modern satellite VMS fishing vessel monitoring system became fully operational in 2009 and functioned properly in 2017.

ERS-Vcatch – an electronic recording and reporting system designed to handle the fishing and landing documents specified in Council Regulation (EC) No 1224/2009 and Commission Implementing Regulation (EU) No 404/2011 was deployed in January 2011. All Polish vessels of above 12 m in an overall length were equipped with an electronic system designed to record and report fishing activities, landing declarations / transshipment data by electronic means. In 2017, all catches by these vessels were recorded using electronic fishing logbooks.

The automatic SMS-based system for advance registration, deployed in 2011, functioned

¹ Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, amending Regulations (EC) No 847/96, (EC) No 2371/2002, (EC) No 811/2004, (EC) No 768/2005, (EC) No 2115/2005, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007, (EC) No 676/2007, (EC) No 1098/2007, (EC) No 1300/2008, (EC) No 1342/2008 and repealing Regulations (EEC) No 2847/93, (EC) No 1627/94 and (EC) No 1966/2006 (OJ L 343, 22.12.2009, p. 1, as amended).

² Commission Implementing Regulation (EU) No 404/2011 of 8 April 2011 laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the Common Fisheries Policy (OJ L 112, 30.4.2011, p. 1-153).

properly in 2017. Data transmitted from fishing vessels were automatically – in real time – recorded in a single database, which could be accessed by inspectors via the internet.

A balance between fishing capacity and available marine biological resources must be achieved in order to ensure the effective management of a fishing fleet. Therefore, adjusting the size and structure of the fleet to the fishing opportunities available to Poland will be of crucial importance in the near future. The management rules for both these areas – previously specified by direct reference to EU law and the 2004 Act – have been modified and enhanced in the new *Sea Fisheries Act* of 19 December 2014, in force since 4 March 2015.

Under these rules, the minister responsible for fisheries is empowered to manage fishing capacity with a view to making efficient use of the fishing capacity ceiling allocated to Poland (GT/kW), which, due to its progressively decreasing size, should be linked – whenever possible – to vessels actively involved in commercial fishing. The provisions provide that:

- three fleet segments shall be designated by area of operation (the fleet segments comprising vessels used in commercial fishing in the Baltic Sea, the Vistula Lagoon and the Szczecin Lagoon, as well as in deep sea areas):
- the vessel owner shall lose the right to dispose of individual fishing capacity after five years from the date of last landing of the marine organisms caught by the fishing vessel – i.e. withdrawal from commercial fishing;
- the minister responsible for fisheries shall establish management procedures for spare fishing, including support measures for fleet modernisation;
- measures shall be taken to prevent the excessive fragmentation of fishing capacity due to ‘duplication’ (such as the refusal to register more than one fishing vessel in the fishing vessel register to replace the previously withdrawn vessel).

VII. SECTION E

Information on changes of the administrative procedures relevant to fleet management

Following the entry into force on 13 July 2017 of the Act of 25 May 2017 *amending the Sea Fisheries Act* (Journal of Laws 2017, item 1273), in the *Sea Fisheries Act* of 19 December 2014 (Journal of Laws 2015, item 222, as amended), the provisions setting out fishing capacity ceilings (GT and kW) have been repealed for each of the three fleet segments referred to in Article 9(1) (the fleet segments comprising vessels used in commercial fishing in the Baltic Sea, the Vistula and Szczecin Lagoons and in deep sea areas). In this respect, Poland is in full compliance with Article 22(7) of Regulation No 1380/2013 which requires Member States to ensure that from 1 January 2014 the fishing capacity of their fleets does not exceed at any time the fishing capacity ceilings set out in Annex II.

VIII. SECTION F

Estimation and discussion of balance indicators

The National Marine Fisheries Research Institute (*Morski Instytut Rybacki-Państwowy Instytut Badawczy, MIR-PIB*) in Gdynia prepared in May 2018 – at the request of the Department of Fisheries at the Ministry of Maritime Economy and Inland Navigation – the following indicators to assess the balance between fishing capacity and fishing opportunities.

The methodology used to calculate these indicators is consistent with the European Commission's 'Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy'.

Biological indicators: *sustainable harvest indicator and stocks at risk indicator* and **technical indicators:** *inactive fleet indicator and vessel utilisation indicator* – were prepared for 2015-2017. Since the process of economic data collection and approval is governed by accounting principles applicable to economic operators, the **economic indicators** could only be calculated for 2014-2016

These data are derived from ICES advisory documents for Baltic stocks for 2018, figures on catches for 2015-2017 and economic data for 2014-2016 which are collected and approved under the Data Collection Framework (DCF EU).

The MIR-PIB calculated the following indicators for each segment of the Polish fishing fleet:

– **biological indicators (for 2015-2017):**

- *sustainable harvest indicator,*
- *stocks at risk indicator;*

– **technical indicators (for 2015-2017):**

- *vessel utilisation indicator,*
- *inactive fleet indicator;*

– **economic indicators (for 2014-2016):**

- *return on investment (ROI) vs next best alternative,*
- *ratio between current revenue and break-even revenue (CR/BR)*

These indicators were analysed for the following segments of the Polish fishing fleet:

- **VL0010 PG** – vessels with an overall length of up to 10 m, fishing with nets and other passive gear,
- **VL1012 PG** – vessels with an overall length of 10 m to 12 m, fishing with nets and other passive gear,
- **VL1218 DFN** – vessels with an overall length of 12 m to 18 m, fishing with nets,
- **VL1218 DTS** – bottom trawlers with an overall length of 12 m to 18 m,
- **VL1824 DTS** – bottom trawlers with an overall length of 18 m to 24 m,
- **VL1824 TM** – pelagic trawlers with an overall length of 18 m to 24 m,
- **VL2440 TM** – pelagic trawlers with an overall length of 24 m to 40 m.

Biological indicators for 2015–2017

1. Sustainable harvest indicator

The sustainable harvest indicator is a measure of how much a fleet segment relies on stocks that are overfished. “Overfished” means that a stock is fished above F_{msy} , the fishing mortality rate corresponding to maximum sustainable yield. In line with the European Commission's guidelines, the fishing mortality rate F_{msy} , i.e. the rate which results in a stock size that produces the maximum sustainable yield (MSY) over a multi-year period, was adopted as a reference fishing mortality.

The *sustainable harvest indicator* (SHI) for the fleet segment is determined on the basis of all stocks exploited by the segment, for which data are available to calculate the F/F_{msy} ratio. The sustainable harvest indicator is an average of F/F_{msy} ratio for individual stocks (i) weighted by the

value of the landings of that stock by the segment concerned (V_i):

$$SHI = \frac{\sum_{i=1}^{i=n} v_i \frac{F_i}{F_{msy_i}}}{\sum_{i=1}^{i=n} v_i}$$

where ‘n’ refers to the number of stocks taken into account.

The lower the value of the indicator, the lesser dependence of the fleet segment on overfished stocks. The most preferable arrangement is when all F_i/F_{msy_i} values are close to 1 – then the SHI indicator value is also close to 1.

According to guidelines from the Scientific, Technical and Economic Committee for Fisheries (STECF), the indicator is considered unavailable, if more than 60 % of catches by the segment concerned are accounted for catches of stocks for which the fishing mortality rate and F_{msy} are not determined. It is not recommended to calculate this indicator on the basis of CPUE (catch per unit of effort).

SHI was calculated on the basis of stocks for which the F/F_{msy} ratio could be established based on ICES assessments and analyses. These are the following stocks:

- a. Western Baltic cod (sub-areas 22-24),
- b. Eastern Baltic cod (sub-areas 24-32); the available F/F_{msy} assessments for this stock were made using the stock-production model (SPiCT),
- c. Western Baltic herring (sub-areas 20-24),
- d. Central Baltic herring (sub-areas 25-29 and 32),
- e. Baltic Sea sprat (sub-areas 22-32).

In 2015-2017, the catches of these stocks accounted for over 40 % of the total catches by the segments under review. The SHI indicator values are presented in Table 3.

Table 3. Sustainable harvest indicator (SHI) for analysed segments of the Polish fleet in 2015-2017

Fleet segment	2015	2016	2017
VL0010 PG	1.18	1.37	1.40
VL1012 PG	1.59	1.71	1.70
VL1218 DFN	1.82	1.81	1.65
VL1218 DTS	1.58	1.49	1.58
VL1824 DTS	1.46	1.31	1.41
VL1824 TM	1.35	1.15	1.19
VL2440 TM	1.31	1.11	1.15

It should be stressed that despite the lack of any analytical assessment of the Eastern Baltic cod, the F/F_{msy} ratio for this stock was established in 2017 and 2018 within the framework of ICES using the stock-production model, thus making it possible to include this stock in the calculation of the indicator. The indicator was also updated with the 2015–2016 data to take account of small variations in F/F_{msy} values in subsequent assessments of stock status carried out by ICES.

In the period under review, all fleet segments relied on overfished catches to a significant extent – the SHI indicator exceeded 1, including by large margin for VL1012 PG and VL1218 DFN segments which fish predominantly for cod. In terms of ensuring biologically sustainable fishing, the top performing segments were those fishing mainly for herring and sprat, i.e. VL1824 TM and

VL2440 TM, but even for these segments the SHI indicator was above 1.

2. Stocks at risk indicator

The *stocks at risk* (SAR) indicator is a measure of how many stocks are being affected by the activities of the fleet segment that are biologically vulnerable – stocks which are at low levels and are at risk of not being able to replenish themselves. A stock at high biological risk means a stock which is either:

- assessed as being below the B_{lim} biological level,
- subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, etc.,
- subject to a fishing opportunities regulation which stipulates that the fish should be returned to the sea unharmed or that landings are prohibited,
- on the ‘red list’ or listed by CITES.

