



## JRC SCIENTIFIC AND POLICY REPORTS

# The 2013 Annual Economic Report on the EU Fishing Fleet (STECF 13-15)

Scientific, Technical and Economic  
Committee for Fisheries (STECF)

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## **SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF)**

# **THE 2013 ANNUAL ECONOMIC REPORT ON THE EU FISHING FLEET (STECF-13-15)**

**THIS REPORT WAS REVIEWED DURING THE PLENARY MEETING HELD IN COPENHAGEN 8-12 JULY 2013**

### **Request to the STECF**

STECF is requested to review the report of the STECF Expert Working Group meetings, evaluate the findings and make any appropriate comments and recommendations.

### **Background**

Following the 2013 DCF call for economic data on the EU fishing fleet, EWG 13-03 & 13-04 was requested to analyse the data and comment on the economic performance of the EU and Member State fishing fleets between 2008 and 2013.

## **STECF OBSERVATIONS**

STECF notes that some Member States did not provide all the data requested under the 2013 fleet economic data call issued by DG MARE. Furthermore, the quality (questionable accuracy) of some Member States data submissions remains a concern. Missing and questionable data compromises the ability of the STECF EWG to produce comprehensive and accurate analyses of fleet economic performance at the national, regional and EU level, and to undertake the additional analyses requested.

At the requests of DG MARE, the 2013 AER contains more qualitative information and analysis on drivers and trends in fleet economic performance such as capacity imbalance, discards / high-grading, MPAs, poor stock recruitment / stock recovery situations, market prices, ITQs systems, certification, decommissioning etc) than previous AERs. Furthermore the Report contains predictions and forecasts of future economic performance undertaken using the EIAA and BEMTOOL models.

In response to a further request from DG MARE, the report also presents an assessment of the economic performance of EU fleets targeting nine stocks subject to long-term management plans. The analyses were undertaken to specifically assess the economic performance of fishing vessels when fishing such stocks at rates consistent with MSY.

## **STECF CONCLUSIONS**

STECF concludes that the Annual Economic report prepared by the EWG 13-03 and 13-04 represents the most comprehensive assessment of the performance of EU fishing fleets currently available, and despite its limitations through incomplete or missing data sets, STECF endorses the Report.

Furthermore, the usefulness of future Annual Economic Reports on the performance of EU fishing fleets will remain less than optimal unless Member States submit complete, accurate and timely data submissions in response to annual economic data calls. STECF urges the Commission to take whatever action is necessary to ensure that future data submission from Member States are complete, accurate and are submitted within timescale specified in the annual data calls.

STECF also concludes that the general request for more qualitative information related the economic performance of the fleet is relevant, but with the information submitted through the data call such evaluations have limited value. For factors such as MPA's, stock recovery situation, ITQ systems, certification etc. more information is needed in order to make an informed assessment, and it should be carefully considered whether such requests should be a part of the ToRs for future EWGs.

The analyses undertaken to assess the economic performance of fishing fleets targeting nine stocks subject to long-term management plans proved to be complex. Difficulties arose because of the inability to distinguish between effects arising as a direct result of the management plans and those arising through other external factors. Biological, technical and economic factors need to be included in such analyses, cf. previous STECF EWGs. The results of the analyses undertaken cannot be used in isolation to evaluate the consequences of these management plans.

**REPORT TO THE STECF**

**EXPERT WORKING GROUP OF THE 2013 ANNUAL ECONOMIC REPORT ON  
THE EU FISHING FLEET  
(EWG-13-03 & 13-04)**

**ISPRA, ITALY, 8-12 APRIL & 3-7 JUNE 2013**

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area.

## EXECUTIVE SUMMARY

The 2013 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of EU Member States fishing fleets. The results indicate that the profitability of the EU fishing fleet increased in 2011 compared to 2010. The total amount of Gross Value Added (GVA), Gross profit and net profit generated by the EU fishing fleet in 2011 was €3.4 billion (a 3.6% increase from 2010), €1.29 billion (a 7% increase from 2010) and €410 million (an increase of 22% from 2010). GVA as a proportion of income however decreased by 1% compared to 2010 while gross profit margin remained stable at around 18% and net profit margin, estimated at 6%, was a slight improvement on 2010 figures. Economic performance estimates for 2012 suggest that although fleet income increased in most Member States, GVA as a proportion of total income only increased in half of those Member States while gross and net profit margins only increased in roughly one third of those Member States. Although preliminary economic performance projections for a number of key fleets in 2013 suggest mixed performance, due to poor quality and missing data for several Member State fleets it was not possible to project an overall economic position in 2013.

This year's publication includes: (1) an economic and structural overview of the EU fishing fleet; (2) a detailed economic and structural overview of the fishing fleets from each EU Member State; (3) qualitative economic performance assessments for 2011 and 2012 for each EU Member State; (4) detailed economic and structural analyses of Member States key fleet segments; (5) regional analyses of the EU fishing fleet; (6) analyses of key fleets operating under EU fish stock management plans and (7) economic performance projections of key fleet segments for 2013 using the EIAA model for North Atlantic fleets and the BEMTOOL model for Mediterranean fleets.

In 2012 the total number of vessels in the EU fishing fleet was 82,047, with a combined gross tonnage (GT) of 1.69 million tonnes and total engine power of 6.36 million kilowatts (kW). The overall capacity of the EU fleet decreased between 2008 and 2012 (vessels: -7%, GT: -12% and kW: -9%).

In 2011, the small scale fleet comprised almost 56% of the overall EU fleet in terms of vessel numbers, 6% in gross tonnage and 25% in engine power. The long distant water fleet, although consisting of less than 1% in number, represented 19% of total gross tonnage and 7% of engine power. The large-scale fleet represented 43% of the fleet in number, 75% of the gross tonnage and 68% of the engine power.

The number of fishers employed in the EU fishing fleet in 2011 was 127,686; a decrease of almost 5.9% compared to 2010 (excludes Cyprus, Estonia and Greece). Spain again had the highest level of employment (32 thousand FTE), followed by Italy (20.6 thousand FTE) and then Portugal (17.1 thousand FTE). The small scale fleet employs around 41% of the total number of EU FTE fishers, the large scale fleet 51% and the long distant water fleet around 7%. Labour remuneration improved in 2011. Overall average EU level wage per FTE in 2011 was €21,600; FTE in the small scale fleet was on average €10,700 for the EU small scale fleet, €29,000 for the EU large scale fleet and €27,000 for long distance fleet.

The EU fleet landed a total of 4,669 thousand tonnes of seafood in 2011, corresponding to €6.4 billion in landed value. the Danish fleet landed the most in terms of weight in 2011 with 20% of the total landed in the EU (excluding Greece and Spain), followed by the UK fleet (17%). In terms of the value of landings, in 2010 the Italian fleet generated the highest value for their catch (22% of the total), followed by France (21%) and then the UK (19%).

Herring achieved the highest volume of landings by the EU fleet in 2011. The total weight of herring landed in 2011 was 483 thousand tonnes, more or less stable compared to 2010 (- 3%), while the total weight of sprat landed, the second most important species in volume terms, was 382 thousand tonnes in 2011, a decrease of around 19% from 2010. Atlantic mackerel achieved the highest value of landings, having overtaken Norway lobster. The total value of landings of mackerel in 2011 was €390 million, a very large increase of 36% from 2010, while the total value of Norway lobster landed was €322 million in 2011, an increase of around 8% from 2010. Average first-sale prices increased again in 2011. In particular, the real first sale price of Atlantic mackerel increased 20% in 2011, despite a 13% increase in volume landed, signalling a significant increase in demand.

The amount of income (excludes direct income subsidies and income from leasing out fishing rights) generated by the EU fishing fleet in 2011 (excluding Greece, Cyprus and Estonia) was €7.134 billion. This amount consisted of €7.003 billion in fish sales and €131 million in non-fishing income. Income generated by the EU fleet increased by 7.6% between 2010 and 2011.

Total costs (excludes fishing rights) of the EU fishing fleet in 2011 (excluding Greece, Cyprus and Estonia) amounted to €6.7 billion, an increase of around 7% compared to 2010. This mainly consisted of labour costs (32% of total operating costs, €1.9 billion in crew wages and €257 million in unpaid labour) and fuel costs (€1.5 billion, 23% of total operating costs). Other costs linked to the production volume amounted to €1.02 billion. Fixed costs were around €1.2 billion, of which repair costs were €571 million. In 2011 the EU fishing fleet spent about €776 million on depreciation costs and an estimated €101 million in opportunity costs of capital.

The total amount of Gross Value Added (GVA), Gross profit and net profit (all excluding subsidies) generated by the EU fishing fleet (excluding Greece, Estonia and Cyprus) in 2011 was €3.4 billion (a 3.6% increase from 2010), €1.29 billion (a 7% increase from 2010) and €410 million (an increase of 22% from 2010) respectively. GVA as a proportion of total income decreased slightly from 53% in 2009 to 49% in 2010 to 48% in 2011. Gross profit as a proportion of total income has remained relatively steady at around 18% over the last 3 years, while net profit as a proportion of total income increased steadily from 1% in 2008 to 6% in 2011.

The large scale fleet generated 71% of the EU fleet's income, with the small and long distant water fleets each contributing around 15%. The EU large-scale fleet generated 71% of the total GVA produced by the EU fleet in 2011, 72% of the gross profit and almost 65% of the net profit, a decrease from 89% in 2010. The small-scale fleet contributed to almost 19% of the GVA, 16% of the gross profit and 20% of the total net profit in 2011. Net profit generated by the small-scale fleet increased almost 32% while the large-scale fleet decreased by 5% compared to 2010. The long distant water fleet moved from a loss making position in 2010 to post a profit in 2011. In relative terms, the small scale fleet generated the highest GVA, gross profit and net profit as a % of income, 61.2%, 19.6% and 7.9% respectively. The large-scale and long-distant water fleets each generated a profit margin of around 5.5% in 2011.

Thirteen out of 19 Member States generated a net profit in 2011. Six Member States (Bulgaria, Ireland, Finland, Germany, Malta and Slovenia) generated a net loss in 2011. The Spanish fleet generated the highest GVA in absolute terms in 2011 (25% of the EU total), followed by the French and Italian fleets, each with 17% of the EU total. In relative terms, the Portuguese fleet generated the highest level of GVA in relation to income (64%), followed by the Danish fleet (63%) and the Romanian fleet (61%).

The Italian fleet generated the highest gross profit in absolute terms in 2011 (24% of the EU total) followed by the UK fleet (16% of the EU total) and the French fleet (14% of the EU total). In relative terms, the Danish fleet generated the highest level of gross profit in relation to income (34%), followed by the Latvian fleet (33%) and the Portuguese fleet (29%). The UK fleet generated the highest net profit in absolute terms in 2011 (38% of the EU total), followed by the French fleet (26% of the EU total) and the Italian fleet (19% of the EU total). In relative terms, the Latvian fleet generated the highest level of net profit in relation to income (28%), followed by the Romanian fleet (17%) and the UK fleet (16%).

Between 2008 and 2011 the static gear segments were generally more profitable than the mobile gear segments. GVA, gross profit and net profit as a proportion of total income were consistently higher for the static gears over the time period. GVA as a proportion of income varied between 53%-64% for the static gears, compared to 21%-62% for the mobile gears. Gross profit fluctuated between 19%-31% for static gears, while mobile gears fluctuated between -13% and 31%. The static gears generally produced net profits between 2008-2011 while mobile gears made net losses in 2008 and 2009.

Around 45% of mobile gear fleet segments made losses in 2011 i.e. vessels in these segments on average made insufficient returns on capital invested. The corresponding figure in 2008 was 43%. However, 13% of mobile gear segments generated gross losses on average in 2011 i.e. vessels in these segments on average did not generate enough income to cover operational costs. The corresponding figure for 2008 was 18%. In comparison, 41% of static gear fleet segments made losses on average in 2011, the same as in 2008, while 20% of static gear fleet segments generated negative gross profits in 2011, compared to 19% in 2008. In 2009 there was a substantial increase in the proportion of segments making gross losses, in particular the static gears: 26% made gross losses and 51% made net losses. This trend was less pronounced in the mobile gear segments: 47% made net losses but only 12% made gross losses in 2009.

# 1. INTRODUCTION

The 2013 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of EU Member States fishing fleets.

This publication includes:

- 1) An economic and structural overview of the EU fishing fleet
- 2) A detailed economic and structural overview of the fishing fleets from each EU Member State
- 3) Qualitative economic performance assessments for 2011 and 2012 for each EU Member State
- 4) Regional analyses of the EU fishing fleet
- 5) The latest information on EU fish prices and price trends at EU and Member State level
- 6) Economic performance projections for 2013 using the EIAA and BEMTOOL models
- 7) Economic assessment of fleets targeting stocks subject the EU fisheries management plans

The report has been produced by two working groups of economic experts (expert working group 13-03 and 13-04) convened under the Scientific, Technical and Economic Committee for Fisheries (STECF), which took place from the 8<sup>th</sup> to 12<sup>th</sup> of April and the 3<sup>rd</sup> to 7<sup>th</sup> June 2012 in Ispra, Italy. The groups consisted of independent experts from within the EU and experts from the European Commission's Research Centre (JRC). The names and affiliations of these experts can be found in section 13.

The data used to compile all the various analyses contained within the report were collected under the frameworks of the Data Collection Regulation (DCR); cf. Council Regulation (European Commission (EC)) No 1543/2000 of 29 June 2000 and the data collection framework (DCF), cf. Council regulation (European Commission (EC) No 199/2008 of 25th February 2008). The data call requested economic data for the years 2008 to 2013.

In terms of compliance with the data call deadline, similar to the 2011 data call, most Member States attempted to do so. However, again, the quality and coverage of most datasets required improvement once inspected by JRC and national experts. The majority of uploading activity again took place after the data call deadline which impacted on both EWGs and JRCs ability to produce the 2013 AER in a timely manner. This is a recurring problem which requires a change to resolve.

In terms of the completeness of the Member States data submissions, most countries submitted the majority of parameters requested under the call. In many cases missing data relates to fleet segments with low vessel numbers for which data is hard to obtain. However, Greece provided no data whatsoever while this year's submission from Cyprus and Spain was much less complete than the data provided under the 2011 data call. These discrepancies make an evaluation of the overall economic performance of the EU fishing fleet in 2011 not possible. In terms of data quality, inevitably some 'abnormal' estimates for various parameters were detected by JRC or the experts and in many cases rectified by the Member States. However, some minor quality issues remain outstanding.

## 1.1. TERMS OF REFERENCE FOR STECF EWG-13-03 & 13-04

### *Background*

Following the 2013 DCF call for economic data on the EU fishing fleet, EWG 13-03 & 13-04 are requested to analyse the data and comment on the economic performance of the EU and Member State fishing fleets between 2008 and 2013.

The primary objectives of the exercise are to increase qualitative interpretation of all data outputs and make the report more 'up-to-date' by estimating 2012 and 2013 economic performance. Increased qualitative interpretation of the data outputs requires sufficient attendance of experts knowledgeable in Member State specific fleet economic performance issues, while a more 'up-to-date' report requires that MS provide the data necessary to successfully undertake the calculations.

Data quality remains essential for accurate analysis and JRC will have conducted a number of data quality checks prior to EWG 13-03. Past experience suggests that some quality issues will remain (errors that can only be identified by those with specific knowledge of the data) and therefore experts are requested to check for further errors whilst carrying out the various tasks.

The level of detailed analysis contained within the regional assessments should increase, particularly in terms of the level of disaggregation (in some instances it may be necessary to make assumptions about the allocation of costs and earnings for fleet segments operating in two or more sea basin areas). A specific analysis on the economic performance of EU fleets targeting stocks subject to the main long-term management plans should also be carried out.

DG MARE requests that the 2013 AER contains more qualitative information and analysis on drivers and trends in fleet economic performance. What are the common major drivers / issues affecting fleet economic performance? E.g. Capacity imbalance, discards / high-grading, MPAs, poor stock recruitment / stock recovery situations, market prices, ITQs systems, certification, decommissioning etc). These questions should be asked consistently at all levels of analysis i.e. fleet segment level, national level, regional level, management plan level and overall EU level.

Provision of “balance (social, economic and technical) indicator tables” to the STECF by EWG-13-03

EWG 13-03 is requested to quality check, analyse and summarise economic, social and technical balance indicators produced by JRC for the period 2008-2011/12, which must be submitted to STECF plenary by 12 noon on Thursday 11th of April. These indicators will form the basis of the special chapter on balance indicators (excluding the biological indicators) which will be finalised during the second AER meeting in June.

AER meeting 1 priorities:

- 1) Balance indicators for STECF plenary
- 2) Draft EU overview

### ***Terms of Reference - 2013 AER on the EU fishing fleet***

STECF is requested to provide the Annual Economic Report on EU fleets for 2013 including, at least, the following sections:

- Introductory remarks (DG MARE)
- STECF observations
- Expert working group report
- Executive summary
- EU fleet overview
  - EU fleet structure
  - Socio-economic structure of the EU fleet
  - EU fleet fishing activity and output
  - EU fleet employment and average salaries
  - EU fleet economic performance
  - (new) section on resource efficiency examining aspects such as energy efficiency and labor productivity (key indicators)
  - (new) section on EU small-scale fleet segments (key socio-economic indicators)
  - (new) section on EU long distant water fleets (key socio-economic indicators)
  - assessment for 2012 and 2013
- Regional analyses
  - Baltic sea
  - Mediterranean and black sea
  - North Atlantic
  - North sea and eastern arctic area
  - Other regions
- National chapters
  - (new) Section on small-scale fleet segments in each national fleet

(new) Special chapter on economic, social and technical indicators for assessing balance between fleet capacity and fishing opportunities

## **1.2. PARTICIPANTS AT EWG 13-03 AND 13-04**

The full list of participants at EWG 13-03 and 13-04 held from the 8 to 12 April and 3 to 7 June 2013 respectively in Ispra, Italy is presented in section 9.

## 2. EU FLEET OVERVIEW

### KEY FINDINGS

- In 2012, the EU fishing fleet contained over 82 thousand vessels with a total gross tonnage (GT) of 1.7 million tonnes and engine power of 6.4 million kilowatts (kW).
- EU fleet capacity has decreased steadily over the years, with an average annual decrease of 2% in terms of vessel numbers and 3% in terms of GT.
- The Greek fleet was the largest in terms of number of vessels in 2011 (21% of the total); the Italian fleet was the largest in terms of kW (17%) and the Spanish fleet was the largest in terms of GT (24%).
- EU fleet employment (excluding Cyprus, Estonia and Greece) amounted to 127,680 fishers, corresponding to 98,500 FTEs in 2011. Employment decreased 6% between 2010 and 2011 while average wage per FTE, estimated at €21,577 in 2011, increased 8% between 2010 and 2011.
- The Spanish fleet employed 33% of the total EU fleet FTEs, followed by Italy (21%) and Portugal (17%), (excludes Cyprus, Estonia and Greece).
- In 2011, the total number of days at sea reported by the EU fleet (excluding Cyprus, Estonia, Greece and Spain) decreased by 1%, as did landings in weight (7.5%) while value of landings increased 6.5% compared to 2010.
- The EU fleet landed less in quantity but generated a higher value in 2011 compared to 2010. According to Eurostat, the EU fleet landed 4,669 thousand tonnes of seafood in 2011, corresponding to €6.3 billion in landed value.
- The Danish fleet landed the most in terms of weight (21% of the total landings) in 2011 and the Italian fleet the most in terms of value (23% of the total) in 2011.
- Average fuel price increased 28% in 2011 while fuel consumption (excluding Spain, Estonia, Greece and Cyprus) decreased 6% compared to 2010.
- The available data suggest that total costs incurred by the EU fleet increased in 2011 but so did total income, making the EU fleet again profitable in 2011, generating €3.4 billion in Gross Value Added (GVA), €1.3 billion of gross profits and a net profit of €410 million.
- The major cost items in 2011 were labour and energy costs, representing 30% and 21% of income (landings income and other income) respectively.
- GVA increased 4%, gross profit increased 7% and net profit increased 28% in 2011 compared to 2010.
- GVA as a proportion of income generated by the EU fleet (for which data was available) in 2011 was 1% lower than in 2010 while gross profit margin remained stable at around 18% and net profit margin, estimated at 6%, was a slight improvement on the corresponding 2010 figure.
- Six national fleets made net losses in 2011 and an estimated 45% of EU fleet segments for which data was available made net losses in 2011.
- 2012 forecasts suggest that fleet income increased in nine out of the 14 Member States, GVA as a proportion of total income increased in seven out of 14 Member States and gross and net profit margins increased in five out of 14 Member States.

This chapter provides an overview of the structure and economic performance of the EU fishing fleet in 2011 and highlights some key trends between 2008 and 2012 based on data obtained from the latest DCF fleet economic data call and data held on the EU fishing fleet register and Eurostat<sup>1</sup>. Results are provided at EU and Member State levels with additional analyses given by main fishing activity (i.e. small-scale, large scale and

<sup>1</sup> All socio-economic analyses are based on data provided by EU Member States during the 2013 DCF call for economic data on the EU fishing fleet

long-distant water fleet), main fishing gear type (mobile/active and static/pассив gears), and DCF fishing technology and vessel length categories.

### **Main Data Issues**

The 2013 DCF call for economic data on the EU fishing fleet required Member States to submit socio-economic and transversal variables by year at two main aggregation levels: (1) national and (2) fleet segment (see Methodology section for a detailed list of all variables and aggregations).

For this study, national level datasets were used for EU and Member State level analyses while for the fleet segment and fishing gear level analyses data submitted at the fleet segment level were used. While in theory both national level and fleet segment datasets submitted by MS should equate, this is not always the case and some discrepancies exist between the two, mainly due to missing/incomplete datasets or the non-submission of data due to confidentiality issues.

Due to these and other data related issues, a complete overview of the EU fishing fleet for all reference years was not possible.

Some of the main shortcomings of this EU level analysis include: (1) the exclusion of Greece from all analyses due to non-submission of data; (2) exclusion of Cyprus and Estonia<sup>2</sup> from most of the analyses due to incomplete and / or inconsistent data quality and (3) the non-submission of landings and effort data for Spain. In addition, several significant MS fleet segments, for example the German pelagic trawlers, are not included due to confidentiality.

Furthermore, in order to compare economic indicators at fleet segment level, only a subset of the DCF data provided by MS was used. This subset consisted of fleet segments (combination of main fishing gear, vessel length group, by supra region) for which all the relevant data needed to estimate net profit was provided, i.e. all essential income and cost items, including fleet depreciated replacement value (required to estimate the opportunity cost of capital), needed to be present.

In this year's AER, results are also presented by main fishing operation scale, i.e. by EU small-scale fleet, large-scale fleet and long-distance water fleet. However, data limitations arising from DCF segmentations and the clustering of fleet segments to provide economic data, may have obscured some results. Hence, the values presented by main fishing operation type are estimates of the activity of these fleets.

Capacity and landings data on the EU fishing fleet, held in the EU fleet register and EUROSTAT databases, were used to complement the DCF capacity and landings data. All socio-economic analysis are based on the data provided by Member States during the latest DCF data call.

Other relevant data related issues are highlighted throughout the text.

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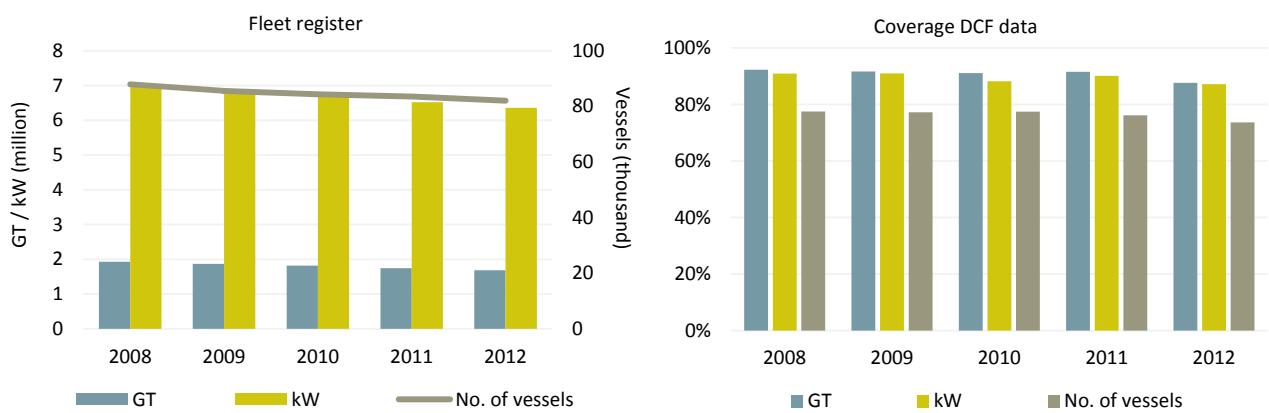
<sup>2</sup> Due to inconsistent datasets provided, it was necessary to exclude Estonia from all economic analysis.

## 2.1. Fleet Structure

### *EU and Member State level*

According to data held in the EU fleet register, the total number of vessels in the EU fishing fleet on the 1st of January 2012 was 82,047, with a combined gross tonnage (GT) of 1.69 million tonnes and total engine power of 6.36 million kilowatts (kW). The corresponding figures for 2011 were 83,590 vessels, 1.74 million tonnes and 6.52 million kW. The overall capacity of the EU fleet decreased between 2008 and 2012 by: vessels -7%, GT -12% and kW -9% (Figure 2.1).

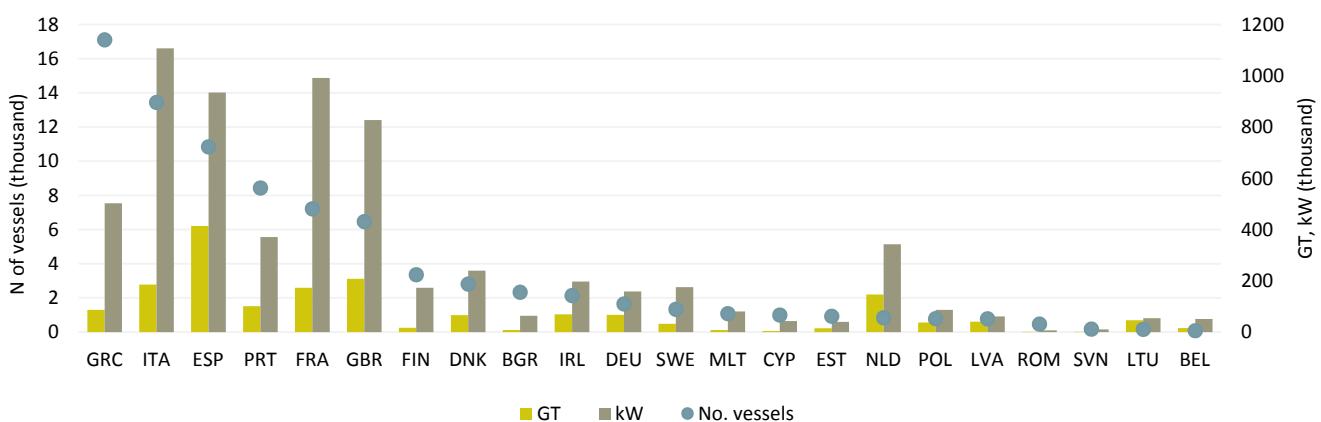
Relative to the data held in the EU fleet register, the latest DCF data (with a reference year of 2011) covered almost 90% of the EU fleet in GT and kW but only 76% in terms of the total number of vessels. This lower coverage is mainly due to the fact the Greek and Cypriot fleets are not included. Both national fleets are essentially small scale in nature, characterised by a high number of vessels with low tonnage and engine power. In addition, data submitted by Member States for the year 2012 are in some cases provisional and/or incomplete, impacting on overall coverage for 2012 (Figure 2.1).



*Data source: EU Fleet register and Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.1 EU fishing fleet capacity trends: 2008-2012.

Based on the EU fleet register, Greece possessed the largest fleet in number, encompassing 21% of the total EU fleet, followed by Italy (16%) and then Spain (13%). The Spanish fishing fleet was the largest in terms of vessel tonnage (24% of the EU total), followed by the UK (12%) and then Italy (11%). In terms of engine power, the Italian fleet encompassed 17% of the total EU kW, followed by France (15%) and then Spain (14%). Belgium, with 89 vessels possessed the smallest fleet in number, while Slovenia had the lowest gross tonnage and Romania the smallest engine power (0.1% of the EU total) (Figure 2.2).



*Data source: EU Fleet register*

Figure 2.2 EU fishing fleet capacity by Member State: Fleet register data, 2011

Table 2.1 contains trends in fleet capacity by Member State over the period 2008-2011, and highlights that changes in capacity have diverged across Member States. For example, the change in the number of active vessels fluctuated between -63% for Latvia and +18% for Bulgaria (-7% for the EU total), in gross tonnage between -57% for Romania and +62% for Malta (-10% at EU level) and in engine power between -35% for Latvia and +6% for Bulgaria (-8% for EU total).

According to the data submitted for 2011<sup>3</sup>, and taking into account that the Cypriot and Greek fleets are not included, average dimensions of EU vessels are also very heterogeneous among Member States. Average tonnage per vessel was highest for the Lithuanian fleet (269 GT), followed by the Belgian (178 GT) and Dutch fleet (177 GT). Average kilowatts per vessel was highest in the Belgian fleet (575 kW), followed by the Dutch (393 kW) and then the Lithuanian fleets (318 kW). The Romanian fleet is mainly composed of smaller sized vessels, with an average size of 2 GT and 14 kW. The Slovenian fleet was the oldest, with an average vessel age of 36 years, while the Romanian fleet was the youngest, with an average age of 17 years (Table 2.1).

Table 2.1 MS Share of EU fleet and percentage change 2008-2011 for the main capacity indicators

	MS fleet Share in 2011		% change 2008-2011		Average dimension		Average fleet age		(2011)
	No. Active vessels	GT	kW	No. Active vessels	GT	kW	GT/vessel	kW/vessel	
BEL	0%	1%	1%	-13%	-18%	-16%	178	575	24
BGR	2%	0%	1%	18%	-8%	6%	5	33	22
DEU	3%	4%	3%	-11%	-3%	-2%	39	91	29
DNK	4%	4%	4%	-5%	-14%	-16%	25	90	30
ESP	17%	26%	16%	-17%	-12%	-12%	38	86	28
EST	1%	1%	1%	-3%	-26%	-21%	16	42	22
FIN	5%	1%	3%	4%	1%	0%	5	51	25
FRA	9%	10%	15%	-9%	-14%	-8%	27	147	21
GBR	10%	13%	14%	-5%	-2%	-4%	32	128	25
IRL	3%	5%	3%	10%	-8%	-6%	33	94	25
ITA	23%	12%	21%	-2%	-7%	-3%	13	84	28
LTU	0%	3%	1%	-32%	-25%	-21%	269	318	32
LVA	1%	1%	0%	-63%	-34%	-35%	27	70	27
MLT	2%	1%	1%	-17%	62%	-5%	11	77	26
NLD	1%	8%	5%	2%	-11%	-13%	177	393	33
POL	1%	2%	1%	-9%	-17%	-19%	47	109	28
PRT	13%	6%	6%	-2%	-2%	-1%	12	44	28
ROU	1%	0%	0%	11%	-57%	-20%	2	14	17
SVN	0%	0%	0%	3%	2%	2%	5	58	36
SWE	2%	2%	3%	-10%	-23%	-16%	24	131	31
<b>EU total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>-7%</b>	<b>-10%</b>	<b>-8%</b>	<b>25</b>	<b>92</b>	<b>27</b>

Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

According to MS data submissions, the small-scale fleet<sup>4</sup> comprised 55% of the total EU fleet<sup>5</sup> in number of vessels in 2011, 6% in gross tonnage and 25% in engine power. The long distant water fleet<sup>6</sup>, although comprising less than 1% of the number of vessels, represented 19% of total gross tonnage and 7% of engine power. The large-scale fleet<sup>7</sup> represented 21% of the fleet in number, 75% of the gross tonnage and 68% of the engine power. Inactive vessels amounted to the remaining 23% of the EU fishing fleet in number, 0.2% of the gross tonnage and 0.4% of the engine power, highlighting that most of the inactive vessels are small-scale in nature (Figure 2.3). Portugal had the highest number of inactive vessels (3,466), accounting for 20% of the total EU inactive fleet.

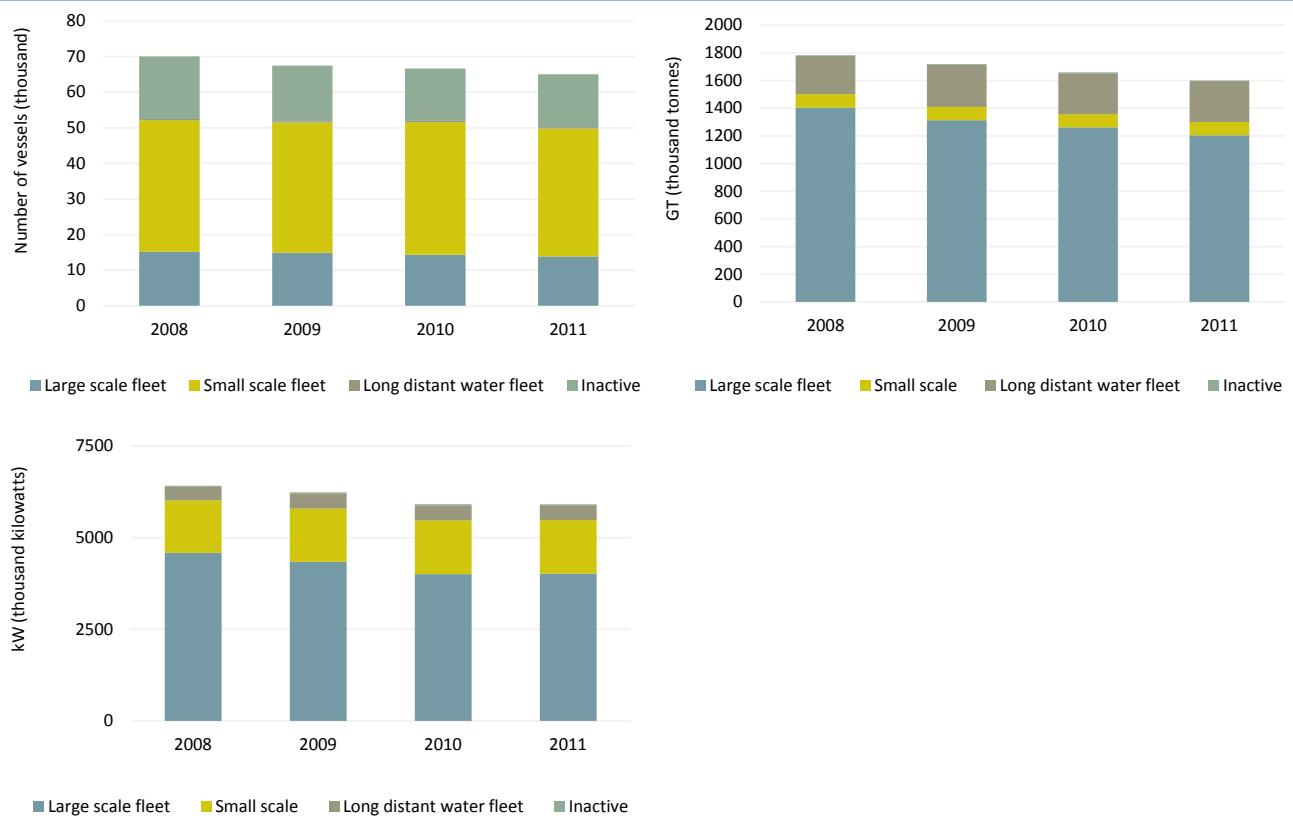
<sup>3</sup> 2012 data not presented as they are provisional and/or incomplete

<sup>4</sup> Small scale fleet includes all vessels under 12m using static gears (drift and/or fixed netters, vessels using pots and/or traps, vessels using hooks, vessels using passive gears only for vessels <12m, vessels using other passive gears, vessels using polyvalent passive gears only, vessels using active and passive gears).

<sup>5</sup> Excluding data from Cyprus and Greece which were not reported

<sup>6</sup> The long distance fleet includes EU registered vessels over 24 metres operating in other fishing regions including EU outermost regions

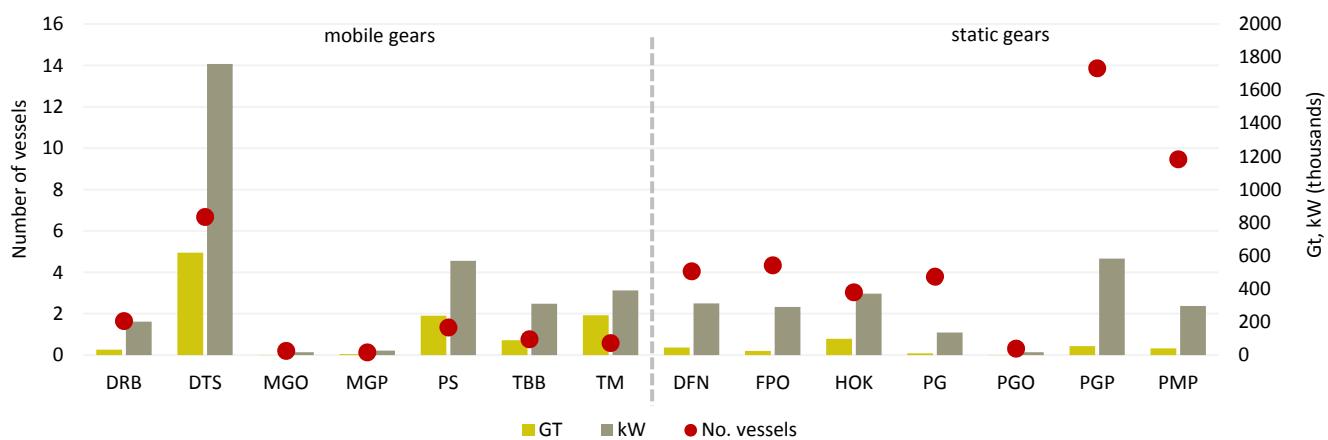
<sup>7</sup> Large scale fleet segment includes all vessels using towed gears (dredgers, demersal trawlers and/or demersal seiners, vessel using other active gears, vessels using polyvalent active gears only, purse seiners, beam trawlers, pelagic trawlers) and vessels over 12 metres using static gears operating in EU fishing regions.



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.3 EU fleet capacity trends by main fishing activity 2008-2011

When analysed by main fishing gear, the polyvalent passive gear segment (PGP) was the largest in terms of number of vessels in 2011 and possessed the second highest combined gross tonnage but one of the lowest engine power. The demersal trawler/seiner fleet segment (DTS), comprised most of the mobile gear vessels and the largest GT and engine power of the EU fleet segments, followed by purse seiners (PS) and pelagic trawlers (TM) (Figure 2.4).



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.4 EU fishing fleet capacity by main fishing gear, 2011

By vessel length, the EU is mainly composed of vessels belonging to length groups under 12m<sup>8</sup>. The number of vessels decreases with increasing vessel length (Figure 2.5).

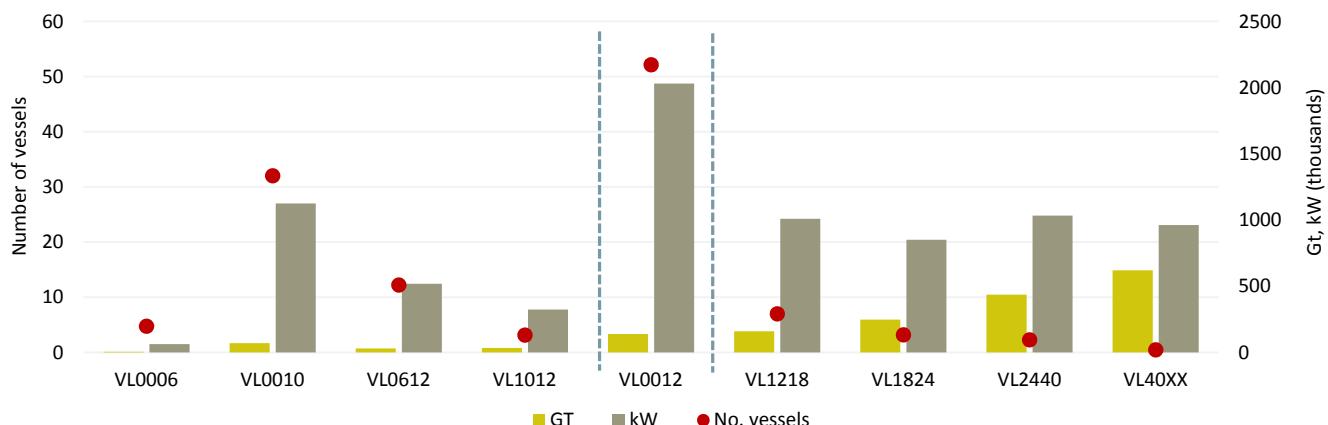


Figure 2.5 EU fishing fleet capacity by vessel length group, 2011  
Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

## 2.2. Socio economic structure of the EU Fleet

### Employment and Average crew wage

According to Member States DCF data submissions, the number of fishers employed in the EU fishing fleet<sup>9</sup> in 2011 was 127,686, a decrease of almost 4.5% from 2010. The number of fishers employed increased in 2009 and 2010, falling again in 2011, almost reaching 2008 levels. The number of FTEs in the EU fishing fleet in 2011 was 98,561<sup>10</sup>, a decrease of 6% compared to 2010 and about 2.5% compared to 2008 (Figure 2.6). Data on crew costs and employment levels submitted by Member States suggest that average wages in the EU fishing sector fluctuated somewhat between 2008 and 2011. The labour remuneration in the EU fishing fleet seems to have improved in 2011: the average wage per employee and per FTE in 2011 was €16,655 and €21,577 respectively. Both wage rate indicators increased around 8% between 2010 and 2011 (Figure 2.6).

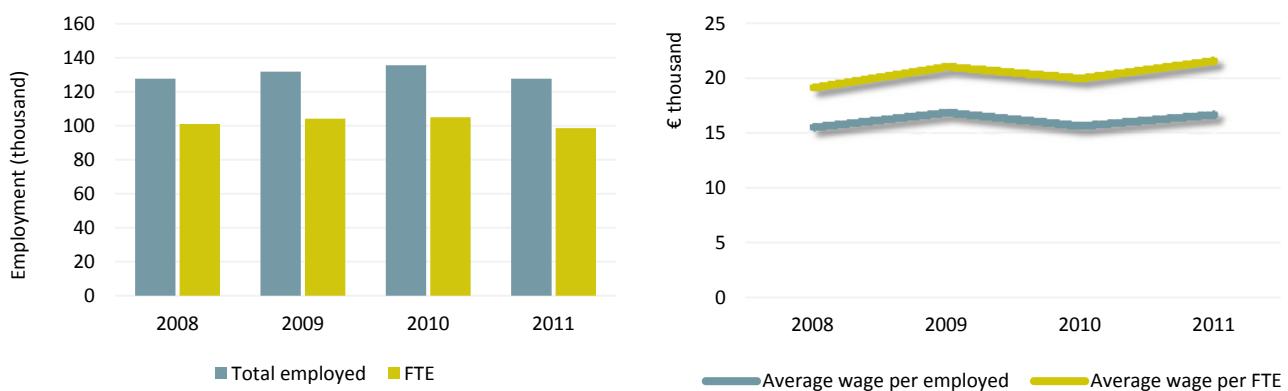


Figure 2.6 EU fleet employment and average wage indicators  
Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

<sup>8</sup> In Figure 2.5, the DCF vessel length groups under 12m were combined to create the vessel length group 'VL0012', and highlights that vessel numbers decrease with increasing length while GT increases with vessel size. High engine power in the lower length groups reflects the high number of vessels

<sup>9</sup> Excludes data from Cyprus, Estonia and Greece which were not reported

<sup>10</sup> Note: this figure equates to 102,491 when summed at the fleet segment level

At member State MS level, the Spanish fleet had the highest level of employment in 2011, in terms of both total employed and FTEs covering 28% and 33%, of the total number of EU fishers<sup>11</sup>, followed by Italy (22% and 21% respectively) and then Portugal (13% and 17% respectively).

The ratio FTE to total employed (red dots in the figure below) gives an indication of the main type of employment, i.e. the lower the ratio the higher the part-time employment. The Estonian, Romanian and Finnish fleets appear to employ mostly part-time fishers while the Portuguese and Belgian fleets employ mostly full-time fishers (Figure 2.7).

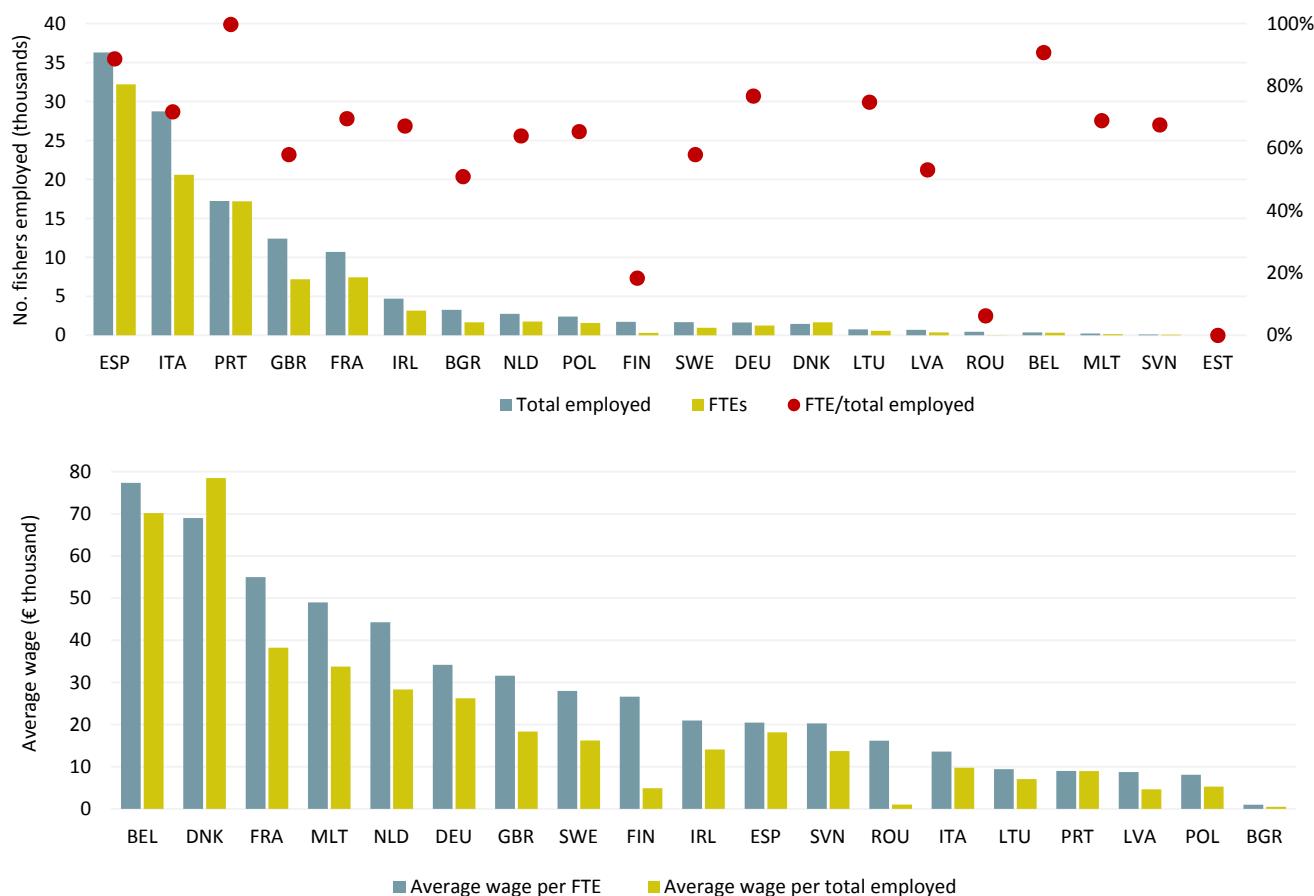


Figure 2.7 EU fleet employment (top) and average wage (bottom) by MS in 2011  
Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

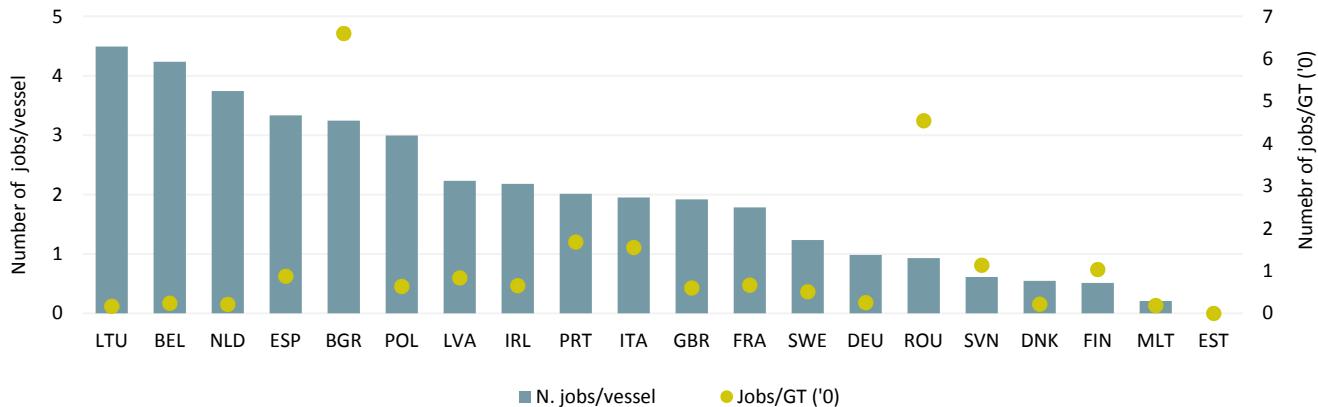
Data on crew costs and employment suggest that the Belgian fleet paid the highest wages per FTE on average (€77,338), followed by the Danish fleet (€68,989), and then the French fleet (€54,994) (Figure 2.7). It is interesting to note that while generally average wage per FTE is higher than the average wage per total employed (total FTE is lower than total jobs because of seasonal and part time employment), for the Danish fleet the opposite is observed but this is likely to be a data related issue.

Figure 2.8 highlights that average employment per vessel varied across Member State in 2011. Lithuanian vessel owners employed a higher number of fishers on average (4.5), followed by Belgian (4.2) and then Dutch vessel owners (3.7). Indeed, these MS possess fleets composed mainly of larger sized vessels (Table 2.2).

The ratio between the number of jobs and gross tonnage per vessel (Figure 2.8) provides an indication of the labour and capital use aboard EU vessels: the higher the ratio, the more labour intensive the vessel is and the lower the ratio the more capital intensive or industrialised. Figure 2.8 shows that MS fleets with larger sized

<sup>11</sup> excludes data from Cyprus and Greece which were not reported

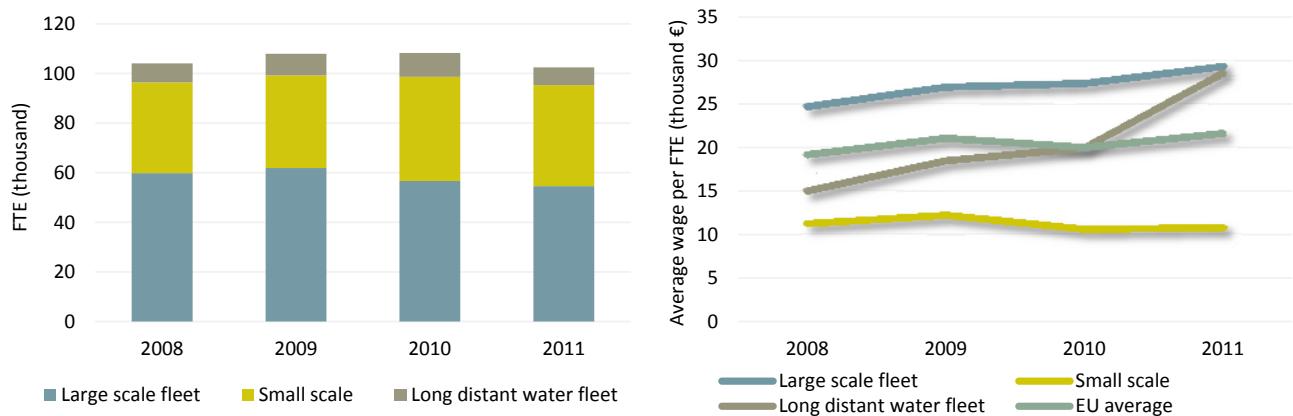
vessels were more capitalised (low number of jobs to GT ratio), while the more labour intensive fleets included vessels operating in the Black Sea, i.e. Bulgarian and Romanian fleets, which consist mostly of smaller sized vessels.



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 2.8 EU fleet employment indicators, 2011

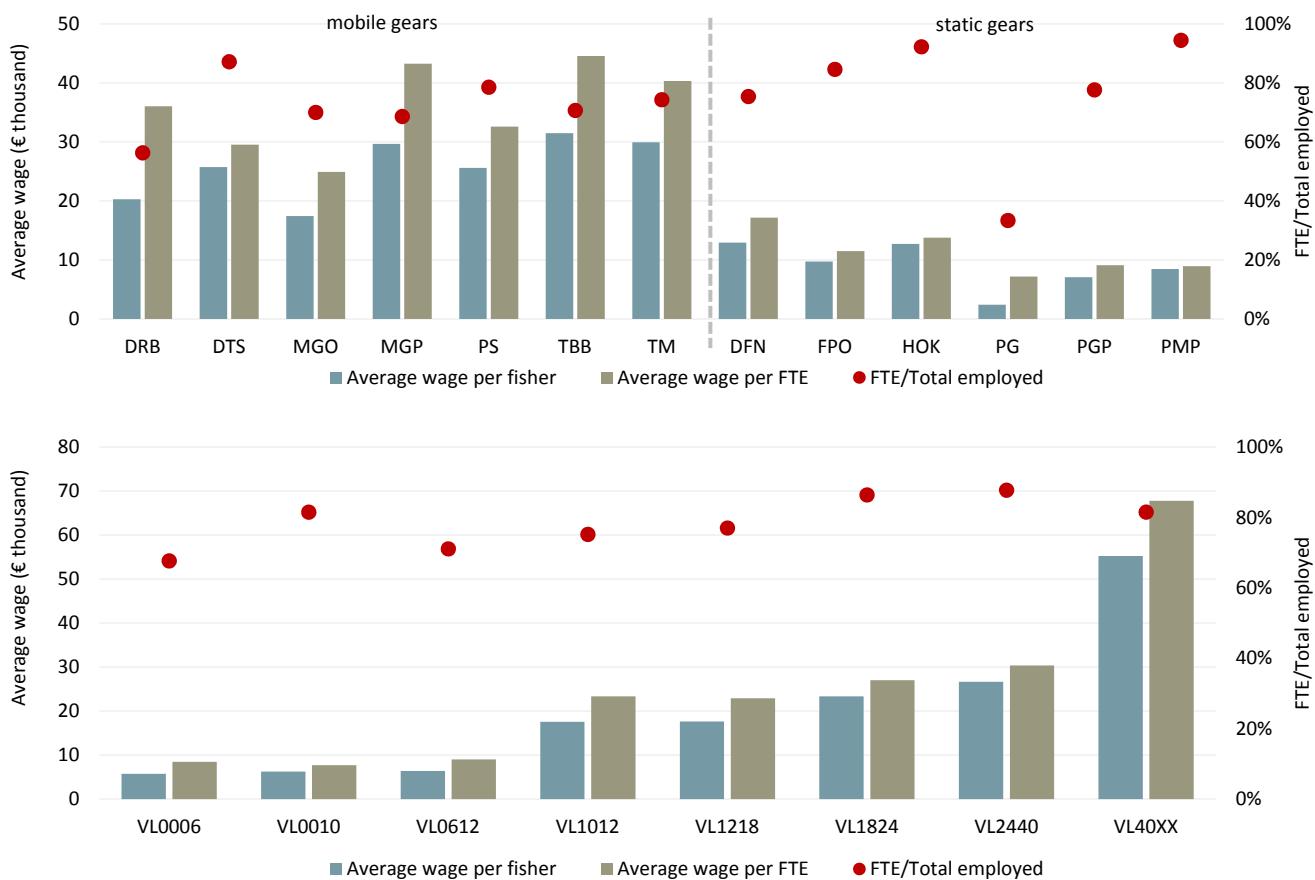
Breaking it down by main fishing activity, the small-scale fleet employed around 41% of the total number of FTE fishers in 2011, the large-scale fleet 51% and the long distant water fleet around 7%. Employment level (FTEs) in the small scale and the long distance fleets decreased, -6% and -7% respectively, over the period 2008-2011, while, the number of FTE in the large scale segment increased slightly (+1.5%) (Figure 2.9). Average wage per FTE in the small-scale fleet was an estimated €10,730 in 2011. The same indicator reached almost €27,600 for fishers operating in the long-distant water fleet and €29,440 in the large-scale fleet (Figure 2.9). Crew remuneration in the long-distant water fleet showed a significant increase (43%) relative to 2010. According to the data, crew engaged in the French long-distant water fleet received on average €81,477 in wages in 2011.



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 2.9 EU fleet employment and average wage indicators by fishing activity

When analysed by main fishing and vessel characteristics, average wages tend to be higher in the mobile gear segments and larger vessel length groups (Figure 2.10). The ratio FTE/total employed indicates that part-time employment tends to be somewhat higher in smaller vessels, decreasing with vessel size. By fishing gear type, no clear trend emerges with values generally above 70% in both the static and mobile gear segments. Yet, values indicate that part-time employment appears to dominate in the passive gear segment (PG) and accounts for about half of the employment on dredges (DRB) (Figure 2.10).



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.10 EU fleet employment and wage indicators, 2011.

Top: by main fishing technology; Bottom: by vessel length group.

## 2.3. Fishing Activity and Production

### Fishing Effort

According to Member States data submissions, the total number of days at sea reported by the EU fleet<sup>12</sup> in 2011 was almost 3.8 million days, 95% of which were actual fishing days, results which are more or less stable (-1%) when compared to 2010<sup>13</sup> (Figure 2.11).

According to the data submitted by MS, Italy reported by far the highest number of days at sea in 2011 with 47% of the total, followed by France (13%), UK (11%) and then Portugal (10%). Together, these four MS accounted for 80% of the total registered days at sea (Figure 2.11).

Data submitted on kW and GT fishing days by Member States<sup>14</sup> reveals that total kW fishing days for the EU fleet in 2011 was 584 million, while total GT days was just under 148 million. The Italian fleet applied the most effort, in terms of both kW and GT fishing days (25% and 16% of the totals respectively) (Figure 2.11).

Fuel consumption by the EU fleet<sup>15</sup> in 2011 was 1.66 billion litres, a 5% decrease compared to the amount of fuel consumed in 2010. According to the data available, the Italian fleet consumed the most fuel, with 25% of total consumption, followed by the French (21%) and then the UK fleet (16%), (Figure 2.11). Mobile gear segments, in particular trawlers, and vessels in the larger length groups are heavier fuel consumers (Figure 2.12).

12 Excludes data for Greece, Cyprus, Estonia and Spain which were not reported

13 France did not provide effort data for the years 2008 and 2009. In addition, France did not provide effort data for the years 2008 and 2009

14 These values may not necessarily reflect the entire EU fleet as MS are required to submit data on GT and kW fishing days for only certain fleet segments although many MS submit data for all fleet segments.

15 Cyprus, Greece and Spain excluded due to missing data, Estonia excluded to make 2010 fuel consumption comparable to 2011

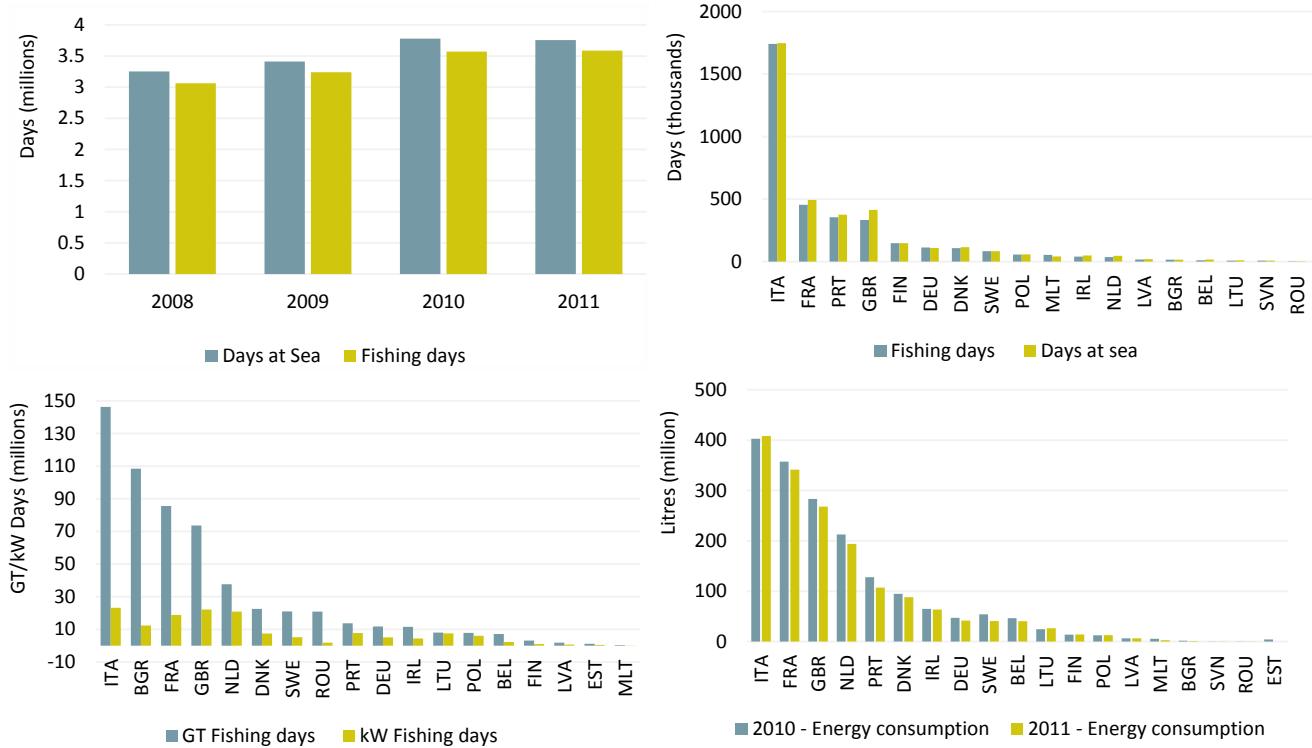


Figure 2.11 EU fleet fishing effort indicators

Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Top left: fishing effort deployed by the EU fleet; top right: fishing effort deployed by MS fleets in 2011; bottom left: GT and kW fishing days by MS fleets in 2011; bottom right: energy consumption by MS fleets in 2010 and 2011.

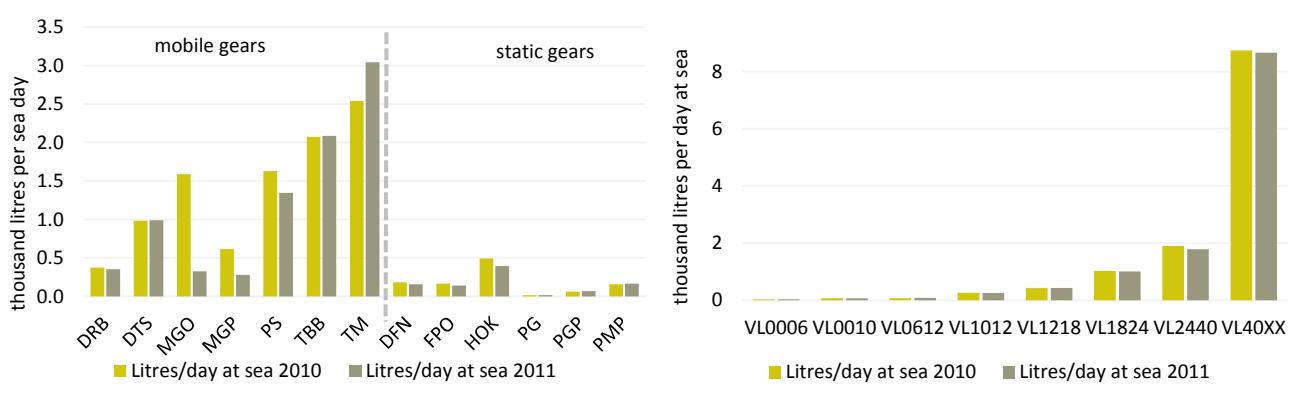


Figure 2.12 Fishing effort indicators by gear type and vessel length groups

Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## Landings

According to Eurostat, the EU fleet landed 4,669 thousand tonnes of seafood in 2011, corresponding to around €6.3 billion in landed value<sup>16</sup>. The EU fleet<sup>17</sup> covered by the DCF landed a total of 3,526 thousand tonnes and obtained €4.9 billion for their catch in 2011, indicating that the DCF data covers approximately 76% of the total EU landings in value and 78% of the landings in weight (Figure 2.13).

<sup>16</sup> note: data may not be complete or comparable with DCF data

<sup>17</sup> DCF data on landings in weight and value excludes Greece and Spain.

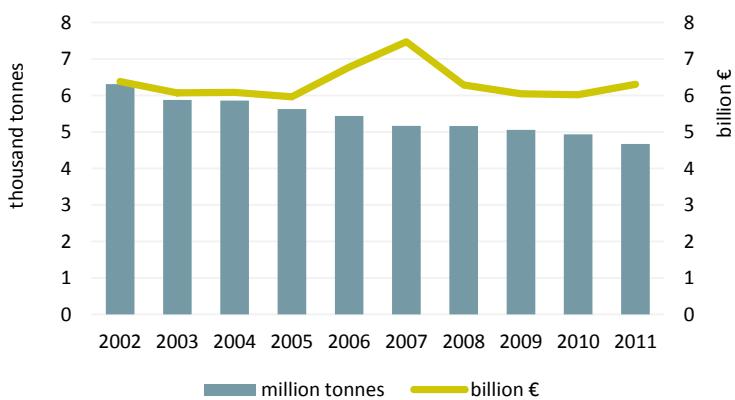


Figure 2.13 EU fleet landings weight and value trends: Eurostat landings data for the EU fleet 2002-2011

DCF data submitted on weight and value of landings by species reveal that herring achieved the highest volume of landings by the EU fleet<sup>18</sup> in 2011. The total weight of herring landed in 2011 was 483 thousand tonnes, a slight decrease compared to 2010 (-3%), while the total weight of landed sprat, the second most important species in volume terms, was 382 thousand tonnes in 2011, a decrease of around 19% from 2010 (Figure 2.14). The data also reveals that Atlantic mackerel achieved the highest value of landings, having overtaken Norway lobster. Landings of mackerel in 2011 were valued at €390 million, a substantial increase from 2010 (+36%), while the total value of Norway lobster landed was €322 million in 2011, an increase of around 8% from 2010 (Figure 2.14).

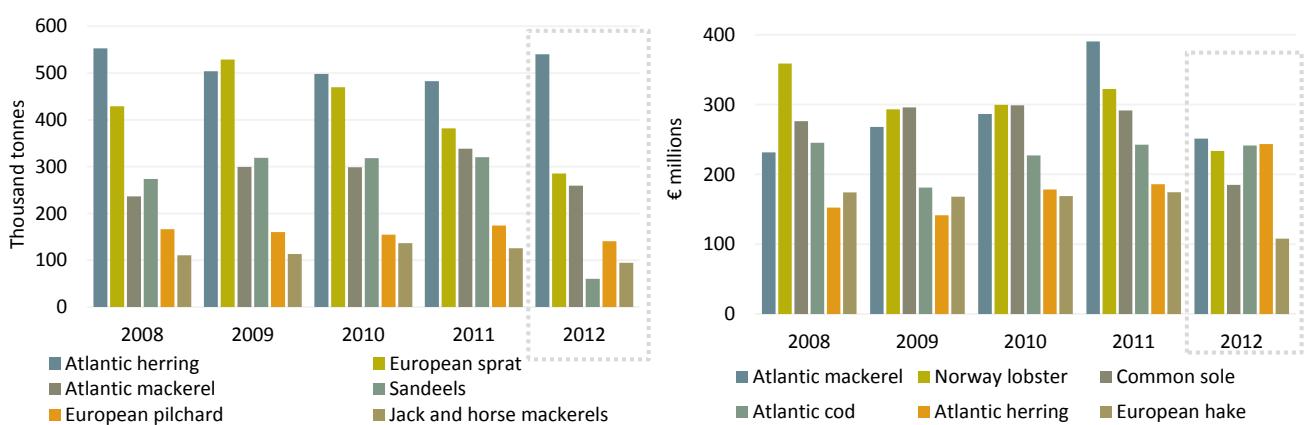


Figure 2.14 EU Landing trends: 2008 – 2012

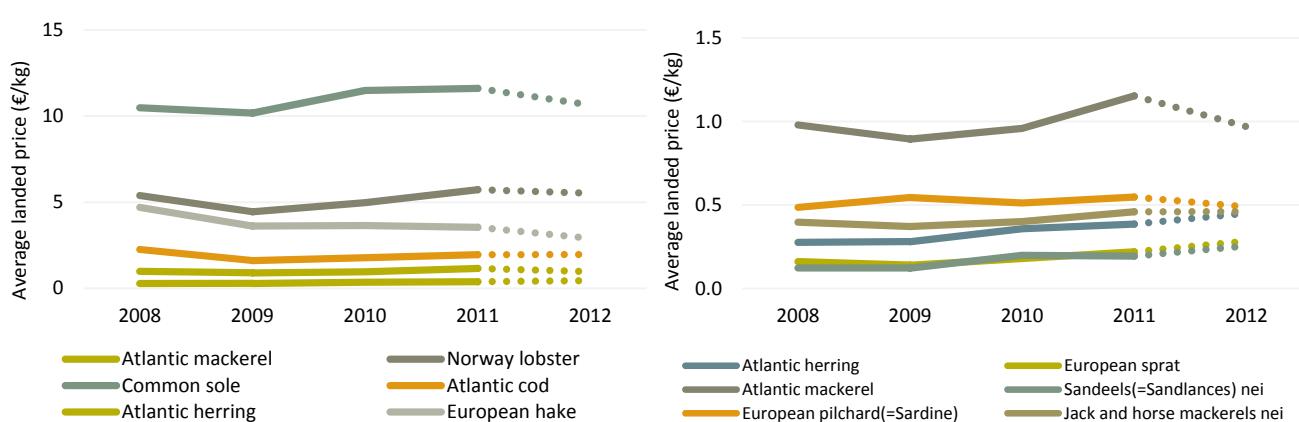
Left: top six species landed by EU fleet in terms of value; Right: top six species landed by EU fleet in terms of weight: 2008 and 2011.

Figure 2.15 contains the average real price of the top 10 species landed in the EU fleet<sup>19</sup> in terms of value (left) and weight (right) for 2008-2012. The average first-sale price of most of the top species in terms of value landed increased in 2011. For the most important species, the increase in the real price appears linked to reductions in landed volume. One of the species for which this appears not to apply is the Atlantic mackerel. The increase in the volume landed of +13% and the increase in the value landed (+36%) in 2011 resulted in an increase of 20% in the real first sale price. This may have been brought on by several factors; one possibility being favourable market conditions for this low valued species - consumers, preoccupied with the uncertain financial and economic situation, may have had a preference for cheaper alternative sources of fish protein.

<sup>18</sup> Greece and Spain excluded due to non-submission of landings data by species; 2012 data are provisional

<sup>19</sup> Greece and Spain excluded due to non-submission of landings data by species; 2012 data are provisional

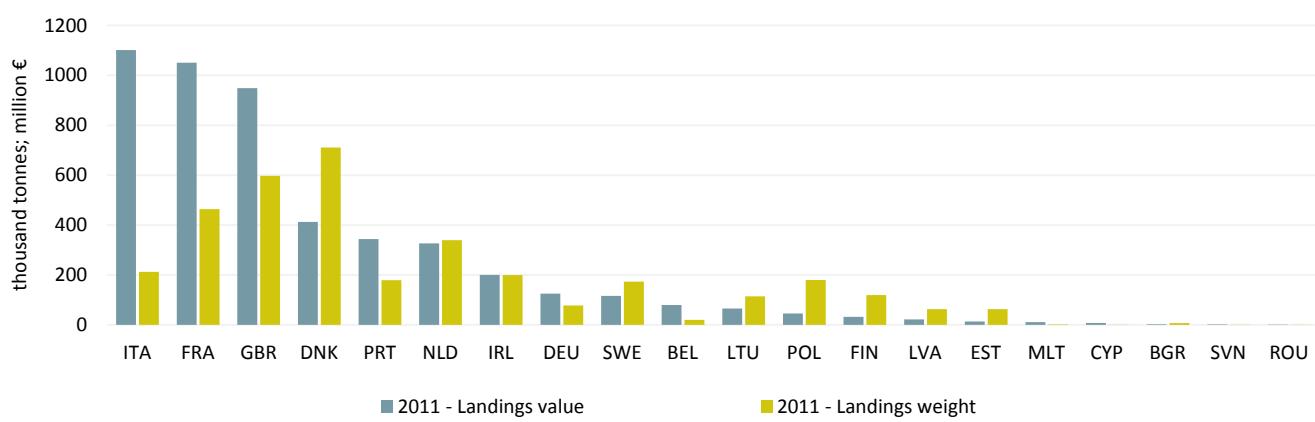
## EU Fleet Overview



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.15 EU fleet average first sales price trends for key species

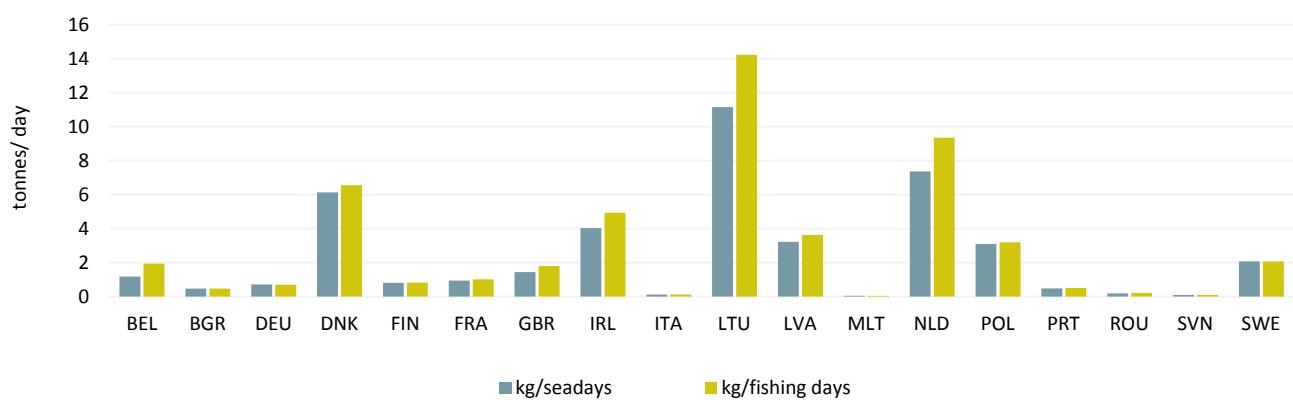
According to DCF data, the Danish fleet landed the most in terms of weight in 2011, amounting to 20% of the EU landings covered, followed by the UK fleet (17%). In terms of landings value, in 2011 the Italian fleet generated the highest value for their catch (22% of the total), followed by France (21%) and then the UK (19%), (Figure 2.16).



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.16 EU landings weight and value by Member State: 2011

According to the data submitted by MS, the Lithuanian fleet had the highest catch rate in 2011, landing more in volume per day at sea (around 11 thousand tonnes) than any of the other MS fleets (Figure 2.17).



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.17 EU fishing fleet landings per unit effort (LPUE): 2008-2011

Analysed by fishing operation, the small-scale fleet landed 6.2% of the landings in weight, the large-scale fleet 86.5% and the distant water fleet 7.4% (Figure 2.18).

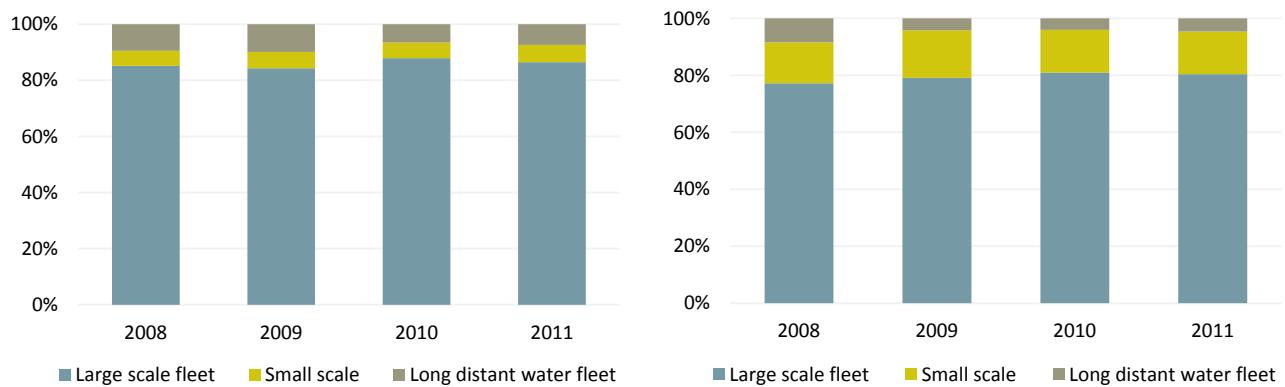


Figure 2.18 Trends in landings weight (left) and value (right) by main fishing operation: 2008-2011  
Data source: EUROSTAT (top left) and Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

The distant water fleet appears to have a much higher catch rate compared to both the small and large-scale fleet segments, accounting for 86% of the EU landings in weight per day at sea in 2011. Conversely, the small-scale fleet has a low catch rate, landing less than 1% of the EU landings in weight per day at sea (Figure 2.19).

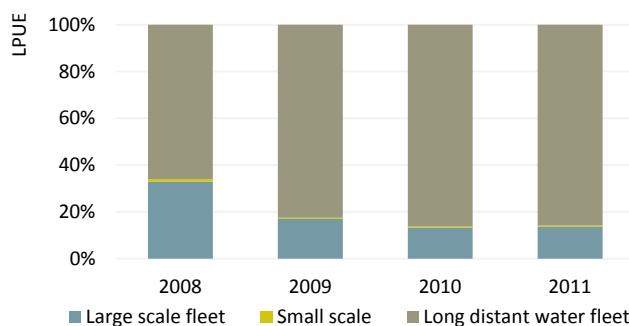
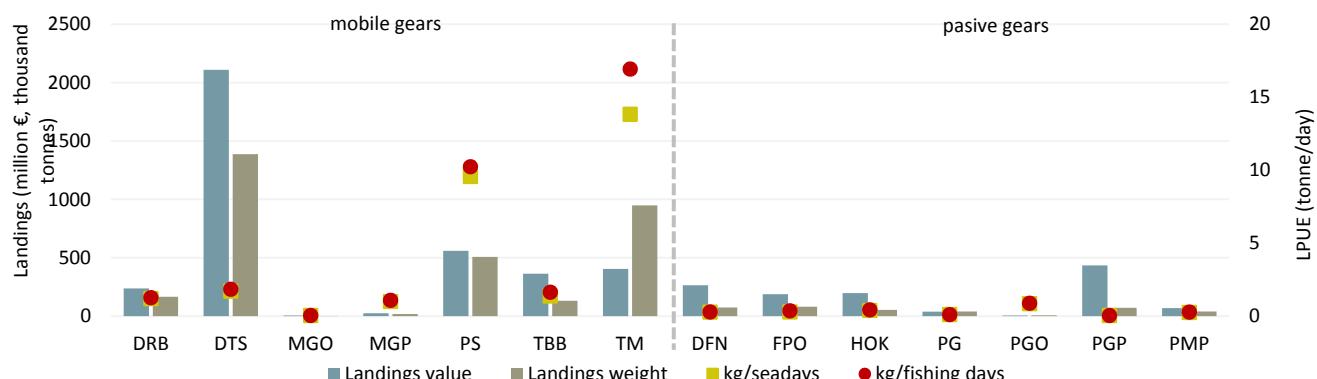


Figure 2.19 EU fleet fishing landings per day at sea (LPUE) by main fishing activity: 2008-2011  
Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

When analysed by main fishing technology and vessel length group, the mobile gear and larger vessel segments reveal higher catch rates but obtain lower average prices. The demersal trawlers land the most in volume and value, and thus attain relatively high prices for their landings when compared to, for example, pelagic trawlers and purse seiners. On the other hand, these two latter gear segments have the highest landings per unit effort. The static gear and smaller vessel segments have low catch rates but obtain higher average price for their landings (Figure 2.20).



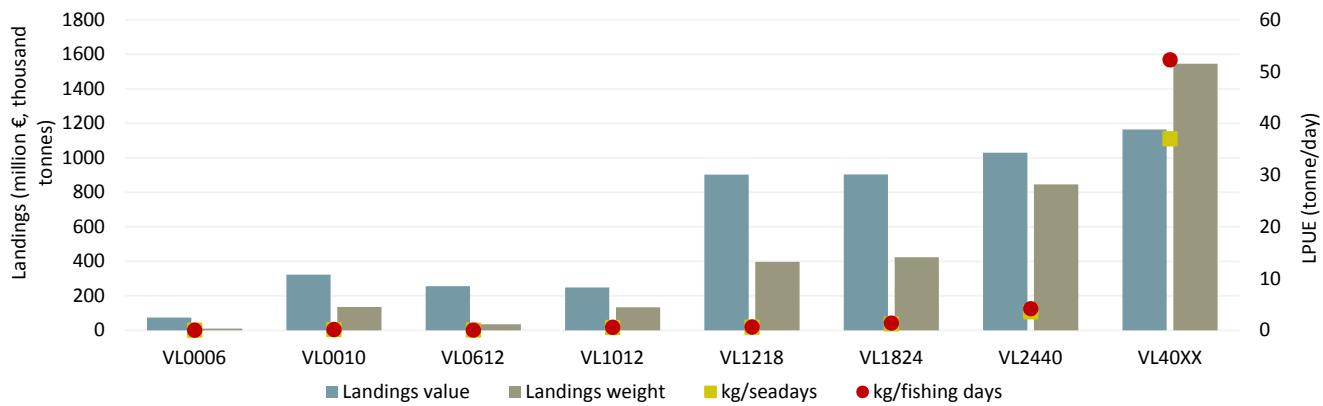


Figure 2.20 EU fleet landings in weight and value, and LPUE by main fishing gear (top) and vessel length group (bottom) in 2011.

## Fuel use intensity

Fuel use intensity of the EU fleet was analysed as litres of fuel consumed per tonne of live weight landed.

Fuel use intensity depends largely on the type of fishing operation, fishing gear, fish targeted and CPUE (catch per unit of effort). Based on the data submitted by MS, the results indicate that fuel use intensity in the EU fleet has decreased since 2008, albeit with a slight increase (1.8%) in 2011. By main fishing operation, small-scale vessels are more fuel intensive, consuming more fuel per volume landed (Figure 2.21). In 2011, the Belgian fleet consumed the largest amount of fuel per tonne of live weight landed (Figure 2.22).

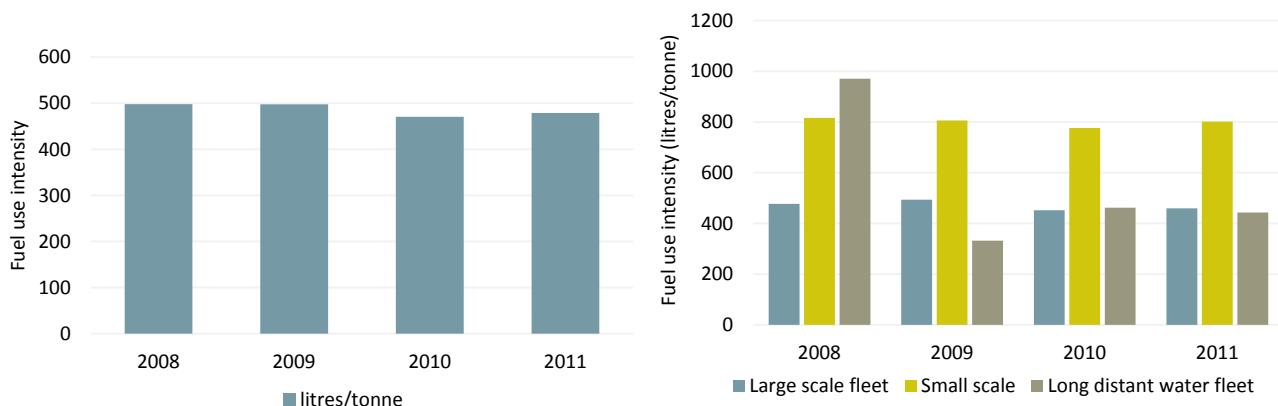


Figure 2.21 Fuel consumption per tonne of live weight landed (litres/tonne) and fuel consumption per landed value (litres/thousand €), for the EU fleet fishing and by main fishing activity: 2008-2011

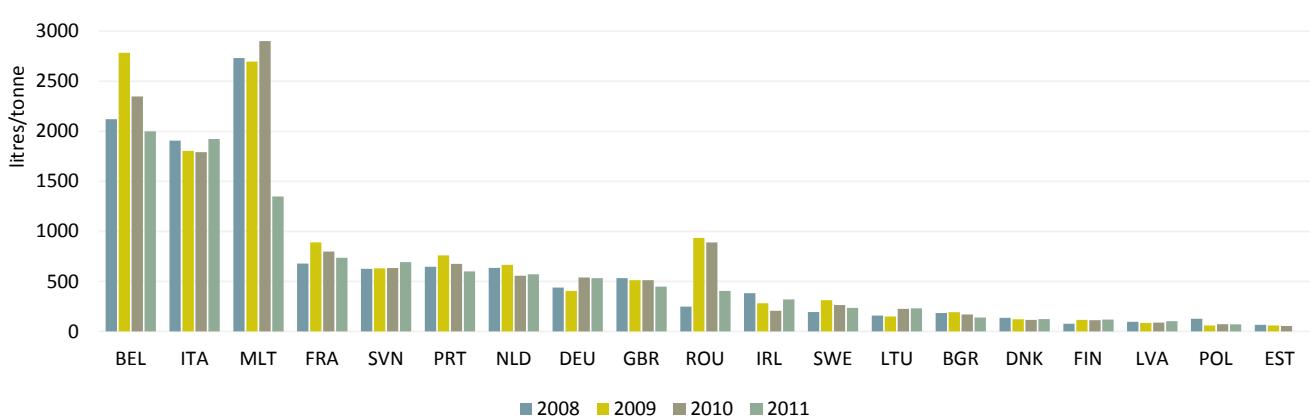
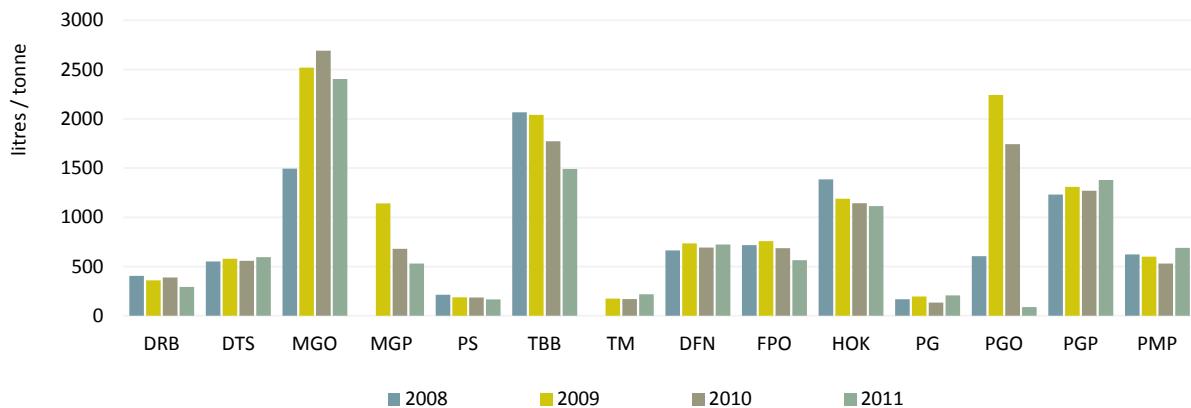


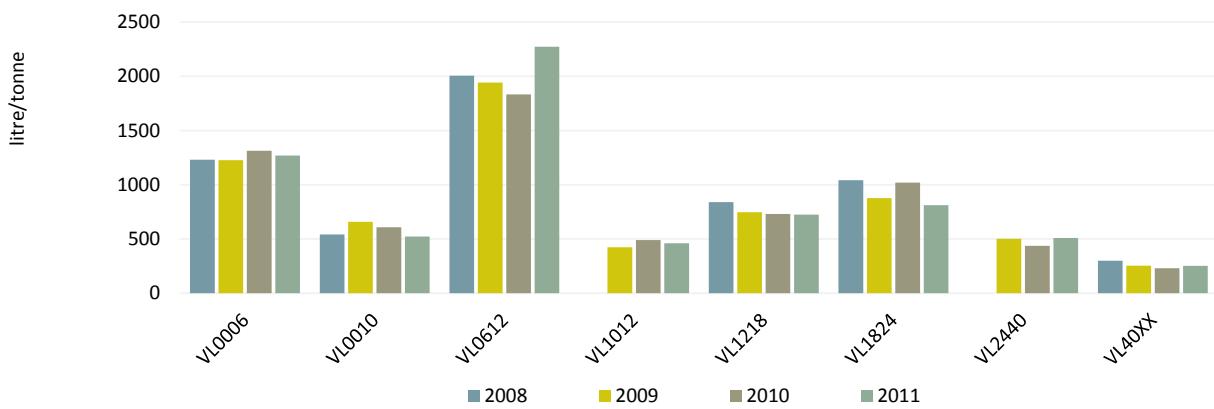
Figure 2.22 Fuel consumption per tonne of live weight landed (litres/tonne) by MS fishing fleets: 2008-2011

In general, mobile fishing gears are identified as consuming high amounts of fuel. Vessels using passive gears are generally smaller and operate in coastal waters while vessels using active fishing techniques require travelling greater distances to fishing grounds, consuming more fuel. Pelagic trawlers, beam trawlers and purse seiners consume on average the highest amounts of fuel per day at sea, but their LPUEs are higher than other gears, resulting in quite low fuel use intensities, with the exception of beam trawling. These latter vessels tend to have higher engine power to tow gears along the ocean floor, which further reduces energy efficiency. In contrast, given the nature of their fishing operations, fuel consumption is significantly less for vessels using passive gears (such as traps, hooks, gillnets). However, these vessels generally have low LPUEs, resulting in high fuel use per tonne landed (Figure 2.23).



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.23 Fuel consumption per tonne of live weight landed (litres/tonne) by main fishing gear for the EU fleet fishing: 2008-2011



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.24 Fuel consumption per tonne of live weight landed (litres/tonne) by vessel length group for the EU fleet fishing: 2008-2011

## 2.4. Economic Performance of the EU fleet

### Income and Costs

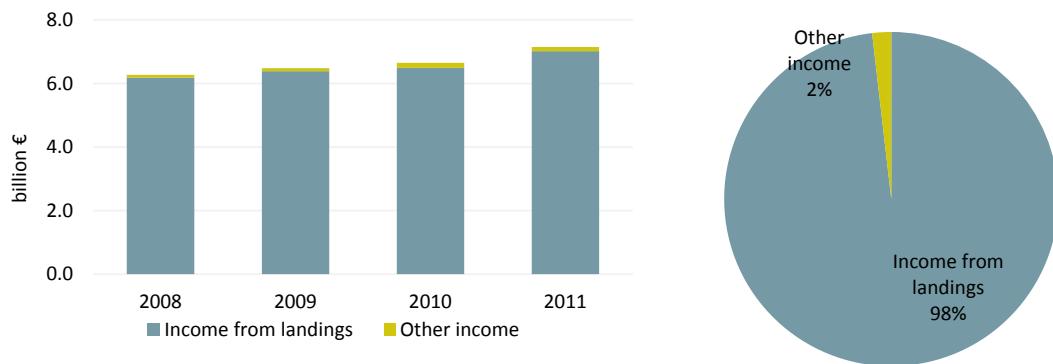
According to Member States DCF data submissions, the amount of income<sup>20</sup> generated by the EU fishing fleet<sup>21</sup> in 2011 was €7.134 billion. This amount consisted of €7.003 billion in fish sales and €131 million in non-fishing income (Figure 2.25). Income generated by the EU fleet<sup>21</sup>, increased 7.6% between 2010 and 2011.

20 Direct income subsidies and income from leasing out fishing rights were excluded from the economic analyses. Data on direct income subsidies were considered not robust enough for all Member States. Leasing rights income and costs were excluded for methodological reasons

21 Excludes data for Cyprus, Estonia and Greece, which were not reported.

Total costs (both actual incurred and estimated) by the EU fishing fleet<sup>21</sup> in 2011 amounted to €6.7 billion<sup>22</sup>, an increase of around 7% compared to 2010. This mainly consisted of labour costs (32% of total operating costs, €1.9 billion in crew wages and €257 million in unpaid labour) and fuel costs (€1.5 billion, 24% of total operating costs). Other costs linked to production volume amounted to €1.02 billion. Fixed costs were around €1.2 billion, of which repair costs amounted €571 million and depreciation costs €776 million (Figure 2.26).

While EU fleet income increased in 2011, so did the costs incurred by the EU fleet: labour costs by 2% compared to 2010, repair and maintenance costs by 8% and energy costs by 20% (this trend is expected to continue as fuel prices continued to rise in 2012) (Figure 2.26).



*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.25 EU fleet income breakdown, 2011

Left: income structure; right: breakdown of income items as % of income in 2011

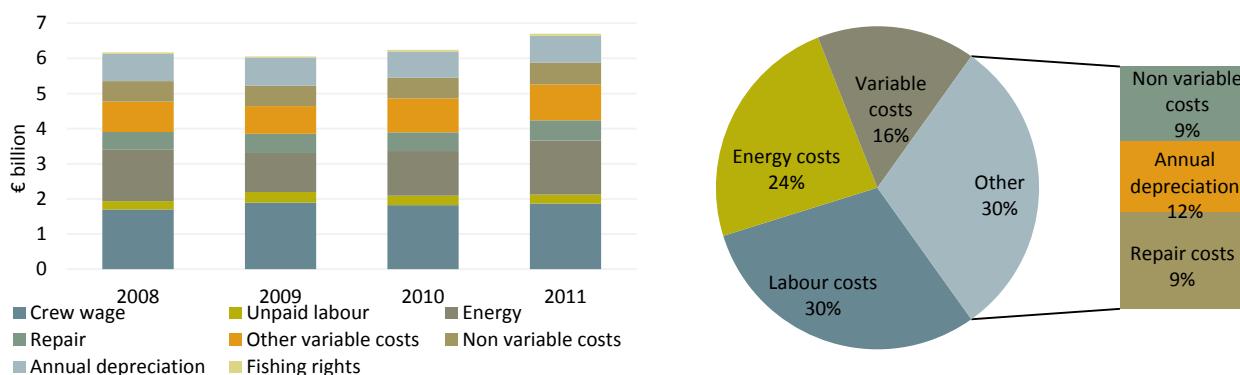


Figure 2.26 EU fleet cost items trends: 2008-2011

Left: cost structure; right: breakdown of costs items as % of total costs in 2011

Figure 2.27 (bottom right) provides EU Gasoil and Brent prices for 2008-2012 and shows that average prices rose sharply in 2008, reaching a peak in July before declining rapidly in the following months. While fuel prices remained relatively low during 2009 and early 2010, they increased substantially towards the end of 2010 and continued throughout 2011. In 2012, fuel prices again reached high levels as in mid-2008. These fluctuations in fuel prices appear to have a significant impact on labour costs: when fuel costs increase labour costs tend to decrease. The data suggest that as fuel prices eased in 2009, expenditure on crew wages and repairs consequently increased, while the total fuel cost of the EU fleet fell significantly, both in absolute terms and in relation to income. Data for 2010 suggests a reverse in this trend, there was a reduction in the amount spent

22 Fishing rights costs excluded for methodological reasons. See 14

on crew wages compared to 2009 and an increase in expenditure on fuel compared to 2009, largely due to the steady increase in fuel prices during 2010 and 2011.

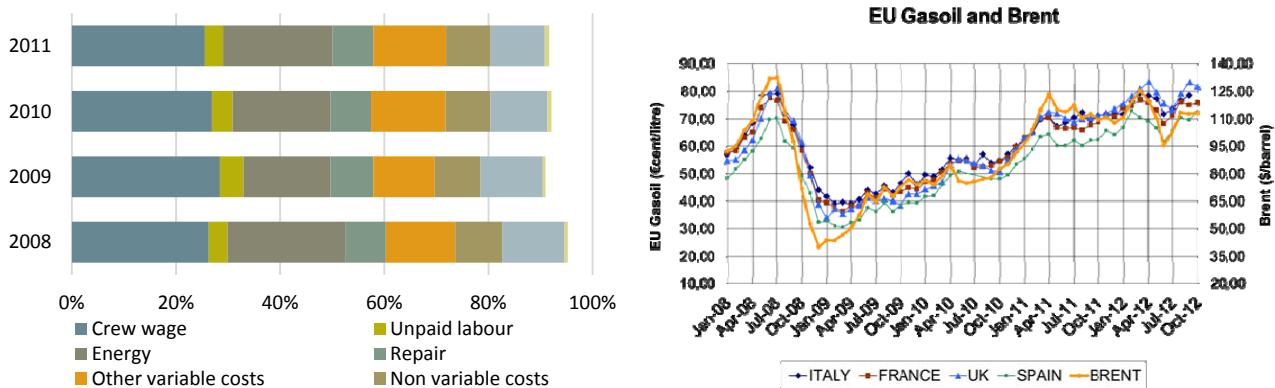


Figure 2.27 EU fleet cost items trends: 2008-2011  
Left: breakdown of cost items as a % of income; right: average energy prices

Figure 2.28 shows that fuel consumption tends to be inversely related to fuel costs: as fuel prices increase, consumption decreases (fishing effort in sea days also decreased slightly over the same period). Labour costs remained relatively stable over the years analysed, with a slight decrease when fuel costs increase, again highlighting that labour costs fluctuate in line with energy costs (Figure 2.28).

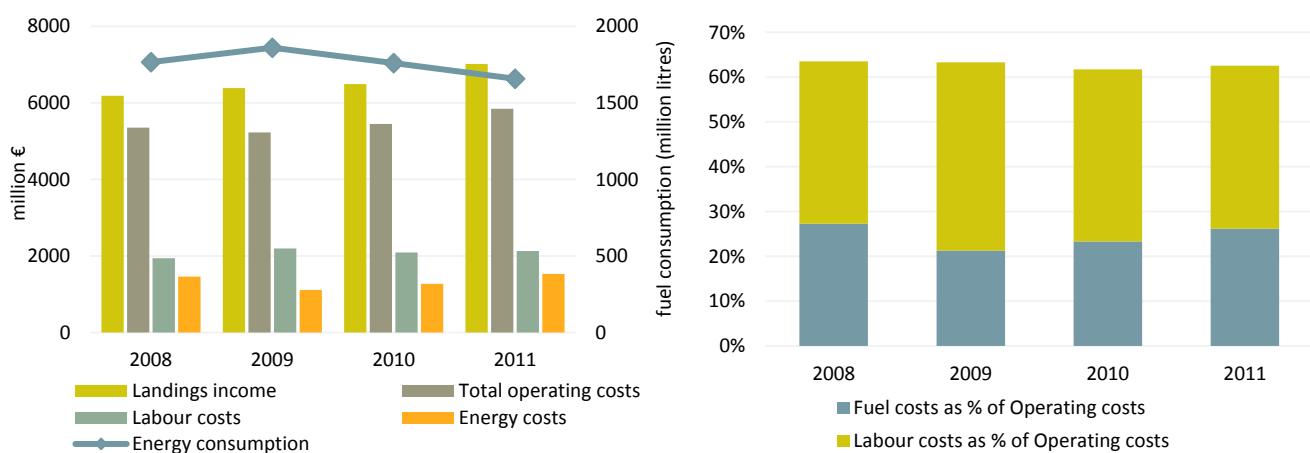
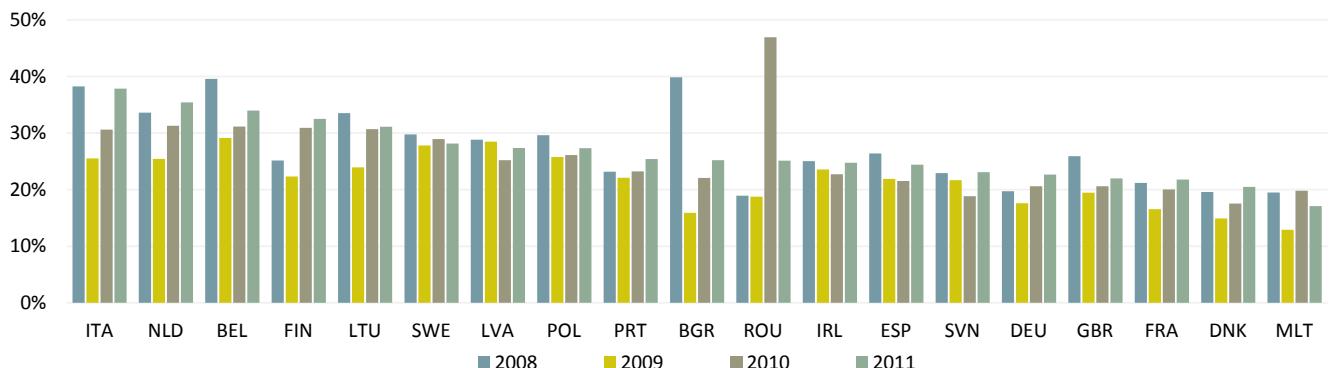


Figure 2.28 Main trends in income and costs (left) and fuel and labour costs as a % of operation costs (right) for the EU fishing fleet: 2008-2011

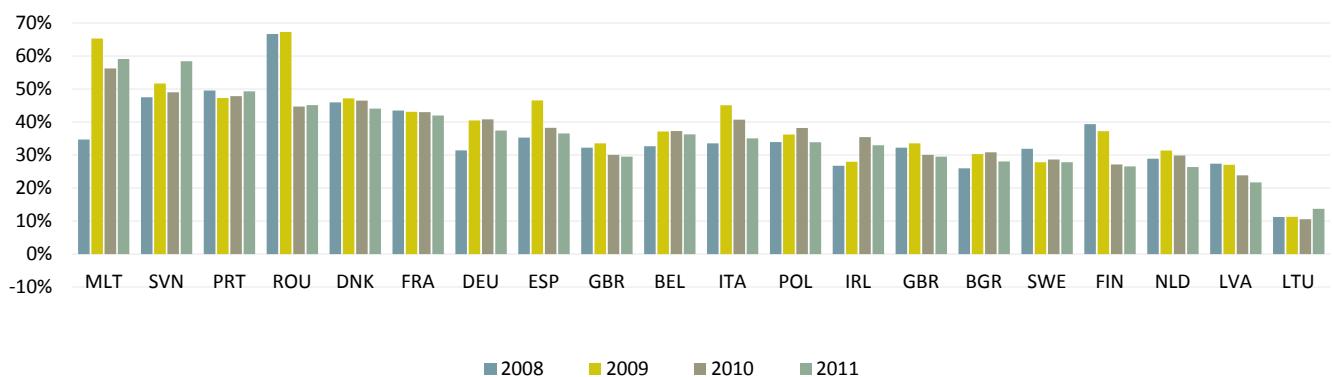
The impact of fuel prices on the cost of fishing varies according to the type of fishing activity, gear used, target species, fishing behaviour, and vessel characteristics. Analysed by MS, Italy appears to have the most fuel intensive fleet with fuel costs amounting to 38% of operating costs in 2011, followed by the Netherlands (35%) and Belgium (34%). The Maltese and Danish fleets, at 17% and 20% respectively, had the lowest ratios (Figure 2.29). The Maltese fleet on the other hand, had the highest labour cost to operating cost ratio, accounting 59% of total operating costs, followed by the Slovenian (58%) and Portuguese fleets (49%) (Figure 2.30).