The indicator is calculated as the number of stocks exploited by a given segment which meet the following conditions:

- catches from the stock considered at risk make up 10 % or more of the catches by the fleet segment.
- the fleet segment takes 10 % or more of the total catches from the stock considered at risk.

The calculation formula is as follows:

$$SAR = \sum_{i=1}^{i=n} (1 \text{ if } (C_i > 0.1C_t) \text{ or } (C_i > 0.1T_t); \text{ otherwise } 0)$$

where:

C_i – catches from i stock,

C_t – total catch of all stocks taken by the fleet segment,

T_i – total catch of stock i , taken by all segments.

For example, if SAR value is 1 – the segment exploits one stock at high biological risk, and if SAR value is 2 – two stocks considered at risk, etc.

These criteria are met by the biomass of Western stock of Baltic cod (in 2015-2017, the size of the biomass was below B_{lim}). In addition, ICES conducted a benchmark assessment of Western Baltic herrings in 2018, resulting in a new B_{lim} value being assigned to that stock (higher than before). The stock biomass in 2015-2017 was below the new B_{lim} value. These new assessment results are currently under review by ICES. If ICES gives a positive assessment, Western Baltic herring will also be categorised as stocks at high biological risk. Therefore, this stock was also included in the calculation of *stocks at risk indicator*. The *stocks at risk indicator* (SAR) values calculated for the analysed segments of the Polish fleet are presented in Table 4(a) to (c) below.

Table 4. Stocks at risk indicator (SAR) for analysed segments of the Polish fleet

a) 2015

Segment	Cod catches 22-24 ('000 t)	Herring catches 20-24 ('000 t)	Total catches by segment ('000 t)	SAR indicator
VL0010 PG	0.03	0.30	8.81	1
VL1012 PG	0.21	0.29	3.86	2
VL1218 DFN	0.08	0.00	1.09	1

VL1218 DTS	0.32	0.23	18.37	2
VL1824 DTS	0.09	0.03	14.83	1
VL1824 TM	0.00	0.01	15.49	0
VL2440 TM	0.02	1.78	72.27	1
total	0.74	2.64	134.73	

b) 2016

Segment	Cod catches 22-24 ('000 t)	Herring catches 20-24 ('000 t)	Total catches by segment ('000 t)	SAR indicator
VL0010 PG	0.02	0.33	8.49	1
VL1012 PG	0.15	0.22	4.00	1
VL1218 DFN	0.07	0.00	1.46	0
VL1218 DTS	0.34	0.47	18.87	2
VL1824 DTS	0.13	0.05	11.16	1
VL1824 TM	0.00	0.00	20.13	0
VL2440 TM	0.01	1.76	74.78	1
total	0.70	2.84	138.90	

a) 2017

Segment	Cod catches 22-24 ('000 t)	Herring catches 20-24 ('000 t)	Total catches by segment ('000 t)	SAR indicator
VL0010 PG	0.02	0.35	6.48	1
VL1012 PG	0.25	0.37	4.01	2
VL1218 DFN	0.04	0.00	1.35	0
VL1218 DTS	0.36	0.20	10.91	1
VL1824 DTS	0.25	0.17	8.86	1
VL1824 TM	0.01	0.05	20.40	0
VL2440 TM	0.02	2.26	85.72	1
total	0.95	3.38	137.74	

In 2015-2017, Western Baltic cod or herring catches for none of the analysed fleet segments exceeded 10 % of the catches of the segment (Condition 1 regarding reliance on catches from stocks considered at risk). Western Baltic cod catches were reported at low levels, representing on average less than 1 % of total catch by the Polish fleet. Western Baltic herring catches were also reported at relatively low levels, accounting for 2-3 % of total catch by the fleet in the period under review. However, in some cases, catches taken by a given segment from a stock at high biological risk represented over 10 % of the catches of the stock taken by all segments (Condition 2 regarding reliance on catches from stocks considered at risk). Therefore, the SAR indicator value for the majority of segments in the period under review was 1 or 2 (Table 4 a, b, c).

Technical indicators for 2015-2017

1. Vessel utilisation indicator

The *vessel utilisation indicator* was calculated based on data relating to Baltic fleet activity in 2015-2017 provided by the Fisheries Monitoring Centre (*Centrum Monitorowania Rybołówstwa*) from the ERS database. As in previous years, the term “days at sea” was defined as any continuous period of 24 hours (or part thereof) during which a vessel is present within an area and absent from port.

The values such as engine power (kW) and vessel capacity (GT) were determined on the basis of the ERS database for a given day of vessel fishing activity. Therefore, both these values are calculated taking into account any changes in vessel parameters taking place over the year. Furthermore, in contrast to the methodology used to calculate the inactive fleet indicator value (which only takes into account the vessels included in the register as at 1 January of the year concerned), the fleet capacity utilisation indicator was calculated taking into account all the vessels active during the year (including those put into operation after 1 January of the year concerned). In accordance with the adopted methodology, the maximum number of days actually spent at sea for the segment concerned was determined taking into account the number of such days reported for the most active vessel from that segment. As in previous years, the theoretical number of days at sea was not calculated (Table 5).

Table 5. Utilisation statistics by fleet segment in 2015-2017

Year	Segment	Vessel number, power and capacity			Current effort			Maximum theoretical effort (observation data)				INDICATOR	
		number	kW	GT	days	kW days	GT days	days per vessel ¹	total days	kW days	GT days	kW days	GT days
2015	VL0010 PG	516	14 338	1 548	40 926	1 241 954	129 311	219	113 004	3 140 022	339 012	40 %	38 %
	VL1012 PG	103	6 890	1 153	8 463	560 979	97 625	196	20 188	1 350 440	225 988	42 %	43 %
	VL1218 DFN	23	2 878	681	2 501	305 586	72 438	218	5 014	627 404	148 458	49 %	49 %
	VL1218 DTS	69	8 798	2 018	8 045	1 027 487	241 167	201	13 869	1 768 398	405 618	58 %	59 %
	VL1824 DTS	38	8 455	2 187	3 817	841 979	224 192	185	7 030	1 564 175	404 595	54 %	55 %
	VL1824 TM	20	5 125	1 351	2 369	605 477	167 721	201	4 020	1 030 125	271 551	59 %	62 %
	VL2440 TM	41	16 590	6 965	5 044	2 055 704	872 816	187	7 667	3 102 330	1 302 455	66 %	67 %
2015 Total		810	63 073	15 903	71 165	6 639 166	1 805 270	211	170 792	12 582 894	3 097 677	53 %	58 %
2016	VL0010 PG	513	14 243	1 534	43 667	1 301 139	134 165	226	115 938	3 218 879	346 610	40 %	39 %
	VL1012 PG	106	6 990	1 171	9 090	611 124	104 091	179	18 974	1 251 228	209 588	49 %	50 %
	VL1218 DFN	27	3 506	862	2 789	335 356	88 986	191	5 157	669 571	164 598	50 %	54 %
	VL1218 DTS	67	8 105	1 849	7 154	888 780	206 647	194	12 998	1 572 456	358 797	57 %	58 %
	VL1824 DTS	28	6 153	1 611	2 840	603 781	165 808	174	4 872	1 070 599	280 314	56 %	59 %
	VL1824 TM	27	6 691	1 706	2 980	733 952	202 237	225	6 075	1 505 475	383 850	49 %	53 %
	VL2440 TM	44	17 631	7 341	5 462	2 214 831	933 376	195	8 580	3 438 029	1 431 495	64 %	65 %
2016 Total		812	63 319	16 074	73 982	6 688 964	1 835 310	213	172 594	12 726 237	3 175 252	52.6 %	57.8 %
2017	VL0010 PG	509	14 254	1 537	34 198	1 042 844	108 858	212	107 908	3 021 850	325 771	35 %	33 %
	VL1012 PG	114	7 351	1 220	7 587	519 177	87 079	170	19 380	1 249 670	207 319	42 %	42 %
	VL1218 DFN	22	2 834	721	1 876	236 904	62 381	184	4 048	521 382	132 697	45 %	47 %
	VL1218 DTS	49	5 859	1 333	4 478	574 026	129 179	180	8 820	1 054 685	240 015	54 %	54 %
	VL1824 DTS	23	5 112	1 392	2 288	521 275	148 501	169	3 887	863 962	235 257	60 %	63 %
	VL1824 TM	31	7 664	1 864	3 164	783 214	208 230	195	6 045	1 494 480	363 465	52 %	57 %
	VL2440 TM	44	17 673	7 389	5 749	2 321 549	970 232	188	8 272	3 322 526	1 389 132	70 %	70 %
2017 Total		792	60 747	15 456	59 340	5 998 989	1 714 460	200	158 360	11 528 555	2 893 656	52.0 %	59.2 %

Note: due to the clustering of fleet segments (where the number of vessels is below 10) and the inclusion of all vessels active during the year in the calculation, data relating to vessel numbers, power and capacity may differ from those provided in Table 10.

¹ the number of days at sea by the most active vessel in a given segment

For all fleet segments under review (except for VL2440 TM), the indicator calculation results for both kW days and GT days for all years are below the reference indicator (0.7). This shows that the

fishing capacity of the fleet is under-utilised. In 2017, the indicator deteriorated (by a few percentage points) for all segments with vessels of up to 18 m in length. The highest deterioration rate was reported for the VL1012 PG segment: 7 and 8 percentage points for kW days and GT days, respectively. Such deterioration was due to fewer days at sea targeting cod catches and, to a lesser extent, flatfish. 2017 also saw a significant decrease in freshwater fish catches (and effort), including from pike perch and common bream stocks, exploited mainly by vessels of up to 10 m in length, negatively affecting the indicator value.

The vessel utilisation indicator improved for vessels of more than 18 m in length, especially for the VL2440 TM segment – by 5 percentage points. Both this segment and the VL1824 TM segment increased their fishing effort targeting sprat and herring, as reflected in the number of days at sea and the size of catches of these stocks. Surprisingly, the indicator value for the VL1824 DTS segment specialising in cod and flounder catches improved. This may be explained by the fact that the level of theoretical effort has decreased more than the effort actually deployed (due to the maximum number of days at sea being reduced). This segment also recorded a noticeable decrease (from 28 to 23) in the number of fishing vessels as a result of the portion of these vessels being transferred to the VL1824 TM segment.

As in previous years, 2017 saw the lowest utilisation rate of potential workable activity of fishing vessels of up to 12 m in length. This was, as already stated, due to low levels of catches from cod and freshwater stocks. On the other hand, these vessels are fishing in restricted fishing areas which are highly diversified in terms of seasonal fishing activity. Hence, they are more susceptible to negative weather impacts than larger fishing vessels. These vessels also include units which are not used for strictly commercial activities (e.g. such as vessels whose fishing activity is supplementary to their core business or carried out for own use).

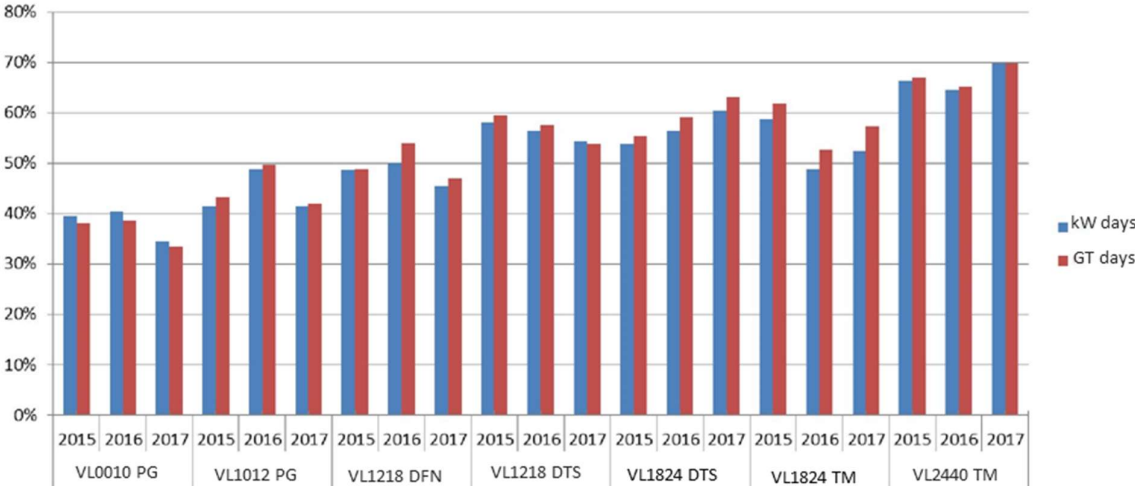


Figure 1. Fleet capacity utilisation levels in kW days and GT days in 2015-2017

When examining changes in the level of fishing effort by the fishing fleet, account should be taken of changes in the average number of days at sea for each segment. Deterioration of the indicator value in 2017 and 2016 was particularly noticeable for segments with vessels of up to 24 m in length. On the other hand, reduced numbers of total days at sea were reported for all segments with vessels of less than 24 m in length. This was due to a significant reduction in cod and flounder catches.

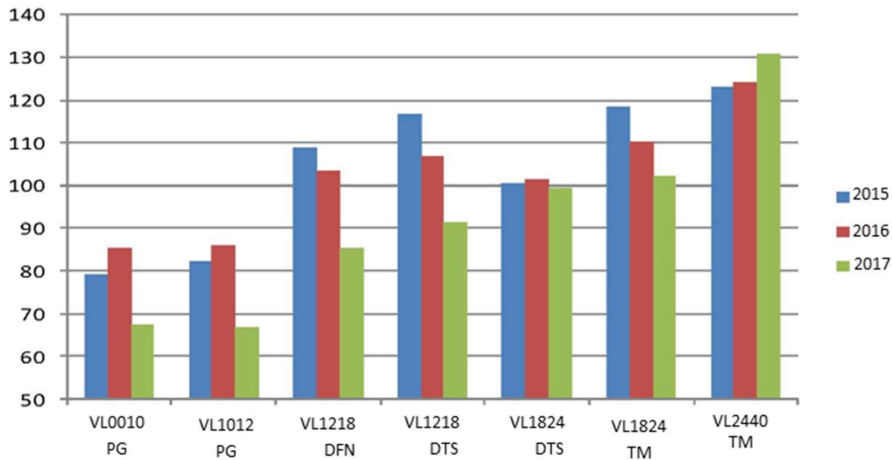


Figure 2. Average number of days at sea in 2015-2017

2. Inactive fleet indicator

The *inactive fleet indicator* value was calculated based on data from the fishing vessel register for vessels operating in the Baltic Sea, registered as at 1 January for each year under review. According to relevant guidelines, an indicator such as at least one day at sea, as reported by the shipowner during the year, was adopted as a measure of fishing vessel activity. For analytical purposes, the data were split according to vessel length (VL) classes, as prescribed in the DCF (Data Collection Framework) methodology.

As in previous years, the share of inactive vessels in Polish Baltic fleet remained at relatively low levels in 2017. Compared to 2016, the overall indicator values remained the same: 7 %, 5 % and 5%, respectively, for inactivity measured in terms of number of vessels, GT and kW, respectively. There was a noticeable decrease in the number of inactive vessels from the VL1012 segment (from 17 to 9) and the VL1824 segment (from 13 to 8). This was accompanied by an increase in the number of inactive vessels of up to 10 m in length (from 30 to 35). All these changes, however, were not significant enough in relation to the total number of fishing vessels to substantially affect the inactive fleet indicator. None of the segments under review reported an inactive vessel indicator of more than 10 % of the target level expected under normal conditions in relevant methodology.

Table 6. Statistics on fleet activity in 2015-2017

Year	DCF length	active			inactive			inactive/total		
		number	GT	kW	number	GT	kW	number	GT	kW
2015	VL0010	500	1 469	13 719	33	84	619	6 %	5 %	4 %
	VL1012	103	1 109	6 902	21	158	1 112	17 %	12 %	14 %
	VL1218	99	2 752	11 843	11	243	1 314	10 %	8 %	10 %
	VL1824	55	3 161	12 516	1	51	227	2 %	2 %	2 %
	VL2440	44	6 885	17 149	2	403	805	4 %	6 %	4 %
	VL40XX	1	468	740				0 %	0 %	0 %
2015 Total		802	15 844	62 869	68	939	4 078	8 %	6 %	6 %
2016	VL0010	501	1 458	13 689	30	79	512	6 %	5 %	4 %
	VL1012	112	1 194	7 438	17	129	861	13 %	10 %	10 %
	VL1218	97	2 748	11 728	13	266	1 410	12 %	9 %	11 %
	VL1824	53	3 071	12 167	2	180	455	4 %	6 %	4 %
	VL2440	45	7 113	17 569	1	259	385	2 %	4 %	2 %
	VL40XX	1	468	740				0 %	0 %	0 %
2016 Total		809	16 052	63 331	63	913	3 623	7 %	5 %	5 %
2017	VL0010	496	1 464	13 730	35	78	450	7 %	5 %	3 %
	VL1012	113	1 152	7 171	9	80	558	7 %	6 %	7 %
	VL1218	75	2 034	8 766	8	177	965	10 %	8 %	10 %
	VL1824	53	3 071	12 101	3	257	723	5 %	8 %	6 %
	VL2440	45	7 113	17 569	1	259	385	2 %	4 %	2 %
	VL40XX	1	468	740				0 %	0 %	0 %
2017 Total		783	15 302	60 076	56	851	3 081	7 %	5 %	5 %

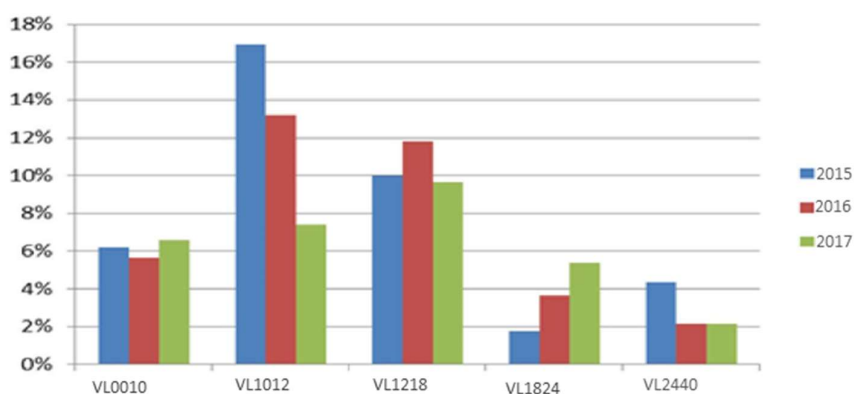


Figure 3. Relative share of inactive vessels by vessel length group

Economic indicators for 2014-2016

1. Return on investment (ROI) vs next best alternative

The *return on investment indicator* is used to measure the profitability of economic activity with a view to determining the return on assets employed in that business. It indicates how profitable an

undertaking is relative to its total fixed assets. **If the indicator value is greater than 0, it means that the assets employed generate income.** In such a case, the indicator value is established in relation to the opportunity cost. **If the ROI indicator is below 0, it means that the activity is not profitable. If this trend is permanent, the economic operator should reallocate the capital employed in fixed assets elsewhere.** Differences in indicator values for individual segments of fishing vessels in the period under review indicate which group of vessels (vessel segment) utilises the assets employed in the activity concerned in a most efficient manner. However, the segment profitability also depends on whether a particular vessel is assigned to one segment only (whereas the typical feature of the Polish fishing sector is its reliance on a variety of fishing gear for catches during the year).