## EU Fleet Overview



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

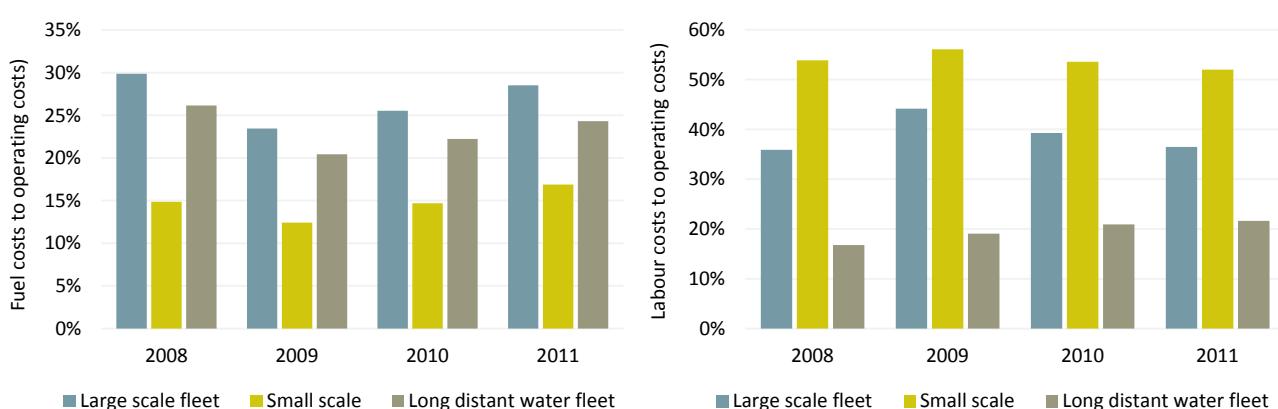
Figure 2.29 Trend in fuel costs as a percentage of total operating costs by MS fishing fleets: 2008-2011



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

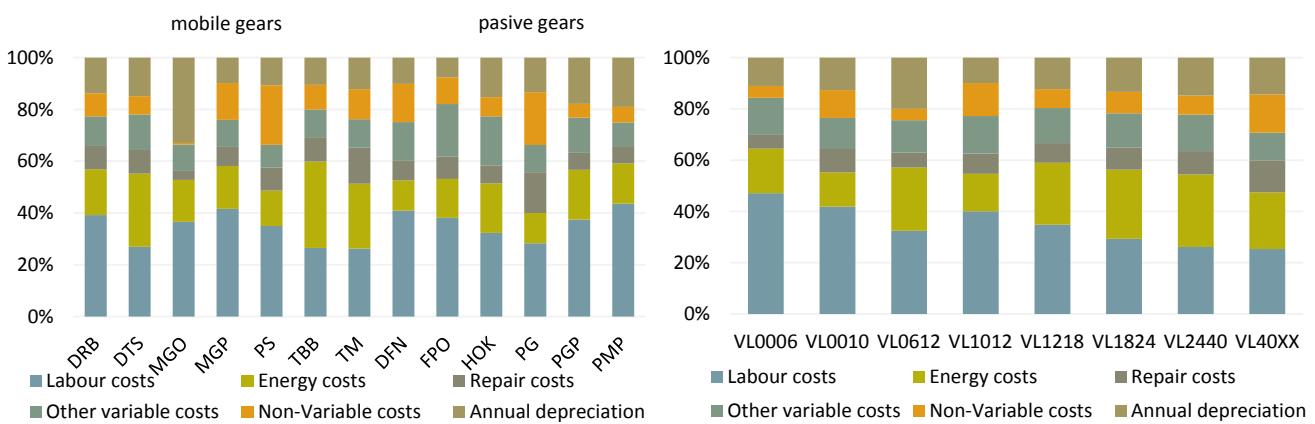
Figure 2.30 Trends in labour costs as a percentage of total operating costs by MS fishing fleets: 2008-2011

The intensity of fuel use by different segments of the fleet reflects on the relative importance of fuel costs to operating costs of fishing vessels. Figure 2.31 shows that large-scale and distant water fleets appear to be more dependent on fuel prices, having higher fuel costs to total operating cost ratios than the small-scale fleet. On the other hand, small-scale vessels have higher labour costs, accounting for over half of operating costs.



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 2.31 Fuel costs and labour costs as a percentage of operating costs (%) by main fishing activity: 2008-2011



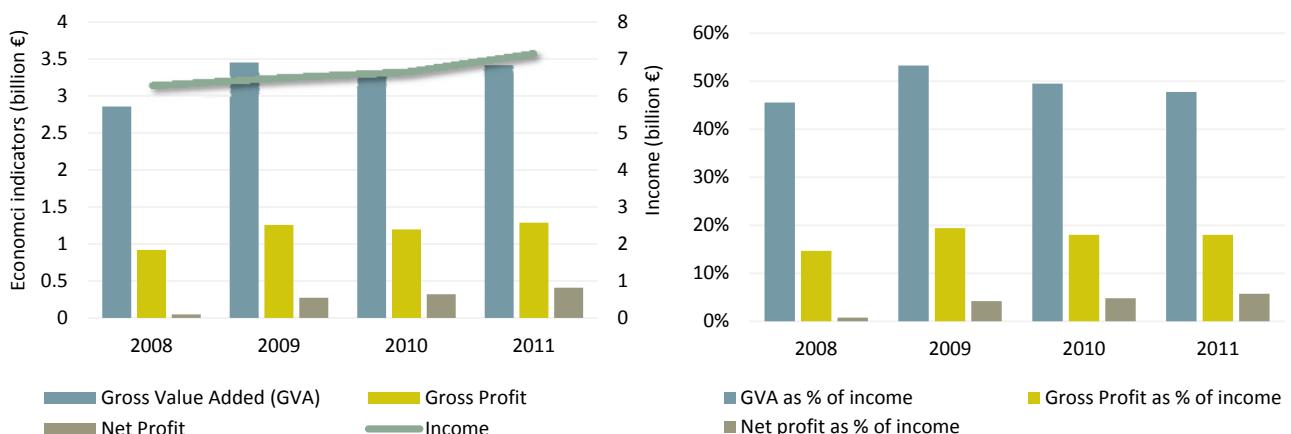
Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 2.32 Cost structure by main fishing gear and vessel length: 2011

### Economic performance Indicators

The amount of Gross Value Added (GVA), Gross profit and net profit (all excluding subsidies) generated by the EU fishing fleet<sup>23</sup> in 2011 was €3.4 billion (a 3.8% increase from 2010), €1.29 billion (a 7.5% increase from 2010) and €410 million (an increase of 28% from 2010), respectively (Figure 2.33).

Figure 2.33 (right) shows GVA, gross profit and net profit as a proportion of total income. GVA as a proportion of income decreased slightly from 53% in 2009 to 49% in 2010 to 48% in 2011. Gross profit as a proportion of income has remained relatively steady at around 18% over the last 3 years, while net profit as a proportion of income increased steadily from 1% in 2008 to 6% in 2011.



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 2.33 EU fleet economic performance indicators 2008-2011

Analysis of economic performance by Member State reveals a mixed picture (Table 2.2 for main indicator totals for all Member States in 2011). Thirteen out of 19 Member States (for which data was available) generated a net profit in 2011. The remaining six Member States (Bulgaria, Ireland, Finland, Germany, Malta and Slovenia) generated negative net profits in 2011.

The Spanish fleet generated the highest GVA in absolute terms in 2011 (25% of the EU total), followed by the French and Italian fleets, each with 17% of the EU total. In relative terms, the Portuguese fleet generated the highest level of GVA in relation to income (64%), followed by the Danish fleet (63%) and the Romanian fleet (61%) (Figure 2.34).

<sup>23</sup> Excluding data for Greece, Estonia and Cyprus which were not reported

The Italian fleet generated the highest gross profit in absolute terms in 2011 (24% of the EU total), followed by the UK fleet (16% of the EU total) and the French fleet (14% of the EU total). In relative terms, the Danish fleet generated the highest level of gross profit in relation to income (34%), followed by the Latvian fleet (33%) and the Portuguese fleet (29%) (Figure 2.34).

The UK fleet generated the highest net profit in absolute terms in 2011 (38% of the EU total), followed by the French fleet (26% of the EU total) and the Italian fleet (19% of the EU total). In relative terms, the Latvian fleet generated the highest level of net profit in relation to income (28%), followed by the Romanian fleet (17%) and the UK fleet (16%) (Figure 2.34).

Apart from the exclusion of Cyprus, Estonia and Greece, results for Bulgaria and Malta were also omitted from Figure 2.34 due to issues that may be related to data quality. According to Bulgaria's data submission, the national fleet generated a net loss as a proportion of total income of 121%. According to Malta's data submission, the national fleet generated a net profit margin of -195%. Figure 2.34 also highlights the importance of capital costs on the economic performance of some MS fishing fleets.

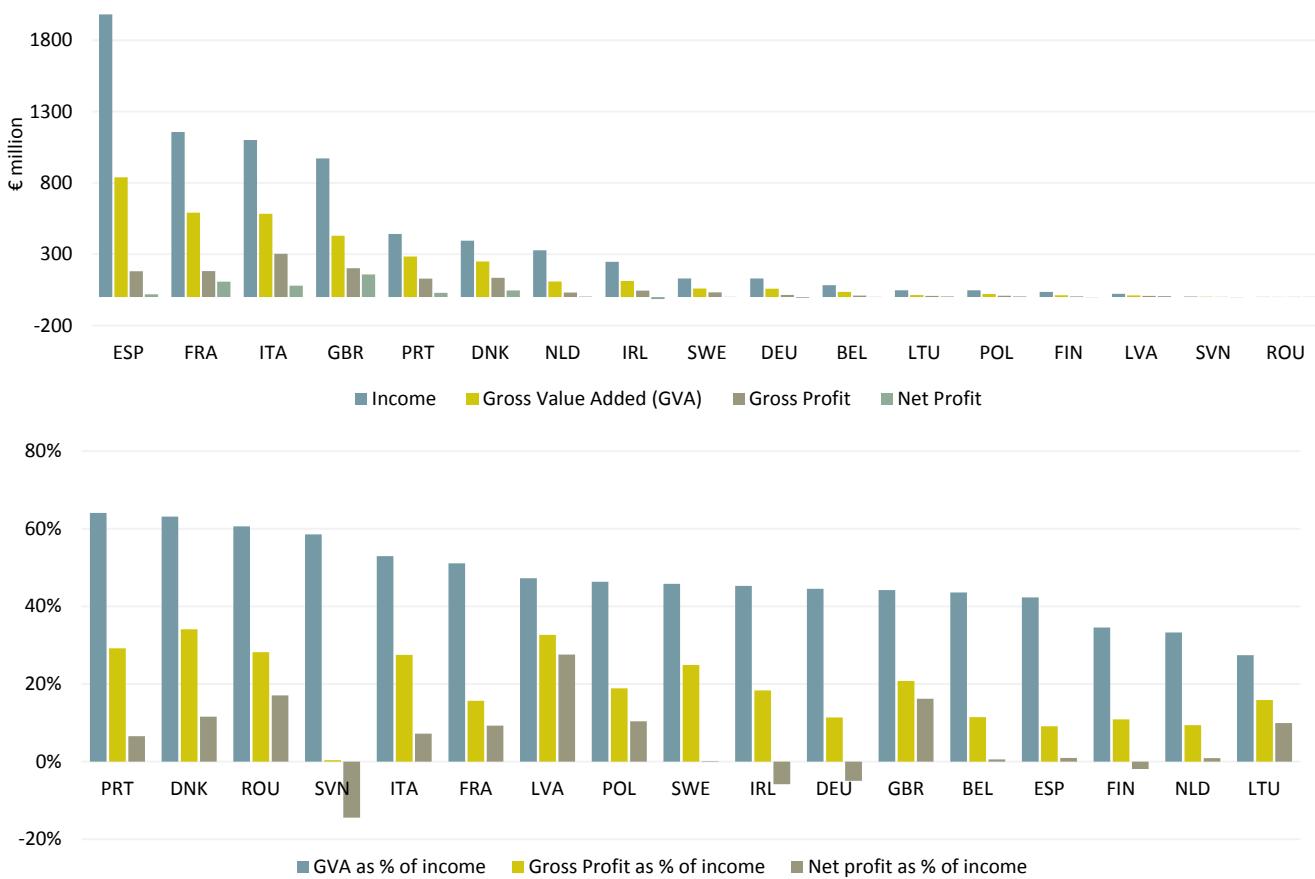


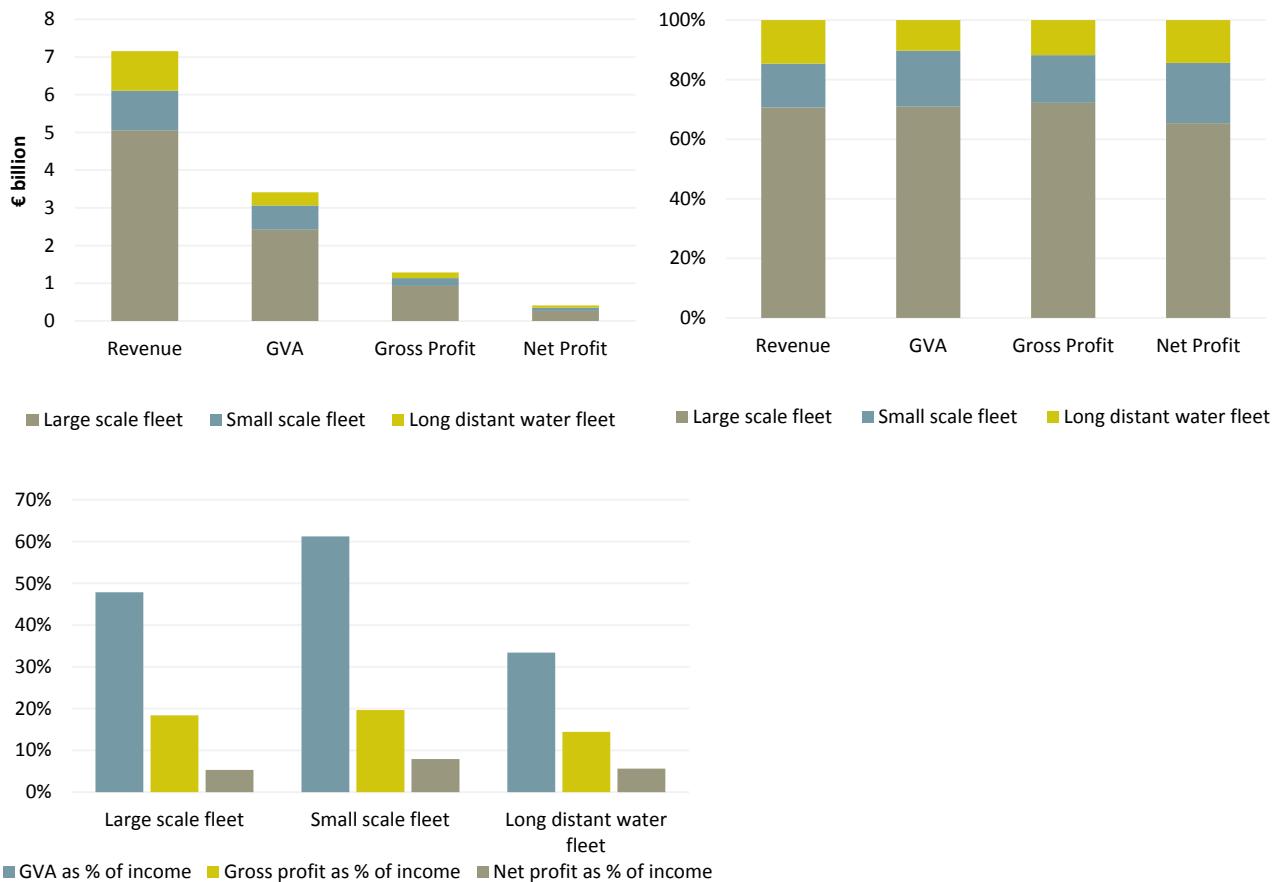
Figure 2.34 EU Member States economic performance indicators in 2011.  
*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Table 2.2 Main indicator totals for EU Member States fishing fleets in 2011

	Number of vessels	Gross Tonnage (1000 GT)			Energy consumption (million litres)			Weight of landings (thousand tonnes)			Gross Profit (€ million)			Fixed Asset value (€ million)	
		Kilowatts (1000 kW)	Total jobs	FTEs	Days at Sea (thousand)	Landed value (€ million)	Income (€ million)	GVA (€ million)	Net profit (€ million)						
BEL	89	15.8	51.2	377	342	40.3	17.2	20.1	79.4	82.35	35.9	9.5	0.5	45.1	
BGR	1010	5.0	33.7	3276	1668	1.1	16.1	7.6	2.7	2.70	-1.5	-3.1	-3.3	0.1	
CYP	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.2	8.0	7.99	n/a	n/a	n/a	n/a	
DEU	1664	64.6	151.4	1639	1258	41.6	109.3	78.1	125.5	129.63	57.8	14.8	-6.4	97.9	
DNK	2663	67.5	238.8	1460	1661	88.0	116.0	711.0	412.8	394.50	249.1	134.5	45.8	406.4	
ESP	10892	414.7	936.0	36294	32194	n/a	n/a	n/a	n/a	1982.06	839.0	180.5	18.6	516.5	
EST	934	14.7	39.6	n/a	n/a	n/a	n/a	63.3	13.8	13.78	n/a	n/a	n/a	n/a	
FIN	3365	16.7	172.8	1722	316	14.2	148.2	119.7	32.5	35.53	12.3	3.9	-0.7	69.2	
FRA	6004	161.0	879.9	10713	7447	341.6	492.8	463.7	1050.7	1156.37	590.8	181.2	107.2	1300.7	
GBR	6467	207.2	825.9	12405	7192	268.1	414.5	597.4	948.7	971.78	429.5	202.2	157.7	525.4	
GRC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
IRL	2162	72.2	202.4	4714	3166	63.8	49.5	199.5	200.3	246.32	111.6	45.2	-14.3	367.4	
ITA	14715	185.0	1236.5	28726	20599	408.2	1748.5	212.4	1101.0	1101.03	582.9	303.2	79.6	917.9	
LTU	171	46.0	54.4	768	575	26.4	10.3	114.7	65.6	46.96	12.9	7.5	4.7	53.2	
LVA	319	8.5	22.3	712	378	6.5	19.6	63.1	21.8	22.62	10.7	7.4	6.2	9.7	
MLT	1087	12.1	83.4	225	155	2.6	41.3	1.9	11.4	11.37	6.1	-1.5	-22.2	81.6	
NLD	738	130.5	290.1	2763	1768	193.8	46.1	339.4	326.6	327.61	109.1	30.8	3.0	343.8	
POL	805	38.0	88.1	2411	1576	12.7	58.2	179.9	46.0	46.41	21.5	8.8	4.8	91.0	
PRT	8557	102.5	377.4	17234	17188	107.3	375.1	178.8	344.2	442.38	283.6	129.2	29.0	358.0	
ROU	488	1.0	7.0	454	28	0.2	2.9	0.5	1.4	1.42	0.9	0.4	0.2	3.9	
SVN	186	1.0	10.9	114	77	0.5	7.6	0.7	2.0	2.68	1.6	0.01	-0.4	4.5	
SWE	1359	32.9	178.1	1679	974	40.9	83.7	173.4	116.5	130.50	59.8	32.5	0.2	164.3	

Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Economic performance data broken down by main fishing activity suggest that the large-scale fleet generated 71% of the EU fleet's income, with the small and distant water fleets each contributing around 15%. The EU large-scale fleet generated 71% of the total GVA produced by the entire EU fleet in 2011, 72% of the gross profit and almost 65% of the net profit (Figure 2.35), a decrease from 89% in 2010. The small-scale fleet contributed to almost 19% of the GVA, 16% of the gross profit and 20% of the total net profit in 2011. Net profit generated by the small-scale fleet increased almost 32% while net profits for the large-scale fleet decreased by 5% compared to 2010. The distant water fleet moved from a loss making position in 2010 to post a profit in 2011. In relative terms, the small-scale fleet generated the highest GVA, gross profit and net profit as a percentage of income, 61%, 20% and 8% respectively. The large-scale and distant water fleets each generated a profit margin of around 6% in 2011 (Figure 2.35).

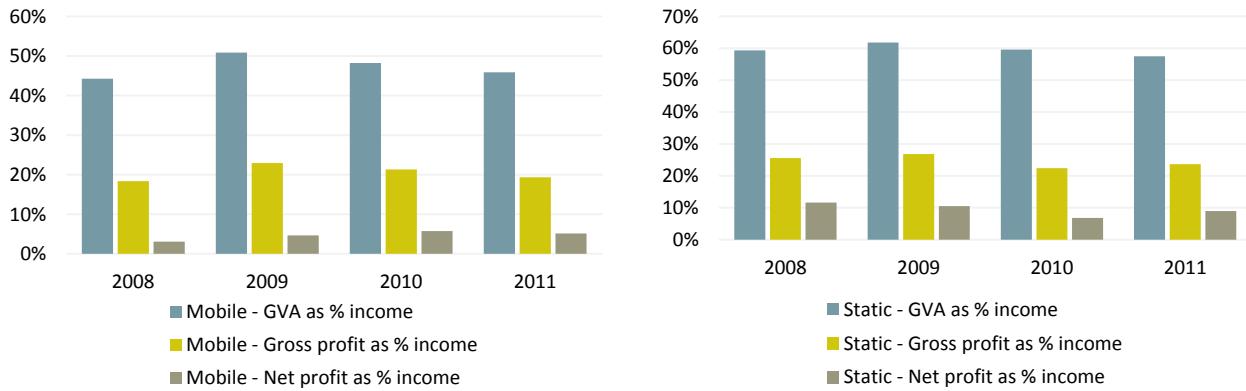


*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.35 EU fleet economic performance indicators by main fishing operation: 2011

Analysis at the fleet segment level was performed using a subset of the DCF data submitted by MS. This subset included only fleet segments with all the necessary data to calculate the indicator net profit, and hence, allow comparison of results across all economic performance indicators (Table 2.3 A and B).

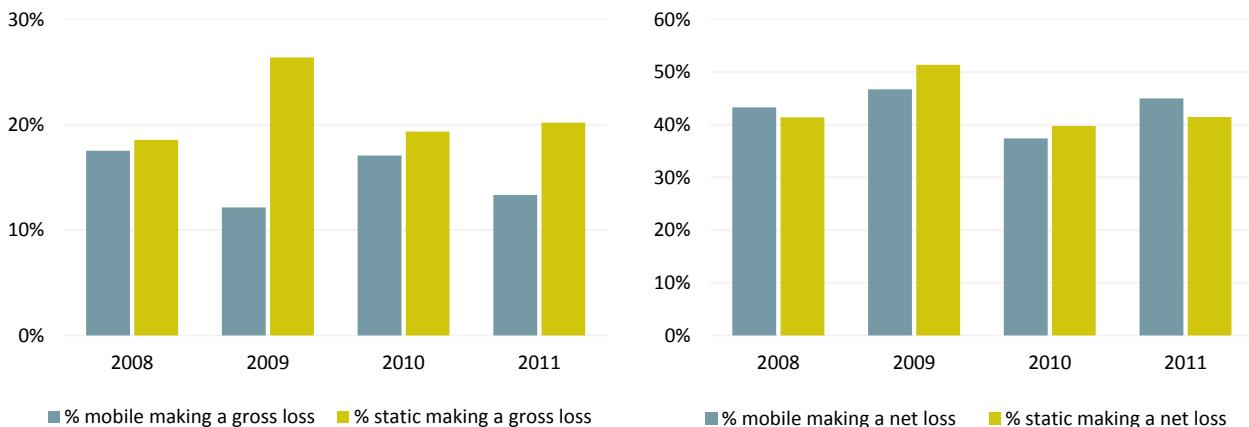
When comparing the economic performance of the mobile and static gear segments, the data suggest that between 2008 and 2011 the static gear segments were generally more profitable than the mobile gear segments (Figure 2.36). Results show that GVA, gross profit and net profit as a proportion of total income were consistently higher for the static gears over the period. GVA as a proportion of income varied between 57%-62% for the static gear, compared to 44%-51% for the mobile gears. Gross profit fluctuated between 22%-27% for static gears, while mobile gears fluctuated between 18% and 23% over the period (Figure 2.38).



*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.36 EU fleet economic performance by mobile and static gear segments

The data also suggest that 45% of mobile gear fleet segments<sup>24</sup> made net losses in 2011 i.e. vessels in these segments on average made insufficient returns on capital invested. The corresponding figure in 2008 was 43%. In addition, 13% of mobile gear fleet segments generated negative gross profits on average in 2011 i.e. vessels in these segments on average did not generate enough income to cover operational costs. The corresponding figure for 2008 was 18% (Figure 2.37). In comparison, 41% of static gear fleet segments made losses on average in 2011, the same as in 2008, while 20% of static gear fleet segments generated negative gross profits in 2011, compared to 19% in 2008. In 2009 there was a substantial increase in the proportion of fleet segments making gross losses, in particular the static gears: 26% made gross losses and 51% made net losses. This trend was less pronounced in the mobile gear segments: 47% made net losses but only 12% made gross losses in 2009 (Figure 2.37).



*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.37 Percentage of mobile and static gear segments making losses

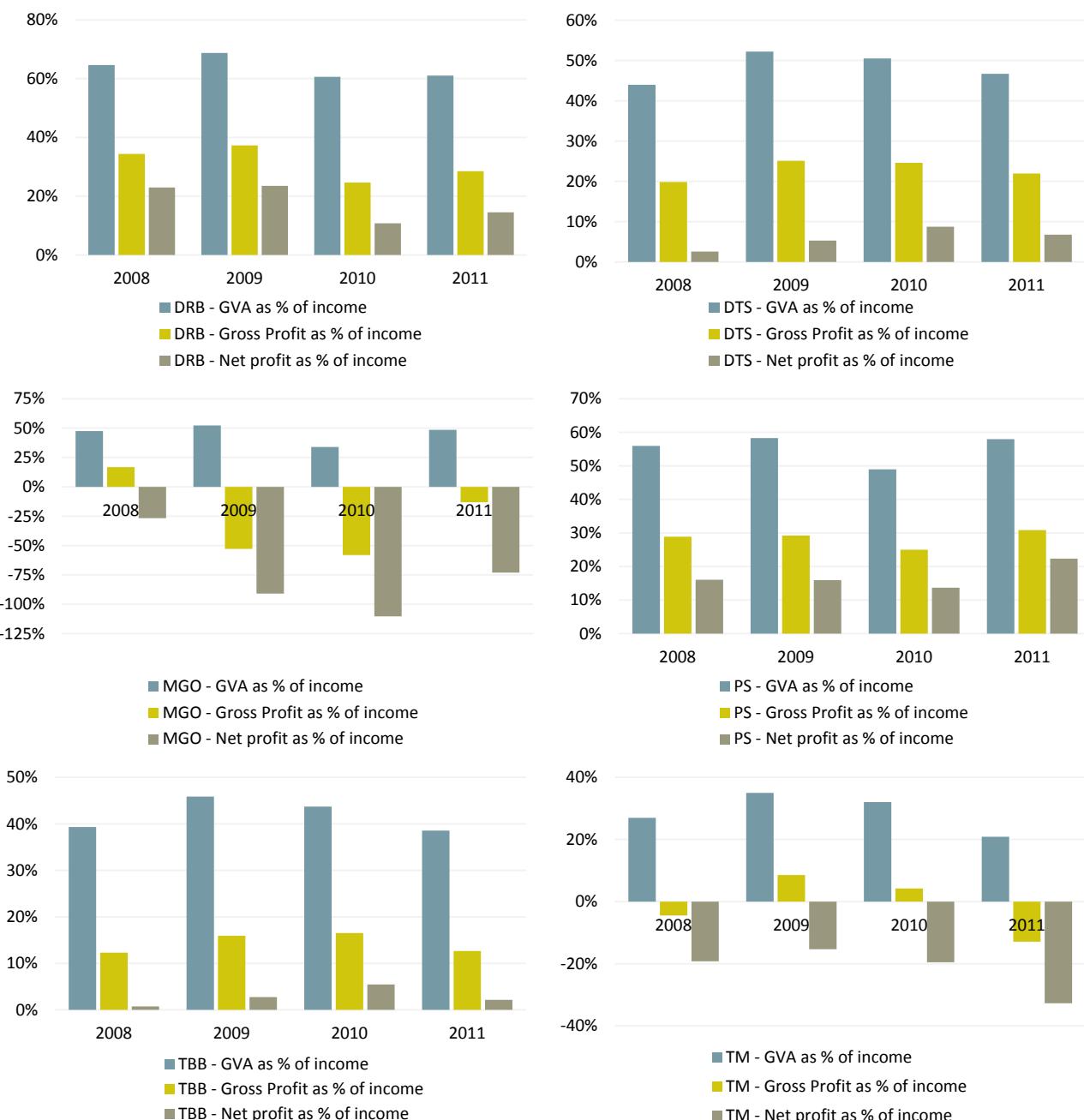
<sup>24</sup> Excludes data for Greece and Cyprus, which were not reported

Table 2.3 Main indicators by fishing gear in 2011: A) all data submitted by fleet segment and B) subset of fleet segment data submitted.

A	Number of vessels	Gross Tonnage (1000 GT)	Kilowatts (1000 kW)	Total jobs	Energy consumption FTE (million litres)	Days at Sea (1000)	Weight of landings (1000 tonnes)		Income from landings			Total GVA (€ million)	Gross Profit (€ million)	Net profit value (€ million)	Fixed Asset		
							Landed value (€ million)	Landed value (€ million)	Total income (€ million)	GVA (€ million)	Gross Profit (€ million)				GVA/FTE		
Active gears	DRB	1650	32.8	202.4	4298	2520	49.2	137.2	165.8	237.4	243.3	247.3	153.7	81.2	31.5	241.6	61.0
	DTS	6735	629.0	1794.8	28000	26461	829.6	808.2	1386.5	2109.0	2885.0	2985.5	1257.9	510.8	116.4	2186.1	47.5
	MGO	208	1.0	17.3	258	135	2.1	17.0	0.9	4.9	14.9	15.7	9.8	3.1	-1.1	21.3	72.7
	MGP	117	4.7	21.1	423	350	9.4	17.6	17.8	24.9	35.7	36.6	18.2	5.4	0.9	34.3	51.9
	PS	1322	236.7	563.9	12059	11227	117.5	53.0	507.3	558.7	1125.4	1148.7	583.4	261.0	155.7	602.0	52.0
	TBB	757	89.6	308.1	2964	2094	192.3	94.7	131.2	363.6	355.0	369.5	138.9	45.6	7.8	249.6	66.3
	TM	564	232.5	365.0	4036	3050	180.1	68.8	948.4	404.4	383.1	397.0	78.4	-34.3	-100.8	543.7	25.7
Passive gears	DFN	4073	45.8	329.5	11662	8091	53.7	269.7	74.4	264.9	343.6	362.0	208.0	67.2	16.5	230.7	25.7
	FPO	3893	23.6	263.6	8085	6498	43.7	279.9	81.3	188.3	225.3	236.2	125.4	52.9	20.4	174.2	19.3
	HOK	2978	97.7	364.4	9560	8669	46.2	133.1	53.5	198.0	524.3	552.9	253.1	90.5	21.1	227.8	29.2
	PG	4095	11.7	148.5	3917	1368	4.9	259.6	39.3	37.9	37.5	49.6	19.3	8.5	4.6	50.3	14.1
	PGP	13857	54.3	582.4	21245	17140	97.9	1452.7	71.2	434.4	519.3	524.2	320.2	149.2	71.5	334.9	18.7
	PMP	9443	40.8	295.5	20358	14652	23.9	156.5	40.1	68.7	295.3	303.9	182.6	-8.4	-48.9	186.8	12.5
	Total	49690	1500.3	5256.6	126865	102256	1650.6	3747.9	3517.6	4895.3	6987.7	7229.2	3349.0	1232.7	295.7	5083.4	32.8
Average vessel		0.030	0.106	2.553	2.058	0.033	0.075	0.071	0.099	0.141	0.145	0.067	0.025	0.006	0.102	0.001	

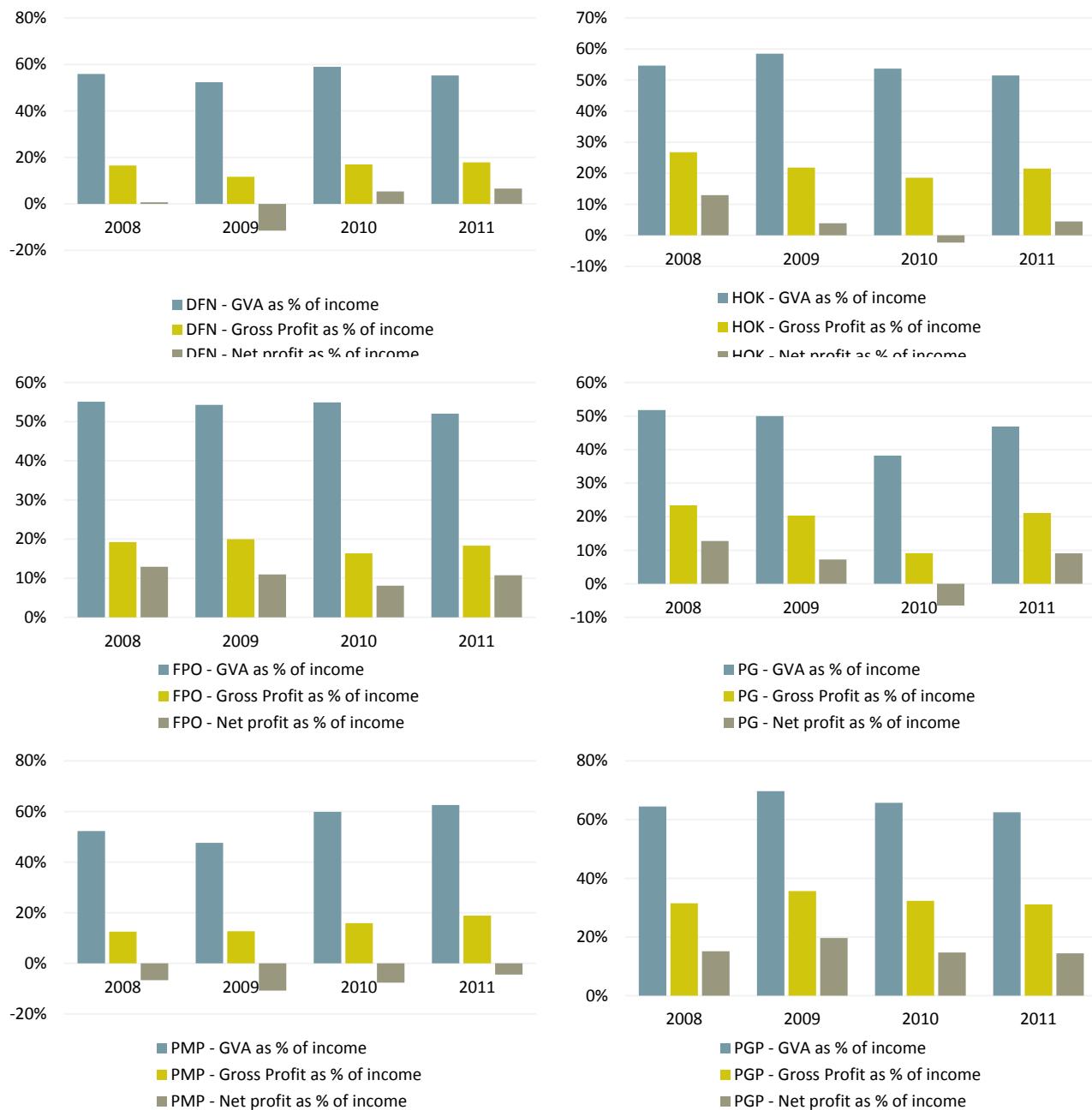
B	Number of vessels	Gross Tonnage (1000 GT)	Kilowatts (1000 kW)	Total jobs	Energy consumption FTE (million litres)	Days at Sea (1000)	Weight of landings (1000 tonnes)		Income from landings			Total GVA (€ million)	Gross Profit (€ million)	Net profit value (€ million)	Fixed Asset		
							Landed value (€ million)	Landed value (€ million)	Total income (€ million)	GVA (€ million)	Gross Profit (€ million)				GVA/FTE		
Active gears	DRB	1394	30.0	187.5	3485	1962	47.5	134.3	159.6	206.2	215.6	219.5	132.8	62.1	31.5	236.5	67.7
	DTS	5337	403.7	1366.1	19679	17150	788.4	796.9	1346.5	2040.6	2007.9	2082.4	956.0	449.8	138.7	1874.6	55.7
	MGO	41	0.5	6.6	52	36	0.5	1.5	0.3	1.5	1.5	1.5	0.7	-0.2	-1.1	3.2	19.6
	MGP	57	0.8	7.4	172	118	3.0	10.8	10.4	9.6	13.1	13.3	7.3	2.2	0.8	10.7	61.7
	PS	525	85.1	247.5	4592	3605	68.9	51.2	422.3	428.3	428.3	440.0	251.4	133.9	96.9	251.5	69.7
	TBB	744	88.0	303.0	2964	2094	192.3	92.1	128.9	356.8	355.0	369.5	138.9	45.6	7.8	249.6	66.3
	TM	415	167.1	287.6	3473	2580	171.4	56.3	801.8	369.7	304.0	314.4	64.3	-39.7	-100.8	506.0	24.9
Passive gears	DFN	3084	27.3	225.1	6844	5158	37.0	235.4	53.4	194.9	224.9	239.5	130.8	42.3	15.7	225.7	25.4
	FPO	2924	19.5	208.2	6597	5580	38.8	274.0	76.8	177.9	183.9	194.8	99.0	34.8	20.4	141.3	17.7
	HOK	1291	31.1	143.3	3796	3501	39.0	99.0	44.1	154.7	156.9	164.3	82.9	34.6	7.2	121.8	23.7
	PG	2772	8.3	119.4	2754	919	3.6	220.0	17.5	23.1	22.7	27.7	12.0	5.4	2.3	27.0	13.1
	PGP	12692	34.6	452.9	19845	15405	97.1	1427.6	70.4	429.9	444.1	448.8	279.3	138.9	64.5	307.2	18.1
	PMP	1608	15.2	97.9	5778	5455	22.9	137.4	34.7	60.3	109.9	112.9	69.8	21.0	-4.9	133.6	12.8
	Total	32884	911.2	3652.5	80030	63563	1510.3	3536.7	3166.8	4453.6	4467.8	4628.5	2225.2	930.9	279.1	4088.8	35.0
Average vessel		0.028	0.111	2.434	1.933	0.046	0.108	0.096	0.135	0.136	0.141	0.068	0.028	0.008	0.124	0.001	

Figure 2.38 and Figure 2.39 contain trends of economic performance for the main mobile and static gear types. Note that these estimations at segment level do not include all EU fleet segments due to missing or incomplete data sets. Data for the mobile gear types show a general deterioration in economic performance from 2008 to 2011, except for dredges (DRB) and purse seiners (PS). The data suggest that the polyvalent mobile gear (MGO) and pelagic trawlers (TM) segments were the least profitable between 2008-2011, with negative net profit as a % of income during the entire period. Gross profit was also negative for these gear types in one or several of the years. In the case of the MGO segment, this is in due to the Maltese segment. While poor performance in the pelagic trawl segment (TM) appears to be quite widespread in the analysed MS fleets, the poor performance of EU vessels using other active gears segment (MGO) can be solely attributed to the Maltese MGO fleet segment, being the only one represented in the data subset in 2011 (and may be a data related issue). Data for the static gear types show a general improvement in economic performance from 2008 to 2011, with positive net profits as a percentage of income all gear segments in 2011, except for the PMP, with a negative profit margin of 4%.



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.38 EU fleet economic performance trends by main gear type - mobile



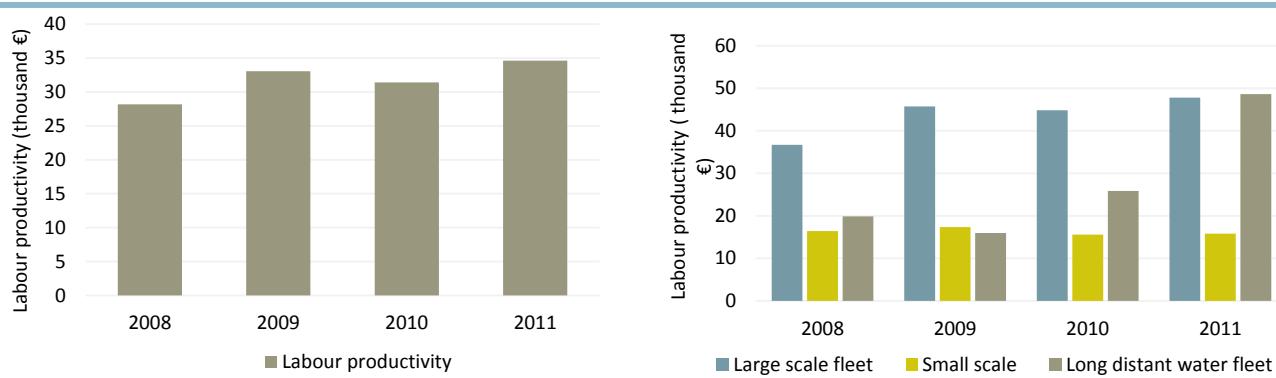
Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.39 EU fleet economic performance trends by main gear type - static

## Labour Productivity

Labour productivity was also analysed for the EU fleet by Member State, main fishing activity, fishing gears and vessel length groups. Labour productivity, defined as gross value added per FTE (GVA/FTE), measures the amount of output produced by the amount of labour and gives an indication of the economic growth in the sector.

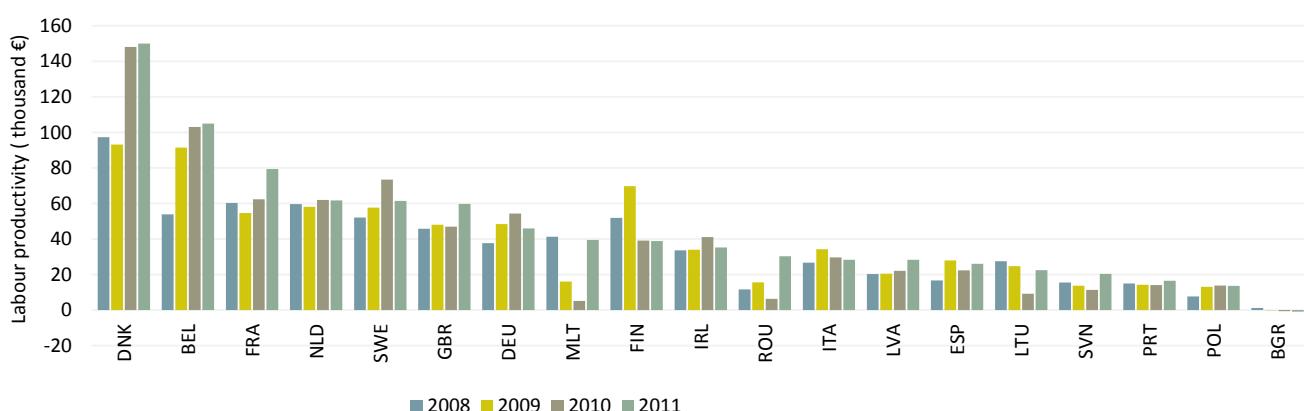
Labour productivity in the EU fishing fleet increased over the period analysed, although with a slight decrease in 2010. Results indicate that the large-scale and long-distant water fleets are more labour productive (Figure 2.40).



*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.40 Labour productivity in the EU fleet and by main fishing activity: 2008-2011

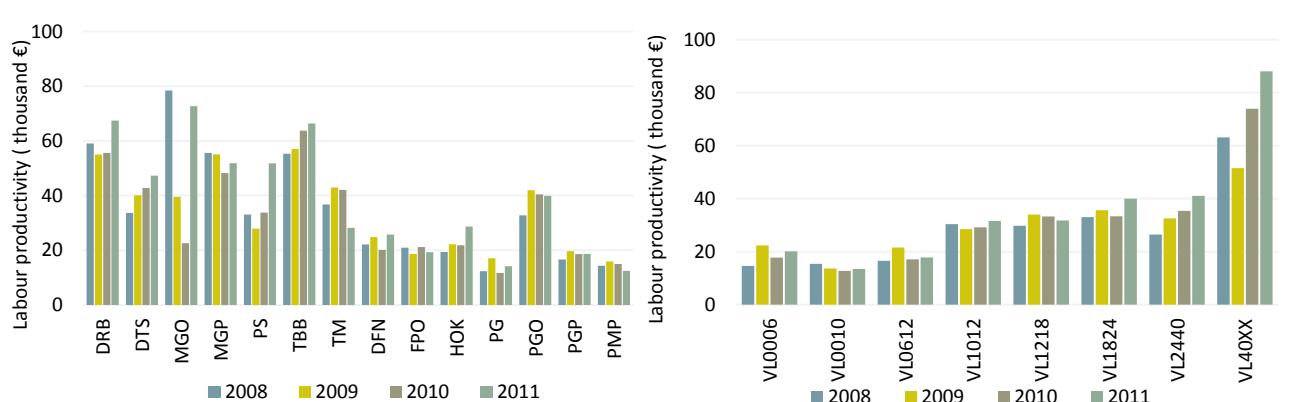
Figure 2.42 shows that labour productivity (GVA/FTE) increased in most MS fishing fleets in 2011. Results suggest that the Danish, Belgian, French, Dutch, Swedish, UK and German fishers are more efficient, generating more output per FTE than other fleets. The least productive fleets in 2011 belonged to Bulgaria, Poland and Portugal.



*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.41 Labour productivity (GVA/FTE) trends by MS fleet: 2008-2011

Additionally, labour productivity is generally higher in the mobile gear segments and tends to increase with vessel size (Figure 2.43).



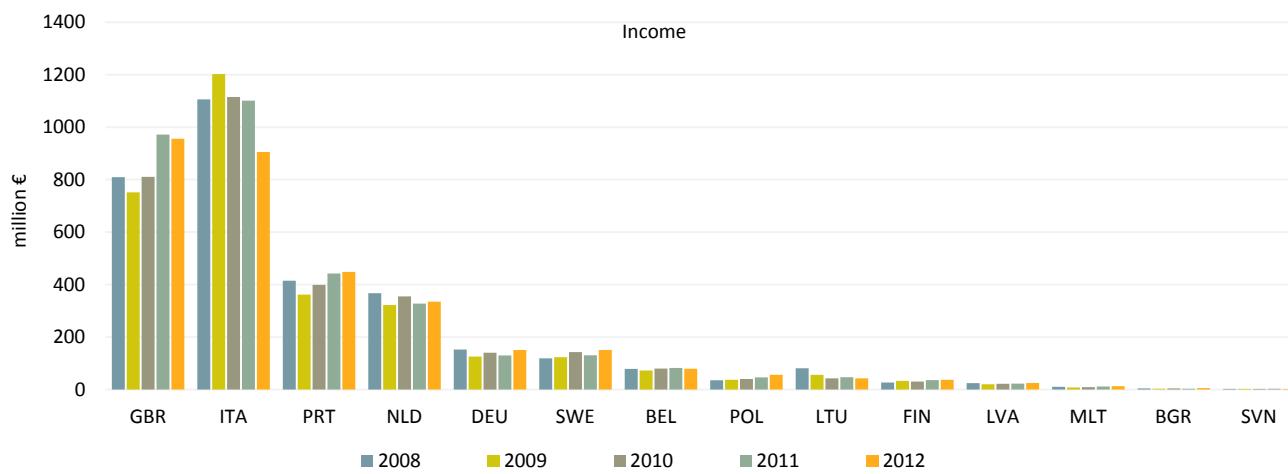
*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.42 Labour productivity (GVA/FTE) trends by main fishing gear and vessel length: 2008-2011

## Assessment for 2012 and 2013

The 2013 call for economic data on the EU fishing fleet requested transversal data (effort, landings and capacity) from Member States for 2012, which was used to forecast fleet economic performance indicators for 2012. Only 14 Member States submitted the data required to carry out the forecasts. The remaining MS were not in a position to provide the data within the necessary timeframe.

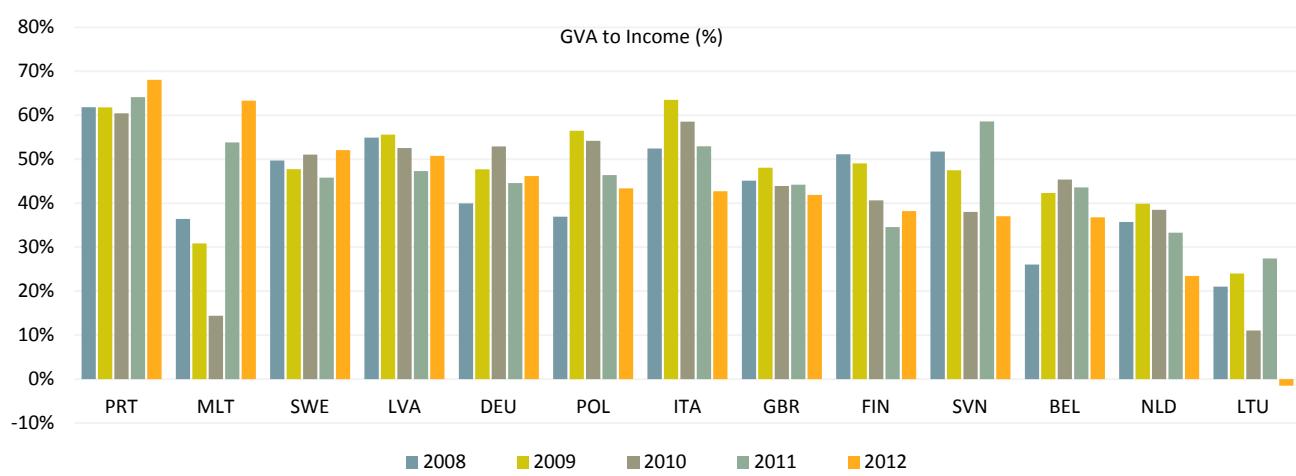
Projections for fleet income, GVA, gross profit and net profit as a proportion of income are presented for 2012, along with corresponding actual 2008 to 2011 data. The forecasts suggest that in 2012 fleet income increased in 9 out of the 14 Member States (Figure 2.48). The forecasts also suggest that in 2012, GVA as a proportion of total income increased in 7 out of 14 Member States (Figure 2.49), gross profit and net profit as a proportion of total income increased in 5 out of 14 Member States (Figure 2.50 and Figure 2.51).



*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

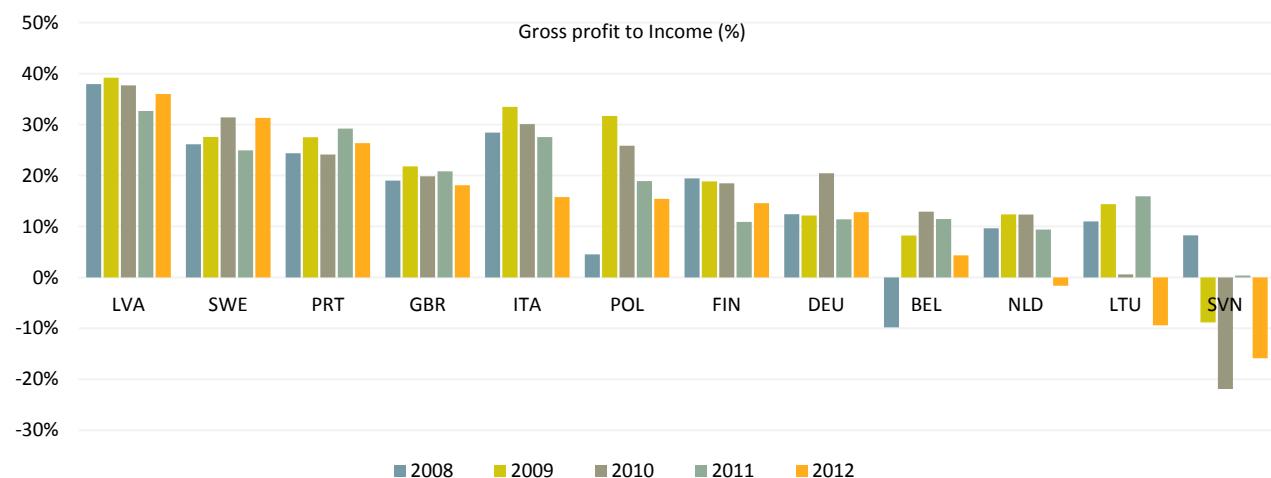
Figure 2.43 EU Member States fleet economic performance 2008-2011 and forecasts for 2012: Income

Income = income from fishing + other income (exclude direct income subsidies and income from leasing out fishing rights)



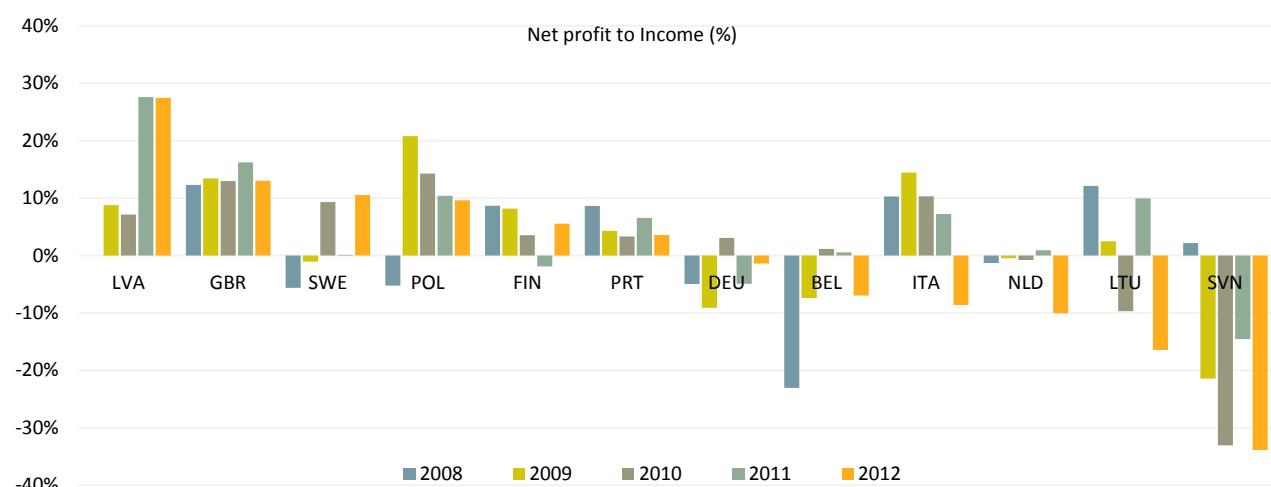
*Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

Figure 2.44 EU Member States fleet economic performance 2008-2011 and forecasts for 2012: GVA as a % of Income



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.45 EU Member States fleet economic performance 2008-2011 and forecasts for 2012: Gross profit as a % of income



Data source: Member State data submissions under the DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Figure 2.46 EU Member States fleet economic performance 2008-2011 and forecasts for 2012: Net profit as a % of income

## 2.5. Main drivers and trends affecting the economic performance of the EU fleet

Overall, in 2011 there was a decrease in the total volume of seafood landed by the EU fleet but an increased landed value. Although total costs of the EU fleet increased, total income increased more, and subsequently the economic performance of the EU fleet showed improvements to 2010, with 6% of income retained as net profit. The data shows that the economic performance of the EU fleet has been improving gradually over recent years, from a net profit margin of 1% in 2008 to 6% in 2011. However, as the EU fleet is very diverse, operating in many different fisheries using a wide variety of fishing techniques, this trend did not apply to all fleet segments. While the EU fleet overall was profitable in 2011, six national fleets and around 45% of the fleet segments made net losses. Economic performance estimates for 2012 suggest increased income for nine out of the 14 Member State fleets that provided sufficient data for analysis, while GVA as a proportion of total income increased in half and net profit margin increased in a third of those Member State fleets.

Factors that may have contributed to poor economic performance include, but are not limited to the following (in no specific order):

- Reduced TACs and quotas for several key stocks
- Increasing fuel prices and other operating costs
- The effects of the global economic crisis which continues to affect internal and international markets for some species and limits access to credit
- Market saturation (e.g. Baltic Cod)
- Low abundance of some species
- Severe weather conditions
- Insufficient routes to market
- Shortage of local crews as young people are less and less attracted to fishing as a career choice
- Increase in areas that prohibit or limit specific fishing activity/access due to other spatial marine use inter alia offshore renewable energy production, MPA's and areas closures for stock specific recovery measures

Factors that may have contributed to improved economic performance include, but are not limited to the following (in no specific order):

- Higher average first sale prices for many commercially important species
- Favourable market conditions (internal and export) for several species
- Implementation of certification schemes and the growing demand for certified products
- Capacity reduction
- More fuel efficient fishing techniques and fishing behaviour
- Recovery of some stocks, such as the Baltic herring, Baltic cod and North Sea plaice, leading to increased TAC and quotas
- Innovation projects

## 2.6. Summary of National Chapters

A summary of the main issues affecting the economic performance of each EU Member States national fleet in 2011 and 2012 are summarised below:

### *Belgium*

The Belgian fleet mainly consists of beam trawlers operating in the North Sea, English Channel and other areas of the North Atlantic. The general trend for the Belgian fleet is continued deterioration in economic performance. The Belgian fleet has high operating costs, accounting for 92% of income in 2011, with crew and fuel costs alone accounting for 70% of income.

### *Bulgaria*

#### *National Fleet*

The Bulgarian fleet is diversified with a broad range of vessel types targeting different species predominantly in the Black Sea. The general trend for the Bulgarian fleet is continued deterioration in economic performance. The Bulgarian fleet has suffered losses over the last three years, and if operating costs continue to be higher than income, the situation will continue. The main factors that influenced the economic status of the Bulgarian fisheries sector in 2012 were: (1) absence of bank credit lending policy that is desperately needed to enable the development of the sector; (2) a comparatively large number of ageing vessels; (3) poor weather conditions and (4) poor domestic consumption demand due to lack of affordability.

The Black Sea TAC (quota regime) was introduced in 2008 following the accession of Bulgaria and Romania to the European Union (EU). Despite the quota regime for turbot in community waters, a decreasing trend in turbot biomass indices has been observed since 2008. Hence, the implementation of additional and more effective management measures for restriction of turbot exploitation may be necessary. To decrease overcapacity, Bulgaria has made significant efforts to withdrawing vessels from the fleet, particularly in the 6-12m, 12-18m and 18-24m length classes.

#### *Small scale Fleet*

Most of the vessels under 12m are engaged in small-scale coastal fishing with (anchored) gillnets. These vessels are generally owner operated, for whom fishing is an additional income stream. The profit is the actual remuneration (wages) of the owner's work.

### *Denmark*

Capacity in the Danish fleet decreased between 2010-2011 when measured in terms of number of active vessels, total gross tonnage or total kilowatt. At the same time, profitability (in terms of both gross and net profits) has decreased significantly. Employment also decreased and this trend is likely to continue over the next couple of years if the trend of smaller vessels being replaced by larger vessels with better technology continues.

#### *Small scale fleet*

The small scale fleet (defined as vessels below 12 meters using static gears), operate mostly in the Baltic Sea, and Kattegat. The total amount of income generated by the small-scale fleet accounted for €26.4 million in 2011, which is 7% of the national income for fisheries. The landings value generated by the Danish small-scale

fleet has been stable from 2010-2011. The small-scale fleet have made losses in 2011 (gross loss of €1.8 million and net loss of €6 million). The loss in gross profit increased 40% from 2010 to 2011, while the net loss was stable. Whether the small-scale fleet can halt the negative trend of the economic performance in the coming years is uncertain.

#### *Long distance fleet*

The Danish distant-water fleet mainly target deep-water shrimp, *Pandalus borealis* in the North Atlantic, capelin in Greenlandic waters (ICES area XIV) and herring in the Norwegian Sea (ICES area I and II). The total value of fish landed by the long distant water fleet accounted to €29 million in 2011, corresponding to around 7% of the landed value of the Danish fleet (Source: The Danish AgriFish Agency). During the last decade, the landings value of species caught in long distant waters has more than doubled. Whether this trend is going to continue is uncertain.

### **Estonia**

The year 2011 was difficult for a number of trawling companies. Of the 24 engaged in trawling, one terminated its activities during the year because it was no longer profitable to continue. The main reason was significant reduction in fishing quotas (in particular with regard to sprat), but also severe weather conditions and a continued rise in fuel prices. However, decrease in sales was offset by the rise in first sales prices of fish compared to the preceding year. The higher first sales prices were primarily due to good export conditions. Fisheries subsidies paid in 2011 to fishing companies for permanent cessation of fishing activities by scrapping or permanent reassignment of fishing vessels amounted to nearly one million euros. In addition, €400 thousand were paid for investments on-board fishing vessels.

Due to the continuous decrease in quotas for the internationally TAC-regulated species (European sprat and Atlantic herring) a decrease in total catches was observed in 2012. However, a slight increase in quotas and total catches is expected in 2013. The rise in fuel prices will be an important factor influencing fleet economic performance in the coming years.

The main management measures in Estonia are individual volume quotas (ITQs) in the open water fisheries (both Baltic and Atlantic trawling) and gear usage quotas (ITE; individual transferable effort) in the Baltic coastal fisheries. The Estonian experience shows that ITQs are an effective method for increasing the allocation of fishing rights to the most effective enterprises and speeding up the process of reducing excessive fleet capacity. The number of trawlers decreased significantly during the ITQ period (since 2001). In 2000, there were 189 vessels in the Estonian trawling sector and after ten years, this number decreased to 46 and is likely to decrease even further.

#### *Small scale fleet*

The small-scale fleet increased as fishing capacity was released in other fleet segments and the Ministry of Agriculture decided to use it in order to meet the additional need for small-scale fishing vessel entry into the register.

### **Finland**

The Finnish national fleet is based on three main fisheries: pelagic trawlers, offshore vessels with passive gears targeting cod and salmon and small-scale fleet. The Finnish fleet as whole was making losses in 2011. Baltic herring stocks are currently exceptionally strong especially in the most important fishing grounds in Botnian Bay. Catches in 2012 and the TAC for 2013 for herring are at a record high. The market situation has

also been favourable and therefore the economic performance of the pelagic trawlers looks promising for the near future.

Increased seal populations have strongly influenced the Finnish coastal fishery for several years. Many fishermen have had to stop fishing on traditional grounds. There has been a subsidy scheme in place to support fishermen to continue fishing elsewhere. There has also been a pilot project to subsidise intensive fishing for low value fish (mostly cyprinid fish) to remove nutrients from the water system. This has contributed to a new method of fishing and created new markets for non-commercial species.

### *Small scale fleet*

The coastal small-scale fleet is the biggest Finnish fleet segment with 1,548 vessels, with a high variation in the activity. The economic performance of this fleet deteriorated between 2010 and 2011.

## *France*

### *National Fleet*

While the capacity of the French fishing fleet has remained relatively stable since 2010 after a strong decrease, total fishing effort continued a decreasing trend in 2011. The year 2011 was generally better than 2010 in terms of economic activity. Indeed, a combination of landings increases and average prices resulted in an increase in value of landings of 12% compared to 2010. At the same time, fuel prices remained stable over most of the year, before increasing towards the end. Despite this, profitability remained satisfactory in many fleet segments. Nevertheless, economic performance differs significantly between fleet segments and supra regions (including overseas regions). For instance, vessels using pots and traps, drift and fixed netters 10-12m and dredgers under 12m were profitable in 2011, while most of demersal / pelagic trawlers and dredgers over 12m generated only modest profits, mainly due to increase in fuel costs. The economic situation was particularly worrying in the Mediterranean Sea in 2011, particularly due to the lack of abundance in pelagic species. In the Mediterranean, income for demersal / pelagic trawlers was mainly generated from hake and cephalopods (octopus, squid...) landings. Economic performance remained stable in 2012. However, the rising price of fuel had a direct negative impact on vessel profitability. The most vulnerable segments are obviously the offshore trawlers, a reason why investment in new fuel-efficient vessels or switching to alternative, less fuel intensive fishing techniques (e.g. Danish seine) are solutions proposed to help the vessels maintain profitability. Fleet adaptation is particularly important during what will be an intense regulatory period (i.e. moving toward MSY, discards bans, etc.)

### *Small-scale Fleet*

Economic performance improved in the small-scale fleet between 2010 and 2011 but to a lesser extent (3%) when compared to national fleet results (55%). Nonetheless, 14.6% of small-scale income was retained as profits in 2011, compared to the national fleet's 9.3% profit margin.

The small-scale fleet represented about 70% of the national fleet in terms of active vessel numbers and consumed 9% of total fuel consumption. Although fuel consumption decreased 7% over the period 2009-2010, it has remained stable since 2010. As the fishing activity of the small scale fleet is limited to near the coast these vessels don't have as many options for reducing fuel consumption compared to the larger vessels that operate further from the coast.

### *Long Distant Water Fleet*

The tropical tuna fleet reduced significantly in terms of size because of fishing exclusions. The economic performance has improved in the period 2008-2011, although in recent years profitability was negatively impacted by higher fuel prices and costs of resource access and security.

## Germany

### National Fleet

The German fishing fleet decreased further in size in 2012 in terms of vessels numbers. The number of vessels in the high seas fleet remained stable. The number of cutters and small scale fishing vessels decreased, thus continuing the long-term trend. Fleet segments were affected differently by price and quota developments.

### Small-scale Fleet

The most striking development for the cutter fleet was the considerable increase in revenues from brown shrimp landings; the price more than doubled after the 2011 crash. Therefore, the economic situation became satisfactory again for the beam trawl fleet. The North Sea plaice stock is at an all-time high, and thus quota increased as well. However, the benefit for the fleet was limited due to decreasing prices.

Saithe fisheries in the North Sea were satisfactory. The lower quota was fully exploited and prices remained stable. The MSC certification of this fishery has been renewed and again proven conducive for marketing. The Nephrops fishery has become more and more important for the German cutter fleet due to the possibility of international quota exchange.

The Cod fishery in the North Sea was unsatisfactory due to slow stock recovery and resulting low quota. Baltic cod quota increased but it could not be fully exploited. The considerable stock increase led to a lack of food. Thus, the fish showed signs of malnutrition, resulting in lower prices.

Baltic flounder was successfully marketed in China. This is a promising development and might further benefit Baltic fishermen in the future.

The Baltic herring fishery was good, and the increased quota was fully exploited. Some high seas quota was internally assigned to the small-scale fishery to improve the economic situation of this sector.

### Long Distant Water Fleet

According to the German fishing industry, 2012 was a profitable year for demersal trawlers, while for the pelagic trawlers the picture was stable. Cod fisheries in the Svalbard, Barents Sea and Greenland areas were efficient; and quota was fully utilised. The Greenland halibut fishery was very efficient and led to positive results. The saithe fishery in Norwegian waters did not fulfil expectations. The demersal high seas fleet did not perform any fishing activities in the North Sea. Quota was exchanged with the cutter fleet.

The pelagic fleet experienced good results in the North Sea and North Atlantic fisheries on herring, jack mackerel and mackerel. The quota for blue whiting was unsatisfactory, but as partial compensation argentine could be targeted in parallel for the first time after several years. Some fisheries for both pelagic and demersal redfish opened in 2012.

Pelagic fisheries in Mauritanian waters took place for a short period only. Other activities outside ICES/NAFO areas did not take place in 2012: negotiations with Morocco and Mauritania failed, and the fishery in the South Pacific was unprofitable in 2011, and was no longer targeted.

## Ireland

### National Fleet

The composition, by segment, of the Irish national fleet (i.e. >10m and <10m LOA) in 2012 and 2013 reflects that reported for 2011. No significant removals or additions to the national fleet occurred, other than adjustments due to accidental loss, damage and occasional redundancy. There has been a 2% increase in vessel numbers in the <10m LOA segments.

In terms of the profitability and development trends the national fleet deteriorated for net profit margin (%), RoFTA (%) and remained stable for GVA per FTE (thousand €). Running costs continue to be a key driver influencing the economic performance of the Irish national fleet in 2011, particularly those associated with the identification and retention of crew and the cost of fuel and oils. Although marine gas oil prices throughout 2012 and into 2013 have shown some volatility they have maintained a slow annual increase in average price, which is consistent with the 5 year trend in the prices of crude, bunker and marine gas oil.

The internationally accredited (ISO65) Responsibly Sourced Standard has provided a national certification programme for Wild Seafood that was successfully achieved by a number of segments of the Irish fleet and a smaller number of related onshore facilities. Increasingly strong market demands for certified seafood products continue to generate a positive industry response to this opportunity with increased national and overseas interest capitalising growth in this area.

The ISO65 Responsibly Sourced Standard is considered to be of particular significance to vessels in the pelagic and polyvalent fleets targeting mackerel, which formerly held Marine Stewardship Council (MSC) certification. MSC certification of the herring fishery in the Celtic sea was achieved in 2012 and is prosecuted by a small fleet of 34 Irish registered vessels.

In its capacity as the government agency with responsibility for development of the sea fisheries sector in Ireland, Board Lascaigh Mhara commissioned Food Certification International to carry out a pre-assessment of a representative number of Irish fisheries under the MSC Principle and Criteria for sustainable fishing. The pre-assessment aimed to identify gaps and weaknesses in the sustainability of Irish fisheries to facilitate a strategic approach to the development of responsible and sustainable Irish fisheries.

A total of 19 métiers were identified for mixed demersal fisheries. The MSC unit of certification was defined for each fish stock and therefore a number of units of certification were defined for a given metier. Overall the project examined 8 fishing gear, fishing 18 species, over several ICES areas (stock management units) – creating a total of 79 Units of Certification. Information from this study feeds directly into the development of BIM's responsibly sourced standard and general work programme.

### *Small Scale Fleet*

The number of small-scale vessels (under 12m) rose by 2% every year from 2011 and prior to 2011 increased by 7% and 4% between the years 2008/2009 and 2009/2010 respectively. Overall, this represents a 12% increase in the number of small-scale vessels from 1,598 to 1,835 between the years 2008 and 2011. This segment consisted of 1,934 vessels in 2013.

## *Italy*

### *National Fleet*

The size of the Italian fishing fleet remained stable in 2012 compared to the previous year. Both effort and production levels decreased in 2012. The 11% decrease in activity, which is mostly due to fisher reactions to the increased fuel prices, largely affected the volume of landings (-9%). The reduction in days at sea is also attributed to the reduction in activity levels of fishers, especially those employed on trawlers, for whom a social compensation (in Italy called "cassa integrazione") was issued by the Government.

Nevertheless, the market has not followed classical rules where lower production means higher prices. In 2012, a 10% decrease in the average first sale price caused a larger decrease in income from landings (-18%), which is the main cause of the decrease in most of the economic indicators. According to 2012 projections, a further decrease in labour costs can be expected, mainly due to the decrease in income levels. Energy costs also show an increase not related to activity levels (which decreased) but to increased fuel prices (projections are based on EU average fuel price). Estimations using the Italian fuel price provide lower values for energy costs, which is more or less stable compared to 2011 level (see 2012 and 2013 projections). In 2013, there was a slight decrease in fuel price in the first few months of the year and it is hoped that this may be a sign of economic recovery in the sector.

### *Small scale Fleet*

Although decreased production seems to have also affected the small-scale fleet, this segment showed good economic performance in 2011, with increased revenues and profits when compared to the overall national fleet. However, according to projected data for 2012, the trend is deterioration: a further decrease in labour costs is to be expected, due to the decrease in the income level. In addition, energy costs are also expected to increase with the rising fuel prices in 2012 (projections are based on EU average fuel price). As for the national fleet, the slight decrease in fuel price in the first few months of 2013 may represent the first signs of the sector's gradual recovery.

### *Long-distant water Fleet*

The Italian long-distance water fleet is mainly located in Mauritania, Seychelles, Mauritius, Madagascar and the Comoros. The key species include yellowfin tuna, skipjack tuna, octopus and common shrimp. Due to the reduced number of vessels, economic data was not provided for confidentiality reasons.

## *Latvia*

The Latvian national fleet was profitable in 2011 and with increased income expected in 2012, this favourable situation is expected to continue. Towards the end of 2008 and during 2009, the Latvian fishery sector was negatively affected by the global economic crisis, which led to significant decrease in profit levels. Vessel scrapping between 2008 and 2010 and changes in the structure of fleet segments had a positive impact on incomes and minimised total costs resulting in an increase in profitability in 2011, and overall improvement in economic effectiveness. In 2012, there were two significant developments in the activity of Latvian Baltic Sea fishing fleet - a reduction in the volume of landings by 9% due to a decrease in the TAC for sprat and an increase in average fish prices.

### *Small scale Fleet*

The Latvian small-scale fleet targets Atlantic cod, Atlantic salmon, European flounder, European smelt, Atlantic herring, European sprat and others coastal species. The number of vessels and landings volume decreased between 2011 and 2012, but the value of landings remained stable around €1.2 million. Total costs, effort (days at sea), GVA, gross profit and net profit remained stable between 2011 and 2012. Although the share of the value of landings generated by small coastal vessels as a proportion of national fleet income is quite insignificant (about 6%), this segment is very important for the country because it provides rare species to the market.

### *Long-distant water Fleet*

In 2012, Latvia had two distant-water trawlers over 40m operating in the North Atlantic and five trawlers operating in CECAF area (EEZ of Mauritania and Morocco), which all belong to three fishing firms.

## *Lithuania*

Despite the profits obtained in 2011 by the Lithuanian fleet in large, cost effectiveness remains relatively low due to insufficient investments in the old fleet. Low fuel efficiency and considerable repair and maintenance costs reduced profitability and the GVA generated. Such cost items will further affect profits in segments with higher capital value vessels more than 24 m if investments are not promoted.

Multiannual capacity reduction to the balanced level (capacity for this segment reached a stable trend), could benefit an increase in income per vessel and better perspectives for employment.

Regarding the cod management plan, slightly reduced stocks of cod resulted in decreased quota by 8.9% for 2013. This will affect segments targeting cod such as the 24-40m demersal trawlers and 0-10m passive gears. The quota for Baltic herring and European sprat increased 15% and 11% respectively in 2013. This will result in a good outlook for pelagic trawl 24-40m vessels as well as other segments that operate in the Baltic Sea and catch moderate quantities of pelagic species. Increases in sprat and Baltic herring prices have also resulted in a better outlook for the fleet.

#### *Small scale Fleet*

The economic performance for this fleet improved. The cost drivers are first sale prices of target species and quota availability, while Repair and maintenance expenditures did not account for a significant part of the cost structure in this fleet.

#### *Long-distant Water Fleet*

For long distance vessels fishing in NAFO, 2013 quotas are the same as in 2012, but significantly lower compared to 2011. In the NEAFC region, quotas increased 15% in 2013 but as these catches do not contribute significantly to the long distance fleet's total catches, it will not have a considerable effect on the segment as a whole. For the CECAF region, which contributes the main bulk of catches, a considerable size of quota was obtained for 2013, giving a brighter outlook, taking into account the tendency of increase pelagic fish prices.

### **Malta**

Overall, at the Maltese national fleet level increases in landings weight and higher average prices resulted in a 10.3% increase in the value of landings, from €11.3 million in 2011 to €12.6 million in 2012. Total operational costs and energy consumption for the year 2012 are expected to decline, consistent with the decrease in effort (days at sea) which decreased by 18.5% between 2011 and 2012.

Fleet profitability in 2011 was weak in nearly all fleet segments and this is expected to continue in future years considering the current trends but the economic development trend may improve in some sectors. From the socio-economic performance trends observed in the latest years (2010 and 2011) for the 14 segments analysed, over a third of the segments (5 segments) improved but these are mainly small-scale fleet segments and the 18–24m demersal trawlers. For the demersal trawl fleet segment, the situation is not expected to improve for several reasons. One reason is the rising fuel prices, which form a considerable percentage of variable costs. In addition, area restrictions to trawling around Malta may be implemented, which will greatly affect trawlers targeting demersal and deep-water shrimps. Therefore, economic performance is expected to remain low and potentially deteriorate further. Most other economic variables for the year 2013 are not expected to change drastically. However, fuel costs are expected to increase due to the substantial rise in fuel prices and consequently, profitability from this point of view is expected to be negatively affected.

#### *Small scale Fleet*

The small-scale fleet decreased significantly between 2010 and 2011, however, the economic performance increased and the improving trend in the small-scale fleet segments is expected to continue into the future.

### **The Netherlands**

#### *National Fleet*

In 2011, the economic performance of the Dutch fleet improved on previous years and was profitable. However, the economic situation is expected to have deteriorated again in 2012. The major factors causing the deterioration in economic performance include lower income due of decreasing prices and higher costs, mainly higher fuel prices. Additionally, the pelagic fleet lost fishing opportunities in 2012. Fishery licenses for African waters were not prolonged and fishing in Pacific waters was not profitable due to poor catches. Some vessels were not able to fish for some months.

The most important issues in the Dutch fishery sector are:

*-Flatfish fishery in general (the beam trawl 12-18m, 24-40m and over 40m segments)*

The introduction of the pulse fishery: In 2011 some 20 vessels were allowed by the ministry to invest in pulse technique. Permits were given on a temporary basis. The economic performance of these vessels in 2011 was encouraging and it is expected that results will become better generally for this part of the fleet. It is still uncertain whether the temporary permits will be transformed into permanent permits. In 2012 an additional 20 vessels were allowed to invest in pulse technique and those entrepreneurs started fishing in 2012 using a temporary permit. In addition to that, other fishermen applied for permits (around 40) but until now (2013) they are still not allowed to use the pulse technique. Economic reasons, ecologic reasons as well as societal reasons (Natura 2000, discard ban, market requirements, responsible fisheries) force fishermen more and more to innovate and to invest in more sustainable and economic viable flatfish fishing techniques (as an alternative for beam trawl). Saving fuel and costs (up to 50%), less discarding and less impact on the seabed are the most important advantages of using pulse technique to catch flatfish.

*-Shrimp fishery in general (the beam trawl 18-24m segment)*

The introduction of the pulse fishery: In 2011 the ministry allowed 3 vessels from this segment to invest in a pulse technique suitable for the shrimp fishery. These permits were also given on a temporary basis. The economic performance of these shrimp vessels (on an experimental basis and after that commercial operation) are rather good and it is expected that results will become better generally for this part of the fleet compared to traditional beam trawl. It is still uncertain and unclear if the temporary permits will be transformed into permanent permits. Other shrimp fishermen applied for permits but until now (2013) they are prohibited from using the pulse technique. Economic reasons, ecologic reasons as well as societal reasons (Natura 2000, discard ban, responsible fisheries) force fishermen to innovate and to invest in more sustainable and economically viable shrimp fishing techniques (as an alternative to shrimp beam trawl). Saving fuel and costs (up to 30%), fewer discards and less impact on the seabed are the most important advantages of using pulse technique to catch shrimp.

*-Long Distant Water Fleet (the pelagic trawl over 40m segment)*

In 2012 this segment faced problems with effort in African waters and in the Pacific. EU-appointments and contracts with Mauritania stopped and the capacity of some 30% of the Dutch pelagic fleet could not be used. As a result of that vessels were tied up for a few months which were economically very unprofitable. Also in 2013, owners of the pelagic fleet will not be able to schedule all trawlers for year-round fisheries. It is expected that trawlers will be tied up again for some months during the summertime.

*-Small scale Fleet*

This part of the fleet operates in the coastal zone and depends highly on the catch of sole, turbot, cod, mullet and seabass. The state of the stocks of these species are very important and effort (seasonal) and economic performance depend largely on that.

## **Poland**

The economic situation of the Polish fishing fleet is expected to deteriorate in 2012, as a result of the increased number of vessels that will re-enter the fisheries after the 3 year cod quota allocation system, implemented in 2009 (rotating suspension of 1/3 of the cod fleet each year), terminates and lower TACs for pelagic species (sprat and herring). The national fleet however again produced extraordinary high landings income, 20% higher than in 2011 and 39% higher than in 2010. Subsidies in 2012 were as high as in 2011 (contributing to 25% of total income), which additionally improved economic gains for the fleet. Taking into account that effort increased in 2012 by about 15% only and number of active vessels by 6%, the fleet may well produce higher profits in 2012.

Individual limits implemented in 2012 for Central Baltic herring may have negative effects on the economic performance of segments targeting this species. Maximum allowable catch limits were established based on vessels size (length). Vessels below 15 m were allocated the lowest possible catch limit (80 tonnes) and vessels greater than 25.5 m the highest limits (800 tonne). In both cases the limits are, nonetheless, lower than actual fish capability of these vessels.

At the start of 2013, prices for Atlantic herring were slightly lower compared to 2012 (-5%) while sprat prices remained at historically high levels, which may contribute to better economic results for the national fleet in 2013, especially pelagic segments. Higher TACs for pelagic species will additionally have a positive impact on the performance of the fleet in 2013.

Less optimistic scenarios can be drawn for vessels dependent on cod catches. Cod prices are expected to decrease in 2013 as greater quantities originating from Norway become available on the European market; resulting from a significant increase in Norwegian cod quotas (+25%) and subsequent increased exports in 2013.<sup>25</sup> Lower cod prices may particularly impact on the economic performance of demersal fleet segments targeting cod in Poland (DTS, DFN, HOK and PG1012). The other issue that may have negative impact on these fisheries is the deteriorating individual condition of Baltic cod (skinny fish).

The quantity of fuel decreased 20% from 2008. The major factors causing the decrease in fuel consumption was again reduction in number of fishing vessels and subsequent reduction in days at sea.

### *Small scale Fleet*

This fleet decreased between 2008 and 2012, mainly driven by decommissioning programmes, however the value of landings of the small-scale fleet were 14% higher in 2012 compared to 2011 and with lower levels of effort deployed (7% increase in fishing days). Subsidies are expected to become the most important source of income for small-scale fisheries in 2012 and will determine the economic results of the segment in the near future.

### *Long Distant Water Fleet*

After ceasing fishing operations in Pacific waters (outside Chilean EEZ) due to poor Chilean jack mackerel stocks, the economic performance of Polish long-distant fleet is highly dependent on access to Moroccan and Mauritanian fishing grounds and available quotas. If the EU fails to reach an agreement that will allow the EU fleet to return to Moroccan waters, the Polish fleet will probably consider moving to Atlantic Antarctic fishing ground to commence a krill fishery. This however will happen only if a ready market for krill products emerges.

### *Portugal*

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<sup>25</sup> <http://www.globefish.org/groundfish-december-2012.html>

The economic performance of the Portuguese fleet, which has been profitable over the last 4 years, is expected to have deteriorated in 2012, particularly in the small-scale fleet. However, these projections are based on landings for 2012, which may currently be underreported.

There is an overall trend of decreasing capacity of the national fleet, both in terms of number of vessels, power and GT and in the number of active vessels, which is most likely to continue in the next few years. This is mainly due to the scrapping of particularly older aged vessels in the fleet. The price per kilo of landings shows an increasing trend related to the decrease in the total weight of landings. The implementation of measures at national level for restriction of catches of European Pilchard resulted in a decrease of catches of about 40% in 2012, from around 54 thousand tonnes to 32 thousand tonnes.

The Portuguese fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Portuguese Exclusive Economic Zone (27.9.a for the mainland fleet, 27.10 for the Azores's fleet and CECAF 34.1.2 for the Madeira's fleet). Eighteen vessels make up the hooks 24-40m segment, which mainly operates along the Africa Coast and Indian Ocean (FAO 34, 41, 51, 57). The fleet targets a variety of species but in particular large pelagic fishes, such as blue shark, bigeye tuna and swordfish.

#### *Small scale Fleet*

The small-scale fleet will decrease in terms of number of vessels due to a more rigorous criteria for licensing, especially for vessels with low levels of activity (e.g. from retired fishermen). The economic performance of the Portuguese small-scale fleet has deteriorated over the last few years and the situation is expected to continue in 2012 if landings did not increase.

#### *Long Distant Water Fleet*

Economic performance has deteriorated in recent years. However, the long-distant water fleet is expected to remain profitable in the next few years. Longliners may face some constraints due to increasing restrictions regarding deep species and shark catches.

#### *Romania*

The Romania national fishing fleet is almost entirely represented by a small-scale fishery. The small-scale fleet has remained relatively stable with a marked improvement in the value landed due to internal market demand. The situation with poor concentration of ownership is the main explanation for the low level of investment in the sector, resulting in a lack of improvement in the technical condition of vessels. The general trend in the decreasing number of fishermen and number of vessels appears to have bucked in the 2012/2013 period and may correspond to changes in the number of days at sea and fishing days. These trends reflect the fluctuating character of activity from year to year and season to season. Additionally, fishermen find access to finance difficult.

The instability is underlined by the variability: in 2011 market demand for Thomas' rapa whelk resulted in the highest value of landings, and also an increase in the total annual volume reported during the 2008-2011 period. The small-scale fishery is represented by vessels less than 12m using, in the same season, polyvalent gears and polyvalent mobile and passive gears, the same vessels shifting from one gear to another in the same period. The reported data are supplied by fishermen in strict confidence. There are quality issues as they do not record in an accurate way all the expenses/selling value, etc. of the species captured for each type of gear or technique used. This fishery is characterised by a very high mixture of techniques due to the lack of a target species for catching and sale on the market.

Moving into 2012, essentially the same decreasing trend is expected, especially in the number of active vessels and fishermen. An increasing number of fishing days/days at sea is expected and as a consequence an increase in landings. Profitability is expected to be lower in 2012 compared to 2011 due to higher costs and lower income. Market prices were generally lower in 2012 compared to 2011. The main reason being the

dependency of the fishery on the internal market and of a weakness in the selling system, due to a lack of concentration in the sector; the existing fishermen's organisations do not market their catch in a coordinated way.

## **Slovenia**

### *National Fleet*

The economic performance increased in recent years due to lower expenditure on repair costs and increases in income from other sources, although the performance is still poor. Due to scrapping in 2011, the size of the Slovenian fishing fleet decreased between 2011 and 2012: 6% in number, 38% in GT and 19% in kW. Consequently, landings volume decreased in 2012. Hence, a decrease in the value of landings and thus the total income of the Slovenian fleet is expected. Due to fleet reduction and related lower fishing effort, the biological status of fish stocks may improve. In view of this, landings volume may start to increase again due to better catches.

Repair and maintenance costs are expected to continue to increase in the future because the fleet is generally old and poorly equipped. Due to the current poor state and profitability of the fleet, improved GVA and profits is not expected.

### *Small scale Fleet*

The same issues apply to the small-scale fleet. Approximately 20 fishermen have lost their jobs because of vessel scrapping. In the future, we can expect an increased number of small-scale vessels because some of them will start operating in a self-employed manner. Due to reduced catches, increase in prices for European pilchard (Sardine) and Anchovy and, consequently, higher income of those targeting those species can be expected.

## **Spain**

The economic performance of the Spanish fleet, although highly variable, improved over the last four years and was profitable in 2011. In 2011, the number of fishing enterprises in the Spanish fleet totalled 10,096, with the vast majority (94%), owning a single vessel.

The Spanish fleet is highly diversified with a broad range of vessels types targeting many different species such as tunas, cod, anchovies, sardines, Squid, cuttlefish, octopus predominantly in the Mediterranean and Northeast Atlantic.

In 2012, according to the official statistics of Ministry of Agriculture, Food and Environment (<http://www.magrama.gob.es>), the reduction in size of the Spanish fishing fleet continued. Between 2011 and 2012, the size of the Spanish fleet reduced by 4%. This process has particularly affected the long distant water fleet segments, which decreased by 6%. According to the Spanish marine fisheries statistics, in the period 2010-2011 the total volume and value landed by the Spanish fleet increased by 12% and 8% respectively, reaching 2008 levels.

### *Small scale Fleet*

The economic performance of the Spanish small-scale fleet deteriorated in 2011. This fleet segment has been performing at a loss over the last 4 years driven by a significant reduction in income.

### *Distant Water Fleet*

The tropical purse seiner segment contained 40 vessels employing 1591 FTEs. This fleet segment generated an income of €334 million in 2011, a 15% increase from 2010. Other important segments were the demersal

trawlers 24-40m (65 vessels, income of €68 million) and over 40m (29 vessels, income of €175 million) and Spanish longliners over 40m (30 vessels, income of €74 million). These three segments improved their economic performance in the period 2008-2011, with a profit margin between 5% and 10% in 2011.

## *Sweden*

Towards the end of 2009, Sweden introduced a tradable fishing right system for pelagic quotas. The first transactions took place in the beginning of 2010 and the first effects became visible in late 2010 in terms of profitability for the pelagic fisheries. The effect of the new system can be better seen in the profitability of 2011 once capacity had been removed. However, decreases in quotas for pelagic species (most importantly for herring and sprat) had a negative effect on the expected profitability increase resulting from the system.

Fuel prices increased during 2010 and 2011 and remained at high levels during the beginning of 2012, which had an effect on all fisheries. The increase is supposed to have the greatest effect on segments fishing with active gears (e.g. trawls and seiners). In general, fuel consumption has decreased since 2009. The large demersal and pelagic vessels, demersal trawl/seines 24-40m, decreased their fuel consumption in 2011; the midsize demersal and pelagic vessels, demersal trawl/seines 18-24m, increased their use of fuel. Lower fuel consumption was generally the result of decreased number of days spent at sea and better fuel efficiency. Most of the rest of the Swedish fleet also decreased their fuel use. The question is however, how much further fuel efficiency rationalisation can occur without significant investments in new technologies and newer vessels.

The general trend since the beginning of the 2000s is a decrease in capacity, i.e. the number of vessels, which is also reflected in the reduction of total engine power and gross tonnage. This is partly due to management efforts directed at decreasing fleet size in order to bring it in balance with the resources. However, this is not the whole truth since a part of the decrease is because many fishermen have left the trade since they cannot make a living from fishing anymore. Some of the fishermen operating inside the pelagic fishing rights system have sold their rights and then left the sector while others just left the sector without being compensated. The profitability of the diminishing Swedish fleet is increasing perhaps not as fast as expected due to decreasing quotas.

The analysis of economic performance shows that all Swedish segments with vessels over 12 meters are making positive net profits. The segments with vessels with a length of less than 12 meters are all making negative net profits. Fuel prices have increased during 2010 and 2011 and stayed at high levels during the beginning of 2012, which will have an effect on all fisheries but in particular, the active gears (e.g. trawls and seiners). Segments fishing with passive gears have been heavily affected in recent years by increasing populations of seals.

There is also a crew recruitment problem as jobs on board fishing vessels is not seen as a particularly attractive way of living for younger people due to the low wages and relatively poor working conditions compared to other jobs on land; this poor recruitment is reflected in the increasing average age of Swedish fishermen. This coupled with a decreasing fleet size is expected to continue for some time.

## *United Kingdom*

### *National Fleet*

The increase in the value of landings of 22% from 2008 to 2012 matches almost exactly the 23% increase in the consumer price index for fish and seafood and represents a real rate of growth of 7% over the period brought about by a 9% increase in landings. The decline in landings of mackerel has been compensated for by increases in herring and the other species important to the UK fleet. The number of vessels continues to fall steadily from 6,796 in 2008 to 6,414 in 2012 but the falling average age suggests that there has been little if any fall in capacity, newer boats being more effective than older ones. The fall in FTEs from 7,519 in 2009 – there was a decommissioning scheme in 2008, which distorts the impression for that year - to 7,113 in 2012,

suggests that the cost of labour is continuing to cause substitution of capital for labour but the magnitude of the trend is not unduly strong.

While overall the fleet is profitable, with 16% of income being retained as net profit, there are considerable variations within the fleet segments and these are inconsistent within the segments or according to vessel size or according to the number of vessels within a segment offering little indication of the cause of the variability. The value of fishing rights showed a sharp increase of 29% between 2010 and 2011 reflecting optimism about the prospects of the industry.

Energy efficiency of the fleet continued to improve, by 6%, between 2010 and 2011, a consequence of the decreasing average age of vessels in the UK fleet.

An influx of vessels from the North Sea fishery for Norway lobster to the fishery west of Scotland has led to a shortage of kilowatt days-at-sea available to catch the quota. It is difficult to envisage how this will be resolved if the full quota is to be taken.

#### *Small Scale Fleet*

The increase in the value of landings of 7% from 2010 to 2011 is considerably poorer than 19% increase experienced by the national fleet as a whole, indicating that the smaller vessels have not been able to exploit the species where demand has been strongest. Landings by volume remained unchanged over the period.

The number of vessels rose from 2,859 in 2010 to 2,959 in 2011, an increase of 3%, indicating their exemption from the FQA system to fish a pool of quota. FTEs rose by 7% from 4,487 to 4,801 over the same period. The fleet is profitable, with 9% of income being retained as net profit.

Some 30 Marine Protected Areas are in the course of being implemented in England. The importance of these to the fleets is variable but it is more likely that their impact will be mainly on the small-scale fleet which is less able to sail longer distances to avoid them.

#### *Distant Water Fleet*

The UK distant water fleet consists of a few very large vessels fishing in Arctic waters and in the northern Atlantic near Greenland. The value of landings remained fairly steady at around €12m between 2010 and 2011. Little other information can be separated from the aggregate because the size of the fleet is too small to protect the commercial sensitivity of the data.

A ban on bottom trawling and the introduction of capacity limits has been proposed by the European Commission for the distant waters fleet. The impact of a ban on bottom trawling would add to costs though this would only impact negatively and in the short-run on fisheries with tradable quota. The longer-run effects are hard to judge. Capacity limits have only a short-run effect and may in the long-run lead to capital stuffing where quota is not tradable.

### 3. EU FLEET ECONOMIC PERFORMANCE PROJECTIONS 2012 & 2013

#### KEY FINDINGS

- Results suggest that for the EU Member States operating in the North Atlantic, the Danish, UK, Latvian and Swedish fleets were projected as being ‘highly profitable’ in 2012 and 2013, generating net profit margins greater than 10%. The Belgian and Finnish fleets were projected as being ‘reasonably profitable’ in 2012 and 2013, generating net margins of between 0% and 10% of income. The Irish and Dutch fleets were projected as having ‘weak profitability’ in 2012 and 2013, with a projected net loss of more than 10% in both 2012 and 2013. The Estonian fleet was projected as having ‘weak’ profitability in 2012 and ‘reasonable’ profitability in 2013.
- For the Southern EU Member States operating in the Mediterranean and Black Seas, the Italian fleet was projected as having a ‘weak’ profitability in 2012 with a net margin of -1%, improving slightly in 2013, to produce a ‘reasonable’ profit of 2% of income respectively. The Maltese and Slovenian fleet were both projected as having ‘weak’ profitability in 2012 and 2013, with projected net losses of more than 10% in both years.
- It was not possible produce EIAA projections for France, Lithuania and Portugal due to the amount of fishing activity undertaken by those Member States out-with the North Atlantic region, although fleet segment level projections are available for key North Atlantic fleets. No projections are available for the Spanish North Atlantic fleet due to data unavailability. It was not possible produce BEMTOOL projections for the Cypriot, French, Greek and Spanish Mediterranean fleets due to data unavailability. In addition it was not possible to project Bulgarian or Romanian fleet performance as the BEMTOOL model is designed for the Mediterranean area only. Therefore, ***overall estimates at EU fleet level were not possible.***

In order to produce a more up-to-date analysis on the performance of the EU fishing fleet, this exercise set out to produce economic performance projections of the EU Member States fleets in 2012 and 2013. For this, EWG 13-04 used two bio-economic models : the **EIAA model** for EU Member States whose fleets operate in North Atlantic fisheries and the **BEMTOOL model** for EU Member States who operate in Mediterranean and Black Seas fisheries. For both regions, models projections were carried out for up to 4 major fleet segments from each Member State in addition to projections at national level.

### 3.1. EIAA MODEL – PROJECTIONS FOR NORTH ATLANTIC FISHERIES

#### *Objective*

The objective was to produce short-term economic projections for 2013 for the national level, specified in the Annual Economic Report. Since not all member states have collected 2012 data yet, data projections for 2012 have been produced as well. A complete description of the model is found in Frost et al. (2009). A short outline of the main features of the model used in the context of this report is found below.

The EIAA model has been used for many years for making economic interpretations of ACFM advice and is a relative large model that contains 25 quota species and 113 stocks. However, in order for the model to continue making high accurate projections it is recommended to update the model to include more quota species and stocks.

#### *Data requirements*

1. Technical details of fleet segments such as length and gear type
2. Landings value- and volume by species per fleet segment
3. Landings value- and volume by species per country
4. Cost and earnings per fleet segments
5. EU-TACs by management stocks
6. Spawning stocks biomasses (SSBs) by management stocks

The technical details, landings value and volume, and the cost and earnings data (1-4) is extracted from the DCF. The EU-TACs are extracted from the posters “Fishing TACs and quotas” from 2009-2013, which is published by the European Commission. The SSBs is extracted from the ICES Fish Stock Summary Database 2009-2012. Some SSBs have furthermore been found in different ICES working groups. For 2013, SSBs have been collected from the ICES working groups AFWG, WGNSSK, WGCSE, WGBFAS, NWWG and HAWG. For the remaining stocks, where SSBs have not yet been assessed, the SSB is assumed to be constant with the 2012 stock.

#### *Economic Projections*

The EIAA model projects the economic performance for each country based on 2-4 representative fleets for each country. The representative fleets are selected based on the value and weight of catches. Furthermore, the selection is based upon that economic data are available and that the fleets mainly land quota species. Table 3.1 shows the selected fleets.

Table 3.1: Selected fleet segments

FLEET SEGMENT	BEL	DNK	EST	FIN	FRA	GBR	IRL	LTU	LVA	NLD	PRT	SWE
DTS VL 1012												x
DTS VL 1218		x			x							x
DTS VL 1824		x			x	x	x					x
DTS VL 2440	x	x			x	x	x	x			x	x
DTS VL 40XX		x										
PS VL 1218												x
PS VL 1824												x
PS VL 40XX						x						
TM VL 1218				x					x			
TM VL 1824				x					x			
TM VL 2440		x	x				x	x				
TM VL 40XX							x	x			x	
TBB VL 1824	x											x
TBB VL 2440	x					x					x	
TBB VL 40XX											x	
DFN VL1012				x								

*Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))*

The coverage of the selected fleet segments is presented in Table 3.2. The coverage of each member state is calculated as the landings value of the selected 2-4 fleets divided by the total landings value.

Based on the projected economic performance of the selected fleets for 2012 and 2013, the economic performance of the member state are now projected for 2012 and 2013 by scaling the base period (2009-2011) landings value of the member state divided by the base period landings value for the selected fleets. The scaling factor is the reciprocal of the total coverage, shown in Table 3.2.

The coverage for France (34%), Lithuania (14%) and Portugal (15%) are considered to be that low that economic projections on a member state level are too uncertain to be presented in this report. However, the projections for the selected fleets are still presented in the tables below.

There are several reasons that the coverage is low for some member states. A reason for this is that the member states have a large catch of non-quota species. Another major reason is that newly introduced quota species have not been integrated in the model. Therefore, in order to produce fully updated projections for each member state in the future, the model needs to be updated with recently introduced quota species and management stocks. A third reason is that some member states like Portugal and France have catches in both the Mediterranean Sea and the Northeast Atlantic. Since the model only makes projections for the Northeast Atlantic, the coverage for these member states are low. A solution to this could be to project the North East Atlantic by the EIAA model and then combine it with the BEMTOOL model for the Mediterranean Sea.

Table 3.2 Fleet coverage for each member state

Coverage is calculated as the total landings value of the selected 2-4 fleets divided by the total landings value.