In accordance with the applicable methodology, direct subsidies were excluded from the calculation. Table 7 shows the ROI values and the data used for calculation.

Table 7. Return on investment for Polish Baltic fleet segments in 2016 (EUR thousand)

No	Specification	VL0010 PG	VL1012 PG	VL1218 DFN	VL1218 DTS	VL1824 DTS	VL1824 TM	VL2440 TM	Total/On average
1.	Total revenue, of which:	8 488	3 332	1 491	7 976	4 649	5 829	20 443	52 208
	income from landings	8 194	3 237	1 463	7 844	4 618	5 768	20 272	51 398
	other income	42	13	1	91	0	9	5	160
	subsidies	253	82	26	41	31	52	165	650
2.	Total costs, of which:	6 783	3 455	1 523	5 882	4 351	2 823	15 014	39 832
	crew wage	1 974	1 192	490	1 495	711	687	3 374	9 923
	unpaid labour	2 464	676	248	460	191	229	394	4 663
	energy consumption	617	438	188	1 509	840	628	3 469	7 688
	repair and maintenance	285	184	107	534	473	298	1 703	3 583
	other variable costs	776	437	254	584	395	334	1 714	4 494
	non-variable (fixed) costs	465	410	173	643	350	451	2 071	4 564
	depreciation	203	118	62	658	1 391	196	2 289	4 917
3.	Profit/loss (break-even revenue – total costs)	1 452	-205	-59	2 053	266	2 954	5 263	11 725
4.	Fixed assets (value)	23 369	14 329	7 019	15 712	10 987	11 371	41 755	124 542
5.	ROI (profit/fixed assets)	6.21 %	-1.43 %	-0.83 %	13.07 %	2.42 %	25.98 %	12.60 %	9.41 %

Terms and definitions:

Income from landings – estimated based on data from first-sale documents. In the absence of such documents – this applies to sales of vessels of less than 8 m in length and cases where certain data relating to vessels of above 8 m are incomplete – the value of fish sales was calculated based on annual average prices of individual fish species by vessels which submitted first-sale documents, and on data relating to the value of the catches made by the total fleet.

Other income – additional income from accompanying activities such as tourist or occasional activities.

Subsidies – mostly include public aid granted to fishing vessel shipowners under the OP FISH 2007-2013, mainly in the form of compensation payments for temporary suspension of fishing activities and subsidies for vessel modernisation.

Crew wages – include gross wages plus overheads and the estimated value of unpaid labour (e.g. of the owners and their families).

Energy consumption – covers the fuel and lubricants used by a vessel.

Repair and maintenance – technical support services for fishing vessels and equipment. Mostly provided as external services (e.g. bookkeeping). This includes costs incurred by shipowners to purchase materials and services for ongoing vessel repairs and renovations. These data are determined based on the RRW-19

statistical form.

Other variable costs – include the expenditure on fishing gear, ice, fish boxes, protective clothing, other materials, crew catering services, port and landing fees.

Non-variable costs – not related to catches, incurred in respect of applicable fees, property insurance, protection measures, external services (except for renovations), financial costs, other costs, etc.

Depreciation – the annual depreciation value calculated on the basis of accounting books, declared by economic operators in RRW-19 forms.

Cost of capital – the depreciation rate and the opportunity cost of invested capital were calculated based on interest rates for 10-year government bonds minus inflation.

Value of fixed assets – specified separately for each fishing vessel on the basis of a compensation rate obtainable by the shipowner in the event of withdrawal of a vessel with public aid.

Profit or loss – calculated on the basis of the above data as the difference between income from landings plus other income and total costs; does not include subsidies.

ROI – measures the profit or loss relative to the value of fixed assets.

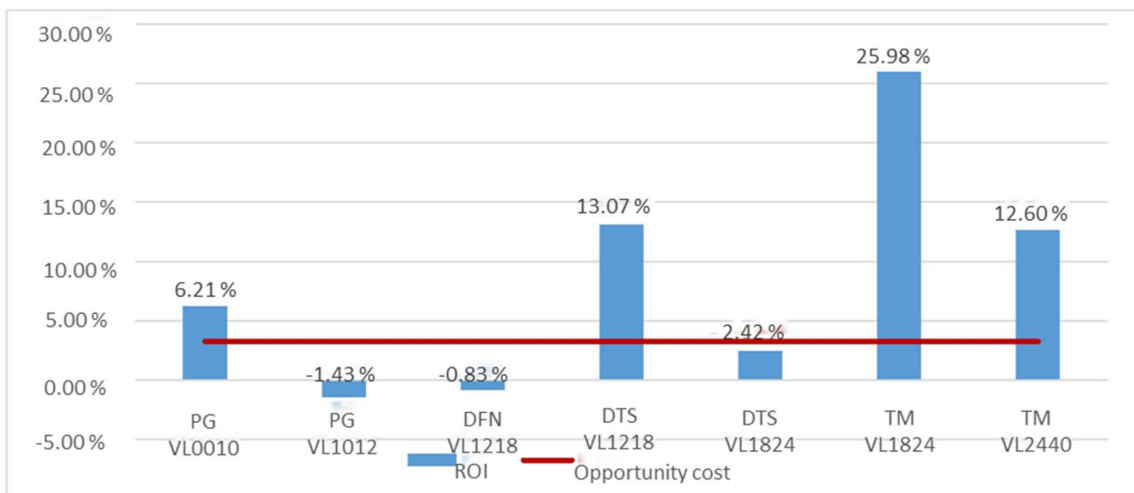


Figure 4. Return on investment for Polish Baltic fleet segments in 2016 (EUR thousand)

Interpretation of ROI indicator values.

In 2016, the entire fishing sector reached a stable level in terms of investment attractiveness (9,41% on average, relative to 9.36% in 2015 and 4.49% in 2014). This means that the sector results remain above next best alternative for Poland: 3.25 % in 2016. These positive developments are mostly due to increased income from landings (by 5 %) and reduced own costs (by 2 %). Although this translated into higher profits (by 33%), the profit increase was offset by increased value of fixed assets (by 32%). Therefore, the profit increase was not accompanied by a corresponding increase in ROI. However, declared other income (representing only 19 % of the previous year's figures) and subsidies (10 % of the previous year's figures) declined dramatically.

The improved performance in 2016 in terms of costs was mainly due to a 15 % reduction in energy costs (fuel) and a decrease of similar value in repair and renovation costs. ROI indicator values varied across fishing segments. The first group consisted of profitable vessels. In 2016, as in previous years, the most profitable segment was VL1824 TM (pelagic catches by vessels of 18-24 m in length). ROI stood at 26 %, a result similar to that in the previous period (26.9 % in 2015 and 14 % in 2014). The achieved indicator value is nearly eight times the next best interest rate for the reference year. The VL2440 TM segment, consisting of the largest vessels, showed a positive trend

until 2015, achieving a result similar to that in 2015, i.e. 12.6 % (13 % in 2015 and 6.4 % in 2014). The positive performance trend for these segments is due to highly profitable pelagic catches and favourable price trends for this species in 2016.

A similar ROI indicator trend was observed for the VL1218 DTS segment (bottom trawlers) – known for its consistently good economic performance. However, the return on investment indicator for this segment was lower than last year. In 2016, ROI was 13.1%, compared to 20.4% in 2015 (8.02% in 2014). This was largely due to lower income from landings (by nearly 12 %) in the segment as a result of reduced cod landings.

The second segment of bottom trawlers (VL1824 DTS) also achieved a positive ROI indicator value of 2.4 % compared to 16.41 % in 2015 and 10.84 % in 2014. This declining trend was caused by significant reductions in landing value (of 25 %) and high costs. The result obtained is positive, but below the next best alternative

The bottom trawler segments under review showed a positive ROI trend in the reference period. It should be taken into account that both these vessel groups fishing with bottom trawls comprise units with highly diversified catches, as reflected in the species structure of their landings which shows an increasing share of pelagic fish. Due to lower profits from catches, deteriorating biological condition of these fish and resulting price decreases, this group of vessels, belonging to VL1218 DTS and VL1824 DTS segments (where fishing activities are – by their very nature – limited to cod catches), are likely to be less economically viable in the future.

For the first time in the reference period the segment comprising smallest vessels fishing with passive gear recorded a profit. In 2016, ROI for this sector was 6.2 % due to favourable price trends (recording a revenue increase of 21 %) and cost reductions (by 12 %). This trend, however, is not likely to continue into 2017 due to significant decreases in landings by this segment.

The last group comprises segments which recorded losses. In 2016, the following two segments posted operating losses: vessels fishing with passive gear (VL1012 PG) and fishing boats using nets (VL1218 DFN). Investment losses incurred by the DFN (cod) segment in 2016 were lower than in the previous year: -0.83 % compared to -1.32 % in 2015. 2016 saw a 25 % increase in income from landings, accompanied by a lower rate of cost increase (by 11 %). The segment revealed a positive trend towards loss reduction in the reference period.

The VL1012 PG segment recorded higher losses than the VL1218 DFN. Despite such positive developments (compared to the previous year) as maintaining the level of income from landings and achieving a 18 % reduction in costs – the segment failed to obtain a positive result, achieving a return of investment of only -1.4 % This marks an improvement on the previous year (-6.4 in 2015 and -3.0 in 2014). Both these underperforming segments failed to reach the level of profitability even with subsidies included.

Long-term ROI indicator trends are shown in Figure 5.

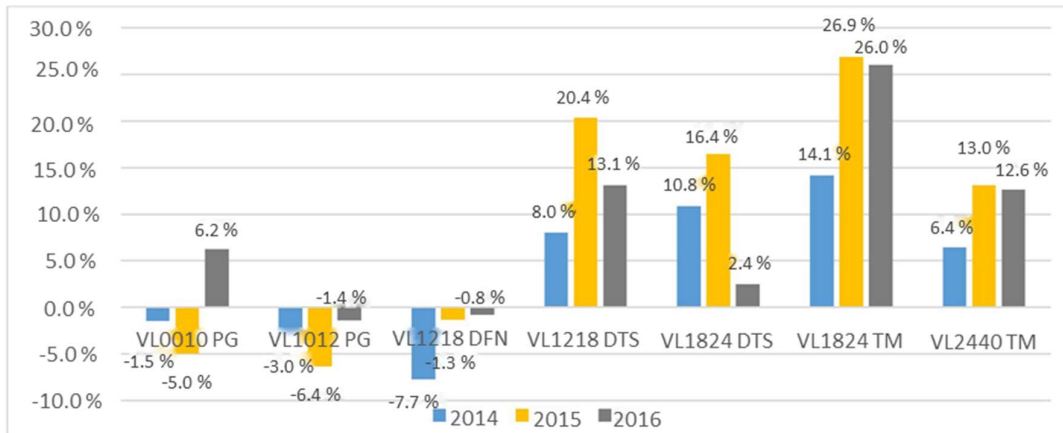


Figure 5. Long-term ROI indicator trends in 2014-2016

2. Ratio between current revenue and break-even revenue (CR/BER)

The CR/BER ratio between a current revenue and break-even revenue shows how close the current revenue of a fleet is to the revenue required for the fleet to break even in the short term. The break-even revenue (BER) is the revenue required to cover total costs, where CR is the total operating income of the fleet segment. The CR/BER ratio shows how close the current revenue of a fleet is to the revenue required for the fleet to break even in the short term. If the ratio is greater than 1, then enough income is generated to cover variable and fixed costs, indicating that the segment is profitable. Conversely, if the ratio is less than 1, insufficient income is generated by a fleet/segment to cover the costs. If the CR/BER result is negative, this means that the core activity is highly unprofitable and insufficient income is generated to cover fixed costs (variable costs alone exceed current revenue).

The calculation methodology for the indicator values is applied on a short-term basis only, thus the opportunity cost of capital is omitted from the calculation.

Table 8 presents CR/BER calculations for each vessel segment engaged in fishing activities in 2016.

Table 8. Calculation of the CR/BER ratio (current revenue to break-even revenue) in 2016 (EUR thousand)

No	Specification	VL0010 PG	VL1012 PG	VL1218 DFN	VL1218 DTS	VL1824 DTS	VL1824 TM	VL2440 TM	Total
1	Current revenue (CR), of which:	8 488	3 332	1 491	7 976	4 649	5 829	20 443	52 208
	income from landings	8 194	3 237	1 463	7 844	4 618	5 768	20 272	51 398
	other income	42	13	1	91	0	9	5	160
	subsidies	253	82	26	41	31	52	165	650
2	Variable costs, of which:	6 116	2 927	1 287	4 581	2 611	2 176	10 654	30 352
	crew wages (including unpaid labour)	4 438	1 868	738	1 955	902	916	3 768	14 586
	energy consumption	617	438	188	1 509	840	628	3 469	7 688
	repair and maintenance	285	184	107	534	473	298	1 703	3 583
	other variable costs	776	437	254	584	395	334	1 714	4 494

3	Fixed costs, of which:	668	528	236	1 301	1 740	647	4 360	9 481
	non-variable costs	465	410	173	643	350	451	2 071	4 564
	depreciation	203	118	62	658	1 391	196	2 289	4 917
	opportunity cost (not included)*	759	466	228	511	357	370	1 357	4 048
4	Break-even revenue (without subsidies) (BER)	2 594	5 314	1 949	3 078	4 005	1 038	9 187	23 050
5	CR/BER	3.18	0.61	0.75	2.58	1.15	5.56	2.21	2.24

Terms and definitions:

Fixed costs – the costs calculated independently of the volume of catches, associated with the operation of fishing enterprises.

Variable costs – the costs determined based on the level (effects) of catches or fishing effort per economic operator.

Other fixed costs – the costs not directly associated with the volume of catches taken by a fishing vessel (including port fees, external services, insurance, financial and other costs).

Opportunity cost – should only be included in long-term assessments. It is a cost incurred by selecting one alternative over the next best available alternative.

CR – current revenue.

BER (break-even revenue) – the revenue required to cover both fixed and variable costs so that no losses are incurred and no profits are generated (0).

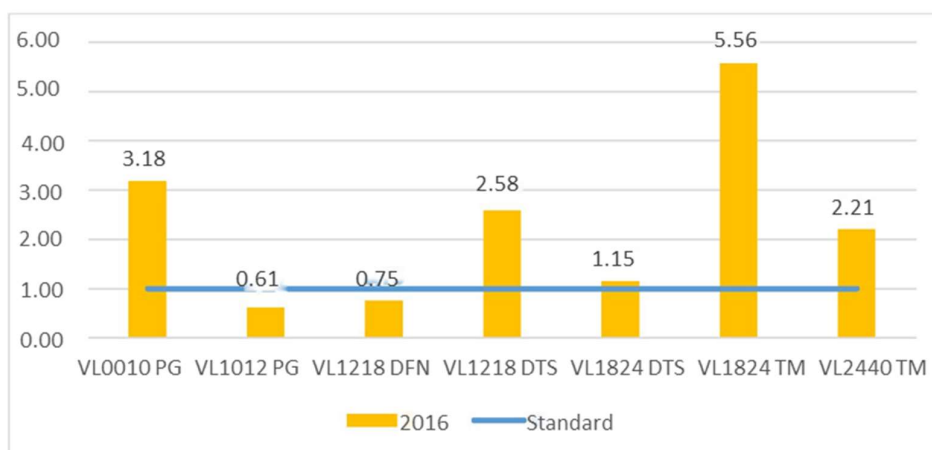


Figure 6. CR/BER values by fleet segment in 2016 (public subsidies are not included).

Interpretation of CR/BER indicator values

CR/BER is calculated to give a view of the financial viability of a segment and assess the ratio between operating revenues and costs as recognised in terms of their degree of variability. The calculated value of break even point is compared against the revenue obtained. The segments which demonstrate that their revenue is at least sufficient to achieve the break even point (1 in terms of value) will be assessed positively.

A long-term declining trend in BER is indicative of the improved ratio between these key economic parameters (revenue/variable costs/fixed costs) and the increased profit-making potential of the segment. In 2016, the Baltic fleet recorded on average a 5% increase in income from landings compared to the previous year. This was accompanied by a 5 % decline in variable costs and a 7 %

increase in fixed costs, contributing to improved overall performance. In 2016, BER fell, on average, by 7 % compared to the previous year, which is a positive phenomenon. However, these trends varied across fleet segments. A significant decline in other fishing income is also worth noting, mostly in respect of tourist and fishermen services (0.3 % of landing value compared to 2 % in 2015). In 2016, all segments under review recorded a significant decline in other income.

All the segments under review generated enough income to cover their variable costs and achieved positive gross profit margins in 2016. An analysis of break even revenue showed that three segments were assessed as being below their BER target levels or having achieved (as in the case of the VL0010 PG segment) these levels, indicating an increase in revenue, gross margins and/or a decrease in fixed costs. These segments are: VL0010 PG, VL1218 DFN, VL2440 TM. For the remaining segments, the BER values increased or remained at a similar level (VL1012 PG).

Generally, the CR/BER indicator assessments showed varying trends. There were segments which, though considered profitable, continued their upward trend and the unprofitable segments which showed a downward trend.

The first group is made up of profitable segments with a CR/BER indicator value of above 1. The group comprises the following four segments: VL0010 PG, VL1218 DTS, VL1824 DTS, VL1824 TM, VL2440 TM. The most favourable ratio was achieved by the VL1824 TM segment (considered most profitable in 2016). The segment benefited from favourable price trends for pelagic fish. The segment reported a revenue at a level significantly higher than the break even point (5.56). The second most financially viable was the segment of vessels of up to 10 m in length (with an indicator value of 3.18), followed by the segment comprising bottom trawlers of 12-18 m in length (2.58). It should be noted that such a high ratio between current revenue and break-even revenue for these two groups of vessels was caused by the same factors which contributed to maintaining the high profitability of the VL1824 TM segment, i.e. high profitability of pelagic catches. An increasing trend towards targeting sprat and herring could lead to a concentration of vessels from these two segments in the pelagic segment and, consequently, (given the limited size of catch quotas) to deterioration in the performance of the latter.

The segments which, despite being considered unprofitable, recorded positive CR/BER values are: VL1012 PG (0.61) and VL1218 DFN (0.75). Both of these segments reported an improvement in their revenue and cost structure with the fastest growing CR/BER indicator.

Long-term CR/BER indicator trends are shown in Figure 7.