STOCK	BEL	DNK	EST	FIN	FRA	GBR	IRL	LVA	LTU	NLD	PRT	SWE
Herring	99%	98%	59%	94%	11%	99%	90%	89%	97%	100%	0%	15%
Anchovy	0%	100%	0%	0%	3%	0%	0%	0%	0%	61%	65%	0%
Cod	92%	61%	100%	93%	66%	56%	61%	55%	87%	59%	0%	76%
Megrim	0%	100%	0%	0%	94%	0%	0%	0%	0%	0%	51%	0%
Anglerfish	0%	93%	0%	0%	84%	0%	81%	0%	0%	49%	11%	99%
Haddock	100%	92%	0%	0%	88%	89%	74%	0%	0%	21%	0%	96%
Whiting	96%	96%	0%	100%	75%	85%	90%	0%	0%	37%	8%	69%
Hake	97%	73%	0%	0%	16%	31%	61%	0%	0%	73%	17%	96%
Blue whiting	0%	100%	0%	0%	0%	99%	100%	0%	0%	100%	36%	27%
Norway lobster	69%	91%	0%	0%	85%	45%	85%	0%	0%	12%	30%	75%
Northern prawn	0%	100%	0%	0%	0%	56%	29%	0%	0%	0%	0%	99%
Plaice	96%	64%	0%	100%	43%	25%	47%	0%	0%	87%	0%	69%
Pollack	100%	40%	0%	0%	44%	27%	26%	0%	0%	70%	8%	73%
Saithe	100%	98%	0%	0%	5%	72%	75%	0%	0%	55%	0%	96%
Mackerel	99%	100%	0%	0%	30%	99%	98%	0%	0%	92%	78%	1%
Common sole	95%	28%	0%	0%	37%	20%	39%	0%	0%	94%	6%	17%
Sprat	85%	99%	96%	100%	0%	44%	77%	100%	100%	99%	0%	11%
Horse mackerel	0%	100%	0%	0%	10%	0%	88%	0%	0%	0%	49%	0%
Turbot	96%	42%	0%	46%	40%	29%	34%	0%	3%	90%	7%	16%
Lemon Sole	99%	77%	0%	0%	89%	39%	63%	0%	0%	74%	0%	63%
Dab	89%	54%	0%	0%	63%	23%	89%	0%	0%	75%	0%	19%
Skates and rays	0%	88%	0%	0%	67%	0%	73%	0%	0%	100%	0%	0%
Norway pout	0%	100%	0%	0%	54%	100%	0%	0%	0%	100%	0%	0%
Sandeel	0%	99%	0%	0%	1%	99%	0%	0%	100%	100%	72%	0%
Salmon	0%	23%	0%	3%	7%	0%	0%	0%	0%	0%	0%	10%
Other	91%	32%	0%	2%	30%	30%	55%	70%	0%	80%	14%	51%
<b>Total</b>	<b>94%</b>	<b>81%</b>	<b>71%</b>	<b>66%</b>	<b>34%</b>	<b>55%</b>	<b>74%</b>	<b>81%</b>	<b>14%</b>	<b>85%</b>	<b>15%</b>	<b>48%</b>

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

## Data issues

When combining biological assessment and advice with economic assessment and advice, a number of data problems arise. Based on problems detected in scope of the economic assessment, these can be divided into four areas:

1. Where the quota species constitute only a small share of the total landings of a fleet segment.
2. Where biological stock assessment is not yet available
3. Where the biological stock assessment areas are inconsistent with the quota management areas
4. Where no stock assessment and no quota management is in function

In many cases, assumptions have to be made regarding lack of information. This is essential when using the model. The assumptions include composition of costs and catches of specific fleet segments, fishing technology, price flexibility rates of certain species, etc.

#### **Constant fishing patterns but changing catch compositions**

The calculations require an assumption regarding the relative shares of the various national fleet segments of the national landings of a specific species. It is assumed that this fishing pattern will not change from the reference year to the year for which the evaluation is made.

It is assumed that the fleet segments catch a constant share of the species i.e. constant up-take ratios. This means that the catch composition of a segment will change when the TACs change.

#### **Effort, costs and catches**

The activity (effort) influences the variable costs in the short and long run, while fixed costs are unchanged as it is assumed that the number of vessels is constant. Variable costs are assumed to be non-linear in effort, and it is assumed that the stock abundance influences the catch per unit effort in a non-linear way. This implies that a smaller quota requires less fishing effort and therefore lower variable costs. At the same time, a lower stock abundance leads to a lower catch per unit effort, which offsets some of the lower effort needed to catch the lower quota. These assumptions are included in the model through a catch-stock abundance flexibility rate, a catch-gear (technology) flexibility rate and a catch-price flexibility rate.

#### **Quota uptake**

Nominal quotas, as set at the beginning of the year, are used. However, in practice quotas are swapped between countries, some quotas remain unutilised and/or some are exceeded. The total effect of these changes is summarised in an uptake correction factor. This factor allows the projected landings of the coming year to be different from the proposed quota.

#### **Prices**

Price levels are adjusted through changes in the volume of landings. Future prices are calculated based on a price flexibility rate, which has a default value at zero i.e. constant prices.

## **Definitions**

#### **Gross earnings of the vessel and catches (Value of landings)**

Gross earnings of a vessel are determined by annual volume of catches per species and the price of those species. Income from other sources is included in gross earnings and assumed to be constant from the base period to the assessment year.

#### **Variable costs**

Variable costs vary directly with activity (effort) i.e. fuel, provisions, repairs. When effort, exerted on a certain stock, is reduced due to a lower TAC, the total variable costs of a fleet segment are reduced relative to the weight of the reduced species in the fleet segment's landings composition.

#### **Fixed costs**

Fixed costs are divided in vessel costs (maintenance, insurance, administration etc.) and capital costs (interest payments and depreciation). The capital costs are calculated as the depreciated replacement value (see Commission Decision of 18 December 2009: Adopting a multiannual Community programme for the collection, management and use of data in the fisheries sector for the period 2011-2013). They are kept constant and are, therefore, assumed not to vary with effort. This is justified because the invested capital cannot be changed in the short run. In the long run with higher TACs, the associated higher stock abundances and excess fleet capacity is assumed to make it possible for the current fleet to catch the higher volumes.

#### **Labour costs**

Labour costs are the percentage of the gross revenue used to pay the crew.

#### **Gross cash-flow**

Gross cash flow = gross revenues – energy costs – other variable costs – labour costs – vessel costs

#### **Gross value added**

Gross value added = Gross cash flow – labour costs

***Net result***

Net result = Gross cash flow – capital costs

***Results***

The EIAA projections for 2012 and 2013 are summarised in Table 3.3 and Table 3.4 for Denmark, Sweden, Finland, Estonia, Latvia, United Kingdom, Ireland, The Netherlands and Belgium. More detailed results for each selected fleet are presented in Table 3.5 to Table 3.10.

As mentioned above, the selected fleet coverage for France, Lithuania and Portugal is so low that national economic projections are considered to be too uncertain to be presented here. However, economic projections at a fleet level are shown. In order to strengthen the economic projections in the future, the selected fleet coverage should be increased. This can be done by:

1. Increase the number of selected fleets. This should especially be considered for member states like France, the UK, Portugal and Sweden.
2. Expand the model to account for more species and more EU-TAC's by management stocks. This would improve the coverage for many fleets and make it possible to include the Lithuanian long distance pelagic trawlers, which is an economic important fleet for Lithuania.
3. Projecting the economic fleet performance for the Northeast Atlantic fleet only and not the entire fleet. This is important for member states such as France, Spain and Portugal, which have considerable amount of catches in both the Northeast Atlantic and the Mediterranean Sea.

Table 3.3 EIAA model Economic performance projections at national fleet level for 2012

Unit: million €	BEL	DNK	EST	FIN	GBR	IRL	LVA	NLD	SWE
Landings income	91.29	343	11.07	25.28	841.59	183.82	18.16	323.01	188.03
Other income	3.55	11.35	0.02	1.22	13.34	9.06	1.67	1.51	39.22
Labour costs	29.31	97.24	3.94	5.96	180.25	54.65	3.16	95.91	34.68
Gross cash flow	16.87	131.92	2.38	3.89	202.55	28.63	6.24	6.37	75.68
Net profit	7.32	42.08	-0.04	0.21	151.72	-34.86	2.4	-33.91	25.02
Gross value added	46.18	229.17	6.33	9.85	382.8	83.28	9.4	102.28	110.37
<b>Net profit margin</b>	<b>8.0%</b>	<b>12.3%</b>	<b>-0.4%</b>	<b>0.8%</b>	<b>18.0%</b>	<b>-19.0%</b>	<b>13.2%</b>	<b>-10.5%</b>	<b>13.3%</b>
<b>Profitability Classification 2012</b>	<b>Reasonable</b>	<b>High</b>	<b>Weak</b>	<b>Reasonable</b>	<b>High</b>	<b>Weak</b>	<b>High</b>	<b>Weak</b>	<b>HIGH</b>

Source: EU Member States 2013 DCF data submissions/EIAA model

Table 3.4 EIAA model Economic performance projections at national fleet level for 2013

Unit: million €	BEL	DNK	EST	FIN	GBR	IRL	LVA	NLD	SWE
Landings income	90.8	406.13	11.59	25.89	880.11	188.38	18.29	317.82	179.8
Other income	3.55	11.35	0.02	1.22	13.34	9.06	1.67	1.51	39.22
Labour costs	29.14	110.49	4.13	6.09	188.22	55.82	3.18	95.33	33.25
Gross cash flow	17.76	162.35	2.61	4.16	226.13	30.75	6.44	8.72	72.77
Net profit	8.21	72.51	0.18	0.48	175.31	-32.74	2.59	-31.55	22.11
Gross value added	46.91	272.84	6.73	10.25	414.35	86.57	9.62	104.05	106.03
<b>Net profit margin</b>	<b>9.0%</b>	<b>17.9%</b>	<b>1.6%</b>	<b>1.8%</b>	<b>19.9%</b>	<b>-17.4%</b>	<b>14.2%</b>	<b>-9.9%</b>	<b>12.3%</b>
<b>Profitability Classification 2013</b>	<b>Reasonable</b>	<b>High</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>High</b>	<b>Weak</b>	<b>High</b>	<b>Weak</b>	<b>High</b>

Source: EU Member States 2013 DCF data submissions/EIAA model

Table 3.5 2012-2013 Economic performance projections for key Belgian and Danish fleet segments using the EIAA model, million €

Belgium																	
Member State	Segment			DTS 24-40m			TBB 18-24m			TBB 24-40m			n/a			Total	
Year	2009-2011	2012	2013	2009-2011	2012	2013	2009-2011	2012	2013	2009-2011	2012	2013	2009-2011	2012	2013		
Landings income	4.3	4.8	4.8	15.9	18.4	18.1	52.9	62.0	61.9	n/a	n/a	n/a	74.8	91.3	90.8		
Other income	0.3	0.3	0.3	0.6	0.6	0.6	2.5	2.5	2.5	n/a	n/a	n/a	3.5	3.5	3.5		
Labour costs	1.5	1.7	1.7	5.4	6.2	6.1	16.7	19.5	19.5	n/a	n/a	n/a	25.2	29.3	29.1		
Gross cash flow	0.7	1.0	1.0	1.2	2.6	2.6	7.0	12.3	13.0	n/a	n/a	n/a	9.5	16.9	17.8		
Net profit	0.0	0.3	0.3	-0.8	0.6	0.7	0.7	6.0	6.7	n/a	n/a	n/a	-0.1	7.3	8.2		
GVA	2.2	2.7	2.7	6.6	8.8	8.8	23.7	31.8	32.5	n/a	n/a	n/a	34.6	46.2	46.9		
<b>Net profit / income</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>		
<b>Classification</b>	<b>Weak</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Weak</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>High</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>Weak</b>	<b>Reasonable</b>	<b>Reasonable</b>		

Denmark																	
Member State	Segment			DTS 12-18m			DTS 18-24m			DTS 24-40m			DTS 40XX			Total	
Year	2009-2011	2012	2013	2009-2011	2012	2013	2009-2011	2012	2013	2009-2011	2012	2013	2009-2011	2012	2013		
Landings income	39.8	42.6	41.3	44.8	47.7	47.9	55.8	54.0	62.9	147.9	141.1	184.6	346.6	343.0	406.1		
Other income	2.4	2.4	2.4	1.1	1.1	1.1	1.6	1.6	1.6	4.1	4.1	4.1	11.3	11.3	11.3		
Labour costs	17.0	18.1	17.6	16.0	17.0	17.1	16.4	15.9	18.5	29.2	27.9	36.5	96.9	97.2	110.5		
Gross cash flow	6.6	7.9	7.4	10.0	11.4	11.4	15.4	14.4	16.4	79.0	73.5	96.7	136.6	131.9	162.3		
Net profit	-2.0	-0.7	-1.2	0.5	1.9	1.9	2.5	1.5	3.4	37.0	31.5	54.7	46.8	42.1	72.5		
GVA	23.6	26.0	25.0	26.0	28.4	28.5	31.8	30.3	34.9	108.2	101.3	133.2	233.5	229.2	272.8		
<b>Net profit / income</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>			
<b>Classification</b>	<b>Weak</b>	<b>Weak</b>	<b>Weak</b>	<b>Weak</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>			

Table 3.6 2012-2013 Economic performance projections for key Estonian and Finnish fleet segments using the EIAA model

Member State		Estonia														
		Segment				TM 24-40m				n/a				n/a		
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		10.0	7.8	8.2	14.1	11.1	11.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Other income		0.0	0.0	0.0	0.0	0.0	0.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Labour costs		3.5	2.8	2.9	5.0	3.9	4.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gross cash flow		2.5	1.7	1.8	3.5	2.4	2.6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Net profit		0.7	0.0	0.1	1.0	0.0	0.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
GVA		6.0	4.5	4.8	8.5	6.3	6.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Net profit / income</b>		<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Classification</b>		<b>Reasonable</b>	<b>Weak</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Weak</b>	<b>Reasonable</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Member State		Finland																	
		Segment				TM 12-18m				TM 18-24m				TM 24-40m				n/a	
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013			
Landings income		1.2	1.1	1.1	2.1	1.9	2.0	15.5	14.3	14.6	n/a	n/a	n/a	27.6	25.3	25.9			
Other income		0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5	n/a	n/a	n/a	1.2	1.2	1.2			
Labour costs		0.4	0.3	0.3	0.8	0.7	0.7	3.1	2.9	2.9	n/a	n/a	n/a	6.5	6.0	6.1			
Gross cash flow		0.3	0.3	0.3	0.5	0.5	0.5	2.1	1.8	1.9	n/a	n/a	n/a	4.5	3.9	4.2			
Net profit		0.1	0.1	0.1	0.3	0.3	0.3	0.1	-0.2	-0.1	n/a	n/a	n/a	0.9	0.2	0.5			
GVA		0.7	0.6	0.6	1.3	1.2	1.2	5.2	4.6	4.9	n/a	n/a	n/a	11.0	9.9	10.2			
<b>Net profit / income</b>		<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	n/a	n/a	n/a	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>			
<b>Classification</b>		<b>High</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>Reasonable</b>	<b>Weak</b>	<b>Weak</b>	n/a	n/a	n/a	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>			

Table 3.7 2012-2013 Economic performance projections for key French and UK fleet segments using the EIAA model

Member State		France																				
		Segment				DTS 12-18m				DTS 18-24m				DTS 24-40m				DFN 10-12m				Total
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		77.5	80.7	81.8	130.9	137.2	140.5	66.3	69.1	70.8	48.7	60.0	60.6	931.4	1016.4	1035.4						
Other income		1.3	1.3	1.3	2.5	2.5	2.5	1.2	1.2	1.2	0.7	0.7	0.7	16.7	16.7	16.7						
Labour costs		28.9	30.1	30.5	38.7	40.6	41.5	20.2	21.1	21.6	21.8	26.8	27.1	320.2	346.3	352.5						
Gross cash flow		10.7	12.3	12.6	14.5	18.9	20.0	3.2	5.3	5.8	8.9	13.9	14.0	108.9	147.0	152.8						
Net profit		3.9	5.5	5.7	2.5	6.9	8.0	-3.1	-1.0	-0.5	4.9	9.9	10.0	23.9	62.0	67.8						
GVA		39.6	42.4	43.1	53.2	59.5	61.5	23.4	26.4	27.4	30.7	40.7	41.1	429.1	493.4	505.3						
<b>Net profit / income</b>		<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	
<b>Classification</b>		<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Weak</b>	<b>Weak</b>	<b>Weak</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>Reasonable</b>		

Member State		UK																				
		Segment		DTS 18-24m				DTS 24-40m				PS 40XX				TBB 24-40m				Total		
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		103.9	100.4	102.4	117.6	118.9	124.6	222.1	213.6	226.4	34.7	38.2	39.0	854.7	841.6	880.1						
Other income		2.9	2.9	2.9	1.7	1.7	1.7	2.4	2.4	2.4	0.4	0.4	0.4	13.3	13.3	13.3						
Labour costs		25.0	24.2	24.7	25.3	25.6	26.8	44.3	42.6	45.2	6.8	7.5	7.7	183.1	180.2	188.2						
Gross cash flow		18.2	18.5	19.8	23.3	26.6	29.9	66.3	60.7	68.5	4.6	6.5	7.2	202.9	202.5	226.1						
Net profit		10.0	10.3	11.6	17.0	20.3	23.6	54.3	48.6	56.4	3.0	4.9	5.6	152.0	151.7	175.3						
GVA		43.3	42.7	44.5	48.6	52.2	56.7	110.6	103.3	113.7	11.5	14.0	14.9	385.9	382.8	414.4						
<b>Net profit / income</b>		<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	
<b>Classification</b>		<b>Reasonable</b>	<b>High</b>	<b>Reasonable</b>	<b>High</b>																	

Table 3.8 2012-2013 Economic performance projections for key Irish and Latvian fleet segments using the EIAA model

Ireland																
Member State	Segment			DTS 18-24m			DTS 24-40m			TM 24-40m			TM > 40m			All
Year	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	
Landings income	34.9	34.3	35.8	29.9	29.6	30.5	16.8	15.9	15.9	65.0	59.6	60.6	193.4	183.8	188.4	
Other income	3.6	3.6	3.6	1.5	1.5	1.5	0.3	0.3	0.3	1.3	1.3	1.3	9.1	9.1	9.1	
Labour costs	9.9	9.8	10.1	6.2	6.1	6.3	6.4	6.1	6.1	20.2	18.5	18.9	57.6	54.7	55.8	
Gross cash flow	5.2	5.2	5.9	4.6	4.7	5.1	2.5	2.0	2.0	12.3	9.3	9.8	33.3	28.6	30.7	
Net profit	-1.4	-1.4	-0.8	-1.5	-1.4	-0.9	-3.6	-4.0	-4.0	-16.0	-19.0	-18.5	-30.2	-34.9	-32.7	
GVA	15.1	15.0	16.0	10.8	10.8	11.4	8.9	8.1	8.1	32.5	27.8	28.6	90.9	83.3	86.6	
<b>Net profit / income</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.3</b>	<b>-0.3</b>	<b>-0.2</b>	<b>-0.2</b>	<b>-0.2</b>	
<b>Classification</b>	<b>Weak</b>															

Latvia																
Member State	Segment			TM 12-18m			TM 18-24m			n/a			n/a			All
Year	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	
Landings income	2.6	2.6	2.6	14.7	13.2	13.3	n/a	n/a	n/a	n/a	n/a	n/a	20.1	18.2	18.3	
Other income	0.3	0.3	0.3	1.1	1.1	1.1	n/a	n/a	n/a	n/a	n/a	n/a	1.7	1.7	1.7	
Labour costs	0.6	0.6	0.6	2.1	1.9	1.9	n/a	n/a	n/a	n/a	n/a	n/a	3.4	3.2	3.2	
Gross cash flow	0.5	0.5	0.5	5.3	4.6	4.7	n/a	n/a	n/a	n/a	n/a	n/a	7.2	6.2	6.4	
Net profit	-0.2	-0.2	-0.2	2.9	2.1	2.2	n/a	n/a	n/a	n/a	n/a	n/a	3.3	2.4	2.6	
GVA	1.1	1.1	1.1	7.5	6.5	6.6	n/a	n/a	n/a	n/a	n/a	n/a	10.6	9.4	9.6	
<b>Net profit / income</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	
<b>Classification</b>	<b>Weak</b>															

Table 3.9 2012-2013 Economic performance projections for key Lithuanian and Dutch fleet segments using the EIAA model

Member State		Lithuania														
		Segment			DTS 24-40m			TM 24-40m			n/a			n/a		
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		3.4	3.9	3.5	3.0	1.5	1.6	n/a								
Other income		0.5	0.5	0.5	0.3	0.3	0.3	n/a								
Labour costs		0.7	0.8	0.8	0.3	0.2	0.2	n/a								
Gross cash flow		0.5	0.7	0.7	0.7	-0.2	-0.2	n/a								
Net profit		0.2	0.4	0.4	0.5	-0.5	-0.4	n/a								
GVA		1.2	1.6	1.5	1.0	-0.1	0.0	n/a								
<b>Net profit / income</b>		<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>-0.3</b>	<b>-0.3</b>	n/a								
<b>Classification</b>		<b>Reasonable</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>Weak</b>	<b>Weak</b>	<b>n/a</b>								

Member State		Netherlands														
		Segment		TM 40-XXm			TBB 18-24m			TBB 24-40m			TBB 40-XXm			Total
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		73.2	75.6	78.5	42.3	43.9	43.0	24.0	27.2	26.4	112.7	128.9	123.3	294.6	323.0	317.8
Other income		0.5	0.5	0.5	0.2	0.2	0.2	0.1	0.1	0.1	0.5	0.5	0.5	1.5	1.5	1.5
Labour costs		30.9	32.0	33.1	16.1	16.7	16.4	5.8	6.6	6.4	23.2	26.5	25.4	89.2	95.9	95.3
Gross cash flow		-42.2	-42.3	-42.7	1.0	2.2	2.2	3.5	6.1	6.6	25.2	39.5	41.4	-14.6	6.4	8.7
Net profit		-59.1	-59.2	-59.7	-4.5	-3.4	-3.4	2.3	4.9	5.4	14.5	28.7	30.7	-54.9	-33.9	-31.6
GVA		-11.3	-10.3	-9.6	17.2	18.9	18.6	9.3	12.7	13.0	48.4	66.0	66.8	74.6	102.3	104.1
<b>Net profit / income</b>		<b>-0.8</b>	<b>-0.8</b>	<b>-0.8</b>	<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>-0.2</b>	<b>-0.1</b>	<b>-0.1</b>
<b>Classification</b>		<b>Weak</b>	<b>Reasonable</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>Weak</b>	<b>Weak</b>	<b>Weak</b>						

Table 3.10 2012-2013 Economic performance projections for key Portuguese and Swedish fleet segments using the EIAA model

Member State		Portugal														
		Segment		DTS 24-40m			PS 12-18m			PS 18-24m			n/a		n/a	
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		41.9	40.9	41.2	7.8	7.8	7.8	27.9	27.9	28.0	n/a	n/a	n/a	n/a	n/a	n/a
Other income		1.5	1.5	1.5	0.1	0.1	0.1	1.2	1.2	1.2	n/a	n/a	n/a	n/a	n/a	n/a
Labour costs		13.3	13.0	13.1	4.4	4.4	4.4	14.5	14.5	14.5	n/a	n/a	n/a	n/a	n/a	n/a
Gross cash flow		7.4	7.0	7.2	1.6	1.6	1.6	6.1	6.2	6.2	n/a	n/a	n/a	n/a	n/a	n/a
Net profit		-1.9	-2.2	-2.0	1.0	1.0	1.0	4.1	4.2	4.2	n/a	n/a	n/a	n/a	n/a	n/a
GVA		20.7	20.0	20.3	6.0	5.9	5.9	20.6	20.6	20.7	n/a	n/a	n/a	n/a	n/a	n/a
<b>Net profit / income</b>		<b>0.0</b>	<b>-0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Classification</b>		<b>Weak</b>	<b>Weak</b>	<b>Weak</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>High</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

Member State		Sweden														
		Segment		DTS 10-12m			DTS 12-18m			DTS 18-24m			DTS 24-40m			Total
Year		2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013	2009-11	2012	2013
Landings income		5.0	5.3	4.9	14.8	15.2	14.0	19.9	20.5	19.4	72.8	66.7	65.4	198.2	188.0	179.8
Other income		0.4	0.4	0.4	0.6	0.6	0.6	2.0	2.0	2.0	15.7	15.7	15.7	39.2	39.2	39.2
Labour costs		1.4	1.5	1.4	3.0	3.1	2.9	3.3	3.4	3.2	9.3	8.5	8.3	35.8	34.7	33.3
Gross cash flow		1.2	1.3	1.1	4.2	4.5	4.0	5.7	6.3	6.0	27.0	23.9	23.6	80.0	75.7	72.8
Net profit		-0.4	-0.3	-0.5	1.7	2.0	1.5	3.2	3.8	3.5	9.4	6.3	6.0	29.4	25.0	22.1
GVA		2.6	2.8	2.5	7.2	7.6	6.9	9.0	9.7	9.2	36.3	32.4	31.9	115.8	110.4	106.0
<b>Net profit / income</b>		<b>-0.1</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>
<b>Classification</b>		<b>Weak</b>	<b>Weak</b>	<b>Weak</b>	<b>High</b>	<b>Reasonable</b>	<b>Reasonable</b>	<b>High</b>	<b>High</b>	<b>High</b>						

## 3.2. BEMTOOL MODEL - PROJECTIONS FOR MEDITERRANEAN FISHING FLEETS

### ***Introduction***

STECF EWG 13-04 was requested to produce economic forecast figures for the EU fishing fleet segments in 2012 and 2013. A new bio-economic model - BEMTOOL, developed for a study funded by the Directorate General for Maritime Affairs and Fisheries of the European Commission, was specifically designed for Mediterranean fisheries by incorporating enough flexibility in the model to accommodate the different features of these fisheries. EWG 13-04 decided to use the model was used for forecasting the economic performance of the fishing fleets operating in the Mediterranean Sea.

Although the BEMTOOL model is a flexible, it requires both biological and economic data to be used. As data provided for STECF EWG 13-04 consists of only economic data, the full use of the model was not feasible. A methodological approach derived from the economic module of the BEMTOOL model was defined for producing projections.

The modelling approach is based on a number of functional relationships among variables where equation parameters are estimated using the last available data or on the average of the last three years of available data. The use of the three-year average for estimating coefficients is generally adopted in cases showing significant fluctuations in historical data.

Projections for 2012 and 2013 were performed for the Mediterranean Member State fleet segments. As economic data for 2012 were not yet available, these were estimated using the equations described in Appendix 3. The same equations were used to estimate economic variables in 2013, with additional inputs defined by the following drivers:

- number of vessels by fleet segment in 2013;
- variation in average days at sea (DAS) by fleet segment from 2012 to 2013;
- variation in total landings per unit of effort by fleet segment from 2012 to 2013;
- variation in average price of total landings by fleet segment from 2012 to 2013;
- average fuel prices in 2012 and 2013;
- average interest rates in 2012 and 2013.

### ***Number of vessels by fleet segment in 2013***

The number of vessels in 2013 can be derived from the latest available data on the fleet (data related to the first part of 2013). Additional information can be obtained from current MS management plans for the reduction of the fleet. When information on fleet dynamics is unavailable, fleet data in 2013 can be set to equal that of 2012.

### ***Variation in average DAS by fleet segment 2012- 2013***

Variation in the average number of days at sea from 2012 to 2013 can be derived from information on the first quarter of 2013 or from clear data trends (the model provides an estimation of the likely value for each fleet segment in 2013 based on the trend estimated from the available data). Additional information can come from current MS management plans on the reduction of fishing effort. When information on changes in average days at sea is unavailable, fleet data in 2013 can be set to equal that of 2012.

### ***Variation in total landings per unit of effort by fleet segment 2012 - 2013***

Changes in total landings per unit of effort from 2012 to 2013 can be derived from observations on the first quarter of 2013 or from clear trends in the available time series data. Additional information can come from specific studies or reports on the status of stocks. The STECF EWG 11-20 report provides short term projections on fishing mortality and total catches by stock and GSA for Mediterranean fisheries. Even though status quo scenario is based on the fishing mortality in 2010, trends estimated by STECF EWG 11-20 can be used as a basis for estimating variation in landings per unit of effort. When data is unavailable, this variable can be set to the 2012 value (estimated by the model).

### ***Variation in average price of total landings by fleet segment 2012 - 2013***

Variation in average prices between 2012 and 2013 can be derived from recent observation in early 2013 or from clear trends in the time series data. In these cases, the model user can input a percentage variation for each fleet segment. The model provides an additional option that consists in using an elasticity function to estimate prices in 2013. This option requires the input of an elasticity coefficient (see Annex 1). When information is unavailable, the variable can be set equal to the value in 2012 (i.e. percentage variation equal to zero).

### Average fuel prices and interest rates in 2012 and 2013

The last two drivers - fuel price and interest rate - can both be obtained through official statistics for 2012 and for the first quarter of 2013. Average fuel price is used in the model to estimate energy costs, while the interest rate is used to estimate the opportunity costs of capital.

### Model outputs

The model provides projections for 2012 and 2013 by fleet segment for all the variables included in its logical-conceptual pattern. A synthesis of these projections is also provided through a histogram showing the values of the five most relevant economic variables at MS level. The histogram allows comparison over three time periods: 2009-2011, 2012 and 2013, for the following variables:

- Value of landings
- Crew share
- Gross cash flow
- Net profit
- Gross value added (GVA)

## RESULTS

BEMTOOL Model outputs by MS are reported below.

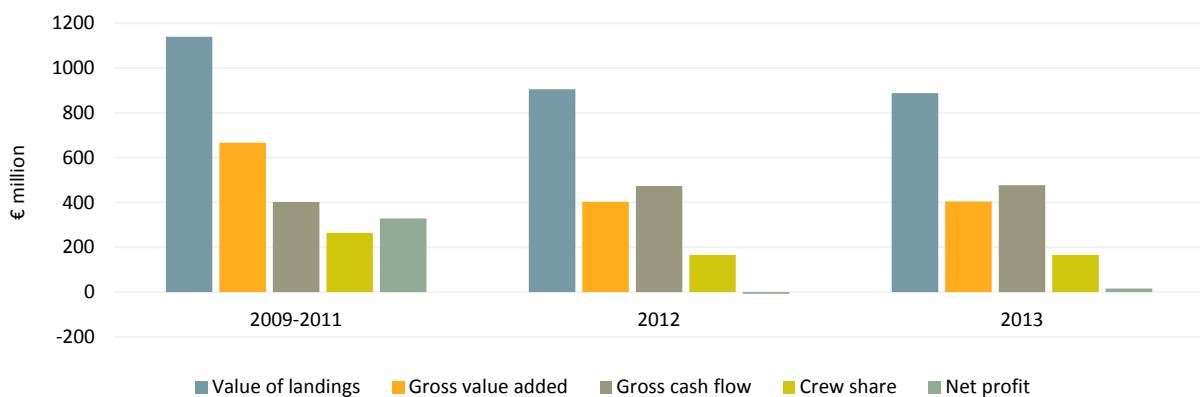
### ITALY

**Projections 2012:** In 2012 the Italian fishing sector was severely hit by the economic crisis. The 11% decrease in fishing activity (effort), mostly a result of fishers reactions to increased fuel prices, largely affected the total volume of landings with a further decrease of 9% compared to 2011. In addition, stagnation in internal demand for seafood has also impacted on average landings prices, which remained stable over the period in consideration. Consequently, the Italian fishing fleet reported a net loss of €7 million in 2012.

**Projections 2013:** Due to lack of current data on the Italian fleet, the number of vessels in 2013 was assumed to be the same as 2012. Average days at sea were estimated using a linear trend in average days at sea from 2010 to 2012. This assumption allowed taking into account the general reduction in fishing days that affected most of the Italian fleet segments over the last three years. The ratio between landings and unit of effort calculated for 2012 was assumed the same for 2013.

In the absence of reliable information regarding average landings prices, a price elasticity of -0.2 of total landings for all fleet segments was assumed. Finally, fuel prices were sourced from official statistics provided by the Italian Ministry of Economic Development with reference to the annual average prices for diesel car in Italy. The average fuel price highlights a slight decrease, with a reduction from €0.80 per litre in 2012 to €0.74 per litre in the first few months of 2013.

According to projected data for 2013, fish production is expected to continue a declining trend, with a slight decrease of 2% compared to 2012. A substantial stability across all economic indicators is expected. In fact, between 2012 and 2013 the model foresees a slight increase in gross cash flow (+0.8%) and GVA (+0.5%). Even though the economic trend is deteriorating, total net profit is expected to be positive in 2013 (Figure 3.1).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 3.1 Italy: Projections for 2012 and 2013 for the main economic variables

### **Demersal Trawlers / Seiners, 12 to 18 metres (DTS VL1218)**

The demersal trawl 12-18m is one of the most productive segments in the Italian fishing fleet. In 2012, it contributed to 19% of total income. Reduction in the level of activity combined with stagnated landing prices produced a significant deterioration of all economic indicators in 2012. Income declined by 22% when compared to the three-year average 2009-2011. Over the same period, net profit decreased by 93% and crew share by 44%.

In the first part of 2013, fish production and fishing activity are expected to continue their declining trend. A stability of prices due to internal demand stagnation is also expected. As a consequence the model foresees a decrease in the value of landings (-3.5%) and consistency in the other economic indicators, with the exception of net profit which increases by 42%. However, this improvement is mainly due to a decrease in opportunity costs, caused by low average interest rate, which decreased from 6% in 2012 to 4% in 2013 (Figure 3.2, left).

### **Demersal Trawlers / Seiners, 18 to 24 metres (DTS VL1824)**

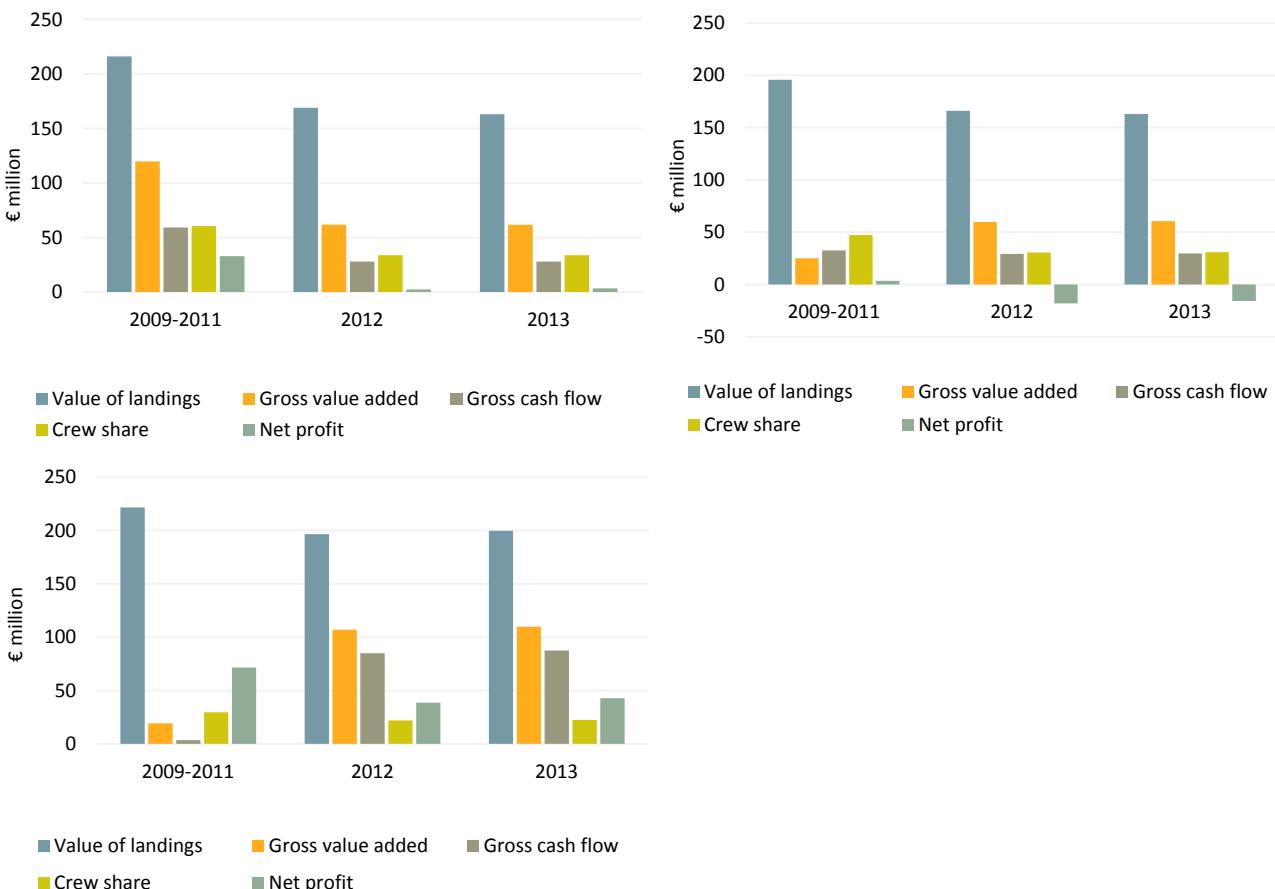
In 2012, the demersal trawl segment 18-24m contributed to 18% of the total income from landings of the Italian fleet and employed around 9% of the total fishermen. This fleet segment was unprofitable in 2012, with a net loss of over €18 million. The value of landings reported decreased by 15% when compared to the period 2009-2011. Over the same period the crew share decreased by 35% and gross cash flow by 11%.

Onto the 2013 projections, landings value is expected to decrease moderately mainly due to the decreasing trend in fishing activity. In 2013 crew share, gross cash flow and GVA are expected to increase slightly compared to 2012. As a consequence, an estimated net loss of about €15 million is expected in 2013 (Figure 3.2, right).

### **Polyvalent Passive Gears, 6 to 12 metres (PGP VL0612)**

In 2012, landings from the passive gears 6-12m segment amounted to 22% in value of the total national landings, with a decrease of 11% compared to the average 2009-2011. The level of activity was equal to an average of 128 days at sea with a decrease of 6% compared to the period 2009-2011. Over the same period, this fleet reported a net profit of around €38 million, a 46% decrease compared to the previous three-year average 2009-2011.

According to the 2013 forecasts, all economic indicators are expected to increase due to the increase in fishing days, estimated at 2%. This segment is expected to increase its net profit by 11% in 2013 (Figure 3.2, bottom).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

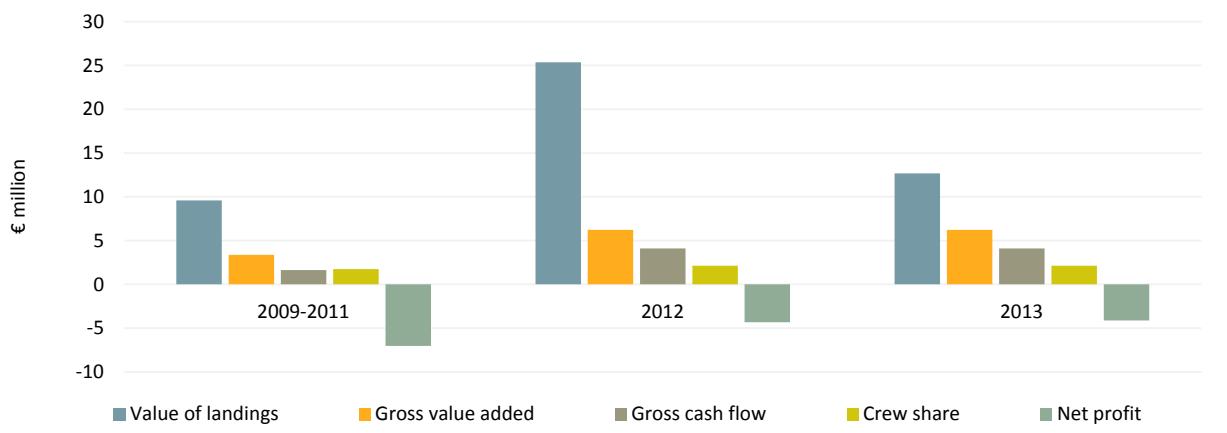
Figure 3.2. Italy DTS VL1218 (left), DTS VL1824 (right) and PGP VL0612 (bottom): Projections for 2012 and 2013 for the main economic variables.

## MALTA

Maltese effort (transversal) data was available up to 2012 and capacity data (number of vessels, GT and kW) up to 2013, but 2013 data is considered provisional and was not included in the model. Most of the Maltese economic data were available until 2011. The majority of vessels in the Maltese fishing vessel register use a number of different gear types and often change gears continuously throughout the year. Fishing activity also differs between years. Hence, vessels may be classified in different fleet segments from year to year depending on the main gear used and activity in a particular year, resulting in large fluctuations in the data by fleet segment. For this reason, projections were based on the average of the previous three years in most cases.

**Projections 2012:** The number of active Maltese vessels in 2012 was slightly greater than in previous years (30 more vessels). According to the projections, the net profit for the Maltese fishing fleet is expected to have improved in 2012, although still negative. This is mainly attributed to the fact that in 2012, when compared to previous years (2009–2011), the value of landings which greatly contributes to total income increased significantly while effort (in terms of days at sea) decreased. This in turn has contributed to a significant percentage variation in landings per unit effort, where total landings increased in 2012, while effort was less than in previous years.

**Projections 2013:** With decreased effort, a decrease in energy costs (less energy consumption due to decreased days at sea) and other variable costs is foreseen. The trend in average landings price has also increased. Combining all these factors, the projections resulted in improved net profit values, increased value of landings and stable GVA and gross cash flow for 2013 when compared to 2012. All these parameters show a positive trend when compared with data from 2009–2011 (Figure 3.3).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 3.3 Malta: Projections on 2012 and 2013 on the main economic variables

### Demersal Trawlers/Seiners, 18 to 24 metres (DTS VL1824)

For the Maltese trawler 18 – 24m fleet segment, effort (transversal) data was available up to 2012 and capacity data (number of vessels, GT and kW) up to 2013, but 2013 data is provisional and was not included in the model. Most of the Maltese economic data for this segment was available up to 2010 and in some cases also included 2011 values.

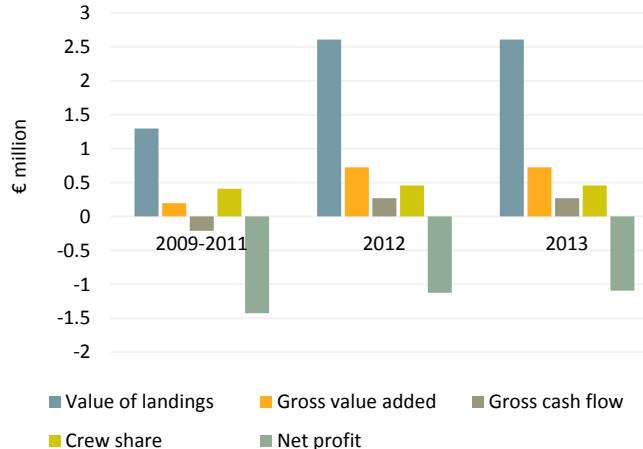
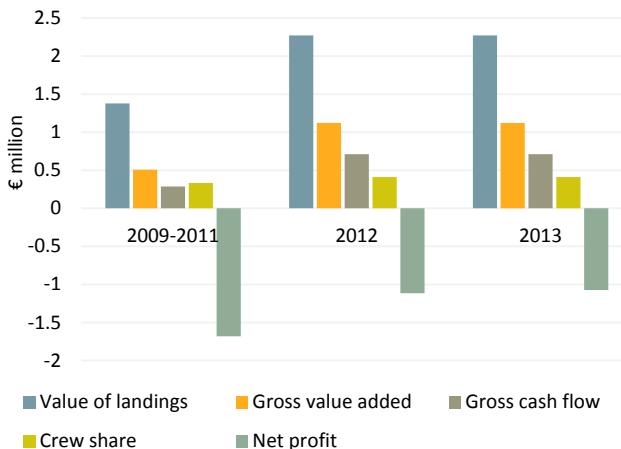
The DTS VL1824 fleet segment in 2012 consisted of 14 active vessels with a stable trend over the years. According to the projections, net profit is expected to have improved in 2012 and will continue in 2013, although still negative. This is mainly attributed to the fact that the value of landings which greatly contributes to total income has increased significantly. The number of days spent at sea has also increased in recent years. The projections resulted in improved net profit values, increased value of landings, GVA and gross cash flow for 2013 when compared to 2012 and earlier years (Figure 3.4, left).

### Hook and Line, 18 to 24 metres (HOK VL1824)

For the Maltese HOK VL1824 fleet segment, effort (transversal) data is available up to 2012. Capacity data (number of vessels, GT and kW) is available for all years, up to 2013, but 2013 data is provisional and was not included in the model. The Maltese economic data for this segment is available up to 2011.

There were 16 active vessels operating in the HOK VL1824 fleet segment in 2012. This corresponds to the 2011 figures but an increase compared to previous years (2008–2010). Once again, according to the projections, net profit for the Maltese fishing fleet is expected to have improved in 2012 and 2013, although still negative. This is mainly attributed to

the fact that in 2012, when compared to the previous years (2009-2011), the weight of landings which greatly contributes to the value of landings and thus total income increased significantly. Fishing effort, in terms of days at sea also increased. Revenue obtained by this fleet segment increased considerably in 2012, and this in turn affected the net profit trend. The trend in average landings price also increased. With increased effort, energy costs are expected to increase. Combining all these factors, the projections resulted in improved net profit values, stable value of landings, GVA and gross cash flow for 2013 when compared to 2012. All these parameters show a positive trend when compared with data from 2009-2011 (Figure 3.4, right).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 3.4. Malta DTS VL1824 (left) and HOK VL1824 (right): Projections on 2012 and 2013 on the main economic variables

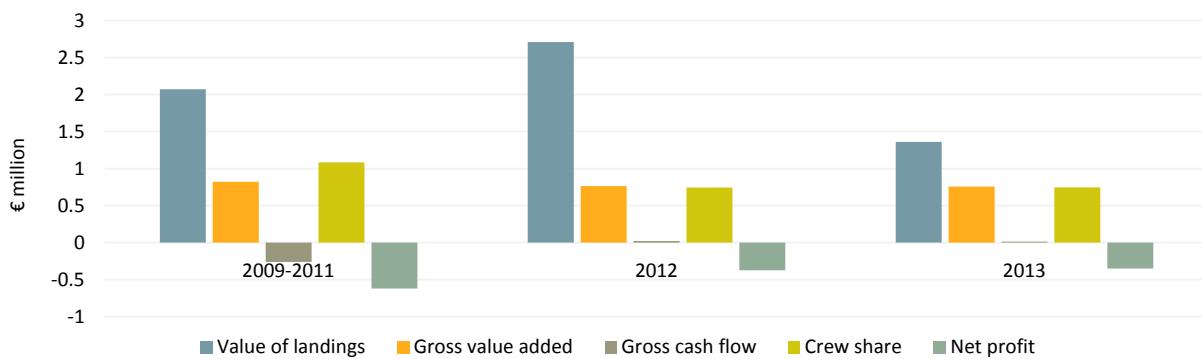
## SLOVENIA

The number of fishing vessels in 2013 is taken from the Slovenian fishing fleet register. The size of the Slovenian fishing fleet decreased between 2008 and 2013; 3,5% in the number of vessels, 36,5% in GT and 17,2% in kW. The major factors causing the fleet to decrease include vessel scrapping, including two of the largest vessels in the Slovenian fishing fleet.

Total days at sea were calculated as the average days at sea times the number of vessels. Trend data was used for estimating the average days at sea in 2013. The total number of days at sea increased around 8% between 2008 and 2012. According to BEMTOOL results, the total number of days at sea will further increase in 2013 by about 5% compared to 2012. The Slovenian fisheries sector, in particular the small scale fleet, is greatly affected by the reduced fishing area. For this reason most fish stocks are overexploited, resulting in low landings volume and, on the other hand, increased days at sea.

For estimating landings in 2013, variation in landings per unit of effort from 2012 to 2013 was used. According to BEMTOOL outputs, landings volume will decrease in 2013 by about 2% compared to 2012.

The elasticity coefficient (value of p.e. is -0,2) was used to calculate the average price for 2013. This value is taken from the FISHRENT model and incorporated in BEMTOOL. According to the model, average landed prices will decrease in 2013 by around 1% in comparison to 2012. Fuel prices were taken from the Slovenian annual average prices sourced from the Slovenia Statistical office (Figure 3.5).

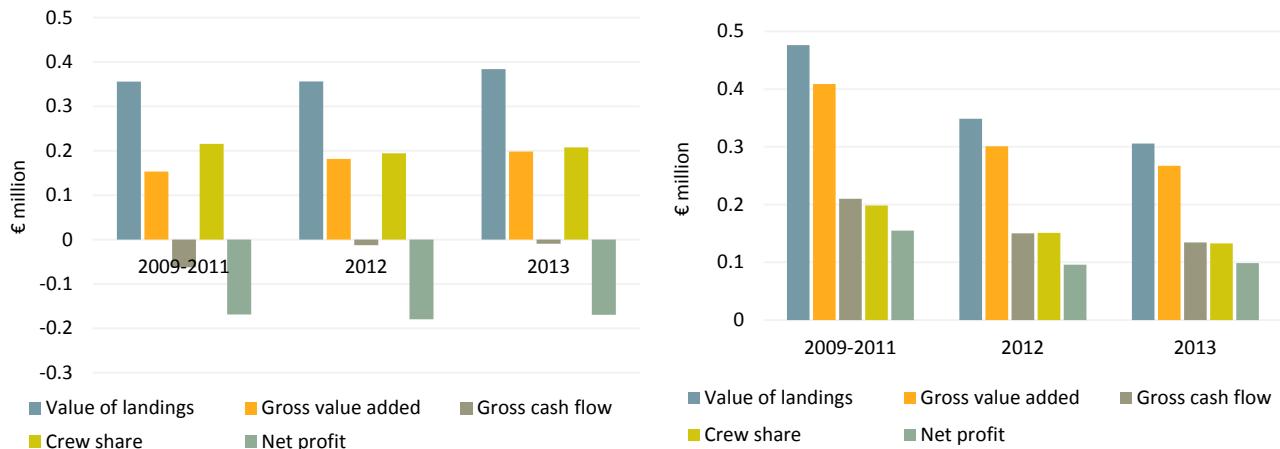


Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 3.5 Slovenia: Projections on 2012 and 2013 on the main economic variables

### Projections 2013:

Projections carried out by the modelling approach described above produced the following outcomes: the value of landings will increase in 2013 by about 0,5% compared to 2012; crew cost will increase in 2013 by 0,5% compared to 2012; GVA will decrease in 2013 by 1% compared to 2012; gross cash flow will decrease in 2013 by 40% compared to 2012 and net profit will increase in 2013 by 6% compared to 2012.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 3.6 Slovenia DFN VL0612 (left) and PS VL1218 (right): Projections on 2012 and 2013 on the main economic variables

### Drift and/or Fixed Netters, 6 to 12 metres (DFN VL0612)

The following outcomes were projected for DFN VL0612: the value of landings will increase in 2013 by about 8% compared to 2012; crew costs will increase in 2013 by around 7% compared to 2012; GVA will increase in 2013 by about 9% compared to 2012; gross cash flow will increase in 2013 by 26% compared to 2012 and net profit will increase in 2013 by 6% compared to 2012.

### Purse seiners, 12 to 18 metres (PS VL1218)

The following outcomes were estimated for PS VL1218: landings value will decrease in 2013 by around 12% compared to 2012; crew costs will decrease in 2013 by 12% compared to 2012; GVA will decrease in 2013 by 11% compared to 2012; GCF will decrease in 2013 by about 10% compared to 2012 and net profit will increase in 2013 by around 3% compared to 2012

## CYPRUS

Insufficient data available on transversal and/or economic variables to produce projections for this country

## FRANCE

Insufficient data available on transversal and/or economic variables to produce projections for this country

## GREECE

Insufficient data available on transversal and/or economic variables to produce projections for this country

## SPAIN

Insufficient data available on transversal and/or economic variables to produce projections for this country.

## Appendix 1 EU total Allowable Catches (TACs) on management areas (tonnes)

Species	Area	2009	2010	2011	2012	2013
Herring	I,II	106,959	96,543	64,319	54,228	40,297
Herring	IIIa	36,404	36,405	36,406	36,407	36,408
Herring	IIIbcd (EC zone) (22-24;25-27;28.2;29;32)	170,785	149,068	123,304	99,317	115,980
Herring	IIIbcd, Management Unit 3 (30-31;28.1)	117,561	139,736	140,769	136,576	136,576
Herring	IIa,IVab	113,752	108,206	132,849	261,822	302,122
Herring	IVc,VIId	23,567	22,881	26,536	44,550	52,580
Herring	Vb,VlaNb	21,100	23,760	21,755	22,900	27,480
Herring	Vla S,VIIbc	9,314	7,451	4,471	4,247	1,500
Herring	VlaClyde	800	720	1	1	1
Herring	VIIa	4,800	4,800	5,280	4,752	4,993
Herring	VIIef	1,000	1,000	980	980	930
Herring	VIIghjk	5,918	10,150	13,200	21,100	17,200
Anchovy	VIII	0	7,000	15,600	29,700	20,700
Anchovy	IX,,X,CECAF	8,000	8,000	7,600	8,360	8,778
Cod	I,IIb	39,118	42,406	40,102	44,094	57,143
Cod	IIIa Skagerrak	3,981	4,638	3,711	3,660	3,660
Cod	IIIa Kattegat	505	379	190	133	100
Cod	IIIbcd (EC zone)	60,917	68,967	77,757	89,150	81,608
Cod	IIa,IV	24,284	28,230	22,661	22,356	22,356
Cod	Vb,VI,XII,XIV	7,923	6,378	8,388	4,596	9,753
Cod	VIIa	899	674	506	380	285
Cod	VIIb-k,VIII,IX,X,CECAF34.1.1	5,701	5,978	5,587	11,602	11,743
Megrim	IIa (EU),IV	1,597	1,757	1,845	1,845	1,937
Megrim	Vb,VI,XII,XIV	2,799	3,079	3,387	3,387	3,387
Megrim	VII	18,300	18,300	18,300	17,385	17,385
Megrim	VIIIabde	2,125	2,125	1,806	1,716	1,716
Megrim	VIIIC,IX,,X,CECAF	1,430	1,287	1,094	1,214	1,214
Anglerfish	IIa (EU zone),IV	12,895	12,885	11,143	10,661	10,203
Anglerfish	Vb,VI,XII,XIV	5,567	5,567	5,456	5,183	4,924
Anglerfish	VII	28,080	32,292	32,292	30,677	29,144
Anglerfish	VIIIabde	7,920	9,108	8,653	8,220	7,809
Anglerfish	VIIIC,IX,,X,CECAF	1,760	1,496	1,571	3,300	2,475
Haddock	IIIa,IIIbcd	2,217	1,844	2,007	2,308	2,653
Haddock	IIa,IV (EU zone)	35,886	29,722	28,489	32,215	36,869
Haddock	Vb,VI,XII,XIV	9,395	7,634	5,753	9,315	5,201
Haddock	VII,VIII,IX,X,CECAF34.1.1	11,579	11,579	13,316	16,645	14,148
Haddock	VIIa	1,424	1,424	1,317	1,251	1,189
Whiting	IIIa	258	258	1,031	1,031	1,031
Whiting	IIa,IV (EU zone)	12,783	11,234	13,539	15,940	17,229
Whiting	Vb,VI,XII,XIV	574	431	323	307	292
Whiting	VIIa	209	157	118	89	84
Whiting	VIIb-k	16,949	14,407	16,568	19,053	24,500
Whiting	VIIIabde	3,600	3,240	3,175	3,175	3,175
Whiting	VIIIC,IX,,X,CECAF	653	588	1	1	1
Hake	IIIa,IIIbcd	1,552	1,661	1,661	1,661	1,661
Hake	IIa,IV (EU zone)	1,808	1,935	1,935	1,935	1,935
Hake	Vb,VI,VII,XII,XIV	28,879	30,900	30,900	30,900	30,900
Hake	VIIIabde	19,261	20,609	20,609	20,609	20,609
Hake	VIIIC,IX,,X,CECAF	8,104	9,300	9,300	9,300	9,300

EU FLEET ECONOMIC PERFORMANCE PROJECTIONS 2012/2013

Species	Area	2009	2010	2011	2012	2013
Blue Whiting	IIa,IV	4,000	2,000	1	1	1
Blue Whiting	Vb,VI,VII	74,058	66,337	10,042	63,421	116,032
Blue Whiting	VIIab	1	1	1	1	1
Blue Whiting	VIIe	1	1	1	1	1
Blue Whiting	VIIIC,IX,,X,CECAF	15,155	13,870	1,030	10,043	16,516
Nephrops	IIIa,IIIbcd	5,170	5,170	5,170	6,000	5,200
Nephrops	IIa,IV (EU zone)	26,047	25,888	24,654	23,129	18,350
Nephrops	Vb,VI	18,891	16,057	13,681	14,091	16,690
Nephrops	VII	24,650	22,432	21,759	21,759	23,065
Nephrops	VIIlab	4,104	3,899	3,899	3,899	3,899
Nephrops	VIIIC	112	101	91	82	74
Nephrops	VIIId	0	1	2	3	4
Nephrops	IX,,X,CECAF	374	337	303	273	246
Northern Prawn	IIIa, IIa,IV	11,849	10,024	8,526	7,318	7,089
Plaice	IIIa Skagerrak	9,163	9,163	7,791	7,791	8,959
Plaice	IIIa Kattegat	2,338	2,291	1,988	1,988	1,800
Plaice	IIIbcd (EU zone)	3,041	3,041	3,041	2,889	3,409
Plaice	IIa,IV (EU zone)	52,615	59,557	68,862	79,201	91,225
Plaice	Vb,VI,XII,XIV	786	707	693	693	658
Plaice	VIIa	1,430	1,627	1,627	1,627	1,627
Plaice	VIIbc	94	80	78	78	74
Plaice	VIIde	4,646	4,274	4,665	5,062	6,400
Plaice	VIIfg	422	451	410	369	369
Plaice	VIIhjk	256	218	185	176	141
Plaice	VIII,IX,,X,CECAF	448	403	395	395	395
Pollack	Vb,VI,XII,XIV	450	405	397	397	397
Pollack	VII	15,300	13,770	13,495	13,495	13,495
Pollack	VIIlab	1,680	1,512	1,482	1,482	1,485
Pollack	VIIIC	262	236	231	231	231
Pollack	VIIId	1	1	1	1	1
Pollack	VIIle	1	1	1	1	1
Pollack	IX,,X,CECAF	288	288	282	282	282
Saithe	IIa,IIIabcd,IV	38,103	31,566	47,722	41,204	46,916
Saithe	Vb,VI,XII,XIV	9,395	4,634	9,682	7,830	8,964
Saithe	VII,VIII,IX,X,CECAF34.1.1	13,003	13,003	3,343	3,343	3,176
Mackerel	IIa (EU),IIIabcd,IV	35,750	34,008	31,242	30,031	34,915
Mackerel	IIa,Vb,VI,VII,VIIlabde,XII,XIV	311,631	295,366	258,684	259,129	272,317
Mackerel	VIIIC,IX,,X,CECAF	35,829	33,875	29,572	29,651	31,160
Sole	IIIa,IIIbcd	800	700	840	610	560
Sole	II,IV	13,910	14,050	14,050	16,150	13,970
Sole	Vb,VI,XII,XIV	68	61	60	60	57
Sole	VIIa	237	402	390	300	140
Sole	VIIbc	1	45	44	44	42
Sole	VIIId	1,446	4,219	4,852	5,580	5,900
Sole	VIIle	23	618	710	777	894
Sole	VIIfg	621	993	1,241	1,060	1,100
Sole	VIIhjk	46	498	423	423	402
Sole	VIIlab	54	4,829	4,250	4,250	4,100
Sole	VIIICde,IX,,X,CECAF	1,083	1,094	1,072	1,072	1,072
Sprat	IIIa	48,100	48,100	48,100	48,100	38,480
Sprat	IIIbcd (EC zone)	399,953	379,955	288,766	225,237	249,978

Species	Area	2009	2010	2011	2012	2013
Sprat	IIa,IV(part n/a)	150,777	150,840	149,924	151,500	151,500
Sprat	VIIde	6,145	5,532	5,421	5,150	5,150
Horse Mackerel	IIa(EU),IV(EU)	157,234	157,881	156,587	157,989	157,989
Horse Mackerel	VI,VII,VIIIabde,XII,XIV,Vb(EU)	43,405	43,854	42,955	40,630	34,400
Horse Mackerel	VIIIC,IX	56,866	56,452	54,722	55,811	55,011
Horse Mackerel	X,CECAF	3,200	3,072	1	1	1
Turbot, Brill	IIa(EU),IV	5,263	4,737	4,642	4,642	4,642
Lemon Sole, Witch	IIa(EU),IV	6,793	6,521	6,391	6,391	6,391
Dab/flounder	IIa(EU),IV	18,810	18,810	18,434	18,434	18,434
Skates and rays	IIa(EU),IV	1,643	1,397	1,397	1,395	1,256
Norway Pout	IIa,IV(n/a)	27,250	76,000	2	2	167,501
Sand eel	IIa,IV	177,500	177,500	242,250	180,000	263,974
Salmon	IIIbcd (EC zone).	309,733	294,246	250,109	122,553	108,762

## Appendix 2 SSB on management areas (tonnes)

Species	Area	2009	2010	2011	2012	2013
Herring	I,II	9,049,000	8,326,000	7,055,000	7,055,000	7,055,000
Herring	IIIa	92,060	88,218	85,681	87,936	106,053
Herring	IIIbcd (EC zone) (22-24;25-27;28.2;29;32)	738,324	764,421	730,206	751,456	716,586
Herring	IIIbcd, Management Unit 3 (30-31;28.1)	796,632	896,155	909,708	1,050,021	1,017,655
Herring	IIa,IVab	1,826,661	1,857,979	2,226,630	2,347,825	1,996,101
Herring	IVc,VIId	1,826,661	1,857,979	2,226,630	2,347,825	1,996,101
Herring	Vb,VlaNb	79,721	63,785	82,158	82,158	82,158
Herring	Vla S,VIIBC	85,295	64,021	76,985	102,008	101,920
Herring	VlaClyde	1	1	1	1	1
Herring	VIIa	18,014	20,319	21,536	21,544	22,114
Herring	VIIef	1	1	1	1	1
Herring	VIIghjk	87,849	113,374	157,338	159,776	156,355
Anchovy	VIII	25,475	54,180	104,200	68,180	68,180
Anchovy	IX,,X,CECAF	1	1	1	1	1
Cod	I,IIb	1,154,345	1,364,521	1,857,157	2,062,626	1,630,000
Cod	IIIa Skagerrak	47,193	51,792	56,331	65,317	65,317
Cod	IIIa Kattegat	1	1	1	1	1
Cod	IIIbcd (EC zone)	120,692	139,944	132,191	153,584	179,872
Cod	IIa,IV	40,619	43,261	45,890	54,776	71,970
Cod	Vb,VI,XII,XIV	19,533	22,211	21,369	23,561	23,747
Cod	VIIa	1,196	1,403	2,033	2,394	2,394
Cod	VIIb-k,VIII,IIX,X,CECAF34.1.1	5,361	5,337	11,451	24,580	24,580
Megrim	IIa (EU),IV	1	1	1	1	1
Megrim	Vb,VI,XII,XIV	1	1	1	1	1
Megrim	VII	1	1	1	1	1
Megrim	VIIIabde	1	1	1	1	1
Megrim	VIIIc,IX,,X,CECAF	650	717	952	773	773
Anglerfish	IIa (EU zone),IV	1	1	1	1	1
Anglerfish	Vb,VI,XII,XIV	1	1	1	1	1
Anglerfish	VII	1	1	1	1	1
Anglerfish	VIIIabde	1	1	1	1	1
Anglerfish	VIIIc,IX,,X,CECAF	7,652	7,618	7,629	7,633	7,633
Haddock	IIIa,IIIbcd	116,377	108,427	107,342	132,290	132,290
Haddock	IIa,IV (EU zone)	192,276	182,559	205,468	272,592	272,592
Haddock	Vb,VI,XII,XIV	23,600	18,442	13,492	14,641	14,618
Haddock	VII,VIII,IIX,X,CECAF34.1.1	31,900	32,000	76,500	58,128	58,128
Haddock	VIIa	1	1	1	1	1
Whiting	IIIa	1	1	1	1	1
Whiting	IIa,IV (EU zone)	280,282	306,627	311,516	319,340	281,593
Whiting	Vb,VI,XII,XIV	6,406	4,961	9,324	10,000	10,000
Whiting	VIIa	1	1	1	1	1
Whiting	VIIb-k	35,447	54,084	64,640	67,942	67,942
Whiting	VIIIabde	1	1	1	1	1
Whiting	VIIIc,IX,,X,CECAF	1	1	1	1	1
Hake	IIIa,IIIbcd	85,181	131,075	153,890	123,382	123,382
Hake	IIa,IV (EU zone)	85,181	131,075	153,890	123,382	123,382
Hake	Vb,VI,VII,XII,XIV	85,181	131,075	153,890	123,382	123,382
Hake	VIIIabde	85,181	131,075	153,890	123,382	123,382
Hake	VIIIc,IX,,X,CECAF	17,200	18,700	27,700	21,200	21,200
Blue Whiting	IIa,IV	2,920,000	2,859,000	2,825,000	3,836,000	3,836,000

Species	Area	2009	2010	2011	2012	2013
Blue Whiting	Vb,VI,VII	2,920,000	2,859,000	2,825,000	3,836,000	3,836,000
Blue Whiting	VIIIabde	2,920,000	2,859,000	2,825,000	3,836,000	3,836,000
Blue Whiting	VIIIe	2,920,000	2,859,000	2,825,000	3,836,000	3,836,000
Blue Whiting	VIIIc,IX,,X,CECAF	2,920,000	2,859,000	2,825,000	3,836,000	3,836,000
Nephrops	IIIa,IIIbcd	1	1	1	1	1
Nephrops	IIa,IV (EU zone)	1	1	1	1	1
Nephrops	Vb,VI	1	1	1	1	1
Nephrops	VII	1	1	1	1	1
Nephrops	VIIIab	11,282	12,362	13,588	12,411	12,411
Nephrops	VIIIc	1	1	1	1	1
Nephrops	VIIIde	1	1	1	1	1
Nephrops	IX,,X,CECAF	1	1	1	1	1
Northern Prawn	IIIa, IIa,IV	1	1	1	1	1
Plaice	IIIa Skagerrak	1,978	1,699	1,688	1,639	1,338
Plaice	IIIa Kattegat	1,978	1,699	1,688	1,639	1,338
Plaice	IIIbcd (EU zone)	1	1	1	1	1
Plaice	IIa,IV (EU zone)	401,200	500,300	493,600	540,300	663,200
Plaice	Vb,VI,XII,XIV	1	1	1	1	1
Plaice	VIIa	1	1	1	1	1
Plaice	VIIbc	1	1	1	1	1
Plaice	VIIde	3,900	3,700	5,800	5,900	7,400
Plaice	VIIfg	179	203	210	197	197
Plaice	VIIIhjk	1	1	1	1	1
Plaice	VIII,IX,,X,CECAF	1	1	1	1	1
Pollack	Vb,VI,XII,XIV	1	1	1	1	1
Pollack	VII	1	1	1	1	1
Pollack	VIIIab	1	1	1	1	1
Pollack	VIIIc	1	1	1	1	1
Pollack	VIIId	1	1	1	1	1
Pollack	VIIIe	1	1	1	1	1
Pollack	IX,,X,CECAF	1	1	1	1	1
Saithe	IIa,IIIabcd,IV	263,300	247,500	212,900	196,500	196,237
Saithe	Vb,VI,XII,XIV	92,826	67,730	56,549	57,021	74,207
Saithe	VII,VIII,IX,X,CECAF34.1.1	1	1	1	1	1
Mackerel	IIa (EU),IIIabcd,IV	3,112,217	2,973,399	3,040,108	2,677,000	2,677,000
Mackerel	IIa,Vb,VI,VII,VIIIabde,XII,XIV	3,112,217	2,973,399	3,040,108	2,677,000	2,677,000
Mackerel	VIIIc,IX,,X,CECAF	3,112,217	2,973,399	3,040,108	2,677,000	2,677,000
Sole	IIIa,IIIbcd	1,978	1,699	1,688	1,639	1,338
Sole	II,IV	32,000	31,700	32,600	43,700	50,546
Sole	Vb,VI,XII,XIV	1	1	1	1	1
Sole	VIIa	1,152	1,290	1,137	1,063	1,063
Sole	VIIbc	1	1	1	1	1
Sole	VIIId	11,594	9,150	10,660	12,662	11,428
Sole	VIIe	2,936	3,240	3,190	3,339	3,339
Sole	VIIfg	3,554	3,717	3,898	4,212	4,212
Sole	VIIIhjk	1	1	1	1	1
Sole	VIIIab	11,644	13,038	13,377	14,163	14,163
Sole	VIIIcde,IX,,X,CECAF	1	1	1	1	1
Sprat	IIIa	1	1	1	1	1
Sprat	IIIbcd (EC zone)	1,063,000	1,250,000	926,000	905,000	883,000

Sprat	IIa,IV(part n/a)	379,008	310,601	355,114	294,419	217,169
Sprat	VIIde	1	1	1	1	1
Horse Mackerel	IIa(EU),IV(EU)	2,686,970	2,152,440	1,930,280	1,930,280	1,930,280
Horse Mackerel	VI,VII, VIIIabde,XII,XIV,Vb(EU)	2,686,970	2,152,440	1,930,280	1,930,280	1,930,280
Horse Mackerel	VIIIc,IX	1	1	1	1	1
Horse Mackerel	X,CECAF	1	1	1	1	1
Turbot, Brill	IIa(EU),IV	4,507	4,199	3,896	4,277	6,082
Lemon Sole, Witch	IIa(EU),IV	1	1	1	1	1
Dab/flounder	IIa(EU),IV	1	1	1	1	1
Skates and rays	IIa(EU),IV	1	1	1	1	1
Norway Pout	IIa,IV(n/a)	213,553	351,608	374,920	169,328	169,328
Sand eel	IIa,IV	433,881	549,671	826,253	485,423	353,308
Salmon	LIbdc (EC zone).	1	1	1	1	1

### Appendix 3 - BEMTOOL Model HDA0.2 equations

The equations described below are used in BEMTOOL HDA0.2 to produce projections for 2012 and 2013. Projections for 2012 regard only economic data, while transversal data are assumed to be available. Projections for 2013 regard both transversal and economic data.

The number of vessels in 2013 is an input by the model user. Gross tonnage and engine power, where not available, are estimated as a linear function of the number of vessels as follows:

$$GT_t = gt_t N_t,$$

$$KW_t = kw_t N_t,$$

where gt and kw are coefficients estimated from the last year of available data (generally 2012) or on the average of the last three years of available data.

Average days at sea by fleet segment in 2013 is a model input. Given the average days at sea and the number of vessels, the total number of days at sea is estimated by the model.

Three different options are available for the model user to calculate fishing effort:

Days at sea;

GT\*average days at sea;

KW\*average days at sea.

Total landings (L) in 2013 by fleet segment are estimated as a linear function of fishing effort (E) with two coefficients: a coefficient representing the total landings per unit of effort (LPUE) estimated from the last year of available data (generally 2012) or on the average of the last three years of available data, and a correction coefficient (cc) allowing the user to input a percentage variation in the LPUE from 2012 to 2013:

$$L_t = (cc * LPUE_{t-1}) E_t$$

The average value of landings by fleet segment is calculated as a ratio between total value of landings and total landings for the period in which data are available. In 2013, this variable can be estimated using an elasticity function or a percentage variation in relation to previous year. When the elasticity function is selected, the model user is requested to input the elasticity coefficients for each fleet segment and the model estimates the average prices through the following equation:

$$p_t = p_{t-1} \left( \frac{L_t}{L_{t-1}} \right)^{\varepsilon}$$

When the percentage variation is selected, the model user is requested to input this variation for each fleet segment and average prices are estimated through the following equation:

$$p_t = p_{t-1} + \text{pv}^* p_{t-1}$$

where  $\text{pv}$  is the price variation.

Total value of landings in 2013 is estimated as the product between total landings and average price.

$$R_t = L_t p_t$$

From a cost perspective, variable and fixed costs, labour and capital costs are included in the model. Variable costs are divided into energy and other variable costs, while fixed costs are divided into repair and non-variable costs and capital costs into depreciation and opportunity costs.

Energy costs (EC) are based on energy consumption (En), which is estimated as a linear function of fishing effort in 2012 and 2013. The coefficient ( $en$ ) is estimated from the last year of available data (generally 2011) or on the average of the last three years of available data. Energy costs in 2012 and 2013 are calculated by multiplying energy consumption by the fuel price (Fp) registered in 2012 and 2013:

$$EC_t = En_t Fp_t,$$

$$En_t = en^* E_t.$$

Other variable costs (OVC) are estimated as a linear function of fishing effort in 2012 and 2013. The coefficient ( $ovc$ ) is estimated from the last year of available data (generally 2011) or on the average of the last three years of available data.

$$OVC_t = ovc^* E_t.$$

Both repair (RC) and non-variable costs (NVC) are estimated as linear functions of GT in 2012 and 2013. The coefficients ( $rc$  and  $nvc$ ) are estimated from the last year of available data (generally 2011) or on the average of the last three years of available data.

$$RC_t = rc^* GT_t,$$

$$NVC_t = nvc^* GT_t.$$

Crew wage costs are calculated by considering two different remuneration types for fishing employed, the share contract and the fixed salary. Under the share contract, crew costs (LC) are calculated as a percentage of the difference between revenues (R) and variable costs (VC) (what is called “monte” in Italy and “monte menor” in Spain):

$$LC_t = cs(R_t - VC_t).$$

Under the fixed salary, crew costs are calculated as a linear function of the number of employed (EM):

$$LC_t = fs^* EM_t.$$

In both equations, coefficients are estimated from the last year of available data (generally 2011) or on the average of the last three years of available data. The model also allows the user to estimate crew costs by using a combination of the two remuneration types.

The total number of employees by fleet segment, when not available, is estimated in 2012 and 2013 as a linear function of the number of vessels:

$$EM_t = em^* N_t.$$

Regarding capital costs, both depreciation (D) and capital value (CV) are estimated as linear functions of GT in 2012 and 2013. The coefficients (d and cv) are estimated from the last year of available data (generally 2011) or on the average of the last three years of available data. The opportunity costs (O) in 2012 and 2013 are calculated by multiplying capital value by the interest rates (r) registered in 2012 and 2013:

$$D_t = d * GT_t,$$

$$CV_t = cv * GT_t,$$

$$O_t = r * CV_t.$$

The gross value added (GVA) is calculated as a difference between the total revenue and the sum of variable and fixed costs, which include energy costs, other variable costs, repair costs and non-variable costs:

$$GVA_t = R_t - EC_t - OVC_t - RC_t - NVC_t$$

The gross cash flow is calculated by the difference between the gross value added and the labour costs:

$$GCF_t = GVA_t - LC_t.$$

The net profit is calculated as a difference between the gross cash flow and the sum of depreciation and opportunity costs:

$$P_t = GCF_t - D_t - O_t.$$

## 4. ECONOMIC TRENDS FOR FLEETS UNDER LONG TERM MANAGEMENT PLANS

### KEY FINDINGS

- Nine long-term management plans were evaluated using the latest DCF fleet economic data in an attempt to assess the extent stocks fished at MSY could have a positive effect on the economic performance of fishing vessels targeting them.
- Results reveal that in most cases the fleets associated with management plans are multi-specific, targeting different stocks intra and inter-annually. As a result, significant and dependent fleets could only be identified for three of the nine management plans: (1) The Long term management plan (LTMP) for Baltic cod, (2) LTMP for North Sea Sole and Plaice, and (3) Recovery plan for the Northern hake.
- **Baltic Sea cod:** the economic performance of cod dependant segments improved significantly after the implementation of the cod management plan. Gross Value Added generated by fleet segments analysed increased by over 40% between 2008 and 2011. Additionally, these fleets generated a gross profit six times higher in 2011 compared to 2008, or 40% higher compared to 2009.
- **North Sea sole & plaice:** GVA and Gross profit remained stable for the German and Dutch beam trawl 24-40m segments but decreased for the over 40m Dutch beam trawlers between 2010 and 2011. Fuel prices increased by 32% between 2010 and 2011, and continued into 2012 with a further 12% increase. The rise in fuel prices coupled with increased other operational costs may explain the overall decrease in GVA and gross profit. It is probable that any positive economic impact is being negated by rising fuel and operational costs.
- **Northern hake:** For the important segment for which data is available, UK hooks 24-40m, economic performance deteriorated over the period 2009-2011. GVA decreased from over €11.6 million in 2008 to less than €3.3 million in 2011. Gross profit increased substantially between 2008 and 2009, from a loss of €1.5 million to posting a €6 million profit. However, the situation deteriorated again in 2010 and further still in 2011, with the fleet once again making losses. The reason for this decline in performance is unclear.

### 4.1. Introduction

Recent information on the state of stocks in Atlantic European waters shows a marked improvement in the proportion of stocks for which scientific advice with respect to safe biological limits is available. This has increased from 35% in 2012 to 50% in 2013. The number of stocks for which full assessments are available has climbed gradually from 29 in 2007 to 46 in 2013, showing an improvement in the science underlying the advice.

Continued improvement in the state of the stocks has been observed, with the number of overfished stocks (where the most recent fishing mortality is higher than that which will provide MSY) has fallen from 47% last year to 39% in 2011. Additionally, there has been a general increase in the volume of landings for fleets exploiting stocks under multiannual management plans (North Sea and Baltic cod, Northern and Southern hake, North Sea sole and plaice, etc.). In light of these results, STECF EWG 13-04 was requested to assess whether the current long-term management plans are having any positive impacts on the economic performance of the fishing fleets.

More specifically, EWG 13-04 was requested to assess to what extent the management plans could explain the increase in net profits in 2010 and 2011, i.e. are stock recoveries under management plans having a positive impact on the profitability of the EU fleet.

An overview of the current knowledge on the state of fish stocks is described below on a regional basis:

#### *Northeast Atlantic Pelagic stocks*

Most stocks of herring (North Sea, west of Scotland, western Baltic, Bothnian Sea, Irish Sea and Celtic Sea) and Baltic Sea sprat are now fished at or within MSY fishing rates.

TACs corresponding to MSY have been set for 2013 in all cases except for the Bothnian Sea herring. The situation has deteriorated for some other pelagic stocks: western horse mackerel, herring northwest of Ireland, in the Gulf of Riga and in the Baltic main basin are all overfished. Mackerel is a particular concern. The Union continues to seek the agreement of Iceland and the Faroe Islands to join Norway and the EU in the sustainable management of mackerel.

### **Baltic Sea**

Sprat, the eastern cod, western herring, and Bothnian Sea herring are all fished at levels consistent with MSY. In 2012 TACs in the Baltic Sea were discussed at a regional forum of national fisheries Directorates ("BALTFISH"). A very responsible agreement was reached concerning the setting of TACs for 2013 in line with scientific advice, and the Commission could agree with Council on the TACs agreed at BALTFISH. This is an excellent example of implementation of a regionalised approach that should also be followed by Member States in other areas. Member States have also reached agreement on implementing the discard ban

### **West of Scotland, Irish Sea and Celtic Sea**

Whitefish (cod, haddock and whiting) in the Irish Sea and the West of Scotland remain a concern. Advice for cod and whiting in the West of Scotland and Irish Sea was that catches should be reduced to the lowest level.

Improvements in the haddock stock in the West of Scotland were identified as being overestimated. The MSY advice for the Celtic Sea haddock was a 55% reduction. Discards of whitefish remain very high and threaten the viability of these stocks. Member States are to agree to further selectivity measures to reduce discards in the mixed whitefish fishery by the end of 2013.

Of 18 stocks where MSY assessments could be made, 10 were fished at MSY levels in 2011. For 12 of these stocks the recommendation was often for substantial reductions. An increase was recommended for 8 stocks.

### **Bay of Biscay, Iberian-Atlantic Seas**

Few assessments are available. Southern hake are abundant due to good recruitment but the stock is still overfished and the long-term sustainability of this stock is at risk. Norway lobster in the Cantabrian Sea is still subject to an advice to stop fishing. Discards of hake are assessed as around 6% of total catches.

### **Mediterranean and Black Sea**

The number and quality of assessments, though still geographically unbalanced and not consistent over time show a considerable improvement. 85 out of 113 stocks of EU interest (75%) analysed in 2010-2012 were subject to overfishing. Seven out of the 10 stocks exploited sustainably are small pelagic species. As these assessments have begun only recently and not all of the stocks are assessed every year, it is not possible to use these data to look at the development of the state of the stocks over time.

In the Black Sea, the situation has deteriorated. Sprat is not in a good condition and is subject to overfishing while turbot mortality appears to be at a historical high.

## **4.2. Methodology**

Data submitted by Member States under the 2013 call for economic data on the EU fishing fleets (DCF) was used to assess the possible impact of long-term management plans on the profitability of fleet segments targeting these stocks. During EWG 13-03, it was agreed that the analysis should be performed for fleets that to a certain extent target managed stocks and that the variation in economic performance be analysed only for fleet segments that are heavily dependent on managed stocks. For this, a two-step approach was taken:

### **1. Estimating fleet significance**

To estimate the significance of fleet segments targeting stocks under management plans, a one per cent significance criteria was used, i.e. only fleets with landings, in weight and value, of the managed stocks representing more than one per cent of their total landings for the period 2008-2012, were selected for this analysis.

### **2. Estimating fleet dependence on managed stocks.**

When determining fleet dependence on managed stocks, fleet segments were considered dependent on the fishery when more than 50% of their total landings value derived from the managed stock in question.

When analysing the nine long term management plans that are currently in place, initial results revealed that in most cases fleets targeting stocks under management plans are multi-specific, targeting different stocks intra and inter-annually. In this context, only significant and dependent fleets could be identified for three of the nine management plans. For the other management plans, fleets were analysed only in terms of significance (limited to trends in landings composition).

Additionally, some Member States that have fleets targeting resources under these management plans provided incomplete data sets (e.g. Spain and France), making it impossible to produce a full analysis.

## 4.3. Results

### 4.3.1. Baltic cod management plan

#### *Introduction*

The multi-annual management plan for cod stocks in the Baltic Sea was adopted in September 2007 (EC 1098/2007), becoming effective in 2008. The plan's main goal is to ensure the sustainable exploitation of the Baltic cod stocks by gradually reducing and maintaining the fishing mortality rates at certain minimum levels. A fishing mortality rate of 0.6 for ages 3-6 was set for Western Baltic cod (SD 22-24) and a target fishing mortality of 0.3 for ages 4-7 was set for the Eastern Baltic cod (SD 25-32). These goals are intended to be reached through a stepwise reduction in fishing mortality ( $F$ ) by 10% in relation to the fishing mortality estimated for the preceding year. The plan limits a TAC variability to 15% between consecutive years, unless the fishing mortality is estimated to be higher than 1 for Western Baltic cod and 0.6 for Eastern Baltic cod. Additionally 10% reduction in total number of fishing days at sea per year is foreseen until the target  $F$  is reached. The regulated gears under the cod management plan are: trawls, Danish seines, gill nets, entangling nets or trammel nets with mesh size  $\geq 90\text{mm}$  and longlines. Other technical rules, such as ban periods, were maintained or slightly modified compared to the previous technical regulation. Special conditions include the exclusion of small-scale vessels below 8 metres and flexibility in effort management for small-scale vessels between 8 and 12 metres in length.

The ICES advice on Baltic cod for 2014 is to follow the current multi-annual management plan. A 15% reduction in fishing mortality is proposed for Western Baltic cod, the largest permissible under the management plan. There is a large disparity between the fishing mortality target set in the multi-annual plan (0.6) and FMSY levels (0.26). A 2% increase in the TAC with regard to Eastern Baltic cod is advised by ICES, which is estimated to allow for a 15% increase in the spawning stock biomass (SSB).

#### *Main fleets*

Table 4.1 shows the dependency of Member State fleet segments on Baltic cod landings weight and volume. Data for the top 10 dependent fleets (according to 2012) with over 50% share in Baltic cod catches are presented in Table 4.1. Three fleet segments, two Danish demersal trawl segments (12-18m and 18-24m) and one Swedish demersal trawl segment (18-24m), accounted for over a quarter of the total Baltic cod catches in 2012. Baltic Sea cod also constitutes a high percentage of the total landed weight for the Lithuanian demersal trawlers 24-40m (91%), Polish demersal trawlers 12-18m (57%) and Swedish demersal trawlers 18-24 m (37%).

Table 4.1 Significance and dependence of the 10 main fleets targeting stocks under the Baltic cod management plan

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<i>Landings value</i>							
DNKDTSL1218	10%	10%	22%	17%	16%	17%	19%
SWEDTSVL1824	8%	18%	29%	28%	33%	38%	37%
DNKDTSL1824	6%	24%	13%	8%	8%	10%	11%
DNKDTSL2440	5%	29%	6%	5%	5%	8%	7%
POLDTSVL1218	5%	34%	64%	62%	59%	61%	57%
LVATMVL2440	5%	38%	14%	21%	26%	32%	21%
SWEDTSVL2440	4%	43%	27%	20%	21%	17%	17%
LTUDTSVL2440	4%	46%	89%	81%	84%	80%	91%
DNKPGPVL0010	4%	50%	23%	16%	16%	17%	16%
DEUDTSVL1824	3%	53%	22%	28%	20%	22%	24%
Others	47%	100%					
<i>Landings weight</i>							
DNKDTSL1218	11%	11%	22%	17%	16%	17%	19%
SWEDTSVL1824	8%	19%	29%	28%	33%	38%	37%
DNKDTSL1824	6%	24%	13%	8%	8%	10%	11%
POLDTSVL1218	5%	29%	64%	62%	59%	61%	57%
DNKDTSL2440	5%	34%	6%	5%	5%	8%	7%
LVATMVL2440	4%	39%	14%	21%	26%	32%	21%
SWEDTSVL2440	4%	43%	27%	20%	21%	17%	17%
LTUDTSVL2440	4%	47%	89%	81%	84%	80%	91%
DEUDTSVL1824	4%	50%	22%	28%	20%	22%	24%
LVADFNVL2440	3%	54%	100%	100%	100%	100%	100%
Others	46%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.1 illustrates the total cod coverage for the top 9 MS segments for the years 2008 to 2012. The total landed weight for these top segments has, for the most part, maintained a stable trend with only the Polish demersal trawl 12-18m and 24-40m segments showing an increase from year to year. This increase is a result of higher TAC and individual quotas allocated for these segments by Poland in 2011, as well as an increase in the number of vessels in the fleet in 2012.

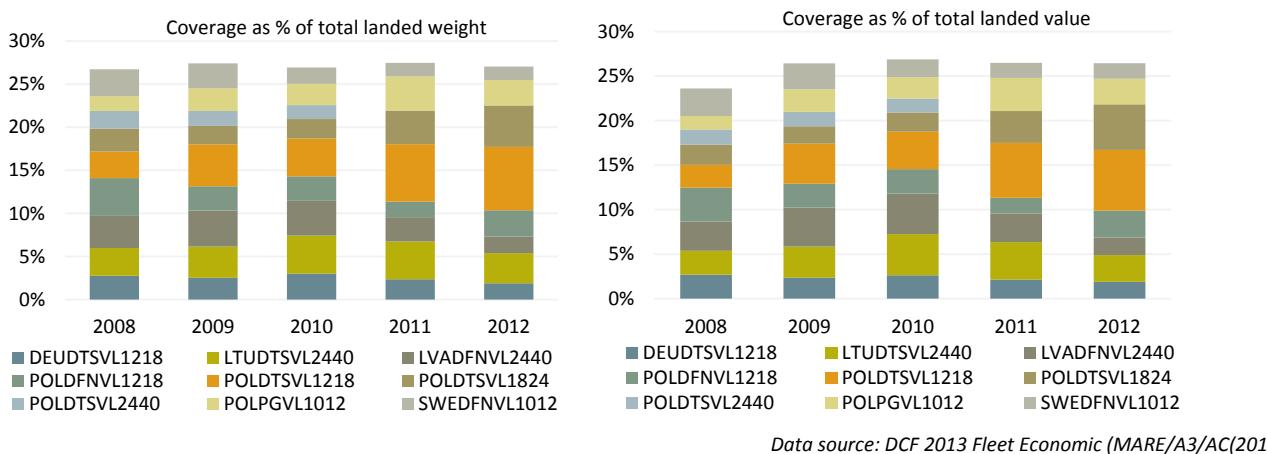


Figure 4.1 Representativeness of selected fleets targeting cod in the Baltic Sea

### Landings composition of selected fleets

Landings composition by volume and value for the fleets analysed are presented in Figure 4.2. The most important fleets in terms of cod share of catch composition are the Lithuanian demersal 24-40m, Latvian drift and/or fixed netter 24-40m and Polish drift and/or fixed netter 12-18m segments, with catch compositions near or above 50%.

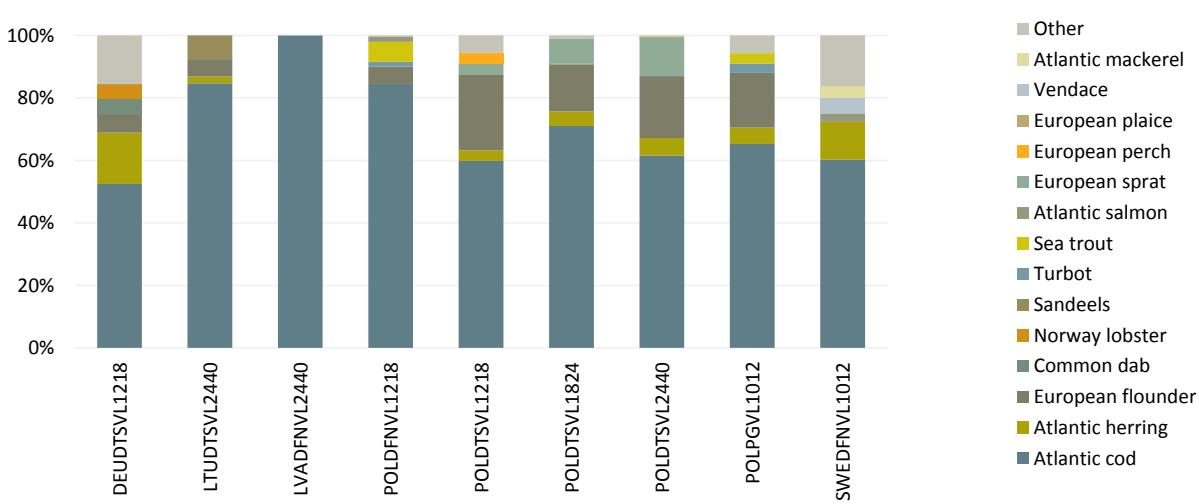
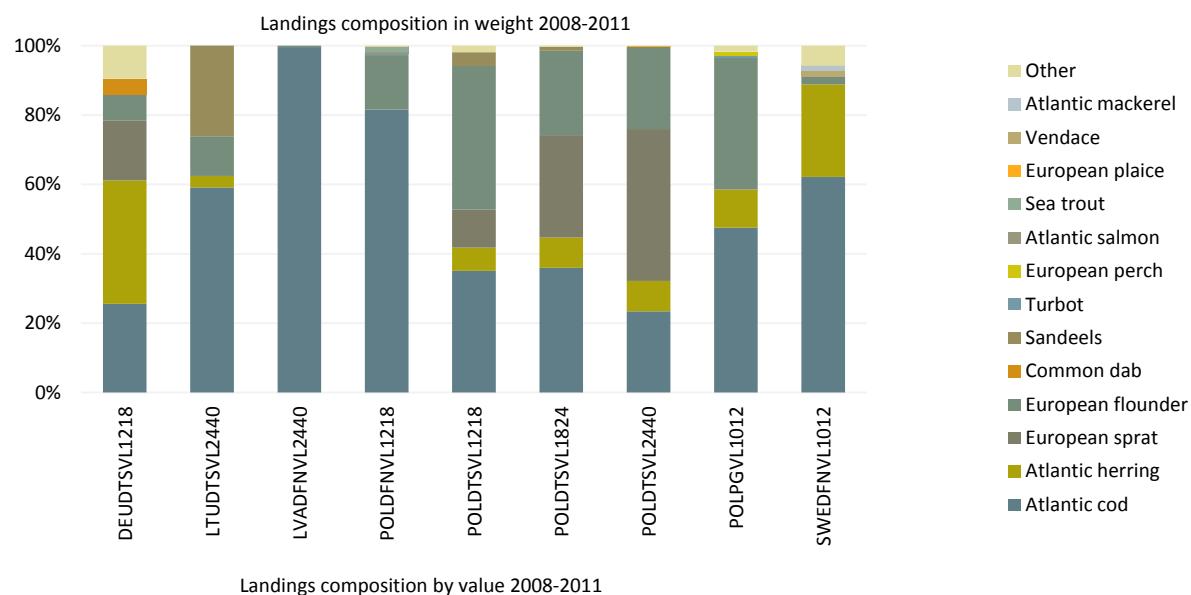
Cod landings, in weight and value, for the selected segments have increased over the period 2008-2012, with the exception of 2009, where the value decreased significantly but recovered in 2010 (Figure 4.3). Two Polish segments, demersal trawlers 12-28m and 18-24m had the highest input in volume and value of cod landings of the analysed segments in 2012.

### Capacity and Effort

Overall, capacity of the cod dependant segments analysed has decreased significantly over the period 2008 – 2011. This reduction is partially a result of the continued capacity reduction program in Poland, as well as, a new cod quota allocation scheme implemented in Poland in 2009, reducing the number of vessels authorised to fish cod to 1/3 of the fishing vessels engaged in the fishery in 2008. The main contributors to the increase in total number of fishing days in 2011 were the Polish demersal trawler segment 12-18m and vessels using passive gears 10-12m. In both cases, this was a result of higher individual cod quotas allocated to these segments but also an increased interest of the fleets in small pelagic catches (good sprat and herring prices) (Figure 4.4).

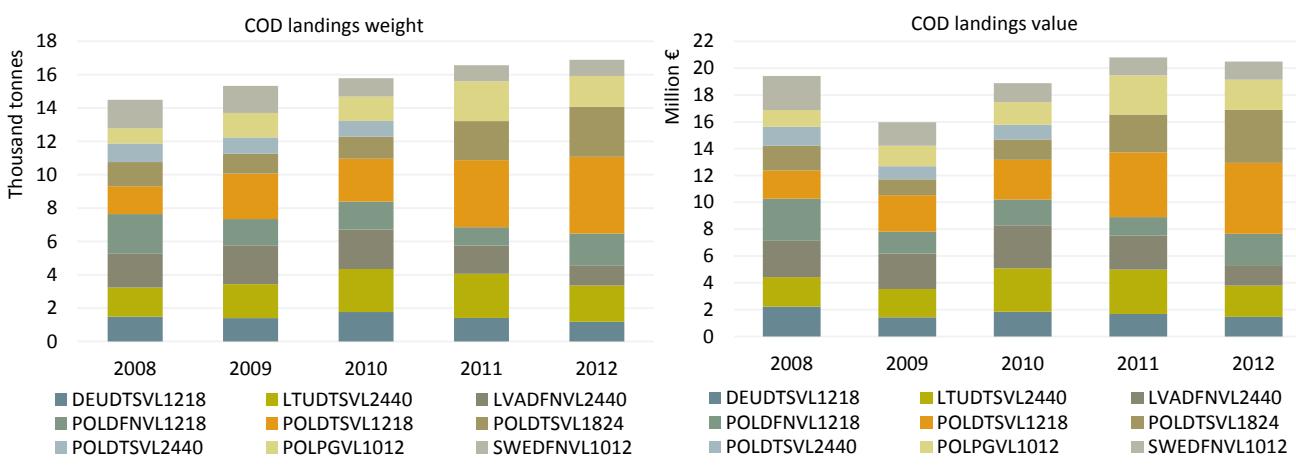
### Economic performance

The economic performance of cod dependant segments has improved significantly after the cod management plan implementation. Gross Value Added produced by analysed fleet segments had increased by over 40% between 2008 and 2011. Gross profits generated by the fleets were six times higher in 2011 compared to 2008 or by about 40% higher compared to 2009. Polish demersal segments (DTS 12-18m and 18-24m) and vessels 10-12m length using passive gears contributed again the most in observed developments. Better economic results achieved by these segments were probably again the result of a new cod quota allocation system implemented in Poland in 2009. TAC for Baltic cod had increased between 2008 and 2011 by 34% average for Eastern and Western Baltic cod. This may be another explanation why economic results had improved (Figure 4.5).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.2 Landings composition by value (2008-2011) for selected fleets targeting cod in the Baltic Sea



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.3 Cod landings weight and value for selected fleets in 2008-2012

## Management Plans

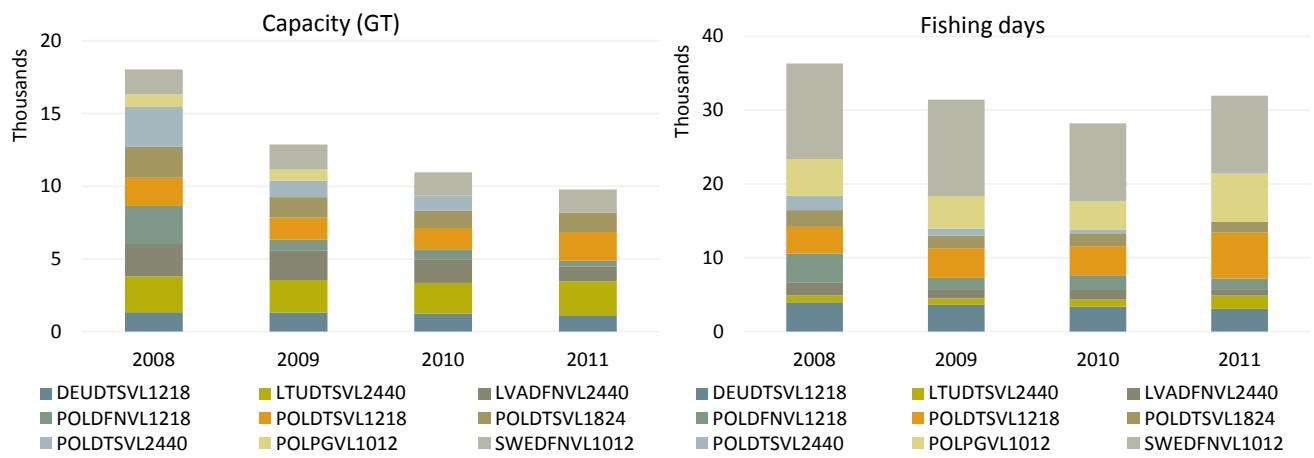


Figure 4.4 Capacity and effort development trends for selected fleets under the Baltic cod management plan: 2008-2011

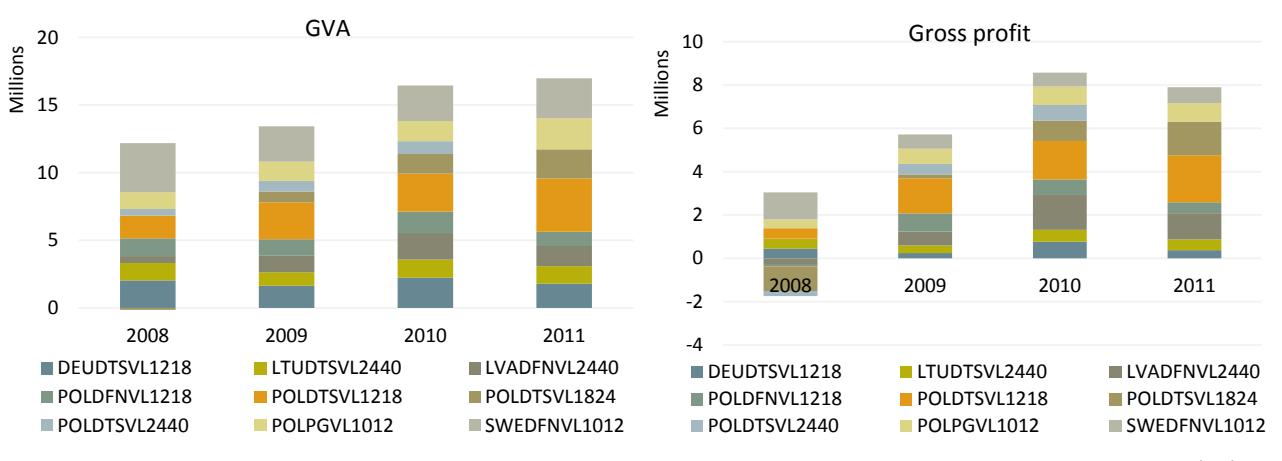


Figure 4.5 Economic performance indicators for selected fleets under the Baltic cod management plan: 2008-2011

#### **4.3.2. Recovery Plan for Cod: North Sea, Kattegat, Skagerrak, Eastern Channel, Irish Sea and West of Scotland**

##### ***Introduction***

Council Regulation (EC) No 1342/2008 established a long-term plan for cod stocks and the fisheries exploiting those stocks covering ICES areas III, IV, VIa, VIIa and VIId. The target of the plan was to reduce fishing mortality to a rate that can maximise long-term sustainable yield. Initial fishing mortality target rate was set at 0.4, but the rate of year-on-year changes in TAC varies with the level of stock. Special conditions included incentives for Member States to reduce discards and establish cod-avoidance programmes.

The Scientific, Technical and Economic Committee for Fisheries (STECF) evaluated the plan in 2011 and concluded that the cod plan had not achieved its objectives and were unlikely to be achieved by 2015. Furthermore, the report revealed that there are flaws in the design of the Regulation and problems with its implementation. In light of this advice, and on the opinions received from RACs and Member States, the Commission proposed an amendment to the Regulation.

Descriptions of the stock status and advice for different areas based on the ICES Advice Book 2012 were the following:

##### ***Cod in Division IIIa East (Kattegat)***

Stock status: Fishing mortality is unknown due to a pronounced difference between the catch data (landings plus discards estimated from observer data) and the total removals from the stock estimated within the model based on survey data. The spawning stock biomass was at a historical low since 2000.

Advice for 2013: ICES advises on the basis of precautionary considerations that there should be no directed fisheries and by-catch and discards should be minimised.

##### ***Cod in Subarea IV (North Sea) and Divisions VIId (Eastern Channel) and IIIa West (Skagerrak)***

Stock status: The fishing mortality declined from 2000 but was estimated to be still high. The spawning stock biomass increased from the historical low in 2006, but remained still in low level.

Advice for 2013: ICES advises on the basis of the EU–Norway management plan that landings in 2013 should be no more than 25,441 tonnes.

##### ***Cod in Division VIa (West of Scotland)***

Stock status: Total mortality was high, and is increasingly the result of mortality due to discarding. Spawning-stock biomass continued to increase from an all-time low in 2006, but remained at a very low level.

Advice for 2013 and 2014: ICES advises on the basis of the MSY (maximum sustainable yield) approach that there should be no directed fisheries and that by-catch and discards should be minimized in 2013 and 2014.

##### ***Cod in Division VIIa (Irish Sea)***

Stock status: The fishing mortality in recent years was declining and uncertain, but total mortality remained very high. The spawning-stock biomass increased from 2010 but remains low.

Advice for 2013 and 2014: ICES advises on the basis of the MSY approach that there should be no directed fisheries, and by-catch and discards should be minimized in 2013 and 2014.

#### ***Main fleets***

There were over 150 fleets targeting cod in these areas during the years 2008-2012. Landings of 10 most significant fleets accounted for 73% and 70% of the total value and weight of analysed stocks, respectively (Table 4.2). The largest share of cod catches in terms of value and weight belonged to the UK demersal trawlers 24-40 metres, 16% and 18% respectively. At same time the share of the Portugal fleet (demersal trawlers over 40 metres) was also 16% in term of value and only 6% in term of weight, which refers to higher selling price.