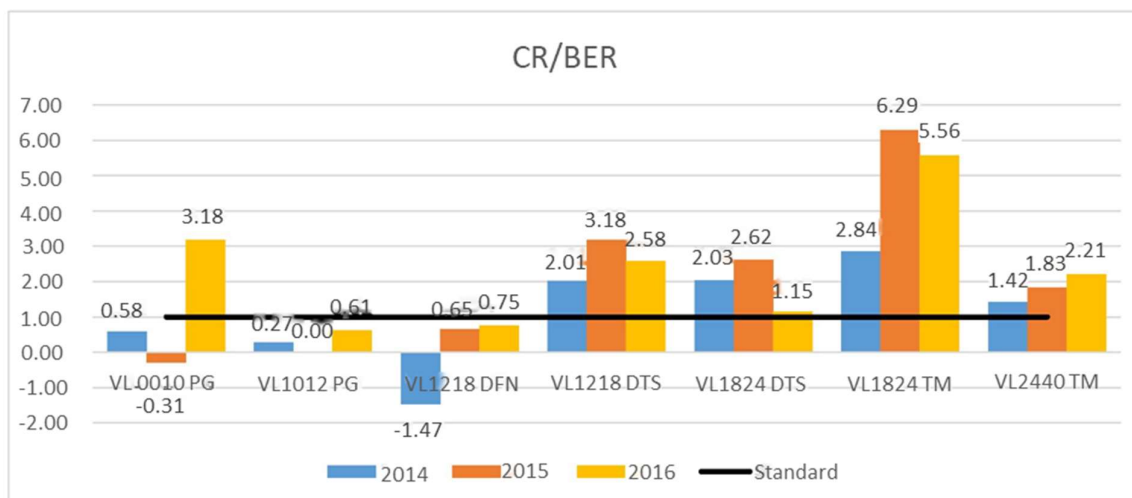


Figure 7. CR/BER indicator values by fleet segment in 2014-2016

IX. Analysis and evaluation of the balance between fishing capacity and fishing opportunities by fleet segment for three consecutive years

Table 9. Summary table of indicators by Polish fleet segment for three consecutive years (for 2014-2016 or 2015-2017, respectively)

Segment	Number of fishing vessels	Sustainable harvest indicator (SHI)	Stocks at risk indicator (SAR)	CR/BER	ROI	Vessel utilisation indicator	
						kW days	GT days
VL0010 PG	509 in 2017	1.40 in 2017	1 in 2017	3.18 in 2016	6.21 % in 2016	35 % in 2017	33 % in 2017
	513 in 2016	1.37 in 2016	1 in 2016	-0.31 in 2015	-4.98 % in 2015	40 % in 2016	39 % in 2016
	516 in 2015	1.18 in 2015	1 in 2015	0.58 in 2014	-1.50 % in 2014	40 % in 2015	38 % in 2015
VL1012 PG	114 in 2017	1.70 in 2017	2 in 2017	0.61 in 2016	-1.43 % in 2016	42 % in 2017	42 % in 2017
	106 in 2016	1.71 in 2016	1 in 2016	0.00 in 2015	-6.38 % in 2015	49 % in 2016	50 % in 2016
	103 in 2015	1.59 in 2015	2 in 2015	0.27 in 2014	-2.96 % in 2014	42 % in 2015	43 % in 2015
VL1218 DFN	22 in 2017	1.65 in 2017	1 in 2017	0.75 in 2016	-0.83 % in 2016	45 % in 2017	47 % in 2017
	27 in 2016	1.81 in 2016	0 in 2016	0.65 in 2015	-1.32 % in 2015	50 % in 2016	54 % in 2016
	23 in 2015	1.82 in 2015	1 in 2015	-1.47 in 2014	-7.73 % in 2014	49 % in 2015	49 % in 2015
VL1218 DTS	49 in 2017	1.58 in 2017	1 in 2017	2.58 in 2016	13.07 % in 2016	54 % in 2017	54 % in 2017
	67 in 2016	1.49 in 2016	2 in 2016	3.18 in 2015	20.36 % in 2015	57 % in 2016	58 % in 2016
	69 in 2015	1.58 in 2015	1 in 2015	2.01 in 2014	8.02 % in 2014	58 % in 2015	59 % in 2015
VL1824 DTS	23 in 2017	1.41 in 2017	1 in 2017	1.15 in 2016	2.42 % in 2016	60 % in 2017	63 % in 2017
	28 in 2016	1.31 in 2016	1 in 2016	2.62 in 2015	16.41 % in 2015	56 % in 2016	59 % in 2016
	38 in 2015	1.46 in 2015	1 in 2015	2.01 in 2014	10.84 % in 2014	54 % in 2015	55 % in 2015
VL1824	31 in 2017	1.19 in 2017	0 in 2017	5.56 in 2016	25.98 % in 2016	52 % in 2017	57 % in 2017

TM	27	in 2016	1.15	in 2016	0	in 2016	6.29	in 2015	26.85 %	in 2015	49 %	in 2016	53 %	in 2015
	20	in 2015	1.35	in 2015	0	in 2015	2.84	in 2014	14.13 %	in 2014	59 %	in 2015	62 %	in 2014
VL2440 TM	44	in 2017	1.15	in 2017	1	in 2017	2.21	in 2016	12.60 %	in 2016	70 %	in 2017	70 %	in 2017
	44	in 2016	1.11	in 2016	1	in 2016	1.83	in 2015	13.05 %	in 2015	64 %	in 2016	65 %	in 2016
	41	in 2015	1.31	in 2015	1	in 2015	1.42	in 2014	6.43 %	in 2014	66 %	in 2015	67 %	in 2015

1. Results for the VL0010 PG segment (vessels of up to 10 m in overall length, fishing with nets and other passive gear):

- ❖ biological indicators (2017):
 - ✓ the sustainable harvest indicator was 1.40,
 - ✓ the stocks at risk indicator was 1;
- ❖ technical indicators (2017):
 - ✓ the vessel utilisation indicator was 35 % of kW days and 33 % of GT days,
 - ✓ the inactive fleet indicator was 7 % of the total number of the fishing vessels in the segment, which means that 5 % GT and 3 % kW of these vessels were under-utilised;
- ❖ economic indicators (2016):
 - ✓ the return on investment (ROI) indicator was 6.21 %,
 - ✓ the ratio between current revenue and break-even revenue (CR/BER) was 3.18.

Given the values of these biological indicators, it can be concluded that the *sustainable harvest indicator* has been annually increasing, exceeding the limit value in 2017 (1.37 in 2016 and 1.18 in 2015), which is indicative of the segment's dependence on overfished stocks. In addition to this, the fishing mortality rates for the segment were assessed as being above target levels (the *stocks at risk indicator* was 1 in 2014, 2015 and 2016). Therefore, it should be noted that **the fishing capacity of the VL0010 DTS segment is not in balance with its available fishing opportunities.**

The trend towards maintaining the vessel utilisation rate at low levels (the lowest in the fleet) is typical for this segment. In 2015, the vessel capacity utilisation indicator was 40 % of kW days and 38 % of GT days; in 2016 – 40 % and 39 %, respectively, and in 2017 – 35 % and 33 %.

For the first time in the period under review, the segment reported a positive financial result (6.21 % ROI), compared to -4.98 % ROI in 2015. However, it should be noted that the factors behind these developments are periodic and incidental (triggered by such external events as reductions in fuel prices and increases in fish prices) rather than systemic in nature. Therefore, the segment is expected to revert to the previous unprofitable levels in subsequent periods. In 2017, the value of the catches for this segment decreased by 15 %. The fishing results are likely to significantly deteriorate in 2018 due to very low landings for the first quarter (only 10 % of the volume of landings that were reported for the corresponding period in 2017), which is due, among other factors, to longer periods of ice cover over the lagoons.

Despite achieving positive financial results (which should be regarded as incidental and unlikely to occur in 2017 and 2018, taking into account the available catch data), the VL0010 PG segment **is not in balance with its fishing opportunities due to biological parameters and low fleet capacity utilisation.**

2. Results for the VL1012 PG segment (vessels of 10 m to 12 m in overall length, fishing with nets and other passive gear):

- ❖ biological indicators (2017):
 - ✓ the sustainable harvest indicator was 1.70;
 - ✓ the stocks at risk indicator was 2;
- ❖ technical indicators (2017):
 - ✓ the vessel utilisation indicator was 42 % of kW days and 42 % of GT days,
 - ✓ the inactive fleet indicator was 7 % of the total number of fishing vessels, which means that 6 % GT and 7 % kW of vessels per length group were under-utilised;
- ❖ economic indicators (2016):
 - ✓ the return on investment (ROI) indicator was -1.43 %,
 - ✓ the ratio between current revenue and break-even revenue (CR/BER) was 0.61.

Given these indicator values and the fleet segment's reliance on overfished stocks (*the sustainable harvest indicator* was significantly above 1 in 2015-2017), and taking into account that the stocks at risk indicator value in 2014-2016 remained at 1 and reached an alarmingly high level of 2 in 2017, in view of the noticeable indicator trends towards permanent levels of non-profitability (ROI values: -1.43 in 2016, -6.38 in 2015, -2.96 % in 2014), and the low levels of the CR/BER indicator (0.61 in 2016, 0.00 in 2015 and 0.27 in 2014), it is clear that the fleet segment under review failed to reach its target biological and economic indicators in 2013-2015, with a negative effect on the status of its stocks.

In 2017, the vessel length group under review showed a high share of inactive vessels in total Polish fleet, despite the fact that the inactivity level decreased twice compared to 2016 (in 2016, the share of inactive vessels was 13 % of the total number of fishing vessels of that fleet segment, which means that 10 % GT and 10 % kW of vessels by length class were not utilised), resulting in 6 % GT and 7 % kW being under-utilised.

It can be concluded that the **VL1012 PG segment is clearly not in balance with available fishing opportunities and is not economically viable.**

3. Results for the VL1218 DFN segment (vessels of 12 m to 18 m in overall length, fishing with nets):

- ❖ biological indicators (2017):
 - ✓ the sustainable harvest indicator was 1.65,
 - ✓ the stocks at risk indicator was 1;
- ❖ technical indicators (2017):
 - ✓ the vessel utilisation indicator was 45 % of kW days and 47 % of GT days,
 - ✓ the inactive fleet indicator was 10 % of the total number of fishing vessels by length group, which means that 8 % GT and 10 % kW of vessels per length group were under-utilised,
- ❖ economic indicators (2016):
 - ✓ the return on investment (ROI) indicator was -0.83 %,
 - ✓ the ratio between current revenue and break-even revenue (CR/BER) was 0.75.