There was no fleet dependent on the cod fishery (the share of cod was under 50% from total catch). However, there were two fleets that had higher cod share in total catch than others – German demersal trawlers 24-40 metres and Danish vessels 12-18 meters using polyvalent passive gears only.

Table 4.2 Significance and dependence of the 10 main fleets targeting stocks under the recovery plan for cod

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<b>Landings value</b>							
GBRDTSVL2440	16%	16%	11%	11%	15%	15%	14%
PRTDTSVL40XX	16%	32%	36%	28%	23%	14%	14%
GBRDTSVL1824	9%	42%	7%	9%	10%	8%	8%
DNKDTSVL2440	6%	47%	7%	8%	10%	11%	13%
DEUDTSVL2440	6%	53%	22%	27%	34%	30%	38%
DNKDTSVL1824	6%	59%	10%	13%	15%	13%	12%
GBRDTSVL40XX	4%	63%	16%	12%	11%	6%	12%
DEUDTSVL40XX	4%	67%	15%	13%	12%	5%	6%
DNKPGPVL1218	4%	71%	26%	28%	31%	28%	27%
DNKDTSVL1218	3%	73%	7%	7%	5%	5%	6%
Others	27%	100%					
<b>Landings weight</b>							
GBRDTSVL2440	18%	18%	8%	9%	13%	12%	12%
GBRDTSVL1824	11%	29%	6%	8%	10%	9%	8%
DEUDTSVL40XX	8%	36%	12%	13%	14%	6%	7%
GBRDTSVL40XX	7%	43%	11%	14%	11%	6%	8%
PRTDTSVL40XX	6%	50%	14%	12%	12%	9%	7%
DNKDTSVL2440	5%	55%	1%	1%	2%	3%	6%
DEUDTSVL2440	5%	60%	4%	5%	16%	15%	20%
DNKDTSVL1824	5%	65%	3%	3%	4%	4%	4%
DNKPGPVL1218	3%	68%	22%	24%	21%	22%	21%
FRADTSVL40XX	3%	70%		1%	19%	1%	
Others	30%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

### 4.3.3. Multi-annual plan for sole and plaice, North Sea

#### *Introduction*

COUNCIL REGULATION (EC) No 676/2007 established a multiannual plan for fisheries exploiting stocks of plaice and sole in the North Sea. The plan's target was to ensure precautionary biomass of 230,000 tonnes for plaice and 35,000 tonnes for sole by gradually reducing fishing mortality from current levels: for sole 0.35 to 0.2 and plaice from 0.58 to 0.3 (Table 4.3).

Fishing mortality has been reduced by 10% year on year and target levels have now been reached. ICES considered this plan to be precautionary and, notes that both North Sea plaice and sole have now been within safe biological limits for two consecutive years. Following the EU multiannual plan would imply a 10% reduction of F to 0.27 for sole, resulting in a TAC of 14,000 t in 2013 and a 10% reduction in fishing effort. This is expected to lead to an SSB of 49,000 t in 2014.

The plaice stock has been within safe biological limits as defined by the plan since 2005. The sole stock has been within safe biological limits in terms of fishing mortality since 2008, while SSB has been slightly fluctuating around the biomass limit ( $B_{pa}=35$  kt) since 2008. Consequently, ICES concludes that the objectives of stage one are currently met and provides advice based on the plan's TAC setting procedure acknowledging to be in a transitional stage at present (ICES Advice 2012, Book 6).

ICES notes that according to the management plan, transitional arrangements to the second stage of the plan should be established since both North Sea plaice and sole have now been within safe biological limits for two consecutive years, with the aim of exploiting the plaice and sole stocks at MSY.

Table 4.3 F and SSB reference points for the management of the two stocks under the management plan

Species	BLIM	BPA	FPA	FMSY	FMSY (RANGE)	FTARGET(MP)	FTARGET(PROPOSED)
Sole	25 000 t	35 000 t	40%	22%	0.20-0.25	20%	25%
Plaice	160 000 t	230 000 t	60%	30%	0.20-0.30	30%	30%

#### *Main fleets*

The predominate fleets utilising this stock are the Dutch beam trawl over 40m and 24-40m segments, with 41% and 8% of the landings by value for the years 2008-2012, respectively, followed by the UK over 40m beam trawl fleet at 7%. Together, these fleets represent almost 60% of the total landings of the managed stocks. This trend is also reflected in the significance by total weight, with the Dutch beam trawl over 40m and 24-40m segments landing 33% and 7%, and the UK over 40m beam trawl fleet 10% of the catches for the years 2008-2012. These figures suggest that the Dutch 24-40m fleet obtain a higher value for their catch than the UK fleet, which has a higher landings volume but slightly lower value. All these fleets show high dependency on these stocks, with yearly landings composition, by value and weight, of over 60%. While the German beam trawler 24-40m segment also shows a high dependency on these stocks in terms of landings value, it does not appear on the top ten lists in landings weight (Table 4.4).

#### *Landings composition of selected fleets*

Figure 4.6 shows the landings composition in weight and value for the top four segments. The importance of the Dutch over 40m beam trawl fleet is very evident in these graphs. There is little change in the coverage percentage for each segment from year to year except for the UK fleet which has higher percentage coverage for total value, as volume has not changed. This could suggest that the fleet obtained better prices in 2012 or that the landings composition changed, with high quantities of sole which demand higher prices.

Landings composition by species in weight and value for the selected fleets targeting sole and plaice in the North Sea are presented in Figure 4.7. In terms of landings weight, all segments catch more plaice, leaded by the UK fleet. This is not surprising given that the UK has the highest TAC for plaice in the North Sea. It is also clear that the value of sole is greater in relation to the weight of landings due to high marker prices for this species. Sole for the UK fleet has a lower percentage landings composition than the other MS segments.

The importance of the Dutch over 40m beam trawl fleet is evident in Figure 4.8. These graphs also show that the Dutch 24-40m fleet receive higher prices for their catch than the UK beam trawl fleet, which has higher landings weight but lower value for the years 2008-2011, although value improved in 2012. There is also a discernible increase in the amount of landed weight from 2008 to 2012, which may be a response to the management plan.

#### *Capacity and Effort*

While three of the segments maintain a similar trend in fishing days and capacity over the four years analysed, the Dutch over 40m beam trawl fleet shows a marked decrease in effort and capacity. This is mainly attributed to a

decommissioning scheme in 2008, which removed 19 vessels from this segment and an associated 27% and 22% reduction in total kW and GT (Figure 4.9).

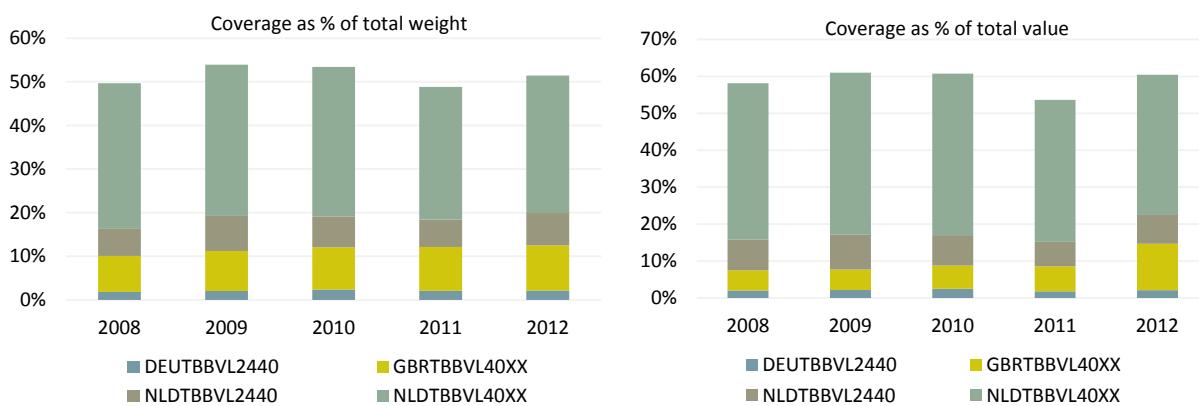
### Economic performance

GVA and Gross profit have remained relatively stable for the German and Dutch beam trawl 24-40m segments but reduced significantly for the over 40m Dutch beam trawlers between 2010 and 2011 (Figure 4.10). Fuel prices increased 32% between 2010 and 2011, from €0.44 per litre to €0.58 per litre. This increase has continued into 2012, with a further increase of 12% (€0.65 per litre). Rises in fuel prices, coupled with increases in other operational costs, may explain the overall decrease in GVA and gross profit. Any positive economic impact in increased income as a result of the management plan is likely to have been negated by these higher costs. This decrease in profit may also be the reason that in year net investment has decreased as indicated in Figure 4.11.

Table 4.4 Significance and dependence of the 10 main fleets targeting stocks under the management plan for North Sea sole and plaice

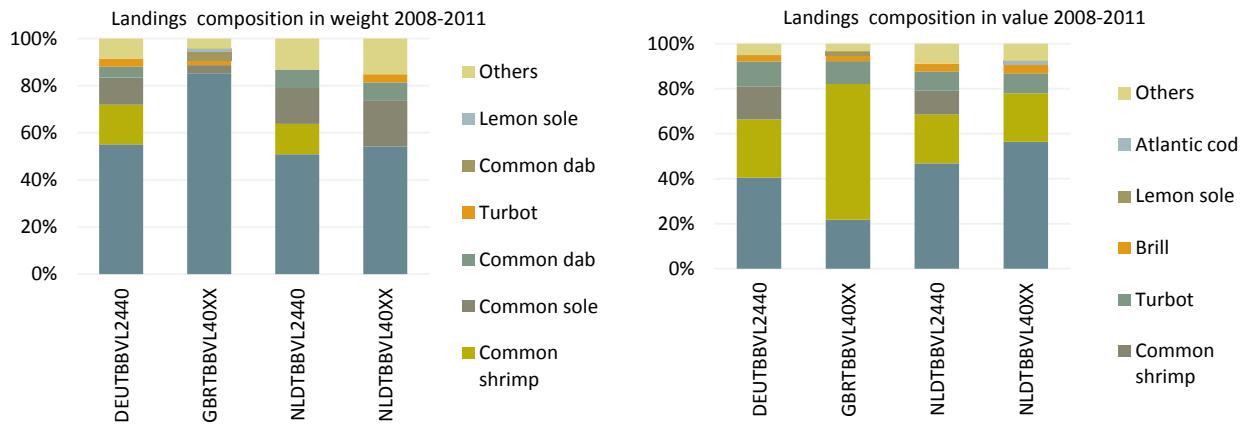
Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<b>Landings value</b>							
NLDTBBVL40XX	41%	41%	77%	79%	78%	78%	80%
NLDTBBVL2440	8%	49%	64%	71%	68%	74%	66%
GBRTBBVL40XX	7%	57%	84%	85%	85%	86%	82%
BELTBBVL2440	6%	62%	27%	26%	25%	21%	17%
NLDTBBVL1824	5%	67%	16%	19%	19%	28%	21%
GBRDTSVL40XX	3%	70%	11%	16%	13%	14%	29%
DNKDTSVL1824	2%	72%	14%	14%	11%	12%	13%
DNKDTSVL2440	2%	75%	10%	6%	7%	10%	12%
DEUTBBVL2440	2%	77%	62%	66%	69%	69%	68%
GBRDTSVL2440	2%	79%	4%	4%	2%	4%	5%
Others	21%	100%					
<b>Landings weight</b>							
NLDTBBVL40XX	33%	33%	77%	79%	78%	78%	80%
GBRTBBVL40XX	10%	42%	84%	85%	85%	86%	82%
NLDTBBVL2440	7%	49%	64%	71%	68%	74%	66%
BELTBBVL2440	6%	55%	27%	26%	25%	21%	17%
GBRDTSVL40XX	5%	60%	11%	16%	13%	14%	29%
DNKDTSVL1824	4%	64%	14%	14%	11%	12%	13%
DNKDTSVL2440	4%	68%	10%	6%	7%	10%	12%
GBRDTSVL2440	4%	71%	4%	4%	2%	4%	5%
NLDDTSVL2440	3%	74%	24%	14%	17%	7%	22%
NLDTBBVL1824	3%	77%	16%	19%	19%	28%	21%
Others	23%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))



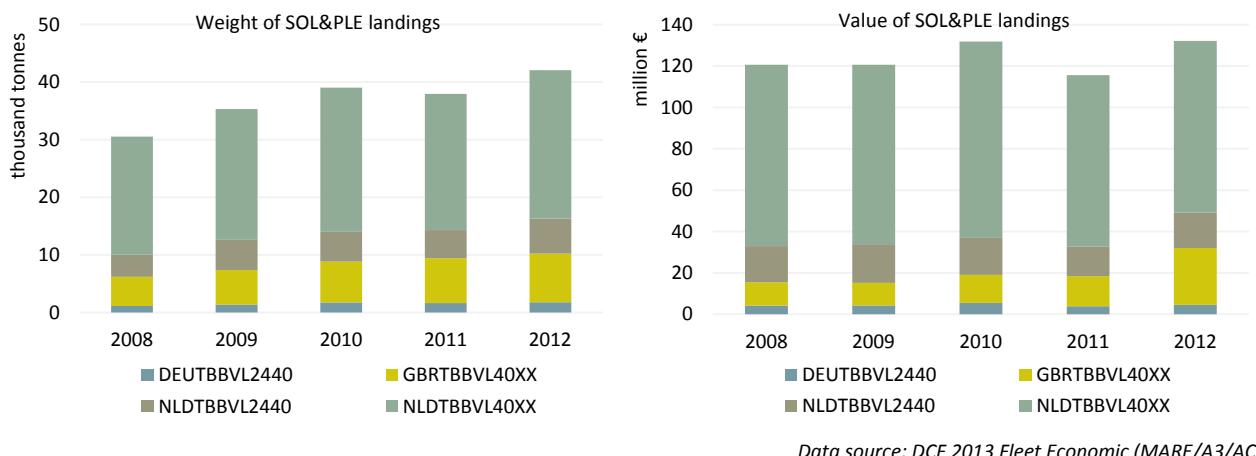
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.6 Main trends 2008-2011: left – landings weight of sole and place; right – Landings value of sole and place, for the top four selected fleets.



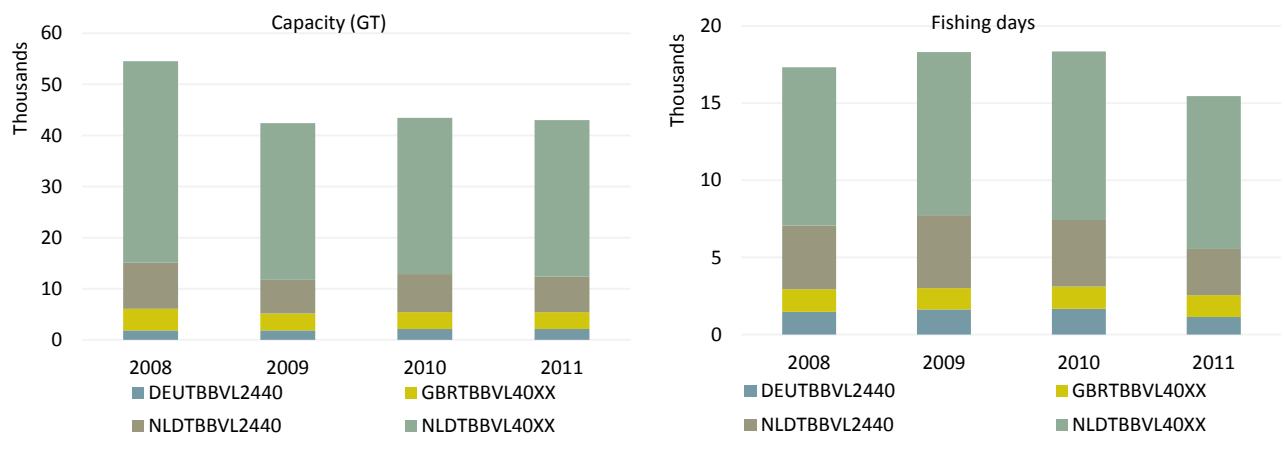
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.7 Composition of landings for selected fleets targeting sole and plaice in the North Sea.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

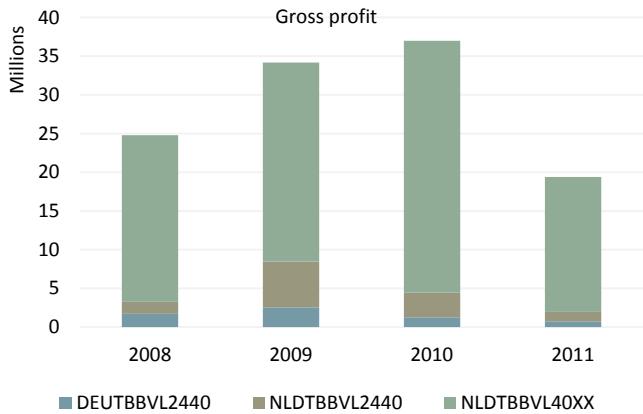
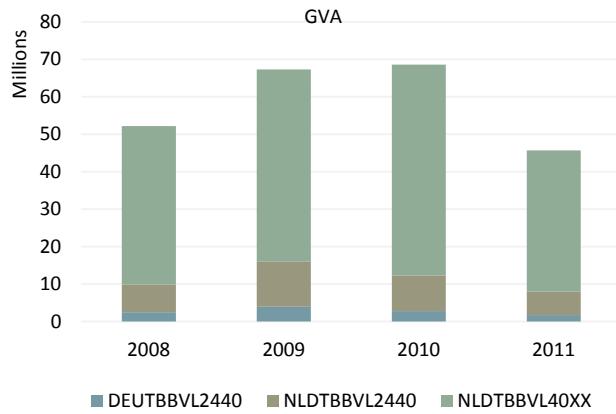
Figure 4.8 Sole and plaice landings weight and value for selected fleets in 2008-2012



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.9 Capacity and effort development trends for selected fleets under the management plan for North Sea sole and plaice: 2008-2011

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*Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))*

Figure 4.10 Economic performance indicators for selected fleets under the management plan for North Sea sole and plaice: 2008-2011

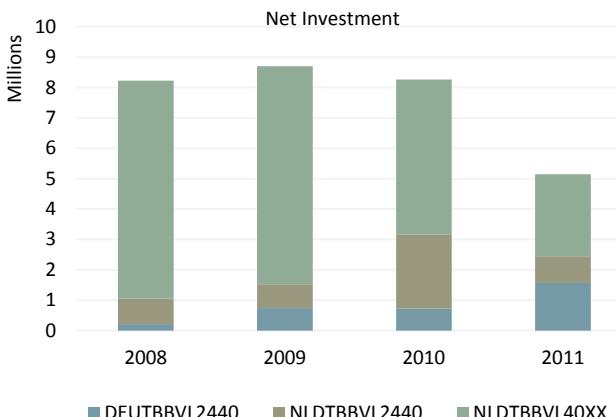


Figure 4.11 Investment for selected fleets under the management plan for North Sea sole and plaice: 2008-2011

#### 4.3.4. Multi-annual plan for sole, Bay of Biscay

Council Regulation (EC) No 388/2006 established a multiannual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay covering ICES areas VIIIa and VIIIb. A multiannual plan has been agreed by EU in 2006. The objective of the plan was to aim to bring the spawning stock biomass of Bay of Biscay sole above the precautionary level (13 000 tonnes in 2008) and to ensure its sustainable exploitation. Special conditions included that all vessels catching more than 2 000 kg of sole per year will require a special permit. A ceiling was set of 100 kg of sole per sea trip.

In its last advice in 2012, ICES estimated that the stock of Bay of Biscay sole has maintained safe spawning-stock biomass. But the fishing mortality increased and was high in 2011. The ICES advises on the basis of the transition to the MSY approach that landings in 2013 should be no more than 3500 tonnes.

#### Main fleets

There were around 50 fleets targeting sole in the Bay of Biscay during the years 2008-2012. Landings of the 10 most significant fleets accounted for 95% of the total value and weight of analysed stocks (Table 4.5). The stock was mostly targeted by French fleets. The largest share of sole catches in terms of value and weight belonged to the French drift and/or fixed netters 12-18m, 23% and 22% respectively.

There was no fleet dependent on the sole fishery (the share of sole was under 50% from total catch). However, there were two French fleets (drift and/or fixed netters 12-18m and 18-24m) that had higher sole share in total catch than others.

Table 4.5 Significance and dependence of the 10 main fleets targeting stocks under the management plan for sole, Bay of Biscay

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<i>Landings value</i>							
FRADFNVL1218	23%	23%		33%	40%	39%	
FRADFNVL1824	17%	40%		36%	32%	40%	
FRADFNVL1012	12%	53%		15%	16%	17%	
FRADTSVL1218	11%	64%		8%	9%	9%	
BELTBBVL2440	11%	74%	6%	8%	9%	8%	6%
FRADFNVL0010	8%	82%		22%	19%	14%	
FRADTSVL1012	6%	88%		11%	12%	13%	
FRADTSVL1824	4%	92%		2%	2%	1%	
FRADTSVL0010	2%	94%		9%	20%	16%	
FRAPMPVL1012	2%	95%		7%	6%	7%	
Others	5%	100%					
<i>Landings weight</i>							
FRADFNVL1218	22%	22%		16%	18%	19%	
FRADFNVL1824	16%	38%		15%	12%	16%	
FRADTSVL1218	12%	50%		3%	3%	4%	
FRADFNVL1012	11%	61%		7%	6%	7%	
BELTBBVL2440	10%	71%	2%	3%	3%	3%	3%
FRADTSVL1012	9%	81%		5%	6%	7%	
FRADFNVL0010	7%	88%		9%	6%	6%	
FRADTSVL1824	4%	92%		0%	0%	0%	
FRAPMPVL1012	2%	93%		1%	1%	1%	
FRADTSVL0010	2%	95%		5%	8%	8%	
Others	5%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

#### 4.3.5. Multi-annual plan for sole, Western Channel

Council Regulation (EC) No 509/2007 established a multi-annual plan for the sustainable exploitation of the stock of sole in the Western Channel (ICES VIIe). The target was to reduce fishing mortality rate by 20% compared to the average of 2003–2005 or achieve a fishing mortality rate of 0.27 for appropriate age groups. The years 2007–2009 were deemed a recovery plan, with subsequent years being deemed a management plan.

The state of the stock is good. In its last advice in 2012, ICES estimated that the stock of Western Channel sole has maintained safe spawning-stock biomass in 2012. Also the fishing mortality was appropriate in 2011. The significant reduction of fishing mortality in 2009 reflects the reduction in fishing effort. The ICES advises on the basis of the transition to the MSY approach that landings in 2013 should be no more than 960 t.

#### Main fleets

There were over 50 fleets targeting sole in the Western Channel during the years 2008–2012. Landings of 10 most significant fleets accounted for 76% and 82% of the total value and weight of analysed stocks, respectively (Table 4.6). The stock was mostly targeted by UK fleets. The largest share (18%) of sole catches in terms of value belonged to the UK beam trawlers 18–24m. The largest share (18%) of sole catches in terms of weight belonged to the UK demersal trawlers 12–18m. Table shows that the UK beam trawlers fleets get better price from sole catch than UK demersal trawlers fleets.

There was no fleet dependent on the sole fishery (the share of sole was under 50% from total catch). However, the UK beam trawlers had a higher sole share (22%) of the total catch than others.

Table 4.6 Significance and dependence of the 10 main fleets targeting stocks under the management plan for sole, Western Channel

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<b>Landings value</b>							
GBRTBBVL1824	18%	18%	23%	23%	21%	22%	22%
GBRTBBVL2440	17%	36%	12%	11%	9%	12%	13%
GBRDTSVL1218	11%	47%	1%	2%	4%	2%	3%
GBRDTSVL1012	9%	56%	7%	12%	13%	8%	12%
GBRDTSVL0010	6%	61%	3%	5%	6%	3%	7%
FRADTSVL1824	3%	64%		0%	0%	1%	
FRADTSVL1012	3%	67%		2%	2%	2%	
FRADTSVL1218	3%	70%		1%	1%	1%	
GBRDRBVL2440	3%	73%	1%	2%	2%	1%	1%
FRADTSVL2440	3%	76%		1%	1%	1%	
Others	24%	100%					
<b>Landings weight</b>							
GBRDTSVL1218	18%	18%	1%	2%	4%	2%	3%
GBRDTSVL1012	15%	33%	7%	12%	13%	8%	12%
GBRTBBVL1824	13%	46%	23%	23%	21%	22%	22%
GBRTBBVL2440	13%	59%	12%	11%	9%	12%	13%
GBRDTSVL0010	9%	68%	3%	5%	6%	3%	7%
FRADTSVL1824	5%	72%		0%	0%	1%	
FRADTSVL2440	3%	76%		1%	1%	1%	
FRADFNVL0010	2%	78%		2%	2%	2%	
GBRDTSVL1824	2%	80%	0%	0%	0%	0%	0%
GBRDRBVL2440	2%	82%	1%	2%	2%	1%	1%
Others	18%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

#### 4.3.6. Recovery plan for Northern hake

##### *Introduction*

COUNCIL REGULATION (EC) No 811/2004 established measures for the recovery of the Northern hake stock covering the areas Kattegat, Skagerrak, North Sea, the Channel, West of Scotland, all around Ireland and Bay of Biscay. The plan's target is to increase the quantities of mature fish in the Northern hake stock to at least 140,000 tonnes. The objective of the plan should be considered to be achieved when, for two consecutive years; the quantity of mature Northern hake is greater than the level set by managers as being within safe biological limits.

ICES Advice for 2013: The spawning-stock biomass has been increasing since 1998 and is estimated to be at a record high in 2011. Fishing mortality has decreased in recent years and approaching FMSY.

##### *Main fleets*

In terms of landings value for hake, the most significant segments are the UK hooks 24-40m and demersal trawlers 24-40m; the French drift and fixed netters 18-24m and 24-40m and the Danish demersal trawlers 24-40m, representing 59% of the total value. In terms of weight, the most important segments are the UK hooks 24-40m and demersal trawlers 18-24m and 24-40m; the French drift and fixed netters 18-24 and 24-40m and the Danish demersal trawlers 24-40m, representing 57% of the total catch (Table 4.7).

The segments most dependent on hake catches in 2012 included: UK hooks 24-40m (71%) and the Spanish hooks 24-40m (16%). For these three segments, dependency on hake has been stable over the last few years. For the French drift and fixed nets 24-40m segment, dependency increased between 2008 and 2009 (72% to 78%), unfortunately no French data is available for 2012.

Table 4.7 Significance and dependence of the 10 main fleets targeting the Northern hake stocks

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<i>Landings value</i>							
GBRHOKVL2440	20%	20%	66%	79%	65%	72%	80%
FRADFNVL2440	19%	39%		62%	76%	79%	
GBRDTSVL2440	9%	47%	3%	3%	3%	4%	4%
FRADFNVL1824	8%	55%		21%	21%	24%	
FRADTSVL1218	4%	59%		5%	4%	4%	
DNKDTSVL2440	4%	63%	2%	3%	3%	3%	5%
FRAHOKVL2440	4%	67%		54%	75%	55%	
FRADTSVL40XX	3%	70%		8%	9%	8%	
GBRDTSVL1824	3%	73%	2%	1%	1%	1%	1%
FRADTSVL2440	3%	75%		2%	3%	2%	
Others	25%	100%					
<i>Landings weight</i>							
FRADFNVL2440	18%	18%		72%	78%	85%	
GBRHOKVL2440	14%	33%	48%	67%	60%	67%	70%
GBRDTSVL2440	10%	43%	3%	4%	3%	5%	5%
FRADFNVL1824	6%	49%		36%	38%	45%	
DNKDTSVL2440	5%	54%	1%	1%	1%	2%	4%
FRADTSVL1218	4%	58%		10%	7%	6%	
FRADTSVL40XX	4%	62%		7%	6%	8%	
GBRDTSVL1824	3%	65%	2%	2%	2%	2%	1%
FRADTSVL2440	3%	68%		3%	4%	3%	
FRAHOKVL2440	3%	71%		48%	68%	63%	
Others	29%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

##### *Representativeness of selected fleets*

In 2012, the UK fleet segments were the most representative in terms of weight and value of landings. However, as data is missing for the French fleets, a complete analysis is not possible (Figure 4.12).

## *Landings composition of selected fleets*

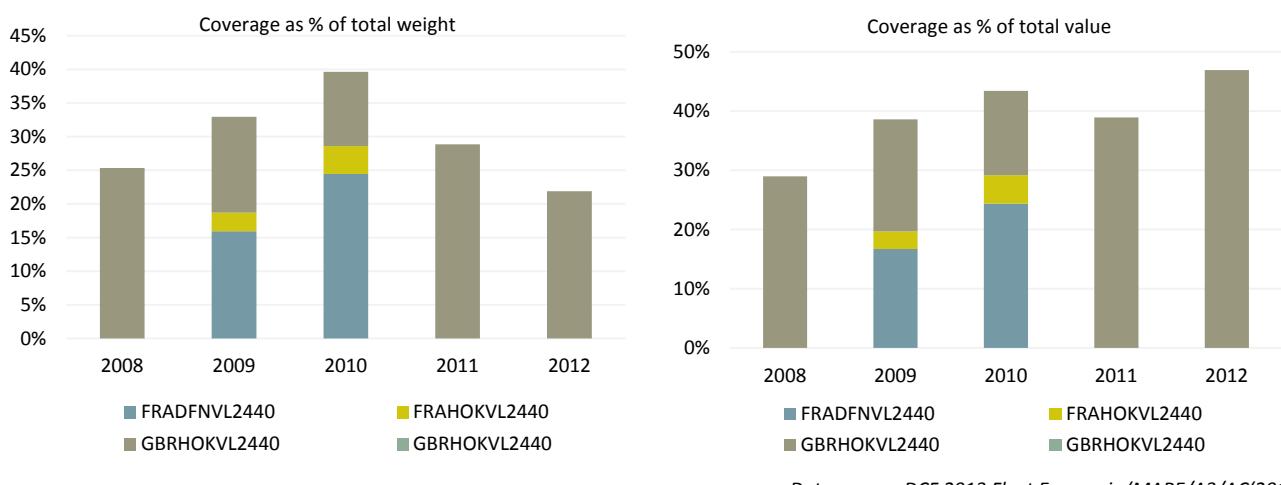
The European hake is the most important species in terms of both landed weight and value for the fleets involved in this management plan. For the UK fleet, the second most important species is ling, both in terms of weight and value. The French DFN 24-40m fleet segment also relies on anglerfishes while the HOK 24-40m segment on European conger (Figure 4.13 and Figure 4.14).

### *Capacity and effort*

The segment for which data is available, the UK HOK 24-40m, capacity and effort have both decreased steadily over the time series analysed. Not enough information is available for the French fleets to comment (Figure 4.15).

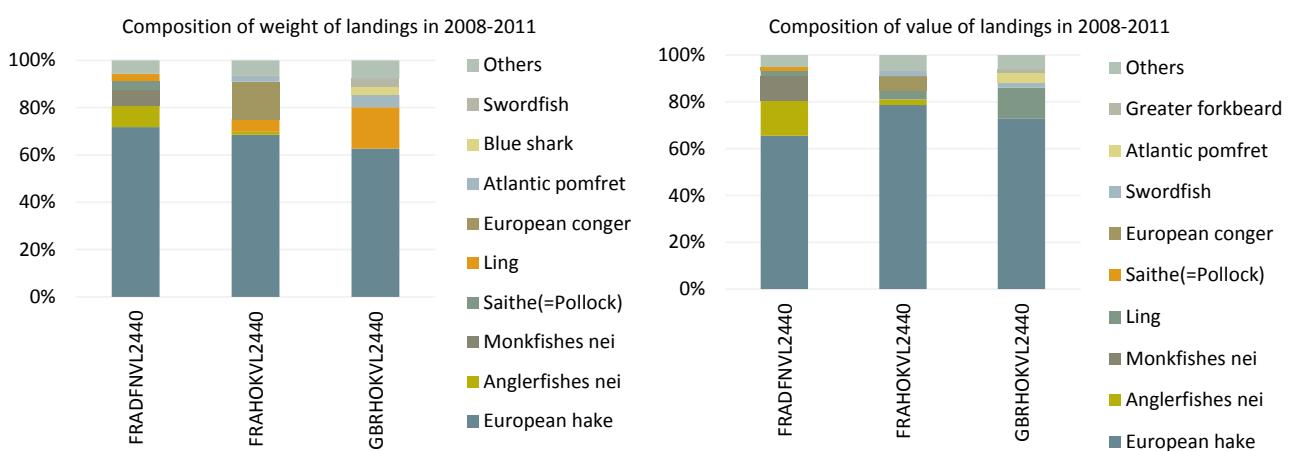
### *Economic performance and Investment*

The segment for which data is available, the UK HOK 24-40m, economic performance has deteriorated over the period 2009-2011. GVA decreased from over €11.6 million in 2008 to less than €3.3 million in 2011. Gross profit increased substantially between 2008 and 2009, from a loss of €1.5 million to posting a €6 million profit. However, the situation deteriorated again in 2010 and further still in 2011, with the fleet once again making losses. The reason for this decline in performance is unclear but corresponds to a substantial increase in investment in the fleet. Not enough information is available for the French fleets to comment (Figure 4.16).



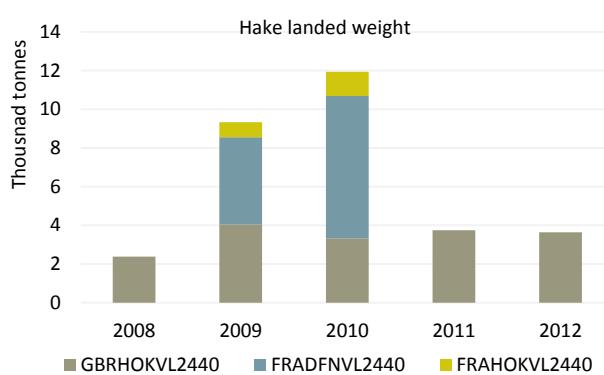
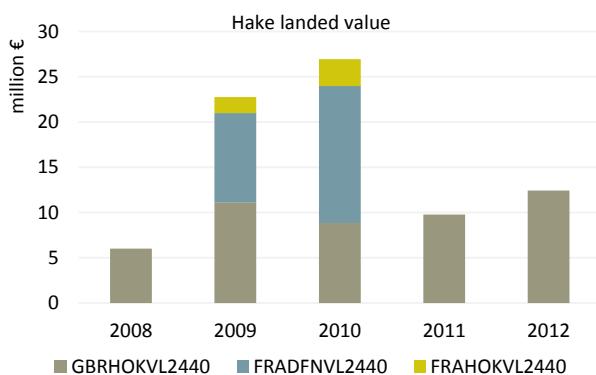
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.12 Representativeness of selected fleets targeting hake in Kattegat, Skagerrak, North Sea, the Channel and West of Scotland.



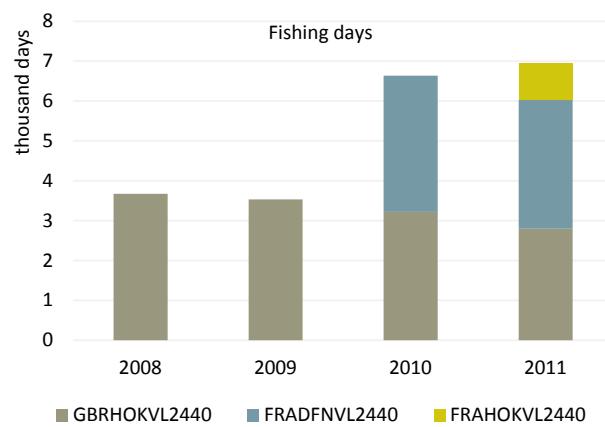
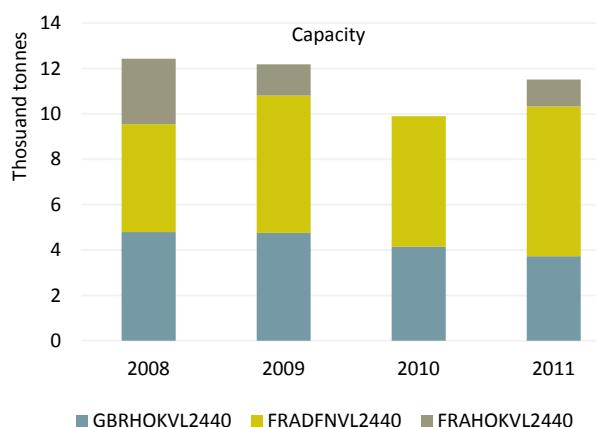
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.13 Landings composition for the selected fleets targeting hake in Kattegat, Skagerrak, North Sea, the Channel and West of Scotland.



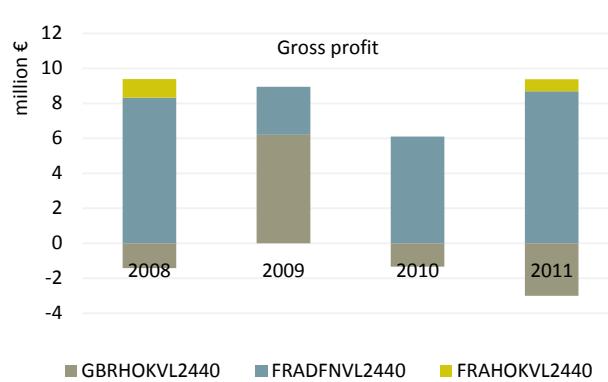
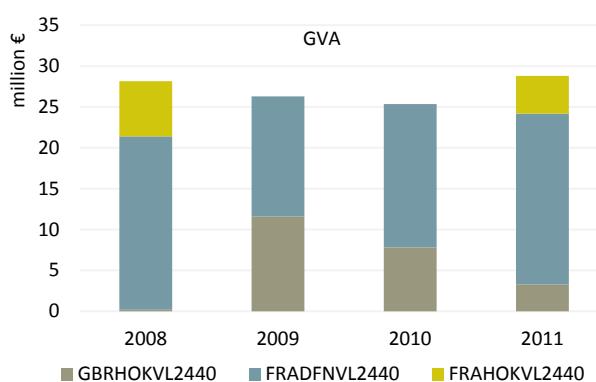
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.14 Hake landings weight and value for selected fleets: 2008-2012



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.15 Capacity and effort development for selected fleets targeting the Northern hake stock: 2008-2011



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.16 Economic performance for selected fleets targeting the Northern hake stock: 2008-2011

#### 4.3.7. Recovery plan for Southern hake and Norway lobster

##### *Introduction*

COUNCIL REGULATION (EC) No 2166/2005 established measures for the recovery of the Southern hake and Norway lobster stocks in the Cantabrian Sea and Western Iberian Peninsula and amending Regulation (EC) No 850/98 for the conservation of fishery resources through technical measures for the protection of juveniles of marine organisms.

The target of this plan is to increase the spawning stock biomass of Southern hake to 35,000 tonnes for two consecutive years or increasing the quantities of mature individuals within a period of 10 years so that values are reached equal to or higher than 35,000 tonnes. The target for Norway lobster is to rebuild stocks to within safe biological limits within a period of 10 years.

ICES Advice: Hake in the ICES area is managed and assessed as two separate stocks. There is no biological basis for the current ICES stock definition of northern and southern hake. These stocks have similar biology with an unknown degree of mixing. The spawning-stock biomass of hake has been increasing last years. Fishing mortality has been decreasing in recent years and approaching to the FMSY.

##### *Main fleets*

In terms of landings value of hake, the most significant segments are the Portuguese demersal trawlers 24-40m, Drift and fixed netters 12-18 and 18-24m, representing 65% of the total value. In terms of weight, the important segments are the Spanish demersal trawlers 10-12m, 12-18m and 18-24m, representing 52% of the total catch (Table 4.8).

The Portuguese segments most dependent on this species in 2012 were: drift and fixed netters 18-24m (24%), demersal trawls 18-24m (18%) and 12-18m (13%). The level of dependence has decreased since the introduction of vessel hake quota, and owners were obliged to catch other species (Table 4.8).

Table 4.8 Significance and dependence of the main fleets targeting stocks under the Southern hake and Norway lobster recovery plan

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<i>Landings value</i>							
PRTDTSVL2440	36%	36%	10%	9%	8%	6%	8%
PRTDFNVL1824	15%	52%	31%	29%	30%	29%	24%
PRTDFNVL1218	10%	62%	19%	10%	8%	11%	8%
PRTDTSVL1824	7%	69%	19%	14%	17%	19%	18%
PRTPGPVL0010	5%	73%	1%	3%	3%	2%	2%
PRTDTSVL1218	5%	78%	37%	27%	17%	15%	13%
PRTFPOVL1218	4%	82%	5%	9%	7%	7%	2%
FRAHOKVL2440	4%	86%		4%	5%	21%	
PRTHOKVL1218	3%	89%	2%	3%	4%	2%	2%
FRADFNVL1824	2%	90%		2%	1%	0%	
Others	10%	100%					
<i>Landings weight</i>							
PRTDTSVL2440	20%	20%	0%	5%	5%	3%	4%
PRTDFNVL1824	17%	37%	0%	28%	37%	36%	27%
ESPDTSVL2440	14%	51%					3%
PRTDFNVL1218	8%	59%		10%	10%	11%	10%
PRTPGPVL0010	5%	64%	0%	3%	5%	4%	3%
ESPPMPVL1218	4%	68%					9%
ESPPMPVL1824	3%	71%					5%
ESPDTSVL1824	3%	74%					2%
FRADFNVL1824	3%	76%		4%	2%	1%	
ESPHOKVL1218	2%	79%					4%
Others	21%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

#### 4.3.8. European eel recovery plan

##### Introduction

COUNCIL REGULATION (EC) No 1100/2007 established measures for the recovery of the European eel stock in EU estuaries and rivers that flow into seas in ICES areas III, IV, VI, VII, VIII, IX and the Mediterranean. National eel management plans should enable at least 40% of the level of adult eels, which in the absence of fishing and other human activity would migrate, to be able to escape to the sea to spawn. According to ICES 2013 advice “the status of eel remains critical and urgent action is needed. ICES reiterates its previous advice that all anthropogenic mortality (e.g. recreational and commercial fishing, hydropower, pollution) affecting production and escapement of eels should be reduced to as close to zero as possible until there is clear evidence that both recruitment and the adult stock are increasing.”<sup>1</sup>

##### Main fleets

Table 6.9 shows the level of dependence of MS fleet segments on European eel for landing weight and volume. Data for the top 10 dependent fleet sorted according their share in total European eel catches is presented below. Two small scale Danish and Swedish segments (less than 10m) using passive gear accounted for almost 70% of total EU European eel catches during 2008-2012. Dependence on European eel for the selected segments is insignificant and generally did not exceed 10% of landings volume in 2008-2012, except for Swedish vessels under 10 meters using pots (with decreasing dependency over the period analysed). European eel is a highly valuable fish thus dependence measured in value of fish landed is higher but nonetheless never exceeded 50% for any of the fleets.

Table 4.9 Significance and dependence of the 10 main fleets targeting stocks under the European eel recovery plan

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<b>Landings value</b>							
DNKPGPVL0010	34%	34%	14%	19%	20%	20%	24%
SWEFPOVL0010	16%	51%	34%	28%	29%	29%	21%
FRAFPOVL0010	8%	59%		1%	15%	1%	
DEUPGVL0010	6%	65%	8%	10%	11%	8%	7%
POLPGVL0010	5%	70%	7%	6%	6%	5%	5%
FRADTSVL1012	5%	75%		0%	6%	0%	
FRAFPOVL0006	4%	79%		49%	53%	55%	
FRAMGOVL0010	2%	81%		3%	14%	2%	
PRTDFNVL0010	2%	82%	0%	1%	3%	8%	11%
SWEDFNVL0010	2%	84%		5%	4%	4%	7%
Others	16%	100%					
<b>Landings weight</b>							
DNKPGPVL0010	39%	39%	14%	19%	20%	20%	24%
SWEFPOVL0010	24%	63%	34%	28%	29%	29%	21%
DEUPGVL0010	6%	69%	8%	10%	11%	8%	7%
FRAFPOVL0006	5%	74%		49%	53%	55%	
POLPGVL0010	4%	78%	7%	6%	6%	5%	5%
FRAPGPVL0006	3%	81%		22%	41%	34%	
SWEDFNVL0010	2%	83%	5%	4%	4%	4%	7%
FRAFPOVL0010	1%	85%		1%	15%	1%	
FRADFNVL0612	1%	86%		1%	1%	3%	
DEUPGVL1012	1%	87%	5%	6%	4%	3%	2%
Others	13%	100%					

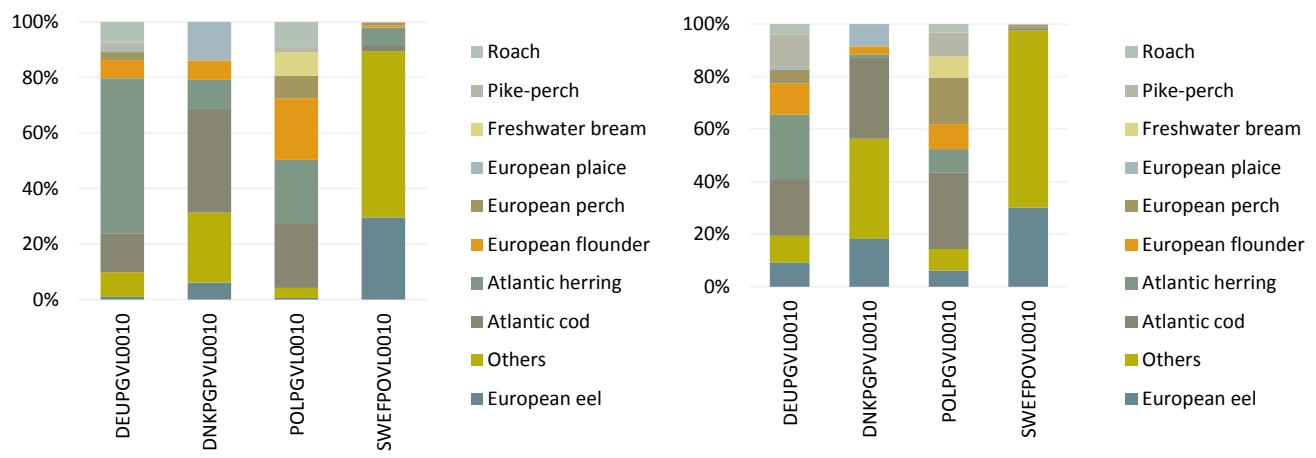
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

##### Landings composition of selected fleets

Catch composition for the top four segments (having about 80% in total eel landings), by volume and value, are presented in Figure 4.17. The most important fisheries with the highest percentage of eel per catch composition are the Swedish vessels 0-10m using pots and Danish 0-10m polyvalent passive gear segment. In both cases, neither the volume nor value of eel landings is greater than 30% of the share of total landings. Landings weight of eel by the selected

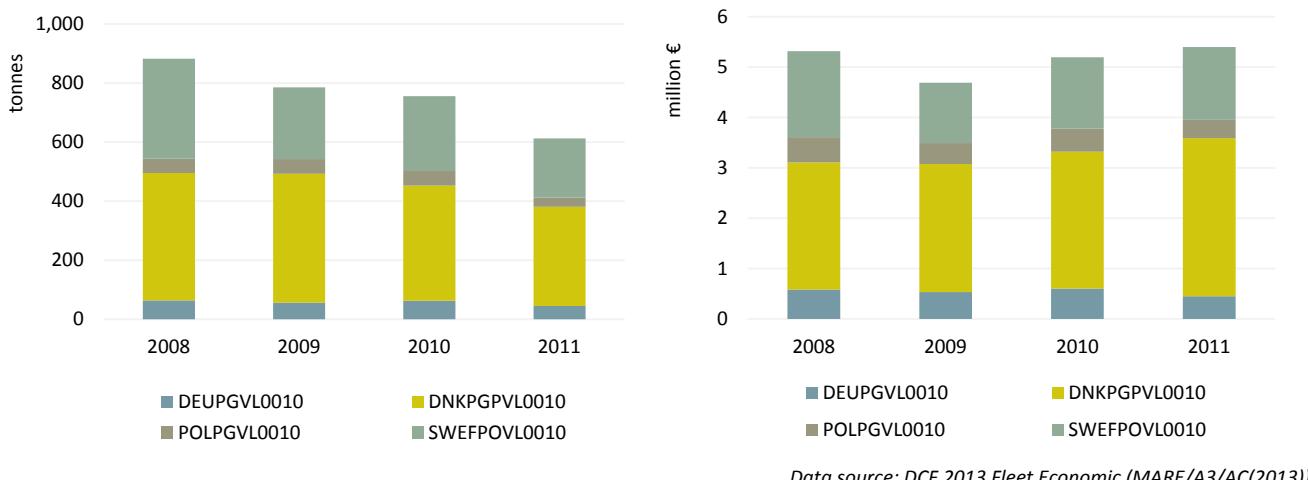
<sup>1</sup> <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2012/2012/eel-eur.pdf>

segments has decreased over the period 2008-2011. However, the landed value has had a slight upward trend over the last years, with the exception of 2009.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.17 Landings composition for selected fleets targeting eel: by weight (left) and value (right)



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

Figure 4.18 Eel landings weight and value for selected fleets: 2008-2011

#### 4.3.9. Long-term plan for West of Scotland herring

##### *Introduction*

COUNCIL REGULATION (EC) No 1300/2008 established a multi-annual plan for the herring stock distributed to the west of Scotland and the fisheries exploiting that stock in international and EU waters in ICES zones Vb and VIb, and the northern part of ICES zone Vla excluding the Clyde.

The objectives of the plan are to reduce fishing mortality to a rate which can maximise long-term sustainable yield. There is a target fishing mortality rate of 0.25 when the stock is over 75,000 tonnes and 0.2 when stock is between 75,000 and 50,000 tonnes. Closure triggered when stock falls below 50,000 tonnes. Rate of year-on-year changes in TAC varies with level of stock.

The North Sea herring stock suffered a major collapse in the early 1970s due to overfishing, which led to the fishery being completely closed from 1977 to 1980. A further decline in the 1990s led to recovery measures being implemented which have been largely successful. The EU TAC in 2012 was 22,900t (Vb, Vla, VIb) of which the UK has the majority of the TAC with 13,438t followed by Ireland, and the Netherlands with TACs of 3,360 and 2,486t respectively.

ICES advises on the basis of the agreed West of Scotland herring management plan that landings in 2013 should be no more than 27,480t and that activities that impact on the seabed should not take place in spawning grounds unless they can be shown not to have a negative impact on spawning, larval production, or stock dynamics.

##### *Main fleets*

The predominate fleet utilising this stock is the UK purse seine over 40m segment (in reality these vessels use pelagic trawls) with 61% of the catches in value for the years 2008-2012, the next most significant segment is the Irish pelagic over 40m fleet at 16%, for 2008-2011, and the Dutch pelagic over 40m fleet with 11% of the overall landings value for 2008-2012. This trend is reflected in the significance of the total weight with the UK, Ireland and the Netherlands demonstrating share of totals of 51%, 24% and 13%, respectively. However none of these segments demonstrate any dependence on this stock, with herring catch compositions less than 5% of their total catches (Table 4.10).

Table 4.10 Significance and dependence of the 10 main fleets targeting the West of Scotland herring stock

Fleet segment	Significance		Dependence				
	% of total	Cumulative %	2008	2009	2010	2011	2012
<i>Landings value</i>							
GBRPSVL40XX	61%	61%	3.8%	2.3%	2.2%	2.4%	2.6%
IRLTMVL40XX	16%	77%	4.6%	2.9%	1.9%	2.6%	
NLDTMVL40XX	11%	88%	0.9%	0.9%	1.1%	0.6%	1.4%
IRLTMVL2440	3%	92%	2.8%	2.0%	2.7%	1.7%	
FRATMVL40XX	3%	95%			3%		
IRLDTSVL2440	2%	96%	0.4%	0.9%	0.7%	0.8%	
IRLDTSVL1824	1%	97%	0.4%	0.2%	0.3%	0.5%	
GBRDTSVL1218	1%	98%	0.0%	0.2%	0.1%	0.2%	0.2%
IRLDTSVL1218	0%	99%	0.4%	0.2%	0.2%	1.6%	
IRLTMVL1824	0%	99%	0.3%	4.0%	4.1%		
Others	1%	100%					
<i>Landings weight</i>							
GBRPSVL40XX	51%	51%	6.0%	4.3%	4.2%	4.3%	4.3%
IRLTMVL40XX	24%	74%	7.9%	4.4%	3.4%	3.7%	
NLDTMVL40XX	13%	88%	1.3%	1.0%	1.1%	0.7%	1.5%
IRLTMVL2440	5%	93%	7.5%	5.3%	6.8%	2.8%	
IRLDTSVL2440	2%	95%	3.2%	5.9%	5.1%	2.5%	
IRLDTSVL1824	2%	97%	5.4%	2.0%	2.8%	3.2%	
GBRDTSVL1218	1%	98%	0.2%	1.5%	0.5%	0.9%	1.1%
IRLTMVL1824	1%	98%	4.3%	12.5%	9.4%		
IRLDTSVL1218	1%	99%	4.2%	1.5%	2.4%	6.4%	
FRATMVL40XX	0%	99%			1.3%		
Others	1%	100%					

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

## 5 NATIONAL CHAPTERS

### KEY FINDINGS

#### Facts and Figures for EU Member State fleets in 2011:

- **Belgium:** 89 vessels of which 6 inactive, employed 342 FTE fishers and generated €35.9 million in GVA, €9.5 million in gross profit and a profit margin of 0.6%; improved performance but deterioration expected in 2012
- **Bulgaria:** 2,345 vessels of which 1,335 inactive, employed 1 668 FTE fishers and generated a negative GVA of €1.5 million, gross loss of €3.1 million loss; poor economic performance and expected to deteriorate in 2012
- **Denmark:** 2,663 vessels of which 1,060 inactive, employed 1 661 FTE fishers and generated €249 million in GVA, €134.5 million in gross profit and a net profit margin of 11.6%; improved economic performance
- **Estonia:** 934 vessels of which 11 inactive; insufficient data submitted for full analysis
- **Finland:** 3,365 vessels of which 1,716 inactive, employed 316 FTE fishers and generated €12.3 million in GVA, €3.9 million in gross profit and a net profit margin of -1.9%; deteriorated performance but expected to improve in 2012
- **France:** 6,004 vessels employing 7,447 FTE fishers, generated €590.8 million in GVA, €181 million in gross profit and a profit margin of 9.3%; economic development trend improving
- **Germany:** 1,664 vessels of which 437 inactive, employed 1 258 FTE and generated €57.8 million in GVA, gross profit of €14.8 million and a net profit margin of -4.9%; deteriorated performance expected to continue in 2012
- **Greece:** no data available
- **Ireland:** 2,162 vessels of which 802 inactive, employed 3 166 FTE and generated €112 million in GVA, a €45 million gross profit and a net profit margin of -5.8%; economic development trend improving
- **Italy:** 14,715 vessels of which 1,396 inactive, employed 20 599 FTEs and generated €583 million in GVA, €303 million gross profit and a net profit margin of 7.2%; deteriorated performance expected to continue in 2012
- **Latvia:** 319 vessels of which 88 inactive, employed 378 FTE fishers and generated €10.7 million in GVA, €7.4 million in gross profit and a net profit margin of 27.6%; economic development trend improving
- **Lithuania:** 171 vessels of which 68 inactive, employed 575 FTE and generated €12.9 million in GVA, €7.5 million in gross profit and a net profit margin of 10%; development trend improving but expected to deteriorate in 2012
- **Malta:** 1,087 vessels of which 453 inactive, employed 155 FTE fishers and generated €6.1 million in GVA and a gross loss of €1.5 million; economic development trend deteriorating and expected to continue in 2012
- **Netherlands:** 738 vessels of which 168 inactive, employed 1 768 FTE and generated €109 million in GVA, a €30.8 million gross profit and a profit margin of 0.9%; improving development trend but expected to deteriorate in 2012
- **Poland:** 805 vessels of which 84 inactive, employed 1 576 FTE fishers and generated €21.5 million in GVA, €8.8 million in gross profit and a profit margin of 10.4%; stable development trend and expected to continue in 2012
- **Portugal:** 8,557 vessels of which 3,691 inactive, employed 17 188 FTE fishers and generated €283.6 million in GVA, a €129.2 million gross profit and a net profit margin of 6.6%; economic development trend improving but expected to deteriorate in 2012
- **Romania:** 488 vessels of which 288 inactive, employed 28 FTE fishers and generated €0.9 million in GVA, a €0.4 million gross profit and a net profit margin of 17%; insufficient data for trend analysis
- **Slovenia:** 186 vessels of which 102 inactive, employed 77 FTE fishers and generated €1.6 million in GVA and a net margin of -14.5%
- **Spain:** 10,892 vessels of which 1,007 inactive, employed 32 194 FTE, and generated €839 million in GVA, €180.5 million in gross profit and a net profit margin of 0.9%; economic development trend improving
- **Sweden:** 1,359 vessels of which 328 inactive, employed 974 FTE fishers, generated €59.8 million in GVA, a €32.5 million gross profit and a net profit margin of 0.1%; economic development trend deteriorating but expected to improve in 2012
- **United Kingdom:** 6,467 vessels of which 1,815 inactive, employed 7 192 FTE and generated €429.5 million in GVA, €202 million in gross profit and a net profit margin of 16.2%; development trend improving

This chapter provides an overview of the structure and economic performance of the EU fishing fleet by Member State and highlights some key trends between 2008 and 2013, based on data obtained from the latest DCF fleet economic data call. National chapters were not produced for Cyprus and Greece due to insufficient data.

## 5.1 BELGIUM

### Fleet Structure, Fishing Activity and Production

In 2012 the Belgian fishing fleet consisted of 86 registered vessels with a combined gross tonnage (GT) of 15 thousand tonnes, engine power of 49 thousand kilowatts (kW) and an average age of 25 years. The size of the Belgian fleet decreased between 2011 and 2012; vessel numbers and GT decreased 3% and kW by 4% (Table 5.1). The size of the fleet in terms of vessel numbers has decreased by 13% since 2008.

In 2012 the Belgian fleet consisted of 80 fishing enterprises with the vast majority (99%) owning a single vessel. Total employment in 2011 was estimated at 377 jobs, corresponding to 342 FTEs. Employment levels decreased between 2008 and 2011; total employed decreased by 18% and FTEs by 10% over the period. The data suggest that the average number of FTEs per vessel was greater in 2011 than in 2008, particularly for the demersal trawl and seine 18-24m vessels (6.2 FTEs per vessel in 2011 compared to 5 FTEs per vessel in 2008) and the beam trawl 24-40m vessels (6.4 FTEs per vessel in 2011 instead of 5.2 FTEs per vessel in 2008), while the average wage in the national fleet increased by 4%. Provisional estimates suggest that the average wage remained stable in 2012.

Table 5.1 Belgian national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011	
<b>Structure</b>												
All Vessels	102	100	89	89	0% $\leftrightarrow$	86	83	-	1	1	-	- -
Inactive vessels	4	8	5	6	20% $\nearrow$	4	3	-	-	-	-	- -
Average vessel age (years)	22	23	23	24	4% $\nearrow$	25	26	-	2	3	-	- -
GT (thousand tonnes)	19.3	19.0	16.1	15.8	-1% $\searrow$	15.3	15.1	-	0.02	0.02	-	- -
Engine power (thousand kW)	60.6	60.6	51.6	51.2	-1% $\leftrightarrow$	49.1	47.6	-	0.22	0.22	-	- -
No. Enterprises (N)	97	92	83	88	6% $\nearrow$	80	-	1	1	1	-	- -
<b>Employment</b>												
FTE (N)	380	335	352	342	-3% $\searrow$	330	-	-	1	n/a	-	- -
Average wage per FTE (thousand €)	74.1	73.7	73.7	77.3	5% $\nearrow$	71.1	-	-	n/a	n/a	-	- -
<b>Fishing Effort</b>												
Days at Sea (thousand days)	19.5	17.7	17.9	17.2	-4% $\searrow$	16.8	-	-	0.07	0.004	-	- -
GT fishing days (thousands)	2821	2757	2368	2323	-2% $\searrow$	2270	-	-	0.49	0.03	-	- -
Energy consumption (million litres)	42.4	52.9	46.4	40.3	-13% $\searrow$	-	-	-	n/a	n/a	-	- -
Fuel consumption per kg landed (litre/kg)	2.12	2.78	2.35	2.00	-15% $\searrow$	-	-	-	n/a	n/a	-	- -
<b>Production</b>												
Landings weight (thousand tonnes)	20.0	19.0	19.8	20.1	2% $\nearrow$	21.9	-	-	n/a	n/a	-	- -
Landings value (million €)	76.3	67.9	76.2	79.5	4% $\nearrow$	76.4	-	-	n/a	n/a	-	- -

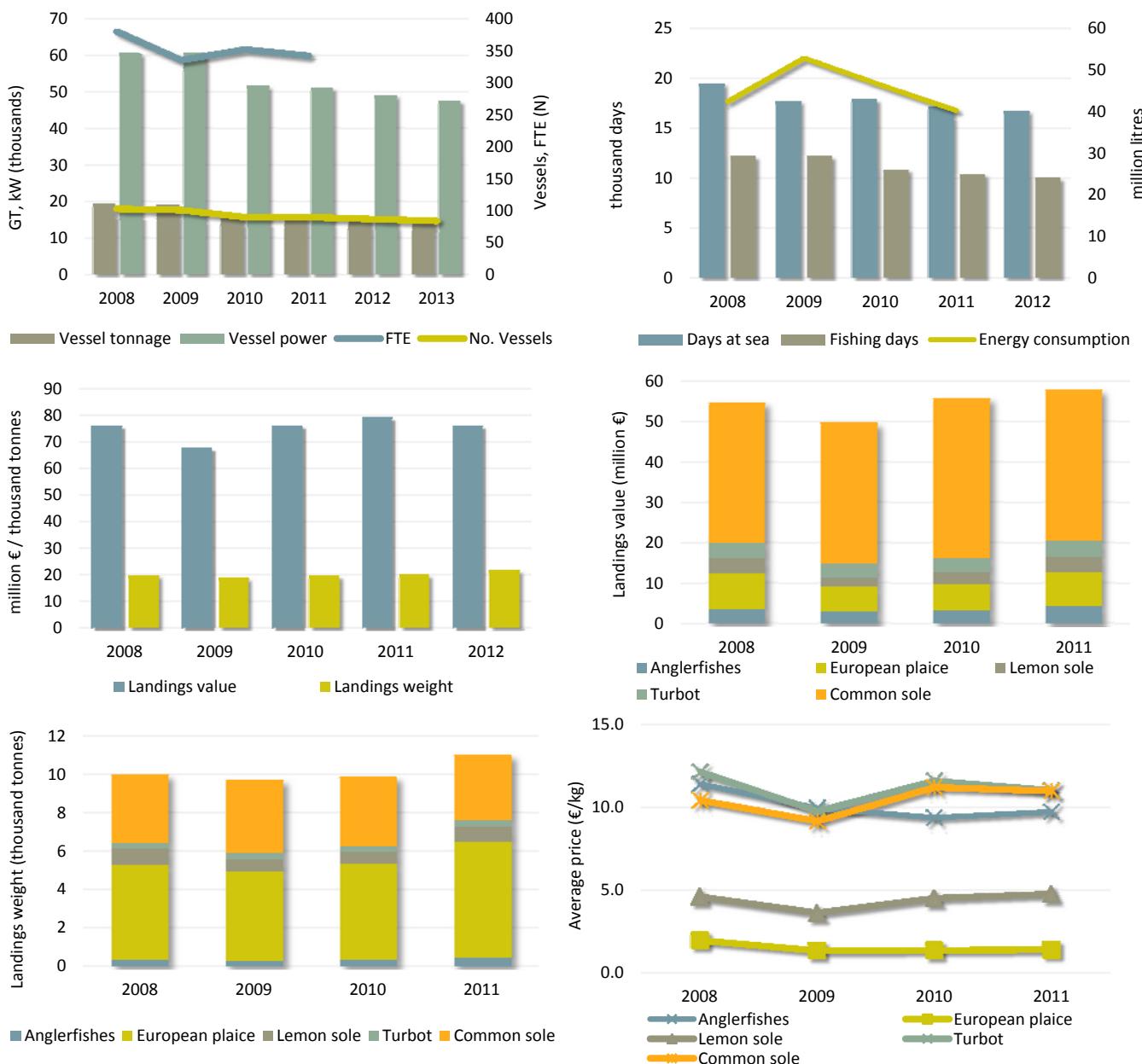
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2012, the Belgian fleet spent around 17 thousand days at sea, a decrease of approx. 14% compared to 2008 figures. The quantity of fuel consumed in 2011 amounted to 40 million litres, a decrease of around 13% from 2010. Increasing fuel prices is believed to be inducing lower fuel consumption.

The total volume of seafood landed by the Belgian fleet in 2012 was 22 thousand tonnes (+9% compare to 2011), with a landed value of €76 million (-4% compare to 2011). The total volume increased by 9.5% over the period 2008-2012 while the value of landings remained stable over the same period. In 2012, common sole generated the highest landed value (€29.7 million), followed by European plaice (€8.5 million), anglerfishes (€5.5 million), common shrimp (€4.1 million) and then turbot (€3.4 million). Common shrimp appeared in 2011 replacing Crangon shrimps. In terms of landings weight, the order differs with European plaice in first with 6.4 thousand tonnes, followed by common sole (2.9 thousand tonnes) and Atlantic cod (1 thousand tonnes) (Figure 5.1).

Prices were relatively stable between 2010 and 2011 for the five key species landed by the Belgian fleet, however, prices decreased between 2011 and 2012 for most species except the common shrimp (+67%). Common sole achieved the highest average price per kilo in 2012 (€10 per kg), followed by anglerfishes (€9.2 per kg) and turbot (€9 per kg). Common sole

accounted for 47% of the total value of landings in 2011, decreasing to 39% of total in 2012, while European plaice remained stable at 11% in both 2011 and 2012. In 2012, the landed value of common sole and turbot decreased 21% and 12% respectively from 2011, while the landed value of common shrimp and anglerfish increased 175% and 28%, respectively. Only common shrimp prices increased; by 67% between 2011 and 2012<sup>1</sup>.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.1 Belgian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

## National Fleet Economic performance

The total amount of income generated by the Belgian national fleet in 2011 was €82 million. This consisted of €79 million in landings value and €3 million in non-fishing income. The Belgian fleet's total income increased 4% between 2010 and 2011. Total operating costs incurred by the Belgian national fleet in 2011 equated to €73 million, amounting to 92% of total income. Crew cost and fuel costs, the two major fishing expenses, were €26 and €25 million respectively (Table 5.2). Between 2010 and 2011, total operating costs decreased by 4%, equally due to Belgian fuel costs and crew costs, which amounted to almost 70% of total income in 2011.

<sup>1</sup> 2012 landing values may be provisional or incomplete.

Table 5.2 Belgium national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012
	2008	2009	2010	2011		
<b>Income</b>						
Landings income	76.3	68.1	76.3	79.4	↗ 4%	75.8
Other income	2.3	4.3	3.6	2.9	↘ -20%	3.3
<b>Costs</b>						
Labour costs	28.2	24.7	26.0	26.5	↗ 2%	25.7
Energy costs	34.1	19.3	21.7	24.8	↗ 14%	28.9
Repair costs	5.4	4.9	4.9	4.9	↘ -2%	4.7
Other variable costs	11.9	10.2	9.9	10.4	↗ 5%	10.1
Non-variable costs	6.7	7.3	7.2	6.5	↘ -10%	6.2
Capital costs	10.4	11.3	9.4	9.0	↘ -4%	8.9
<b>Economic Indicators</b>						
GVA	20.5	30.6	36.3	35.9	↔ -1%	29.1
Gross profit	-7.7	5.9	10.3	9.5	↘ -8%	3.4
Net profit	-18.1	-5.4	0.9	0.5	↘ -49%	-5.5
<b>Capital value</b>						
Fleet depreciated replacement value	53.5	72.6	66.1	45.1	↘ -32%	55.6
In-year investments	3.9	7.3	10.7	13.6	↗ 27%	-
<b>Profitability and development trends</b>						
Net profit margin (%) <i>development trend</i>	-23.0	-7.4	1.1	0.6	↘ -51% ↗ 106%	-7.0
RoFTA(%) <i>development trend</i>	-33.9	-7.4	1.4	1.0	↘ -25% ↗ 108%	-9.9
GVA per FTE (thousand €) <i>development trend</i>	53.9	91.4	103.0	105.0	↗ 2% ↗ 27%	88.1

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Note: "other income" for 2008 includes only TBB fleet segments

The total amount of Gross Value Added (GVA), gross profit and net profit generated by the Belgian fleet in 2011 were €36 million, €9 million and €1 million, respectively. Gross Value Added (GVA) remained stable, while gross profit and net profit decreased by 8% and 49%, respectively, between 2010 and 2011. Over the period 2008-2011, economic performance improved, with GVA increasing by 75%. Net profit margin was negative in 2008, increasing to 1% in 2011. However, provisional projections for 2012 suggest deterioration in economic performance; higher energy costs being the main driver. In 2011, the (depreciated) replacement value of the Belgian fleet was estimated at €45 million and investments by the fleet amounted to €14 million (Figure 5.2).

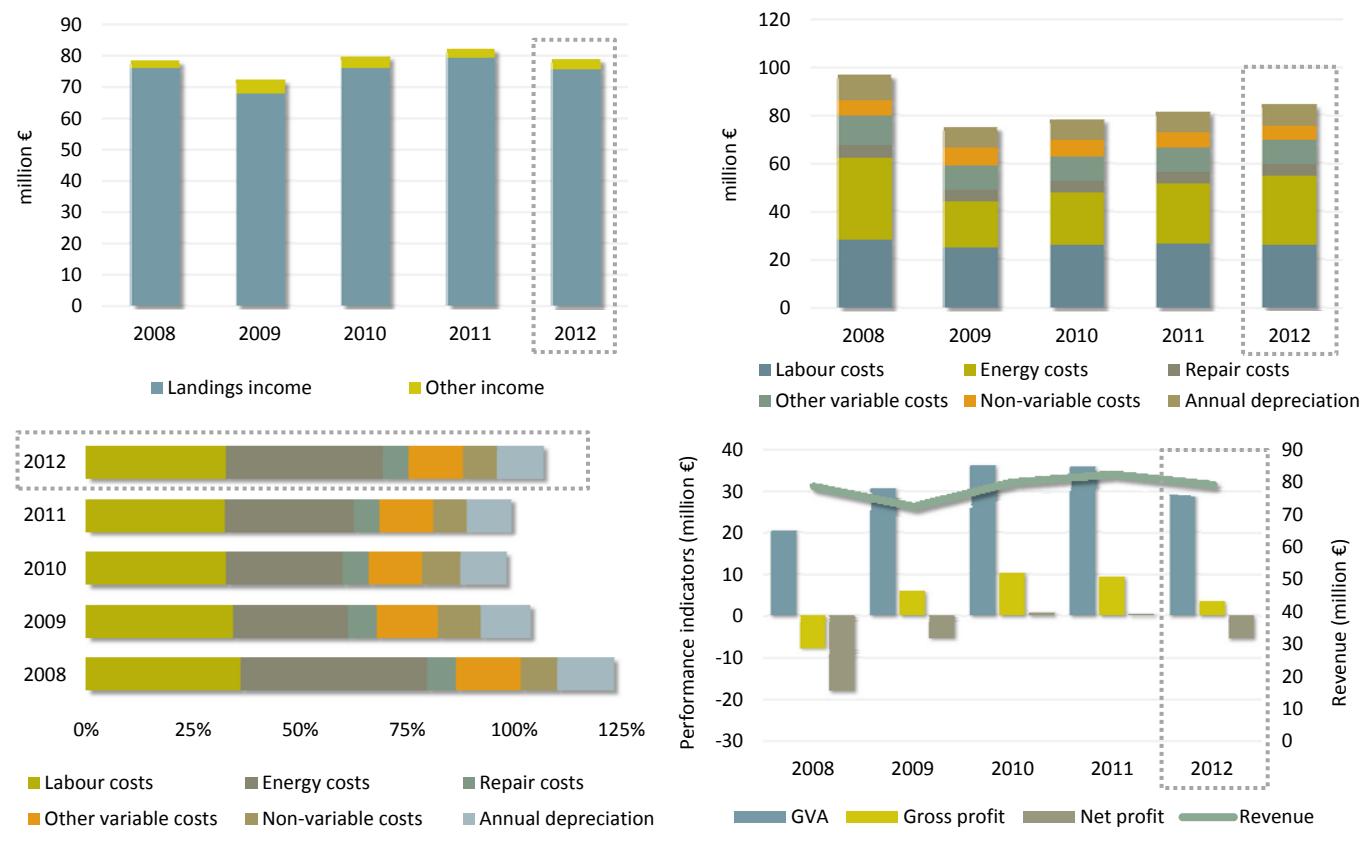
### Fleet Segment Level Economic performance

The Belgian fleet is mainly composed of beam trawlers operating in the North Sea, English Channel and other areas of the North Atlantic. Five of the active fleet segments made losses in 2011 while one made an overall net profit. Table 5.2 contains economic performance indicators for each of the main Belgian fleet segments in 2011, and highlights low profitability in most of the segments except for the 24-40m beam trawlers, which generated a reasonable €4 million profit. The value landed increased by 7% while at the same time days at sea and energy consumption decreased.

**Beam trawl 18-24m** – 32 vessels make up this segment and operate predominantly in Area 27.7. The fleet targets a variety of species including common sole, common shrimp and European plaice. In 2011, the total value of landings was almost €15 million and around 86 FTEs were employed, contributing to 19% and 25% of the total income from landings and FTEs generated by the Belgian fishing fleet respectively. This fleet segment reported a gross profit of around €0.4 million and net loss of €1.6 million in 2011.

**Beam Trawl 24-40m** – 29 vessels registered in this segment in 2011, targeting a variety of species, particularly common sole, European plaice and lemon sole. In 2011, the total value of landings was almost €54 million and around 186 FTEs were employed in this fleet segment, contributing to 70% and 55% of the total income from landings and FTEs generated by the Belgian fishing fleet respectively. This fleet segment reported a gross profit of around €9.5 million and €4 million of income was retained as net profit in 2011.

**Demersal trawl and seine 24-40m** – 4 vessels make up this segment, which operates in the North Sea and English Channel. The fleet targets a variety of species including common sole, surmullet and European plaice. In 2011, this fleet segment achieved almost €5.5 million in landed value and employed 25 FTEs, contributing to 7% of both the total income from landings and FTEs generated by the Belgian national fleet. The fleet segment generated a gross profit of around €0.7 million and a break-even net profit in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.2 Belgium main economic performance trends 2008-2012:

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

The general trend for the Belgian fleet is deterioration in economic performance. Even if fleet segments continue to limit energy consumption, if fish prices do not increase it will be difficult to improve profitability, except perhaps for some beam trawl vessels which managed to improve their net profit margin.

## Data issues

No major issues: Energy consumption data was missing for 2008 and 2009 for segments other than beam trawl, however those segments were small in terms of vessel numbers.

Table 5.3 Main socio-economic performance indicators by fleet segment in the Belgium national fishing fleet in 2011.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average 2008-10	Economic development trend
AREA27	DFNVL1824	6	20%	10	-23%	n/a	-	180	59%	1013	-10%	126	-30%	407	-51%	40.8	-37%	-543	-235%	-	-	-	-	-	-	
AREA27	DTSVL1824	5	150%	16	78%	n/a	-	1058	-5%	1991	-	661	-	457	135%	28.5	32%	-357	14%	-722	21%	-36.1	35%	Weak	1%	Stable
AREA27	DTSVL2440	4	0%	25	25%	1154	14%	2231	42%	5463	57%	1571	62%	2453	15%	98.1	-8%	674	-17%	-24	-115%	-0.4	-111%	Weak	67%	Improved
AREA27	DRBVL1824	2	0%	7	17%	n/a	-	473	-1%	1108	-10%	442	-26%	441	-35%	63.1	-44%	103	-62%	-3	-102%	-0.3	-102%	Weak	-103%	Deteriorated
AREA27	TBBVL1218	5	0%	11	-8%	713	-1%	573	-3%	844	-40%	294	-35%	88	-74%	8.0	-71%	-324	-46%	-532	-5%	-61.1	-24%	Weak	-8%	Deteriorated
AREA27	TBBVL1824	32	-6%	86	-5%	5617	-10%	8319	-8%	14975	-15%	3806	-19%	5531	-27%	64.3	-23%	370	-78%	-1637	-52018%	-10.6	-52700%	Weak	16%	Improved
AREA27	TBBVL2440	29	-9%	186	-6%	8052	-5%	27432	-18%	54043	7%	13237	4%	26524	8%	142.6	14%	9530	22%	3933	109%	7.0	99%	Reasonable	202%	Improved

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.2 BULGARIA

### Fleet Structure, Fishing Activity and Production

In 2011, the Bulgarian fishing fleet consisted of 2,345 registered vessels, with a combined gross tonnage of 5 thousand tonnes, a total power of 33.7 thousand kW and an average age of 22 years. The size of the Bulgaria fishing fleet decreased between 2010 and 2011, with the number of vessels decreasing by -13% and GT and kW decreasing by -34% and -30%, respectively (Table 5.4). Through the use of the European Fisheries Fund (EFF) aid, 20 Bulgarian vessels were scrapped before the end of 2011. Capacity data appears somewhat inconsistent as the total number of vessels (active and inactive) in the national fleet normally varies from one year to the next. Generally, less than half of the fleet is active throughout the year. For example, in 2011 there were 2345 in the fleet register, but only 1010 vessels were active, i.e. with at least one recorded day at sea (Table 5.4).

In 2011, there were 99 fishing enterprises; with the majority (68%) owning a single vessel and 30% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 3,276 jobs, corresponding to 1,668 FTEs. The level of employment decreased between 2010 and 2011, with total employed decreasing by -17% and the number of FTEs decreasing by -42% over the period. The major factors causing employment to decrease from 2,889 at 2010 to 1,668 in 2011 was the economic crisis and rising fuel prices (Table 5.4).

Table 5.4 Bulgarian national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%)

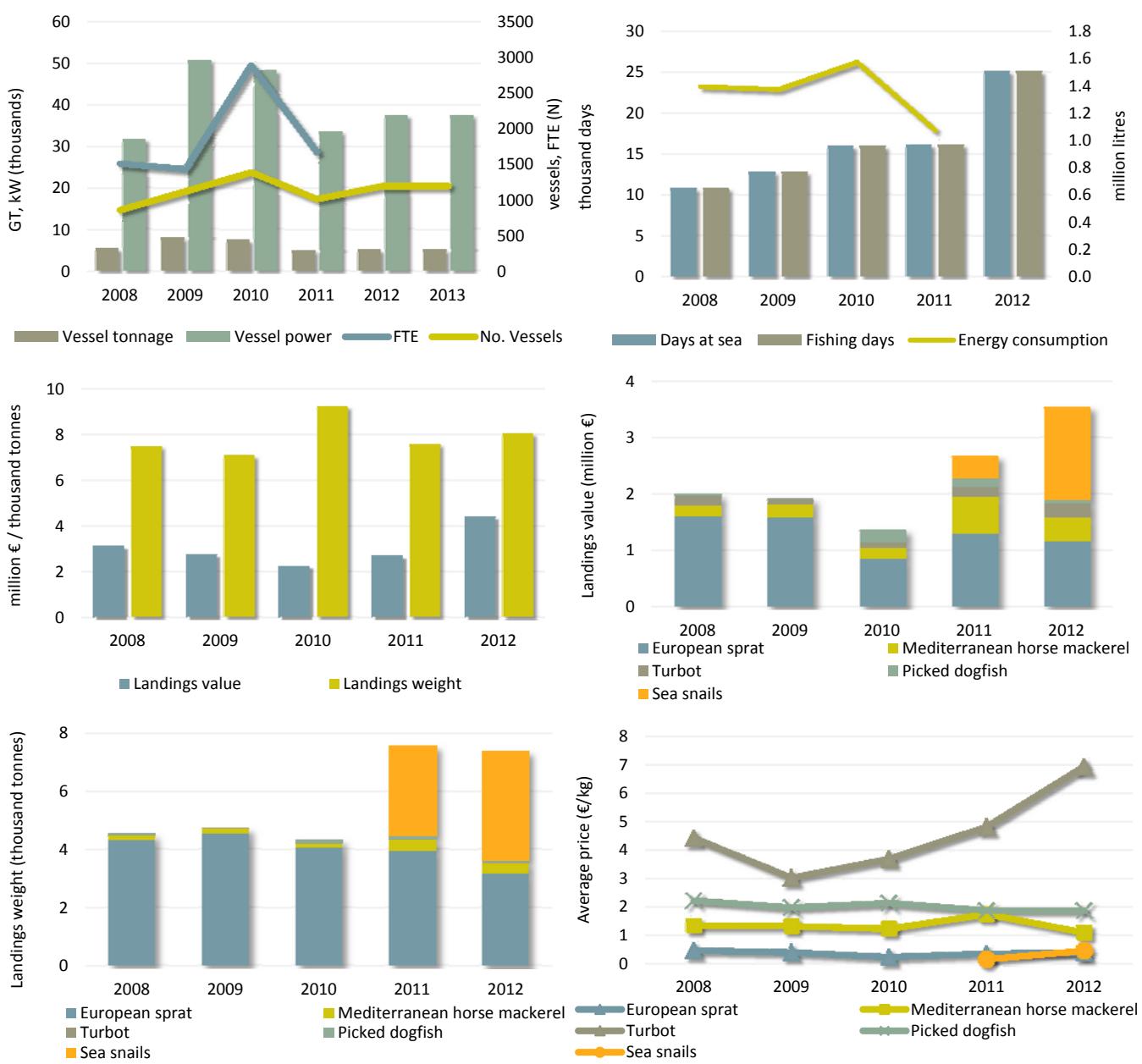
Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011		
<b>Structure</b>													
All Vessels	2680	2421	2692	2345	-13% $\searrow$	1192	1192	747	973	1176	926	-21% $\searrow$	1098
Inactive vessels	1826	1303	1309	1335	2% $\nearrow$	1195	-	-	-	-	-	-	-
Average vessel age (years)	14	15	20	22	10% $\nearrow$	24	25	13	14	17	19	12% $\nearrow$	20
GT (thousand tonnes)	5.4	8.0	7.5	5.0	-34% $\searrow$	5.1	5.1	1.5	2.3	2.2	1.7	-22% $\searrow$	2.0
Engine power (thousand kW)	31.8	50.9	48.4	33.7	-30% $\searrow$	37.6	37.6	16.1	24.7	24.9	19.8	-21% $\searrow$	23.2
No. Enterprises (N)	56	69	77	99	29% $\nearrow$	184	-	24	27	32	43	34% $\nearrow$	
<b>Employment</b>													
FTE (N)	1507	1430	2889	1668	-42% $\searrow$	1969	-	1293	1151	2604	1423	-45% $\searrow$	1120
Average wage per FTE (thousand €)	0.6	1.0	0.9	1.0	14% $\nearrow$	1.9	-	0.2	0.9	0.5	0.6	14% $\nearrow$	1.1
<b>Fishing Effort</b>													
Days at Sea (thousand days)	10.8	12.8	16.0	16.1	1% $\nearrow$	25.1	-	7.7	8.9	12.5	10.7	-14% $\searrow$	16.5
GT fishing days (thousands)	4347	8402	11213	12353	10% $\nearrow$	12436	-	1560	4290	6331	8235	30% $\nearrow$	7667
Energy consumption (million litres)	1.4	1.4	1.6	1.1	-32% $\searrow$	-	-	0.2	0.5	0.8	n/a	-	-
Fuel consumption per kg landed (litre/kg)	0.18	0.19	0.17	0.14	-18% $\searrow$	-	-	0.06	0.29	0.27	n/a	-	-
<b>Production</b>													
Landings weight (thousand tonnes)	7.5	7.1	9.3	7.6	-18% $\searrow$	8.1	-	2.7	1.8	3.0	2.3	-23% $\searrow$	2.0
Landings value (million €)	3.1	2.8	2.3	2.7	19% $\nearrow$	4.4	-	1.1	0.7	0.7	0.5	-21% $\searrow$	1.2

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013

Note: "Capacity" data refers to active fleet only

The Bulgarian fleet spent around 16 thousand days at sea in 2011, relatively stable compared to 2010. The quantity of fuel consumed totalled around 1.1 million litres, a decrease of around 32% from 2010. The major factors causing the decrease in fuel consumption were high fuel and oil prices, suggesting more fuel efficient behaviour as days at sea remained stable.

The total volume landed by the Bulgarian fleet in 2011 was 7.6 thousand tonnes of seafood, with a landed value of €2.7 million. The total volume and value of landings decreased and increased respectively over the period analysed. The major factors impacting on the volume of landings were weather dependence and lack of consumption demand due to affordability resulting from the economic crisis (Figure 5.3).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.3 Bulgarian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The first sales prices obtained for European sprat, Mediterranean horse mackerel and picked dogfish remained stable while turbot increased between 2008 and 2011. Turbot achieved the highest average price per kilo in 2011 (€4.6 per kg), followed by picked dogfish (€1.8 per kg). European sprat accounted for 37% of the total landings value in 2010, which increased to 48% of total income in 2011, while picked dogfish decreased from 10% in 2010 to 4% in 2011 (Figure 5.3).

### National Fleet Economic performance

The total amount of income generated by the Bulgaria national fleet in 2011 was €2.7 million, and consisted entirely of income from landings. The Bulgaria fleet's total income increased 26% between 2010 and 2011. However, official data suggests that total operating costs incurred by the Bulgarian fleet in 2011 equated to €6 million, amounting to a questionable 216% of total income. Crew cost and fuel costs, the two major fishing expenses, were reported as €1.6 and €1.5 million respectively (Table 5.5). Between 2010 and 2011, total operating costs decreased 27%, largely due to 2011 labour and energy costs, which amounted to almost 67% of total income in 2008 and 115% in 2011.

Table 5.5 Bulgarian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	3.2	3.1	2.2	2.7	↗ 26%	4.6	1.2	0.9	2.9	0.6	↘ -79%	1.3
Other income	1.1	0.04	1.7	-	-	0.8	-	0.02	1.6	-	-	0.8
<b>Costs</b>												
Labour costs	0.9	1.5	2.5	1.6	↘ -34%	3.7	0.2	1.0	1.4	0.9	↘ -38%	1.2
Energy costs	1.4	0.8	1.8	1.5	↘ -17%	2.7	0.2	0.2	0.9	0.4	↘ -59%	0.4
Repair costs	0.7	0.6	1.0	0.6	↘ -39%	0.9	0.2	0.3	0.6	0.2	↘ -64%	0.2
Other variable costs	0.3	1.8	2.0	1.9	↘ -8%	2.9	0.1	0.7	1.1	0.5	↘ -60%	0.4
Non-variable costs	0.3	0.2	0.8	0.3	↘ -67%	0.3	0.1	0.1	0.4	0.1	↘ -63%	0.1
Capital costs	-0.1	0.3	1.2	0.1	↘ -90%	0.8	0.0	0.1	0.7	0.1	↘ -88%	0.3
<b>Economic Indicators</b>												
GVA	1.8	-0.2	-1.7	-1.5	↗ 13%	-1.5	0.6	-0.4	1.5	-0.5	↘ -135%	1.1
Gross profit	0.9	-1.7	-4.2	-3.1	↗ 25%	-5.2	0.4	-1.5	0.1	-1.4	↘ -1193%	-0.1
Net profit	1.0	-2.0	-5.4	-3.3	↗ 39%	-6.0	0.4	-1.6	-0.6	-1.5	↘ -163%	-0.4
<b>Capital value</b>												
Fleet depreciated replacement value	2.4	2.5	16.5	0.1	↘ -99%	8.3	0.8	1.0	6.3	0.1	↘ -99%	3.2
In-year investments	3.2	1.4	3.4	7.9	↗ 135%	-	0.6	1.0	2.2	6.5	↗ 190%	-
<b>Profitability and development trends</b>												
Net profit margin (%) <i>development trend</i>	22.3	-63.4	-141.0	-120.7	↗ 14%	-111.1	30.4	-172.3	-12.8	-250.6	↘ -1858%	-21.0
	Deteriorated				↘ -99%		Deteriorated				↘ -386%	
RoFTA (%) <i>development trend</i>	40.3	-79.8	-32.7	-2752.8	↘ -8331%	-72.2	46.3	-155.3	-9.1	-1835.9	↘ -20097%	-13.9
	Deteriorated				↘ -11346%		Deteriorated				↘ -4567%	
GVA per FTE (thousand €) <i>development trend</i>	1.2	-0.2	-0.6	-0.9	↘ -50%	-0.8	0.5	-0.4	0.6	-0.4	↘ -165%	1.0
	Deteriorated				↘ -728%		Deteriorated				↘ -268%	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

In terms of economic performance, based on the data submitted, Gross Value Added (GVA), gross profit and net profit generated by the Bulgarian fleet in 2011 were -€1.5 million, -€3.1 million and -€3.3 million, respectively. Although Gross Value Added (GVA), gross profit and net profit increased 13%, 25% and 39%, respectively between 2010 and 2011, net profit margin and return on fixed tangible assets (RoFTA) show considerable deterioration over the years analysed. Provisional data for 2012 suggests that further deterioration in economic performance can be expected, and mainly due to the significant estimated increase in fuel costs. In 2011, the Bulgaria fleet had an estimated (depreciated) replacement value of €0.1 million. Investments made by the fleet amounted to €7.9 million in 2011 (Figure 5.4). Data inconsistencies and substantial inter-annual variations should be considered with care.

## Fleet Segment Level Economic performance

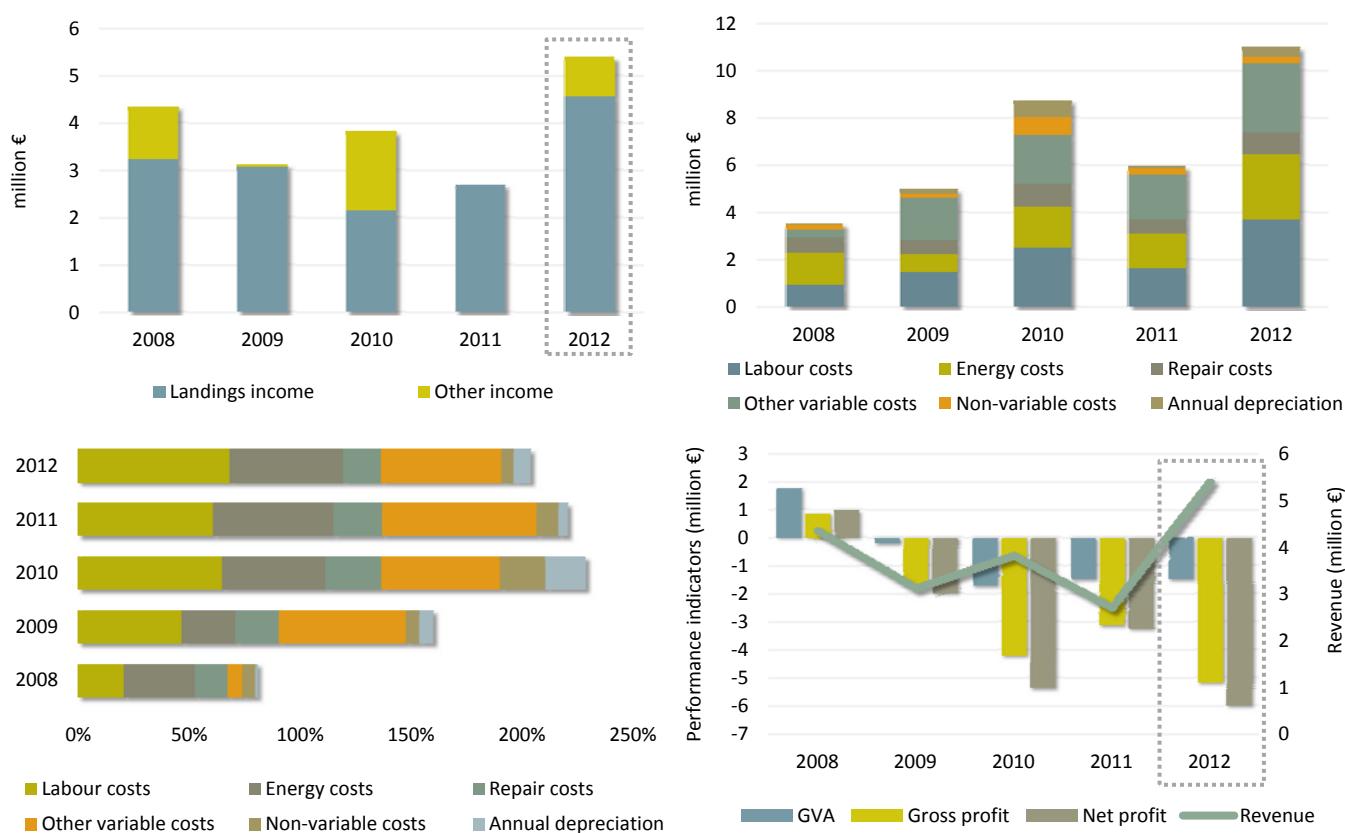
The Bulgarian fleet is diversified with a broad range of vessel types targeting different species predominantly in the Black Sea. The national fleet consisted of nine (DCF) fleet segments in 2011, with a further 1335 inactive vessels. Two of the active fleet segments with economic data made losses in 2011. Table 5.6 provides a breakdown of key performance indicators for all fleet segments in 2011. A short description of the three most important segments in terms of total value of landings is provided below.

**Drift and fixed nets 6-12m – 43** vessels made up this segment in 2011, which operates in the Black Sea. The fleet targets a variety of species but in particular European sprat, Mediterranean horse mackerel, turbot and picked dogfish. In 2011, the total value of landings was almost €0.15 million and around 1,413 FTEs were employed in this fleet segment, contributing to

5.9% and 85.3% of the total income from landings and FTEs generated by the Bulgaria fishing fleet respectively. This fleet segment was unprofitable, with a reported gross loss of around €1.9 million and a net loss of €2 million in 2011.

**Pelagic trawl 18-24m** – In 2011, 16 vessels made up this segment which also targets a variety of species but in particular European sprat, Mediterranean horse mackerel and picked dogfish. In 2011, the total value of landings was almost €1.6 million and around 52 FTEs were employed in this fleet segment, contributing to 60.8% and 3.15% of the total income from landings and FTEs generated by the Bulgaria fishing fleet respectively. This fleet segment was profitable, with a reported gross profit of around € 0.65 million in 2011.

**Polyvalent mobile and passive gears 12-18m** – In 2011, 43 vessels make up this segment which targets a variety of species but in particular sea snails and picked dogfish. In 2011, the total value of landings was almost €0.2 million and around 193 FTEs were employed in this fleet segment, contributing 7.3% and 11.6% of the total income from landings and FTEs generated by the Bulgaria fishing fleet respectively. This fleet segment was unprofitable, with a reported gross loss of around €2.69 million and net loss of €2.73 million in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.4 Bulgarian fleet main economic performance trends 2008-2012.

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

### National Fleet

The main factors that influenced the economic status of the Bulgarian fisheries sector in 2012 were: absence of bank credit lending policy, something which is desperately needed to facilitate the development of the sector; a comparatively large number of ageing vessels; poor weather conditions and poor domestic consumption demand due to lack of affordability.

Bulgaria has a 378 km coastline, a continental shelf of 10,886 km<sup>2</sup> and an Exclusive Economic Zone in the Black Sea of about 25,699 km<sup>2</sup>. Most of the fishing activities are carried out in territorial waters up to 12 nm. The average age of the Bulgarian fishing fleet is 19 years. There are quotas for two species in Bulgaria, turbot and sprat.

The Black Sea TAC (quota regime) was introduced in 2008, following the accession of Bulgaria and Romania to the European Union (EU). A decreasing trend in turbot biomass indices has been observed since 2008, despite the presence of the quotas

regime for turbot in community waters. For this reason, implementation of additional and more effective management measures for restriction of turbot exploitation are necessary.

In compliance with the Operational Program for the development of the Bulgarian fisheries sector for Programming period 2007-2013, priority axis 1 (Measures for adaptation of the fishing fleet), Measure 1.1. (Public aid for permanent cessation of fishing activities) states that “the decrease of the capacity will be achieved, based on the national plans for adjustment of the fishing effort in direction of restructuring of the fishing fleet and conservation of its sustainable management, in compliance with the principles of the Common Fisheries Policy.” Bulgaria has therefore made significant efforts to withdrawing vessels from the fleet, particularly in the 6-12mm 12-18m and 18-24m length classes.

#### **Small scale Fleet**

Most of the vessels under 12m are mainly engaged in small-scale coastal fishing with gillnets (anchored). These vessels are mainly solely operated by the owner, for whom fishing is an additional income stream. The profit is the actual remuneration (wages) of the working effort of the owner.

#### ***Data issues***

There are limited human resources available and procedures to work with the data in Bulgaria; there is a difficulty in analysing the fishing effort data because of the large number of vessels under 12m engaged in mixed fisheries, who are fishing for several species of fish at one time using different fishing gears throughout the year. There is an absence of established automatic system for fleet management and an absence of separate fish markets; the presence of very small landing ports and the fact that the majority of the fleet is under 12m creates difficulties with the accuracy of landings and their monitoring.

Joint research conducted with Romanian scientists on turbot and sprat stocks in Community waters in 2010 and 2011 is a big step forward because it gives a more accurate picture on the stocks. Amendments have also been adopted in national legislation which has enabled effective measures to have been taken against inactive vessels. According to the changes in the Bulgarian Fisheries and Aquaculture Act in 2012, all Bulgarian fishermen are obliged to become ‘enterprises’. This will allow collection of economic information by two sources - from balance sheets and from questionnaires for economic statistics. There will be a single authority responsible for the management of fisheries resources and the fishing fleet, assuring accurate and continuous updates of the fleet register, sufficient monitoring of fleet entries and exits and all the other necessary information related to fleet management.

Table 5.6 Main socio-economic performance indicators by fleet segment in the Bulgarian national fishing fleet in 2011

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
DFNVL1824	1	-91%	n/a		n/a		n/a		29	-11%	6	-32%	n/a		n/a		n/a		n/a		n/a		n/a		n/a
TMVL1218	23	-26%	n/a		1216	77%	n/a		232	130%	498	76%	n/a		n/a		n/a		n/a		n/a		n/a		n/a
TMVL1824	16	-41%	52	-25%	2640	16%	n/a		1565	71%	3538	-7%	954	265%	18.3	319%	652	165%	n/a		n/a		n/a		n/a
PMPVL1218	43	-60%	193	-11%	808	-43%	n/a		189	-41%	1179	-40%	-2245	-1018%	-11.6	-1129%	-2697	-585%	-2734	-320%	n/a		n/a		n/a

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

## 5.3 DENMARK

### Fleet Structure, Fishing Activity and Production

In 2011, the Danish fishing fleet consisted of 2,663 registered vessels, with a combined gross tonnage of 68 thousand GT, engine power of 239 thousand kW and an average age of 30 years. The size of the Danish fishing fleet decreased between 2010 and 2011, with the number of vessels decreasing 1% and GT and kW decreasing 1% and 3%, respectively (Figure 5.5, Table 5.7). The decrease in the fleet follows the general trend that older vessels are being replaced with newer and often larger vessels with new technology. Furthermore, the transferable quota systems that is in place for most fleets in Denmark allows more efficient vessels with excess capacity to buy the quotas from less efficient vessels. The total landings decreased with 14% from 2010-2011, which is a driver for the least efficient vessels to sell their quotas and leave the Danish fishing fleet.

In 2011, the number of fishing enterprises in the Danish fleet totalled 1,553, with the vast majority (97%) owning a single vessel. Only 3% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 1,460 jobs, corresponding to 1,661 FTEs. The reason that the FTE is higher than the number of jobs is that the FTE's is estimated based on the DK-standard that a full working year consists of 1,665 working hours. However, in reality the yearly working hours in the Danish fishing fleet is more likely to be around 2000 hours. The level of employment decreased between 2010 and 2011, with total employed decreasing by 4% and the number of FTEs decreasing by 8% over the period. The major factor causing employment to decrease in the Danish fleet was the lower number of days at sea in 2011 than in 2010. Increased productivity is also likely to be a factor.

Table 5.7 Danish national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

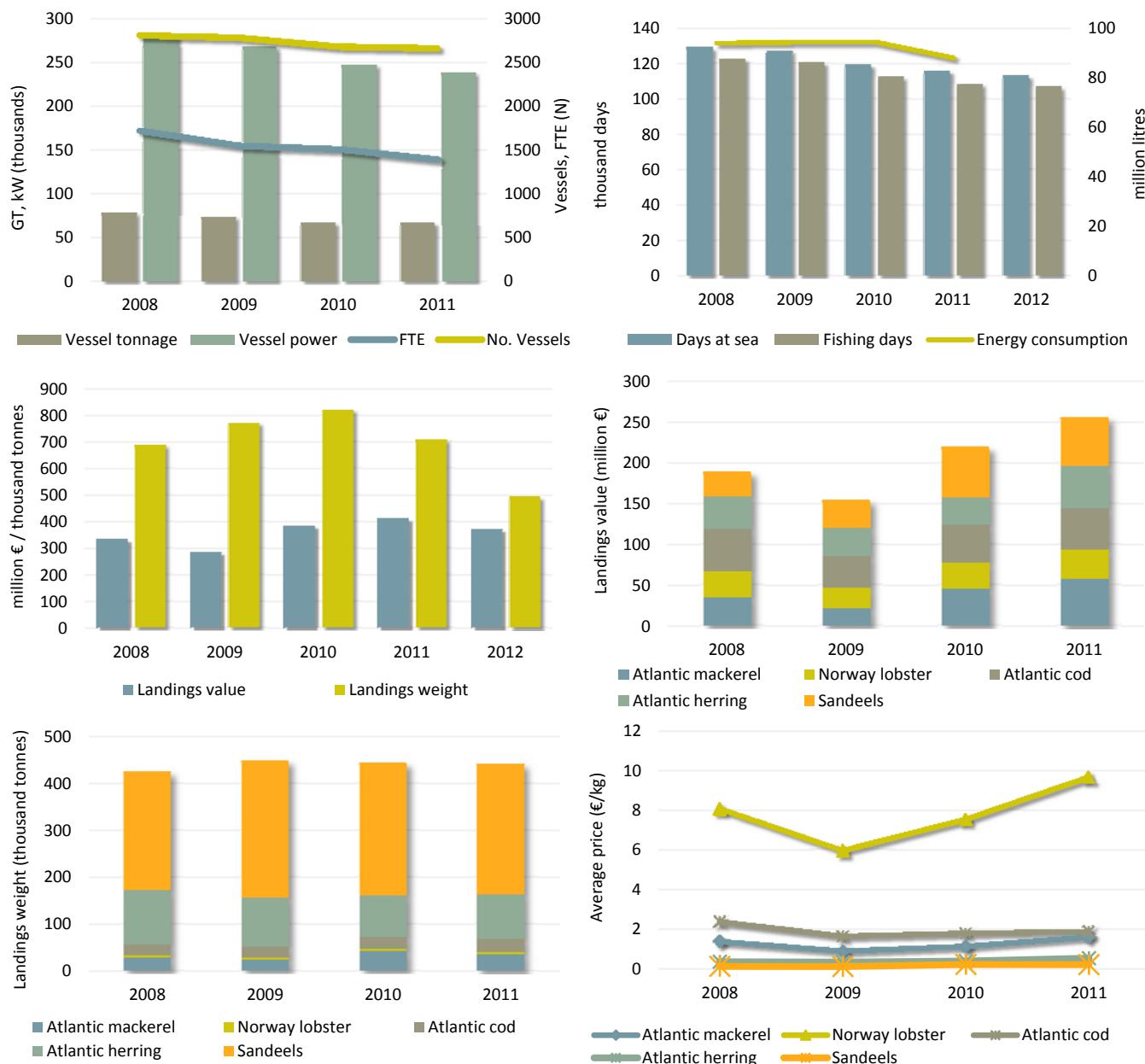
Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012		
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011				
<b>Structure</b>															
All Vessels	2813	2786	2682	2663	-1%	↔	n/a	n/a	1228	1203	1118	1094	-2%	↘	n/a
Inactive vessels	1003	1017	1043	1060	2%	↗	n/a	-	-	-	-	-	-	-	
Average vessel age (years)	29	29	29	30	2%	↗	n/a	-	27	27	28	29	3%	↗	n/a
GT (thousand tonnes)	78.8	74.4	68.0	67.5	-1%	↔	n/a	-	4.4	4.3	4.2	4.0	-4%	↘	n/a
Engine power (thousand kW)	282.9	269.2	247.4	238.9	-3%	↘	n/a	-	44.9	44.1	44.0	42.7	-3%	↘	n/a
No. Enterprises (N)	1721	1655	1574	1553	-1%	↘	n/a	-	1201	1163	1118	1093	-2%	↘	n/a
<b>Employment</b>															
FTE (N)	2061	1854	1804	1661	-8%	↘	n/a	-	379	319	281	276	-2%	↘	270
Average wage per FTE (thousand €)	59.0	57.9	66.3	69.0	4%	↗	n/a	-	50.0	50.0	51.9	51.4	-1%	↘	35.9
<b>Fishing Effort</b>															
Days at Sea (thousand days)	129.2	127.5	119.4	116.0	-3%	↘	113.0	-	56.3	53.5	49.3	49.8	1%	↔	47.8
GT fishing days (thousands)	7036	7630	7950	7503	-6%	↘	7107	-	294	286	270	270	0%	↔	264
Energy consumption (million litres)	94.1	94.5	94.7	88.1	-7%	↘	-	-	3.7	3.7	3.2	3.2	2%	↗	-
Fuel consumption per kg landed (litre/kg)	0.14	0.12	0.12	0.12	0%	↔	-	-	0.28	0.31	0.28	0.29	4%	↗	-
<b>Production</b>															
Landings weight (thousand tonnes)	690.5	773.0	822.3	710.9	-14%	↘	493.9	-	12.9	11.8	11.2	11.0	-2%	↘	11.6
Landings value (million €)	334.5	285.8	384.2	412.9	7%	↗	372.7	-	29.2	22.8	23.1	25.0	8%	↗	24.5

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2011, the Danish fleet spent a total of around 116 thousand days at sea. The total number of days at sea decreased 3% between 2010 and 2011. Increased productivity is believed to be a major factor for the decrease in days at sea in the Danish fleet. The total volume in 2011 was 711 thousand tonnes of seafood, with a landed value of €413 million. The total volume decreased between 2010 and 2011 by 14% and the value of landings increased over the period by 7%. The major factors causing the total volume to decrease were the catches of boarfish, European sprat, Norway pout and sandeel in 2011, while the major factor causing the value of landings to increase was an increase in the prices of Atlantic herring, Atlantic mackerel and Norway lobster (Table 5.7).

In 2011, sandeel generated the highest landed value (€60 million) by the national fleet, followed by Atlantic mackerel (€57 million), Atlantic herring (€53 million), Atlantic cod (50.1 million) and then Norway Lobster (€36 million). In terms of landings

weight in 2011, sandeel accounted for 279 thousand tonnes, Atlantic herring (97 thousand tonnes) and Atlantic mackerel (36 thousand tonnes) (Figure 5.5).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.5 Danish fleet main trends 2008-2012/13.

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

In 2012, the total volume landed by the Danish fleet was 494 thousand tonnes of seafood, with a landed value of €373 million. The total volume and value of landings decreased from 2011 to 2012 by 31% and 10% respectively. The major factor causing the volume and value to decrease was a significant decrease (around 80%) in the sandeel quota in 2012. Sandeel is an important species for the Danish industrial fisheries.

The prices obtained for mackerel, Norway lobster, herring and cod increased by 45%, 31%, 7%, and 40% respectively between 2010 and 2011, while the prices for sandeel remained constant. A major explanation for the price increases in mackerel and Norway lobster was the decrease in landings volume of the two species (13% and 14%, respectively) from 2010 to 2011, which changed the balance between supply and demand and increased the prices. Norway lobster achieved the highest average price per kilo in 2012 (€9.7 per kg), followed by Atlantic cod (€1.9 per kg).

## National Fleet Economic performance

The total amount of income generated by the Danish fleet in 2011 was €395 million. This consisted of €386 million in landings value and €9 million in non-fishing income. The Danish fleet's total income decreased 3% between 2010 and 2011. Total operating costs incurred by the Danish national fleet in 2011 equated to €260 million, amounting to 65% of total income. Crew cost and fuel costs, the two major fishing expenses accounted for €115 and €53 million respectively in 2011 (Table 5.8). Between 2010 and 2011, total operating costs decreased by 1%, largely due to decreased labour costs, which amounted to almost 29% of total income in 2011.

Table 5.8 Danish national fishing fleet economic performance in 2011 and projections for 2012.

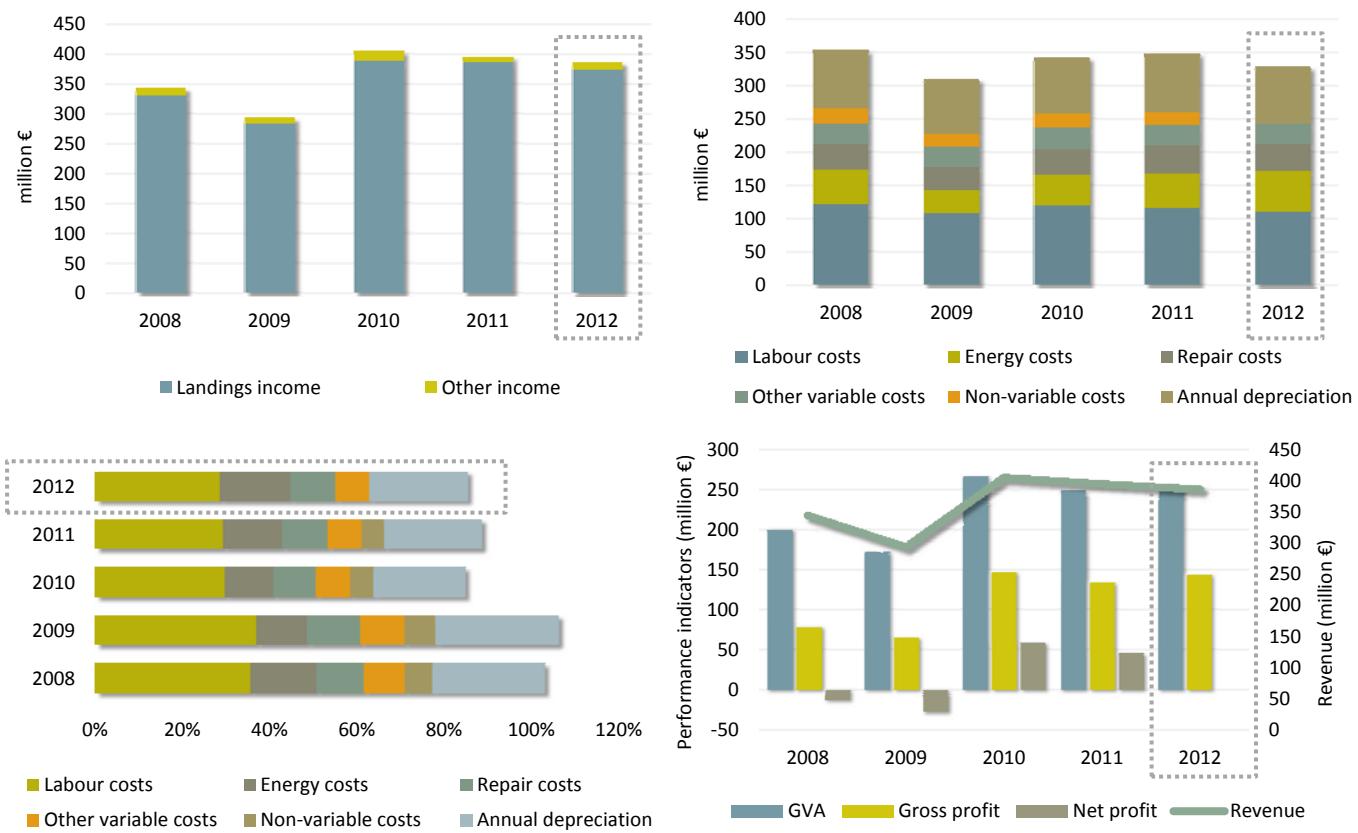
Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	330.1	281.9	387.2	385.9	↔	0%	372.6	28.4	21.4	21.5	23.7	↗ 10%
Other income	13.3	10.8	17.4	8.6	↘	-50%	13.0	1.5	1.7	3.2	1.2	↘ -64%
<b>Costs</b>												
Labour costs	121.6	107.3	119.5	114.6	↘	-4%	109.5	18.9	15.9	14.6	14.2	↘ -3%
Energy costs	51.8	33.9	45.1	53.2	↗	18%	62.1	2.2	1.6	1.7	2.2	↗ 31%
Repair costs	37.1	35.8	39.1	40.9	↗	5%	39.9	4.8	3.9	3.6	4.1	↗ 15%
Other variable costs	32.3	29.9	32.0	30.7	↘	-4%	29.9	4.1	3.1	3.0	3.0	↘ -1%
Non-variable costs	21.7	20.6	21.3	20.5	↘	-4%	-	3.6	3.2	3.3	3.2	↔ 0%
Capital costs	91.6	93.1	88.6	88.7	↔	0%	87.0	6.7	6.1	4.6	4.2	↘ -10%
<b>Economic Indicators</b>												
GVA	200.5	172.6	267.1	249.1	↘	-7%	253.8	15.2	11.4	13.2	12.3	↘ -7%
Gross profit	78.9	65.3	147.5	134.5	↘	-9%	144.4	-3.7	-4.6	-1.4	-1.8	↘ -34%
Net profit	-12.7	-27.7	58.9	45.8	↘	-22%	-	-10.4	-10.6	-6.0	-6.0	↔ 0%
<b>Capital value</b>												
Fleet depreciated replacement value	433.3	422.1	441.7	406.4	↘	-8%	424.0	38.6	31.6	30.5	27.7	↘ -9%
In-year investments	57.8	69.9	23.2	19.7	↘	-15%	-	4.5	2.7	2.8	2.2	↘ -21%
<b>Profitability and development trends</b>												
Net profit margin (%)	-3.7	-9.5	14.6	11.6	↘	-20%	-	-34.9	-46.0	-24.1	-24.1	↔ 0%
development trend	Improved				2370%		Improved				31%	
RoFTA (%)	-2.9	-6.6	13.3	11.3	↘	-16%	-	-27.1	-33.7	-19.6	-21.6	↘ -10%
development trend	Improved				778%		Improved				19%	
GVA per FTE (thousand €)	97.3	93.1	148.0	150.0	↗	1%	-	40.1	35.7	47.1	44.7	↘ -5%
development trend	Improved				33%		Improved				9%	

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

The small scale fleet, defined as vessels below 12 meters using static gears, operate mostly in the Baltic Sea, the sounds and Kattegat. The total amount of income generated by the small scale fleet accounted for €25 million in 2011, which is 6% of the national fisheries income. Total operating costs incurred by the small scale fleet in 2011 equated to €27 million, amounting for more than the total income. Crew costs are a major fishing expense for the small scale fleet and accounted for €14 million in 2011 (Table 5.8). Between 2010 and 2011, total operating costs increased by 2%, largely due to decreased labour costs, which amounted to 57% of total income in 2011.

The Danish long distant water fleet target mainly the deep-water shrimp, *Pandalus borealis* in the North Atlantic, capelin in Greenland waters (ICES area XIV) and herring in the Norwegian Sea (ICES area I and II). The total value of fish landed by long distant water fleet was €29 million in 2011, corresponding to around 7% of the landed value of the Danish fleet (Source: The Danish AgriFish Agency).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.6 Danish fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Danish national fleet in 2011 were €249 million, €135 million and €46 million, respectively. Gross Value Added (GVA), gross profit and net profit decreased 7%, 9% and 22% respectively between 2010 and 2011.

In 2011, the Danish fleet had an estimated (depreciated) replacement value of €406 million and an estimated value of fishing rights of €738 million. Investments by the fleet amounted to €20 million in 2011. Factors causing a change in the capital value of the fleet include variation in investments from year to year and the variation in the value of fishing rights (Table 5.8, Figure 5.6).

### Fleet Segment Level Economic performance

The Danish fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the North Sea, Baltic Sea and North Atlantic. The national fleet consisted of 17 DCF fleet segments in 2011, consisting of 1,079 vessels. 11 of the active fleet segments made losses in 2011, while 4 made an overall profit (net profit information lacking for 2 segments). Table 5.9 provides a breakdown of key performance indicators for all 15 fleet segments in 2011. A short description of the three most important segments in terms of total value of landings is provided below (Table 5.9).

**Demersal trawl / seine 18-24m** – 70 vessels make up this segment which operates predominantly in the North Sea and Skagerrak. The fleet targets a variety of species but in particular demersal species, such as cod, plaice and Norway lobster. In 2011, the total value of landings was around €46 million and 223 FTEs were employed in this fleet segment, contributing to 11% and 16% of the total income from landings generated and FTEs in the Danish fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €11 million and net profit of €2.8 million in 2011. The gross profit of the fleet increased with 3% from 2010-2011, which is mainly due to increased productivity of the fleet.

**Demersal trawl / seine 24-40m** – 39 vessels make up this segment which operates predominantly in the North Sea and Skagerrak. The fleet targets a variety of species but in particular, such as cod, saithe and Northern Prawn. In 2011, the total value of landings was around €56 million and 202 FTEs were employed in this fleet segment, contributing to 14% and 15% of the total income from landings and FTEs generated by the Danish fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €14 million and net profit of €1.5 million in 2010. The gross profit decreased by 28% from 2010 to 2011. The main reason for the decrease in gross profit was increased expenses of fuel.

**Demersal trawl / seine >40m** – 31 vessels make up this segment which operates predominantly in the North Sea and the North Atlantic. The fleet targets a variety of species but in particular pelagic species, such as sandeel, mackerel, herring and sprat. In 2011, the total value of landings was around €192 million and 188 FTEs were employed in this fleet segment, contributing to 48% and 14% of the total income from landings and FTEs generated by the Danish fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €95 million and net profit of €51 million in 2010. The major factors causing the improvement in value of landings is significantly higher prices of herring and mackerel. Employment decreased by 28% during 2010-2011 and the GVA/FTE increased by 31% in the same period, which means that the fleet has managed to reduce employment without reducing the catches significantly. Increased investment is one of the drivers for the increased productivity (measured in GVA/FTE), but is at the same time a major reason why the net profit decreased by 15% from 2010 to 2011.

## Assessment and Future Trends

Overall, the Danish fleet consists of 16 fleet segments, covering both static and active gears and targeting both demersal and pelagic species. The capacity of the Danish fleet has decreased from 2010-2011, when measured in terms of number of active vessels, total gross tonnage or total kilowatt. At the same time, profitability (in terms of both gross and net profits) has decreased significantly. Employment also decreased and this trend is likely to continue over the next couple of years, if the trend of smaller vessels being replaced by larger vessels with better technology is going to continue.

### Small scale fleet

The small scale fleet, which is defined as vessels below 12 meters using static gears, operate mostly in the Baltic Sea, the sounds and Kattegat. The total amount of income generated by the small scale fleet accounted for €26.4 million in 2011, which is 7% of the national income for fisheries. The landings value generated by the Danish small scale fleet has been fairly stable from 2010-2011. The small scale fleet have in 2011 made a loss in gross profit and net profit of €1.8 million Euro and €6 million respectively. The loss in gross profit increased 40% from 2010 to 2011, while the net loss was stable. Whether the small scale fleet can halt the negative trend of the economic performance in the coming years is uncertain.

### Long distance fleet

The Danish long distant water fleet target mainly deep-water shrimp, *Pandalus borealis* in the North Atlantic, capelin in Greenland waters (ICES area XIV) and herring in the Norwegian Sea (ICES area I and II). The total value of fish landed by the long distant water fleet accounted for €29 million in 2011, corresponding to around 7% of the landed value of the Danish fleet (Source: The Danish AgriFish Agency). During the last decade, the landings value of species caught in long distant waters has more than doubled. Whether this trend is going to continue is uncertain.

## Data issues

The available data for 2012 is total income for the national fleet, total fishing effort (days at sea and GT-days) and total landings weight and value. Based on these data, provisional estimations for the costs of 2012 is done and shown in the Tables. Since the estimations are provisional, the numbers should be treated with care.

The calculation of the percentage change of net profit margin and RoFTA from 2008-2010 to 2011 in Table 5.8.2 should be evaluated with care. The reason for this is that the average of 2008-2010 is a really small number and the percentage change to 2011 is therefore getting extremely high (2370% and 778% respectively).

Table 5.9 Main socio-economic performance indicators by fleet segment in the Danish national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Fleet segment	No. of vessels (N)	% Δ <sub>2010-2011</sub>	FTE (N)	% Δ <sub>2010-2011</sub>	Days at sea (days)	% Δ <sub>2010-2011</sub>	Energy consumption (litres)	% Δ <sub>2010-2011</sub>	Value of landings (thousand €)	% Δ <sub>2010-2011</sub>	Weight of landings (thousand tonnes)	% Δ <sub>2010-2011</sub>	GVA (thousand €)	% Δ <sub>2010-2011</sub>	GVA per FTE (€/FTE)	% Δ <sub>2010-2011</sub>	Gross profit (thousand €)	% Δ <sub>2010-2011</sub>	Net profit (thousand €)	% Δ <sub>2010-2011</sub>	Net profit margin (%)	% Δ <sub>2010-2011</sub>	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
DTSVL0010	14	17%	10	81%	594	49%	324	54%	213	67%	89	63%	504	4%	51.8	-42%	-25	-112%	-290	-183%	-24.0	-136%	Weak	59%	Improved
DTSVL1218	156	-7%	285	-9%	19677	-6%	10068	-6%	43821	3%	48180	-17%	23275	-14%	81.6	-6%	6891	-27%	-326	-131%	-0.8	-133%	Weak	89%	Improved
DTSVL1824	70	3%	268	-2%	11123	-5%	11690	-9%	46081	4%	44394	-18%	28175	3%	105.0	5%	11367	3%	2827	207%	5.8	198%	Reasonable	641%	Improved
DTSVL2440	39	-7%	243	-4%	8564	-10%	19331	3%	56353	-8%	57856	-43%	29739	-18%	122.4	-14%	13961	-28%	1484	-77%	2.7	-75%	Reasonable	20%	Improved
DTSVL40XX	31	7%	226	-28%	5321	-12%	31886	-14%	192138	14%	489616	-10%	126041	-5%	557.4	31%	94938	-5%	50678	-15%	30.0	-11%	High	135%	Improved
DRBVL1012	25	4%	17	0%	1702	44%	439	-3%	3068	52%	12755	29%	1803	35%	104.3	35%	862	85%	-51	86%	-1.8	88%	Weak	82%	Improved
DRBVL1218	27	-10%	22	18%	2086	45%	527	34%	4397	32%	21617	25%	2580	55%	117.8	31%	1384	155%	-527	52%	-11.7	68%	Weak	59%	Improved
PGPVL0010	1012	-1%	207	-1%	34974	2%	1900	7%	15382	14%	6119	1%	8822	-5%	42.6	-4%	-1871	-12%	-4597	-5%	-26.2	-2%	Weak	33%	Improved
PGPVL1012	56	-14%	43	-9%	6492	-8%	648	1%	4840	-3%	2322	-8%	2132	-7%	49.7	3%	-17	71%	-663	33%	-15.0	28%	Weak	32%	Improved
PGPVL1218	48	7%	116	30%	5818	-9%	1933	29%	13874	-2%	5110	-26%	8695	17%	74.8	-10%	2354	-7%	-16	87%	-0.1	89%	Weak	99%	Improved
PMPVL1012	26	-10%	26	4%	2229	-21%	672	-10%	1546	-22%	1083	-29%	1386	-16%	53.7	-19%	61	-83%	-736	-18%	-25.5	-24%	Weak	46%	Improved
PMPVL1218	47	-8%	62	-22%	4796	0%	2165	-23%	8835	8%	8463	-5%	4147	-36%	67.4	-19%	857	-60%	-764	-308%	-8.6	-442%	Weak	0%	Stable
PMPVL1824	15	-6%	86	7%	2348	2%	3947	14%	10042	22%	3495	16%	8428	8%	98.3	1%	3349	10%	713	1%	4.7	-17%	Reasonable	204%	Improved
TBBVL1218	11	0%	16	-24%	1185	-32%	715	-24%	2598	-15%	2015	50%	961	-27%	61.7	-5%	42	-81%	-635	-139%	-31.0	-178%	Weak	-103%	Deteriorated
TBBVL1824	18	6%	35	-37%	2105	-17%	1805	-24%	5264	13%	5076	82%	2441	-24%	70.2	19%	379	-13%	-1299	7%	-26.8	-13%	Weak	-79%	Deteriorated

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.4 ESTONIA

### Fleet Structure, Fishing Activity and Production

In 2012, the Estonian fishing fleet consisted of 932 registered vessels, with a combined gross tonnage of 12.8 thousand GT, a total power of 36.8 thousand kW and an average age of 20 years. The size of the Estonian fishing fleet decreased between 2008 and 2012; the number of vessels decreased by 3% and GT and kW decreased by 36% and 27% respectively (Figure 5.7). The main reason for changes in the structure of the national fleet was capacity reduction due to a decommissioning program aimed at achieving balance between the size of the fishing fleet and available fishing opportunities. The decrease mainly took place among trawlers, explaining why the decrease in total fleet GT and kW is greater than the total number of vessels. The number of vessels in the Estonian national fleet increased in 2013. The increase took place mainly in the small scale fleet. As an amount of fishing capacity had been released in other fleet segments, the Ministry of Agriculture decided to use that capacity to meet the additional need for allowing small scale fishing boats entry to the register.

In 2011, the number of fishing enterprises in the Estonian fleet totalled 659, with the vast majority (70%) owning a single vessel. Around 30% of the enterprises owned two to five fishing vessels. Total employment in 2010 was estimated at 1,948 jobs, corresponding to 521 FTEs. The level of employment decreased between 2008 and 2010, with total employed decreasing by 35%. There was a significant drop in the total number employed between 2008 and 2009. The decline occurred mainly in the small scale coastal sector, due to the fact that it became compulsory for all fishermen dealing with commercial fishing to hold a professional certificate (Table 5.10).

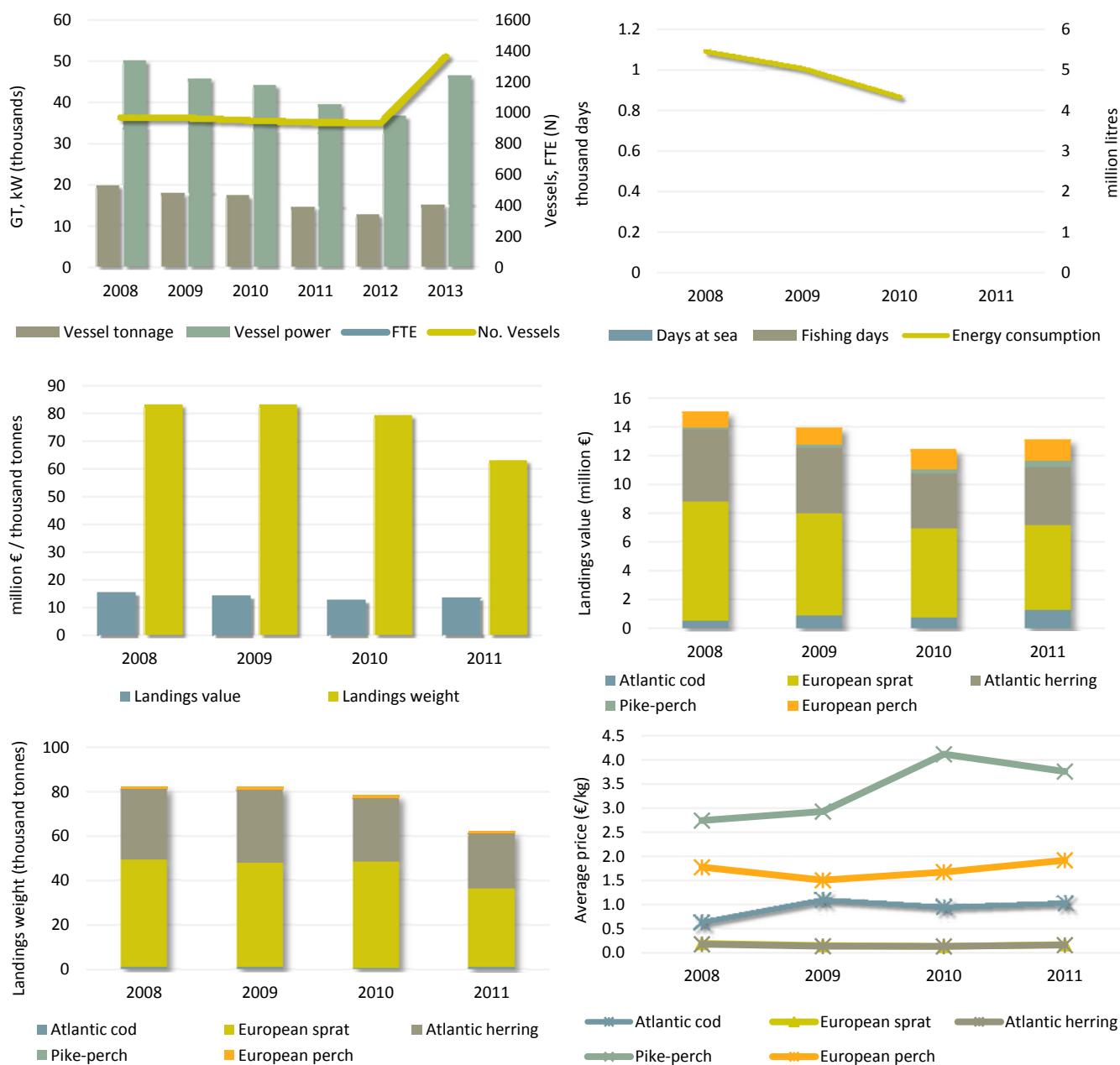
Table 5.10 Estonian national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%).

Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012		
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011				
<b>Structure</b>															
All Vessels	964	963	947	934	-1%	↘	932	1360	880	884	881	876	-1%	↔	872
Inactive vessels	14	22	13	11	-15%	↘	-	-	-	-	-	-	-	-	-
Average vessel age (years)	19	20	21	22	5%	↗	20	20	19	20	21	23	10%	↗	22
GT (thousand tonnes)	19.8	17.8	17.4	14.7	-15%	↘	12.8	15.2	1.8	1.8	1.8	1.7	-1%	↘	1.7
Engine power (thousand kW)	50.3	45.9	44.4	39.6	-11%	↘	36.8	46.6	14.6	14.6	14.5	14.4	-1%	↘	14.6
No. Enterprises (N)	687	686	662	659	0%	↔	-	-	647	649	631	627	-1%	↔	-
<b>Employment</b>															
FTE (N)	n/a	n/a	521	n/a	-	-	-	-	-	309	-	-	-	-	
Average wage per FTE (thousand €)	n/a	n/a	8.8	n/a	-	-	-	-	-	3.3	-	-	-	-	
<b>Fishing Effort</b>															
Days at Sea (thousand days)	n/a	n/a	n/a	n/a	-	-	-	-	-	-	-	-	-	-	
GT fishing days (thousands)	704	636	541	484	-10%	↘	355	-	-	-	-	-	-	-	
Energy consumption (million litres)	5.5	5.0	4.3	n/a	-	-	-	-	0.6	0.6	0.6	-	-	-	
Fuel consumption per kg landed (litre/kg)	0.07	0.06	0.05	n/a	-	-	-	-	0.05	0.04	0.05	-	-	-	
<b>Production</b>															
Landings weight (thousand tonnes)	83.5	83.5	79.6	63.3	-20%	↘	n/a	-	12.6	14.0	11.2	10.3	-8%	↘	-
Landings value (million €)	15.6	14.4	12.9	13.8	7%	↗	n/a	-	3.4	3.5	3.4	3.9	14%	↗	-

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

The volume landed by the Estonian fleet in 2011 was 63.3 thousand tonnes of seafood, with a landed value of €13.8 million. The total volume of landings decreased over the period analysed. However, the total value of landings increased. In 2011, European sprat generated the highest landed value (€5.9 million) by the national fleet, followed by Atlantic herring (€4.1 million) and then European perch (€1.5 million). In terms of landings weight, European sprat landings were 35 thousand tonnes, Atlantic herring landings were 25.3 thousand tonnes and Atlantic cod landings were 1.2 thousand tonnes. The decrease in quotas for the internationally TAC-regulated species (European sprat and Atlantic herring) was the main reason for decreases in total weight landed. The decrease in total landings volumes and persistent demand were the main reasons for price rises in key species. The decrease in quotas also affected vessel energy consumption levels (Figure 5.7).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.7 Estonian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The prices obtained for these key species generally increased between 2008 and 2011. Pike-perch achieved the highest average price per kilo in 2011 (€3.76 per kg), followed by European perch (€1.92 per kg). In terms of turnover, sprat accounted for over 43% of the total landings value in 2011, followed by Atlantic herring at 29% and European perch with 11%.

### National Fleet Economic performance

As Estonia did not submit fleet costs and earnings data for 2011, an adequate overview on the Estonian fleet economic performance and future projections was not possible.

Table 5.11 Estonian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	15.6	14.4	12.9	13.8	↗ 7%	3.9	3.4	3.5	3.4	3.9	↗ 14%	3.9
Other income	0.1	0.1	0.1	-	-	0.1	0.1	0.1	0.1	-	-	0.0
<b>Costs</b>												
Labour costs	5.2	4.8	4.6	n/a	-	-	0.7	1.3	1.0	1.0	n/a	-
Energy costs	3.2	2.2	2.4	n/a	-	-	-	0.6	0.5	0.6	n/a	-
Repair costs	0.8	1.3	1.4	n/a	-	-	-	0.5	0.5	0.6	n/a	-
Other variable costs	1.5	1.4	1.4	n/a	-	-	-	0.4	0.4	0.4	n/a	-
Non-variable costs	0.5	0.6	0.5	n/a	-	-	-	0.0	0.0	0.0	n/a	-
Capital costs	0.9	2.9	2.3	n/a	-	-	0.1	0.2	0.9	0.6	n/a	-
<b>Economic Indicators</b>												
GVA	9.7	9.0	7.3	-	-	-	2.0	2.2	1.9	-	-	-
Gross profit	4.5	4.2	2.7	-	-	-	3.3	0.8	1.1	0.9	-	3.6
Net profit	3.5	1.4	0.5	-	-	-	3.2	0.6	0.2	0.3	-	-
<b>Capital value</b>												
Fleet depreciated replacement value	16.2	16.7	18.2	n/a	-	-	9.1	7.0	6.7	6.7	n/a	-
In-year investments	0.8	1.0	1.7	n/a	-	-	-	0.3	0.2	0.2	n/a	-
<b>Profitability and development trends</b>												
Net profit margin (%)	22.4	9.4	3.4	-	-	-	-	17.0	6.9	9.0	-	-
development trend	Deteriorated				↘ -78%	Deteriorated				↘ -24%		
RoFTA (%)	21.8	8.1	2.5	-	-	-	-	8.6	3.7	9.3	-	-
development trend	Deteriorated				↘ -84%	Improved				↗ 51%		
GVA per FTE (thousand €)	-	-	14.0	-	-	-	-	-	-	6.1	-	-
development trend					-					-		

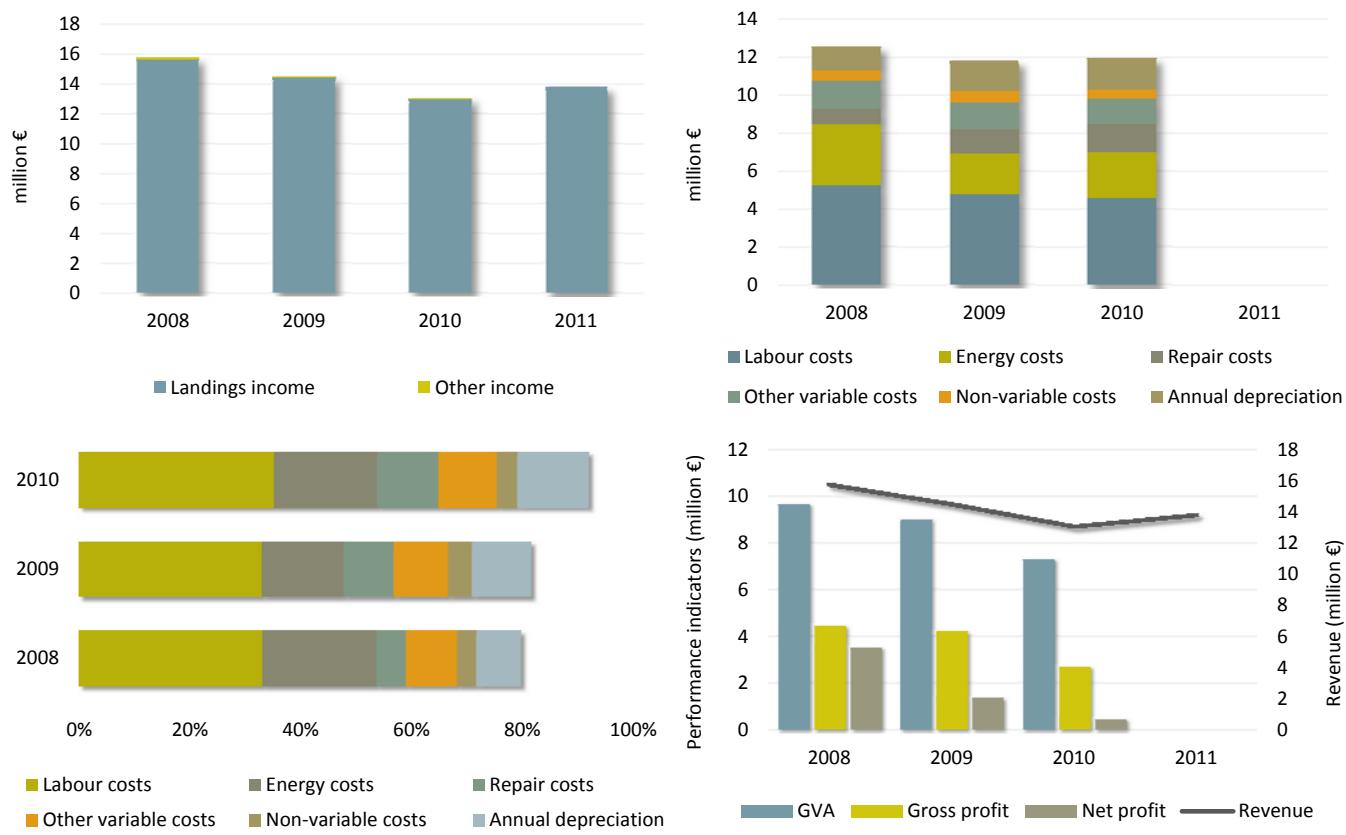
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

## Fleet Segment Level Economic performance

The Estonian fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Baltic Sea and North Atlantic. The national fleet consisted of 6 fleet segments in 2011 (Table 5.12). A short description of the most important segments in terms of total value of landings is provided below.

The 24-40m pelagic trawlers are the most important segment in the Estonian fishing fleet in the Baltic Sea. In 2011 this fleet segment consisted of 32 active vessels accounting for a total of around 4192 GT and 10148 kW. The number of vessels decreased 9% between 2010 and 2011 and total kW and GT followed a broadly similar trend. The segment targets pelagic species such as European sprat and Atlantic herring. The total value of landings was €9.7 million in 2011.

The segment with the highest number of vessels and employment in the Estonian fleet is the 0-10m passive gears segment that operates in the coastal fishery. In 2011 this segment consisted of 790 vessels accounting for a total of around 1,143 GT and 9,982 kW. The number of vessels in this segment was stable between 2010 and 2011. The fleet targets mostly freshwater species, such as Pike-perch, European perch, but also marine species such as European flounder and Atlantic herring. The total value of landings was €2.7 million in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.8 Estonian fleet main economic performance trends 2008-2012.

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

The main management measures in Estonia are volume quotas (ITQs) in the open water fisheries (both Baltic and Atlantic trawling) and gear usage quotas (ITE; individual transferable effort) in the Baltic coastal fisheries. The Estonian experience shows that ITQs can be considered an effective method for increasing the allocation of fishing rights to the most effective enterprises and speeding the process of reducing excessive fleet capacity. The number of trawlers decreased significantly during the ITQ period, since 2001. There were 189 vessels in the trawling sector in 2000, and after ten years this number decreased to 46 and is likely to decrease even further. However, the number of vessels in the Estonian national fleet increased in 2013. The increase takes place in the small scale fleet. As an amount of fishing capacity was released in other fleet segments the Ministry of Agriculture decided to use that in order to meet the additional need for the entry of small scale fishing vessels into the register.

2011 was difficult for a number of trawling companies. Of the 24 engaged in trawling, one terminated its activities during the year because it was no longer profitable to continue. The main reason was significant reduction in fishing quotas (in particular with regard to sprat), but also severe weather conditions and a continued rise in fuel prices. However, the decrease in sales was offset by the rise in first sales prices of fish compared to the preceding year. The higher first sales prices were primarily due to good export conditions. Fisheries subsidies paid in 2011 to fishing companies for permanent cessation of fishing activities by scrapping or permanent reassignment of fishing vessels amounted to nearly one million euros. In addition, €400 thousand were paid for investments on-board fishing vessels.

Due to the continuous decrease in quotas for the internationally TAC-regulated species (European sprat and Atlantic herring) a decrease in total catches was observed in 2012. However, a slight increase in quotas and total catches is expected in 2013. Also the rise in fuel prices will be an important factor influencing fleet economic performance in the coming years.

## Data issues

Estonia did not submit fleet economic data for 2011 due to disagreement between the coordinating institution and the institution engaged in economic data collection. Only capacity and landings data were presented for 2011. The majority of the fleet structure data and some of the effort data are also presented for 2012. Due to confidentiality issues, landings data (volume and value) do not include the deep-sea fleet (over 40m demersal trawlers). There are only two companies operating with 5 vessels in this segment.

Table 5.12 Main socio-economic performance indicators by fleet segment in the Estonian national fishing fleet in 2011.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011		Days at sea (days)		Energy consumption (litres)		% Δ 2010-2011		Value of landings (thousand €)		Weight of landings (thousand tonnes)		% Δ 2010-2011		GVA (thousand €)		GVA per FTE (€/FTE)		% Δ 2010-2011		Gross profit (thousand €)		Net profit (thousand €)		% Δ 2010-2011		Net profit margin (%)		Profitability (2011)		Net profit margin %Δ 2011 - average (2008-10)		Economic development trend	
			FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	% Δ 2010-2011	Net profit margin %Δ 2011 - average (2008-10)	% Δ 2010-2011	Profitability (2011)	% Δ 2010-2011	Net profit margin %Δ 2011 - average (2008-10)	% Δ 2010-2011						
AREA27	TMVL1218	10	-23%	n/a	-	509	-47%	n/a	-	204	-60%	1230	-69%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
AREA27	TMVL2440	32	-9%	n/a	-	4187	0%	n/a	-	9710	8%	51765	-20%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
AREA27	PGVL0010	790	0%	n/a	-	n/a	-	n/a	-	2704	14%	3098	-9%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
AREA27	PGVL1012	86	-4%	n/a	-	n/a	-	n/a	-	1160	14%	7251	-8%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
AREA27	DTSVL40XX	4	0%	n/a	-	n/a	-	n/a	-	n/a	-	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
OFR	DTSVL40XX	1	0%	n/a	-	n/a	-	n/a	-	n/a	-	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.5 FINLAND

### Fleet Structure, Fishing Activity and Production

In 2013 the Finnish fishing fleet consisted of 3,365 registered vessels of which 1,716 were inactive. The active vessels fleet consisted of 1649, with a combined gross tonnage of 12.7 thousand GT and a total power of 117 thousand kW. The vast majority of the vessels were small scale. The number of active vessels remained stable between 2010 and 2011.

The number of fishing enterprises in the 2011 totalled 1,613, with the vast majority (97%), owning a single vessel. Only 3% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 1722 jobs, corresponding to 316 FTEs. The majority of the jobs are created by the small scale fleet. However the employment in that sector is usually only part-time and the FTE of the segment added up to one third of the total employment (Table 5.13).

Table 5.13 Finish national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

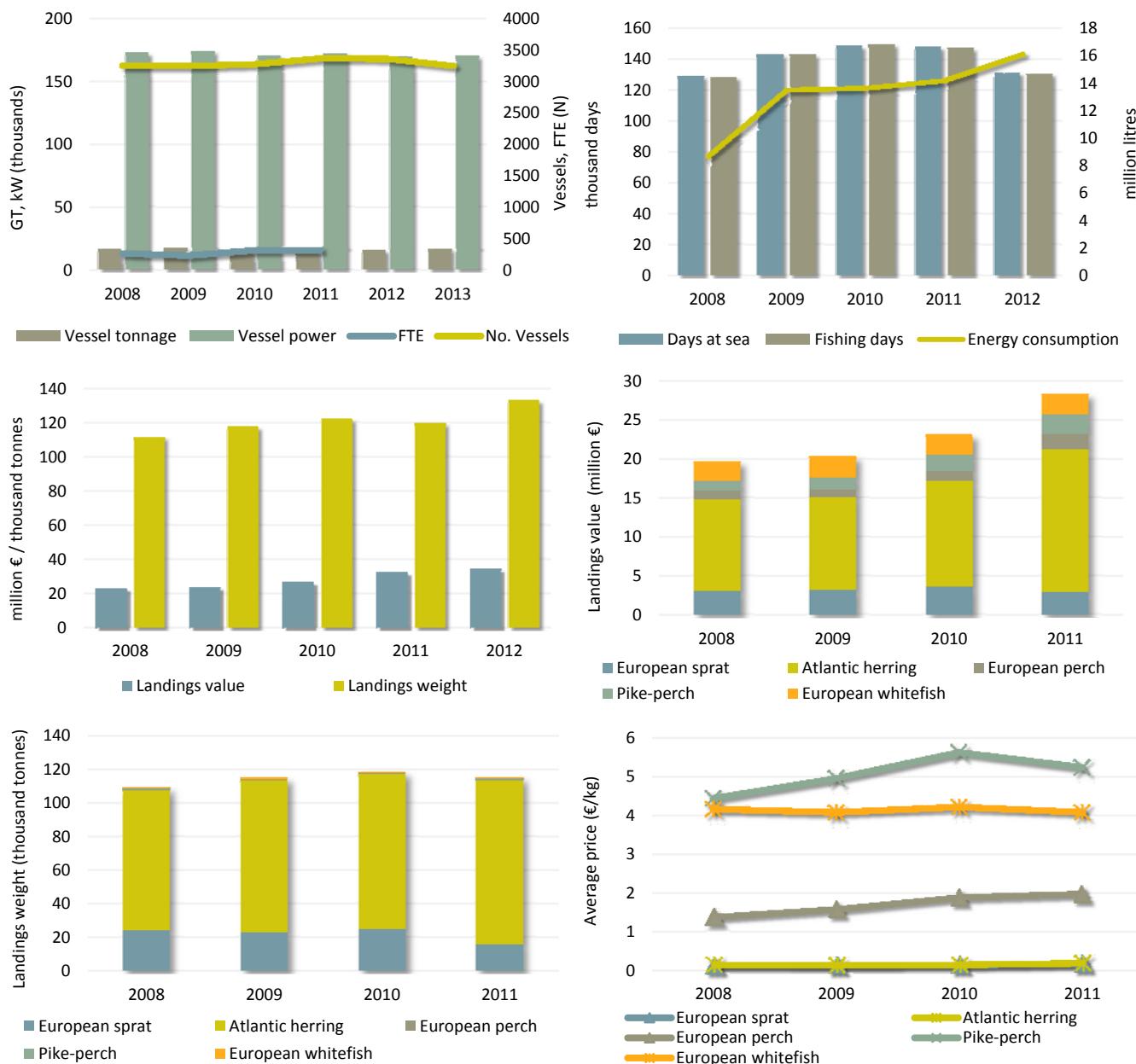
Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012		
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011				
<b>Structure</b>															
All Vessels	3240	3240	3270	3365	3%	↗	3359	3241	1486	1465	1559	1589	2%	↗	1989
Inactive vessels	1687	1709	1662	1716	3%	↗	1310	-	-	-	-	-	-	-	-
Average vessel age (years)	24	24	24	25	2%	↗	25	26	22	22	23	23	3%	↗	23
GT (thousand tonnes)	16.4	16.9	16.4	16.7	2%	↗	15.6	16.4	4.1	3.8	4.1	4.2	1%	↗	4.5
Engine power (thousand kW)	173.4	174.8	171.1	172.8	1%	↔	169.9	170.7	71.9	68.8	74.9	75.8	1%	↗	88.0
No. Enterprises (N)	1549	1531	1579	1613	2%	↗	2018	-	1482	1466	1528	1565	2%	↗	
<b>Employment</b>															
FTE (N)	264	229	313	316	1%	↔	315	-	178	135	220	208	-5%	↘	212
Average wage per FTE (thousand €)	32.2	42.9	21.3	26.6	25%	↗	27.9	-	19.6	34.6	16.1	18.3	14%	↗	11.6
<b>Fishing Effort</b>															
Days at Sea (thousand days)	129.5	143.0	148.9	148.2	-1%	↔	131.6	-	124.2	138.0	145.1	142.8	-2%	↘	125.6
GT fishing days (thousands)	754	751	816	966	18%	↗	1158	-	-	-	-	-	-	-	-
Energy consumption (million litres)	8.7	13.5	13.6	14.2	4%	↗	-	-	1.7	2.6	2.3	2.0	-13%	↘	-
Fuel consumption per kg landed (litre/kg)	0.08	0.11	0.11	0.12	9%	↗	-	-	0.21	0.28	0.23	0.20	-13%	↘	-
<b>Production</b>															
Landings weight (thousand tonnes)	111.5	117.5	122.1	119.7	-2%	↘	133.1	-	8.4	9.4	10.1	10.1	0%	↔	13.3
Landings value (million €)	23.1	23.8	26.7	32.5	22%	↗	34.4	-	7.4	8.2	8.8	10.7	22%	↗	9.8

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013

In 2011 the total effort in days at sea was around 148 thousand days at sea. The small scale fleet accounted for 96% of the total effort. The total number of days at sea remained reasonably stable between 2010 and 2011. In 2012 the long winter decreased significantly the fishing season.

The total volume landed by the Finnish fleet in 2011 was 120 thousand tonnes of seafood, with a landed value of €32.5 million. The total value of landings increased from the previous year despite the fact that the landing volume decreased slightly. In 2012 the volume of landings increased significantly due to a project to remove nutrients from fish through intensive fishing on non-commercial species. Despite a significant increase in volume landed the value of landings decreased.

Pelagic species are the most important species for Finnish fisheries in terms of landings volume and value. In 2011, Baltic herring accounted for the highest landed value (€18.5 million), followed by European sprat (€2.8 million). European whitefish and pike-perch were the most important species for the small scale fleet (Figure 5.9).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.9 Finnish fleet main trends 2008-2012/13.

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The market situation for pelagic species improved in 2011 and the prices for Baltic herring and sprat increased. The development in prices of the main small scale fleet species varied. Prices mostly showed an increasing trend. However the price of the most valuable species, pikeperch, decreased after several years of increases.

## National Fleet Economic performance

The total amount of income generated by the Finnish national fleet in 2011 was €35.5 million. This consisted of €33 million in landings value and €2.5 million in other income. The Finnish fleet's total income increased 22% between 2010 and 2011. However the operating costs also increased and profitability deteriorated from 2010 onwards. Gross profit margin was only 12%, not enough to cover the estimated capital costs and the net profit was negative. The development of the small scale segment followed the same development; profitability deteriorated even more than that of the total fleet. All costs increased from 2010; energy costs increased by one third. Labour productivity remained stable at the total fleet level but deteriorated significantly in the small scale segment. In 2012, landings increased significantly indicating improved profitability for the Finnish fleet. The improvement comes mostly from the pelagic fleet where the market and stock situation were favourable. The fleet had record high catches in 2012 (Table 5.14).

Table 5.14 Finnish national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	24.5	27.4	27.1	33.0	↗ 22%	34.5	9.3	11.9	10.3	10.4	↗ 2%	9.8
Other income	2.3	5.1	3.1	2.5	↘ -19%	2.8	2.0	4.6	2.0	1.6	↘ -19%	1.8
<b>Costs</b>												
Labour costs	8.5	9.8	6.7	8.4	↗ 26%	8.8	3.5	4.7	3.5	3.8	↗ 8%	2.4
Energy costs	5.4	5.9	7.6	10.3	↗ 35%	10.9	1.2	1.5	1.4	1.7	↗ 18%	2.0
Repair costs	3.7	5.0	4.0	4.8	↗ 20%	4.3	1.7	2.9	2.0	2.0	↘ -4%	1.9
Other variable costs	0.9	1.5	2.2	3.0	↗ 32%	2.6	0.4	1.0	1.1	1.3	↗ 24%	1.3
Non-variable costs	3.0	4.2	4.1	5.2	↗ 29%	5.2	1.6	2.8	2.2	2.6	↗ 19%	2.6
Capital costs	2.9	3.5	4.5	4.6	↗ 1%	3.4	1.2	1.5	1.4	1.4	↘ -3%	1.1
<b>Economic Indicators</b>												
GVA	13.7	16.0	12.3	12.3	↔ 0%	14.2	6.2	8.3	5.6	4.5	↘ -19%	3.8
Gross profit	5.2	6.1	5.6	3.9	↘ -31%	5.4	2.8	3.6	2.0	0.7	↘ -64%	1.3
Net profit	2.3	2.7	1.1	-0.7	↘ -163%	2.1	1.5	2.2	0.6	-0.6	↘ -201%	0.2
<b>Capital value</b>												
Fleet depreciated replacement value	63.0	60.7	66.9	69.2	↗ 3%	68.1	16.6	15.5	15.8	17.4	↗ 10%	16.6
In-year investments	5.0	3.4	4.4	15.5	↗ 256%	-	4.6	2.0	3.5	9.3	↗ 169%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	8.7	8.2	3.5	-1.9	↘ -153%	5.6	13.7	13.1	5.1	-5.2	↘ -202%	2.1
<i>development trend</i>				<i>Deteriorated</i>		↘ -128%		<i>Deteriorated</i>				↘ -149%
RoFTA (%)	3.7	4.4	1.6	-1.0	↘ -161%	3.1	22.7	23.3	13.2	5.1	↘ -61%	1.5
<i>development trend</i>				<i>Deteriorated</i>		↘ -130%		<i>Deteriorated</i>				↘ -74%
GVA per FTE (thousand €)	51.9	69.7	39.1	38.9	↔ -1%	45.1	35.1	61.5	25.3	21.8	↘ -14%	17.8
<i>development trend</i>				<i>Deteriorated</i>		↘ -27%		<i>Deteriorated</i>				↘ -46%

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

## Fleet Segment Level Economic performance

The Finnish fleet is based on three main fisheries: pelagic trawlers, offshore vessels with passive gears and small scale fleet. Pelagic trawlers are divided into three size groups. Offshore passive gear vessels target cod and salmon. The small scale fleet is highly diversified with a range of vessel types targeting species in the coastal waters along Finnish coastline. The Finnish fleet as made losses in 2011. Table 5.15 provides a breakdown of key performance indicators for all Finnish fleet segments in 2011. A short description of the most important segments in terms economic and social importance is provided below.

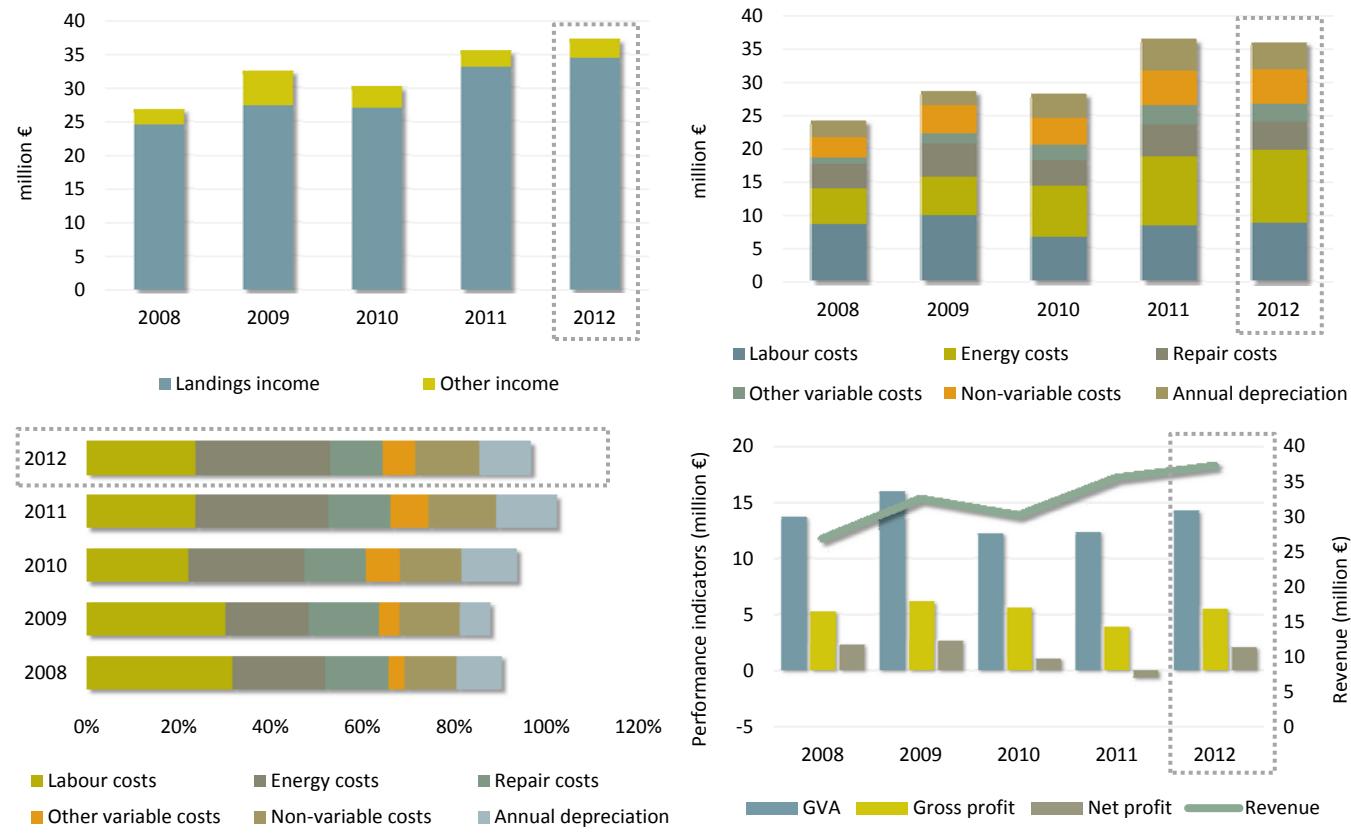
**Pelagic trawlers 24-40m** – This fleet is economically the most important fleet. The fleet targets Baltic herring and sprat in Baltic Sea. In 2011 these 21 vessels accounted for more than half of the total value landed by the Finnish fleet and employed 74 FTE. On average a vessel landing income is around €800,000, employing 3.5 FTEs. The fleet segment made €2.2 million but that was not enough to cover estimated capital costs: The economic performance of the fleet segment deteriorated and it was making losses.

**Pelagic trawlers 18-24m** – This fleet segment consists of 12 vessels. They also target Baltic herring and sprat. The average vessel landings value was €240,000, second highest in the Finnish fleet, and average on-board employment is 1.5 FTE. The segment economic performance improved from the previous year; net profit margin was 17% in 2011.

**Pelagic trawlers 12-18m** – This the smallest pelagic trawler segment in terms of individual vessel size and consists of 21 vessels. The average vessel landings value was significantly lower than that of the bigger vessels, only €69,000. Also a vessel employed less than one FTE on average. However, the segment economic performance improved from the previous year and it was making reasonable net profits (9% margin).

**Passive gears 0-10m** – The coastal small scale fleet is the biggest Finnish fleet segment with 1,548 vessels. The small scale fleet consists of diversified vessels targeting mainly freshwater fish species: European whitefish, pike-perch and perch. In

2011, the total value of landings €10.2 million and Gross value added was €4.2 million, one third of the total national landings value. The coastal fleet is highly seasonal, the total labour input was in 2011 was only 201 FTE. There is also a high variation in the activity of the vessels: the 200 most active fishing units make up around 80% of the total landings. However the average vessel landings value is only €6,600. The economic performance of this fleet deteriorated between 2010 and 2011 to the extent that losses were made overall.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.10 Finnish fleet main economic performance trends 2008-2012:

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and future trends

Baltic herring stocks are currently exceptionally strong especially in the most important fishing grounds in Botnian Bay. Catches in 2012 and the TAC for 2013 for herring are at a record high. The market situation has also been favourable and therefore the economic performance of the pelagic trawlers looks promising for the near future.

Increased seal populations have strongly influenced the Finnish coastal fishery for several years. Many fishermen have had to stop fishing in traditional grounds. There has been a subsidy scheme in place to support fishermen to continue fishing elsewhere. There has been also a pilot project to subsidise intensive fishing for low value fish (mostly cyprinid fish) to remove nutrients from the water system. This has contributed to a new method of fishing and created new markets for non commercial species.

## Data issues

Capacity, logbook and landings data are derived from sources which are covered by different legislations. All these data are available exhaustively. The bigger vessels are covered by log-books and smaller vessels are covered by the coastal fishing report. The low number of non-responses was estimated by strata.

Economic data collection is based on a hierarchical multi-stage survey that combines information from different data sources. The main sources were the central control register on commercial fishery (includes fishery catch data, fishing vessel register, first hand sales of quota species), the financial database in Statistic Finland (SF) and the account survey. Starting in 2009, new account data became available for the coastal fishermen collected by Ministry of Agriculture and Forestry in connection to seal damage compensation applications.

Due to the good coverage of the data collection and an efficient estimation method the achieved precision of the economic variables are satisfactory.

Table 5.15 Main socio-economic performance indicators by fleet segment in the Finnish national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)		FTE (N)		Days at sea (days)		Energy consumption (litres)		Value of landings (thousand €)		Weight of landings (thousand tonnes)		GVA (thousand €)		GVA per FTE (€/FTE)		Gross profit (thousand €)		Net profit (thousand €)		Net profit margin (%)		Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
			% Δ 2010/2011		% Δ 2010/2011			% Δ 2010/2011			% Δ 2010/2011			% Δ 2010/2011			% Δ 2010/2011			% Δ 2010/2011		% Δ 2010/2011				
AREA27	DFNL1218	6	-33%	1	0%	283	-1%	42	-12%	161	-12%	70	-13%	145	30%	145.2	30%	115	67%	81	225%	34.9	160%	High	358%	Improved
AREA27	TMVL1218	21	-5%	15	88%	1169	27%	337	46%	1449	-4%	6449	-30%	822	8%	54.8	-43%	310	-39%	173	-38%	9.3	-56%	Reasonable	40%	Improved
AREA27	TMVL1824	12	0%	18	38%	1078	15%	435	-16%	2864	18%	14893	-5%	1389	6%	77.2	-23%	512	-18%	363	20%	17.1	12%	High	15%	Improved
AREA27	TMVL2440	21	24%	74	4%	2855	18%	11317	8%	17294	26%	88173	1%	5395	20%	72.9	15%	2208	-5%	-719	-444%	-3.7	-357%	Weak	-188%	Deteriorated
AREA27	PGVL0010	1548	2%	201	-4%	141960	-1%	1831	-11%	10244	27%	8134	4%	4204	-14%	20.9	-10%	708	-58%	-484	-189%	-4.3	-187%	Weak	-138%	Deteriorated
AREA27	PGVL1012	41	-13%	7	-30%	824	-60%	209	-27%	496	-35%	1965	-15%	328	-53%	46.9	-33%	21	-94%	-147	-282%	-17.2	-362%	Weak	-1595%	Deteriorated

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.6 FRANCE

### Fleet Structure, Fishing Activity and Production

In 2011 the French fishing fleet consisted of 6,004 registered active vessels, with a combined gross tonnage of 160 thousand GT, a total power of 880 thousand kW and an average age of 21 years. The size of the French fishing fleet decreased between 2008 and 2011, with the number of vessels decreasing by 9% (or 601 vessels) and GT and kW decreasing by 14% and 8% respectively (Table 5.16). The major factors causing the fleet to decrease in size include vessel withdrawals.

The number of active fishing vessels under 12m in 2011 was 5,028, with on-board employment of 5,278 jobs. Active under 12m vessels represented 84% of the number of vessels and 50% of total jobs in the French fishing fleet in 2011. Of the vessels under 12m, 86% used passive gears in 2011 (corresponding to the definition of “small scale fleet” according to the European Commission). The small scale fleet<sup>2</sup> represented 67% of the national fleet in terms of active vessel numbers (4,300 vessels), 47% in terms of engine power (414 thousand kW) and 9% in terms of GT (15 thousand GT).

Table 5.16 French national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11	SMALL SCALE FLEET				%Δ 2010-11	2012	
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011	
<b>Structure</b>												
All Vessels	6605	6475	6102	6004	-2%	$\searrow$	6149	n/a	4589	4629	4373	4300
Inactive vessels	n/a	n/a	n/a	n/a	-	-	22	-	-	-	-	-
Average vessel age (years)	20	21	21	21	3%	$\nearrow$	156	-	19	20	20	20
GT (thousand tonnes)	188	176	164	161	-2%	$\searrow$	884.2	-	16.1	16.2	15.4	15.3
Engine power (thousand kW)	958	929	885	880	-1%	$\leftrightarrow$	4993.0	-	406	418	409	414
No. Enterprises (N)	4166	5093	5185	5059	-2%	$\searrow$	7627	-	2574	3617	3685	3594
<b>Employment</b>												
FTE (N)	8375	9058	8433	7447	-12%	$\searrow$	-	-	2931	3015	2743	2647
Average wage per FTE (thousand €)	46.9	44.5	45.8	55.0	20%	$\nearrow$	-	-	39.8	37.1	38.8	42.0
<b>Fishing Effort</b>												
Days at Sea (thousand days)	n/a	n/a	507.1	492.8	-3%	$\searrow$	-	-	224.4	221.8	-	-1% $\searrow$
GT fishing days (thousands)	n/a	17074	18423	18889	3%	$\nearrow$	-	-	844	1283	1287	0% $\leftrightarrow$
Energy consumption (million litres)	294.6	383.5	357.3	341.6	-4%	$\searrow$	-	-	29.1	33.3	30.8	30.8
Fuel consumption per kg landed (litre/kg)	0.68	0.89	0.80	0.74	-8%	$\searrow$	-	-	1.08	0.62	0.60	0.48
<b>Production</b>												
Landings weight (thousand tonnes)	433.8	431.3	447.2	463.6	4%	$\nearrow$	-	-	26.9	54.1	51.2	64.3
Landings value (million €)	903.7	876.3	924.3	1050.7	14%	$\nearrow$	-	-	110.4	178.3	157.9	190.7

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

Note: employment data for 2011 may still be preliminary

On 1<sup>st</sup> January 2011, the French fishing fleet consisted of 7,211 vessels (including non-active vessels) with a total power of 1,002 thousand kW. Vessel distribution was as follows: 4,627 vessels in Metropolitan France – 3,114 in the Atlantic area, 1,513 in the Mediterranean area and 2,584 vessels in overseas territories (French West Indies: Martinique & Guadeloupe, French Guiana and Reunion).

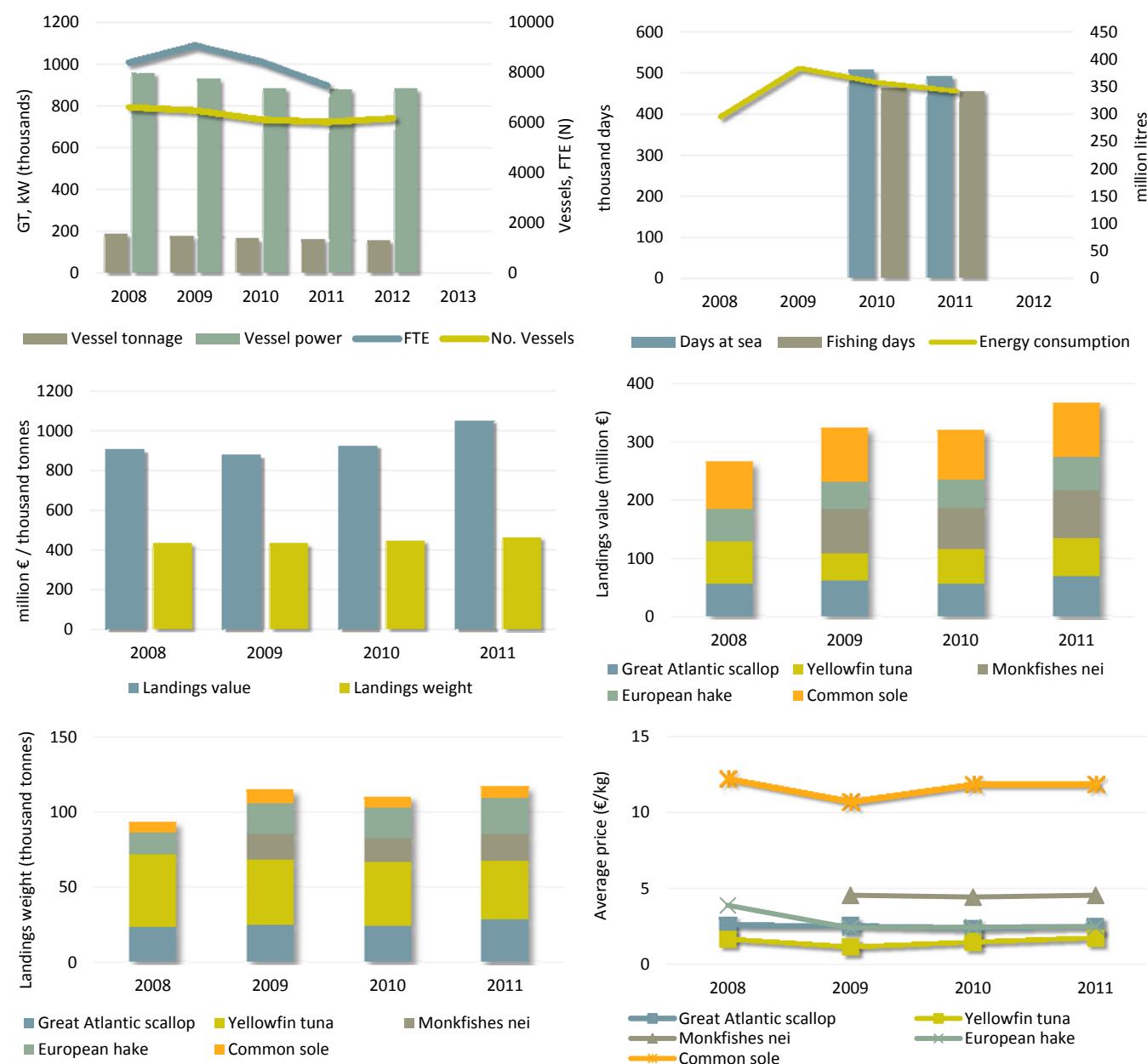
In 2012 the number of fishing enterprises in the French fleet totalled 4,993, with the vast majority (88%), owning a single vessel. Only 12% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 10,720 jobs, corresponding to 7,450 FTEs. The level of employment decreased between 2008 and 2011, with total employed decreasing by 8% (961 jobs) and FTEs decreasing by 11% (928 FTE) over the period. The major factor causing employment to decrease was the decrease in vessels numbers. The small scale fleet represented 71% of national fleet in terms of number of enterprises and 35% in terms of FTEs (2,647 FTEs) in 2011.

<sup>2</sup> See detailed definition of “Small scale fleet” in chapter 5.8.5

In 2011 the French fleet spent a total of around 493 thousand days at sea; 45% of those were attributable to the small scale fleet. The total number of days at sea remained stable between 2010 and 2011. The quantity of fuel consumed in 2011 totalled around 342 million litres, a decrease of around 11% (42 million of litres) from 2009. The major factors causing the decrease in fuel consumption included the decrease in vessel numbers and the increase in fuel price.

The small scale fleet consumed 31 million litres of fuel in 2011, representing 9% of total fuel consumption. Consumption decreased 7% between 2009 and 2010 but remained stable from 2010 onwards. As the fishing activity of the small scale fleet is located near the coast these vessels don't have the same options for reducing fuel consumption compared to the larger vessels that operate further from the coast.

The total volume of seafood landed by the French fleet in 2011 was 464 thousand tonnes, with a landed value of €1,050 million. The total volume landed remained relatively stable while the value increased over the period analysed (2009–2011). In 2011, 'sole' generated the highest landed value (€94 million) by the national fleet, followed by 'monkfish' (€83 million), then 'scallops' (€68 million), then 'albacore tuna' (€66 million) and then 'European hake' (€57 million). In terms of landings weight, in 2011 'albacore and listao tunas' were 87 thousand tonnes, 'scallops' (27 thousand tonnes) and 'pilchard' (24 thousand tonnes). Prices increased globally in 2011 due to a strong increase in international consumption, while landings volumes remained relatively stable.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.11 French fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of value landed in 2011; and bottom right – average landed prices for main species.

The prices obtained for these key species remained relatively stable between 2009 and 2011 except for sole which decreased in 2009 and ‘yellow fin tuna’ which increased slightly. Among those 5 species, ‘sole’ achieved the highest average price per kilo in 2011 (€11.57 per kg), followed by ‘monkfishes’ (€4.45 per kg). Sole accounted for 9% of the total landings value obtained by the French fleet in 2010, remaining stable in 2011, while ‘scallops’ increased slightly from 6% in 2010 to 6.5% in 2011.

The total volume landed by the French small scale fleet in 2011 was 64 thousand tonnes of seafood with a landed value of €190 million. That represented 14% of the total volume and 18% of the total value of the national fleet. In terms of species, ‘sole’ generated the highest landed value by the small scale fleet (€33 million), followed by ‘bass’ (€24 million), ‘whelk’ (€18 million), ‘European lobster’ (€10 million) and ‘scallops’ (€8 million). In terms of landed weight, in 2011 ‘whelk’ and ‘seaweed’ generated the highest landed volumes of 13 and 12 thousand tonnes respectively, which together represented 40% of total volume landed by French small scale fleet.

## National Fleet Economic performance

The total amount of income generated by the French national fleet in 2011 was €1,165 million. This consisted of €1,137 million in landings value and €28 million in non-fishing income. The French fleet’s total income increased 12% between 2010 and 2011. Total operating costs incurred by the French national fleet in 2011 equated to €975 million, amounting to 84% of total income. Crew cost and fuel cost, the two major fishing expenses, were €410 and €213 million respectively, see Table 5.17. Between 2010 and 2011, total operating costs increased 8.5%, largely due to the increase of fuel costs, which amounted to almost 18% of total income in both 2010 and 2011.

Table 5.17 French national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	999.7	1007.6	1011.4	1136.9	↗ 12%	n/a	232.6	232.1	225.6	247.4	↗ 10%	n/a
Other income	15.7	18.3	26.0	19.5	↘ -25%	22.7	3.4	7.7	13.6	5.6	↘ -58%	9.6
<b>Costs</b>												
Labour costs	392.9	403.1	386.2	409.5	↗ 6%	-	116.7	111.9	106.5	111.1	↗ 4%	-
Energy costs	191.4	154.6	179.7	212.5	↗ 18%	-	18.9	14.7	16.4	20.4	↗ 24%	24.1
Repair costs	71.2	85.6	80.6	87.9	↗ 9%	-	12.2	12.5	12.4	12.1	↘ -2%	12.0
Other variable costs	65.3	136.4	104.2	125.5	↗ 21%	-	10.3	19.0	21.8	25.0	↗ 14%	24.7
Non-variable costs	182.6	155.0	147.1	139.6	↘ -5%	143.0	42.4	34.0	32.7	32.4	↘ -1%	31.8
Capital costs	68.0	61.1	77.7	74.0	↘ -5%	65.6	13.2	12.6	15.5	15.2	↘ -2%	13.6
<b>Economic Indicators</b>												
GVA	504.9	494.2	525.9	590.8	↗ 12%	-	152.2	159.7	155.8	163.2	↗ 5%	-
Gross profit	112.0	91.1	139.7	181.2	↗ 30%	-	35.5	47.7	49.4	52.1	↗ 6%	-
Net profit	n/a	n/a	62.1	107.2	↗ 73%	-	n/a	n/a	33.9	36.9	↗ 9%	-
<b>Capital value</b>												
Fleet depreciated replacement value	n/a	n/a	1188.6	1300.7	↗ 9%	1244.6	n/a	n/a	203.3	250.1	↗ 23%	226.7
In-year investments	n/a	n/a	106.4	73.2	↘ -31%	-	n/a	n/a	53.2	30.3	↘ -43%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	-	-	6.0	9.3	↗ 55%	-	-	-	14.2	14.6	↗ 3%	-
<i>development trend</i>												
RoFTA (%)	-	-	5.2	8.2	↗ 58%	-	-	-	16.8	15.6	↘ -7%	-
<i>development trend</i>												
GVA per FTE (thousand €)	60.3	54.6	62.4	79.3	↗ 27%	-	51.9	52.9	56.8	61.6	↗ 8%	-
<i>development trend</i>												
	<i>Improved</i>				↗ 34%		<i>Improved</i>				↗ 14%	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

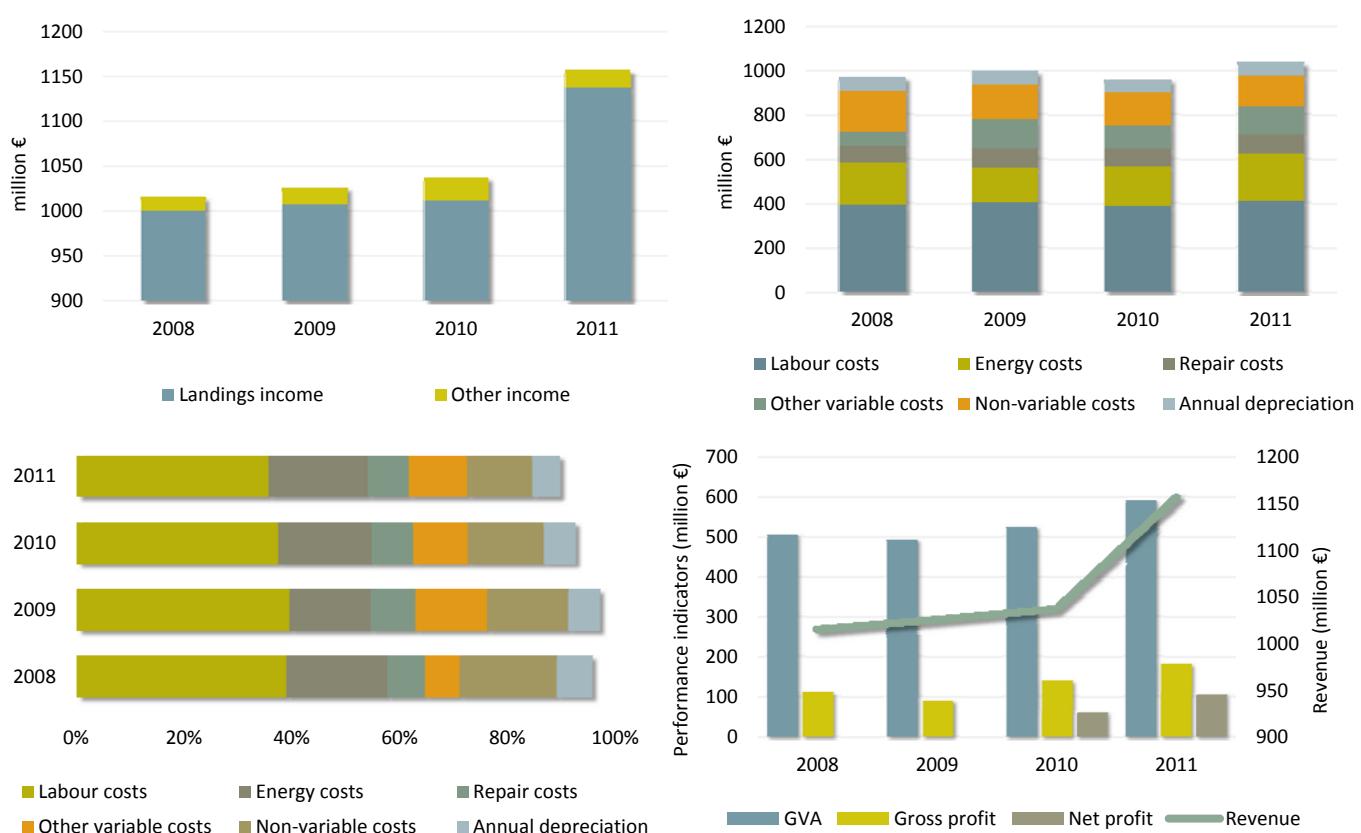
Note: income and expenditure data for 2011 may still be preliminary

The landings value generated by the French small scale fleet in 2011 was €247 million, around 22% of national landings income. Landings income increased 10% between 2010 and 2011. Total operating costs incurred by the French small scale fleet in 2011 equated to €201 million, amounting to 79% of the total income of the small scale fleet, representing 21% of total operating costs at national level. Between 2010 and 2011, total operating costs increased 6%. Crew cost and non-variable cost, the two major fishing expenses, were €111 and €32 million respectively in 2011 and remained relatively stable between 2010 and 2011. The fuel cost the French small scale fleet was €20 million and represented only 9% of national fuel cost. Fuel cost represented 8% of total income by the small scale fleet in 2011 and increased around 24% between 2010 and 2011 while it increased 18% for the national fleet.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the French national fleet in 2011 were €591 million, €181 million and €107 million, respectively. Gross Value Added (GVA), gross profit and net profit increased 12%, 30% and 73% respectively between 2010 and 2011. The major factor causing the improvement in economic performance was the increase in prices and income despite the increasing energy costs in 2011.

For the small scale fleet, the amount of Gross Value Added (GVA), gross profit and net profit generated in 2011 were €163 million, €52 million and €377 million respectively, amounting 28%, 29% and 34% of the respective total amounts at national level. Economic indicators also improved for the small scale fleet between 2010 and 2011 but to a lesser extent when compared to national fleet results.

In 2011, the French fleet had an estimated (depreciated) replacement value of €1,301 million. Investments by the fleet amounted to €73 million in 2011. NB: Take care with this provisional data; a new methodology for calculation for "replacement value" is currently being tested.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.12 French fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Fleet Segment Level Economic performance

The French fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the North East Atlantic, but also in the Mediterranean and in more distant fisheries. Indeed, the national fleet consisted of 103

(DCF) fleet segments in 2011 (DCF gear\*length class). The inactive segments consist in around 1,200 vessels. In 2011, all French active fleet segments generated positive gross profits, except for demersal and pelagic trawlers and purse seiners over 24m fishing in the Mediterranean Sea. Table 5.8.3 contains a breakdown of key performance indicators for the fleet segments active in supra-region 27 in 2011. A short description of the 6 most important segments in terms of total value of landings is provided below.

**Drift and fixed nets 10-12m** – 190 vessels make up this segment which operates predominantly in the North East Atlantic (excluding overseas). The fleet targets a variety of species but in particular common sole, anglerfish and European sea bass. In 2011, total income from landings was almost €52 million and around 435 FTEs were employed in this fleet segment, contributing to 4% and 6% of the total income from landings generated and FTEs in the national fishing fleet, respectively. This fleet segment produced a gross profit of around €11 million and net profit of €6 million in 2011, increasing by 32% and 69% respectively between 2010 and 2011.

**Drift and fixed nets 12-18m** – 87 vessels make up this segment (78 in the North East Atlantic and 9 in the Mediterranean excluding overseas). The fleet targets a variety of species but in particular common sole, anglerfish, turbot, sea bass and spinous spider crab. In 2011, total income from landings was almost €38 million and around 260 FTEs were employed in this fleet segment, contributing to 3% and 3% of the total income from landings generated and FTEs in the national fishing fleet, respectively. The North East Atlantic fleet generated a gross profit of around €5.8 million and net profit of €3.2 million in 2011 (increasing respectively by 12% and 33% between 2010 and 2011).

**Drift and fixed nets 6-12m** – 411 vessels make up this segment which operates exclusively in the Mediterranean Sea. This fleet targets a variety of species but in particular sea bream, European sea bass, common sole, red scorpion fish, cuttlefish and hake. In 2011, the total income from landings was almost €21 million and around 360 FTEs were employed in this fleet segment, accounting for 2% and 5% of national landings income and national FTEs, respectively. This fleet segment generated a gross value added of around €18 million and gross profit of around €7 million in 2011, decreasing by 25% and 44% respectively between 2010 and 2011.

**Demersal trawl / seine 12-18m** – 182 vessels make up this segment and they are all based in the North East Atlantic. These vessels target a variety of species; the top three in terms of value landed in 2011 were *nephrops* (lobster), anglerfish and sole. Total value of landings was €90 million and 404 jobs were supported by this segment in 2011, accounting for 8% and 5% of the national fleet income and national fleet FTEs respectively. This fleet segment generated a gross profit of around €11 million and net profit of €3.7million in 2011, increasing by 4% and 12% respectively between 2010 and 2011. Note that for comparison purposes this segment was not clustered with the same segment in 2010 and 2011 (in 2010: demersal trawl and seine 12-18m = cluster of 169 demersal trawl and seine 12-18m + 34 demersal trawl and seine 18-24m).

**Demersal trawl / seine 18-24m** – 185 vessels made up this segment in 2011, accounting for a total of around 22,000 GT and 74,000 kW. 84% of the vessels in this segment operate in the Atlantic, North Sea and the Channel (155 vessels) and the remaining 30 vessels operate in the Mediterranean Sea. Depending on the supra region or fleet segment, vessels have different fishing activities in terms of target species or number of days at sea. The vessels operating in the Atlantic, North Sea and the Channel target a variety of species, such as angler fish, squids, cod and *nephrops*. In the Mediterranean Sea the vessels target hake, squids and common octopus. In 2011, the total value of landings was almost €141.8 million in the Atlantic, North Sea and the Channel and €11.3 million for Mediterranean Sea. However while turnover increased by 15% on the Atlantic area, it decreased by 18% in the Mediterranean. This fleet segment produced a gross profit of around €17.8 million in the Atlantic area and €0.9 million in the Mediterranean in 2011. Similar to turnover, gross profit increased for the vessels operating in the Atlantic, while gross profit decreased for vessels operating in the Mediterranean compared to 2010.

**Dredgers 12-18m** – 85 vessels made up this segment in 2011 which operates exclusively in the North Atlantic. The fleet mainly targets scallops (for which landings and prices increased in 2011) but also a variety of species as mussel, sole, cuttlefish and clams. In 2011, total income from landings was almost €37 million and around 276 FTEs were employed in this fleet segment, accounting for 3% and 4% of national fleet and national FTEs respectively. This fleet segment generated a gross value added of around €18 million, gross profit of around €5 million and net profit of around €1,4 million in 2011, increasing by 4%, 11% and 98% respectively between 2010 and 2011.

## Assessment and Future Trends

While the capacity of the French fishing fleet has remained relatively stable since 2010 after a strong decrease, total fishing effort continued on a decreasing trend in 2011. 2011 was generally better than 2010 in terms of economic activity. Indeed, a combination of landings increases and average prices resulted in an increase in value of landings of 12% compared to 2010. At the same time, fuel prices remained stable over most of the year, before increasing towards the end. Despite this, profitability remained satisfactory in many fleet segments. Nevertheless, economic performance differs significantly between fleet segments and supra regions (including overseas regions). For instance, vessels using pots and traps, drift and fixed netters 10-12m and dredgers under 12m were highly profitable in 2011, while most of demersal / pelagic trawlers and dredgers over 12m generated only modest profits, mainly due to increase in fuel costs. The economic situation was particularly worrying in the Mediterranean Sea in 2011, particularly due to the lack of abundance in pelagic species. In the

Mediterranean, income for demersal / pelagic trawlers was mainly generated from hake and cephalopods (octopus, squid) landings. Also, the tuna fleet reduced significantly in terms of size as a result of fishing exclusions.

Economic performance remained stable in 2012. However, the rising price of fuel had a direct negative impact on vessel profitability. The most vulnerable segments are obviously the offshore trawlers, a reason why investment in new fuel-efficient vessels or switching to alternative, less fuel intensive fishing techniques (e.g. Danish seine) are solutions proposed to help the vessels maintain profitability. Fleet adaptation is particularly important during what will be an intense regulatory period (i.e. moving toward MSY, discards bans, etc.)

### *Data issues*

In a very limited number of cases, cluster names are identical for two different years however the composition of the cluster is different. Care should be taken when making comparisons, even when the name cluster is identical. This problem will be corrected in the following years, the idea being to retain the same clusters (name and composition) for each year requested under the data call. The 18 over 40m purse seine vessels operating in other fishing regions are based and registered in a French metropolitan port but they operate in the Indian ocean. Only limited data for French hooks 12-18m, 18-24m and 24-40m in the Indian Ocean is available for 2011. The existing small scale fleet definition could be extended in the French case to include all vessels less than 12 meters even if they use active gears as trawls, dredges or various active gears (646 French vessels are concerned in North Atlantic and 39 vessels in Mediterranean Sea in 2011). The capital value and depreciation parameters are provisional and should be used with caution.

Table 5.18 Main socio-economic performance indicators by fleet segment in the French national fishing fleet in 2011.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011		FTE (N)	% Δ 2010-2011		Days at sea (days)	% Δ 2010-2011		Energy consumption (litres)	% Δ 2010-2011		Value of landings (thousand €)	% Δ 2010-2011		Weight of landings (thousand tonnes)	% Δ 2010-2011		(GVA/thousand €)	% Δ 2010-2011		GVA per FTE (€/FTE)	% Δ 2010-2011		Gross profit (thousand €)	% Δ 2010-2011		Net profit (thousand €)	% Δ 2010-2011		Net profit margin (%)	% Δ 2010-2011		Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
			No. of vessels (N)	% Δ 2010-2011		FTE (N)	% Δ 2010-2011		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a		% Δ 2010-2011	n/a			
AREA27	DFNVL0010	333	-9%	299	-16%	44810	19%	3209	-8%	n/a	-	n/a	-	n/a	-	17882	6%	59.8	26%	4926	28%	2368	104%	8.2	95%	Reasonable	-	-									
AREA27	DFNVL1012	190	3%	435	-15%	29880	-1%	7170	9%	n/a	-	n/a	-	n/a	-	32771	9%	75.3	29%	10679	32%	6429	69%	12.4	56%	High	-	-									
AREA27	DFNVL1218	78	-6%	249	-15%	14883	-15%	5253	-10%	38934	-	6962	-	21847	5%	87.7	24%	5851	13%	3253	35%	8.7	29%	Reasonable	-	-											
AREA27	DFNVL1824	40	3%	304	36%	8819	1%	5405	10%	32003	14%	7282	12%	19612	35%	64.5	-1%	6194	58%	-	-	-	-	-	-	-	-	-	-	-							
AREA27	DFNVL2440	24	4%	276	-3%	4806	-4%	8563	95%	28028	41%	12044	28%	20876	19%	75.6	23%	8689	42%	-	-	-	-	-	-	-	-	-	-	-							
AREA27	DTSVL0010	102	6%	79	-14%	14889	-1%	3158	15%	8631	45%	1694	40%	6407	11%	81.1	29%	1721	2%	522	5%	4.4	-13%	Reasonable	-	-											
AREA27	DTSVL1012	163	5%	248	-4%	26350	14%	11597	0%	36317	24%	10155	19%	22356	14%	90.1	19%	7199	16%	3314	58%	8.1	37%	Reasonable	-	-											
AREA27	DTSVL1218	182	12%	404	-19%	38808	8%	31431	3%	86660	17%	21968	2%	43098	11%	106.7	38%	10974	4%	3736	12%	4.1	-7%	Reasonable	-	-											
AREA27	DTSVL1824	155	3%	740	-8%	39289	4%	62024	-5%	153534	-	57928	-	58752	20%	79.4	31%	17858	38%	4450	584%	3.1	504%	Reasonable	-	-											
AREA27	DTSVL2440	63	13%	271	-19%	24667	55%	43138	45%	102399	-	40465	-	26704	46%	98.5	80%	4515	70%	-2640	28%	-3.3	51%	Weak	-	-											
AREA27	DTSVL40XX	10	-9%	210	-9%	2825	-9%	18611	-12%	38476	23%	20566	-17%	20688	44%	98.5	57%	6599	450%	-	-	-	-	-	-	-	-	-	-								
AREA27	FPOVL0010	290	6%	342	5%	33255	13%	3229	-8%	n/a	-	n/a	-	18827	3%	55.1	-2%	5732	13%	3596	20%	11.7	13%	High	-	-											
AREA27	FPOVL1012	58	2%	132	-10%	10357	7%	2300	-14%	n/a	-	n/a	-	10010	4%	75.8	15%	3037	39%	1831	86%	11.2	92%	High	-	-											
AREA27	FPOVL1218	7	-13%	19	-30%	1284	-2%	347	2%	n/a	-	n/a	-	1744	52%	91.8	116%	693	222%	465	-	16.6	-	High	-	-											
AREA27	FPOVL1824	12	0%	53	-17%	2448	5%	1203	-19%	n/a	-	n/a	-	5051	61%	95.3	94%	2173	462%	-	-	-	-	-	-	-	-	-	-								
AREA27	HOKVL0010	269	-1%	194	-26%	27499	-29%	4050	8%	20800	-	3049	-	16692	14%	86.0	54%	4177	0%	-	-	-	-	-	-	-	-	-	-								
AREA27	HOKVL1012	44	-6%	71	-23%	7398	2%	1337	-25%	n/a	-	n/a	-	5557	-3%	78.3	25%	1779	2%	873	10%	9.1	8%	Reasonable	-	-											
AREA27	HOKVL1218	4	0%	13	44%	452	-14%	235	-8%	n/a	-	n/a	-	1185	41%	91.1	-2%	230	27%	-	-	-	-	-	-	-	-	-	-								
AREA27	TMVL1012	9	29%	8	-43%	1460	41%	380	-15%	2910	38%	1838	41%	1316	18%	164.5	106%	309	-6%	126	-19%	5.2	-39%	Reasonable	-	-											
AREA27	TMVL1218	12	-29%	29	-61%	2538	-29%	1462	-54%	7665	-24%	3323	-28%	3739	-22%	129.0	102%	1083	-24%	-	-	-	-	-	-	-	-	-	-								
AREA27	TMVL1824	28	0%	41	-69%	6277	7%	6294	-43%	28061	19%	12228	13%	10497	16%	256.0	273%	2957	114%	387	135%	1.7	134%	Reasonable	-	-											
AREA27	TMVL40XX	3	-25%	119	0%	384	-40%	7315	-2%	15305	-68%	22155	-40%	9446	-4%	79.4	-4%	3684	9%	-	-	-	-	-	-	-	-	-	-								
AREA27	DRBVL0010	79	7%	65	2%	6566	20%	587	-28%	6377	31%	8378	72%	5270	17%	81.1	15%	2001	39%	1210	102%	16.4	85%	High	-	-											
AREA27	DRBVL1012	83	-2%	151	-8%	10274	8%	4314	-6%	17727	39%	12605	3%	12417	20%	82.2	30%	4608	61%	2553	235%	11.9	180%	High	-	-											
AREA27	DRBVL1218	85	-2%	276	1%	15021	8%	11964	3%	33350	21%	17394	26%	18491	4%	67.0	3%	5047	11%	1359	98%	3.6	84%	Reasonable	-	-											
AREA27	DRBVL1824	7	-	21	-	1181	-	1340	-	2984	-	1145	-	1666	-	79.4	-	453	-	279	-	7.4	-	Reasonable	-	-											
AREA27	MGPVL0010	16	-30%	13	-59%	4609	93%	399	-55%	1801	22%	3313	5%	562	-80%	43.2	-51%	104	-91%	-100	-111%	-8.1	-138%	Weak	-	-											
AREA27	MGPVL1012	38	-22%	59	-42%	5458	-17%	2505	-35%	7568	-5%	6513	84%	6189	-15%	104.9	46%	1986	-11%	991	-14%	8.8	1%	Reasonable	-	-											
AREA27	MGPVL1218	31	-	81	-	5810	-	4261	-	12310	-	5540	-	6909	-	85.3	-	2127	-	-	-	-	-	-	-	-	-	-									
AREA27	PGPVL0010	89	2%	101	4%	10541	-3%	1295	39%	n/a	-	n/a	-	7411	75%	73.4	68%	2109	142%	1383	648%	11.4	324%	High	-	-											
AREA27	PGPVL1012	10	-9%	25	0%	1275	-28%	463	54%	2284	-	469	-	1819	72%	72.7	72%	565	94%	251	795%	8.3	414%	Reasonable	-	-											
AREA27	PMPVL0010	60	-8%	66	-15%	6254	-5%	767	-27%	4208	-6%	3046	-14%	4086	-14%	61.9	2%	1416	7%	803	19%	12.4	38%	High	-	-											

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

**Table 5.18 Continued.** Main socio-economic performance indicators by fleet segment in the French national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend	
AREA27	PMPVL1012	72	0%	125	-3%	11177	12%	2378	-4%	18014	50%	12776	51%	9035	-16%	72.3	-13%	2957	-15%	1509	-27%	10.3	-12%	High	-	-
AREA27	PMPVL1218	9	-	26	-	1562	-	685	-	2954	-	1013	-	2147	-	82.6	-	850	-	-	-	-	-	-	-	
AREA27	PSVL1218	29	-	126	-	4281	-	1773	-	19364	-	23968	-	11885	-	94.3	-	3271	-	1981	-	11.4	High	-	-	-
AREA27	PGOVL0010	119	-	123	-	6691	-	388	-	5333	-	7114	-	5800	-	47.2	-	1893	-	-	-	-	-	-	-	
AREA27	MGOVL0010	143	-	79	-	14295	-	1408	-	2480	-	424	-	8064	-	102.1	-	2929	-	-	-	-	-	-	-	
AREA27	MGOVL1012	9	-	4	-	505	-	107	-	813	-	91	-	500	-	125.0	-	246	-	-	-	-	-	-	-	
OFR	HOKVL1218	19	6%	52	-	n/a	-	856	-	n/a	-	n/a	-	3518	-	67.7	-	2564	-	-	-	-	-	-	-	
OFR	HOKVL1824	8	0%	37	-	n/a	-	1703	-	4872	141%	1271	210%	1046	-	28.3	-	159	-	-	-	-	-	-	-	
OFR	PSVL40XX	18	0%	438	6%	n/a	-	47296	-2%	n/a	-	56015	63%	127.9	54%	20328	197%	-	-	-	-	-	-	-	-	
OFR	PGOVL0010	64	-9%	n/a	n/a	n/a	-	n/a	-	37	159%	6	-34%	-	-	-	-	n/a	-	-	-	-	-	-	-	
AREA37	DFNVL1218	10	-23%	11	-31%	497	92%	88	-24%	198	-	27	-	205	-65%	18.6	-49%	40	-62%	-	-	-	-	-	-	-
AREA37	DFNVL0612	411	1%	360	1%	17256	-3%	2191	-17%	6255	35%	942	8%	17706	-25%	49.2	-26%	7327	-44%	-	-	-	-	-	-	-
AREA37	DFNVL0006	79	7%	43	-10%	2439	26%	230	8%	938	116%	184	32%	2216	34%	51.5	50%	827	74%	-	-	-	-	-	-	-
AREA37	DTSVL1824	30	-12%	80	-19%	5336	-15%	5680	-31%	n/a	-	n/a	-	4326	-28%	54.1	16%	984	-25%	-	-	-	-	-	-	-
AREA37	DTSVL2440	42	2%	140	-15%	-	-	15724	-7%	n/a	-	n/a	-	4273	-34%	30.5	-23%	-733	-180%	-	-	-	-	-	-	-
AREA37	FPOVL0612	37	-	47	-	977	-	293	-	1066	-	195	-	2079	-	44.2	-	626	-	-	-	-	-	-	-	
AREA37	FPOVL0006	80	8%	51	6%	2256	-3%	117	3%	1274	30%	208	20%	2111	63%	41.4	53%	746	116%	-	-	-	-	-	-	-
AREA37	HOKVL0612	40	-	23	-	1853	-	272	-	746	-	98	-	1704	-	74.1	-	911	-	-	-	-	-	-	-	
AREA37	HOKVL0006	6	-	3	-	158	-	18	-	261	-	54	-	102	-	34.0	-	34	-	-	-	-	-	-	-	
AREA37	DRBVL0612	11	-8%	5	4%	186	-34%	81	-36%	82	-18%	15	-25%	211	-28%	42.1	-31%	62	-36%	-	-	-	-	-	-	-
AREA37	MGPVL2440	6	-33%	14	-67%	981	-50%	2144	-52%	2977	-	1822	-	1821	10%	130.1	229%	387	330%	-	-	-	-	-	-	-
AREA37	PGPVL0612	76	-	64	-	3339	-	409	-	1919	-	301	-	2338	-	36.5	-	709	-	-	-	-	-	-	-	
AREA37	PGPVL0006	51	-12%	38	6%	1788	-2%	226	53%	1177	237%	212	112%	1556	45%	41.0	37%	485	43%	-	-	-	-	-	-	-
AREA37	PMPVL0612	18	-	10	-	770	-	152	-	654	-	144	-	605	-	60.5	-	231	-	-	-	-	-	-	-	
AREA37	PMPVL0006	8	-	7	-	209	-	31	-	68	-	11	-	249	-	35.6	-	87	-	-	-	-	-	-	-	
AREA37	PSVL1218	9	-	14	-	169	-	87	-	615	-	484	-	438	-	31.3	-	61	-	-	-	-	-	-	-	
AREA37	PSVL2440	14	40%	n/a	-	518	51651%	992	118%	5272	-25%	1194	63%	2013	-48%	-	-	-164	-107%	-	-	-	-	-	-	-
AREA37	PSVL40XX	3	-63%	n/a	-	106	-	n/a	-	n/a	-	n/a	-	n/a	-	-	-	-	-	-	-	-	-	-	-	
AREA37	PSVL0612	13	-19%	26	-21%	887	19%	179	-28%	909	-13%	265	-26%	974	-20%	37.5	2%	269	80%	-	-	-	-	-	-	-
AREA37	PGOVL0612	70	-5%	52	0%	1128	-16%	177	4%	293	180%	49	-38%	1372	-27%	26.4	-27%	430	-21%	-	-	-	-	-	-	-
AREA37	PGOVL0006	61	-10%	36	-10%	618	-35%	77	-50%	508	50%	98	-9%	1252	-32%	34.8	-25%	442	-29%	-	-	-	-	-	-	-
AREA37	MGOVL0612	13	-7%	16	-3%	594	46%	120	47%	158	164%	61	52%	548	-26%	34.3	-24%	107	-41%	-	-	-	-	-	-	-

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.7 GERMANY

### Fleet Structure, Fishing Activity and Production

On Jan. 1, 2012 the German fishing fleet consisted of 1564 registered vessels, with a combined gross tonnage of 62 thousand GT, a total power of 142 thousand kW and an average age of 29 years. The size of the German fishing fleet decreased between 2008 and 2012, with the number of vessels decreasing by 16% and GT and kW by 7% and 8% respectively (Figure 5.13). The major factors causing the fleet to decrease include low profitability of certain fisheries coinciding with a high number of fishermen close to the age of retirement with no successors to the business. A ‘one off’ special arrangement occurred in 2011; a time limited option to permanently transfer quota from one vessel to another if the vessel then left the fleet.

Vessels which targeted blue mussels were excluded from the analysis because they are defined as operating in the aquaculture sector. Moreover, the pelagic trawler fleet is excluded from the analysis except for capacity data as practically the entire segment is owned by one parent company and for confidentiality reasons the data cannot be published.

In 2012 the number of fishing enterprises in the German national fleet totalled 1,053, with the vast majority (72%), owning a single vessel. Only 27% of enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 1,639 jobs, corresponding to 1,258 FTEs. The level of employment decreased between 2008 and 2011 by about 21%. The major factors causing employment to decrease are the same as for the decrease in fleet size.