The fleet segment under review continued its trend of relying on overfished stocks (*the sustainable harvest indicator* was significantly above 1 in 2014-2016). The *stocks at risk indicator* showed a deteriorating trend in 2016 and 2017, decreasing to 1 again.

The ROI indicator had improved over time (-0.83 % in 2016, -1.32 % in 2015, -7.73 % in 2014), however the segment still failed to make profit. This was accompanied by an increase in CR/BER

values (0.75 in 2016, 0.65 in 2015, -1.47 in 2014), translating into improved revenue and cost ratio, especially in terms of variable cost coverage.

As in the case of the VL1012 PG segment, failure by the VL1218 DFN segment to achieve satisfactory results in terms of both economic and biological indicators in 2014-2017 indicates that its fleet capacity is not in balance with available fishing opportunities.

It must be concluded that the **segment VL1218 DFN is not in balance with available fishing opportunities, as evidenced by poor performance of its biological and economic indicators.**

4. Results for the VL1218 DTS segment (bottom trawlers of 12 m to 18 m in overall length):

- ❖ biological indicators (2017):
 - ✓ the sustainable harvest indicator was 1.58,
 - ✓ the stocks at risk indicator was 2;
- ❖ technical indicators (2017):
 - ✓ the vessel utilisation indicator was 54 % of kW days and 54 % of GT days,
 - ✓ the inactive fleet indicator was 10 % of the total number of fishing vessels by length group, which means that 8 % GT and 10 % kW of vessels per length group were under-utilised,
- ❖ economic indicators (2016):
 - ✓ the return on investment (ROI) indicator was 13.07 %,
 - ✓ the ratio between current revenue and break-even revenue (CR/BER) was 2.58.

The analysis of the segment's biological indicators reveals a high level of *sustainable harvest indicator*. 2017 saw a further increase in the indicator value and a continuing trend of clear imbalance with fishing opportunities. However, the VL1218 DTS segment continues to rely on overfished stocks, which are exploited above target F_{msy} levels (in 2015-2017, the sustainable harvest indicator was above 1). The *stocks at risk indicator* for the VL1218 DTS segment in 2014-2016 was 2.

The segment has been assessed as being economically viable. The ROI indicator value fluctuated in the reference period, amounting to 13.07 % in 2016 (compared to 20.36 % in 2015 and 8.02 % in 2014). The financial viability of the sector is further demonstrated by its CR/BER indicator values which show that enough income is generated to cover the costs involved. In 2016, the segment revenue was three times the break even point.

Therefore, it should be noted that **the fishing capacity of the VL1218 DTS segment is not in balance with the resources it exploits, despite the positive financial results achieved by that fleet segment, which are indicative of economic viability. Over recent years, the segment has shifted its focus from bottom fish (mainly cod) to pelagic fish, which – due to their high catches and prices – may have a determining effect on the overall positive performance of the entire vessel group. Some vessels within the segment which are mainly dependent on cod catches may achieve significantly lower levels of economic performance.**

5. Results for the VL1824 DTS segment (bottom trawlers with an overall length of 18 m to 24 m):

- ❖ biological indicators (2017):
 - ✓ the sustainable harvest indicator was 1.41,
 - ✓ the stocks at risk indicator was 1;
- ❖ technical indicators (2017):
 - ✓ the vessel utilisation indicator was 60 % of kW days and 63 % of GT days,
 - ✓ the inactive fleet indicator was 5 % of the total number of fishing vessels by length group,

which means that 8 % GT and 6 % kW of vessels per length group were under-utilised;

❖ economic indicators (2016):

- ✓ the return on investment (ROI) indicator was 2.42 %,
- ✓ the ratio between current revenue and break-even revenue (CR/BER) was 1.15.

As is the case for the DTS VL1218 segment, the *stocks at risk indicator* value for the VL1824 DTS segment during the years considered is 1 due to *Condition 2* having been met. This segment is also highly dependent on overfished stocks, which are exploited above target F_{msy} levels (in 2015-2017, the *sustainable harvest indicator* was above 1). 2017 saw a 0.1 decrease in the indicator value and a continuing trend towards higher imbalance with fishing opportunities.

Despite being assessed as profitable in previous years, the segment's investment profitability rate decreased significantly from 16.41 % in 2015 to 2.42 % in 2016, which was mainly due to lower cod and sprat catches. The operational efficiency of the fleet segment is demonstrated by its fluctuating ROI values (2.42 % in 2016, 16.41 % in 2015 and 10.84 % in 2014) and constitutively high profitability levels.

It can be concluded that the fishing capacity of the VL1824 DTS segment is not in balance with available fishing opportunities, but only to a small extent, with its financial results being clearly indicative of relatively stable economic performance. This segment, like the VL 1218 DTS segment, has shifted its focus from bottom fish (mainly cod) to pelagic fish over recent years, which – due to their high catches and prices – may have a determining effect on the overall positive performance of the entire vessel group. Some vessels within the segment which are mainly dependent on cod catches may achieve significantly lower levels of economic performance. **Regardless of the segment's operating efficiency observed throughout the entire period under review, biological indicator assessments for the segment clearly indicate its permanent imbalance with fishing opportunities and dependence on overfished stocks.**

6. VL1824 TM segment performance (pelagic trawlers of 18 m to 24 m in overall length):

❖ biological indicators (2017):

- ✓ the sustainable harvest indicator was 1.19,
- ✓ the stocks at risk indicator was 0;

❖ technical indicators (2017):

- ✓ the vessel utilisation indicator was 52 % of kW days and 57 % of GT days,
- ✓ the inactive fleet indicator was 5 % of the total number of fishing vessels by length group, which means that 8 % GT and 6 % kW of vessels per length group were under-utilised;

❖ economic indicators (2016):

- ✓ the return on investment (ROI) indicator was 25.98 %,
- ✓ the ratio between current revenue and break-even revenue (CR/BER) was 5.56.

The analysis of relevant biological indicators shows that the segment under review is one of the two fleet segments with lowest levels of *sustainable harvest indicator* values (1.19 in 2017). Despite this fact, the sustainable harvest indicator for the segment did not fall below 1 in any reference period. Therefore, it can be concluded that the segment depends on overfished stocks, which are exploited above target F_{msy} levels. On the other hand, the *stocks at risk indicator* was within safe limits, amounting to 0 in 2015-2017.

Particularly noteworthy is the VL1824 TM segment's performance in terms of economic indicators, the highest in the fishing fleet. The 2016 ROI for this segment was 25.98 %, which is a similar value to that reported in the previous year and a 14.13 % increase compared to 2014, due to favourable exploitation conditions for pelagic stocks. Likewise, the segment reported the highest CR/BER indicator value in the fishing fleet, with the level of revenue at more than five times (5.56)

the break even point.

A small number of fishing vessels in this segment (in 2017 – 31 units, 2016 – 27 and 20 in 2015) indicates that stocks in the segment are fished within relatively sustainable levels. Therefore, it should be noted that the fishing capacity of the VL1824 TM segment, despite these deviations from target SHI indicator values, is in balance with available fishing opportunities. However, this may be subject to change, depending on future trends in sustainable harvest indicator values.

7. VL2440 TM segment performance (pelagic trawlers of 24 m to 40 m in overall length):

- ❖ biological indicators (2017):
 - ✓ the sustainable harvest indicator was 1.15,
 - ✓ the stocks at risk indicator was 1;
- ❖ technical indicators (2017):
 - ✓ the vessel utilisation indicator was 70 % of kW days and 70 % of GT days,
 - ✓ the inactive fleet indicator was 2 % of the total number of fishing vessels, which means that 4 % GT and 2 % kW of vessels by segment were under-utilised;
- ❖ economic indicators (2016):
 - ✓ the return on investment (ROI) indicator was 12.6 %,
 - ✓ the ratio between current revenue and break-even revenue (CR/BER) was 2.21.

As was the case for the previous segment, the VL 2440 TM segment reached a *sustainable harvest indicator* value of above 1 in the reference period. Despite this segment having exceeded the indicator value the most, it is highly dependent on overfished stocks, which – during the years considered – are exploited above target F_{msy} levels.

This unfavourable trend is also demonstrated by the stocks at risk indicator which reached 1 in 2015-2017 for all the years considered.

The sector achieved high and stable levels of economic indicators. The ROI indicator values in 2014-2016 fluctuated at: 6.43 % in 2014, 13.05 % in 2015 and 12.60 % in 2016. This demonstrates that the segment has positive mechanisms in place and is more attractive in investment terms than safe alternatives. As is the case for ROI indicator values, the CR/BER in 2016-2014 exceeded 1, which is indicative of good income and cost structure (2.21 in 2016, 1.83 in 2015 and 1.42 in 2014).

There were 44 fishing vessels operating within the segment in the period under review and their utilisation rate was highest in the fleet (70 % GT and KW days in 2017).

It can be concluded that the VL 2440 TM segment is not in balance with available fishing opportunities, as demonstrated by its biological indicators, despite being economically stable and having a high utilisation of technical fleet capacity.

Catches of fish species by segment

In 2017, the Polish Baltic fleet caught a total of 138.2 thousand tonnes, nearly 1% down on 2016. Pelagic fish had a dominant share in the species structure of these catches: 83 % of the total weight of all fish caught. In previous years, pelagic fish catches accounted for 75 % to 78 % of the volume of catches. Sprat catches represented nearly 52 % of the volume of catches (an increase of 8.5 pp compared to 2016), while the size of herring catches remained the same as in 2016: 31.4 % (vs 31.5 % in 2016 and 28.1 % in 2015). Among the fish species covered by the multi-annual management plan cod catches were of particular importance: they were caught by each fleet segment. The share of this fish species in total catch by the Polish fleet in 2017 declined to 5.4 % (from 7.5 % in 2016). The share of flounders in Polish Baltic fleet catches fell to 7.6 % (from 10.5 % in 2016).