Table 5.19 German national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

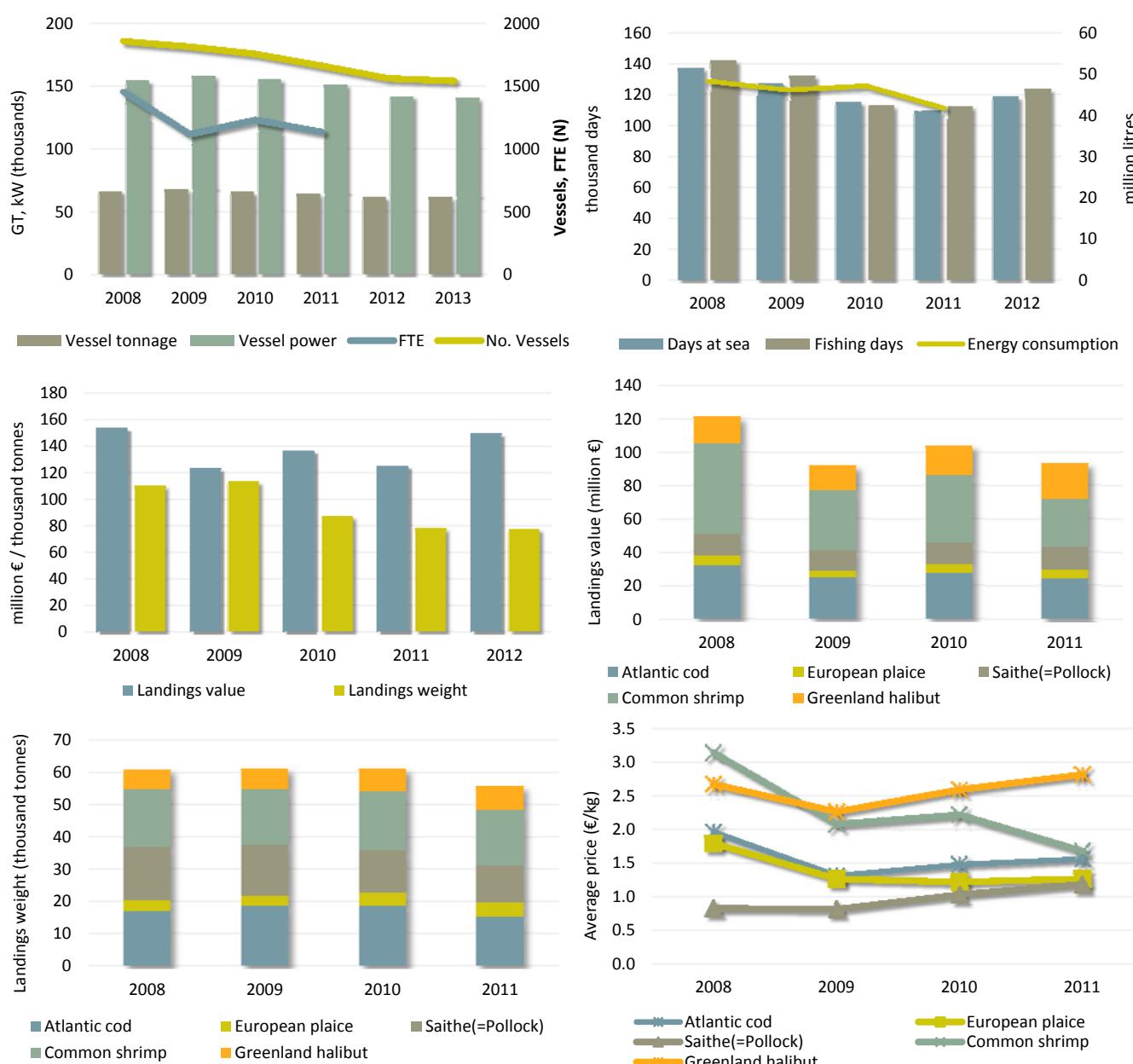
Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012	
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011			
<b>Structure</b>														
All Vessels	1861	1817	1759	1664	-5%	↘	1564	1543	961	939	903	883	-2% ↘	852
Inactive vessels	513	506	499	437	-12%	↘	411	367	-	-	-	-	-	-
Average vessel age (years)	27	28	28	29	4%	↗	29	30	24	24	25	25	0% ↔	26
GT(thousand tonnes)	66.6	67.9	65.9	64.6	-2%	↘	62.1	61.8	2.6	2.6	2.5	2.4	-4% ↘	2.3
Engine power (thousand kW)	154.7	158.3	155.8	151.4	-3%	↘	142.2	140.8	23.8	23.9	23.4	22.6	-3% ↘	22.7
No. Enterprises (N)	1293	1245	1198	1128	-6%	↘	1053	-	779	748	707	680	-4% ↘	-
<b>Employment</b>														
FTE (N)	1615	1238	1365	1258	-8%	↘	1182	-	790	464	654	664	2% ↗	649
Average wage per FTE (thousand €)	26.0	36.1	33.3	34.2	3%	↗	34.1	-	3.8	7.1	3.5	4.0	16% ↗	2.4
<b>Fishing Effort</b>														
Days at Sea (thousand days)	137.5	127.6	115.1	109.4	-5%	↘	118.6	-	87.5	78.5	70.3	70.2	0% ↔	75.2
GTfishing days (thousands)	5338	5829	5431	5169	-5%	↘	5024	-	n/a	n/a	n/a	n/a	-	-
Energy consumption (million litres)	48.3	46.1	47.1	41.6	-12%	↘	-	-	1.7	1.5	1.1	1.2	12% ↗	-
Fuel consumption per kg landed (litre/kg)	0.44	0.41	0.54	0.53	-2%	↘	-	-	0.14	0.15	0.14	0.19	36% ↗	-
<b>Production</b>														
Landings weight (thousand tonnes)	110.2	113.7	87.3	78.1	-11%	↘	77.8	-	12.2	9.6	7.9	6.5	-17% ↘	8.0
Landings value (million €)	153.9	123.3	137.0	125.4	-8%	↘	149.8	-	10.9	7.8	7.7	7.5	-4% ↘	8.8

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2012 the German fleet spent a total of around 119 thousand days at sea, a decrease of around 14% between 2008 and 2012. The major factor causing the decrease in days at sea was the decrease in capacity. The quantity of fuel consumed in 2011 totalled around 42 million litres, a decrease of around 14% from 2008. The major factors causing the decrease in fuel consumption were the reduction in total effort and the increase in the fuel price.

The total volume landed by the German (non-pelagic) fleet in 2012 was 78 thousand tonnes of seafood, with a landed value of €150 million. The total volume and value of landings decreased over the period analysed. In 2012, brown shrimp generated the highest landed value by the national fleet (€57.3 million), followed by cod (€29.1 million), Greenland halibut (€17.1 million), saithe (€11.3 million) and then plaice (€5.5 million). In terms of landings weight, in 2012 the total amount of cod landed was 18.5 thousand tonnes, brown shrimp was 16.4 thousand tonne) and saithe was 9.4 thousand tonnes. The trend in landed volume shows no clear tendency. The major factor influencing the value of landings of brown shrimp is price. While prices decreased considerably in 2011, they increased considerably in 2012; this is thought to be due to the formation

of a producer organisation which took over the first sale of catches, achieving a much stronger position against the first buyers. The buyer market is dominated by two companies.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.13 German fleet main trends 2008-2012/13.

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The prices obtained for the other key species varied slightly between 2008 and 2012. Brown shrimp achieved the highest average price per kilo in 2012 (€3.51 per kg), followed by Greenland halibut (€2.75 per kg). Brown shrimp accounted for 22% of the total landings value obtained by the German non-pelagic fleet in 2012, increasing to 38% of total income in 2012, while the Greenland halibut share decreased from 17% in 2011 to 11% in 2012.

### National Fleet Economic performance

The total amount of income generated by the German national (non-pelagic) fleet in 2011 was €131 million. This consisted of €127 million in landings value and €4 million in non-fishing income. The German (non-pelagic) fleets' total income decreased by around 14% between 2008 and 2011. Total operating costs incurred by the German national (non-pelagic) fleet in 2011 equated to €115 million, 88% of total income. Labour cost and fuel costs, the two major fishing expenses, were €34 and €26 million respectively (Table 5.20). Between 2010 and 2011, total operating costs remained stable.

Table 5.20 German national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	149.8	122.5	135.6	125.9	↘ -7%	146.6	10.7	7.6	7.7	7.3	↘ -4%	7.6
Other income	2.7	3.2	4.5	3.8	↘ -17%	4.1	0.5	0.7	0.8	1.3	↗ 55%	1.1
<b>Costs</b>												
Labour costs	42.0	44.7	45.5	43.0	↘ -5%	50.3	3.0	3.3	2.3	2.7	↗ 18%	1.6
Energy costs	26.3	19.4	23.0	26.0	↗ 13%	33.8	1.2	0.8	0.8	0.9	↗ 6%	1.0
Repair costs	18.8	18.7	18.7	18.5	↘ -1%	20.1	1.9	2.0	1.2	1.6	↗ 38%	1.6
Other variable costs	24.3	12.5	10.0	10.9	↗ 9%	11.8	1.4	1.4	1.3	1.1	↘ -17%	1.1
Non-variable costs	22.1	15.1	14.3	16.4	↗ 15%	15.5	2.2	1.9	1.6	2.1	↗ 34%	2.1
Capital costs	26.5	26.7	24.4	21.2	↘ -13%	21.4	1.7	1.9	1.9	1.7	↘ -14%	1.7
<b>Economic Indicators</b>												
GVA	60.9	59.9	74.1	57.8	↘ -22%	69.6	4.5	2.3	3.6	2.9	↘ -19%	2.9
Gross profit	18.9	15.3	28.7	14.8	↘ -48%	19.3	1.6	-1.0	1.4	0.3	↘ -81%	1.3
Net profit	-7.5	-11.5	4.3	-6.4	↘ -249%	-2.1	-0.2	-2.9	-0.6	-1.4	↘ -144%	-0.4
<b>Capital value</b>												
Fleet depreciated replacement value	110.9	110.5	99.4	97.9	↘ -2%	98.7	7.8	7.7	7.5	7.4	↘ -2%	7.5
In-year investments	18.4	24.8	21.8	24.8	↗ 14%	-	2.7	4.1	3.3	2.7	↘ -20%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	-5.0	-9.1	3.1	-4.9	↘ -261%	-1.4	-1.4	-34.6	-6.8	-16.3	↘ -141%	-4.5
development trend	Deteriorated				↘ -34%	Deteriorated				↘ -14%		
RoFTA (%)	-6.8	-10.4	4.3	-6.5	↘ -252%	-2.1	-0.3	-35.4	-3.7	-11.9	↘ -224%	-5.2
development trend	Deteriorated				↘ -52%	Improved				↗ 9%		
GVA per FTE (thousand €)	37.7	48.4	54.3	45.9	↘ -15%	58.9	5.7	4.9	5.5	4.4	↘ -20%	4.4
development trend	Stable				↘ -2%	Deteriorated				↘ -18%		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the German (non-pelagic) fishing fleet in 2011 were €58 million, €15 million and €-6 million, respectively. Gross Value Added (GVA), gross profit and net profit decreased 5%, 22% and 15% respectively from 2010 to 2011. The major reason causing the deterioration in economic performance was the decrease of the price of brown shrimp. In 2011, the German non-pelagic fishing fleet had an estimated (depreciated) replacement value of €98 million. Investments by the fleet amounted to €25 million in 2011. There was no major activity in building new vessels, and investments refer mainly to replacement of worn or written off assets.

## Fleet Segment Level Economic performance

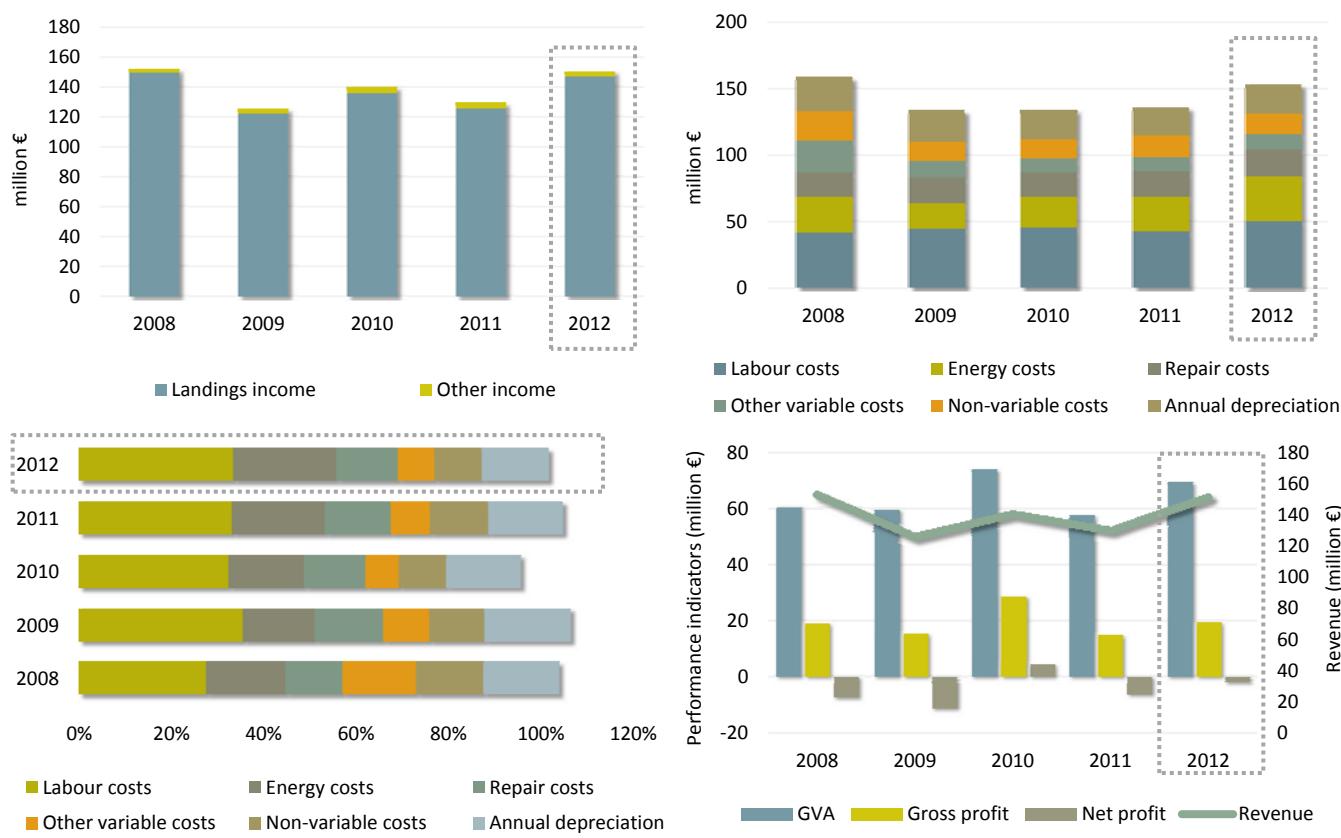
The German fishing fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the North Sea with Eastern Arctic, The Baltic Sea and the Western Atlantic. The pelagic fleet also partly operated in the Pacific and in Mauritanian and Moroccan waters. Beam trawlers operate exclusively in the coastal North Sea, whereas almost all smaller vessels using fixed gear operate in the Baltic Sea. Smaller demersal trawlers mainly fish in the Baltic Sea, while larger ones (>30m) fish in the North Sea, Eastern Arctic and Greenland waters. Few larger drift netters fish in Western Atlantic waters.

The national fleet consisted of 21 active (DCF) fleet segments in 2012, with 6 inactive length classes consisting of 372 vessels. Several of the segments contain too few vessels to be presented individually and have therefore been clustered. Thus Table 5.21 contains economic data for 13 vessel groups, excluding the pelagic segments for confidentiality reasons. Ten of the active fleet segment clusters made an overall gross profit in 2011 while three made losses. Table 5.21 provides a breakdown of key performance indicators.

In general, 2011 was an unremarkable year for the German fishing fleet. MSC certification was achieved for several fisheries, which had a positive effect on fish prices. High seas fisheries suffered partly from decreased quota, but were able to

counterbalance this with increased landings of other species. The North Sea plaice stock was assessed at an all-time high in terms of biomass. The fishery has developed positively, but at the same time prices decreased. This stock is to some extent targeted by demersal trawl cutters. These vessels also target cod and saithe. Saithe quota had been lowered, causing some problem for the fishery, however Baltic cod quota increased so that potential losses could be partly compensated. The small scale coastal fleet was still suffering from low herring quotas. Some pelagic trawlers' herring quota was therefore assigned to the artisanal coastal fleet to help alleviate the problem.

The main change in German fisheries affected the **Beam trawl 12-18m and 18-24m** vessels – 188 vessels made up these two segments 2011, operating exclusively in coastal areas of the North Sea, targeting mainly brown shrimp and employing around 125 FTEs. In 2011 the total value landed by these vessels was almost €27 million, accounting for approximately 21% of the total landings income generated by the German non-pelagic fishing fleet. These fleet segments were not particularly profitable in 2011, with a reported gross profit of around €3.4 million and an estimated net loss of around €1.9 million. These segments were significantly affected by a 50% price decrease compared to 2010. This development led to a fishermen's strike in spring 2011 which caused a reduction in total effort. As a consequence several fishermen decided to retire or to quit the brown shrimp fishery. In 2012 however, prices increased considerably and the outlook was more positive.



*Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.*

Figure 5.14 German fleet main economic performance trends 2008-2012.

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

### National Fleet

The German fishing fleet decreased further in size in 2012 in terms of vessels numbers. The number of vessels in the high seas fleet remained stable. The number of cutters and small scale fishing vessels decreased, thus continuing the long term trend. Fleet segments were affected differently by price and quota developments.

### Small scale Fleet

The most striking development for the cutter fleet was the considerable increase in revenues from brown shrimp landings; the price more than doubled after the 2011 crash. Therefore, the economic situation became satisfactory again for the beam

trawl fleet. The North Sea plaice stock is at an all-time high, and thus quota increased as well. However, the benefit for the fleet was limited due to decreasing prices.

Saithe fisheries in the North Sea were satisfactory. The lower quota was fully exploited and prices remained stable. The MSC certification of this fishery has been renewed and again proven conducive for marketing. The Nephrops fishery has become more and more important for the German cutter fleet due to the possibility of international quota exchange.

The Cod fishery in the North Sea was unsatisfactory due to slow stock recovery and resulting low quota. Baltic cod quota had increased, but it could not be fully exploited. The considerable stock increase led to a lack of food. Thus the fish showed signs of malnutrition which resulted in decreasing prices.

Baltic flounder was successfully marketed in China. This is a promising development and might further benefit Baltic fishermen in the future.

The Baltic herring fishery was good, and the increased quota could be fully exploited. Some high seas quota was internally assigned to the small scale fishery to improve the economic situation of this sector.

### **Long Distant Water Fleet**

According to the German fishing industry, 2012 was a profitable year for demersal trawlers, while for the pelagic trawlers the picture was stable. Cod fisheries in the Svalbard, Barents Sea and Greenland areas were efficient; and quota was fully utilised. The Greenland halibut fishery was very efficient and led to positive results. The saithe fishery in Norwegian waters did not fulfil expectations. The demersal high seas fleet did not perform any fishing activities in the North Sea. Quota was exchanged with the cutter fleet.

The pelagic fleet experienced good results in the North Sea and North Atlantic fisheries on herring, jack mackerel and mackerel. The quota for blue whiting was unsatisfactory, but as partial compensation argentine could be targeted in parallel for the first time after several years. Some fisheries for both pelagic and demersal redfish were opened up in 2012.

Pelagic fisheries in Mauritanian waters took place for a short period only. Other activities outside ICES/NAFO areas did not take place in 2012: negotiations with Morocco and Mauritania failed in the end, and the fishery in the South Pacific had become unprofitable in 2011 so that it was no longer targeted.

### **Data issues**

Capacity, logbook and landings data are derived from sources which are covered by different legislations. All these data are available exhaustively. That means that all capacity, landings and effort data are represented at 100%. The only exception is the group of vessels <8m without logbook obligation. These vessels are sampled for effort data. The remaining variables (cost, employment, fuel consumption) are estimated based upon results from an accountants' network and from surveys with questionnaires.

The data basis for fleet segment level estimations has been further improved. All fleet segments with major contribution to the total catches of the German fleet have been sampled with satisfactory response rates. As segments are not necessarily homogeneous, the results can be quite variable which is reflected in higher coefficients of variation. Some leaps in time series might be due to an improvement in data coverage, with the latest data being most reliable as the raising procedure is based on more comprehensive information.

The improvement of the estimation procedure is an on-going process. All data for the pelagic fleet except for capacity have been collected but not published for confidentiality reasons. As in previous years, this affects regional analyses. The pelagic fleet mainly operates in the North Sea and North Atlantic (herring, mackerel, blue whiting), temporarily also in the Pacific (jack mackerel). Data on pelagic fisheries in the Baltic are hardly affected, as they are performed on a seasonal basis, and vessels are assigned to the DTS segment, which reflects their major activity during the year.

The German fishing fleet contains a small number of pelagic vessels which are owned by a reduced number of companies and therefore, for confidentiality reasons, it is impossible to publish this data by segment. Clustering the pelagic vessels with other vessels is not feasible as the pelagic vessels have unique characteristics that would completely bias "pure" segments when clustered. Therefore, the only pelagic fleet data in this report is capacity data, which is public, so please consider this when interpreting national totals; the German pelagic fleet accounts for a substantial part of the national fleets' costs and earnings.

Vessels which targeted blue mussels were excluded from the analysis because they are defined as operating in the aquaculture sector. Moreover, the pelagic trawler fleet is excluded from the analysis except for capacity data as practically the entire segment is owned by one parent company and for confidentiality reasons the data cannot be published.

Table 5.21 Main socio-economic performance indicators by fleet segment in the German national fishing fleet in 2011.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011		Days at sea (days)		Energy consumption (litres)		Value of landings (thousand €)		Weight of landings (thousand tonnes)		GVA (thousand €)		GVA per FTE (€/FTE)		Gross profit (thousand €)		Net profit (thousand €)		% Δ 2010-2011		Net profit margin (%)		Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
			FTE (N)	% Δ 2010-2011			% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011		% Δ 2010-2011				
AREA27	DFNVL1218	10	-17%	14	0%	1041	-10%	53	-20%	1621	-19%	587	-27%	1281	-25%	91.5	-25%	52	-93%	-124	-127%	-7.5	-134%	Weak	-141%	Deteriorated	
AREA27	DFNVL2440	9	0%	69	-1%	1719	-2%	1302	1%	5830	-12%	1228	-22%	985	-75%	14.3	-75%	-479	-122%	-1049	-182%	-17.9	-195%	Weak	4%	Stable	
AREA27	DTSVL1012	16	0%	8	-11%	1402	4%	332	7%	1029	0%	1250	-26%	431	-18%	53.9	-7%	32	-87%	-155	-295%	-10.9	-261%	Weak	39%	Improved	
AREA27	DTSVL1218	33	-11%	28	-10%	3180	-15%	1086	-16%	3266	-3%	4821	-19%	1798	-19%	64.2	-11%	379	-50%	-561	-104%	-15.0	-118%	Weak	-76%	Deteriorated	
AREA27	DTSVL1824	29	-3%	71	-8%	3908	-7%	3575	3%	12493	18%	8770	-1%	6623	-1%	93.3	7%	2268	-32%	-326	-146%	-2.5	-141%	Weak	-129%	Deteriorated	
AREA27	DTSVL2440	13	-19%	53	-15%	2217	-18%	5208	31%	17161	-2%	10712	-19%	9116	-9%	172.0	6%	5115	18%	2899	60%	16.9	65%	High	226%	Improved	
AREA27	DTSVL40XX	8	0%	166	0%	2203	8%	17825	10%	43775	6%	25653	-5%	18649	-10%	112.3	-10%	3186	-50%	-2718	-30%	-6.2	-21%	Weak	55%	Improved	
AREA27	TBBVL1012	19	19%	11	22%	1592	21%	145	32%	459	-25%	249	-1%	184	-43%	16.8	-53%	-157	-223%	-255	-1123%	-53.8	-1402%	Weak	-4956%	Deteriorated	
AREA27	TBBVL1218	127	-5%	82	-41%	11656	-29%	4419	-36%	16436	-30%	9928	-10%	9360	-31%	114.1	17%	2532	-50%	-153	-106%	-0.9	-109%	Weak	-108%	Deteriorated	
AREA27	TBBVL1824	61	0%	57	-37%	5970	-28%	3507	-34%	10334	-29%	6055	-6%	4679	-41%	82.1	-7%	827	-72%	-1752	-471%	-16.2	-629%	Weak	-524%	Deteriorated	
AREA27	TBBVL2440	9	0%	35	-19%	1157	-33%	2906	-59%	5614	-30%	2320	-12%	1723	-38%	49.2	-24%	744	-41%	-788	-939%	-13.9	-1288%	Weak	-245%	Deteriorated	
AREA27	PGVL0010	817	-2%	613	1%	63536	0%	948	16%	5378	1%	4192	-13%	2116	-18%	3.5	-19%	379	-72%	-780	-3191%	-12.6	-2966%	Weak	-13%	Deteriorated	
AREA27	PGVL1012	66	-8%	51	4%	6621	0%	292	-1%	2075	-15%	2320	-24%	814	-21%	16.0	-24%	-118	-2102%	-623	-4%	-25.6	-20%	Weak	-23%	Deteriorated	

*Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

## 5.8 ITALY

### Fleet Structure, Fishing Activity and Production

In 2012, the Italian fishing fleet consisted of 14,828 registered vessels, with a combined gross tonnage of 183 thousand GT, a total power of 1237 thousand kW and an average age of 28 years. The size of the Italian fishing fleet remained quite stable in relation to the previous year. The larger segment within the fleet is the small scale fleet, which is composed of vessels under 12m, typically using passive gears like set nets, long-lines, pots and traps. They are mostly managed on a family and artisanal basis. This segment contains around two thirds of all Italian fishing vessels (8,879), but due to their small size – on average around 2 GT per vessel - they only account for 9% of the total tonnage of the national fleet.

In 2010, the number of fishing enterprises in the Italian fleet amounted 8,782, with the vast majority (89%), owning a single vessel. Only 9% of the enterprises owned two to five fishing vessels and 3% owned more than six vessels (most of them represented by fishing cooperatives). Total employment in 2011 was estimated at 17,541 FTEs (harmonised) while the employment level, measured by mean of the national threshold (1,600 hours per year), amounted to 20,599 FTEs – see Table 5.22. The level of employment decreased between 2010 and 2011, with the number of FTEs decreasing by 6% over the period. The negative trend is mostly due to the decline in the physical and economic productivity of the Italian fleet.

Table 5.22 Italian national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

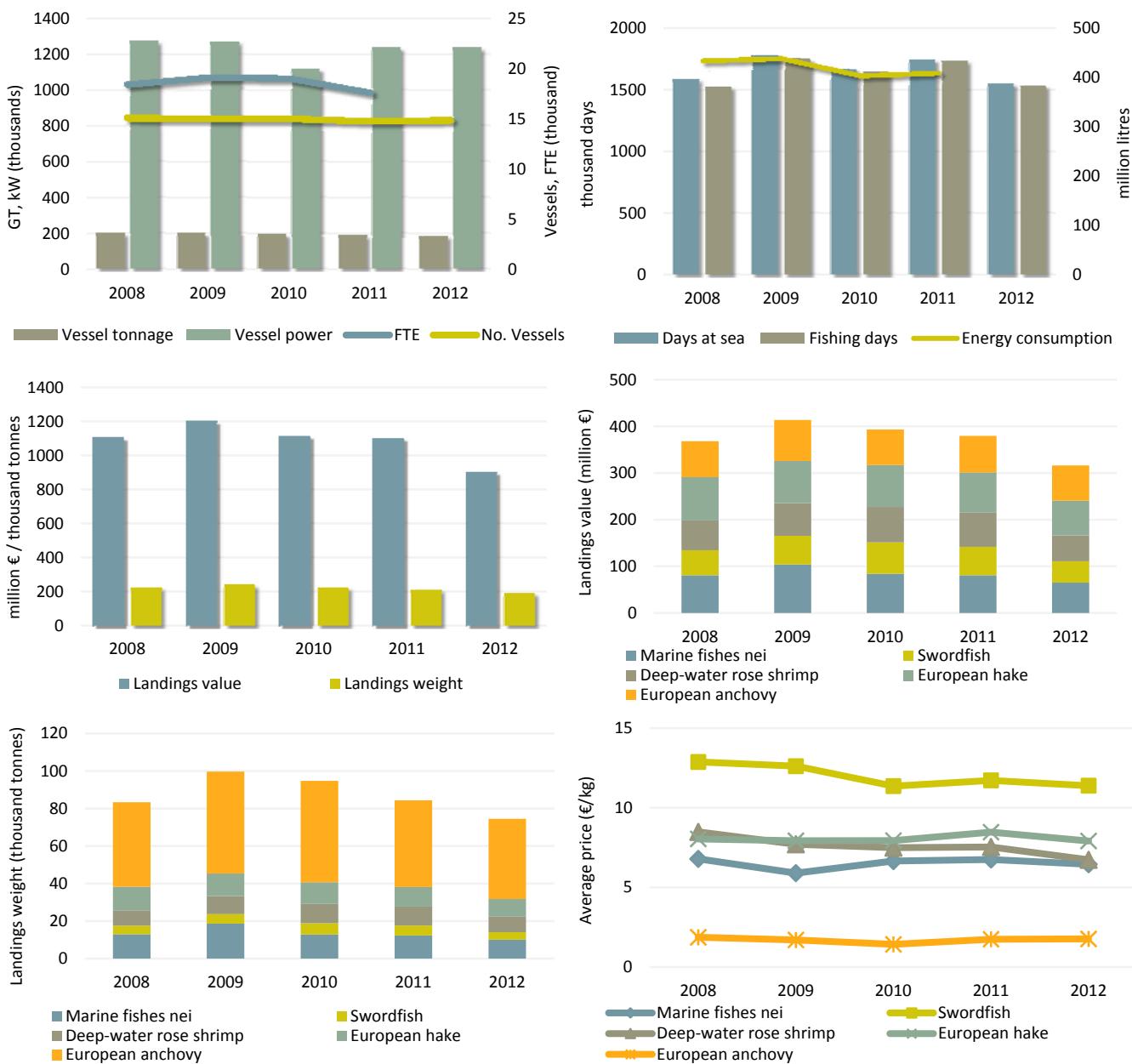
Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012	
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011			
<b>Structure</b>														
All Vessels	15038	14977	14969	14715	-2%	↘	14828	-	8872	8840	8813	8875	1% ↔	8779
Inactive vessels	1568	1603	1685	1396	-17%	↘	1750	-	-	-	-	-	-	-
Average vessel age (years)	27	27	28	28	2%	↗	28	-	30	31	31	32	2% ↗	31
GT(thousand tonnes)	199.0	197.6	191.2	185.0	-3%	↘	183.0	-	16.6	16.6	16.6	17.2	3% ↗	16.9
Engine power (thousand kW)	1272.8	1270.7	1118.6	1236.5	11%	↗	1237.1	-	243.6	245.5	248.9	256.0	3% ↗	252.3
No. Enterprises (N)	9960	8663	8782	n/a	-	-	-	5991	5962	5907	n/a	-	-	-
<b>Employment</b>														
FTE (N)	21728	22303	22002	20599	-6%	↘	20758	-	9666	10193	10004	9996	0% ↔	10067
Average wage per FTE (thousand €)	12.2	16.2	14.4	13.6	-6%	↘	9.7	-	7.8	9.8	8.7	8.4	-3% ↓	5.1
<b>Fishing Effort</b>														
Days at Sea (thousand days)	1590.8	1782.8	1667.8	1748.5	5%	↗	1555.8	-	988.8	1151.7	1070.0	1177.9	10% ↗	1034.1
GT fishing days (thousands)	25626	26100	25478	23311	-9%	↘	25103	-	2099	2327	2284	2484	9% ↗	2295
Energy consumption (million litres)	433.0	437.6	402.7	408.2	1%	↗	-	-	56.8	64.1	59.3	74.6	26% ↗	-
Fuel consumption per kg landed (litre/kg)	1.91	1.80	1.79	1.92	7%	↗	-	-	1.73	1.66	1.76	2.03	15% ↗	-
<b>Production</b>														
Landings weight (thousand tonnes)	227.1	242.4	224.8	212.4	-6%	↘	194.2	-	32.8	38.6	33.7	36.7	9% ↗	32.0
Landings value (million €)	1105.7	1202.0	1114.8	1101.0	-1%	↘	905.2	-	258.5	303.7	276.5	297.2	8% ↗	243.7

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

Note: capacity data refers to the average fleet over the reference year (2008-2011); capacity data for 2012 includes fleet at 1<sup>st</sup> January; 2010 Effort data excludes oceanic fleet; only partial 2010 landings data for oceanic fleet

The national fleet activity amounted to 1,748 thousand days at sea in 2011, an increase of 5% compared to 2010. The increase in activity was essentially due to small-scale fishing vessels, which registered an increase of 10% in days at sea. Fair weather through the autumn, and especially in November and December, enabled a general increase in activity levels, particularly within this fleet segment. As a consequence of the slight increase in fishing activity, the quantity of fuel consumed by the Italian national fleet in 2011 increased by around 1% compared to 2010, at around 408 million litres. Given the increase in activity levels for small scale vessels, the amount of energy consumed by this segment increased significantly in 2011 compared to 2010 (+26%).

The total volume of seafood landed by the Italian fleet in 2011 was 212 thousand tonnes, with a landed value of €1,101 million. The total volume and value of landings decreased over the period analysed (-6% in 2011 compared to 2010). In 2011, European hake generated the highest landed value (€86 million), followed by European anchovy (€78 million), deep water rose shrimp (€73 million) and Swordfish (€61 million). In terms of landings weight, in 2011 the volume of European anchovy landed was 46 thousand tonnes, European hake was 10 thousand tonnes, Deep water rose shrimp was also 10 thousand tonnes and Swordfish was 5 thousand tonnes.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.15 Italian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

Several factors resulted in a decrease in total captures and unitary productivity. Changes in fishing zones due to increased production costs and changes in catch composition in order to target the most sought-after species on domestic and International markets. The new restrictions imposed by the Mediterranean Regulation 1967/2006 also had a direct effect on production. These involved mesh size, distance from the coast, and minimum size of several species, resulting in fishing activity modifications. Finally, new control regulations and sanctions, which cover all operations from capture to sales, have induced changes in fishing operations, including the most traditional operations, although these restrictions mostly affected mobile gears (trawlers); the level of production by the small scale fleet increased in 2011 (+9%).

In 2012 both effort and production variables decreased: a decrease of 11% in activity levels, mostly due to the reaction of fishermen to the increase in fuel price, largely affected total volume of landings (-%). The reduction in days at sea in 2012 should also be attributed to the cessation of activity by those fishermen, especially those employed on board trawlers, for whom a social compensation (in Italy called "cassa integrazione") was paid by the Government. Nevertheless, the market did not follow the classical rules of lower production volumes and higher prices. Indeed, in 2012 a 10% decrease in average first sales prices caused a larger decrease in the level of income from landings (-18%), being one of the main causes of the decrease of most of the economic indicators. The decrease in production also seems to have strongly affected the small scale segment, for which there were decreases of 13% and 18% is registered in volume and value of landings respectively in 2012. Prices obtained for the key species increased between 2010 and 2011. Swordfish achieved the highest average price

per kilo in 2011 (€11.39 per kg), followed by European hake (€8.23 per kg) and deep water rose shrimp (€7.33 per kg). Between 2011 and 2012 prices of the main species remained stable, with the exception of European anchovies which increased from €1.40 per kg to €1.70 per kg.

## National Fleet Economic performance

The total amount of income generated by the Italian national fleet in 2011 was €1,101 million, exclusively composed of income from landings, a decrease of 1% from 2010. According to provisional 2012 data, a further and larger decrease (-18%) in the income from landings occurred, thought due to both a decrease in the volume and price of landings. Total operating costs incurred by the Italian national fleet in 2011 amounted to €798 million, equal to 72% of total income. Crew cost and fuel costs, the two major cost items, were €280 and €302 million respectively, see Table 5.23. Between 2010 and 2011, total operational costs increased by 2%, largely due to the significant increase in fuel costs (+27%), which amounted to almost 27% of total income in 2011 (compared to an average of 19% in the two previous years and the same as in 2008, the year of the fuel crisis). The general deterioration of economic profitability of the industry has also had a negative impact on labour costs; in 2011 crew salaries, due to the share contract, fell considerably compared to the previous years (-12% compared to 2010), and are expected to decrease further in 2012 based on provisional estimates.

Table 5.23 Italian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet					%Δ 2010-11	2012	Small scale fleet					%Δ 2010-11	2012
	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012		
<b>Income</b>														
Landings income	1105.6	1202.0	1114.9	1101.0	905.3	↘ -1%	905.3	258.5	303.7	276.5	297.2	243.7	↗ 8%	243.7
Other income	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Costs</b>														
Labour costs	265.5	360.7	317.5	279.7	244.0	↘ -12%	244.0	75.0	99.7	86.9	83.8	50.9	↘ -4%	50.9
Energy costs	302.7	203.9	238.5	302.0	321.5	↗ 27%	321.5	39.7	29.9	34.9	55.2	72.7	↗ 58%	72.7
Repair costs	47.1	47.0	46.3	44.6	39.7	↘ -4%	39.7	14.2	14.2	14.2	14.0	15.4	↘ -1%	15.4
Other variable costs	132.4	143.4	135.3	130.9	116.5	↘ -3%	116.5	27.3	32.3	29.5	31.6	34.8	↗ 7%	34.8
Non-variable costs	43.8	44.6	41.9	40.6	40.9	↘ -3%	40.9	11.1	11.1	11.1	10.9	11.0	↘ -1%	11.0
Capital costs	200.3	228.8	220.3	223.6	220.7	↗ 1%	220.7	37.2	42.1	46.9	48.2	47.3	↗ 3%	47.3
<b>Economic Indicators</b>														
GVA	579.6	763.0	652.9	582.9	386.7	↘ -11%	386.7	166.2	216.4	186.8	185.5	109.7	↔ -1%	109.7
Gross profit	314.1	402.4	335.5	303.2	142.7	↘ -10%	142.7	91.3	116.7	99.9	101.7	58.8	↗ 2%	58.8
Net profit	113.8	173.6	115.1	79.6	78.0	↘ -31%	78.0	54.1	74.6	53.1	53.4	11.6	↔ 1%	11.6
<b>Capital value</b>														
Fleet depreciated replacement value	928.2	918.6	974.2	917.9	946.1	↘ -6%	946.1	137.7	144.0	168.0	172.9	170.4	↗ 3%	170.4
In-year investments	69.1	70.1	50.2	35.2	8.9	↘ -30%	8.9	9.3	1.9	10.1	423%			
<b>Profitability and development trends</b>														
Net profit margin (%)	10.3	14.4	10.3	7.2	-8.6	↘ -30%	-8.6	20.9	24.6	19.2	18.0	4.8	↘ -6%	4.8
development trend	Deteriorated				↘ -38%		↘ -38%	Deteriorated				↘ -17%		
RoFTA(%)	12.3	18.9	11.8	8.7	-8.2	↘ -27%	↘ -39%	39.6	52.1	31.8	30.9	6.8	↘ -3%	6.8
development trend	Deteriorated				↘ -25%		↘ -25%	Deteriorated						
GVA per FTE (thousand €)	26.7	34.2	29.7	28.3	18.6	↘ -5%	↘ -6%	17.2	21.2	18.7	18.6	10.9	↔ -1%	10.9
development trend	Deteriorated				↘ -3%		↘ -3%	Stable						

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Note: income from landings and expenditure data for 2010 include only partial data on the oceanic fleet

The costs and earnings of the small scale fleet followed a different trend to that of the national fleet; between 2010 and 2011 the landings value increased by 8%, energy costs show a higher increase (+58%) while for the total operating costs increased by 9%.

According to provisional 2012 estimates, despite an estimated increase in employment levels both in the national fleet and the small scale fleet (in terms of FTE, see Table 5.23), a further decrease in labour costs can be expected, mostly due to the decrease in the level of income. Energy costs are also projected to increase. This increase is not due to activity levels (which actually show a decrease) but is due to the increase in fuel price in 2012. It is important to highlight that the estimated economic performance of 2012 is obviously influenced by assumptions. Indeed, some differences in the value of cost items can be found when comparing data estimated in Table 5.23 (by mean of the methodology agreed by STECF EWG 11-03) and data estimated by mean of the Bemmtool model.

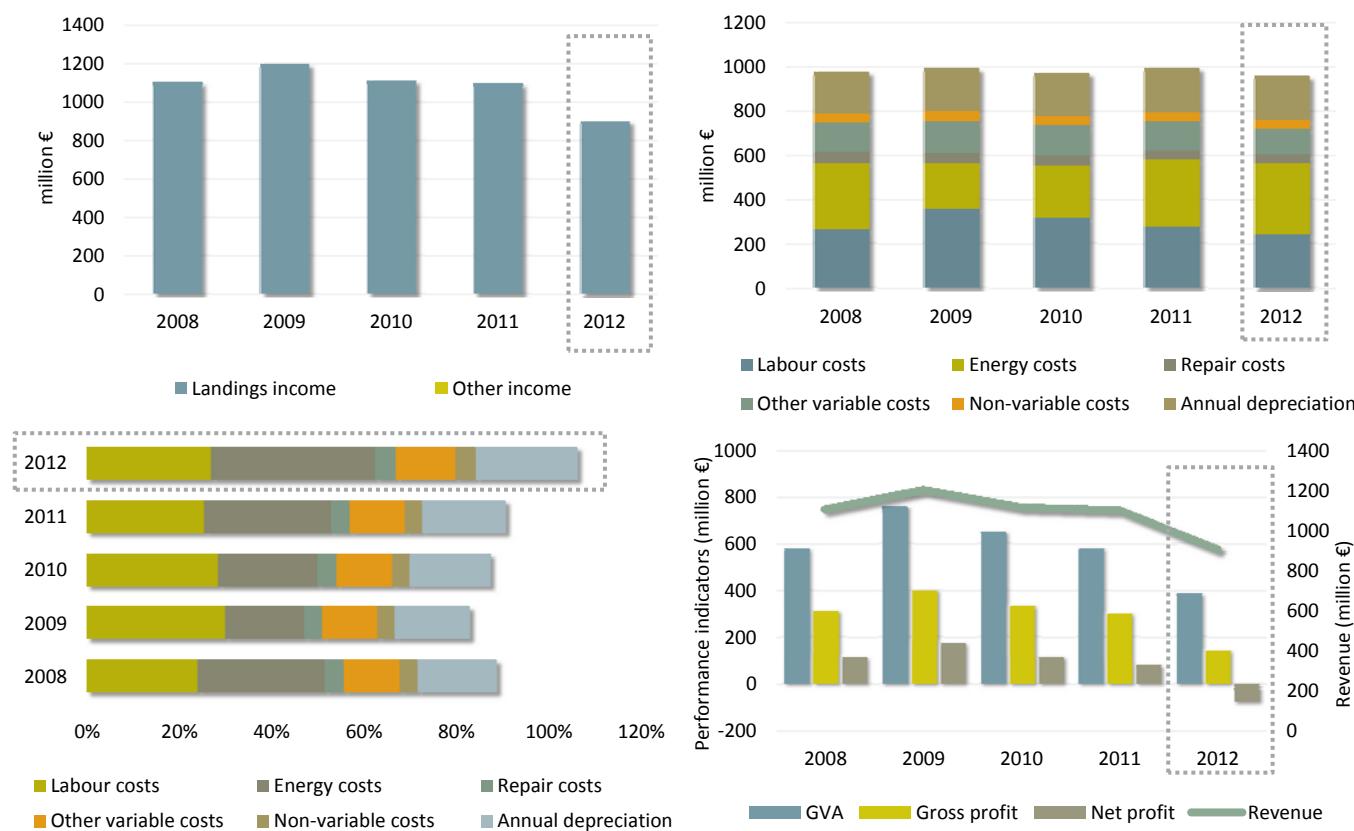
In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Italian national fleet in 2011 were €583 million, €303 million and €80 million, respectively. Gross Value Added (GVA), gross profit and net profit decreased by 11%, 10% and 31% respectively between 2010 and 2011. The sustained rise in intermediate costs (driven by energy costs increase), combined with a fall in production, eroded gross value added and profits, further weakening a marginal sector already in recession.

The crisis in the sector, if looking at the national data, is also confirmed by the trend observed in the profitability indicators. Especially the net profit margin and the RoFTA indicators show, in 2011, a deterioration equal to -30% and -39%, respectively.

The small scale fleet shows, in 2011, a better economic performance. GVA, gross profit and net profit are stable or slightly increasing. In terms of profitability, even if decreasing, the net profit margin and RoFTA shows a lower decrease, if compared to the drop in the national fleet indicators. The trend in GVA per FTE confirms the better performance of the small scale.

In 2011, the Italian fleet had an estimated (depreciated) replacement value of €918 million, a decrease of 6% compared with the previous year. This trend is mostly due to the reduced number of fishing vessels.

According to Table 5.24, the very significant decrease in the value of landings in 2012, both for the national fleet as a whole and for the small scale, seems to be the main cause of the decrease in the main economic indicators (GVA, gross profit and net profit, the last one reaching, for the first time over the period under analysis, a negative value), despite a decrease of around 4% in the estimated value of operational costs (only energy costs shows an increase compared to 2011).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.16 Italian fleet main economic performance trends 2008-2012.

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Fleet Segment Level Economic performance

The Italian fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Adriatic sea, where the Apulian fleet operates, and in South Tyrrhenian Sea, where the Sicilian fleet operates. The national fleet consisted of 23 (DCF) fleet segments in 2011 and five inactive length classes consisting of 1,396 vessels. Nine of the active fleet segments made losses in 2011 while 14 made an overall net profit. Table 5.24 provides a breakdown of key performance indicators for all Italian fleet segments in 2011. A short description of the five most important segments in terms of total value of landings is provided below.

**Passive gears polyvalent 6-12m:** In 2011, the landings of passive gears 6-12m amounted to 13% in weight and 21% in value of total national landings. Landings from this segment amounted to 28,139 tonnes and the total value of landings was almost €227 million. This fleet segment is the most relevant sector from a social and job-related point of view, with 6,012 vessels and employing around 6,043 FTEs. Due to the small size of vessels, fishing activities are highly affected by weather conditions; in 2011 the level of activity was equal to 136 average days at sea, an increase of 6% compared to 2010. Catch is dominated by cuttlefish, which amount to 2,294 tonnes and a value of €23 million, accounting for an 8% of the total volume of landings and 10.5% of revenues. In 2011, European hake accounted to 5% of landings in weight and to 6% in value. Common octopus is the third most important species, accounting for almost 6% of total volume and a 7% of total revenues of this fleet segment.

This fleet generated a gross profit of around €74 million and net profit of €32 million in 2011, with a reduction of 2.5% and 10% respectively. According to the indicators, even if the economic trend is deteriorating, this segment shows a high profitability in 2011.

**Demersal trawl / seine 12-18m:** The second most productive fleet in Italian fisheries is the one made up of 1,424 vessels operating mostly with bottom trawls and beam trawls. They represent 11% of the entire Italian fleet, contributing 14% of total volume and 19% of overall revenue. The level of activity decreased 2% in 2011 to an average of 141 days at sea per vessel. Combined with a drop in technical productivity, the fleet produced a significant decrease in the overall volume of landings (-%, from 31,630 tonnes in 2010 to 29,998 tonnes). A decrease of 5% in total revenue combined with the concurrent rise in fuel costs plunged the trawling fleet in a deep economic crisis: Net profit in 2011 decreased 43% from 2010. The main species for this segment is European hake with 3,864 tonnes landed at a value of €29 million in 2011. The deep-water rose shrimp is the second most important species landed in terms of volume, with landings totalling 2,893 tonnes, 10% of total the total landings of the segment. The main production area for this segment is the Sicilian Channel, the origin of 74% of landings for this species.

The third most important species in terms of landings volume is spottail mantis squillid, with 2,245 tonnes and a value of €139 million. Red mullet was the fourth most important species landed in terms of tonnage in 2011 at 2,202 tonnes which represents almost 7% of the total landings of the segment in terms of both weight and value.

**Demersal trawl / seine 18-24m:** In 2011, 731 vessels made up this segment, a reduction of 1% compared to 2010. These vessels target demersal species such as deep water rose shrimp, European hake, red mullet, Norway lobster, spottail mantis squillid and musky octopus. The total value of landings was €183.4 million contributing to 17% of the total income from landings of the Italian fleet. Around 2,210 FTEs were employed in this fleet segment in 2011, a reduction of 14% compared to 2010. In 2011, this fleet segment reported a loss of €4.3 million, showing weak profitability and deterioration in the economic development trend.

**Demersal trawl / seine 24-40m:** These vessels, which are managed with a more industrial approach, represent 1.7% of the total Italian fleet in terms of vessels numbers but contribute 5% of the total landings and 10% in total revenues. They are mainly based in the Sicilian port of Mazara del Vallo. The target species are main composed by deep water rose shrimp, giant red shrimp, European hake and Norway lobster.

Around 1,335 FTEs were employed in this fleet segment in 2011, with a reduction of 19% compared to 2010. In 2011, this fleet segment registered a loss of €13.5 million, following the same trend of the previous years. Over the last few years vessels above 24 meters have been suffering a deep crisis due mostly to fuel costs, but also to difficulties in accessing traditional fishing areas near Maghreb in international waters, like Libya and Tunisia.

**Dredges 12-18m:** In 2011 there was around 700 vessels operating in this fleet segment. these vessels mainly operate in the areas around the Central-Northern Adriatic coast. This fishery is managed using territorial rights at compartment level by Management Consortia. The fleet targets bivalve molluscs living within the sand, in particular clams. In 2011, the total value of landings was almost €63 million and around 306 FTEs were employed in this fleet segment. The performance of this fleet is highly variable due to the physiologic and cyclic abundance of clams. In 2011, hydraulic dredges operated for 85 days on average, with small fluctuations in the last 3 years. Between 2010 and 2011, production levels and revenues remained stable. However, net profit decreased by 8% compared to 2010 but despite that the main economic indicators show a high profitability.

## ***Assessment and Future Trends***

### **National Fleet**

The size of the Italian fishing fleet remained quite stable in 2012 compared to the previous year. Both effort and production variables decreased in 2012. The 11% decrease in activity level, which is mostly due to the reaction of fishermen to the increase in fuel price, has largely affected the total volume of landings (-9%). The reduction in days at sea should also be attributed to the reduction in activity levels of fishermen, especially those employed on board of trawlers, for whom a social compensation (in Italy called "cassa integrazione") has been issued by Government. Nevertheless, the market has not followed classical rules where lower production means higher prices. Indeed, in 2012 a decrease of 10% in average first sale price caused a larger decrease in income from landings (-18%), which is the main cause of the decrease in most of the economic indicators.

According to 2012 projections, a further decrease in labour costs can be expected, mostly due to the decrease in income levels. Energy costs also show an increase which is not due to activity levels (which actually shows a decrease) but is due to the increase in the 2012 fuel price (projections are based on EU average fuel price). Estimations made using the Italian fuel price gives a lower value for energy costs, which is more or less stable compared to 2011 level – see 2012 and 2013 projections in chapter 3. In 2013, a slight decrease in the fuel price was experienced by the fleet in the first few months of the year and it is hoped that this represents the first signals of the economic recovery of the sector.

### **Small scale Fleet**

Notwithstanding the fact that the decrease in production seems to have strongly affected the small scale fleet, for which decreases of 13% and 18% were registered in terms of volume and value of landings in 2012 respectively, compared to the previous year, this fleet segment show a good economic performance in 2012, recording an increase in revenue and profits, when compared to the overall national fleet.

As far as the economic performance of the small scale fleet, according to projected data for 2012, the trend is negative as well as for the national fleet: a further decrease in labour costs is to be expected, mostly due to the decrease in the income level. Also energy costs show an increase as far as the 2012 projected value. This increase is not mainly due to the activity level (actually showing a decrease) but to the increase in the fuel cost price in 2012 (projections are based on EU average fuel price). Estimation made by using the Italian fuel price give a lower value of energy costs, more or less stable compared to 2011 level – see 2012 and 2013 projections in chapter 3.

As for the national fleet, the slight decrease in the fuel price registered for the first months of the year can represent a first step toward a gradual recovery of the sector.

### ***Data issues***

No major data issues.

Table 5.24 Main socio-economic performance indicators by fleet segment in the Italian national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	2011												2010											
			% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
OFR	DTSVL40XX	16	0%	n/a	-	n/a	-	1180	-	10705	-12%	2046	17%	8484	-9%	-	-	7610	-11%	-361	-112%	-3.4	-113%	Weak	-113%	Deteriorated
AREA37	DTSVL1218	1424	2%	2671	-9%	200143	-2%	100294	13%	205116	-5%	29998	-5%	93744	-25%	30.9	-17%	45158	-27%	21251	-43%	10.4	-40%	High	-36%	Deteriorated
AREA37	DTSVL1824	731	-1%	2210	-14%	111000	-3%	92605	-6%	183368	-6%	26144	-9%	76756	-21%	32.4	-12%	38892	-22%	-4310	-164%	-2.4	-169%	Weak	-148%	Deteriorated
AREA37	DTSVL2440	233	-15%	1335	-19%	38440	-16%	55863	-18%	105769	-6%	11468	-11%	42501	-10%	31.4	10%	19751	-6%	-13490	22%	-12.8	17%	Weak	3%	Stable
AREA37	DTSVL0612	178	3%	125	-38%	17961	-14%	5800	-6%	10700	-22%	1607	-27%	4198	-44%	26.7	-12%	1867	-47%	459	-78%	4.3	-72%	Reasonable	-74%	Deteriorated
AREA37	HOKVL1218	142	13%	324	-12%	15661	6%	5539	16%	22640	-9%	2614	-6%	12989	-22%	35.7	-11%	6320	-13%	3262	-20%	14.4	-12%	High	-22%	Deteriorated
AREA37	HOKVL1824	48	-5%	194	-27%	7819	-8%	3535	-8%	16454	-12%	2653	13%	8100	-21%	33.5	-13%	4057	-17%	629	19%	3.8	35%	Reasonable	-32%	Deteriorated
AREA37	TMVL1218	26	-31%	17	-73%	3075	-47%	2349	-16%	5104	-40%	5675	-47%	2580	-52%	122.9	82%	1016	-54%	556	-69%	10.9	-48%	High	-20%	Deteriorated
AREA37	TMVL1824	44	23%	95	-9%	5152	-15%	3861	-10%	8323	-27%	8574	-27%	3329	-48%	27.7	-44%	1535	-52%	-507	-143%	-6.1	-160%	Weak	-235%	Deteriorated
AREA37	TMVL2440	77	5%	216	-24%	10565	-10%	13521	-9%	29200	1%	21280	-8%	12679	-5%	47.0	19%	5458	-8%	-261	56%	-0.9	57%	Weak	-125%	Deteriorated
AREA37	DRBVL1218	708	1%	306	-4%	59870	-4%	14398	1%	62618	-1%	21790	0%	45083	-5%	116.5	-2%	24801	-6%	12155	-9%	19.4	-9%	High	-13%	Deteriorated
AREA37	PGPVL1218	448	-8%	988	-4%	66030	0%	10435	-27%	58553	-3%	7552	-2%	36407	-2%	30.0	-10%	21343	-2%	11574	-1%	19.8	2%	High	-8%	Deteriorated
AREA37	PGPVL0612	6012	1%	6043	0%	817321	7%	63136	28%	226808	5%	28139	6%	135408	-5%	18.3	-5%	74137	-3%	31726	-10%	14.0	-14%	High	-26%	Deteriorated
AREA37	PGPVL0006	2821	-1%	2129	0%	355710	17%	10973	18%	68453	16%	8344	19%	48903	13%	18.9	13%	26974	17%	21367	23%	31.2	6%	High	4%	Stable
AREA37	PMPVL1218	37	-29%	61	-32%	4555	-17%	1599	-17%	4084	-15%	495	-14%	1981	-23%	26.4	15%	1090	-21%	733	-27%	17.9	-14%	High	20%	Improved
AREA37	PMPVL0612	42	14%	16	-67%	4902	21%	527	-24%	1974	8%	233	1%	1173	15%	58.7	246%	551	-30%	330	-44%	16.7	-48%	High	-61%	Deteriorated
AREA37	PSVL1218	132	5%	272	16%	12800	5%	7004	48%	22563	28%	9064	29%	13125	21%	39.7	5%	5745	24%	3240	45%	14.4	13%	High	15%	Improved
AREA37	PSVL1824	47	1%	130	31%	3649	10%	2562	13%	15297	15%	8623	-2%	10858	15%	67.4	-11%	5048	36%	2566	118%	16.8	90%	High	1%	Stable
AREA37	PSVL2440	64	9%	243	1%	5363	6%	4213	14%	19624	15%	11415	-15%	12036	16%	39.2	15%	6034	23%	-895	64%	-4.6	69%	Weak	58%	Improved
AREA37	PSVL40XX	17		16		261		522		6239		920		4622		220.1		2113		-8240		-132.1		Weak	-38%	Deteriorated
AREA37	TBBVL1218	12	0%	16	-45%	927	-32%	609	-32%	1155	-30%	251	-41%	465	-41%	23.3	7%	191	-41%	-161	-316%	-14.0	-407%	Weak	-254%	Deteriorated
AREA37	TBBVL1824	27	4%	22	-79%	3463	-10%	3728	8%	6012	10%	788	-4%	1793	-10%	66.4	247%	397	-6%	-791	11%	-13.2	19%	Weak	-62%	Deteriorated
AREA37	TBBVL2440	32	-7%	112	-30%	3794	-26%	3902	-37%	10273	-17%	2696	9%	5669	-15%	44.6	7%	3061	-13%	133	46%	1.3	76%	Reasonable	-61%	Deteriorated

*Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).*

## 5.9 IRELAND

### Fleet Structure, Fishing Activity and Production

In 2013 the Irish fishing fleet consisted of 2,247 registered vessels, with a combined gross tonnage of 65.2 thousand GT, a total power of 197.6 thousand kW and an average age of 26 years. The size of the Irish fishing fleet increased between 2012 and 2013. In this period, the number of vessels increased by around 2% (or 44 vessels) and total GT and kW of the fleet was maintained during the same period. The major factors causing the fleet to increase is the introduction of smaller vessels into the national fleet.

The number of small scale vessels (under 12m) rose by 2% every year from 2011 and prior to 2011 increased by 7% and 4% between the years 2008-2009 and 2009-2010 respectively. Overall, this represents a 12% increase in the number of small scale vessels from 1,598 to 1,835 between the years 2008 and 2011. This segment consisted of 1,934 vessels in 2013. Data for the small scale fleet in Table 5.25 only relates to vessels under 12m using static gears only.

In 2012, the number of fishing enterprises in the Irish fleet totalled 1,901, with the vast majority (87%), owning a single vessel and 13% of the enterprises owned two to five fishing vessels. Only 0.1% fishing enterprises owned six or more fishing vessels. However, it is possible, that individuals can own multiple vessels, which are registered under different company names so there may be, in reality, less single vessel enterprises.

Table 5.25 Irish national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET					%Δ 2010-11	SMALL SCALE FLEET					%Δ 2010-11	2012
	2008	2009	2010	2011	2012		2008	2009	2010	2011			
<b>Structure</b>													
All Vessels	1972	2044	2119	2162	2%	$\nearrow$	2203	2247	835	751	769	788	2% $\nearrow$
Inactive vessels	705	750	785	802	2%	$\nearrow$	808	-	-	-	-	-	-
Average vessel age (years)	24	25	25	25	2%	$\nearrow$	26	26	23	23	24	24	1% $\nearrow$
GT(thousand tonnes)	78.3	71.7	70.8	72.2	2%	$\nearrow$	65.2	65.2	3.9	3.5	3.4	3.4	0% $\leftrightarrow$
Engine power (thousand kW)	216.2	198.4	197.0	202.4	3%	$\nearrow$	197.8	197.6	36.5	32.7	32.0	32.1	0% $\leftrightarrow$
No. Enterprises (N)	1833	1866	1929	1846	-4%	$\searrow$	1901	-	1357	1213	1249	1277	2% $\nearrow$
<b>Employment</b>													
FTE (N)	2761	2528	2825	3166	12%	$\nearrow$	3226	-	1050	692	1000	1311	31% $\nearrow$
Average wage per FTE (thousand €)	16.9	15.4	21.3	21.0	-2%	$\searrow$	-	-	2.3	n/a	8.4	2.7	-67% $\searrow$
<b>Fishing Effort</b>													
Days at Sea (thousand days)	49.6	49.5	54.3	49.5	-9%	$\searrow$	56.4	-	7.1	8.2	8.9	7.6	-15% $\searrow$
GTfishing days (thousands)	4975	4689	5143	4464	-13%	$\searrow$	4731	-	n/a	n/a	n/a	n/a	-
Energy consumption (million litres)	75.7	73.9	65.0	63.8	-2%	$\searrow$	-	-	4.1	6.0	6.5	6.8	5% $\nearrow$
Fuel consumption per kg landed (litre/kg)	0.38	0.28	0.21	0.32	52%	$\nearrow$	-	-	1.17	1.47	1.24	1.45	17% $\nearrow$
<b>Production</b>													
Landings weight (thousand tonnes)	198.0	262.6	314.2	199.4	-37%	$\searrow$	-	-	3.5	4.1	5.2	4.7	-10% $\searrow$
Landings value (million €)	196.5	185.9	202.1	200.3	-1%	$\leftrightarrow$	-	-	6.0	8.6	7.7	6.8	-11% $\searrow$

Source data: DCF 2013 Fleet Economic Member State data submissions; 2012/2013 provisional data

Note: energy consumption estimated from energy costs

Total employment in 2011 was estimated at 4,714 jobs, corresponding to 3,168 FTEs. The level of employment increased between 2010 and 2011, with total employed increasing by 7% and the number of FTEs increasing by 12% over the period. The major factors for this increase are due, in part, to the introduction of more vessels in the small scale fisheries. The figures for 2010 may not be indicative due to the small sample size and may explain the decrease between 2010 and 2011. This increase in employment in the small scale fleet is estimated at 31% which can be explained by the corresponding increase in vessel numbers. The decrease in average wage per FTE for the small scale fleet is not a realistic trend. Wage data for the small scale fishery for 2011 was sparse and total estimates are probably not indicative of the real figure.

In 2011 the Irish over 10m fleet spent a total of around 49.5 thousand days at sea. The total number of days at sea decreased around 9% between 2010 and 2011. Days at sea in 2012 increased to 56.4 thousand.

The quantity of fuel consumed in 2011 totalled around 63.8 million litres, a decrease of 2% from 2010. The major factor causing the decrease in fuel consumption is the associated decrease in days at sea for 2011 and the reduction in larger vessels and their associated higher fuel costs. Fuel consumption per kg landed rose from 0.21 to 0.32 from 2010 and 2011. This occurred in contract to a 37% reduction in landing weight from 2010 to 2011. This can be, in part, explained the reduction in boarfish catches which have a high landed weight but low unit cost.

The total volume landed by the Irish fleet in 2011 was 199 thousand tonnes of seafood, with a landed value of €200 million. The total volume and value of landings decreased over the period analysed. In 2011, Atlantic mackerel generated the highest landed value (€47.5 million) by the national fleet, followed by Norway lobster (€32.5 million), Great Atlantic scallop (€18.8 million), Jack and horse mackerels (€15.9 million) and then Anglerfishes (€12.6 million). In terms of landings weight, in 2011 Atlantic mackerel was 63.2 thousand tonnes, Jack and horse mackerels (35.1 thousand tonnes) and Atlantic herring (24.5 thousand tonnes).

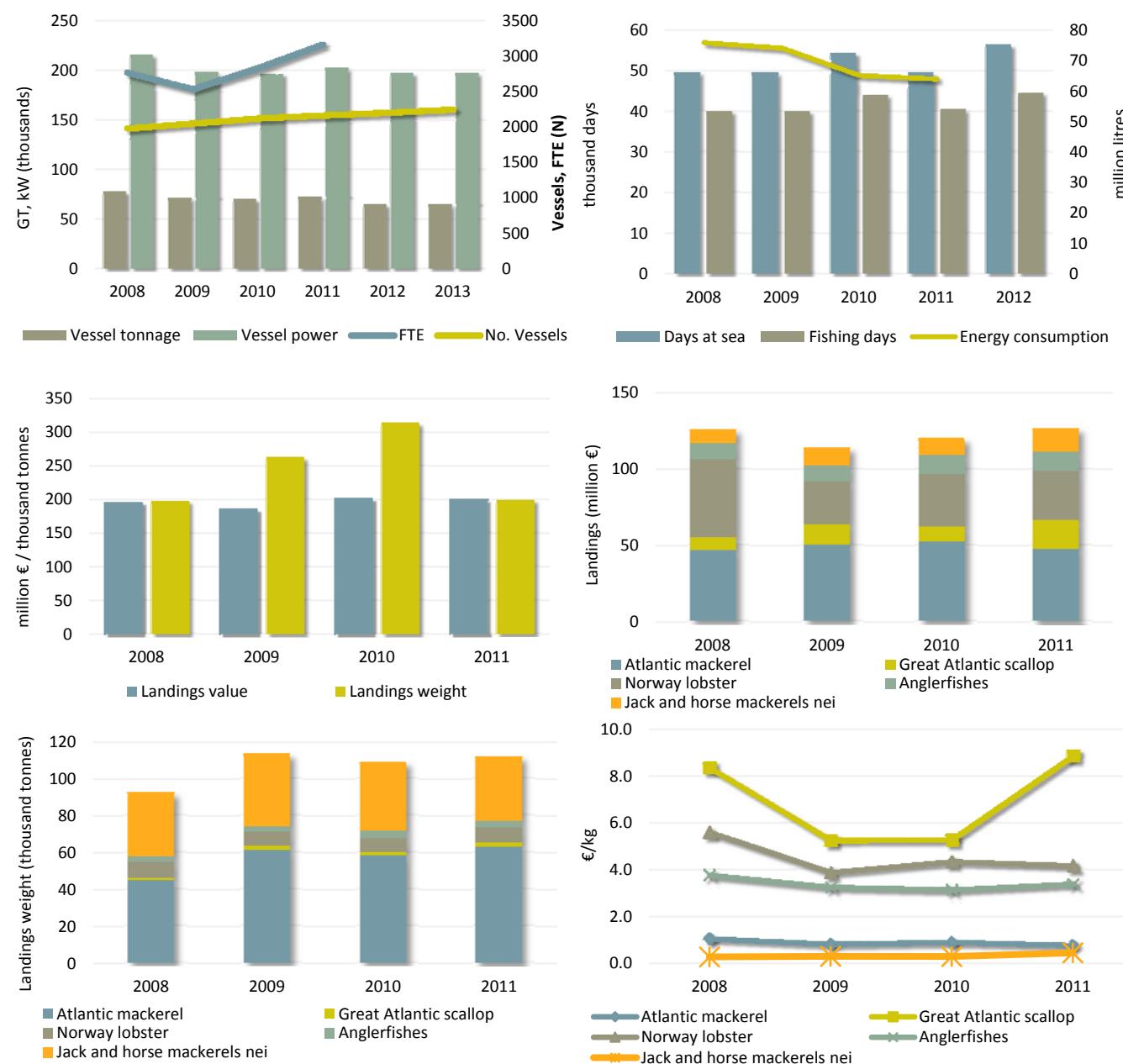


Figure 5.17 Irish fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

Source data: DCF 2013 Fleet Economic Member State data submissions

The increase in total volume of landings from 2009 to 2010 can be explained mostly by the increase in catches of Boarfish which increased by over 66 thousand tonnes in the same period. The catches of Boarfish were to reduce between 2010 and 2011 by 63 thousand tonnes and count predominantly for the reduction in overall landings between these years.

The prices obtained for the 3 key species landed by volume (Atlantic mackerel, Jack and horse mackerels and Atlantic herring), showed contrasting trends between 2010 and 2011: a decrease in the price for the first species (-17%) and an increase for the following two (+51 and +58%). Atlantic mackerel, together with jack and horse mackerel accounted for 31.6% of the total landings value obtained by the Irish fleet in 2011, while Norway lobster accounted for 16% of species turnover, indicates stable trends between 2011 and 2010 (despite a slight decrease of 6% of the price of Norway lobster). The third species most important landed in terms of value in 2011 was Great Atlantic scallop. The price increased by 65% in 2011 (reaching €8.8 per kg) returning to prices obtained in 2008. While the high prices in 2008 could be explained by low volumes, the high 2011 prices, while possibly a real trend, may be due to landing values been reported by different landing classification. For example some vessels may report landed shell weight or processed meat rate (cut out weight) which may introduce larger values in the landing figures and raise the average price. There is roughly a 75% weight reduction for 'cut out weight' so this can drastically effect the €/kg price differential. Palinurid spiny lobsters achieved the highest average price per kilo in 2011 (€33.0 per kg), followed by *Palaemonid* shrimps (€15.0 per kg).

## National Fleet Economic performance

The total amount of income generated by the Irish national fleet in 2011 was €246.3 million. This consisted of €239.6 million in landings value and €6.7 million in non-fishing income. The Irish fleet's total landings income increased 9% between 2010 and 2011. While the total value of landings in Figure 5.18 is sourced from logbook data for the over 10m fleet, total fishing income is estimated from survey data taken from financial statements completed by accountants on behalf of fishermen. This introduces data for vessels under 10m and as such results in a higher estimate of income value from landings values. As sample data is raised to population level variability in the data can, in some cases, inflate or reduce the overall landings income estimate. The high increase in landing income in 2011 can in part be explained by the sampling framework and the low survey return for 2011. Additionally as the coverage and quality of the under 10m fleet increases from year to year our estimate for total landings income has also increased with a 24% increase observed from 2010 to 2011. The increase in landing value can also be explained by the slight increase in active vessels.

Total operating costs incurred by the Irish national fleet in 2011 equated to €260 million, amounting to more than 100% of total income. Crew cost and fuel costs, the two major fishing expenses, were €66.3 and €49.8 million respectively (Table 5.26). Between 2011 and 2010, total operating costs increased 30%. The share of total income represented by each operating cost is relatively stable between 2011 and 2010, except for labour costs, whose share decreases slightly (26% of the total income in 2010 and 20% in 2011).

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Irish national fleet in 2011 were €111.6 million, €45.2 million and €-14.3 million, respectively. Gross Value Added (GVA) and gross profit decreased by 4% and 19% respectively between 2011 and 2010. The major factor driving this decline in economic performance was the higher costs experienced in 2011. As there are uncertainties surrounding estimated income and costs, economic performance indicators may not be as stark as presented here. In 2011, the Irish fleet had an estimated (depreciated) replacement value of €367 million. Investments by the fleet amounted to €28 million in 2011.

In terms of the profitability and development trends the national fleet deteriorated for net profit margin (%), RoFTA (%) and remained stable for GVA per FTE (thousand €). However, the dramatic trends for net profit margin (%) and RoFTA (%) presented in Table 5.26 are most likely not realistic. These high increases are due, in part, to the increase in estimates of total costs from 2010 to 2011 and the associated estimate of net profit.

## Fleet Segment Level Economic performance

The Irish fleet is highly diversified with a broad range of vessel types targeting different species predominantly in areas VIIa, VIIb, VIIg and VIIj. The national fleet consisted of 28 (DCF) fleet segments in 2011, with inactive vessel across five length classes consisting of 808 vessels. Four of the active fleet segments reported made losses in 2011 while six made an overall profit with no data for one of the segments. Table 5.27 provides a breakdown of key performance indicators for all eleven fleet segments in 2011, segments for which no data was omitted. A short description of the 3 most important segments in terms of total value of landings is provided below.

**Pelagic Trawl over 40m** – 19 vessels made up this segment in 2011 which operates predominantly in VIIa and VIIj. The fleet targets a variety of species but in particular pelagic species, such as Atlantic mackerel, Jack and horse mackerels and Atlantic herring. In 2011, the total value of landings was almost €53.1 million and around 197 FTEs were employed in this fleet segment, contributing to 22% and 6.2% of the total income from landings and FTEs generated by the Irish fishing fleet, respectively. This fleet segment was highly profitable, with a reported gross profit of around €45 million and net profit of

€20 million in 2011. Employment in this sector decreased by 7% but this is accounted for by the reduction in total active vessels from 20 to 19 from 2010 to 2011 and average crew numbers per vessel has fallen from 12-14 to 11-12 as raw material allocations and consequent fishing seasons have become more truncated. Table 5.27 indicates high profitability for 2011 with an improved economic development trend.

In 2009 all Irish pelagic vessels implemented a Seafood Environmental Management System on-board their vessels. As part of this process they identified potential environmental risks from fishing and implemented measures to eliminate or reduce these risks to acceptable levels. The SEMS manual on each vessel has records that they complete during each trip and this provides proof that they are operating to the pre-agreed standards.

**Demersal Trawl 18m-24m** – 64 vessels make up this segment which operates predominantly in Vla, VIIb and VIIg. The fleet targets a variety of species but in particular demersal species, such as Norway lobster, Anglerfishes and Whiting. In 2011, the total value of landings was almost €40 million and around 431 FTEs were employed in this fleet segment, contributing to 20.0% and 13.6 % of the total income from landings and FTEs generated by the Irish fishing fleet, respectively. This fleet segment presented a gross profit of around €6.9 million and net profit of €-0.5 million in 2011. Table 5.27 indicates weak profitability for 2011 with an improved economic development trend with improved GVA and Gross profit.

**Demersal Trawl 24m-40m** – 40 vessels make up this segment which operates predominantly in Vla, VIIb and VIIg. The fleet targets a variety of species, such as Norway lobster, Anglerfish and Atlantic mackerel. In 2011, the total value of landings was almost €34.4 million and around 313 FTEs were employed in this fleet segment, contributing to 17.2% and 9.9 % of the total income from landings and FTEs generated by the Irish fishing fleet, respectively. This fleet segment generated a gross profit of around €7.1 million and net profit of €-0.9 million in 2011. Table 5.27 indicates weak profitability for 2011 with an improved economic development trend.

Table 5.26 Irish national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	202.9	173.3	220.2	239.6	9% ↗	-	21.7	15.3	44.4	54.9	24% ↗	-
Other income	17.3	12.3	5.7	6.7	19% ↗	6.2	0.2	-	1.4	1.0	-31% ↘	1.2
<b>Costs</b>												
Labour costs	46.5	38.8	60.3	66.3	10% ↗	-	2.4	n/a	8.4	3.6	-57% ↘	-
Energy costs	43.6	32.7	38.6	49.8	29% ↗	67.8	2.6	2.5	3.5	5.3	52% ↗	5.4
Repair costs	21.0	23.5	24.0	29.7	24% ↗	33.8	0.9	1.5	1.9	3.3	69% ↗	2.8
Other variable costs	19.4	16.5	17.9	17.2	-4% ↘	19.6	0.9	1.9	2.0	5.8	193% ↗	4.9
Non-variable costs	43.5	27.2	29.3	38.1	30% ↗	38.8	1.8	1.7	3.8	10.2	169% ↗	10.5
Capital costs	35.7	55.7	58.4	59.5	2% ↗	47.2	0.7	n/a	6.9	5.1	-26% ↘	2.7
<b>Economic Indicators</b>												
GVA	92.7	85.8	116.1	111.6	-4% ↘	-	15.6	7.7	34.6	31.2	-10% ↘	-
Gross profit	46.2	47.0	55.8	45.2	-19% ↘	-	13.1	7.7	26.2	27.7	5% ↗	-
Net profit	10.5	-8.7	-2.6	-14.3	-442% ↘	-	12.5	-	-	22.5	-	-
<b>Capital value</b>												
Fleet depreciated replacement value	426.0	410.1	511.9	367.4	-28% ↘	439.7	6.6	n/a	93.0	56.1	-40% ↘	74.5
In-year investments	37.7	14.5	41.5	28.7	-31% ↘	-	2.5	2.7	4.7	6.2	31% ↗	-
<b>Profitability and development trends</b>												
Net profit margin (%)	4.8	-4.7	-1.2	-5.8	-397% ↘	-	57.0	-	-	40.3	-	-
development trend	Deteriorated				-1456% ↘		Deteriorated				-29% ↘	
RoFTA (%)	2.5	-2.1	-0.5	-3.9	-648% ↘	-	191.5	-	-	40.3	-	-
development trend	Deteriorated				-6042% ↘		Deteriorated				-79% ↘	
GVA per FTE (thousand €)	33.6	33.9	41.1	35.2	-14% ↘	-	14.8	11.2	34.6	23.8	-31% ↘	-
development trend	Stable				-3% ↘		Improved				18% ↗	

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

**Note:** Capital value (replacement value and Investment) estimated for active vessels only

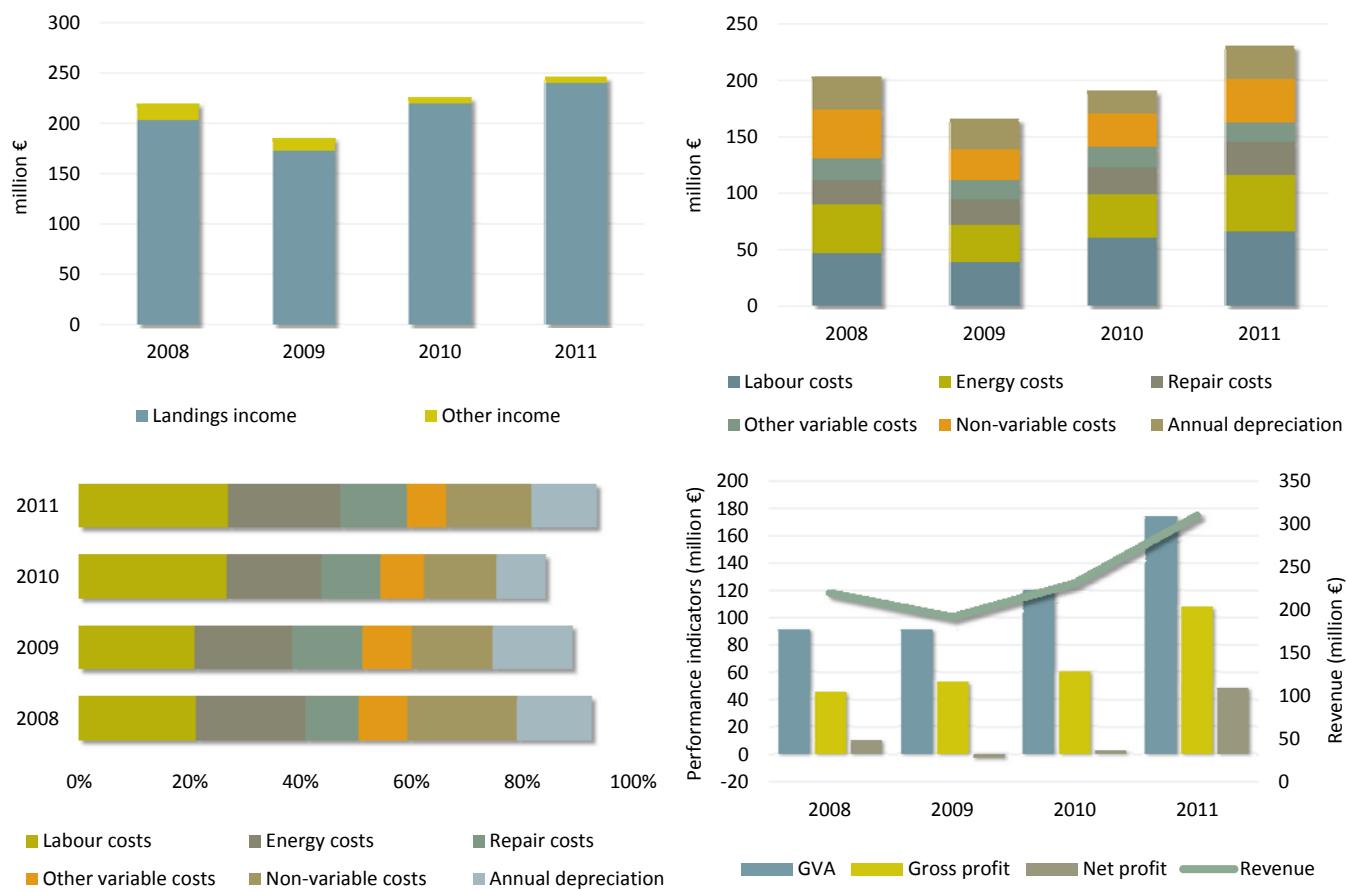


Figure 5.18 Irish fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

### National Fleet

The composition, by segment, of the Irish national fleet (i.e. >10m and <10m LOA) in 2012 and 2013 reflects that reported for 2011. No significant removals or additions to the national fleet occurred other than adjustments due to accidental loss, damage and occasional redundancy. There has been a 2% increase in vessel numbers in the <10m LOA segments.

Running costs continue to be a key driver influencing the economic performance of the Irish national fleet in 2011, particularly those associated with the identification and retention of crew and the cost of fuel and oils. Although marine gas oil prices throughout 2012 and into 2013 have shown some volatility they have maintained a slow annual increase in average price, which is consistent with the 5 year trend in the prices of crude, bunker and marine gas oil.

The internationally accredited (ISO65) Responsibly Sourced Standard has provided a national certification programme for Wild Seafood, which has been successfully achieved by a number of segments of the Irish fleet and a smaller number of related onshore facilities. Increasingly strong market demands for certified seafood products continue to generate a positive industry response to this opportunity with increased national and overseas interest capitalising growth in this area.

The ISO65 Responsibly Sourced Standard is considered to be of particular significance to vessels of the pelagic and polyvalent fleets targeting mackerel, which formerly held Marine Stewardship Council (MSC) certification. MSC certification of the herring fishery in the Celtic sea was achieved in 2012 and is prosecuted by a small fleet of 34 Irish registered vessels.

In its capacity as the government agency with responsibility for development of the sea fisheries sector in Ireland, Board Iascaigh Mhara commissioned Food Certification International to carry out a pre-assessment of a representative number of Irish fisheries under the Marine Stewardship Councils' (MSC) Principle and Criteria for sustainable fishing. The pre-assessment aimed to identify gaps and weaknesses in the sustainability of Irish fisheries to facilitate a strategic approach to the development of responsible and sustainable Irish fisheries.

The MSC defines the unit of certification (UoC) as “The fishery or fish stock (biologically distinct unit) combined with the fishing method / gear and practice (= vessel(s) pursuing the fish of that stock) and management framework. To take into account the “mixed demersal fishery context” in which the majority of Irish fisheries operate a métier approach was used to define the Unit of Certification. A total of 19 métiers were identified for mixed demersal fisheries. The MSC unit of certification was defined for each fish stock and therefore a number of units of certification were defined for a given metier. Overall the project examined 8 fishing gear, fishing 18 species, over several ICES areas (stock management units) – creating a total of 79 Units of Certification. Information from this study feeds directly into the development of BIM’s responsibly sourced standard and general work programme.

### ***Small Scale Fleet***

The number of small scale vessels (under 12m) rose by 2% every year from 2011 and prior to 2011 increased by 7% and 4% between the years 2008/2009 and 2009/2010 respectively. Overall, this represents a 12% increase in the number of small scale vessels from 1,598 to 1,835 between the years 2008 and 2011. This segment consisted of 1,934 vessels in 2013. The small scale fleet in Table 5.27 reports figures for small scale fisheries for static gears, under 12m, only which also demonstrates a 2% increase from 2010 to 2011.

### ***Data issues***

The figures for days at sea and fishing days reported are for those vessels over 10m. The exclusion of the less than 10m fleet was due to the fact that this segment is not mandated to carry and complete logbooks for fishing operations. Estimates of days at sea for this segment have been calculated from a small sample of this fleet but have not been included due to the uncertainty surrounding these data.

Estimates of total days at sea for vessels under 10m LOA are around 71,900 and 111,800 for 2010 and 2011, respectively. These totals are estimated from a very small sample size of the less than 10m fleet and compensate for inactivity in the fleet by using an inactivity percentage of 39% (which equals the inactivity of the 10-12m segments). The lack of logbook data from the under 10m fleet obstructs the reporting of transversal, landings, activity and true economic performance of this segment which makes up a large proportion of the Irish fleet.

Although the operation of the economic aspect of the data collection framework has been much improved relative to previous years, the MS sampling targets were not fully achieved in 2012 (for 2011 data). Lacking a mandatory European legislative framework to ensure compliance with DCF data requests, the MS continues to be forced to rely on the goodwill of the seafood industry to provide data on a voluntary basis.

This situation is far from ideal and as a result, survey response rates are highly variable and unpredictable. Survey target rates vary between fleet segments with a high achievement of sampling targets in a number of segments and an under-achievement of targets in other segments.

Table 5.27 Main socio-economic performance indicators by fleet segment in the Irish national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011-average (2008-10)	Economic development trend		
AREA27	DFNVL1012	239	5%	402	44%	640	-28%	2664	69%	521	-45%	175	-63%	8372	59%	20.8	11%	8214	208%	7036	-	35.0	-	High	131%	Improved		
AREA27	DFNVL1824	13	-28%	32	-49%	1717	-27%	791	11%	3279	12%	2162	33%	2163	108%	68.3	305%	1244	529%	597	30207%	15.6	17189%	High	100%	Improved		
AREA27	DRBVLC0010	217	3%	303	13%	n/a	-	1437	-22%	n/a	-	n/a	-	8989	-10%	29.6	-21%	7318	9%	n/a	-	n/a	-	n/a	-	-	-	-
AREA27	DRBVLC1012	23	53%	64	-8%	1328	32%	298	-8%	1168	-2%	520	39%	1034	449%	16.2	479%	943	418%	-3187	-	-199.2	-	Weak	-565%	Deteriorated		
AREA27	DRBVLC2440	11	-21%	239	60%	1984	37%	n/a	-	19074	96%	2347	2%	n/a	-	n/a	-	n/a	-	n/a	-	n/a	-	-	-	-		
AREA27	DTSVL1218	69	-10%	150	-17%	7039	-21%	2467	-33%	9584	-1%	5594	28%	5882	286%	39.4	367%	3210	1994%	522	136%	4.8	122%	Reasonable	147%	Improved		
AREA27	DTSVL1824	64	-2%	431	0%	12924	-7%	18465	30%	40026	-5%	20234	10%	18690	84%	43.4	84%	6780	1515%	-523	91%	-1.1	94%	Weak	73%	Improved		
AREA27	DTSVL2440	40	18%	313	10%	8496	1%	17488	14%	34417	45%	20036	36%	14252	58%	45.5	44%	7135	282%	-907	62%	-2.4	73%	Weak	67%	Improved		
AREA27	FPOVL0010	436	2%	767	33%	n/a	-	3346	-2%	n/a	-	n/a	-	17166	-19%	22.4	-39%	14583	-13%	n/a	-	n/a	-	-	-	-	-	
AREA27	FPOVL1012	88	-5%	141	0%	6727	-13%	783	-47%	6195	-6%	4422	-4%	5700	-31%	40.4	-31%	4861	-28%	3622	-	45.1	-	High	272%	Improved		
AREA27	FPOVL1218	22	-12%	34	-45%	2652	-15%	357	-45%	4859	-19%	3623	-12%	822	26%	24.3	130%	345	257%	-100	86%	-5.2	89%	Weak	75%	Improved		
AREA27	PMPVL1012	7	133%	n/a	-	594	60%	n/a	-	669	90%	767	111%	n/a	-	n/a	-	n/a	-	n/a	-	n/a	-	-	-	-		
AREA27	TBBVL2440	12	0%	n/a	-	2596	-9%	n/a	-	6819	21%	2274	0%	n/a	-	n/a	-	n/a	-	n/a	-	n/a	-	-	-	-		
AREA27	TMVLC2440	10	0%	179	-	1083	-8%	2786	39%	17502	15%	29261	-6%	7754	-19%	43.3	-	-1861	-134%	-6908	-6604%	-39.5	-	Weak	-3859%	Deteriorated		
AREA27	TMVLC40XX	19	-5%	373	77%	1481	-32%	12895	-9%	53128	-29%	101648	-55%	20763	-51%	55.7	-72%	-7464	-130%	-33177	-588%	-60.2	-	Weak	-564%	Deteriorated		

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

## 5.10 LATVIA

### Fleet Structure, Fishing Activity and Production

In 2012 the Latvian fishing fleet consisted of 279 registered vessels, with a combined gross tonnage of 8 thousand GT, a total power of 22 thousand kW and an average age of 27 years. The size of the Latvian fishing fleet decreased between 2010 and 2011, by 452 vessels or 59% and GT and kW by 13% and 16% respectively (Table 5.28). The major factor causing the fleet to decrease was vessel scrapping according under Latvian the multi-annual management plan designed to achieve a better balance between fishing capacity and the available resources. The vessels were “reassigned for activities outside fishing (by scrapping or selling)”. A second reason was that many of the smaller coastal zone vessels (under 10m) were excluded from the statistics due to the fact that these vessels were not involved in commercial fishing activity, fishing only for family consumption. This form of fishing activity in Latvia has a long local historical tradition.

In 2012, the number of fishing enterprises in the Latvian fleet totalled 121, with the majority (55%), owning a single vessel. Only 2% of the enterprises owned six or more fishing vessels. Total employment in 2011 was estimated at 712 jobs, corresponding to 378 FTEs. The level of employment decreased between 2010 and 2011, with total employed decreasing 56% and the number of FTEs decreasing by 27% over the period.

Table 5.28 Latvian national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( increase; ( decrease and ( stable/no change ( $\Delta$  between -1 and +1%)

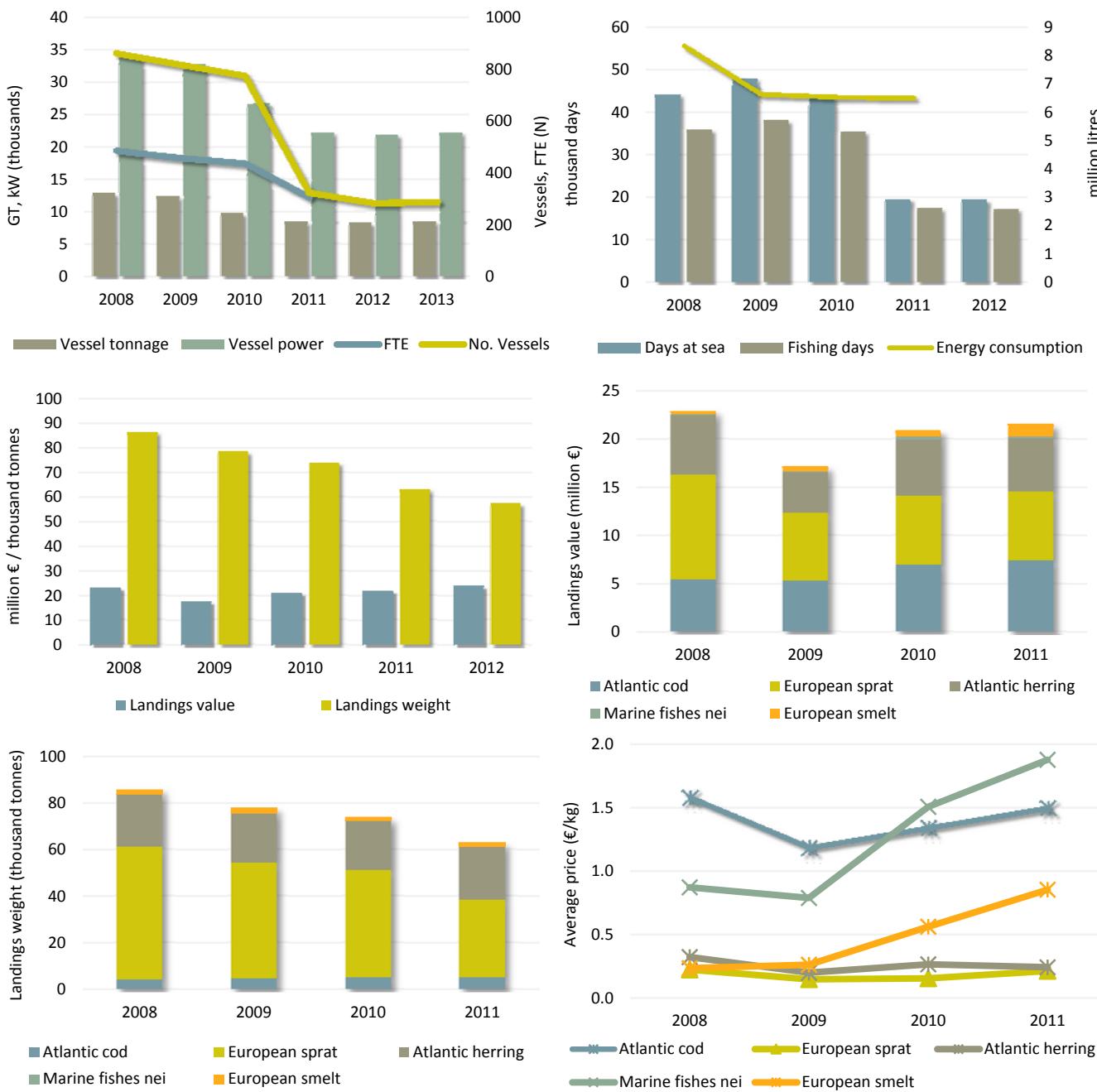
Variable	NATIONAL FLEET				%Δ 2010-11	SMALL SCALE FLEET				%Δ 2010-11	2012
	2008	2009	2010	2011		2012	2013	2008	2009	2010	
<b>Structure</b>											
All Vessels	858	814	771	319	-59%		279	283	736	708	687
Inactive vessels	n/a	n/a	n/a	88	-	-	77	-	-	-	-
Average vessel age (years)	27	27	29	27	-7%		27	29	22	22	24
GT(thousand tonnes)	12.9	12.4	9.8	8.5	-13%		8.3	8.5	1.2	1.1	1.0
Engine power (thousand kW)	34.2	32.7	26.7	22.3	-16%		21.9	22.3	7.2	6.5	5.9
No. Enterprises (N)	149	153	151	147	-3%		121	-	536	520	514
									170	-67%	
<b>Employment</b>											
FTE (N)	664	548	521	378	-27%		331	-	373	329	329
Average wage per FTE (thousand €)	6.3	6.1	6.2	8.8	40%		10.9	-	0.5	0.5	0.3
									0.5	44%	
<b>Fishing Effort</b>											
Days at Sea (thousand days)	44.2	48.0	43.6	19.6	-55%		19.5	-	30.4	37.3	34.2
GT fishing days (thousands)	989	754	756	694	-8%		736	-	n/a	n/a	n/a
Energy consumption (million litres)	8.3	6.6	6.5	6.5	0%		-	-	0.1	0.05	0.04
Fuel consumption per kg landed (litre/kg)	0.10	0.08	0.09	0.10	11%		-	-	0.04	0.02	0.02
									0.01	-50%	
<b>Production</b>											
Landings weight (thousand tonnes)	86.5	78.5	74.0	63.1	-15%		57.5	-	2.8	2.7	2.6
Landings value (million €)	23.1	17.5	21.0	21.8	3%		23.9	-	0.8	0.8	1.2
									1.2	-1%	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

**Note:** total number of vessels in 2011 includes only active vessels; average vessel age and length excludes the PGP fleet segment; capacity data (no. vessels, engine power and gross tonnage) in 2011 excludes inactive vessels

In 2012 the Latvian fleet spent a total of around 20 thousand days at sea. The total number of days at sea decreased around 55% between 2010 and 2011. The major factor causing employment and days at sea to decrease was the significant decrease in vessel numbers highlighted above. The quantity of fuel consumed in 2011 totalled around 7 million litres and remained stable compared to the previous year.

The total volume landed by the Latvian fleet in 2012 was 57 thousand tonnes of fish, with a landed value of €24 million. The total volume of landings reduced by 15% and value of landings remained stable over the period analysed (2010-2011). In 2012, European Sprat generated the highest landed value by the national fleet (€10 million), followed by Atlantic Herring (€7 million), and then Atlantic Cod (€5 million). In terms of weight, in 2012 landings of European Sprat were 30 thousand tonnes, Atlantic Herring was 20 thousand tonnes and Atlantic Cod was 4 thousand tonnes.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC (2013)); data for 2012 are provisional.

Figure 5.19 Latvian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The prices obtained for these key species increased 10% between 2008 and 2012. Coastal zone species achieved the highest average price per kilo in 2012 (€1.38 per kg), followed by Atlantic cod (€1.27 per kg). European sprat, Atlantic herring and Atlantic cod, accounted for 43%, 31% and 23% respectively of the total landings value obtained by the Latvian fleet in 2012 and contributed of 54%, 35% and 8% respectively to total income in 2012, remaining relatively stable over the years in question. The major factor causing the decrease in volume of landings and significant increase in prices was a reduction in the Latvian quota for European Sprat of 50% in the Baltic Sea between 2008 and 2012.

### National Fleet Economic performance

The total amount of income generated by the Latvian national fleet in 2011 was €24 million, including €22 million in revenue from fish sales and €1 million in non-fishing income. The landed income of the Latvian fleet increased 3% between 2010 and 2011. Total operating costs incurred by the Latvian fleet in 2011 were €15 million, amounting to 37% of total income. Crew cost and fuel costs, the two major fishing expenses were €3 million and €4 million respectively, see Table 5.29. Between 2010 and 2011, total operating costs increased.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Latvian national fleet in 2011 were €11 million, €7 million and €6 million, respectively. Gross Value Added (GVA) and gross profit decreased by 7% and 10% respectively between 2010 and 2011. Towards the end of 2008 and during 2009 the Latvian fishery sector was negatively affected by the global economic crisis, which led to significant decrease of profit levels. Vessel scrapping between 2008 and 2010 and changes in the structure of fleet segments had a positive impact on incomes and minimised total costs resulting in an increase in profitability in 2011 (Table 5.29) and overall improvement in economic effectiveness.

In 2011, the Latvian fleet had an estimated (depreciated) replacement value of €10 million. Investments in the fleet amounted to €0.3 million in 2011. The major factors causing changes in the capital value of the fleet include the differences in data collection approaches.

Table 5.29 Latvian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	23.1	17.5	21.0	21.8	↗ 3%	23.8	0.8	0.8	1.2	1.2	↘ -1%	1.2
Other income	1.4	2.7	0.8	0.8	↔ 0%	0.8	0.0	0.0	0.0	0.0	↗ 39%	0.04
<b>Costs</b>												
Labour costs	4.2	3.3	3.3	3.3	↗ 2%	3.7	0.18	0.16	0.10	0.09	↘ -11%	0.06
Energy costs	4.4	3.5	3.4	4.2	↗ 21%	5.0	0.06	0.03	0.02	0.03	↗ 25%	0.01
Repair costs	1.0	0.9	0.8	0.9	↗ 10%	0.9	0.05	0.02	0.003	0.01	↗ 316%	0.00
Other variable costs	3.1	2.1	2.5	2.6	↗ 4%	2.6	0.04	0.02	0.12	0.05	↘ -58%	0.02
Non-variable costs	2.7	2.5	3.6	4.2	↗ 18%	3.7	0.05	0.03	0.01	0.01	↗ 25%	0.00
Capital costs	-4.7	6.1	6.7	1.2	↘ -83%	2.1	-0.88	1.12	1.33	0.04	↘ -97%	0.03
<b>Economic Indicators</b>												
GVA	13.5	11.2	11.5	10.7	↘ -7%	12.5	0.6	0.7	1.1	1.2	↗ 5%	1.2
Gross profit	9.3	7.9	8.2	7.4	↘ -10%	8.9	0.4	0.6	1.0	1.1	↗ 7%	1.2
Net profit	-	1.8	1.6	6.2	↗ 300%	6.8	-	-0.6	-0.3	1.0	↗ 424%	1.1
<b>Capital value</b>												
Fleet depreciated replacement value	61.6	54.8	45.6	9.7	↘ -79%	-	11.4	12.5	11.3	0.1	↘ -99%	-
In-year investments	-	0.2	0.3	0.4	↗ 15%	-	0.0	0.0	0.0	0.0	↗ 208%	-
<b>Profitability and development trends</b>												
Net profit margin (%) <i>development trend</i>	-	8.8	7.2	27.6	↗ 286%	-	-	-68.6	-25.2	81.5	↗ 424%	-
RoFTA (%) <i>development trend</i>	-	20.5	22.1	28.3	↗ 28%	-	-	-3.1	-2.8	-	-	-
GVA per FTE (thousand €) <i>development trend</i>	20.3	20.5	22.1	28.3	↗ 28% ↗ 35%	37.9	1.7	2.2	3.4	5.8	↗ 71% ↗ 139%	16.9

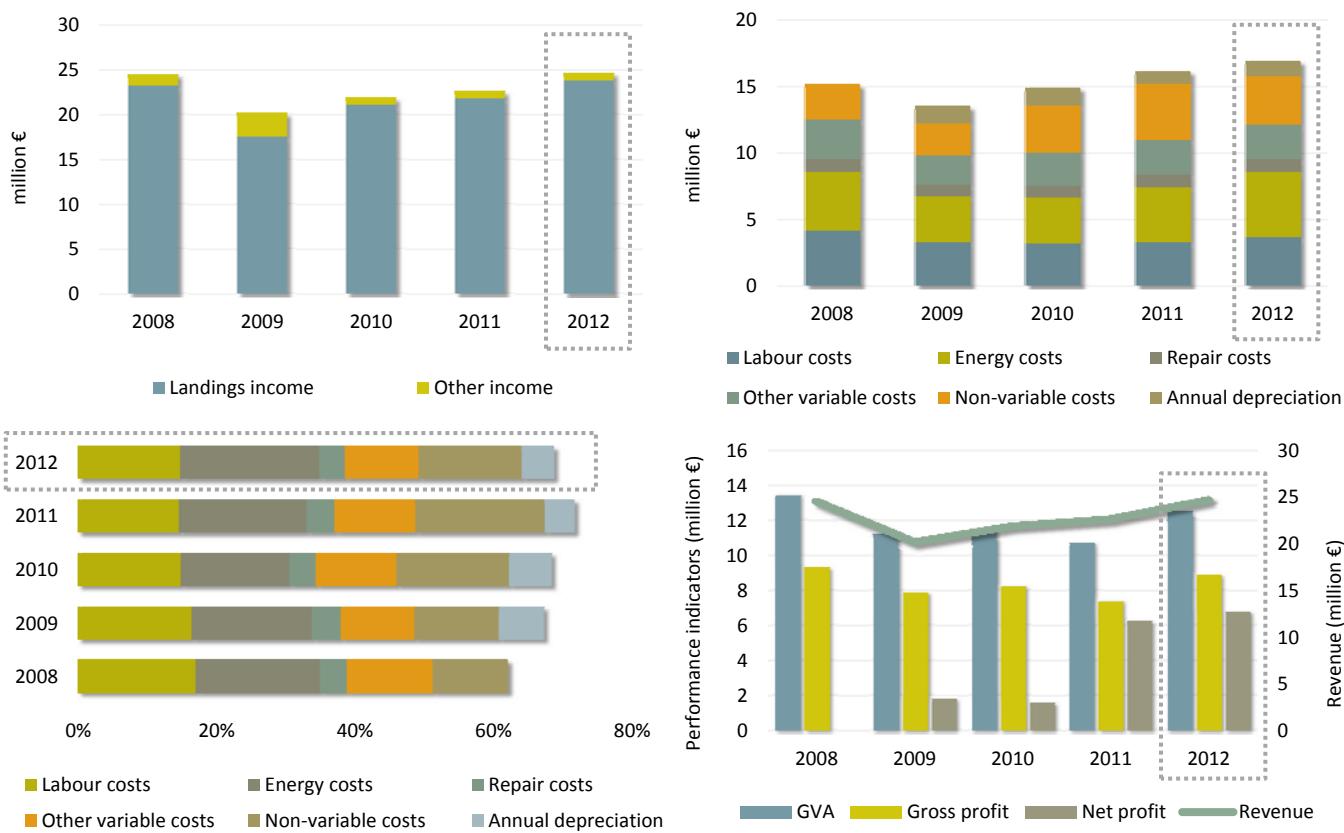
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

## Fleet Segment Level Economic performance

The Latvian national fleet operating in the Baltic Sea consisted of 4 active fleet segments and 3 inactive segments (containing 88 vessels) in 2011. All active fleet segments were profitable in 2011. Table 5.30 provides a breakdown of key performance indicators for each active fleet segment in 2011. A short description of two very important segments in terms of total value of landings is provided below.

**Pelagic trawl 24-40m** – 48 vessels made up this segment in 2011 and are based predominantly in Baltic Sea. These vessels target species such as European Sprat and Atlantic Herring. The total value of landings was €14.6 million and around 93 FTEs was employed in this fleet segment in 2011, contributing to 67% and 31% of the total income from landings generated and FTEs in the national fleet, respectively. This fleet segment was highly profitable, with a reported gross profit of around €4.3 million and a net profit of around €3.6 million in 2011.

**Drift and fixed nets 24-40m** – 10 vessels made up this segment in 2011 which operate predominantly in the Baltic Sea. The fleet targets a variety of species, such as Atlantic cod and European flounder. The total value of landings was €1.7 million and around 28 FTEs were employed in this fleet segment in 2011, contributing to 12% and 9% of the total income generated from landings and FTEs in the national fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €1.7 million and net profit of around €1 million in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.20 Latvian fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

Latvia had two distant-sea trawlers over 40m operating in the North Atlantic and five trawlers operating in CECAF area (EEZ of Mauritania and Morocco) in 2012. All of these vessels belong to three fishing firms.

The total volume landed by the Latvian fleet in the North Atlantic and CECAF in 2012 was 91 thousand tonnes of fish. European pilchard generated the highest landed volume of 33 thousand tonnes, followed by Atlantic horse mackerel 27 thousand tonnes and then Atlantic mackerel, chub mackerel 12 thousand tonnes. The total amount of income generated by the Latvian national fleet in 2011 was €11 million, including €6 million in revenue and €5 million in non-fishing income.

Basing on analysis of the results of economic performance indicators and predictions for 2012 it is possible to conclude that the number of vessels reduced by 13% between 2011 and 2012. Overall, there were two significant developments in the activity of Latvian Baltic Sea fishing fleet - a reduction in the volume of landings by 9% due to a decrease in the TAC for sprat and an increase in average fish prices. As a result total income increased by 8%.

Total costs increased by 3% due to fluctuations in the costs structure. The effort (days at sea) was relatively stable and landed value increased by 9%. The value of landings increased from €22 million to €24 million between 2011 and 2012. GVA, gross profit and net profit are projected to increase to €13 million (15% of GVA), €9 million (7% of gross profit), and €7 million (17% of net profit), respectively in 2012.

The number of vessels in the small scale fleet decreased 15% between 2011 and 2012. Landings weight decreased by 14% and value of landings remained stable around €1.2 million between 2011 and 2012. Total costs, effort (days at sea), GVA, gross profit and net profit remained stable between 2011 and 2012. Although the share of the value of landings generated by small coastal vessels as a proportion of national fleet income is quite insignificant (about 6%), this segment is very

important for the country because it provides rare species to the market. The small scale fleet targets Atlantic cod, Atlantic salmon, European flounder, European smelt, Atlantic herring, European sprat and others coastal species.

## **Data issues**

### **Data issues, coverage and quality.**

All transversal data for 2008 to 2013 were obtained from the 'Integrated Control and Information System' for Latvian fisheries, which includes logbook data and technical parameters of fishing vessels from the Latvian vessel register. The data are reported on a monthly basis and cover all members of the Latvian fishing vessel population. All economic variables for 2008 to 2011 were received from 'Central Statistic Bureau of Latvia' (CSB) state statistical questionnaire '1-Fisheries' and other statistical sources of economic information based on the annual balance sheet. Primary economic information from the state statistical questionnaire "1-Fisheries" was received annually from owners of fishing firms and aggregated by fleet segment. Economic data covers all the members of population. Despite economic data collection is based on questionnaire form, participation of the responders is obligatory according to the Latvian legislation. The achieved sample rate was 100%.

The major factors causing changes in the capital value of the fleet include the differences in data collection approaches. The data for 2008 and 2009 were calculated by using formulas. The data for 2011 were received by questionnaire which is the most qualitative source of economic data collected.

There is no fishing rights market in Latvia.

Table 5.30 Main socio-economic performance indicators by fleet segment in the Latvian national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA27	DFNVL2440	10	-44%	28	-26%	1388	-27%	537	-36%	2540	-21%	1704	-28%	1494	-24%	48.2	3%	1212	-25%	1094	84%	41.3	High	1539%	Improved	
AREA27	TMVL1218	16	-6%	33	6%	2682	4%	1683	15%	3395	43%	11128	7%	1411	26%	42.8	18%	824	105%	535	234%	15.3	High	173%	Improved	
AREA27	TMVL2440	48	-2%	93	-6%	4725	-4%	4238	1%	14620	3%	46961	-20%	6626	-9%	59.2	-3%	4281	-18%	3582	112%	23.5	High	36%	Improved	
AREA27	PGPVL0010	245	-64%	147	-44%	10839	-68%	40	2%	1220	-1%	3327	30%	1165	5%	5.8	71%	1073	7%	1032	424%	81.5	High	274%	Improved	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.11 LITHUANIA

### Fleet Structure, Fishing Activity and Production

In 2012 the Lithuanian fishing fleet consisted of 153 registered vessels from which the 106 were active. Combined gross tonnage was 45 thousand GT, total power was 55 thousand kW and the fleet had an average age of 32 years. The number of active vessels increased by 2.9% in 2012 from 2011 and it was the first positive change in vessel numbers since 2008. During the period 2008-2012 the reduction in vessel numbers was mostly observed in the small scale fleet operating in coastal areas. GT decreased by 2.3% between 2011 and 2012, whereas kW has a positive change of 1.9% (Table 5.31). Despite these modest changes in GT and kW, the general trend from 2008 onwards is of stabilization in fleet capacity, particularly in fleet segments that operates in the Baltic Sea and coastal areas.

In 2012, the number of fishing enterprises in the Lithuanian fleet totalled 73, with the vast majority (75%), owning a single vessel. Only 23% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 768 jobs, corresponding to 579 FTEs. The level of employment increased between 2010 and 2011, with total employed increasing by 8.8% and the number of FTEs increasing by 12.6% over the period. Positive changes in employment were observed in almost all fleet segments, especially in small scale and long distance fisheries. The major factors causing the increased employment in coastal areas are better future expectations following multiannual capacity reduction to more balanced levels, increased landings and income and better expectations for fish prices.

Table 5.31 Lithuanian national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012		
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011				
<b>Structure</b>															
All Vessels	250	219	193	171	-11%	↘		153	146	75	76	63	60	-5% ↘	61
Inactive vessels	125	95	89	68	-24%	↘		47	56	-	-	-	-	-	-
Average vessel age (years)	30	31	31	32	3%	↗		32	33	22	23	24	23	-4% ↘	24
GT(thousand tonnes)	61.0	50.5	49.3	46.0	-7%	↘		45.4	27.2	0.1	0.1	0.1	0.1	-13% ↘	0.1
Engine power (thousand kW)	68.9	59.8	56.4	54.4	-4%	↘		54.7	34.4	1.4	1.3	1.2	1.1	-4% ↘	1.2
No. Enterprises (N)	99	95	77	70	-9%	↘		73		68	67	49	46	-6% ↘	-
<b>Employment</b>															
FTE (N)	617	544	512	575	12%	↗		514	-	142	33	18	19	4% ↗	18
Average wage per FTE (thousand €)	13.1	9.9	8.7	9.4	8%	↗		6.5	-	0.8	2.1	2.9	5.2	78% ↗	4.1
<b>Fishing Effort</b>															
Days at Sea (thousand days)	7.0	15.6	10.7	10.3	-3%	↘		12.4	-	3.6	4.2	3.9	3.4	-12% ↘	4.9
GT fishing days (thousands)	208	7915	6102	7572	24%	↗		3879	-	-	-	-	-	-	-
Energy consumption (million litres)	27.8	31.3	24.5	26.4	8%	↗		-	-	-	0.05	0.04	0.03	-7% ↘	-
Fuel consumption per kg landed (litre/kg)	0.16	0.15	0.23	0.23	0%	↔		-	-	-	0.18	0.18	0.13	-28% ↘	-
<b>Production</b>															
Landings weight (thousand tonnes)	176.1	209.1	108.6	114.6	6%	↗		58.5	-	0.2	0.3	0.2	0.3	36% ↗	0.3
Landings value (million €)	84.3	36.2	46.9	65.6	40%	↗		37.9	-	0.3	0.2	0.1	0.2	38% ↗	0.3

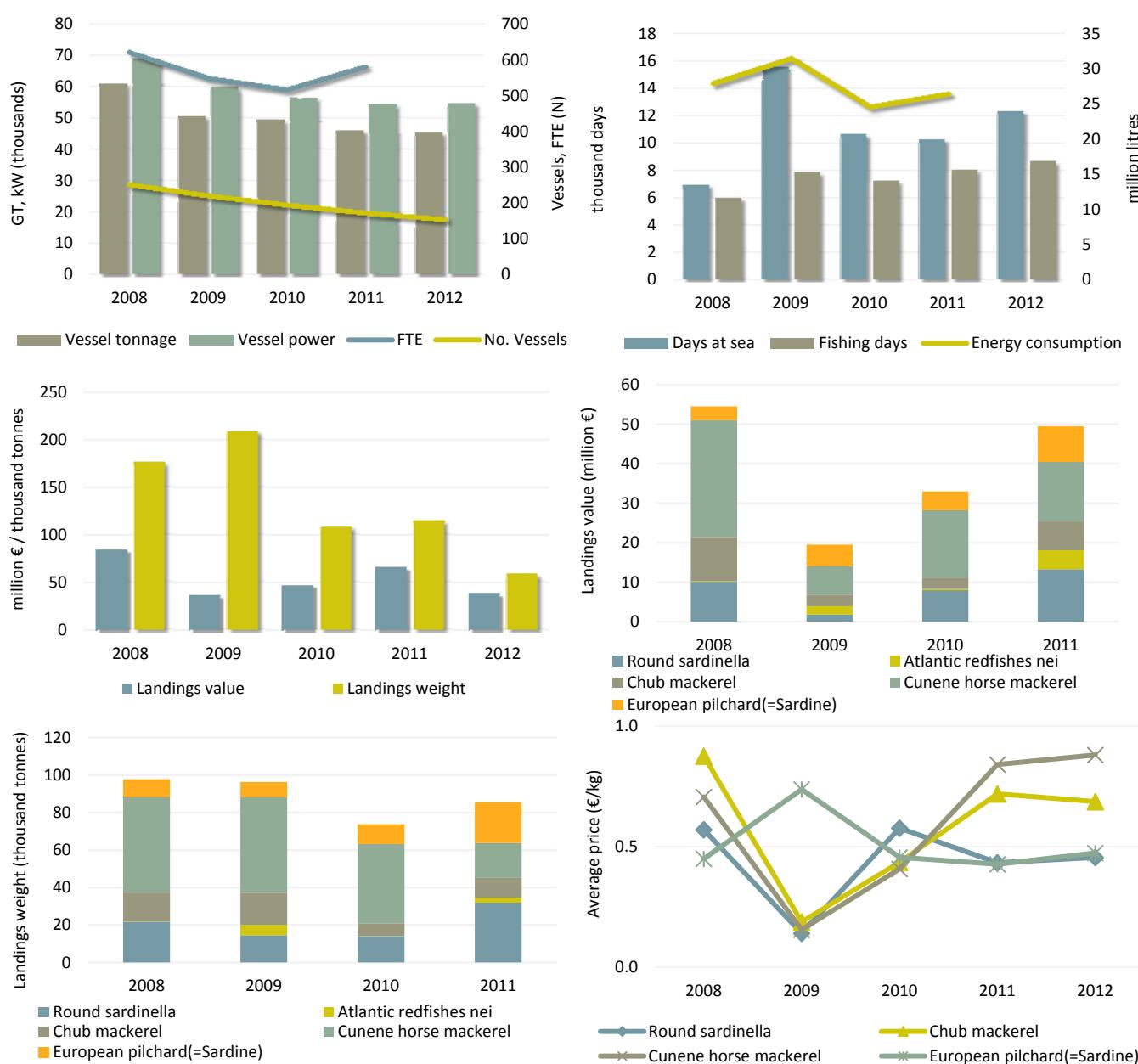
Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013

In 2012 the Lithuanian fleet spent a total of around 12 thousand days at sea. The total number of days at sea increased 20% between 2012 and 2011. The total volume landed by the Lithuanian fleet in 2012 was 58 thousand tonnes of seafood, with a landed value of €38 million. Around 81% of the value landed by national fleet was generated by vessels operating in the long distance fishery, with the remainder coming from the Baltic Sea and coastal areas. The total volume and value of landings by the national fleet was highly influenced by the performance of the long distance fishery and decreased over the period analysed. In 2012, Cunene horse mackerel generated the highest landed value (€8.9 million) by the long distance vessels of national fleet, followed by Round sardinella (€5.4 million) and beaked redfish (€3.8 million). The most important species landed by long distance fleet in terms of weight was Round sardinella (11.8 thousand tonnes) and Cunene horse mackerel (10.1 thousand tonnes). Regarding the value and volume of landings of the national fleet between 2008 and 2009, when 86% of national landings were generated from long distance fleet, a significant drop of landings value were observed in 2009. The most important species landed by high sea vessels were Cunene horse mackerel, the price of which was considered to be the main driver of the dip in value landed observed in 2009. According to reported data the price

decreased from 0.58 EUR per kg to 0.12 EUR per kg and recovered to 0.4 EUR per kg in 2010. Such change in price is doubtful as the EU market price for Cunene horse mackerel is around 0.4 EUR per kg. There was a general decrease in fish prices during 2009 following the economic crises, but the reported excessive decrease in value of landings suggests that the data is highly questionable.

Concerning the Baltic Sea and its coastal area, the value of landings increased by 6.1% between 2011 and 2012. The species with the highest value landed from the Baltic Sea was European sprat (€2.9 million) and then cod (€2.6 million). In terms of landings volume, in 2012 European sprat landings amounted to 11.2 thousand tonnes, Baltic cod was 2.5 thousand tonnes and Baltic herring was 2.3 thousand tonnes.

For one of the Lithuanian fleet segments fishing in the Baltic Sea including coastal area, 2012 was the least successful in terms of cod catches; volumes landed were the lowest since 2008. Between 2011 and 2012, Lithuanian vessels operating in the Baltic Sea and its coastal area landed 19% less cod, despite the 15% increase in cod quotas. In fact, during 2012 the Lithuanian fleet only caught 58% of the available quota. Reasons for this included the low price of cod compared to the previous years (15% decrease in 2011-2012), the increase in the fuel price causing higher energy costs for an already inefficient fleet which is obliged to land more than half its catch to a Lithuanian port.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.21 Lithuanian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

Quotas for Baltic sprat and herring decreased 22% and 27% respectively in 2012. But after the unfulfilled sprat quota in 2011, landings of Lithuanian vessels increased by 15.6% compare to the previous year. The recent decline in catches of pelagic stocks, particularly sprat and herring, caused a significant increase in prices. During the 2011-2012 period prices for sprat and Baltic herring increased 117% and 55% respectively. To achieve a better economic outlook with respect to the exploitation of pelagic species, more fishing vessel owners are willing to switch target species from cod to sprat or herring.

The most important species for the small scale fleet in terms of value of landings was cod and Baltic herring. The value of both species increased during 2011-2012 year; 36% for cod and 6% for Baltic herring. While the increase in cod quota in 2012 did not bring much benefit to the 24-40m segments, small scale vessels experienced significantly higher economic gains. The most important species for the small scale vessels in the terms of value is European smelt. European smelt landings by Lithuanian vessels under 10m fishing with passive gears have increased since 2008 and in 2012 reached the highest levels in terms of value and volume over the latest five year period. With the high supply of fresh smelt production, there was a decrease in the average first sales price of smelt price of 6% from 1.66 to 1.56 EUR per kg during 2011-2012.

The price of fish landed by long distance vessels had a major influence on changes in data on the value of landings for the national fleet; the long distance fleet landed 81% of the value of landings by the national fleet. Prices obtained for key species had a mixed performance. For example, price of Cunene horse mackerel, which accounted for 23% of the total landings value, increased 8.9% between 2011-2012 and 54% during 2008-2012 period amounting €0,88 per kg. Round sardinella increased 9,33% between 2011-2012, but declined 2,3% during 2008-2012 period amounting €0,46 per kg.

## National Fleet Economic performance

The total amount of income generated by the Lithuanian national fleet in 2011 was €47.2 million. This consisted of €46.5 million in landings value and €0.69 million in non-fishing income.

Table 5.32 Lithuanian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	80.6	50.3	39.5	46.5	↗ 18%	40.5	0.25	0.25	0.15	0.20	↗ 37%	0.33
Other income	0.2	5.7	3.1	0.4	↘ -86%	1.8	0.00	0.00	0.01	0.03	↗ 133%	0.02
<b>Costs</b>												
Labour costs	8.1	5.4	4.5	5.4	↗ 22%	3.3	0.12	0.07	0.05	0.10	↗ 85%	0.07
Energy costs	24.1	11.5	13.0	12.3	↘ -5%	17.7	0.02	0.03	0.03	0.04	↗ 31%	0.04
Repair costs	13.5	9.0	5.8	6.1	↗ 5%	7.3	0.01	0.01	0.02	0.01	↘ -70%	0.01
Other variable costs	20.3	17.7	15.2	12.7	↘ -16%	15.2	0.05	0.04	0.01	0.02	↗ 9%	0.01
Non-variable costs	5.9	4.3	3.9	3.0	↘ -23%	2.7	0.02	0.03	0.03	0.02	↘ -10%	0.02
Capital costs	-0.9	6.7	4.4	2.8	↘ -36%	3.0	0.00	0.04	0.02	0.01	↘ -62%	0.01
<b>Economic Indicators</b>												
GVA	17.0	13.4	4.7	12.9	↗ 173%	-0.6	0.16	0.14	0.06	0.14	↗ 127%	0.26
Gross profit	8.9	8.0	0.3	7.5	↗ 2888%	-4.0	0.04	0.07	0.01	0.04	↗ 368%	0.19
Net profit	9.8	1.4	-4.1	4.7	↗ 213%	-7.0	0.04	0.03	-0.01	0.03	↗ 344%	0.18
<b>Capital value</b>												
Fleet depreciated replacement value	55.1	50.2	49.7	53.3	↗ 7%	51.5	0.27	0.27	0.24	0.13	↘ -45%	0.18
In-year investments	0.1	20.4	20.1	0.1	↘ -1%	-	n/a	0.000	0.004	0.001	↘ -84%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	12.1	2.5	-9.7	10.0	↗ 202%	-16.5	15.2	13.9	-8.9	14.9	↗ 269%	50.5
development trend	Improved				↗ 510%	Improved				↗ 121%		
RoFTA (%)	17.8	2.8	-8.3	8.8	↗ 206%	-13.5	17.4	12.8	16.5	25.8	↗ 56%	94.8
development trend	Improved				↗ 115%	Improved				↗ 66%		
GVA per FTE (thousand €)	27.5	24.7	9.2	22.4	↗ 144%	-1.3	1.1	4.4	3.4	7.5	↗ 118%	14.7
development trend	Improved				↗ 10%	Improved				↗ 151%		

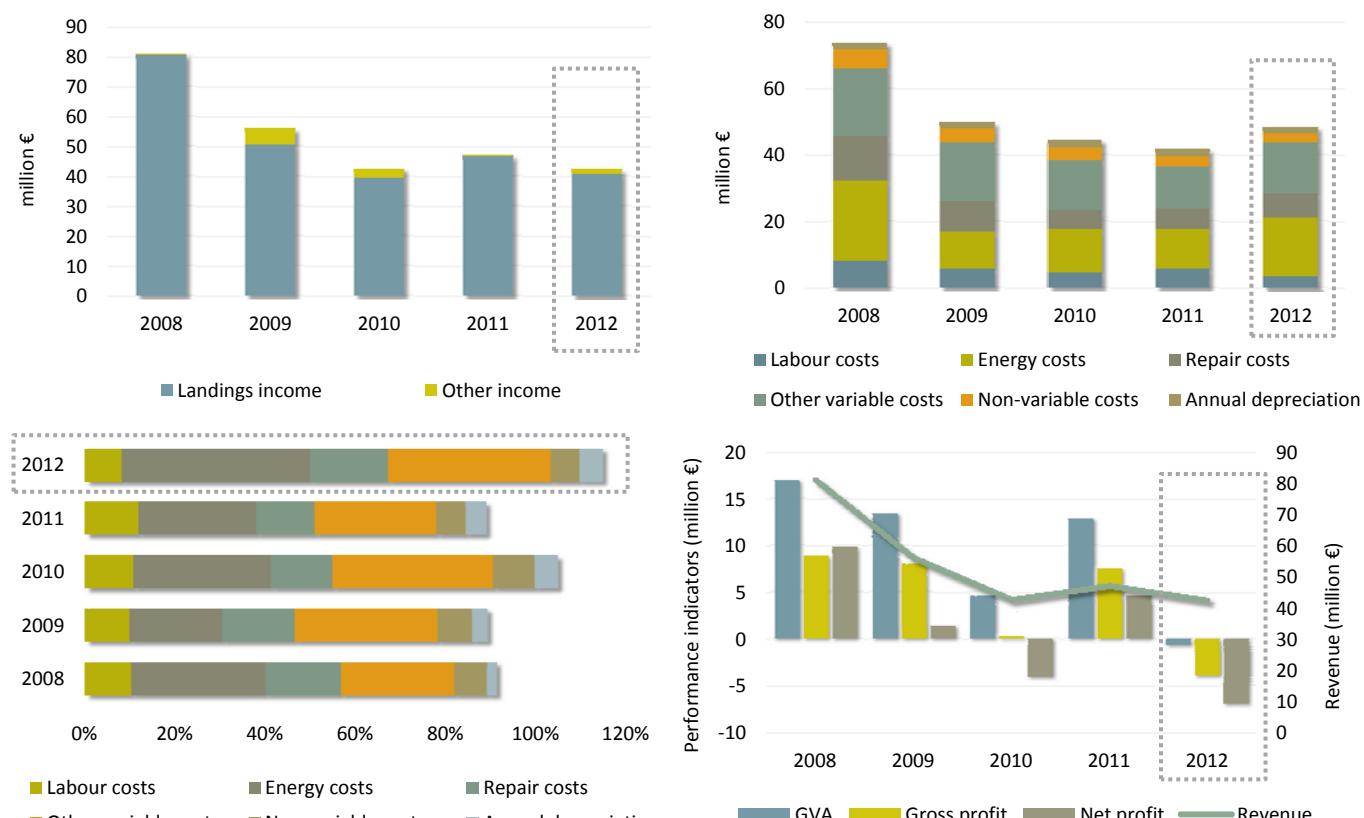
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Note: income from landings in 2012 taken from transversal data on value of landings

The Lithuanian fleet's total income increased 10.5% between 2010 and 2011. Total operating costs incurred by the Lithuanian national fleet in 2011 equated to €39.5 million, amounting to 83.7% of total income. Other variable costs and energy costs, as the two major fishing expenses, were €12.7 and €12.3 million respectively (Table 5.32). Between 2010 and 2011, total operating costs decreased 6.6%, largely due to other variable costs, which amounted to almost 27% of total income in 2011.

In terms of economic performance, the amount of Gross Value Added (GVA), gross profit and net profit generated by the Lithuanian national fleet in 2011 were €12.9 million, €7.5 million and €4.7 million, respectively. Gross Value Added (GVA), increased 174.5% between 2010 and 2011. Significant annual increase in value of landings following by moderately declined important cost items as non-variable and variable costs as well as relatively stable fuel expenditure resulted in much higher GVA. Lower capital costs comparing 2010 and 2011 resulted in higher net profit. For as much as economic indicators of national fleet are highly dependent from long distance fishery economic performance the factors which affects other important segments of Lithuanian fleet had the inconsiderable influence on the national level.

In 2011, the Lithuanian fleet had an estimated (depreciated) replacement value of €53.5 million with a 7% annual increase. Investments by the fleet amounted to €20.1 million in 2011 and had a minor change compare to 2010. This suggest unfavourable outlook for higher capital value fleet in terms of economic fleet efficiency.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.22 Lithuanian fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Fleet Segment Level Economic performance

The Lithuanian fleet is highly diversified with a broad range of vessel types targeting different species predominantly in other fishing regions, particularly in CECAF (area 34). The national fleet consisted of 5 fleet segments (only 4 are presented due to confidentiality reasons) in 2011, with 5 inactive length classes consisting of 66 vessels. Only for 1 active fleet segment moderate net loss was observed in 2011 while remaining 4 had an overall net profit. Table 5.32 provides a breakdown of key performance indicators for all fleet segments in 2011.

**DTS/24-40** – 20 vessels make up this segment which operates predominantly in Baltic Sea (area 27). The fleet targets a variety of species but in particular demersal, such as cod and flounder. In 2011, the total income was almost €4.3 million and

around 140 FTEs were employed in this fleet segment, contributing to 9.1% and 24.18% of the total income from landings and FTEs generated by the Lithuanian fishing fleet, respectively. This fleet segment was slightly profitable, with a reported gross profit of around €0.5 million and net profit of €0.3 million in 2011. Although this segment had a profitable performance, profitability indicators slightly declined between 2010 and 2011. Gross value added had 3.7% annual decline, mostly influenced by increased fuel price and reduced cod prices.

**PG/00-10** – 60 vessels make up this segment which operates predominantly in coastal area of Baltic Sea (*area 27*). The fleet targets a variety of species but in particular cod, European smelt and Baltic herring. In 2011, the total income was almost €0.23 million and around 19 FTEs were employed in this fleet segment, contributing to 0.5% and 3.3% of the total income from landings and FTEs generated by the Lithuanian fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €0.05 million and net profit of €0.03 million in 2011. Regarding profitability and development trends between 2010 and 2011, small scale fishery performed relatively well and improved in such positions as net profit and return on tangible assets. The major expenses in this segment were crew costs (50% in cost structure) with relatively high unpaid labour as well as energy expenditures (21% in cost structure). This segment had a different cost structure compare to remaining fleet segments, mainly trawlers, therefore fuel consumption was not the main factor affecting profitability. Increased quotas for cod and high demand on European smelt with a reasonable price had a major impact on higher profits. Capacity reduction policy resulted in improved socioeconomic indicator GVA/FTE. Decreased yearly investments did not affected profitability, because small scale fishery segment using mainly drift or fixed nets is not so much investment demanded or dependant compare to high capital value trawlers with complex gear.

**DFN/12-18** – 9 vessels make up this segment which operates predominantly in coastal area of Baltic Sea (*area 27*). The fleet targets a variety of species but in particular cod, flounder and Baltic herring. In 2011, the total income was almost €0.35 million and around 18 FTEs were employed in this fleet segment, contributing to 0.74% and 3.1% of the total income from landings and FTEs generated by the Lithuanian fishing fleet, respectively. This fleet segment was slightly profitable in terms of gross profit, but after estimation of capital costs, segment incurred net losses amounting €0.01 million in 2011.

**TM/40XX** – 8 vessels make up this segment which consists of long distance fishery vessels predominantly operating in CECAF (*area 34*). The fleet targets a variety of species but in particular pelagic, such as Cunene horse mackerel and Round sardinella. In 2011, the total income was almost €39 million and around 372 FTEs were employed in this fleet segment, contributing to 82.6% and 64.7% of the total income from landings and FTEs generated by the Lithuanian fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €5.9 million and net profit of €3.5 million in 2011.

## ***Assessment and Future Trends***

Despite the profits obtained in 2011 by the most part of Lithuanian fleet, cost effectiveness remains low due to insufficient investments to old fleet. Low fuel efficiency and relatively considerable repair and maintenance costs reduce profitability and GVA generated by fleet. Such cost items will further affect profits of the segments consisting from higher capital value vessels more than 24 m if no investments are imposed.

For small scale fishery repair and maintenance expenditures did not account for a significant part of cost structure, this segment is more sensitive to prices of target species and quota designated. Multiannual capacity reduction to the balanced level (capacity for this segment reached stabilized trend), could benefit an increase in income per vessel and better perspectives for employment.

Regarding cod management plan slightly reduced stocks of cod resulted in decreased quota by 8.9% for 2013. This will affect segments targeting cod such as DTS 24-40m and PG 00-10m. Quota for Baltic herring and European sprat was increased by 15% and 11% respectively in 2013. This will result in good outlook for TM 24-40 vessels as well as other segments which operate in Baltic Sea and catch moderate quantities of pelagic species. For good outlook contributes also significantly increased sprat and Baltic herring prices.

For long distance fishery vessels fishing in NAFO, 2013 will have almost same quotas as in 2012, but it is significantly decreased compare to 2011. In NEAFC region 2013 quotas were increased by 15%, but as much as catches from this region do not significantly contribute to total catches by long distance fleet, it will not have a considerable effect to whole segment. For CECAF region which contributes to the main part of catches in long distance fleet was assigned a considerable size of quota with a favourable outlook for 2013 also taking into account a tendency to increase pelagic fish prices.

## ***Data issues***

Under DCF, data for earnings from landings comes with two distinct reports (total value of landings as transversal variable and total income from landings as economic indicator). In Lithuania income from landings together with other socio-

economic indicators as expenditure, employment and capital value are collected on census basis with one year lag whereas transversal variables are collected one year prior to economic data. Despite this difference in time period both indicators should comply with each other with modest deviation. In Lithuanian long distance fleet fishery clustered segments transversal and economic data for income varies significantly. This mismatch occurred due to different methodologies used for transversal and economic data calculation as well as different data sources. Economic data, income from landings and related costs for each vessel or segment (when all vessels of particular enterprise fall in to the same segment) are reported from enterprise business accounts, while value of landings is estimated counting price per fish and quantity landed (from logbooks). The high deviation of value of landings is highly probable that depends from the reported prices for the species (especially during years 2008 and 2009) which were landed in ports of other countries. Value of landings and income from landings in vessels which operates in Baltic Sea and landed production in national port, don't vary significantly.

Table 5.33 Main socio-economic performance indicators by fleet segment in the Lithuanian national fishing fleet in 2011

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011-average (2008-10)	Economic development trend
AREA27	DFN	9	-18%	18	-41%	844	-5%	138	-13%	377	-38%	312	-37%	144	-47%	7.9	-9%	10	-94%	-15	-111%	-4.1	-119%	Weak	-117%	Deteriorated
AREA27	DTS	20	11%	140	13%	1817	19%	1502	17%	4110	-42%	5572	-20%	1289	-4%	9.3	-15%	492	-11%	267	2%	6.2	3%	Reasonable	-10%	Deteriorated
AREA27	TM	6	20%	30	-6%	853	3%	1196	53%	1976	3%	12316	5%	1317	177%	43.8	196%	1035	281%	913	1196%	29.7	816%	High	1055%	Improved
AREA27	PG	60	-5%	19	4%	3437	-12%	34	-7%	197	38%	270	36%	138	127%	7.5	119%	43	368%	34	344%	14.9	269%	High	121%	Improved
OFR	TM	8	14%	372	20%	3275	15%	23503	6%	58900	48%	96194	5%	9996	290%	27.1	226%	5886	881%	3502	179%	9.0	171%	Reasonable	1000%	Improved

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.12 MALTA

### Fleet Structure, Fishing Activity and Production

In 2012 the Maltese fishing fleet consisted of 1,060 registered vessels, with a combined gross tonnage of 8.1 thousand GT, a total power of 77.9 thousand kW and an average age of 26 years. The size of the Maltese fishing fleet decreased between 2008 and 2012, with the number of vessels decreasing by 20% (256 vessels). The decrease between 2010 and 2011 was only 2%. GT increased by 8% from 2008 to 2012, however GT decreased by 2% between 2010 and 2011. Overall engine power (kW) decreased by 11% (Table 5.34) from 2008 to 2012, but the decrease from 2010 to 2011 was 2%. A large proportion of the fleet consists of small-scale vessels under 12m and all the National fleet operates in the Mediterranean Sea. The major factors causing the number of vessels to decrease were a) compensations given to vessel owners for decommissioning, b) vessels that had low landing declarations (below national thresholds) were removed from the full-time or part-time register and given recreational licences c) new vessels entered the fleet and these had varying GT and power which finally contributed to an overall decrease in power but an increase in GT.

The small-scale fleet decreased in terms of vessel numbers, tonnage and power by 30%, 25% and 29% respectively between 2010 and 2011; however the overall trend from 2008 to 2012 is an increase in capacity - the number of vessels, tonnage and power increased by 14%, 7% and 12% respectively.

In 2012, the provisional number of fishing enterprises in the Maltese fleet totalled 1,028, with the vast majority owning a single vessel. Fewer than 2% of enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 225 jobs, corresponding to 155 FTEs. The level of employment increased between 2008 and 2011; total employed increased 40% and the number of FTEs increasing 41% during the period 2008 and 2012. The major factor causing employment to increase was simply a change in the data collection procedure. The number of FTEs decreased 39% between 2010 and 2011.

Table 5.34 Maltese national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%).

Variable	NATIONAL FLEET					% $\Delta$ 2010-11	SMALL SCALE FLEET					% $\Delta$ 2010-11	2012	
	2008	2009	2010	2011			2012	2013	2008	2009	2010	2011		
<b>Structure</b>														
All Vessels	1316	1111	1112	1087	-2%	$\searrow$	1060	1036	621	679	759	532	-30% $\searrow$	707
Inactive vessels	613	332	264	453	72%	$\nearrow$	276	13	-	-	-	-	-	-
Average vessel age (years)	25	24	25	26	3%	$\nearrow$	26	27	24	24	24	25	2% $\nearrow$	26
GT(thousand tonnes)	7.5	8.3	12.3	12.1	-2%	$\searrow$	8.1	7.8	1.6	1.7	1.8	1.4	-25% $\searrow$	1.7
Engine power (thousand kW)	87.5	82.2	85.5	83.4	-2%	$\searrow$	77.9	75.5	35.9	38.3	43.3	30.5	-29% $\searrow$	40.4
No. Enterprises (N)	1297	1081	1076	1060	-1%	$\searrow$	1028	-	612	660	872	522	-40% $\searrow$	-
<b>Employment</b>														
FTE (N)	88	154	256	155	-39%	$\searrow$	151	-	41	24	74	40	-46% $\searrow$	28
Average wage per FTE (thousand €)	38.3	67.6	39.4	49.0	24%	$\nearrow$	73.3	-	49.6	284.6	82.4	128.3	56% $\nearrow$	136.4
<b>Fishing Effort</b>														
Days at Sea (thousand days)	47.0	48.3	65.4	41.3	-37%	$\searrow$	33.7	-	43.1	43.6	61.9	36.0	-42% $\searrow$	28.2
GTfishing days (thousands)	111	110	116	132	14%	$\nearrow$	181	-	n/a	n/a	n/a	n/a	-	-
Energy consumption (million litres)	3.5	4.3	5.3	2.6	-51%	$\searrow$	-	-	1.4	2.1	1.7	1.1	-33% $\searrow$	-
Fuel consumption per kg landed (litre/kg)	2.73	2.70	2.90	1.35	-53%	$\searrow$	-	-	3.24	6.01	2.19	1.35	-38% $\searrow$	-
<b>Production</b>														
Landings weight (thousand tonnes)	1.2	1.5	1.8	1.8	3%	$\nearrow$	2.2	-	0.4	0.3	0.8	0.8	9% $\nearrow$	0.7
Landings value (million €)	8.2	8.5	8.8	11.3	29%	$\nearrow$	12.6	-	2.6	2.0	4.1	4.3	6% $\nearrow$	4.4

Data source: DCF 2013 Fleet Economic (MARE/A3/AC (2013)); data for 2012/2013 are provisional.

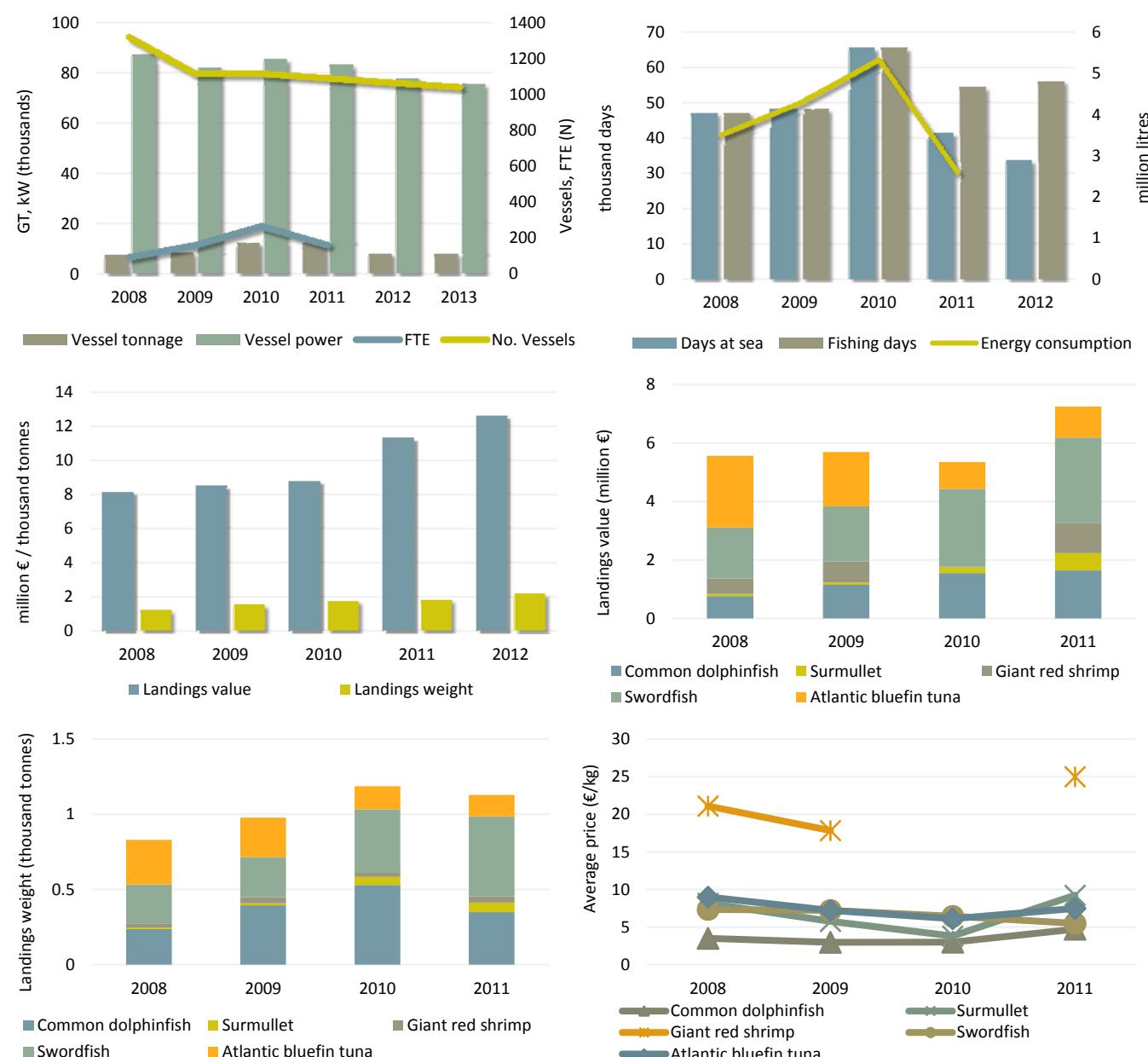
Note: kW and GT fishing days for dredges and trawls only

In 2012 the Maltese fleet spent a total of around 34 thousand days at sea. The total number of days at sea decreased around 28% between 2008 and 2012. Between 2010 and 2011, days at sea decreased by 37%, mainly due to there being fewer active vessels in 2010 – 2010 effort data was considerably higher than in previous years causing a peak in effort variables, such as days at sea, fishing days and energy consumption.

The quantity of fuel consumed in 2011 totalled around 2.59 million litres, 26% lower than in 2008 and a decrease of 51% from the previous year. The major factors causing the decrease in fuel consumption are mainly attributed to the decreased number of vessels as explained above.

The total volume landed by the Maltese fleet in 2011 was 1.82 thousand tonnes of seafood, with a landed value of €11.3 million (provisional total volume landed by the Maltese fleet in 2012 was 2.17 thousand tonnes, with a landed value of €12.63 million). The total volume and value of landings increased over the period analysed, with the small-scale fleet accounting for around one third of the volume of landings. In 2012, swordfish generated the highest landed value (€3.6 million) by the national fleet, followed by Atlantic bluefin tuna (€1.4 million), common dolphinfish (€1.2 million), giant red shrimp (€0.9 million) and then surmullet (€0.6 million). In terms of landings weight, in 2012 Swordfish was 0.5 thousand tonnes, chub mackerel was 0.25 thousand tonnes and round sardinella was 0.2 thousand tonnes. The major factors causing the increase in volume and value of landings are probably due to increased demand for some species such as chub mackerel and round sardinella that are nowadays used as bait for longliners and for feed in aquaculture farms (to farm bluefin tuna). Moreover, higher prices per kilo were achieved in 2012 compared to the previous years which also contributed to the increase in value of landings.

The prices obtained for these key species in general increased between 2008 and 2012. Giant red shrimp achieved the highest average price per kilo in 2012 (€18.78 per kg), followed Atlantic bluefin tuna (€9.86 per kg). First sales prices increased for a number of key species due to higher expert demand and generally higher prices achieved through the auction markets.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC (2013)); data for 2012 are provisional.

Figure 5.23 Maltese fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of value landed in 2011; and bottom right – average landed prices for main species.

## National Fleet Economic performance

The total amount of income generated by the Maltese national fleet in 2011 was €11.6 million, an increase of around 24% between from 2010. Total operating costs incurred by the Maltese national fleet in 2011 equated to €12.9 million, over 100% of total income. Crew cost and fuel costs, the two major fishing expenses, were €7.6 and €2.2 million respectively, see Table 5.35. Between 2010 and 2011, total operating costs decreased 28%, mainly due to the decreased number of vessels and fishing effort registered in 2011 compared to the previous year.

Table 5.35 Maltese national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

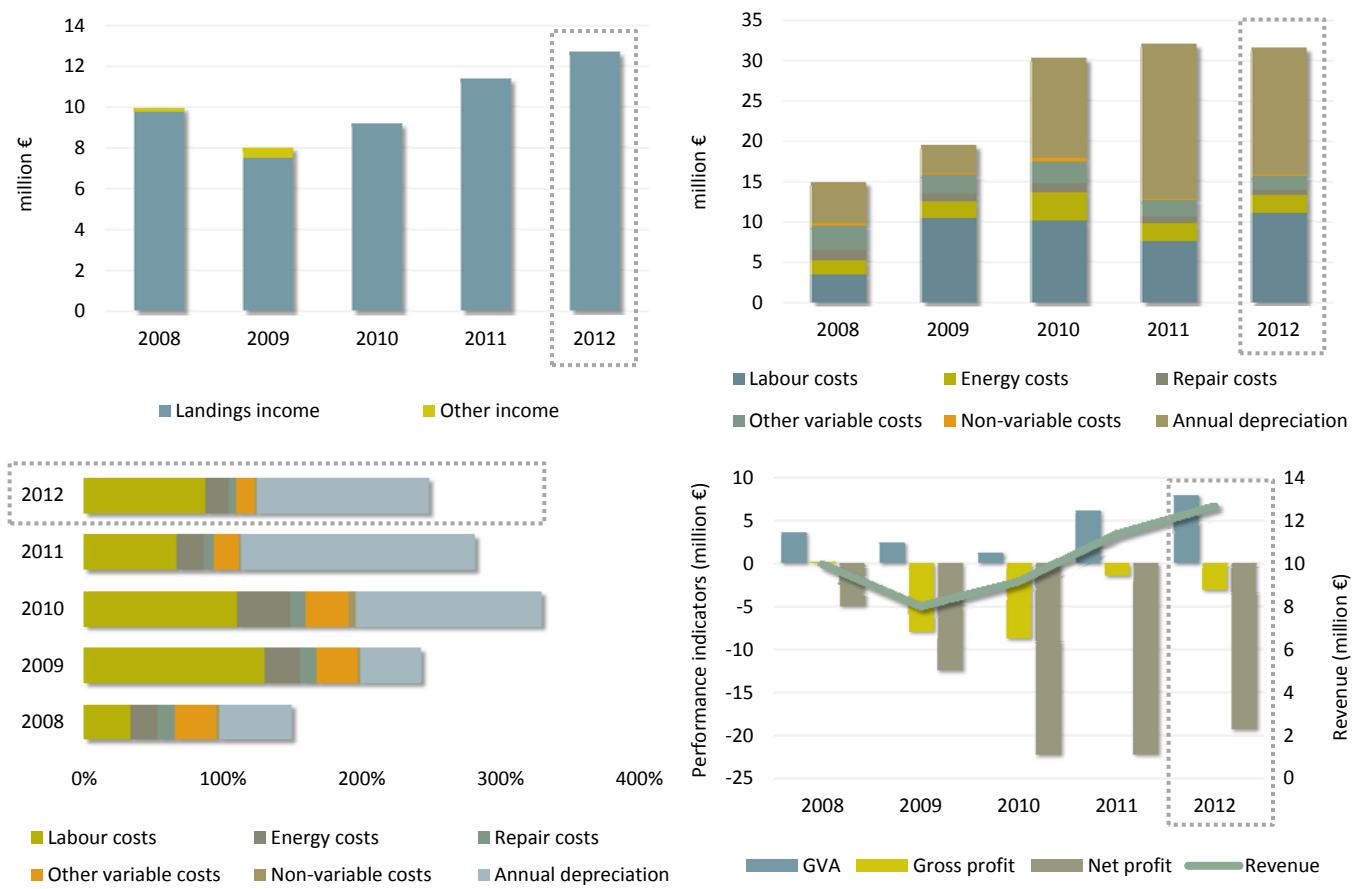
Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	9.7	7.5	9.2	11.4	↗ 24%	12.7	3.8	3.1	3.9	4.3	↗ 10%	4.4
Other income	0.2	0.5	-	-	-	-	0.01	-	-	-	-	-
<b>Costs</b>												
Labour costs	3.4	10.4	10.1	7.6	↘ -25%	11.1	2.0	6.9	6.1	5.2	↘ -15%	3.9
Energy costs	1.9	2.1	3.6	2.2	↘ -38%	2.1	0.8	1.0	1.2	1.0	↘ -19%	0.7
Repair costs	1.2	0.9	1.0	0.8	↘ -17%	0.7	0.4	0.5	0.5	0.3	↘ -32%	0.2
Other variable costs	3.0	2.4	2.8	2.1	↘ -26%	1.7	1.3	1.2	1.2	0.9	↘ -29%	0.5
Non-variable costs	0.2	0.2	0.5	0.2	↘ -69%	0.2	0.1	0.1	0.1	0.1	↘ -43%	0.1
Capital costs	5.2	4.6	13.6	20.8	↗ 53%	16.3	2.7	2.2	1.9	2.5	↗ 29%	2.1
<b>Economic Indicators</b>												
GVA	3.6	2.5	1.3	6.1	↗ 364%	8.0	1.2	0.3	0.8	2.0	↗ 147%	2.9
Gross profit	0.3	-7.9	-8.8	-1.5	↗ 83%	-3.1	-0.8	-6.6	-5.3	-3.1	↗ 41%	-0.9
Net profit	-4.9	-12.5	-22.3	-22.2	↔ 0%	-19.3	-3.5	-8.8	-7.2	-5.6	↗ 22%	-3.1
<b>Capital value</b>												
Fleet depreciated replacement value	37.9	39.9	59.3	81.6	↗ 38%	70.5	11.4	16.4	8.2	9.5	↗ 15%	8.8
In-year investments	0.9	0.9	1.4	1.6	↗ 14%	-	0.2	0.5	0.8	0.9	↗ 14%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	-49.6	-156.4	-243.4	-195.5	↗ 20%	-152.5	-91.1	-287.2	-184.2	-129.8	↗ 30%	-70.0
development trend	Deteriorated				↘ -30%	-	Improved				↗ 31%	-
RoFTA (%)	-13.0	-31.4	-37.7	-27.2	↗ 28%	-27.4	-30.3	-53.9	-88.1	-59.4	↗ 33%	-34.5
development trend	Stable				↔ 0%	-	Stable				↘ -3%	-
GVA per FTE (thousand €)	41.3	16.1	5.2	39.5	↗ 666%	53.0	29.9	11.6	11.2	50.8	↗ 355%	102.9
development trend	Improved				↗ 90%	-	Improved				↗ 190%	-

Data source: DCF 2013 Fleet Economic (MARE/A3/AC (2013)); data for 2012 are provisional.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Maltese national fleet in 2012 were €8 million, €-3 million and €-19 million, respectively. Gross Value Added (GVA) increased 69% while gross profit and net profit decreased drastically between 2008 and 2012. According to the data collected, capital costs increased significantly from 2010 onwards (€13.6 million in 2010, €20.8 million in 2011 as opposed to around €5 million in previous years). The change in the capital value of the fleet is most likely related to the change in the calculation methodology of the capital value and depreciation costs as the Perpetual Inventory Method (PIM) which Malta started to use in 2010. Profits have however not increased and the net profit has consistently been negative between 2008 and 2012.

In 2012, the Maltese fleet had an estimated (depreciated) replacement value of €70 million and an estimated value of fishing rights of €0.14 million. Investments by the fleet amounted to €1.6 million in 2011. Net profit margin has deteriorated

over the years at national fleet level but has improved for the Maltese small-scale fleet. The development trend in RoFTA on the other hand is quite stable and the GVA per FTE has improved.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.24 Maltese fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Fleet Segment Level Economic performance

The Maltese fleet is highly diversified with a broad range of vessel types targeting different species in the Mediterranean. The national fleet consisted of 20 active (DCF) fleet segments in 2011, with 6 inactive fleet segments consisting of 453 vessels. Ten of the active fleet segments made losses in 2011 while two made an overall gross profit (information lacking for 8 segments). Table 5.36 provides a breakdown of key performance indicators for all Maltese fleet segments in 2011. A short description of three important segments in terms of total value of landings is provided below.

**Vessels using hooks 6–12m** - 101 vessels made up this segment in 2011 which operates predominantly in the Mediterranean. The fleet targets a variety of species mainly by using surface and bottom long-liners. Surface long-liners target mainly large pelagic species such as Atlantic bluefin tuna, swordfish and common dolphinfish while bottom long-liners target demersal species such as rays and demersal shark species amongst others. In 2011, the total value of landings was just under €2 million and around 35 FTEs were employed in this fleet segment, contributing to 17% of the total income generated from landings and 22.4% of FTEs in the Maltese fishing fleet, respectively. This fleet segment was not profitable, with a reported gross loss of around €1.2 million and net loss of €2.1 million in 2011. The main reasons for the loss are the increased costs attributed to energy consumption where fishers are required to travel to more distant grounds for fishing, higher unpaid labour costs and significant annual depreciation costs.

**Vessels using hooks 18–24m** - 16 vessels made up this segment in 2011 which operates predominantly in the Mediterranean. The fleet targets a variety of species mainly by using surface and bottom long-liners. Surface long-liners target mainly large pelagic species such as Atlantic bluefin tuna, swordfish and common dolphinfish while bottom long-liners target demersal species such as rays and demersal shark species amongst others. In 2011, the total value of landings was about €1.4 million and around 12 FTEs were employed in this fleet segment, contributing to 12% and 7.69% of the total income from landings and FTEs generated by the Maltese fishing fleet, respectively. This fleet segment was not profitable,

with a reported gross loss of around €0.4 million and net loss of €2.3 million in 2011. The main drivers behind the loss are the high costs attributed to annual depreciation costs and high opportunity costs of capital along with high variable costs.

**Demersal trawlers 24-40m** – 6 vessels make up this segment in 2011 which operates predominantly in the Mediterranean. The fleet targets a variety of species but in particular demersal and deep water species, such as deep-water rose shrimp, giant red shrimp and surmullets. Maltese trawlers are divided into 3 categories: (i) Trawlers targeting demersal slope species, mainly red shrimps (*Aristaeomorpha foliacea* and *Aristeus antennatus*) all year round depending on the weather; (ii) Trawlers targeting demersal species, mainly white shrimps (*Parapenaeus longirostris*), and red mullets (*Mullus barbatus* and *Mullus surmuletus*) also all year round; (iii) Vessels target both demersal slope and demersal shelf species. In 2011, the total value of landings was almost €0.43 million and around 11 FTEs were employed in this fleet segment, contributing to 3.7% and 7.1% of the total income from landings and FTEs generated by the Maltese fishing fleet respectively. This fleet segment was not particularly profitable, with a reported gross profit of around €0.13 million and a net loss of €2.1 million in 2011. The main drivers behind the loss were the high opportunity cost of capital and depreciation costs. The 18-24m demersal trawlers generated a higher overall landings value than the 24-40m vessels however detailed information was not given for this segment.

## Assessment and Future Trends

Overall at the Maltese national fleet level, the increases in landings volume and higher average prices resulted in a 10.3% increase in the value of landings, from €11.3 million in 2011 to €12.6 million in 2012. Total operational costs and energy consumption for the year 2012 are expected to decline, consistent with the decrease in effort (days at sea) which decreased by 18.5% between 2011 and 2012.

Fleet profitability in 2011 was weak in nearly all fleet segments and this is expected to continue in future years when considering current trends but the economic development trend may improve in some sectors. From the socio-economic performance trends observed in the latest years (2010 and 2011) for the 14 segments analysed, over a third of the segments (5 segments) have improved but these are mainly small-scale fleet segments and the 18–24m demersal trawlers. The trend of improvement for the small-scale fleet segments is expected to continue to improve into the future. For the demersal trawl fleet segment, the situation is not expected to improve due to several reasons. One reason is increased fuel prices in recent years, which form a considerable percentage of variable costs. Also, there has been a restriction of the areas that may be trawled around Malta, which greatly affects the trawlers targeting demersal and deep-water shrimps. Therefore, economic performance is expected to remain low and potentially deteriorate further. Most other economic variables for the year 2013 are not expected to change drastically; however fuel costs are expected to increase due to the substantial rise of fuel prices. As a consequence, profitability from this point of view is expected to be negatively affected.

## Data Issues

In 2010 a sampling plan was implemented in order to achieve estimates for all the economic variables at population level. The technique of stratified random sampling was used; the sample was selected randomly from the total population. Interviews based on questionnaires were used to gather the data needed. The sampling frame for the collection of economic data was based on the fishing vessel register information recorded in MALTASTAT, which is a reliable and efficient computerised fisheries statistics system that includes a register/inventory of all fishing vessels as well as on log books with information from catch and landings evaluation. As regards the transversal data, for vessels over 10m, census data is obtained through data from the Fleet Vessel Register, logbooks and market data. For small-scale vessels, the same sampling plan for the economic variables is carried out. The large fluctuations obtained for most variables and fleet segments are mainly attributed to the fact that the vast majority (over 90%) of vessels in Malta are multipurpose with different gears registered. For this reason, if a vessel uses some gears in one year and uses different gears in other years, this vessel will form part of a different segment in the next year. This is true for a large number of vessels, and this causes shifts in all the economic and transversal data gathered and thus fluctuations can be considerable. A sampling / statistical strategy whereby this is eliminated needs to be attempted.

Data on income from leasing out quota or other fishing rights, lease/rental payments for quota or other fishing rights and the value of quota and other fishing rights was collected for the first time for the year 2009. This is partly due to the fact that total allowable catch (TAC) for bluefin tuna was introduced in 2009.

As stated earlier, the change in calculation methodology for capital value and depreciation costs is the reason why there has been a substantial change in values. From 2010, the Perpetual Inventory Method (PIM) was introduced so everything else being equal the trend for depreciation costs is expected to stabilise in future years. Moreover, 2010 was the year in which the new sampling plans were employed and it is evident that 2010 data is significantly different from data reported in earlier years. This year was the trial year for the new sampling plan, and thus results may not be particularly reliable. When new

sampling plans are introduced, the transition period should ideally be accompanied by a parallel data collection method to cross-check the data being collected with the new plan. If possible, sampling strategies should be consistent throughout the years.

Some trends may be misleading due to poor data quality in earlier years (2008 and 2009). Economic data calculations have been improved (as explained earlier) in more recent years, however, an important data issue that needs to be considered is that for most of the economic data, the data is obtained from direct interviews with fishers through a sampling plan. This method assumes that the fishers are giving good quality data and is highly dependent on how much the data they give during the interviews is true and correct. From the resulting data obtained in the past few years, the trend is that, in general during the interviews, fishers declare very high capital costs and other fixed and variable costs and low income. This data needs to be checked with other data sources thoroughly in future years or alternative data collection methods needs to be attempted.

It should be noted that the significant changes in the value of unpaid labour is due to a change in the data collection procedure. Employment levels are checked at fleet level. If for example a particular fishery requires more than one person on-board (that is, other than the vessel owner/skipper which is included in the calculation), value of unpaid labour (or alternatively paid employment) must be present. In addition, the hours of work on shore by the vessel owner and other non-paid labour are included in the calculation.

Table 5.36 Main socio-economic performance indicators by fleet segment in the Maltese national fishing fleet in 2011.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011-average (2008-10)	Economic development trend
AREA37	DTSVL1824	14	-7%	n/a	-	1291	44%	n/a	-	2066	236%	191	17%	n/a	-	-	-	-	-	-485.7	36%	Weak	-	-	-	
AREA37	DTSVL2440	6	20%	11	0%	255	85%	40	-79%	430	122%	57	139%	322	540%	31.5	549%	126	177%	-2087	-10%	-736.4	-168%	Weak	87%	Improved
AREA37	FPOVL0006	8	14%	n/a	-	295	-	5	55%	9	-	1	-	-8	-711%	-	-	-55	-127%	-67	-139%	-	-	-	-96%	Deteriorated
AREA37	HOKVL1218	11	-45%	41	2%	706	-24%	193	-56%	800	-34%	136	-38%	287	9%	7.0	6%	-234	52%	-689	21%	-162.5	-61%	Weak	-22%	Deteriorated
AREA37	HOKVL1824	16	7%	12	-79%	1076	18%	471	-39%	1386	-6%	240	-5%	272	510%	23.0	2809%	-394	9%	-2252	-81%	-279.6	-	Weak	-173%	Deteriorated
AREA37	HOKVL0006	34	-3%	n/a	-	1282	268%	55	42%	80	29%	13	67%	-13	65%	-	-	-188	5%	-261	-8%	-108.5	-3%	Weak	-3%	Stable
AREA37	HOKVL0612	101	80%	35	62%	5976	481%	563	73%	1964	167%	361	176%	814	197%	23.4	83%	-1216	-121%	-2131	-139%	-47.3	81%	Weak	16%	Improved
AREA37	PGPVL0006	216	-33%	n/a	-	19789	-38%	124	-63%	1233	38%	203	24%	919	583%	-	-	-177	90%	-585	73%	-230.1	-35%	Weak	83%	Improved
AREA37	PGPVL0612	153	-15%	3	-64%	7248	-59%	252	-36%	850	-21%	208	13%	322	40%	96.6	278%	-1038	13%	-1957	-9%	-1039.6	-1119%	Weak	-6%	Deteriorated
AREA37	PMPVL1218	4	-20%	n/a	-	10	-	76	-49%	21	-	4	-	-83	-180%	-	-	-83	10%	-220	-11%	-	-	-	-708%	Deteriorated
AREA37	PMPVL0612	13	-90%	2	-94%	1390	-86%	111	-79%	194	-84%	40	-85%	16	-92%	7.1	37%	-450	67%	-598	69%	14.4	104%	High	-133%	Deteriorated
AREA37	PSVL1218	2	0%	n/a	-	94	31%	21	-50%	265	23%	72	-4%	236	1252%	-	-	192	367%	38	140%	-91.3	-	Weak	104%	Improved
AREA37	MGOVL1218	10	11%	14	-	316	13%	163	-	513	-19%	106	-48%	252	-	18.9	-	-99	-	-468	-	-452.3	-	Weak	-73%	Deteriorated
AREA37	MGOVL1824	2	100%	6	-66%	164	228%	76	-71%	440	147%	106	70%	353	74%	63.0	412%	285	249%	132	128%	-144.1	-11%	Weak	130%	Improved
AREA37	MGOVL0612	29	142%	17	68%	1042	406%	257	73%	506	106%	98	24%	104	220%	6.0	88%	-378	-79%	-729	-143%	-	-	-	-71%	Deteriorated

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.13 NETHERLANDS

### Fleet Structure, Fishing Activity and Production

In 2013 the Dutch fishing fleet consisted of 742 registered vessels, with a combined gross tonnage of 129 thousand GT, a total power of 276 thousand kW and an average age of 35 years. The size of the Dutch fishing fleet remained stable between 2011 and 2013. In 2012, the number of fishing enterprises in the Dutch fleet totalled 471, with the vast majority (70%), owning a single vessel. Only 30% of the enterprises owned two to five fishing vessels. Total employment in 2012 was estimated at 1,773 FTEs. The level of employment decreased between 2009 and 2012 and the number of FTEs dropped 20% over the period. The major factors causing employment to decrease include a decrease in the number of vessels in the segment over 24m and smaller crew during trips because of declining earnings (less fishermen on board/minimum required crew).

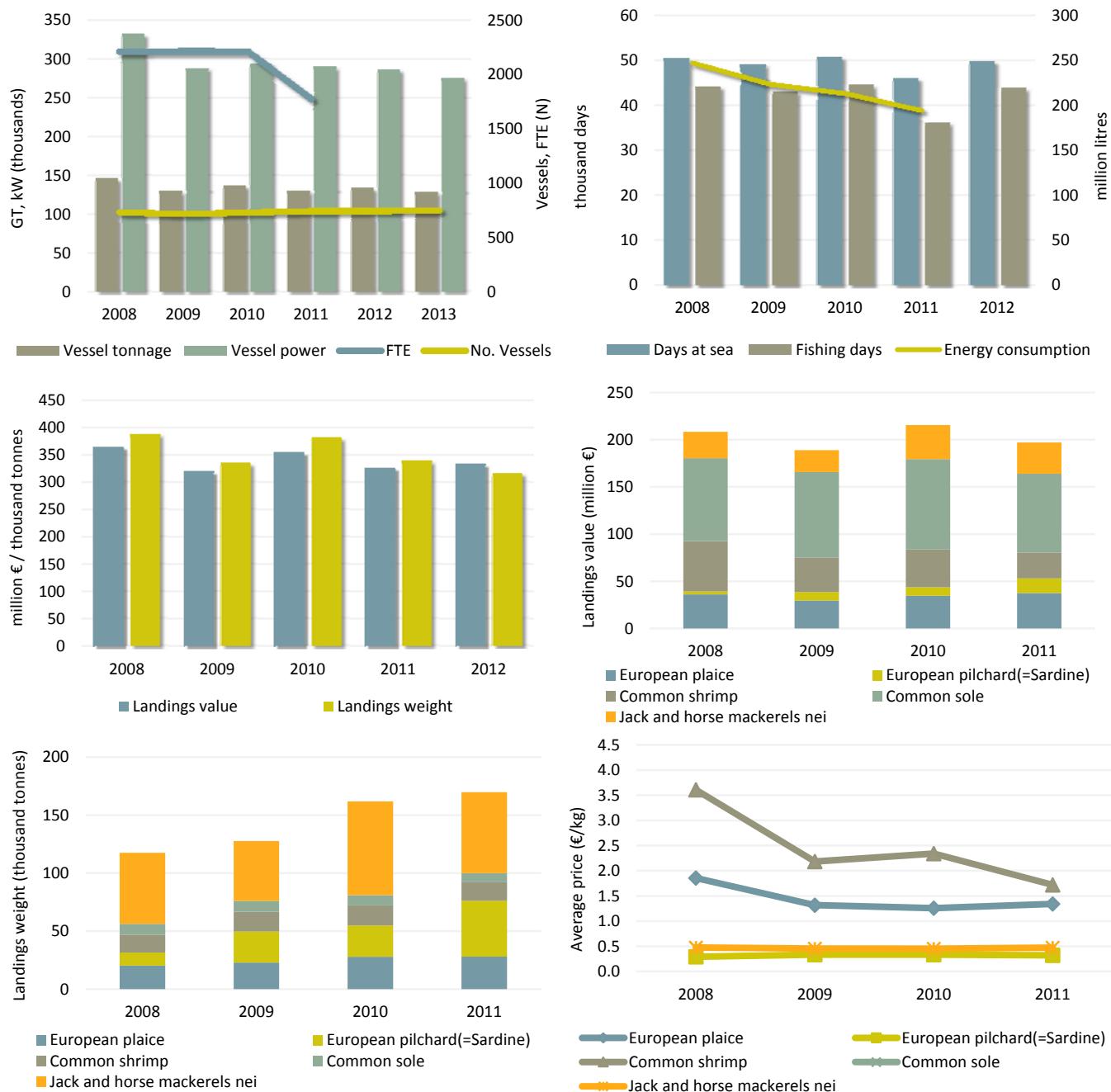
Table 5.37 Dutch national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET					%Δ 2010-11	SMALL SCALE FLEET					%Δ 2010-11	2012
	2008	2009	2010	2011	2012		2008	2009	2010	2011			
<b>Structure</b>													
All Vessels	726	712	725	738	740	2%	197	202	207	199	-4%	195	
Inactive vessels	127	143	145	168	182	16%	-	-	-	-	-	-	
Average vessel age (years)	31	32	33	33	32	2%	20	20	22	22	3%	22	
GT(thousand tonnes)	145.9	129.4	137.2	130.5	133.7	-5%	1.0	1.4	1.4	1.7	17%	1.3	
Engine power (thousand kW)	332.2	288.6	293.8	290.1	286.5	-1%	13.9	15.9	17.3	19.4	12%	18.8	
No. Enterprises (N)	473	455	467	470	471	1% $\leftrightarrow$	139	145	154	156	1%	156	
<b>Employment</b>													
FTE (N)	2200	2207	2205	1768	1773	-20% $\searrow$	110	110	184	27	-86% $\searrow$	26	
Average wage per FTE (thousand €)	43.6	40.1	42.1	44.3	43.4	5% $\nearrow$	18.0	14.6	15.0	1.0	-94% $\searrow$	41.2	
<b>Fishing Effort</b>													
Days at Sea (thousand days)	50.5	49.2	50.9	46.1	49.9	-9% $\searrow$	3.5	2.4	4.0	3.2	-18% $\searrow$	4.1	
GT fishing days (thousands)	22983	20648	22090	20952	19043	-5% $\searrow$	55	53	86	49	-44% $\searrow$	84	
Energy consumption (million litres)	246.9	223.2	212.8	193.8	-	-9% $\searrow$	1.4	2.8	0.1	0.3	135% $\nearrow$	-	
Fuel consumption per kg landed (litre/kg)	0.64	0.67	0.56	0.57	-	2% $\nearrow$	0.80	2.18	0.06	0.49	717% $\nearrow$	-	
<b>Production</b>													
Landings weight (thousand tonnes)	388.5	335.4	381.6	339.4	317.0	-11% $\searrow$	1.7	1.3	2.2	0.6	-72% $\searrow$	1.6	
Landings value (million €)	365.8	319.7	354.7	326.5	333.8	-8% $\searrow$	7.5	5.3	8.6	4.7	-46% $\searrow$	8.1	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2011 the Dutch fleet spent a total of around 46 thousand days at sea. The total number of days at sea decreased in 2011 by around 9% but in 2012 the number of days increased again. The major factors causing the increase in days at sea in 2012 include higher effort in the shrimp fishery. The quantity of fuel consumed in 2011 totalled around 194 million litres, a decrease of around 9% from 2010 and 14% from 2009 (after the decommissioning scheme). The major factors causing the decrease in fuel consumption include the results of innovation programmes, started in 2008, like the Fishery Innovation Platform (VIP in Dutch) and Knowledge Circles (Networks). New, innovative and fuel saving fishing methods and gear were developed and introduced in order to meet requirements for sustainable fisheries in the near future and to save fuel and costs. In 2009 an EU allowance (on a temporary basis) enabled two Dutch entrepreneurs (owners of beam trawl vessels) to invest in pulse techniques for experimental reasons. Trials and commercial fisheries resulted in 40-50% less fuel consumption and less fuel costs per individual vessel per day at sea. In 2010 some more vessels joined the first pioneers using the pulse technique and in 2011 the Dutch ministry asked the European Commission permission to expand the number of temporary permits to a total of 42 fishing vessels. A positive decision led to more investments in the pulse technique in that year. It is expected that fuel consumption in 2012 will decrease considerably again because investments by all 42 vessels were finalized in that year. It is estimated that fuel consumption in the flatfish fishery (demersal segments) in 2012 will decrease again by a few million litres. Fuel consumption in 2013 will probably be stable because no new permits for using the pulse technique (instead of beam trawl) will be issued. It has been suggested that all Dutch flatfish vessels will be allowed to fish with the pulse technique in 2014 and it is estimated that fuel consumption will decrease again at least by another 20-30 million litres.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.25 Dutch fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The total volume landed by the Dutch fleet in 2011 was 339 thousand tonnes of seafood, with a landed value of €327 million. The total volume and value of landings decreased over the period analysed. In 2008, the Dutch fleet generated the highest landed value (€366 million), followed by 2010 (€355 million), 2012 (€334 million), 2011 (€327 million) and then 2009 (€320 million). In terms of landings weight, in 2008 was 389 thousand tonnes, 2010 (382 thousand tonnes), 2011 (339 thousand tonnes) and in 2012 (317 thousand tonnes). The major factors causing the decrease in volume and value of landings include the decline in landings of the pelagic fleet. Volume of landings particularly went down because of declining catches in Pacific waters (horse mackerel) and declining catches in African waters (sardine and sardinella).

The prices obtained for the key species presented in Figure 5.23 started to decrease in 2009. Prices for shrimp and plaice were 50% and 30% lower in 2011 compared to 2008, while the price of sole remained about the same. Common sole achieved the highest price in 2011 (€11.16 per kg), followed by Common shrimp (€1.96 per kg), followed by European plaice (€1.38 per kg). Prices for jack and horse mackerels remained stable. In 2012 the average price of sole decreased almost 14% (to €9.64 per kg) while the average price of shrimp more than doubled to €4.02 per kg. Common sole accounted for around

30% of the total landings value obtained by the Dutch fleet in the period 2008-2011. The major factors causing the decrease in prices of shrimp, plaice and sole are the instable markets for these species, mainly the Southern European countries. The general economic crises and the import of cheap substitute products (in the case of plaice) from Asia meant that prices for North Sea species dropped. The fresh market for sole in 2012 changed probably because of higher landings of (some selections of) sole by French and Belgian fishing fleets from the Channel and the Gulf of Biscay. Prices for sole dropped as a result of that.

## National Fleet Economic performance

The total amount of income generated by the Dutch national fleet in 2012 was €335 million. This consisted of €334 million in landings value and €1 million in non-fishing income. The Dutch fleet's total income increased slightly, by 2% between 2011 and 2012. Total costs incurred by the Dutch national fleet in 2012 equated to €340 million, amounting to more than 100% of total income. Crew cost and energy costs, the two major fishing expenses, were €84 and €136 million respectively, see Table 5.38. Between 2012 and 2011, total operating costs increased 14%, largely due to higher energy costs (maybe over estimated) and higher labour costs, which amounted to almost 41% and 25% of total income in 2012. Fuel prices increased 12% in 2012.

Table 5.38 Dutch national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

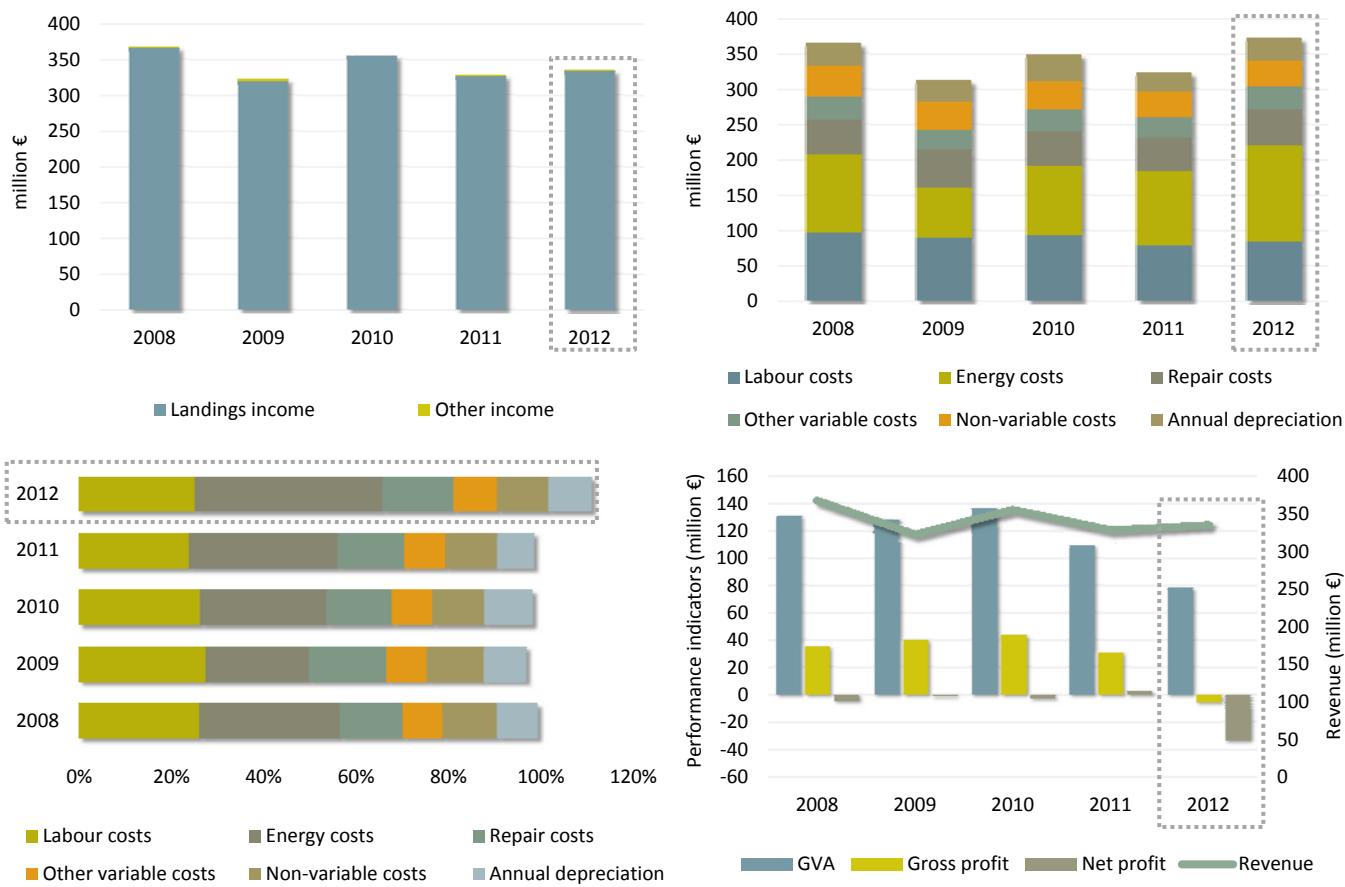
Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	365.8	319.7	354.7	326.6	↘ -8%	333.9	7.5	5.3	8.6	4.7	↘ -46%	8.1
Other income	1.4	2.1	0.2	1.0	↗ 339%	0.6	-	-	-	-	-	-
<b>Costs</b>												
Labour costs	95.8	88.5	92.9	78.3	↘ -16%	83.9	2.0	1.6	2.7	0.0	↘ -99%	1.05
Energy costs	111.6	71.8	97.3	105.1	↗ 8%	136.2	0.8	1.0	4.6	0.1	↘ -97%	0.11
Repair costs	49.6	54.0	49.8	47.3	↘ -5%	51.2	1.3	0.7	1.1	0.1	↘ -93%	0.06
Other variable costs	31.9	28.2	31.1	29.2	↘ -6%	31.6	0.7	1.1	0.9	0.03	↘ -96%	0.03
Non-variable costs	42.9	39.6	40.1	37.0	↘ -8%	37.1	0.8	-	-	0.04	-	0.04
Capital costs	40.2	41.3	46.6	27.8	↘ -40%	28.2	0.6	1.0	1.3	0.05	↘ -96%	0.46
<b>Economic Indicators</b>												
GVA	131.2	128.3	136.7	109.1	↘ -20%	78.4	3.9	2.6	2.0	4.4	↗ 115%	7.9
Gross profit	35.4	39.8	43.8	30.8	↘ -30%	-5.5	1.9	1.0	-0.7	4.4	↗ 721%	6.8
Net profit	-4.8	-1.5	-2.8	3.0	↗ 208%	-33.7	1.3	0.0	-2.0	4.3	↗ 321%	6.4
<b>Capital value</b>												
Fleet depreciated replacement value	382.6	429.1	441.2	343.8	↘ -22%	392.5	20.6	13.2	17.1	1.8	↘ -89%	9.5
In-year investments	23.2	68.8	28.1	18.8	↘ -33%	-	0.6	0.8	0.01	0.002	↘ -84%	-
<b>Profitability and development trends</b>												
Net profit margin (%) <i>development trend</i>	-1.3	-0.5	-0.8	0.9	↗ 216%	-10.1	17.5	0.2	-22.8	92.7	↗ 507%	78.4
RoFTA (%) <i>development trend</i>	-1.3	-0.4	-0.6	0.9	↗ 238%	-8.6	6.4	0.1	-11.5	234.3	↗ 2141%	67.4
GVA per FTE (thousand €) <i>development trend</i>	59.6	58.2	62.0	61.7	↔ 0%	44.3	35.6	5339.5	8612.3	4665.1	↘ -46%	308.8
					↗ 3%						↔ 0%	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Dutch national fleet in 2012 were €78 million, €-6 million and €-34 million, respectively. All indicators decreased substantially in 2012 compared to 2011. The major factors causing the deterioration in economic performance include lower income because of decreasing prices and higher costs mainly because of higher fuel prices. Also in 2012 the pelagic fleet lost

fishery opportunities. Fishery licenses for African waters were not prolonged and fishing in Pacific waters was not due to poor catches. Some vessels were not able to fish for some months.

In 2012, the Dutch fleet had an estimated (depreciated) replacement value of almost €393 million and an estimated value of fishing rights of €250 million. Investments by the fleet amounted to €20 million in 2011 and will not change significantly in 2012. The major factors causing the change in the capital value of the fleet include the higher cost of building new vessels in case of replacement.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.26 Dutch fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Fleet Segment Level Economic performance

The Dutch fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the North Sea (demersal fleet) and in the North East Atlantic Ocean (pelagic fleet), around the UK and Ireland. Beside that a part of the pelagic fleet operates in African waters and in the Pacific. The national fleet consisted of 11 (DCF) fleet segments in 2012. Almost all of the active fleet segments made losses in 2012 while 18-24m vessels made an overall profit because of the increased price of shrimp. Table 5.39 provides a breakdown of key performance indicators for all 11 fleet segments in 2012. A short description of the four most important segments in terms of total value of landings is provided below.

**Beam trawl over 40m** – 64 vessels make up this segment which operates predominantly in the North Sea. The fleet targets a variety of species but in particular flatfish, such as sole, plaice and turbot. In 2011, the total value of landings was almost €106 million and around 400 FTEs were employed in this fleet segment, contributing to 33% and 23% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €17 million and net profit of €9 million in 2011.

The total number of vessels in this fleet segment did not change but the structure of the segment did. A very important development is the change in flatfish fishing methods. In 2011 some vessels invested in replacement of beam trawl by some other newly developed fishing methods. The rather new fishing gear 'Sum Wing' shows some better results and the pulse trawl and pulse wing techniques shows even better results compared to the conventional beam trawl. Figures show a big

difference in results now when using pulse technique compared to beam trawl. The most important economic issue is the saving of fuel (40-50%) and as a result of that the costs of fuel. Conventional beam trawl vessels generally made losses in 2011, Sum Wing vessels made a small profit whereas pulse trawl and pulse wing vessels made a reasonable profit. The first research pilots concerning pulse techniques shows significantly less impact on the seabed and less unwanted by-catches (non-commercial fish/discards). Generally it can be said that flatfish (especially sole) can be caught in a cheaper way using pulse technique unless rather high investments. Beside that the fish can be produced in a more sustainable and responsible way. Vessels fishing with the pulse technique only have a permit on a temporary basis. It is still not known if the pulse technique will be allowed permanently in the future. Landings of individual species did not change very much until now, but total landings decreased by 9%. The value of landings decreased 13%, mainly as a result of lower prices. Employment decreased by 7% and fuel consumption dropped by 17% in this segment whereas total fuel costs increased because of the higher fuel prices. As a result, total costs increased and Gross Value Added decreased by 33% compared to 2010.

**Pelagic trawl over 40m** – 12 vessels make up this segment which operates predominantly in the North East Atlantic Ocean and to a lesser extend in the North Sea. In addition a limited number of vessels operate in African waters and in the Pacific. The fleet targets pelagic species, particularly herring, mackerel, horse mackerel, blue whiting and sardines. In 2011, the total value of landings was almost €103 million and around 500 FTEs were employed in this fleet segment, contributing to 32% and 29% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively. This fleet segment was not profitable. Effort in terms of days at sea increased by 5% and as a result of that the use of energy increased by 6%. A lower volume of landings (-13%) resulted in a lower value of landings (-10%) and high costs (mainly because of high fuel prices) resulted in a net loss.

**Beam trawl 18-24m** – 170 vessels make up this segment which operates predominantly in the North Sea and in the coastal zone. The fleet mainly targets common shrimp and some vessels target flatfish, such as sole, plaice and turbot. In 2011, the total value of landings was almost €36 million and around 400 FTEs were employed in this fleet segment, contributing to 11% and 23% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively. This fleet segment was unprofitable, mainly because of low prices for shrimp and high costs, with a reported gross profit of around €0.6 million and net loss of €4 million in 2011. Effort in terms of days at sea decreased by 20% compared to 2010 and energy consumption decreased by 22%. The volume of landings decreased 8%. Also in this segment a limited number of vessels started to invest in pulse technique, targeting flatfish (mainly sole). The first results are very good and it looks like this will be a profitable and more sustainable fishery in the near future (compared to beam trawl). Also these vessels can save fuel up to 25% compared to beam trawl. However, these vessels are making use of a temporary permit which allows them to fish with the pulse technique and until now it is not clear if this technique will be allowed permanently in future. In addition it is not clear whether more fishermen will get an allowance for using the pulse technique. In 2011 some shrimp vessels started to investigate the possibility to fish for shrimp with the pulse technique. The first results give hope because it looks like the technique is more cost efficient than traditional shrimp beam trawl.

**Beam trawl 24-40m** – 32 vessels make up this segment which operates predominantly in the North Sea. The fleet targets a variety of species but in particular flatfish, such as sole, plaice and turbot. In 2011, the total value of landings was almost €19 million and around 128 FTEs were employed in this fleet segment, contributing to 7% and 6% of the total income from landings and FTEs generated by the Dutch fishing fleet, respectively. This fleet segment effectively broke even, with a reported gross profit of around €1.2 million and net profit of €0.6 million in 2011. Vessels in this segment also started using pulse techniques on a temporary basis with positive economic results, whereas the economic performance of beam trawls was generally quite negative.

## Assessment and Future Trends

### National Fleet

The most important issues in the Dutch fishery sector are:

#### -Flatfish fishery in general (the beam trawl 12-18m, 24-40m and over 40m segments)

The introduction of the pulse fishery: In 2011 some 20 vessels were allowed by the ministry to invest in pulse technique. Permits were given on a temporary basis. The economic performance of these vessels in 2011 was encouraging and it is expected that results will become better generally for this part of the fleet. It is still uncertain whether the temporary permits will be transformed into permanent permits. In 2012 an additional 20 vessels were allowed to invest in pulse technique and those entrepreneurs started fishing in 2012 using a temporary permit. In addition to that, other fishermen applied for permits (around 40) but until now (2013) they are still not allowed to use the pulse technique. Economic reasons, ecologic reasons as well as societal reasons (Natura 2000, discard ban, market requirements, responsible fisheries) force fishermen more and more to innovate and to invest in more sustainable and economic viable flatfish fishing techniques (as an alternative for beam trawl). Saving fuel and costs (up to 50%), less discarding and less impact on the seabed are the most important advantages of using pulse technique to catch flatfish.

**-Shrimp fishery in general (the beam trawl 18-24m segment)**

The introduction of the pulse fishery: In 2011 the ministry allowed 3 vessels from this segment to invest in a pulse technique suitable for the shrimp fishery. These permits were also given on a temporary basis. The economic performance of these shrimp vessels (on an experimental basis and after that commercial operation) are rather good and it is expected that results will become better generally for this part of the fleet compared to traditional beam trawl. It is still uncertain and unclear if the temporary permits will be transformed into permanent permits. Other shrimp fishermen applied for permits but until now (2013) they are prohibited from using the pulse technique. Economic reasons, ecologic reasons as well as societal reasons (Natura 2000, discard ban, responsible fisheries) force fishermen to innovate and to invest in more sustainable and economically viable shrimp fishing techniques (as an alternative to shrimp beam trawl). Saving fuel and costs (up to 30%), fewer discards and less impact on the seabed are the most important advantages of using pulse technique to catch shrimp.

**-Long Distant Water Fleet (the pelagic trawl over 40m segment)**

In 2012 this segment faced problems with effort in African waters and in the Pacific. EU-appointments and contracts with Mauritania stopped and the capacity of some 30% of the Dutch pelagic fleet could not be used. As a result of that vessels were tied up for a few months which was economically very unprofitable. Also in 2013, owners of the pelagic fleet will not be able to schedule all trawlers for year-round fisheries. It is expected that trawlers will be tied up again for some months during the summertime.

**-Small scale Fleet**

This part of the fleet operates in the coastal zone and depends highly on the catch of sole, turbot, cod, mullet and seabass. The state of the stocks of these species are very important and effort (seasonal) and economic performance depend largely on that.

***Data issues***

Most of the segments of the Dutch fishing fleet are covered well. Some data issues concerning the small scale fisheries are still not solved. In Table 5.39 it looks like there is an omission in the data concerning the beam trawl over 40m segment.

Table 5.39 Main socio-economic performance indicators by fleet segment in the Dutch national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ2010-2011	FTE (N)	% Δ2010-2011	Days at sea (days)	% Δ2010-2011	Energy consumption (litres)	% Δ2010-2011	Value of landings (thousand €)	% Δ2010-2011	Weight of landings (thousand tonnes)	% Δ2010-2011	GVA (thousand €)	% Δ2010-2011	GVA per FTE (€/FTE)	% Δ2010-2011	Gross profit (thousand €)	% Δ2010-2011	Net profit (thousand €)	% Δ2010-2011	Net profit margin (%)	% Δ2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA27	DTSVL0010	25	-7%	0.04	-	573	-	n/a	-	3311	-	1405	-	3310	-	82753.8	-	3310	-	-	-	-	-	-	-	-
AREA27	DTSVL1824	14	17%	97	27%	2167	8%	3255	-15%	8410	20%	2751	-7%	4537	67%	46.6	31%	2371	237%	1772	1250%	20.0	1010%	High	881%	Improved
AREA27	DTSVL2440	23	15%	93	-20%	3193	-20%	6316	-32%	19615	-11%	6520	-20%	9583	1%	102.8	26%	4137	-2%	2417	6%	12.3	19%	High	46%	Improved
AREA27	TMVL40XX	12	-8%	502	0%	3165	5%	78387	6%	103006	-10%	261919	-13%	-29535	-483%	-58.8	-483%	-58976	-56%	-69836	-14%	-114.1	-49%	Weak	-83%	Deteriorated
AREA27	DRBVL0010	16	0%	10	-79%	637	67%	189	5%	12039	89%	3818	86%	11782	101%	1148.3	865%	11765	147%	-	-	-	-	High	-	-
AREA27	PGPVL1218	4	-20%	30	-	147	361%	379	-	256	434%	110	277%	-15	-	-0.5	-	-29	-	-99	-	-38.5	-	Weak	47%	Improved
AREA27	TBBVL1218	11	-8%	79	190%	2879	213%	6285	1439%	13711	619%	4646	475%	6107	501%	77.4	107%	2784	691%	2160	6122%	15.7	764%	High	164%	Improved
AREA27	TBBVL1824	170	0%	401	-31%	14987	-20%	16086	-22%	36262	-22%	17698	-8%	13127	-32%	32.8	-1%	585	-44%	-3988	19%	-11.0	-3%	Weak	-118%	Deteriorated
AREA27	TBBVL2440	32	-6%	128	-46%	3459	-30%	11770	-34%	19405	-26%	7050	-20%	6227	-35%	48.8	21%	1221	-62%	584	-68%	3.0	-57%	Reasonable	-65%	Deteriorated
AREA27	TBBVL40XX	64	0%	401	-7%	11658	-9%	70840	-17%	105919	-13%	32877	-9%	37731	-33%	94.1	-28%	17420	-46%	8938	-59%	8.4	-53%	Reasonable	-31%	Deteriorated
AREA27	PGVLO010	199	-4%	27	-86%	3238	-18%	311	135%	4665	-46%	627	-72%	4399	115%	165.7	1390%	4373	721%	4325	321%	92.7	507%	High	5553%	Improved

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.14 POLAND

### Fleet Structure, Fishing Activity and Production

In 2012 the Polish fishing fleet consisted of 805 active and 38 inactive registered vessels, with a combined gross tonnage of 34 thousand GT, a total power of 83 thousand kW and an average age of 28 years. The size of the Polish fishing fleet decreased between 2008 and 2012; the number of vessels by 9% and GT and kW by 26% and 23% respectively (Table 5.40). The major factors causing the fleet to decrease was a decommissioning program implemented in Poland after EU accession as well as the Fishing Effort Adjustment Plan adopted in 2010.

In 2012, the number of fishing enterprises in the Polish fleet totalled 699, with the vast majority (91%), owning a single vessel. Only 8% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 2,102 jobs, corresponding to 1,268 FTEs. The level of employment decreased between 2011 and 2008, with total employed decreasing by 21% and the number of FTEs decreasing by 6% over the period. The major factor causing employment to decrease was the reduction in the size of the fleet.

Table 5.40 Polish national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11			SMALL SCALE FLEET				%Δ 2010-11	2012	
	2008	2009	2010	2011		2012	2013	2008	2009	2010	2011			
<b>Structure</b>														
All Vessels	882	877	823	805	-2%	↘	805	798	576	551	527	526	0% ↔	556
Inactive vessels	41	109	99	84	-15%	↘	38	798	-	-	-	-	-	-
Average vessel age (years)	27	28	27	28	2%	↗	28	29	23	22	22	21	-1% ↘	21
GT(thousand tonnes)	45.7	49.1	38.4	38.0	-1%	↘	33.6	33.4	2.8	2.5	2.3	2.4	3% ↗	2.7
Engine power (thousand kW)	108.6	106.4	91.7	88.1	-4%	↘	83.4	81.9	24.2	21.3	19.9	19.9	0% ↔	21.4
No. Enterprises (N)	781	742	698	679	-3%	↘	699	-	532	482	465	469	1% ↔	-
<b>Employment</b>														
FTE (N)	1701	1604	1577	1576	0%	↔	1576	-	436	424	419	449	7% ↗	448
Average wage per FTE (thousand €)	6.8	5.8	7.2	8.1	12%	↗	9.5	-	6.1	5.3	8.0	9.4	17% ↗	6.2
<b>Fishing Effort</b>														
Days at Sea (thousand days)	66.5	62.1	58.1	58.2	0%	↔	70.4	-	45.6	42.8	39.5	39.6	0% ↔	43.0
GT fishing days (thousands)	3582	6347	5217	6142	18%	↗	3582	-	9	5	4	1	-81% ↘	2
Energy consumption (million litres)	16.0	12.5	12.4	12.7	2%	↗	-	-	2.1	1.5	1.4	1.3	-11% ↘	-
Fuel consumption per kg landed (litre/kg)	0.13	0.06	0.07	0.07	0%	↔	-	-	0.22	0.13	0.13	0.11	-15% ↘	-
<b>Production</b>														
Landings weight (thousand tonnes)	126.1	212.1	170.8	179.9	5%	↗	179.7	-	9.9	11.5	11.0	11.4	4% ↗	12.6
Landings value (million €)	34.7	37.3	40.0	46.1	15%	↗	55.6	-	9.1	9.6	9.7	10.9	13% ↗	12.0

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013

Note: Distant water fleet excluded from energy consumption and landings value.

In 2012 the Polish fleet spent a total of around 66 thousand days at sea. The total number of days at sea was 15% higher than in 2011 due to increased effort by the fleet targeting small pelagic fish. The quantity of fuel consumed in 2011 totalled around 13 million litres, a decrease of around 20% from 2008. The major factors causing the decrease in fuel consumption was again reduction in number of fishing vessels and subsequent reduction in days at sea. Some vessels undertook propeller modernisation and engine replacements that co-financed from EFF which likely assisted the energy savings observed.

The total volume of seafood landed by the Polish fleet in 2012 was 180 thousand tonnes. The total amount of Baltic Sea fleet landings was 120 thousand tonnes, with a landed value of €56 million. The total landings volume and value of the Baltic Sea fleet increased over the period analysed. In 2012, Atlantic cod generated the highest landed value in Baltic fisheries (€17.8 million), followed by European sprat (€14.6 million), Atlantic herring (€12.1 million), and then European flounder (€4.6 million). In terms of landings weight, in 2012 Atlantic cod landings were 14.8 thousand tonnes, European sprat landings were 63.1 thousand tonnes and Atlantic herring landings were 27.1 thousand tonnes. The major factor causing the growth in 2012 volume and value of landings was the increased number of vessels that recommenced fishing after termination of the 3 years restrictions in the cod quota allocation system that was implemented in 2009 (rotating suspension of 1/3 of the cod

fleet each year). The other reason explaining the increase was high pelagic fish prices which made sprat and herring landings more profitable.

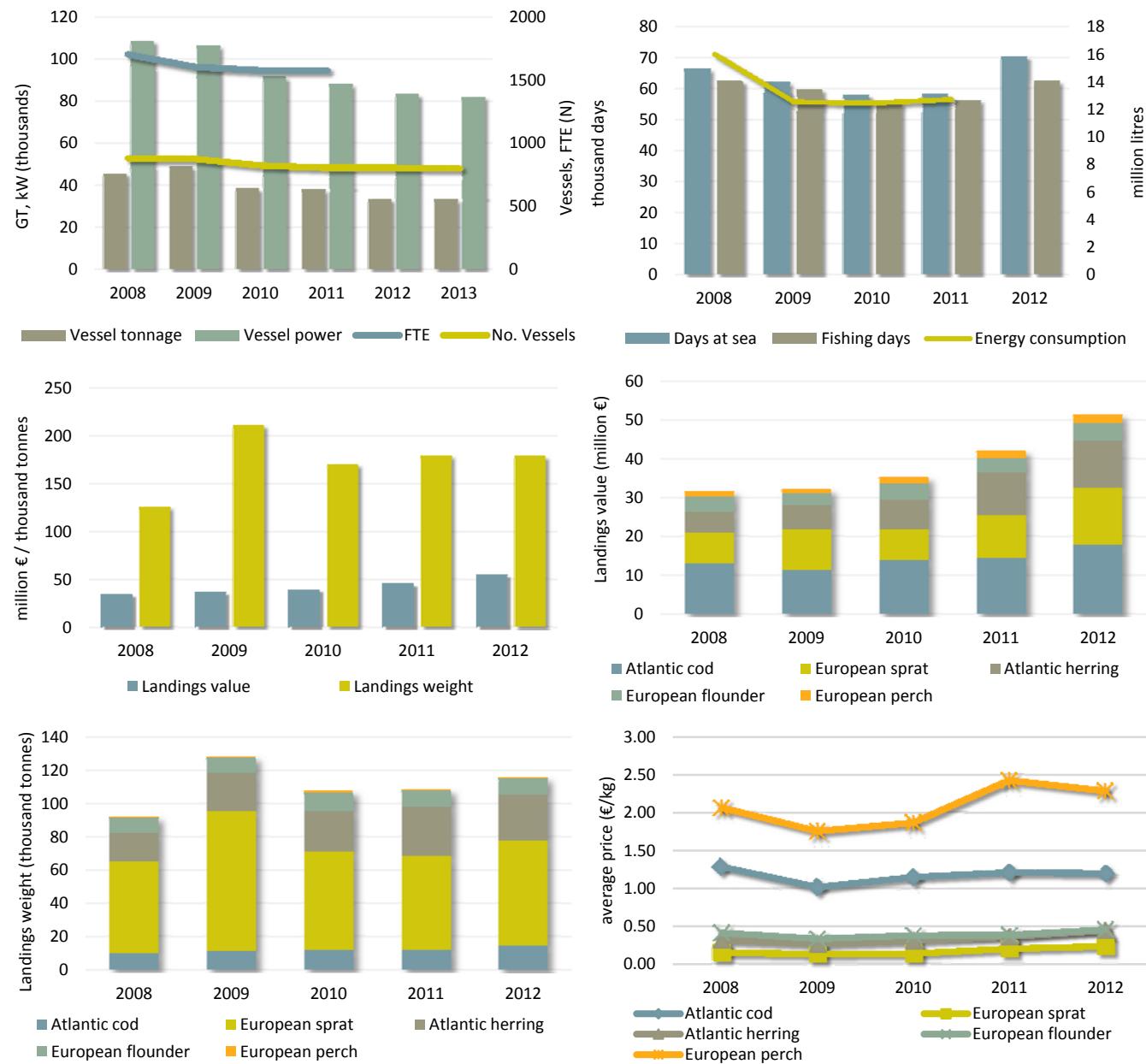


Figure 5.27 Polish fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

Total amount of landings by the deep sea fleet landings was 59 thousand tonnes in 2012, a 15% decrease compared to 2011. In 2012, Atlantic horse mackerel generated the highest landed volume (34 thousand tonnes), followed by Round sardinella (8.9 thousand tonnes), Atlantic cod (3.7 thousand tonnes), Atlantic mackerel (3.6 thousand tonnes) and European anchovy (3.5 thousand tonnes). The major factors causing decrease in deep sea water catches in 2012 were termination of fleet activity on Antarctic Atlantic fishing grounds (Krill fisheries) and stopping fishing for Chilean jack mackerel in the Pacific Ocean (outside the Chilean EEZ).

In 2012 the Polish small scale fleet consisted of 556 registered vessels, with a combined gross tonnage of 2.7 thousand GT, a total power of 21.4 thousand kW and an average age of 21 years. The size of the fleet decreased between 2008 and 2012, with the number of vessels decreasing by 4% and GT and kW by 4% and 12% respectively. The major factor causing the small scale fleet to decrease was a decommissioning programme implemented in Poland after EU accession. The total volume landed by the small scale fleet in 2012 was 12.6 thousand tonnes of fish, with a landed value of €12 million. The total volume and value of landings by the small scale fleet increased over the period analysed. In 2011, Atlantic cod generated the highest landed value (€3.8 million), followed by Atlantic herring (€1.9 million), European perch (€1.8 million), European flounder

(€1.4 million) and pike perch (€1.2 million) and then in terms of landings weight, in 2012 herring landings were 3.5 thousand tonnes, European flounder 3.3 thousand tonnes and Atlantic cod 3.1 thousand tonnes. The major factors causing the increase in volume and value of landings in the small scale fleet include the very high Atlantic herring prices observed in 2012 and unusually high pike perch catches in that year resulting from good stock condition and a high CPUE.

The prices obtained for these key species increased between 2008 and 2012. European perch achieved the highest average price per kilo in 2012 (€2.28 per kg), followed by Atlantic cod (€1.20 per kg). The high increase in European perch price observed in 2011 can be attributed to strong demand on German and French markets. European sprat accounted for 30% of the total landings value obtained by the Polish fleet in 2008, increasing to 33% of total income in 2012, while Atlantic cod decreased from 29% in 2008 to 20% in 2012. This was mainly due to exceptionally high prices of sprat landings and subsequently national landings achieved the highest value ever in 2012. The increase in European sprat prices may be a result of historically high level of fish meal prices observed in the 2012 and, consequently, an increase in prices for fish landed for reduction. The major factor causing the decrease in Atlantic cod prices (originated Baltic Sea) was the deteriorating physical condition of individual fish. High North East Atlantic cod quotas and increased supply on European market was another reason why prices decreased.

## *National Fleet Economic performance*

The total amount of income generated by the Polish Baltic<sup>3</sup> fleet in 2011 was €63 million. This consisted of €46 million in landings value and €17 million in non-fishing income. The Polish Baltic fleet's total income increased 12% between 2008 and 2011. Total estimated operating costs incurred by the Polish Baltic fleet in 2011 equated to €38 million, amounting to 59% of total income. Crew cost and fuel costs, the two major fishing expenses, were €13 and €10 million respectively (Table 5.41). Between 2010 and 2011, total operating costs increased 25%, largely due to increased fuel costs, which amounted to almost 14% of total income in 2008 and 16% in 2011.

The total amount of income generated by the Polish small scale fleet in 2011 was €12.6 million. This consisted of €7.1 million in landings value and €5.5 million in non-fishing income (direct subsidies). The Polish small scale fleet's total income decreased 12% between 2008 and 2011. Total estimated operating costs incurred by the Polish Baltic fleet in 2011 equated to €5 million, amounting to 40% of total income. Crew cost and fuel costs, the two major fishing expenses, were €2.8 and €0.7 million respectively, see Table 5.41. Between 2010 and 2011, total operating costs decreased by 9%, largely due to decrease of other variable costs (mostly fishing gear, food provision and ice costs) which amounted to almost 5.6% of total income in 2010 and 4.5% in 2011.