As in previous years, vessels from the following length groups were involved in direct fishing of cods with bottom trawls: 12-18 m (VL1218 DTS) and 18-24 m (VL1824 DTS), vessels of 12-18 m

in length fishing with nets (VL1218 DFN) and vessels of 10-12 m in length fishing with passive gear (VL1012 PG). The cod catches in these segments accounted for, respectively, 22.4 %, 21.1 %, 45.3 % and 26.1 % of the total volume of catches. Compared to previous years, the vessels from these segments increased their reliance on cod catches (in 2016, cod catches accounted for 34 % of the total volume of catches by the VL1218 DFN segment). Smallest vessels (VL010 PG) were also highly dependent on fishing for cod and flounder. However, herring catches in the Vistula Lagoon during the spawning season affect the final outcome as reflected in the overall statistics. In this case, however, a year-by-year analysis of the situation shows a gradual increase in the volume of catches from other fish species (up to 43.6 %) and a lower proportion of cod catches: from 13.6 % in 2015 to 7.8 % in 2017.

The analysis also revealed that catches of pelagic fish are important for all vessels fishing with bottom trawls of more than 18 m in length. Sprat and herring were traditionally targeted by the largest vessels (VL1824 TM and VL2440 TM), accounting for, respectively, 92.4 % (90.5 % in the previous year) and 98.1 % (95 %) of the total volume of catches in 2017. In previous years, smaller vessels also reported cod catches (by-catches mostly), but for large vessels catches of other species were of minor importance. An increased demand for catches from herring stocks is also caused by vessels from the Vistula Lagoon which, from March to April every year, take advantage of the concentration of these fish in the lagoon.

Catches of salmon – another restricted species – were reported in marginal quantities, despite the increasing number of this species being caught in subsequent reference years. Vessels from the VL1218 DFN segment are, to a certain degree, specialised in fishing for this fish species. However, despite their relatively higher prices, the catches of these fish do not contribute meaningfully to improving the economic viability of the sector.

Flounder is not covered by the multi-annual management plan, but significantly contributes to the economic viability of the Polish Baltic fishing sector, especially for vessels fishing with static gears and bottom trawls. This is the main species caught by vessels from the VL1218 DTS segment (40.3 % of the volume of catches). Another segment for which a substantial share of flounder catches was reported is VL1012 PG. In 2017, flounder catches represented 45.9 % of the total volume of catches by that segment.

Table 10. Catches of main fish species by segment in 2014-2017

Segment	Year	Cod	Salmon*	Flounder	Sprat	Herring	Other
VL0010 PG	2014	1 138 831	1 453	1 116 339	2 915	3 191 141	3 123 492
	2015	922 137	1 535	1 012 827	580	3 880 657	2 964 968
	2016	713 727	1 542	1 254 448	1 360	3 236 691	3 238 547
	2017	517 444	1 472	954 689	435	2 266 027	2 894 619
VL0010 PG Total		3 292 139	6 002	4 338 303	5 290	12 574 516	12 221 626
VL1012 PG	2014	1 757 222	507	1 332 719	1 950	937 982	96 139
	2015	1 759 616	89	1 053 503	1 700	938 510	95 472
	2016	1 350 240	640	1 716 742	1 900	741 804	131 929
	2017	1 036 762	1 271	1 825 240		906 826	203 762
VL1012 PG Total		5 903 840	2 507	5 928 204	5 550	3 525 122	527 302
VL1218 DFN	2014	868 834	711	295 269	19 355	55 704	8 878
	2015	916 563	685	129 556	4 000	11 550	4 926
	2016	908 127	433	308 369	107 300	88 220	19 421
	2017	593 374	3 249	116 218	398 325	126 884	72 766
VL1218 DFN Total		3 286 898	5 078	849 412	528 980	282 358	105 991
VL1218 DTS	2014	4 420 367	23	7 388 085	2 395 638	1 079 673	2 683 750

	2015	5 034 250	372	5 503 484	2 858 101	1 389 688	3 545 513
	2016	3 236 862	1 244	6 232 501	2 327 893	1 706 556	4 118 727
	2017	2 394 862	324	4 311 985	1 769 680	1 180 972	1 056 509
VL1218 DTS Total		15 086 341	1 963	23 436 055	9 351 312	5 356 889	11 404 499
VL1824 DTS	2014	2 617 162		1 875 364	6 959 275	1 793 196	293 200
	2015	3 511 308	238	1 394 776	7 357 769	2 127 276	327 334
	2016	2 174 648	515	1 842 492	4 328 854	1 872 914	572 210
	2017	1 848 615	245	1 715 964	3 320 575	1 568 223	295 479
VL1824 DTS Total		10 151 733	998	6 828 596	21 966 473	7 361 609	1 488 223
VL1824 TM	2014	588 321		199 643	9 263 992	2 553 822	386 157
	2015	814 221		63 942	10 111 525	4 512 745	156
	2016	1 088 191		572 458	11 416 554	6 995 819	264 643
	2017	831 837	523	659 813	12 491 536	6 532 614	75 712
VL1824 TM Total		3 322 570	523	1 495 856	43 283 607	20 595 000	726 668
VL2440 TM	2014	479 367		359 790	39 776 257	18 668 264	1 585 474
	2015	701 482	46	191 199	43 638 547	25 159 285	3 588 348
	2016	623 196	72	1 932 001	42 397 660	29 018 761	1 211 677
	2017	269 504	39	980 855	53 899 093	30 854 216	416 012
VL2440 TM Total		2 073 549	157	3 463 845	179 711 557	103 700 526	6 801 511

X. Action Plan

Following the assessment of biological, technical and economic indicators relating to the Polish Baltic fleet, as presented in Chapter VIII, Section F: *Estimation and discussion of balance indicators*, and Chapter IX: *Analysis and evaluation of the balance between fishing capacity and fishing opportunities by fleet segment for three consecutive years*, it must be stated that some segments of the Polish fishing fleet are still not adjusted to available fishing opportunities. To remedy this, an action plan has been drawn up pursuant to Article 22(4) of Regulation (EU) No 1380/2013.

In order to ensure that the fishing capacity of the fleet is in balance with its fishing opportunities (resources), and taking into account the need to ensure that fishing activities are carried out in a sustainable and effective manner, appropriate steps must be taken to achieve this balance.

Accordingly, the fleet segments presented below have been covered by the programme for **temporary cessation of fishing activities** referred to in Article 33 of Regulation (EU) No 508/2014 to be financed under the **Operational Programme ‘Fisheries and the Sea’** (OP FISH 2014-2020) by the European Maritime and Fisheries Fund:

- **VL0010 PG** – vessels with an overall length of up to 10 m, fishing with nets and other passive gear,
- **VL1012 PG** – vessels with an overall length of 10 m to 12 m, fishing with nets and other passive gear,
- **VL1218 DFN** – vessels with an overall length of 12 m to 18 m, fishing with nets,
- **VL1218 DTS** – bottom trawlers with an overall length of 12 m to 18 m,
- **VL1824 DTS** – bottom trawlers with an overall length of 18 m to 24 m,

As stated in Chapter IX of this report, the fishing capacity of the **VL0010 PG** segment is not in balance with available fishing opportunities, as demonstrated by its dependence on overfished stocks

(*sustainable harvest indicator*) and the fact that its stocks are fished at levels in excess of target fishing mortality (*stocks at risk indicator*). The **VL1012 PG** segment is clearly not in balance with available fishing opportunities and is not economically viable, as demonstrated by a consistently negative trend in the segment's biological and economic indicator values for three consecutive years. The **VL1218 DFN** segment is not in balance with available fishing opportunities, as demonstrated by low levels of its both biological and economic indicators. The fishing capacity of the **VL1218 DTS** segment is not in balance with the resources it exploits, as demonstrated by negative trends in its *sustainable harvest and stocks at risk indicators* for three consecutive years. The fishing capacity of the **VL1824 DTS** segment is not in balance with its fishing opportunities, but only slightly so. The biological indicator assessments for the segment indicate its permanent imbalance with available fishing opportunities and dependence on overfished stocks.

In accordance with Regulation No 508/2014, aid for temporary cessation of fishing activities will concern: Polish fishing vessels which have carried out fishing activities in the Baltic Sea for at least 120 days during the last two calendar years preceding the date of submission of the application for support.

Support per fishing vessel will be granted in 2014-2020 for a maximum period of six months. If the above support for a specified period is granted, all fishing activities carried out by the fishing vessel or the fisherman will be effectively suspended.

The **VL2440 TM** segment (pelagic trawlers of 24 m to 40 m in overall length), which, despite its stable economic situation and high utilisation of available technical capacity, is not in balance with available fishing opportunities, as demonstrated by relevant biological indicator values, will not be covered by any programme for temporary cessation of fishing activities. It should be noted that fishing vessels of 24 m to 40 m in overall length are used to fish for pelagic stocks – mainly herring and sprat. Noteworthy is the fact that the Council of the European Union has increased catch quotas for sprat and herring over the last two calendar years, indicating that the condition of these stocks is satisfactory.

Therefore, taking into account that these fishing vessels are involved in direct fishing of pelagic fish, the cod quotas allocated to these fishing vessels have been limited under the national law on the allocation of general fishing quotas.

The cod quotas individually allocated in 2018 to vessels of 24 m to 25.49 m in overall length amounted to 17 708 kg.

However, fishing vessels of 25.50 m and above in overall length were allocated a fishing (Olympic) cod catch quota of 150 tonnes. Therefore, it must be assumed that these vessels do not fish for these stocks at biologically unsustainable levels.

Given the above, it is clear that the fishing vessels from the VL2440 TM segment, due to the economic situation of the segment and the state of fish stocks caught by these vessels, should not be covered by a corrective action such as temporary cessation of fishing activities.

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