The net profit margin development trend for Baltic fleet is stable despite the indicator deteriorating sharply in 2011 compared to 2010 (-27%). This may be explained by high increase in fuel costs caused by growth of fishing activity of large pelagic trawlers. Similarly RoFTA and GVA per FTE indicators deteriorated in 2011 compared to 2010 but the development trend had improved compared to the 2008-2010 average. The net profit margin development trend deteriorated in 2011 compared to 2010 for the small scale fishery, which may be explained by returning to fisheries of less economically effective vessels after termination of 3 years (2009-2011) due to the rotating cod quota allocation system, however the RoFTA indicator development trend remained stable and GVA per FTE improved slightly.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Polish Baltic fleet in 2011 were €21.5 million, €8.8 million and €4.8 million, respectively. Gross Value Added (GVA), gross profit and net profit decreased 1%, 16% and 16% respectively between 2010 and 2011. The major factors causing the deterioration in economic performance include increases in repair and energy costs (higher fuel prices and fuel consumption). In 2011, the Polish Baltic fleet had an estimated (depreciated) replacement value of €91 million. Investments by the fleet amounted to €16.5 million in 2011. The major factors causing a change in the capital value of the fleet was a low number of new vessels that had recently entered the fishery (natural fleet ageing).

As mentioned earlier, in 2012 part of the Baltic fleet that was temporarily suspended from cod fisheries resumed activity after termination of the 3 years (2009-2011) restrictions in the cod quota allocation system. Therefore the number of active vessel increased in 2012 by almost 50 vessels (6%) that, in addition to high pelagic prices, was a main reason why total income and costs increased.

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<sup>3</sup> Due to confidentiality reasons a distant water fleet was excluded from an economic performance analysis.

Table 5.41 Polish national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet					2012	Small scale fleet					2012
	2008	2009	2010	2011	%Δ 2010-11		2008	2009	2010	2011	%Δ 2010-11	
<b>Income</b>												
Landings income	34.8	37.3	40.0	46.1	↗ 15%	55.6	9.1	9.6	9.7	10.9	↗ 13%	12.0
Other income	0.7	n/a	0.2	0.4	↗ 147%	0.3	0.2	n/a	0.05	0.10	↗ 109%	0.1
<b>Costs</b>												
Labour costs	11.5	9.2	11.4	12.8	↗ 12%	15.6	2.7	2.2	3.4	4.2	↗ 26%	2.8
Energy costs	10.0	6.6	7.8	10.3	↗ 32%	14.9	1.3	0.9	1.0	1.1	↗ 13%	1.4
Repair costs	3.5	2.8	3.6	5.5	↗ 52%	6.6	0.4	0.5	0.9	0.7	↘ -23%	0.7
Other variable costs	4.1	3.4	3.7	4.7	↗ 27%	5.7	1.1	0.9	0.9	1.1	↗ 23%	1.1
Non-variable costs	4.8	3.5	3.3	4.5	↗ 34%	4.5	0.9	0.7	0.6	0.7	↗ 16%	0.7
Capital costs	3.5	4.1	4.7	4.0	↘ -15%	3.2	0.6	0.9	1.1	0.8	↘ -24%	0.7
<b>Economic Indicators</b>												
GVA	13.1	21.1	21.8	21.5	↘ -1%	24.2	5.6	6.7	6.3	7.3	↗ 17%	8.1
Gross profit	1.6	11.8	10.4	8.8	↘ -16%	8.6	2.9	4.4	2.9	3.1	↗ 7%	5.3
Net profit	-1.9	7.8	5.7	4.8	↘ -16%	5.4	2.3	3.6	1.8	2.3	↗ 25%	4.7
<b>Capital value</b>												
Fleet depreciated replacement value	104.8	130.7	99.0	91.0	↘ -8%	95.0	26.7	29.6	23.7	23.3	↘ -2%	23.5
In-year investments	7.6	2.0	12.2	16.5	↗ 35%	-	0.3	0.6	1.8	0.5	↘ -75%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	-5.2	20.8	14.3	10.4	↘ -27%	9.6	24.7	37.2	18.7	20.7	↗ 10%	38.7
development trend	Stable				↗ 4%	Deteriorated					↘ -23%	
RoFTA (%)	-1.8	5.9	5.8	5.3	↘ -9%	5.7	50.3	39.9	33.9	39.7	↗ 17%	19.8
development trend	Improved				↗ 59%	Stable					↘ -4%	
GVA per FTE (thousand €)	7.7	13.1	13.8	13.7	↘ -1%	15.4	12.8	15.8	14.9	16.3	↗ 9%	18.1
development trend	Improved				↗ 18%	Improved					↗ 12%	

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

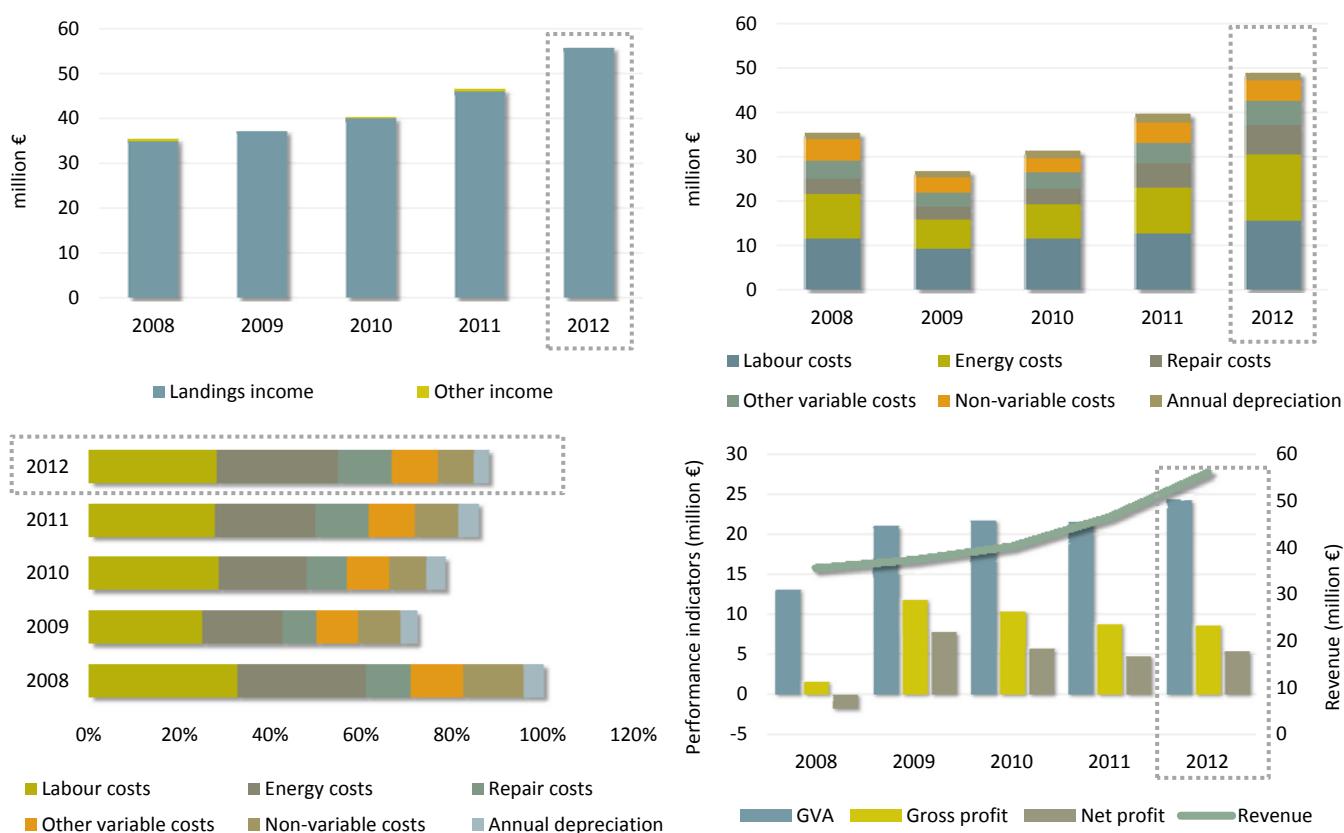
## Fleet Segment Level Economic performance

The Polish fleet is moderately diversified with a range of vessel types targeting different species predominantly in the Baltic Sea, North East Atlantic (1 vessel), Mauritanian and Moroccan waters (2 vessels). The national fleet consisted of 9 (DCF) fleet segments in 2012, with 4 inactive length classes consisting of 38 vessels. 1 of the active fleet segments made losses in 2011 while 7 made an overall profit (information lacking for deep sea fleet segment). Table 5.42 provides a breakdown of key performance indicators for all Polish fleet segments in 2011. A short description of the two most important segments in terms of total value of landings is provided below.

**Pelagic trawl 24-40m** – 44 vessels make up this segment which operates exclusively in the Baltic Sea. The fleet targets a variety of species but in particular pelagic species, such as sprat and herring. In 2011, the total value of landings was €20 million and around 360 FTEs were employed in this fleet segment, contributing to 43% and 28% of the total income from landings and FTEs generated by the Polish Baltic fishing fleet respectively. This fleet segment was profitable, with a reported gross profit of around €2.6 million and net profit of €1 million in 2011. The economic condition of the segment deteriorated in 2011 compared to 2008-2010 mainly due to high increase in repair costs (mostly co-financed from EFF), fuel and other variable costs. The number of vessels and employment in the segment changed slightly (-4% and -13% respectively). No substantial changes in catch composition took place, except for a considerable decrease in cod landings (this species however doesn't play an important role in the segment landings). In 2011 the segment benefited from high increases in sprat and herring prices. In order to avoid overutilization of the TAC, a new management policy was introduced in 2011 regarding the quota allocation system for Baltic sprat (ICES 22-32) and Western Baltic herring stocks (ICES 22-24). Individual maximum allowable catch limits were established for these two stocks. Vessels possessing catch records for previous years were authorised to get catch permissions with higher limits. The others got reduced (50% less) quotas. No individual limitation was introduced for Central Baltic herring (ICES 25-27) in 2011 however the fishery was closed in November in

order to avoid overshooting of the TAC. New regulations may have a negative effect on economic performance of the segment.

**Passive gears 0-10m – 447 vessels** make up this segment which operates exclusively in the Baltic Area including lagoons brackish waters. The fleet targets a variety of saltwater species: Atlantic herring, European flounder, Atlantic cod and variety of freshwater species, such as and freshwater bream, pike perch, pike. In 2011, the total value of landings was over €7 million and around 304 FTEs were employed in this fleet segment, contributing to 15% and 23% of the total income from landings and FTEs generated by the Polish Baltic fishing fleet respectively. This fleet segment was profitable, with a reported gross profit of around €2.2 million and net profit of €1.8 million in 2011. The economic development trend of the segment deteriorated in 2011 – net profit margin was -16% compared to the 2008-2010 average however the profitability indicator remained at a very high level of 44%. The relative deterioration of the economic situation may be explained by the lower value of landings generated in 2011 caused by lower demersal fish landings (Atlantic cod and European flounder), however partly compensated by higher Atlantic herring catches and prices. Total cost remained at an almost unchanged level. Vessels belonging to small scale fisheries (those under 8 meters length) benefited from no individual limit restrictions in 2011. The common quotas available for them in 2011 were generally high enough to fish throughout whole year.



Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

Figure 5.28 Polish fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

In the 2012 AER, the economic situation of the Polish fishing fleet was expected to deteriorate in 2012, as a result of the increased number of vessels that would return to fisheries after the 3 year cod quota allocation system implemented in 2009 (rotating suspension of 1/3 of the cod fleet each year) terminated and lower TACs for pelagic species (sprat and herring). The national fleet however again produced extraordinary high landings income, 20% higher than in 2011 and 39% higher than in 2010. Subsidies in 2012 were as high as in 2011 (contributing to 25% of total incomes), which additionally improved economic gains for the fleet. Taking into account that effort increased in 2012 by about 15% only and number of active vessels by 6%, the fleet may well produce higher profits in 2012.

Individual limits that were implemented in 2012 for Central Baltic herring may have a negative effect on the economic performance of segments targeting this species. Maximum allowable catch limits were established based on vessels size (length groups). Vessels below 15 metres were allocated the lowest possible catch limit (80 tons), vessels bigger than 25.5 meters the highest limits (800 ton). In both cases the limits are however lower than actual fishing capability of these vessels.

At the beginning of 2013 prices for Atlantic herring were slightly lower compared to 2012 (-5%) however sprat prices remained at its historically highest level which may contribute to better economic results for the national fleet, especially the pelagic segments generated in 2013. Higher TACs for pelagic species will additionally have a positive impact on the economic performance of the fleet in 2013.

Less optimistic scenarios can be drawn for vessels dependant on cod catches. It may be expected that cod prices will decrease in 2013 since more product originating from Norway becomes available on the European market. This is the result of a significant increase of Norwegian cod quotas (+25%) and subsequent export in 2013.<sup>4</sup> Lower cod prices may particularly negatively influence performance of demersal fleet segments targeting cod in Poland (DTS, DFN, HOK and PG1012). Another issue that may have a negative impact on these fisheries is the deteriorating condition of Baltic cod (skinny fish).

The value of landings of the small scale fleet were 14% higher in 2012 compared to 2011 and with smaller effort deployed (7% increase in fishing days). The number of fishermen employed remained unchanged. The economic results of the fleet should not change significantly in 2012 compared to 2011. The vessels continued receiving high EFF subsidies for voluntarily reducing fishing effort for the conservation of resources. It is expected that subsidies will become the most important source of incomes for small scale fisheries in 2012 and will determine the economic results of the segment in the future.

After termination of fisheries in Pacific waters (outside the Chilean EEZ) caused by poor Chilean jack mackerel stocks the economic performance of Polish long distant water fleet is highly dependent on access to Moroccan and Mauritanian fishing grounds and quotas available. If the EU fail to reach an agreement that will allow the EU fleet to return to Moroccan waters the Polish fleet will probably consider moving to Atlantic Antarctic fishing ground to commence a krill fishery. This however may happen only if a ready market for krill products is found.

### *Data issues*

Due to confidentiality reasons deep-sea vessels (vessels over 40m fishing outside Baltic Sea) were excluded from economic analysis. However transversal data (except for value of landings) and employment data were provided for all fleet segments. In order to ensure consistency with data provided for previous years, premiums paid by government for scrapped vessels were taken into account when calculating invested capital (not the PIM method).

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<sup>4</sup> <http://www.globefish.org/groundfish-december-2012.html>

Table 5.42 Main socio-economic performance indicators by fleet segment in the Polish national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)		FTE (N)		Days at sea (days)		Energy consumption (litres)		Value of landings (thousand €)		Weight of landings (thousand tonnes)		GVA (thousand €)		GVA per FTE (€/FTE)		Gross profit (thousand €)		Net profit (thousand €)		Net profit margin (%)		Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
		% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011	% Δ 2010-2011				
AREA27	DFNVL1218	15	-32%	73	-37%	1729	-30%	184	-53%	1655	-32%	1445	-31%	1051	-34%	14.4	5%	501	-30%	400	-24%	24.1	14%	High	71%	Improved
AREA27	DTSVL1218	70	49%	236	67%	6219	60%	2289	39%	7958	58%	10672	48%	3937	40%	16.7	-16%	2176	22%	1540	24%	19.3	-21%	High	8%	Improved
AREA27	DTSVL1824	20	0%	58	2%	1564	-9%	795	3%	3341	33%	4145	-24%	2157	48%	37.2	45%	1554	66%	1327	97%	39.1	45%	High	422%	Improved
AREA27	HOKVL1218	27	-27%	49	-35%	1051	-39%	252	-38%	683	-54%	131	-79%	-861	-237%	-17.6	-309%	-1165	-328%	-1427	-146%	-180.4	-370%	Weak	-513%	Deteriorated
AREA27	TMVL1824	14	-	48	-	1167	-	536	-	1480	-	5487	-	509	-	10.6	-	26	-	-167	-	-11.3	-	Weak	-	-
AREA27	TMVL2440	44	-4%	357	-13%	5938	-6%	7380	2%	20005	20%	77462	-3%	7410	-5%	20.8	10%	2572	-25%	1064	-42%	5.3	-52%	Reasonable	-8%	Deteriorated
AREA27	PGVL0010	447	-5%	304	-5%	32585	-7%	751	-30%	7075	-3%	7423	-10%	5034	6%	16.6	11%	2250	10%	1793	40%	25.3	44%	High	-16%	Deteriorated
AREA27	PGVL1012	n/a	-	145	46%	6980	59%	514	44%	3851	62%	3995	50%	2289	54%	15.8	5%	852	0%	483	-11%	12.3	-45%	High	-28%	Deteriorated

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

## 5.15 PORTUGAL

### Fleet Structure, Fishing Activity and Production

In 2011, the Portuguese fishing fleet consisted of 8,557 registered vessels (4,866 licensed vessels, which 4,068 are from the mainland, 693 from the Azores and 105 from Madeira) with a combined gross tonnage of 102.5 thousand GT, a total power of 377.4 thousand kW and an average age of 28 years. The size of the Portuguese fishing fleet remained relatively stable between 2010 and 2011, with the number of vessels decreasing by 1% and GT decreasing by 1% (Table 5.43). The major factors causing the fleet to decrease include the old age of the vessels and the ageing of vessel owners. Projections for 2012 and 2013 reveal a trend of further reductions in fleet capacity, both in number, GT and kW. This is mostly due to increased restrictions for licenced vessels with no registered activity in previous years.

In 2011, the number of fishing enterprises in the Portuguese fleet totalled 4,533, with the vast majority (94%), owning a single vessel. Only 6% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 17,228 jobs, corresponding to 17,188 FTEs. The level of employment remained stable between 2008 and 2011.

Table 5.43 Portuguese national fleet structure, activity and production trends: 2008-2013.

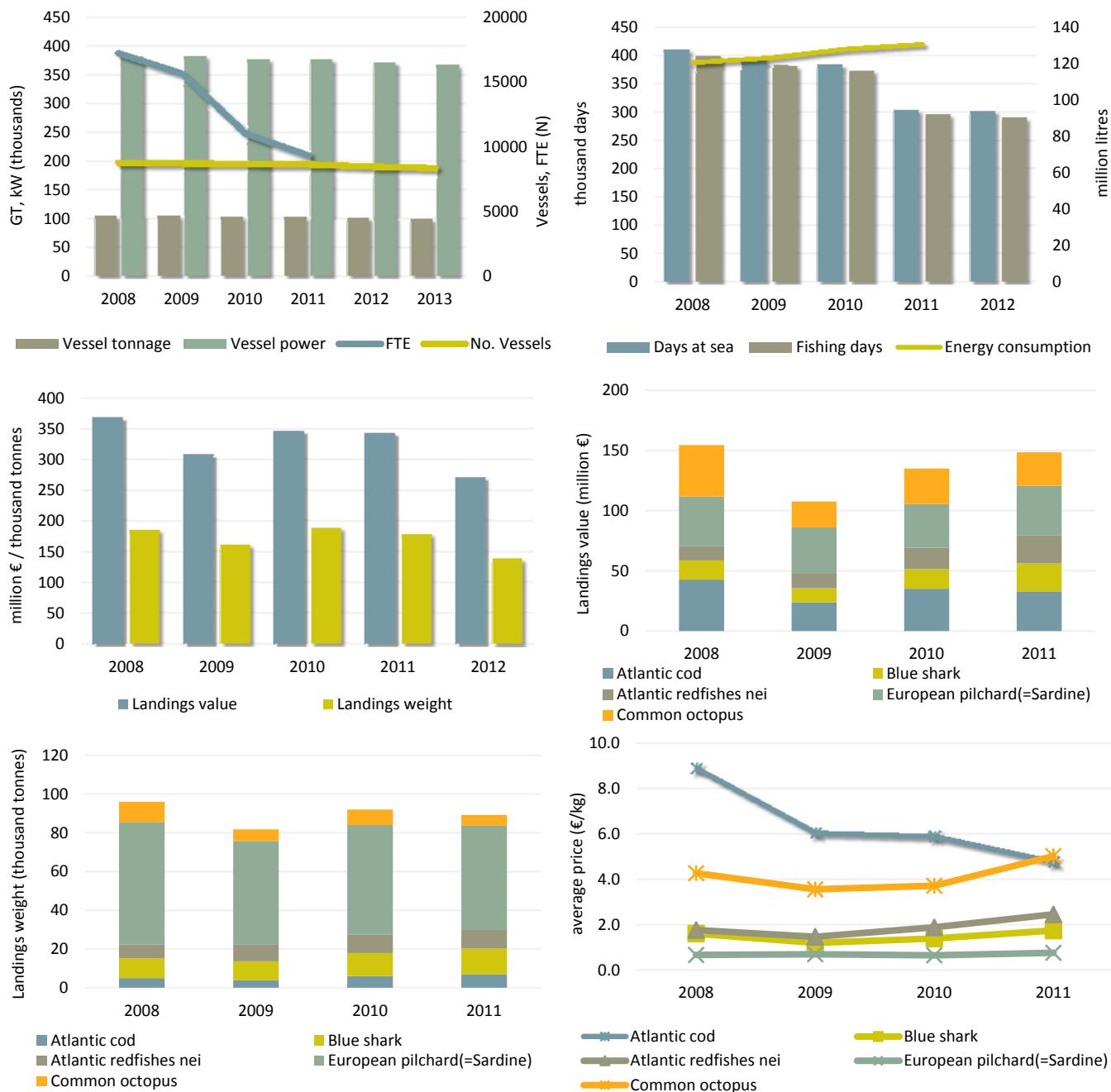
Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET					%Δ 2010-11	SMALL SCALE FLEET					%Δ 2010-11	2012
	2008	2009	2010	2011	2012		2008	2009	2010	2011			
<b>Structure</b>													
All Vessels	8706	8641	8606	8557	-1%	↔	8397	8280	4322	4205	4101	4004	-2% ↘
Inactive vessels	3466	3512	3622	3691	2%	↗	4077	4136	-	-	-	-	-
Average vessel age (years)	27	27	28	28	1%	↗	29	30	20	20	20	21	2% ↗
GT(thousand tonnes)	104.8	104.8	103.4	102.5	-1%	↔	101.3	99.9	8.5	8.5	8.5	8.4	-2% ↘
Engine power (thousand kW)	381.6	383.5	377.6	377.4	0%	↔	372.4	367.4	114.6	114.8	117.4	116.0	-1% ↘
No. Enterprises (N)	4692	4576	4751	4533	-5%	↘	4080		4078	3960	4039	3729	-8% ↘
<b>Employment</b>													
FTE (N)	17170	15633	17080	17188	1%	↔	16867	-	8956	7997	9332	9276	-1% ↔
Average wage per FTE (thousand €)	9.1	7.9	8.5	9.0	6%	↗	10.8	-	5.4	2.8	3.9	3.6	-6% ↘
<b>Fishing Effort</b>													
Days at Sea (thousand days)	411.1	392.2	383.7	375.1	-2%	↘	302.7	-	284.5	266.1	261.5	245.2	-6% ↘
GTfishing days (thousands)	7371	7564	7141	7827	10%	↗	7632	-	n/a	n/a	n/a	n/a	-
Energy consumption (million litres)	120.2	122.8	127.8	107.3	-16%	↘	-	-	14.8	18.6	20.0	12.2	-39% ↘
Fuel consumption per kg landed (litre/kg)	0.65	0.76	0.68	0.60	-12%	↘	-	-	0.70	0.98	1.01	1.18	17% ↗
<b>Production</b>													
Landings weight (thousand tonnes)	185.9	161.5	189.2	178.8	-6%	↘	189.5	-	21.2	19.0	19.7	10.3	-48% ↘
Landings value (million €)	369.1	309.0	347.2	344.2	-1%	↔	431.9	-	85.1	68.4	64.2	44.6	-31% ↘

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013

In 2011 the Portuguese fleet spent a total of around 375.1 thousand days at sea. The total number of days at sea decreased around 2% between 2010 and 2011. The major factors causing the decrease in days at sea include the decrease in the number of active vessels. The quantity of fuel consumed in 2011 totalled around 130 million litres, an increase of around 2% from 2010.

The total volume landed by the Portuguese fleet in 2011 was 178.8 thousand tonnes of seafood, with a landed value of €344.2 million. The total volume and value of landings decreased over the period analysed. In 2011, European pilchard (Sardine) generated the highest landed value (€41 million) by the national fleet, followed by Atlantic cod (€33 million), common octopus (€28 million), Atlantic redfishes (€24 million) and then blueshark (€23 million). In terms of landings weight, in 2011 European pilchard was 54 thousand tonnes, chub mackerel was 29 thousand tonnes and blueshark 13 thousand tonnes. The major factors causing the decrease in volume and value of landings include the decrease of mollusc catches, mainly the decrease in volume of European Pilchard, some tuna species, namely skipjack tuna and bigeye tuna, blue whiting, common octopus and also the decrease in catches of cockle and cuttlefish, resources which have a high variability in abundance, depending of environmental conditions which are detrimental the stocks reproductive abilities.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.29 Portuguese fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The prices obtained for these key species increased between 2008 and 2011. Common octopus achieved the highest average price per kilo in 2011 (€5.02 per kg), followed by Atlantic cod (€4.74 per kg). European pilchard accounted for 10.4% of the total landings value obtained by the Portuguese fleet in 2010, increasing to 11.9% of total landings value in 2011, while Atlantic cod decreased from 10.1% in 2010 to 9.6% in 2011. The major factors causing the increase in prices of individual species include the decrease in total catches, following the law of supply and demand.

### National Fleet Economic performance

The total amount of income generated by the Portuguese national fleet in 2011 was €442.4 million. This consisted of €431 million in landings value and €11.4 million in non-fishing income. The Portuguese fleet's total income increased 13% between 2010 and 2011. Total operating costs incurred by the Portuguese national fleet in 2011 equated to €351.4 million, amounting to 81% of total income. Crew cost and fuel costs, the two major fishing expenses, were €152 and €85 million

respectively, see Table 5.44. Between 2010 and 2011, total operating costs increased 16%, largely due to increasing fuel costs, which amounted to almost 18% of total income in 2011.

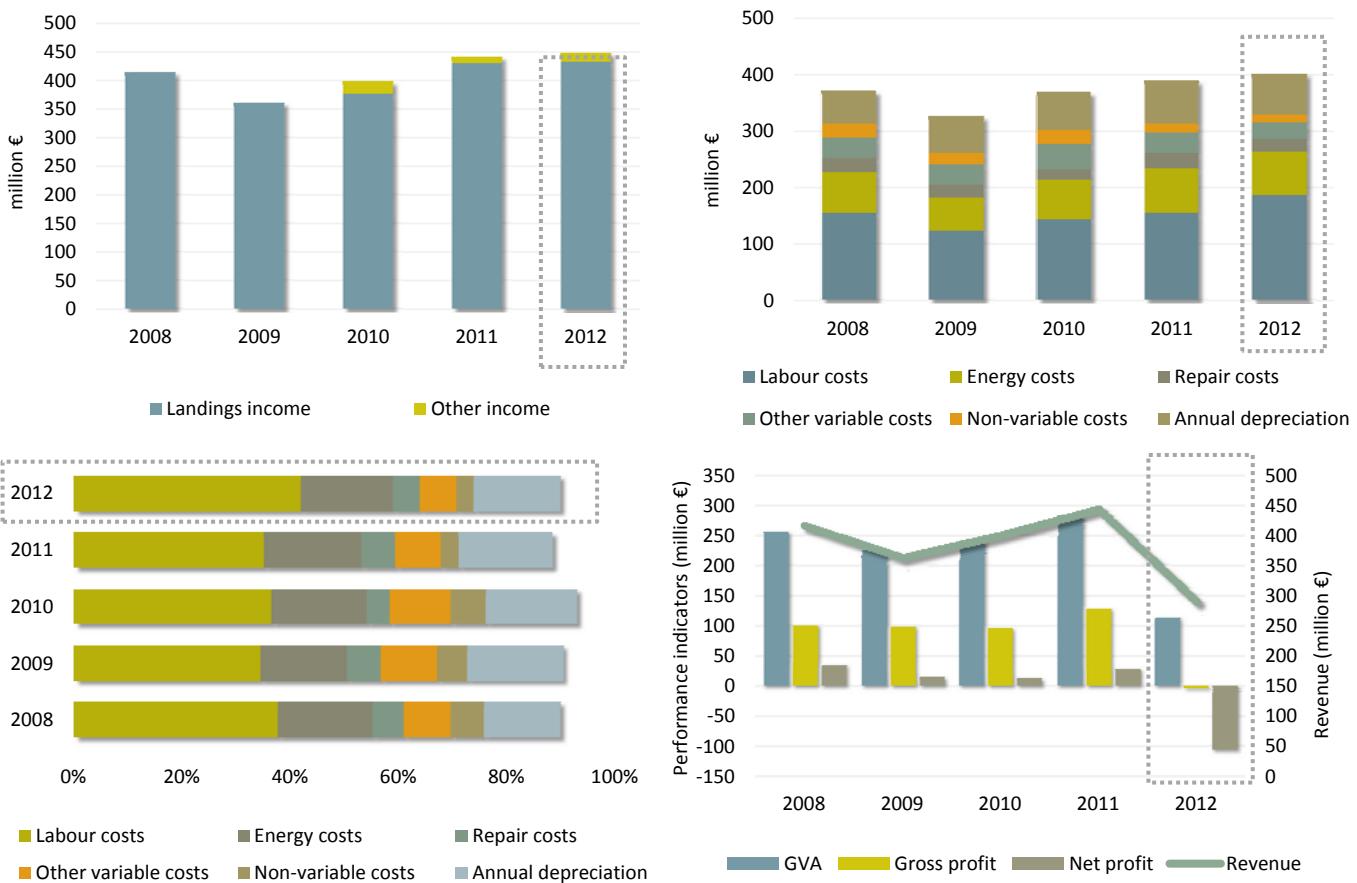
In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Portuguese national fleet in 2011 were €283.6 million, €129.2 million and €29 million, respectively. Gross Value Added (GVA), gross profit and net profit increased 18%, 34% and 119% respectively between 2010 and 2011. The major factors causing the improvement in economic performance are mainly due to better sales prices which lead to an increase in total income. In 2011, the Portuguese fleet had an estimated (depreciated) replacement value of €358 million. Investments by the fleet amounted to €56.7 million in 2011. The major factors causing a change in the capital value of the fleet include the implementation of a measure for on board investments, supported by European funds.

Table 5.44 Portuguese national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	414.7	361.5	377.3	431.0	↗ 14%	431.8	114.4	83.0	87.1	73.6	↘ -15%	64.3
Other income	-	-	21.4	11.4	↘ -47%	16.4	-	-	0.2	1.7	↗ 688%	1.0
<b>Costs</b>												
Labour costs	155.4	123.9	144.8	154.5	↗ 7%	186.9	47.9	22.4	36.3	33.8	↘ -7%	26.0
Energy costs	72.7	57.9	70.3	79.5	↗ 13%	76.8	11.3	14.2	14.2	11.5	↘ -19%	12.9
Repair costs	24.1	22.7	16.7	27.5	↗ 65%	22.2	6.8	3.7	0.6	3.9	↗ 594%	3.7
Other variable costs	35.9	37.4	44.9	37.1	↘ -17%	29.9	5.5	5.1	6.3	2.6	↘ -59%	2.4
Non-variable costs	25.6	20.2	26.0	14.7	↘ -43%	14.4	5.7	3.3	6.7	2.7	↘ -59%	2.7
Capital costs	65.2	83.9	82.9	100.2	↗ 21%	102.1	13.7	16.3	22.3	24.3	↗ 9%	25.5
<b>Economic Indicators</b>												
GVA	256.4	223.4	240.9	283.6	↗ 18%	304.9	85.1	56.7	59.5	54.6	↘ -8%	43.6
Gross profit	101.1	99.4	96.1	129.2	↗ 34%	118.1	37.2	34.2	23.1	20.8	↘ -10%	17.6
Net profit	35.9	15.5	13.2	29.0	↗ 119%	16.0	23.5	18.0	0.8	-3.5	↘ -540%	-7.9
<b>Capital value</b>												
Fleet depreciated replacement value	356.2	378.1	384.6	358.0	↘ -7%	371.3	64.4	65.7	91.5	89.9	↘ -2%	90.7
In-year investments	20.8	20.3	15.8	56.7	↗ 258%	-	5.8	8.3	0.4	20.4	↗ 5627%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	8.7	4.3	3.3	6.6	↗ 97%	3.6	20.6	21.7	0.9	-4.6	↘ -609%	-12.1
development trend	Improved				↗ 21%	Deteriorated				↘ -132%		
RoFTA (%)	10.1	4.1	3.4	8.1	↗ 135%	4.3	36.6	27.4	1.0	-3.8	↘ -498%	-8.7
development trend	Improved				↗ 38%	Deteriorated				↘ -118%		
GVA per FTE (thousand €)	14.9	14.3	14.1	16.5	↗ 17%	18.1	9.5	7.1	6.4	5.9	↘ -8%	4.8
development trend	Improved				↗ 14%	Deteriorated				↘ -23%		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.30 Portuguese fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

### Fleet Segment Level Economic performance

The Portuguese fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Portuguese Exclusive Economic Zone (27.9.a for the mainland fleet, 27.10 for the Azores's fleet and CECAF 34.1.2 for the Madeira's fleet). The national fleet consisted of 45 (DCF) fleet segments in 2011, with 6 inactive length classes consisting of 3,691 vessels. 5 of the active fleet segments made losses in 2011 while 40 made an overall profit. Table 5.44 provides a breakdown of key performance indicators for all 45 fleet segments in 2011. A short description of the 4 most important segments in terms of total value of landings is provided below.

**Demersal trawl and seine over 40m** – 13 vessels made up this segment which operates predominantly in Area 27 (NAFO, Norway, Banana hole and Irminger). The fleet targets a variety of species but in particular Atlantic Cod, Atlantic redfish and Greenland halibut. In 2011, the total value of landings was around €73 million and around 419 FTEs were employed in this fleet segment, contributing to 18% and 3% of the total income from landings and FTEs generated by the Portuguese fishing fleet respectively. This fleet segment was highly profitable, with a reported gross profit of around €29.7 million and net profit of €18.6 million in 2011. While the fleet structure remained stable, the improvement in 2011 compared to 2010 was mainly due to an increase in landings of species with a higher market value and the improvement of the prices for these species. The cost structure and level of employment remained stable, except for a reduction in non-variable costs.

**Demersal trawl and seine 24-40m** – 62 vessels made up this segment in 2011 which operates predominantly in Area 27 (27.9.a and 27.8.c). The fleet targets a variety of species but in particular deep water rose shrimp, Atlantic horse mackerel and Atlantic mackerel. In 2011, the total value of landings was almost €44 million and around 596 FTEs were employed in this fleet segment, contributing to 11% and 4% of the total income from landings and FTEs generated by the Portuguese fishing fleet respectively. This fleet segment was profitable, with a reported gross profit of around €5.5 million and net loss of -€5 million in 2011. Crew costs and Energy costs increased in 2011, due to the increase in the number of days at sea and in employment.

**Hooks 24-40m** – 18 vessels make up this segment which operates predominantly off the African Coast and in the Indian Ocean (FAO areas 34, 41, 51 and 57). The fleet targets a variety of species but in particular large pelagic fishes such as blue

shark, bigeye tuna and swordfish. In 2011, the total value of landings was almost €21 million and around 285 FTEs were employed in this fleet segment, contributing 5% and 2% of the total income from landings and FTEs generated by the Portuguese fishing fleet respectively. This fleet segment was profitable, with a reported gross profit of around €7.1 million and net profit of €1.7 million in 2010.

**Purse seine 18-24m** – 53 vessels make up this segment which operates predominantly in Area 27 (27.9.a and 27.8.c). The fleet targets a variety of species but in particular small pelagic fishes, such as Atlantic pilchard, chub mackerel and Atlantic horse mackerel. In 2011, the total value of landings was almost €33 million and around 985 FTEs were employed in this fleet segment, contributing 8% and 6% of the total income from landings and FTEs generated by the Portuguese fishing fleet respectively. This fleet segment was profitable, with a reported gross profit of around €10.2 million and net profit of €9.1 million in 2011. Landings of these vessels achieved better prices in 2011 (almost 20% higher in 2011 by comparison with 2010), contributing to the good performance of the segment. Catches of European anchovy greatly increased in 2011, representing 10% of the value of total landings. This is mainly due to the seasonal abundance of this species.

## Assessment and Future Trends

There is an overall trend of decreasing capacity of the national fleet, both in terms of number of vessels, power and GT and in the number of active vessels which is most likely to continue in the next few years. This is mainly due to the scrapping of particularly older aged vessels in the fleet. The price per kilo of landings shows an increasing trend related to the decrease in the total weight of landings. The implementation of measures at national level for restriction of catches of European Pilchard resulted in a decrease of catches of about 40% in 2012, from around 54 thousand tonnes to 32 thousand tonnes.

The small scale fleet will decrease in terms of number of vessels due to a more rigorous criteria for licensing, namely for vessels with low levels of activity (e.g. from retired fishermen).

The Long distant water fleet is expected to remain highly profitable in the next few years. Longliners may face some constraints due to increasing restrictions regarding deep species and shark catches.

## Data issues

Capacity, logbook and landings data are derived from sources which are covered by different legislation. All these data are available exhaustively. That means all capacity, landings and effort data are 100% accurate. The only exception is the group of vessels under 10m without logbook obligations. For these vessels effort is estimated on the basis that one day at auction is equal to one fishing day. The remaining variables (cost, employment, fuel consumption) are estimated based on results from surveys with questionnaires.

The database containing fleet segment level estimations has been further improved. All segments of the Portuguese fleet have been sampled with high response rates. As segments are not necessarily homogeneous, the results can be quite variable which is reflected in higher coefficients of variation. Some leaps in time series might be due to an improvement in data coverage, the latest data being most reliable, as the raising procedure is based upon more information. Results for the small scale fleet present a lower response rate and higher variability due to the polyvalent characteristics of the fleet and the difficulties of the fishermen when completing the questionnaires. As some of them don't have organized accountancy procedures, they tend to rely on memory in order to answer the questions, raising costs and introducing bias into the economic performance. The improvement of the estimation procedure is an on-going process.

The value of landings are estimated for processed products and landings in foreign ports while total income from landings is estimated based on survey with questionnaires. For that reason, total value of landings by species may differ from total income from landings. This is an issue to be solved in the near future with the improvement of the collection of this data exhaustively at vessel level.

Table 5.45 Main socio-economic performance indicators by fleet segment in the Portuguese national fishing fleet in 2011.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA27	DFNVL0010	510	-7%	115	-74%	16049	-7%	413	####	2759	-1%	536	-24%	2320	-56%	2.4	-41%	924	-53%	-419	-166%	-12.8	-255%	Weak	-175%	Deteriorated
AREA27	DFNVL1012	20	-13%	41	-41%	2853	-2%	200	####	1386	-17%	264	-29%	1142	-13%	19.4	40%	695	5%	346	31%	24.9	71%	High	19%	Improved
AREA27	DFNVL1218	72	-15%	370	-32%	13095	-5%	1759	####	9680	-16%	2528	-25%	6323	-30%	14.0	3%	3020	-6%	-400	-138%	-4.1	-149%	Weak	-141%	Deteriorated
AREA27	DFNVL1824	26	8%	281	13%	5612	24%	1792	####	6014	27%	2082	34%	3765	-15%	12.0	-23%	250	-86%	-2055	-1566%	-29.6	-1556%	Weak	-380%	Deteriorated
AREA27	DTSQL0010	75	-1%	79	-34%	7308	-1%	964	39%	2163	57%	478	30%	1287	-7%	7.7	8%	294	25%	-19	88%	-0.7	90%	Weak	-126%	Deteriorated
AREA27	DTSQL1012	10	67%	16	0%	1048	70%	91	40%	702	218%	181	275%	550	117%	22.0	126%	413	174%	285	300%	40.5	82%	High	295%	Improved
AREA27	DTSQL1218	9	0%	52	0%	1611	3%	1088	31%	1958	-6%	530	-25%	904	-23%	14.3	-32%	-129	-168%	-554	-1289%	-26.9	-1356%	Weak	-2916%	Deteriorated
AREA27	DTSQL1824	8	0%	57	-17%	2019	4%	2148	0%	4409	-8%	556	-36%	2021	-37%	34.8	-23%	881	-35%	35	-92%	0.8	-90%	Reasonable	-93%	Deteriorated
AREA27	DTSQL2440	62	5%	555	-	12963	-	20941	-	40197	-	19081	-	21367	-	35.9	-	5496	-	-4975	-	-10.8	-1286%	Weak	-355%	Deteriorated
AREA27	DTSQL40XX	13	0%	398	0%	3236	15%	19467	####	67272	9%	21751	3%	47967	51%	114.5	51%	29669	88%	18634	209%	25.3	137%	High	472%	Improved
AREA27	FPOVL0010	302	-8%	185	-50%	21018	-14%	867	####	5689	-10%	973	-41%	4164	-24%	6.9	-15%	2202	91%	802	469%	13.5	591%	High	-22%	Deteriorated
AREA27	FPOVL1012	47	-6%	82	-41%	6183	1%	411	####	3322	-5%	682	-28%	2866	-6%	17.3	7%	2173	22%	1520	59%	45.1	96%	High	63%	Improved
AREA27	FPOVL1218	55	2%	268	-14%	8733	13%	1263	####	7741	-6%	2047	-11%	4452	-37%	10.4	-42%	956	-70%	-619	-136%	-7.9	-145%	Weak	-139%	Deteriorated
AREA27	FPOVL1824	4	-50%	41	-55%	728	-52%	249	####	791	-62%	295	-55%	368	-82%	7.2	-63%	-76	-108%	-496	-242%	-58.7	-548%	Weak	-1999%	Deteriorated
AREA27	HOKVL0010	223	-7%	54	-68%	12050	-5%	235	####	1702	-11%	342	-34%	2312	7%	10.2	112%	1859	55%	1434	87%	51.6	120%	High	98%	Improved
AREA27	HOKVL1012	12	-20%	52	-28%	1502	-34%	251	####	958	-40%	229	-49%	568	-48%	8.7	-27%	78	-44%	-89	29%	-9.1	-16%	Weak	-151%	Deteriorated
AREA27	HOKVL1218	21	0%	118	-34%	3423	26%	486	####	6119	11%	1848	9%	4610	-1%	30.9	37%	2768	63%	2061	119%	35.2	158%	High	126%	Improved
AREA27	HOKVL1824	25	0%	273	5%	4257	5%	2346	####	12198	-4%	3924	-3%	8926	-5%	28.5	-17%	4156	10%	2083	18%	16.7	37%	High	56%	Improved
AREA27	HOKVL2440	25	67%	273	81%	3401	0%	4405	10%	9770	7%	3177	-10%	10061	114%	35.3	15%	5185	223%	1726	712%	10.6	514%	High	237%	Improved
AREA27	DRBVL0010	37	12%	19	-53%	2997	2%	306	####	407	-14%	191	-9%	83	-73%	1.4	-62%	-27	-11%	-268	-10%	-65.9	-71%	Weak	-208%	Deteriorated
AREA27	DRBVL1012	22	-12%	17	-73%	1919	-14%	478	####	564	-13%	315	-26%	210	-50%	4.5	-1%	17	109%	-363	34%	-62.8	4%	Weak	-109%	Deteriorated
AREA27	DRBVL1218	14	-18%	15	-74%	1225	-9%	657	25%	1042	41%	435	8%	640	-10%	17.3	119%	359	330%	10	102%	0.8	102%	Reasonable	101%	Improved

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

**Table 5.45 continued Main socio-economic performance indicators by fleet segment in the Portuguese national fishing fleet in 2011, percentage change to 2010.**

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA27	PGPVL0010	1628	0%	891	-47%	99474	-1%	3371	####	23407	7%	4994	-7%	20258	-8%	7.0	10%	10253	-22%	3861	-48%	14.3	-40%	High	-32%	Deteriorated
AREA27	PGPVL1012	24	4%	44	-34%	2087	9%	590	36%	1345	63%	326	63%	2894	281%	33.3	273%	742	463%	125	177%	3.4	124%	Reasonable	-60%	Deteriorated
AREA27	PGPVL1218	36	38%	143	23%	4367	64%	738	####	4155	62%	1211	65%	3531	42%	13.2	-19%	1908	81%	568	151%	11.1	74%	High	164%	Improved
AREA27	PGPVL1824	4	0%	18	-	280	300%	85	-	315	178%	110	244%	193	-	5.7	-	81	-	-261	-	-80.8	-145%	Weak	-749%	Deteriorated
AREA27	PMPVL0010	1081	-	1131	-	71954	-	3650	-	3514	-	1781	-	11117	-	3.3	-	1673	-	-9326	-	-55.1	-96%	Weak	-1268%	Deteriorated
AREA27	PMPVL1012	89	3%	468	2%	11766	5%	2018	-8%	117	-98%	58	-98%	6323	40%	9.7	21%	388	128%	-1245	56%	-14.3	67%	Weak	72%	Improved
AREA27	PMPVL1218	53	-	296	-28%	8786	-	1040	####	1124	-	499	-	7922	39%	19.7	58%	2543	248%	1101	296%	10.9	258%	High	230%	Improved
AREA27	PMPVL2440	27	4%	372	-	6311	87%	4010	-	6412	-56%	1402	-85%	16408	-	44.1	-	9285	-	5288	-	24.8	79%	High	221%	Improved
AREA27	PSVL0010	60	11%	82	-49%	3763	6%	245	####	2680	18%	2477	1%	2523	30%	10.6	101%	1532	264%	1087	1564%	36.9	1369%	High	749%	Improved
AREA27	PSVL1012	33	-6%	112	-35%	3663	-6%	680	7%	5256	23%	4558	-2%	3498	-1%	14.9	24%	814	-42%	217	-76%	4.0	-79%	Reasonable	-86%	Deteriorated
AREA27	PSVL1218	35	-3%	253	-10%	4512	13%	795	####	8096	24%	10002	8%	6742	37%	17.6	43%	2457	2650%	2126	563%	25.4	477%	High	235%	Improved
AREA27	PSVL1824	53	-2%	731	-	7840	10%	4755	-	32182	41%	49933	16%	24998	-	25.4	-	10212	-	9081	-	27.3	105%	High	203%	Improved
AREA27	PSVL2440	20	-5%	261	-	2665	-6%	2522	-	14931	12%	20495	-9%	12594	-	31.5	-	4033	-	3379	-	20.2	-	High	89%	Improved
OFR	DTSVL2440	6	-25%	67	-	914	-	4418	-	5425	-	875	-	2597	-	37.1	-	1315	-	-521	-	-6.0	-155%	Weak	37%	Improved
OFR	HOKVL0010	58	-	80	-	311	-	141	-	402	-	121	-	307	-	2.2	-	-176	-	-394	-	-49.0	-142%	Weak	-1060%	Deteriorated
OFR	HOKVL1218	20	-9%	214	3%	3439	8288%	1017	-	5566	11%	1805	-4%	4823	21%	20.4	27%	1860	-6%	930	-20%	14.1	-29%	High	39%	Improved
OFR	HOKVL1824	7	-30%	74	23%	1599	-9%	754	-	3083	29%	826	8%	1691	-32%	20.1	-41%	420	-71%	-148	-118%	-5.4	-124%	Weak	-153%	Deteriorated
OFR	HOKVL2440	18	-14%	169	-25%	6429	5%	6368	-	27640	24%	9692	4%	10215	28%	58.7	70%	7133	48%	1738	80%	7.3	73%	Reasonable	97%	Improved
OFR	HOKVL40XX	5	0%	88	57%	1609	26%	3856	-	11432	12%	4661	41%	6811	126%	77.4	44%	5474	135%	3903	144%	33.6	124%	High	124%	Improved
OFR	MGPVL0010	4	-20%	11	0%	n/a	-	25	-	n/a	-	n/a	-	223	2%	12.4	13%	-11	-127%	-21	-168%	-5.7	-152%	Weak	-128%	Deteriorated
OFR	MGPVL1824	3	-25%	46	39%	699	9%	114	-	265	-53%	569	3%	528	65%	11.5	58%	88	132%	-46	46%	-6.3	58%	Weak	58%	Improved
OFR	PMPVL0010	10	-	31	-	n/a	-	54	-	n/a	-	n/a	-	328	-	6.6	-	9	-	-66	-	-12.4	65%	Weak	-132%	Deteriorated

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.16 ROMANIA

### Fleet Structure, Fishing Activity and Production

In 2012 the Romanian fishing fleet consisted of 261 registered vessels, with a combined gross tonnage of one thousand GT, a total power of 5.9 thousand kW and an average age of 12 years. The size of the Romania fishing fleet decreased between 2008 and 2012, with the number of vessels falling by 180, by 1.6 thousand GT and 2.9 thousand kW, 68% and 33% respectively (**Error! Reference source not found.**). The major factors causing the fleet to decrease over the time period included the restructuring plan for the fleet, less investment in the industry (financial difficulties encountered in this period did not make the sector attractive to investors) and the lack of fishing infrastructure (no specialised ports on the Romanian coast - landing sites and first sale centres need modernizing) No subsidies or any other kind of support were granted by the authorities to possible investors or fishermen.

In 2011, the number of fishing enterprises in the Romanian fleet totalled 105, with the vast majority (79%), owning a single vessel. Only 18% of enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 454 jobs, corresponding to 315 FTEs (note, these values do not correspond to the values submitted and presented in **Error! Reference source not found.**). The level of employment decreased between 2008 and 2011, with total employed decreasing by 48% and the number of FTEs decreasing by 43% over the period. The major factors causing employment to decrease include a reduction of number of active vessels, a lot of fishermen acting on their own because of the economic crisis and, as a consequence, the decrease of the funds available for investments and business development. The restrictive exploitation of species such as turbot (under the quota system introduced by the EC) and the fact that young fishermen have not joined the sector were also reasons for the lower number of jobs. This trend also continued into 2012.

Table 5.46 Romanian national fleet structure, activity and production trends

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( increase; ( decrease and ( stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11	SMALL SCALE FLEET				%Δ 2010-11	2012
	2008	2009	2010	2011		2012	2013	2008	2009	2010	
<b>Structure</b>											
All Vessels	441	440	429	488	14%		261	275	395	153	205
Inactive vessels	36	280	223	288	29%		78	75	-	-	-
Average vessel age (years)	19	21	22	17	-24%		12	12	16	18	17
GT(thousand tonnes)	2.3	2.3	1.1	1.0	-5%		0.7	0.9	0.4	0.2	0.2
Engine power (thousand kW)	8.7	8.6	5.5	7.0	28%		5.9	6.7	3.1	1.2	1.7
No. Enterprises (N)	138	33	43	105	144%		91	-	129	27	42
<b>Employment</b>											
FTE (N)	42	31	38	28	-26%		15	-	31	28	38
Average wage per FTE (thousand €)	11.3	6.8	5.1	16.2	216%		21.2	-	10.8	6.4	5.1
<b>Fishing Effort</b>											
Days at Sea (thousand days)	3.7	6.3	6.5	2.9	-56%		3.5	-	3.4	6.2	6.5
GT fishing days (thousands)	1147	476	590	1881	219%		719	-	1060	458	590
Energy consumption (million litres)	0.1	0.3	0.2	0.2	5%		-	-	0.0	0.2	0.2
Fuel consumption per kg landed (litre/kg)	0.25	0.93	0.89	0.40	-55%		-	-	0.26	1.03	0.89
<b>Production</b>											
Landings weight (thousand tonnes)	0.5	0.3	0.2	0.5	136%		0.8	-	0.1	0.2	0.2
Landings value (million €)	0.7	0.6	0.5	1.4	192%		0.9	-	0.3	0.5	0.5

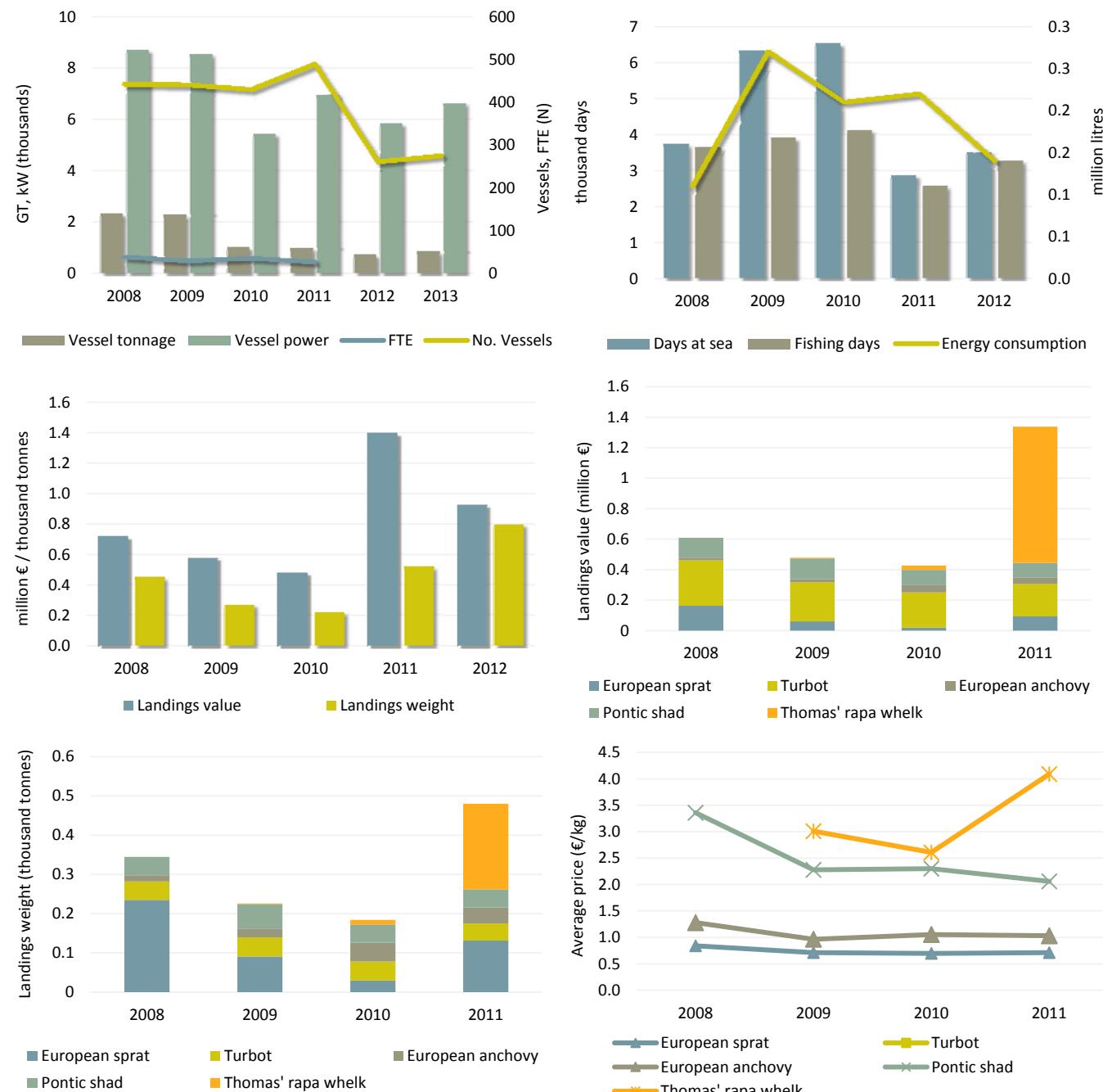
Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013

In 2012 the Romania fleet spent a total of around 4 thousand days at sea. The total number of days at sea decreased by around 6% between 2008 and 2012, similar with the fishing days evolution. The major factors causing the decrease in days at sea include the reduction of the active vessel numbers as a result of the measures for fleet restructuring; this decrease corresponds to the continuing reduction of the number of fishermen from 553 in 2008 to 315 in 2011 and 201 in 2012. In the last two years activity was focused to fishing Thomas' rapa whelk due to an increase in demand in the market, especially in the tourist season, and fishermen trying to reduce the effect of the quota system for turbot introduced in 2009.

The quantity of fuel consumed in 2012 totalled around 140 thousand litres, an increase of around 27% from 2008. The increase in fuel consumption is mainly explained by the lack of investment in new equipment, despite the reducing number

of days at sea and the number of active boats, but also in the improvement of the data collection process from a year to year.

The total volume landed by the Romanian fleet in 2011 was around 500 tonnes of seafood, with a landed value of €1.4 million. The total volume and value of landings increased overall during the period 2008 to 2011 but the volume fell in 2009 and 2010, only to recover in 2011. In 2011, Thomas' rapa whelk generated the highest landed value by the national fleet (€0.9 million), followed by turbot (€0.4 million), European sprat (€0.9 million) and then European anchovy (€0.4 million). In terms of landings weight, in 2011 Thomas' rapa whelk was 0.22 thousand tonnes, turbot 0.04 thousand tonnes, European sprat 0.13 thousand tonnes, and European anchovy 0.04 thousand tonnes. The major factors causing the fluctuations in the volume and value of landings include the instability inside the sector, a lack of organisational measures in terms of producer organisations, and the instability of the internal market. For turbot, the quota system discouraged trade. The fishermen were looking to other species to increase income in the tourist season, as is illustrated in 2011 by the volume and value for Thomas' rapa whelk landed. 2012 data does not illustrate the same trend due to the fact that the market price decreased.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 and 2013 are provisional.

Figure 5.31 Romanian fleet main trends 2008-2013

Top left – capacity and employment; top right – fishing effort and fuel consumption; bottom left – landings in value and weight and effort by fishing days; bottom right – top 5 species in terms of weight landed in 2011.

The prices obtained for the 5 key species (Thomas' rapa whelk, turbot, pontic shad, European sprat and European anchovy) remained relatively stable between 2008 and 2012. Thomas' rapa whelk, is an exception of the trend, achieving its highest average price per kilo in 2011 (€4.01 per kg) due to unusual demand on the market in the tourist season, followed the next year with a calmer market, reflected also in the decreasing quantity landed. Turbot achieved the highest average price per kilo among all the finfish landed in 2011 (€5.25 per kg), followed by European anchovy (€1.00 per kg). Thomas' Rapa Whelk sold for an average price of €4.05 per kg. It accounted for 9% of the total landings value obtained by the Romanian fleet in 2010 but increased dramatically in importance in 2011, providing 72% of total income, while turbot decreased from 68% in 2010 to 17% in 2011. The major factors causing changes in the price of individual species include the expected inverse relationship between price and availability of supplies. Another explanation is that the specialized vessels over 18m capturing sprat in 2008 were mostly inactive from 2009 onwards; this fleet segment only contained one or two vessels active during the 2010-2012 period.

The economic evolution of the Romania fleet is strictly related to the changes in the structure of the fleet segments during 2008-2012. This change resulted in the current structure of the Romanian fleet which is characterised as being an ageing small scale fleet, with a low level of technical capacity.

### National Fleet Economic performance

The amount of income generated by the Romanian national fleet from landings in 2011 was €1.42 million. No information is available on non-fishing income. The Romanian fleet's total income increased 97% between 2008 versus 2011. Total operating costs incurred by the Romanian national fleet in 2011 equated to €1.02 million, amounting to 82% of total income. Crew cost and fuel costs, the two major fishing expenses, were €0.47 and €0.13 million respectively, see Table 5.47. Between 2008 and 2011, total operating costs increased 69%, largely due to the increase in fuel costs, which had effectively doubled in 2011 from 2008.

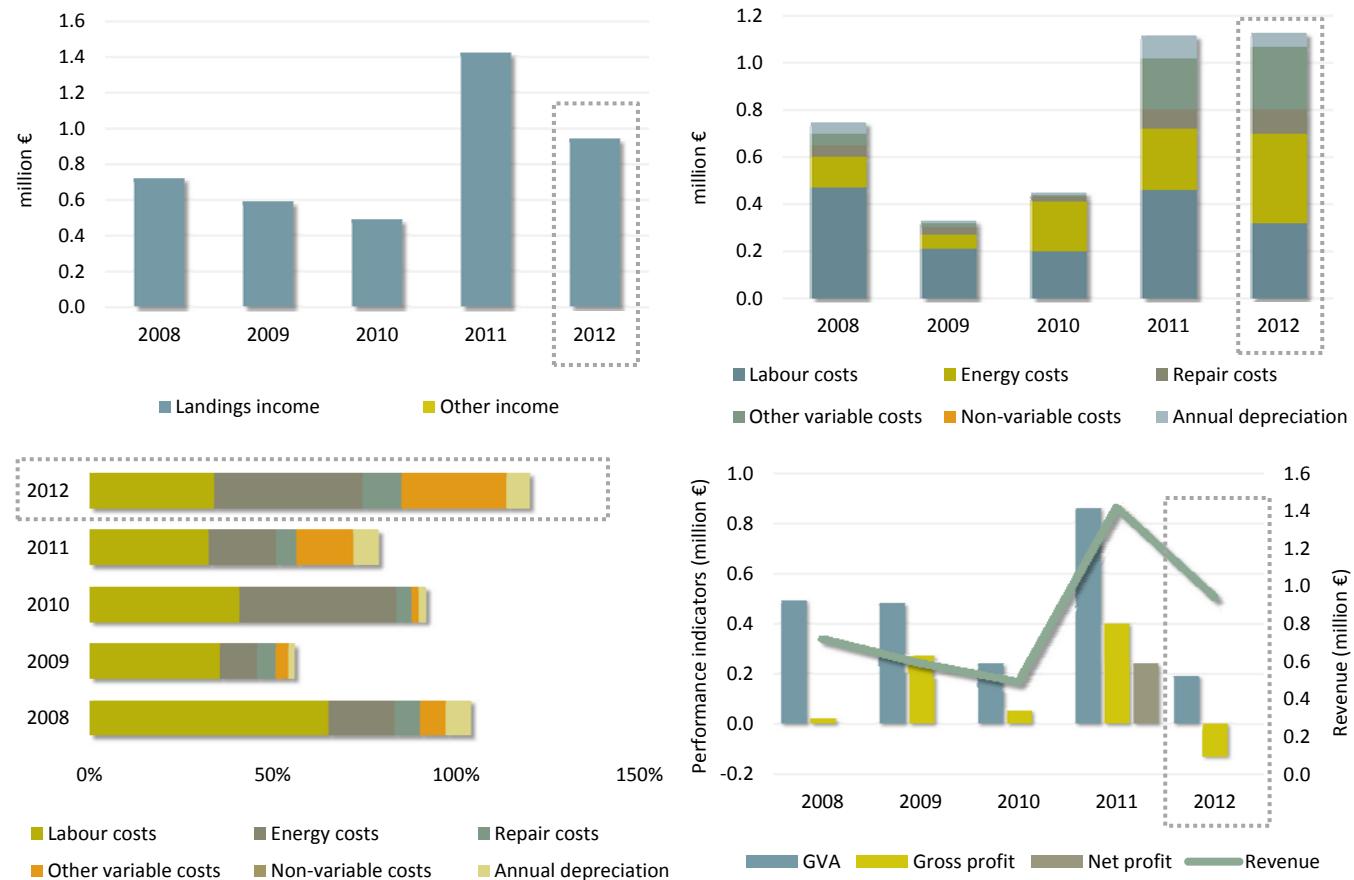
Table 5.47 Romanian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	0.7	0.6	0.5	1.4	↗ 190%	0.9	0.30	0.49	0.48	1.32	↗ 171%	0.8
Other income	-	-	-	-	-	-	-	-	-	-	-	-
<b>Costs</b>												
Labour costs	0.47	0.21	0.20	0.46	↗ 130%	0.3	0.33	0.18	0.20	0.43	↗ 117%	0.2
Energy costs	0.13	0.06	0.21	0.26	↗ 24%	0.4	0.05	0.03	0.20	0.21	↗ 2%	0.1
Repair costs	0.05	0.03	0.02	0.08	↗ 300%	0.1	0.02	0.02	0.02	0.08	↗ 208%	0.0
Other variable costs	0.05	0.02	0.01	0.22	↗ 2100%	0.3	0.02	0.01	0.01	0.22	↗ 1667%	0.1
Non-variable costs	-	-	-	-	-	-	-	-	-	-	-	-
Capital costs	0.05	0.01	0.01	0.16	↗ 1500%	0.1	0.002	0.001	0.01	0.11	↗ 647%	0.1
<b>Economic Indicators</b>												
GVA	0.49	0.48	0.24	0.86	↗ 258%	0.2	0.2	0.4	0.2	0.8	↗ 235%	0.6
Gross profit	0.02	0.27	0.05	0.40	↗ 700%	-0.1	-0.1	0.3	0.0	0.4	↗ 723%	0.4
Net profit	-	-	-	0.24	-	-	-	-	-	0.3	-	-
<b>Capital value</b>												
Fleet depreciated replacement value	n/a	n/a	n/a	3.9	-	-	1.9	n/a	n/a	n/a	0.9	-
In-year investments	n/a	n/a	n/a	0.0	-	-	n/a	n/a	n/a	0.0	-	-
<b>Profitability and development trends</b>												
Net profit margin (%)	-	-	-	17.1	-	-	-	-	-	21.3	-	39.6
development trend	-	-	-	-	-	-	-	-	-	-	-	-
RoFTA (%)	-	-	-	6.3	-	-	-	-	-	32.3	-	77.3
development trend	-	-	-	-	-	-	-	-	-	-	-	-
GVA per FTE (thousand €)	11.7	15.6	6.4	30.3	↗ 376%	12.4	7.2	15.7	6.4	31.4	↗ 393%	24.7
development trend	Improved	Improved	→ 170%	→ 170%			Improved	Improved	→ 222%	→ 222%		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

The Romanian small scale fleet represents the principal part of the national fleet. The total amount of income generated by the small scale fleet from landings in 2011 was €0.8 million. The small scale fleet's income from landings increased 170% between 2010 and 2011. Total operating costs incurred by the small scale fleet in 2011 equated to €0.9 million, amounting to approximately 70% of total income. Crew cost and fuel costs, the two major fishing expenses, were €0.4 and €0.2 million respectively, see Table 5.47. Between 2010 and 2011, total operating costs increased 126%, largely due to increases in labour costs and other variable Costs, which amounted to almost 15% of total income in 2011. The small scale fleet shows the same shift from labour intensive to capital intensive production and a doubling of wages between 2010 and 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 and 2013 are provisional.

Figure 5.32 Romanian fleet main economic performance trends 2008-2013

Top left – income structure; top right – cost structure; bottom left – cost structure; bottom right – economic indicators.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Romania national fleet in 2011 were €0.86 million, €0.40 million and €0.24 million respectively. Gross Value Added (GVA) and gross profit increased 48%, and 90% respectively between 2008 and 2011. The major factors causing the improvement in economic performance include an increase in the value of landings and a decreased number of fishermen, compounded by relative stability of prices on the market during the period. It should be noted that the fishing sector and the volume and value of landings it generates are relatively modest compared to other EU member states, with more than 85% of production attributed to the small scale fishery.

In 2011, the Romanian fleet had an estimated depreciated replacement value of €3.88 million but it has not been possible to make an estimate of the value of fishing rights. Investments by the fleet amounted only to €0.04 million in 2011. The major factors causing this stable situation at a lower level in the capital value of the fleet include several factors; the smaller dimension of the fleet (decreased number of active vessels, number of fishermen), less concentration of the capital (there still exist a large number of companies owning one small boat – less than 12m), a high dependency to the internal market, the absence of the fishing infrastructure and government subsidies system, the lack of an integrated supply chain (including an organised selling system – no fishery auction). The small companies did not develop alternative activities, resulting in no other income recorded. The sector is not so attractive for investment due to the reasons mentioned and to the constraints imposed by operating only in the Black Sea exploiting weather conditions affecting the small scale fishery – the main segment of the Romanian fleet, one of the smallest in the EU.

## Fleet Segment Level Economic performance

The Romanian fleet is not diversified with a small range of vessel types targeting different species only in the Black Sea. The national fleet consisted of 6 main (DCF) fleet segments in 2011, with 288 inactive vessels. 2 of the active fleet segments made losses in 2011 while 4 made an overall profit (full information is lacking for 2 segments which are not significant for the total fleet). In the analysis, the 4 main segments of vessels less 12 m, using fixed gears (mostly traps) and polyvalent mobile and passive gears will be considered. Table 5.48 provides a breakdown of key performance indicators for all 6 fleet segments in 2011. A short description of the small scale fishery segments – the most important segments of the fleet in terms of total value of landings is provided below.

The main length class, which comprises vessels between 00-12m, makes up the largest segment. It operates only in the Romanian waters of the Black Sea, as does all the national fleet. The fleet targets a variety of species sometimes using several gears on the same trip. The fleet particularly targets small pelagic species, such as European anchovy, European sprat, other small pelagic species and also picked dogfish and Thomas' rapa whelk. It should be mentioned that turbot is a target species, but the quantity available is under EC quota limits; this species is fished by fixed gears, using small boats. The main characteristic of the segment – for all boats used, is that during the fishing season the fishermen switch from one fishing technique to another, using the same boats and targeting the mentioned species. It is not a specialized fishery, but a mixed one. The fishery includes also the artisanal fishery. This is due to the fact that investment is lacking in the sector for improvement of the quality of activity. The biggest change is observed in the increasing of the number of engines/motors used, compared with 2008. In 2011, the total value of landings was almost €1.32 million and around 300 FTEs were employed in this fleet segment, contributing more than 90% of the total income from landings and 93% of the FTEs generated by the Romanian fishing fleet, respectively. This fleet segment continued to be the most important in the Romanian fleet, with a reported gross profit of around €0.61 million and net profit of €0.28 million in 2011.

The fishing activity is traditional for the fishermen's community. This community comprises a small number of fishermen. The decreasing number is due to the fact that the young people are not attracted by this activity. The investment lacking in the sector causes a poor level of productivity, small quantities of catches, and a low level of technical working conditions. The infrastructure for stabilisation of the activity is missing: there are no fishing ports (specialised on discharging, receiving, storing, selling, etc.). The fishing activity is largely dependent on the weather conditions in the Black Sea having very large differences of temperature between winter and summer and strong winds. The switches in fishing technique produce high instability in activity and in the process of data collection. Enterprises do not use an accounting system and they are not able to allocate costs to each kind of technique and to each gear type used. The data are delivered in bulk as a whole for the entire activity during the year, for they own small boats.

As a conclusion it should be mentioned that the fishery in Romania is not specialized, as techniques and gears used; it is a mixed small scale fishery on which the segments/techniques/gear types are not the main consideration of fishermen, catching mainly small pelagic species. The quota system for better exploitation of existing stocks, in terms of stability, has to be improved by the member state.

As it was also mentioned in several reports of the previous years, no income (such as: fishing rights, direct subsidies, and other income – no additional activities) other than landings income were reported/recorded by member state.

The large percentage of inactive vessels, related to the diminishing number of fishermen, is a reason of the poor activity and low results of the Romanian fishing fleet.

## Assessment and Future Trends

The national fishing fleet of Romania is almost entirely represented by the small scale fishery. The large number of fishing companies owning a single vessel represent 97% of the total number of companies. It consisted in 197 vessels from a total of 200 active vessels in 2011. The small scale Fleet has mainly similar levels with a marked improvement of the value landed due to the demand on the internal market. This situation with poor concentration of ownership is the main explanation of the low level of investments in the sector, resulting in insufficient means for the improvement of technical conditions of the boats used. The trend of the decreasing number of fishermen and number of vessels was present in 2011 compared with 2010, figures indicating the same trend for 2012/2011 and a small increase 2012/2013. This corresponds to a reduction of number of days at sea and days fishing. These trends reflect the fluctuating character of activity year to year and season to season.

Should be remarked the fact that no other activities are reported/recorded fishery being total separated by other activities. The difficult access of fishermen to the finance, including loans, is reflected in the character of the sector's general and technical efficiency.

The instability is underlined by the variability: in 2011 demand for Thomas' rapa whelk on the market resulted in the highest value of landings, and also an increase in the total annual volume reported during the 2008-2011 period.

The small scale fishery is represented by those vessels less than 12m overall length using, in the same season, polyvalent gears and polyvalent mobile and passive gears, the same boats shifting from one gear to another in the same period of time. The reported data are supplied by fishermen more or less in strict correspondence with the effective fishing activity, because the same fishermen are using simultaneously those kinds of gear during the season, and even for themselves are not recording in an accurate way all the expenses/selling value, etc. of the species captured for each type of gear or technique used. This fishery is characterized by a very high mixture of techniques due to the lack of a target species for catching and sale on the market.

The trends for 2012 show the same evolution, an unchanged situation on the fleet structure for 2012 and 2013, with the same decreasing trend, especially in the number of active vessels and fishermen. An increasing number of fishing days/days at sea could be expected and as a consequence an increase of landings. The profitability is expected to be lower in 2012 versus 2011 due to the same level of total costs and a decrease in the value of landings. Considering the market perspective, 2012 was not so good in price terms as 2011 for Thomas' rapa whelk, which generated an increase in the value of landings, the greatest of the period 2008-2012. For the other main species, the price changes are not representative, having a comparable level trend in 2012 and 2013, represented by an annual variation of 5% more or less from one year to another.

The main explanation is the dependency of the fishery on the internal market and of a weakness in the selling system, due to the atomisation of the fishermen, in principal, acting on their own, and a lack concentration of the sector; the existing fishermen's organizations do not participate in marketing the catch.

### *Data issues, quality and coverage*

The collection of data process, as explained above should be improved by the member state. Fishermen are delivering aggregated data for their activity; the member state is encouraged to apply survey estimates, in order to have the relevant data for all indicators for every fleet segment and gear type, improving the quality of data usable for various types of analyses. Acting in such a way, the data will be better used, especially for assessment of the evaluation indicators on profitability of the fleet, for the economic and social indicators analyses. Also, data will be used in the next planning activity by the EC for the future multiannual management plans in the Black Sea waters. This comprises measures that should be applied for demersal and pelagic targeted species for sustainable fishing activity.

Table 5.48 Main socio-economic performance indicators of main fleet segments in the Romanian national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)		FTE (N)		Days at sea (days)		Energy consumption (litres)		Value of landings (thousand €)		Weight of landings (thousand tonnes)		GVA (thousand €)		GVA per FTE (€/FTE)		Gross profit (thousand €)		Net profit (thousand €)		Profitability (2011)		Net profit margin %Δ 2011 - average (2008-10)	Economic development trend		
		No.	% Δ 2010-2011	No.	% Δ 2010-2011	Days	% Δ 2010-2011	litres	% Δ 2010-2011	Value	% Δ 2010-2011	Weight	% Δ 2010-2011	GVA	% Δ 2010-2011	FTE	% Δ 2010-2011	Gross	% Δ 2010-2011	Net	% Δ 2010-2011	Profit	% Δ 2010-2011				
AREA37	PMPVL2440	2	100%	2	2163%	126	6200%	35	8728%	94	22873%	121	50371%	41	413100%	20.3	34000%	10	7400%	-10	-	-	-	-	-	-	-
AREA37	PGVL0006	41	14%	2	-55%	409	-53%	18	12%	58	44%	32	47%	28	44%	12.0	228%	7.5	128%	1.1	-	-	-	-	-	-	-

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.17 SLOVENIA

### Fleet Structure, Fishing Activity and Production

In 2012 the Slovenian fishing fleet consisted of 175 registered vessels, with a combined gross tonnage of 625 GT, a total power of 8.8 thousand kW and an average age of 36 years. The size of the Slovenian fishing fleet decreased between 2008 and 2012; the number of vessels by 3.5% and GT and kW by 36.5% and 17.2% respectively (Table 5.49). The major factors causing the fleet to decrease include scrapping some vessels of the Slovenian fleet, including two of the largest vessels.

The Slovenian national economy is insignificantly influenced by the Slovenian marine fisheries sector. However, the sector has a particular social impact in terms of employment. The watershed moment for Slovenian marine fisheries began with Slovenian independence in the year 1991. This period marked a decrease in the extent of fishing regions and a substantial loss of market for fish products. A large number of poorly equipped small scale fisherman, inadaptability of large scale fisherman, along with discordance among fishing, producing and marketing capabilities brought the sector into crisis. Landings of almost 6.000 tons in 1990 have decreased to 719 tons in 2011.

In 2011 the Slovenian fisheries sector was still affected by the small size of the sea fishing area. The existence of two sea fishery reserves where all fishing activities are banned (Portorož and Strunjan fishery reserves) largely limits the Slovenian fishing area. This has had a negative impact, particularly on those fishermen who are engaged only in small-scale coastal fishing.

In 2012, the number of fishing enterprises in the Slovenian fleet totalled 137, with the majority (66%), owning a single vessel. Only 33% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 114 jobs, corresponding to 77 FTEs. The level of employment increased between 2008 and 2011, with total employed increasing by 4.6%, while the number of FTEs remained stable over the period.

The Slovenian fishing fleet consists predominantly of small vessels of less than 12 meters (mainly vessels of 6 meters). Self-employed fishermen who own one fishing vessel about six meters long represent a typical Slovenian fishing enterprise.

Table 5.49 Slovenian national fleet structure, activity and production trends: 2008-2013.

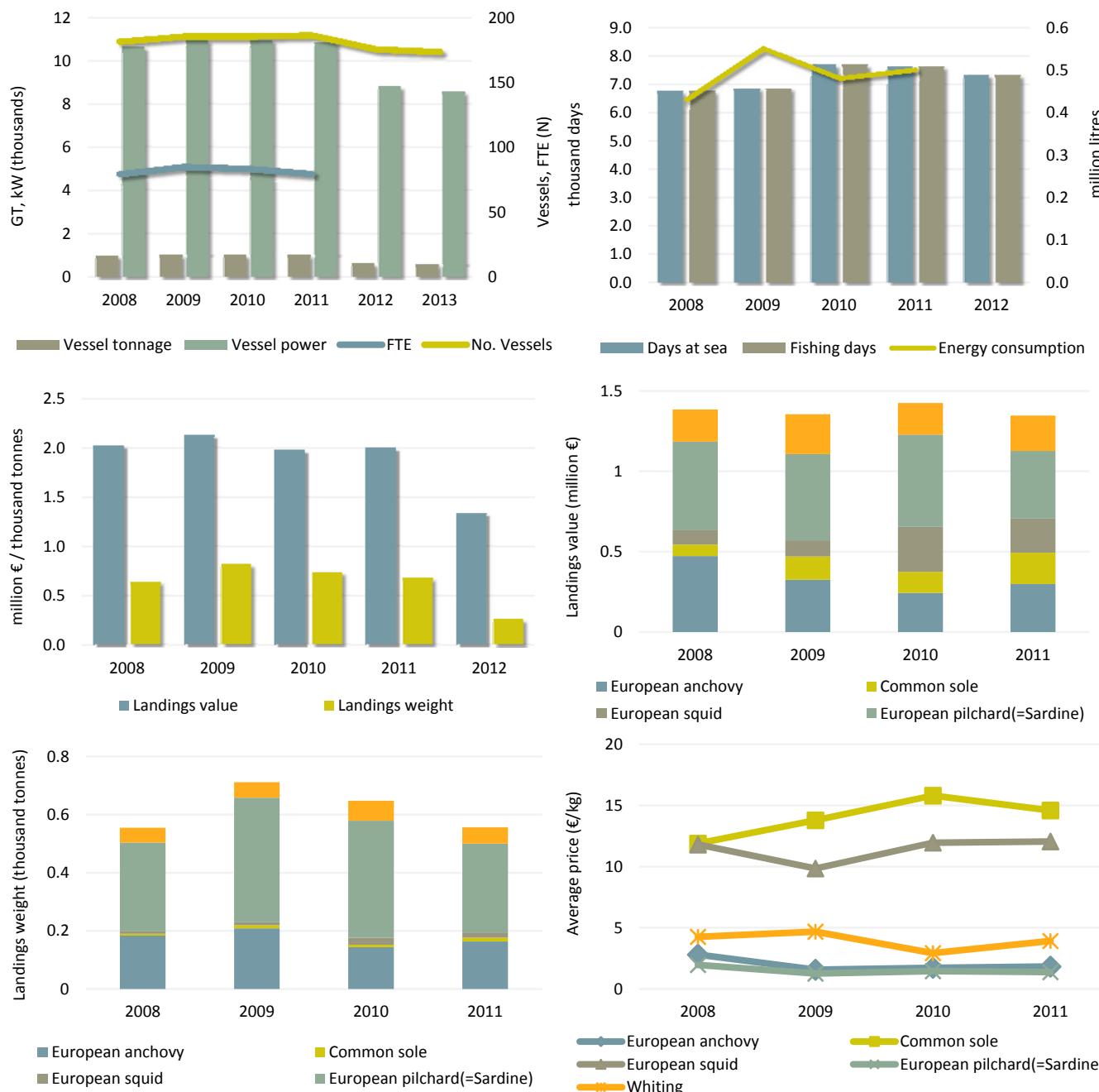
Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11	SMALL SCALE FLEET				%Δ 2010-11	2012
	2008	2009	2010	2011		2012	2013	2008	2009	2010	
<b>Structure</b>											
All Vessels	181	185	185	186	1% ↘↔	175	173	63	62	67	62
Inactive vessels	93	98	94	102	9% ↗	93	92	-	-	-	-
Average vessel age (years)	33	34	35	36	2% ↗	36	37	32	32	31	34
GT(thousand tonnes)	1.0	1.0	1.0	1.0	0% ↔	0.6	0.6	0.2	0.1	0.2	0.2
Engine power (thousand kW)	10.7	11.0	11.0	10.9	-1% ↘↔	8.8	8.6	2.5	2.5	3.0	2.5
No. Enterprises (N)	135	138	132	138	5% ↗	137	-	74	76	74	76
<b>Employment</b>											
FTE (N)	77	82	81	77	-5% ↘	72	-	48	45	49	42
Average wage per FTE (thousand €)	13.1	16.2	17.8	20.3	14% ↗	10.6	-	7.3	9.5	12.6	14.1
<b>Fishing Effort</b>											
Days at Sea (thousand days)	6.8	6.9	7.7	7.7	-1% ↔	7.3	-	4.8	4.7	5.3	5.7
GTfishing days (thousands)	63	80	76	69	-9% ↘	14	-	-	-	-	-
Energy consumption (million litres)	0.4	0.6	0.5	0.5	4% ↗	-	-	0.1	0.0	0.1	0.1
Fuel consumption per kg landed (litre/kg)	0.63	0.63	0.63	0.69	10% ↗	-	-	0.98	0.86	0.97	0.95
<b>Production</b>											
Landings weight (thousand tonnes)	0.6	0.8	0.7	0.7	-8% ↘	0.3	-	0.1	0.1	0.1	0.1
Landings value (million €)	2.0	2.1	2.0	2.0	1% ↗	1.3	-	0.3	0.4	0.5	0.5

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2012 the Slovenian fleet spent a total of around 7 thousand days at sea. The total number of days at sea increased by around 8% between 2008 and 2012. The Slovenian fisheries sector, particularly the small scale fleet, is affected by the small size of sea fishing area. For this reason most fish stocks in targeted by the Slovenian fleet are overexploited, resulting in a

smaller volume of landings and an increased number of days at sea. Most of the fleet is poorly equipped and they cannot fish in international waters. One of the reasons of increased days at sea is the high price of fuel, which encourages the fishermen to do shorter and more frequent trips.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.33 Slovenian fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

The quantity of fuel consumed in 2011 was around 500 thousand litres, an increase of around 17% from 2008. The major factor causing the increase in fuel consumption was the increasing number of days at sea. The total volume of seafood landed by the Slovenian fleet in 2011 was around 719 tonnes, with a landed value of €2 million. The total volume of landings increased, while the value of landings remains the same over the period analysed. In 2009, Slovenia generated the highest landed value (€2.2 million) by the national fleet, followed by 2008, 2010 and 2011 (€2 million). In terms of landings weight, in 2009 Slovenia landed around 866 tonnes, 2010 (764 tonnes) and 2011 (719 tonnes). The major factors causing the decrease in volume and value of landings, especially European anchovy and sardine, include overexploited stocks and scrapping of fishing vessels. In the last quarter of 2011, Slovenia sent the two largest ships to be scrapped (pelagic trawlers 24-40m); those vessels targeted mainly sardine and anchovy and represented around 50% of the Slovenian landed volume.

The prices obtained for the key species targeted by the Slovenian fleet increased between 2008 and 2011. European pilchard achieved the highest average price per kilo in 2008 (€1.8 per kg), followed by 2010 (€1.42 per kg). European pilchard accounted for 25% of the total landings value obtained by the Slovenian fleet in 2008, decreasing to 21% of total income in 2011, while European anchovy decreased from 23% in 2008 to 15% in 2011.

## National Fleet Economic performance

The total amount of income generated by the Slovenian national fleet in 2011 was €2.7 million. This consisted of €2.1 million in landings value and €0.6 million in non-fishing income. The Slovenian fleet's landings income increased 3% between 2010 and 2011, while other income increased 47% in the same period. Due to reduced landings volumes, Slovenian fishermen are looking for the opportunity to generate earnings in other industries, such as tourism. Total operating costs incurred by the Slovenian national fleet in 2011 equated to €2.7 million, amounting to 96% of total income. Crew cost and fuel costs, the two major fishing expenses, were €1.6 and €0.6 million respectively, see Table 5.50. Between 2008 and 2011, total operating costs increased 29%, largely due to increased labour costs, which amounted to almost 60% of total income in 2011.

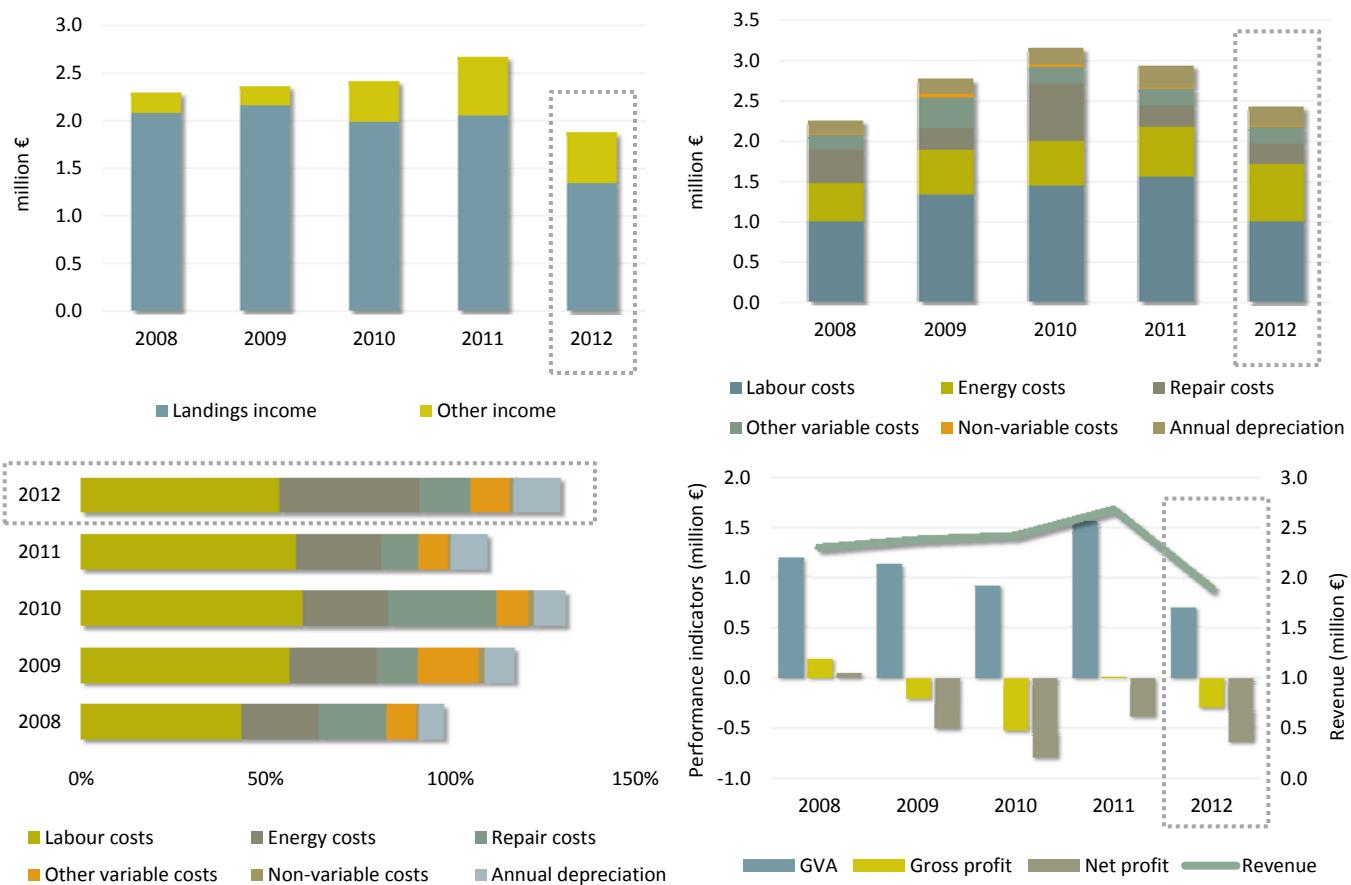
Table 5.50 Slovenian national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	2.1	2.2	2.0	2.1	↗ 3%	1.4	0.3	0.4	0.5	0.5	↗ 5%	0.5
Other income	0.2	0.2	0.4	0.6	↗ 47%	0.5	0.2	0.2	0.4	0.6	↗ 47%	0.5
<b>Costs</b>												
Labour costs	1.0	1.3	1.5	1.6	↗ 8%	1.0	0.3	0.4	0.6	0.6	↘ -5%	0.4
Energy costs	0.5	0.6	0.6	0.6	↗ 11%	0.7	0.1	0.0	0.1	0.1	↗ 8%	0.1
Repair costs	0.4	0.3	0.7	0.3	↘ -62%	0.3	0.1	0.1	0.1	0.1	↘ -56%	0.1
Other variable costs	0.2	0.4	0.2	0.2	↔ 0%	0.2	0.1	0.1	0.1	0.1	↘ -15%	0.1
Non-variable costs	0.0	0.0	0.0	0.0	↘ -33%	0.0	0.0	0.0	0.0	0.0	↗ 296%	0.0
Capital costs	0.1	0.3	0.3	0.4	↗ 48%	0.3	0.0	0.1	0.1	0.2	↗ 80%	0.2
<b>Economic Indicators</b>												
GVA	1.2	1.1	0.9	1.6	↗ 71%	0.7	0.3	0.4	0.5	0.9	↗ 57%	0.7
Gross profit	0.2	-0.2	-0.5	0.0	↗ 102%	-0.3	0.0	-0.1	-0.1	0.3	↗ 478%	0.3
Net profit	0.1	-0.5	-0.8	-0.4	↗ 51%	-0.6	-0.1	-0.1	-0.2	0.1	↗ 144%	0.2
<b>Capital value</b>												
Fleet depreciated replacement value	2.8	3.1	3.4	4.5	↗ 30%	4.0	0.7	0.7	1.0	1.0	↘ -7%	1.0
In-year investments	0.3	0.6	0.8	0.3	↘ -60%	-	0.1	0.3	0.4	0.2	↘ -51%	-
<b>Profitability and development trends</b>												
Net profit margin (%) <i>development trend</i>	2.2	-21.5	-32.8	-14.5	↗ 56%	-33.9	-11.8	-21.5	-19.9	6.9	↗ 135%	16.5
		Improved				↗ 17%		Improved				↗ 139%
RoFTA (%) <i>development trend</i>	1.8	-16.3	-23.1	-8.7	↗ 62%	-16.2	-5.0	-18.6	-16.9	11.7	↗ 169%	16.7
		Improved				↗ 31%		Improved				↗ 186%
GVA per FTE (thousand €) <i>development trend</i>	15.5	13.7	11.3	20.4	↗ 80%	9.7	6.6	8.3	11.2	20.6	↗ 84%	19.1
		Improved				↗ 51%		Improved				↗ 137%

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Slovenian national fleet in 2011 were €1.6 million, €0.01 million and €-0.4 million, respectively. In the period 2010-2011 the Gross Value Added (GVA), gross profit and net profit increased 71%, 102% and 51% respectively. The major factors causing the improvement in economic performance in 2010 included lower expenditure on repair costs and increases in income from other sources. Regardless of the increase in economic performance, the fleet was in a poor economic condition because of old and poor equipment fleet; reduced catches and increased costs in 2011. In 2011, the Slovenian fleet had an estimated (depreciated) replacement value of €4.5 million. Investments by the fleet amounted to €0.3 million in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.34 Slovenia fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

### Fleet Segment Level Economic performance

The Slovenian fleet has a range of vessel types targeting different species predominantly in the Adriatic Sea. The national fleet consisted of 9 (DCF) fleet segments in 2011, with 4 inactive length classes consisting of 102 vessels. Three of the active fleet segments made losses in 2011 while 6-12m drift and fixed nets and 12-18m purse seiners made an overall profit. Three of the active fleet segments had a deteriorating economic development trend while 6-12m drift and fixed nets and 12-18m demersal trawlers had an improving economic development trend (see Table 5.51). In 2011 there were 84 active vessels of which around 62 (74% of all active vessels) are classified in small scale vessels. The majority of vessels operate in coastal waters of Slovenia. Table 5.51 provides a breakdown of key performance indicators for all Slovenian fleet segments in 2011. A short description of the two most important segments in terms of total value of landings is provided below.

**Demersal trawlers and demersal seiners 12-18m** - 16 vessels make up this segment and are based predominantly in the Adriatic. The fleet targets a variety of species, the most important being Whiting, Musky octopus and European squid. The total value of landings was €0.67 million and around 16 FTEs were employed in this fleet segment in 2011, contributing to 32% and 20% of the total income from landings and FTEs generated by the MS fishing fleet respectively. This fleet segment made a loss in 2011.

**Purse seiners 12-18m** – 4 vessels make up this segment and are based predominantly in the Adriatic. These vessels target pelagic species, the most important being European pilchard (Sardine) and Anchovy. The total value of landings was €0.46 million and around 10 FTEs were employed in this fleet segment in 2011, contributing to 22% and 13% of the total income from landings and FTEs generated by the MS fishing fleet respectively. This fleet segment was highly profitable, with reported profits of around €0.13 million in 2011.

In 2011, the small scale sector in Slovenia was represented by two segments:

**Drift and fixed netters 0-6m** – Around 27 vessels make up this segment which operate in Slovenian coastal areas of the Adriatic. These vessels target demersal species, such as Sole, Common Pandora and Sea bream. The total value of landings was €0.11 million and around 16 FTEs were employed in this fleet segment in 2011, contributing 5% and 20% of the total income from landings and FTEs generated by the national fleet respectively. This fleet made a loss in 2011.

**Drift and fixed netters 6-12m** – Around 35 vessels make up this segment which operate in Slovenian coastal areas of the Adriatic. These vessels target demersal species, such as Sole, Common Pandora and Sea bream. The total value of landings was €0.38 million and around 26 FTEs were employed in this fleet segment in 2011, contributing 18% and 33% of the total income from landings and FTEs generated by the national fleet respectively. This fleet segment is highly profitable, with reported profits of around €0.36 million in 2011.

## ***Assessment and Future Trends***

### **National Fleet**

The future development of the Slovenian fishing fleet is delineated in the Operational Program for Fisheries Development in the Republic of Slovenia 2007-2013 (OP). The OP foresees the following measures related to the fishing fleet within its priority axes:

Priority axis 1: Adaptation of the fishing fleet (the goal of this axis is to achieve a balance between the capacity of the Slovenian fishing fleet and the available fisheries resources): permanent cessation of fishing activities; measures on board fishing vessels (in order to improve the working conditions and safety of fishermen) and improving the selectivity of fishing gear; measures focused on small-scale coastal fishing.

Priority axis 2: Measures of common interest: collective actions for the improvement of safety and working conditions for the fishermen; measures to improve existing ports and landing sites.

Priority axis 3: Sustainable development of fisheries areas: opportunities for the diversification of fishing activities (e.g. into fishing tourism).

Due to scrapping in 2011 the size of the Slovenian fishing fleet decreased between 2011 and 2012, with the number of vessels by 6% and GT and kW by 38% and 19% respectively. Consequently, the weight of landings decreases in 2012 for more than 50%. So in the future we can also expect decreases in the value of landings and thus the total income of the Slovenian fleet. Due to the reduction of the fleet and related reduction of fishing effort we can expect improvement in the biological status of fish stocks. Because of that, weight of landings will probably start to increase again due to better catches.

When the crisis finally ends, we can also expect fish prices to increase. Because the fleet is generally old and poorly equipped we can expect that repair and maintenance costs will continue to increase in the future. Due to poor condition and profitability of the fleet, we cannot expect increases in GVA and profits.

### **Small scale Fleet**

The same issues apply to the small scale fleet. Approximately 20 fishermen have lost their jobs because of vessel scrapping. In the future we can expect an increased number of small scale vessels because some of them will start operating in a self-employed manner. Because of reduced catch we can also expect increasing prices of European pilchard (Sardine) and Anchovy and, consequently, higher income of those targeting those species.

### ***Data issues***

The socio-economic data on the fishing sector were collected mostly from accounting records – AJPES, from data base ‘InfoRib’, through questionnaires and sales notes. In the monitoring programme all fishing vessels were included (approximately 180 units). The data collected from all sources were combined in such a way that a complete set of accounting items is compared for each business enterprise.

The target population was all fishing sector in Slovenia. There were approximately 100 companies or fishermen in Slovenia. In March 2012 the questionnaires for 2011 were sent to all users of fishing vessels in Slovenia. In cases where a questionnaire as the only source was used, the response rate was around 60%. In cases where the data from annual accounts of business enterprises was used the response rate was 100%, because there are economic reports for all investigated companies or fishermen.

Table 5.51 Main socio-economic performance indicators by fleet segment in the Slovenian national fishing fleet in 2011, percentage change to 2010.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011		FTE (N)		Days at sea (days)		% Δ 2010-2011		Energy consumption (litres)		Value of landings (thousand €)		Weight of landings (thousand tonnes)		% Δ 2010-2011		GVA (thousand €)		GVA per FTE (€/FTE)		Gross profit (thousand €)		Net profit (thousand €)		Net profit margin (%)		% Δ 2010-2011		Profitability (2011)		Net profit margin %Δ 2011 - average (2008-10)		Economic development trend	
			No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend									
AREA37	DFNVL0006	27	-10%	16	-8%	2217	5%	15	132%	105	5%	11	17%	18	-63%	1.1	-60%	-208	-53%	-279	-84%	-266.3	-135%	Weak	-535%	Deteriorated										
AREA37	DFNVL0612	35	-5%	26	-19%	3488	8%	37	-19%	377	5%	44	-2%	837	69%	32.6	107%	476	635%	356	1508%	35.3	1153%	High	258%	Improved										
AREA37	DTSVL1218	16	-11%	16	-2%	1208	-23%	160	16%	664	10%	135	1%	320	10%	21.4	13%	-74	-37%	-174	-32%	-26.2	-20%	Weak	14%	Improved										
AREA37	TMVL2440	2	0%	11	-1%	327	-4%	255	-6%	446	-7%	345	-17%	17	106%	1.6	106%	-338	36%	-377	31%	-84.5	26%	Weak	-13%	Deteriorated										
AREA37	PSVL1218	4	0%	10	68%	409	-12%	30	28%	457	1%	185	15%	398	1%	41.0	-40%	173	3%	128	9%	28.1	7%	High	-36%	Deteriorated										

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.18 SPAIN

### Fleet Structure, Fishing Activity and Production

In 2011 the Spanish fishing fleet consisted of 10,892 registered vessels, with a combined gross tonnage of 415 thousand tonnes, engine power of 936 thousand kW and an average age of 28 years. The size of the Spanish fleet decreased between 2010 and 2011; 3% in number, 6% in GT and 5% in kW (Table 5.52). In 2011, small scale fleet consisted of 6,830 vessels, representing 63% of fleet in number. The long distance water fleet consisted of 290 vessels, representing 3% of the fleet in number.

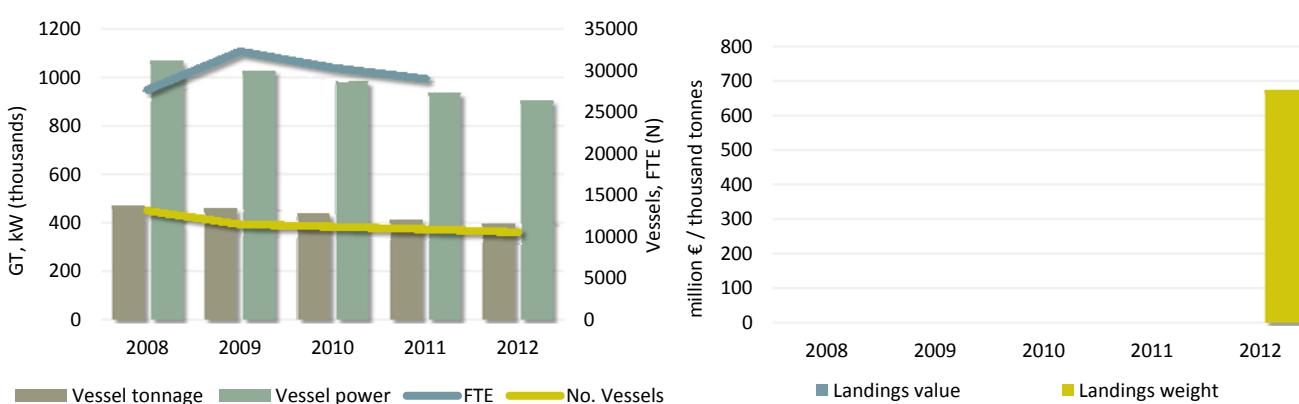
In 2011, the number of fishing enterprises in the Spanish fleet totalled 10,096, with the vast majority (94%) owning a single vessel. Only 6% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 32,194 FTEs. The level of employment decreased between 2010 and 2011, with the number of FTEs decreasing by 2%. During the same period the small scale fleet represented 26% of total employment, with 8,356 FTEs.

Table 5.52 Spanish national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: ( $\nearrow$ ) increase; ( $\searrow$ ) decrease and ( $\leftrightarrow$ ) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11	SMALL SCALE FLEET				%Δ 2010-11	2012			
	2008	2009	2010	2011		2012	2013	2008	2009	2010				
<b>Structure</b>														
All Vessels	13115	11501	11209	10892	-3%	$\searrow$	10544	-	6420	6315	7102	6830	-4% $\searrow$	4239
Inactive vessels	3312	1818	854	1007	18%	$\nearrow$	1617	-	-	-	-	-	-	-
Average vessel age (years)	28	26	27	28	4%	$\nearrow$	28	-	29	29	30	30	1% $\nearrow$	28
GT(thousand tonnes)	470.1	459.5	439.7	414.7	-6%	$\searrow$	400.1	-	14.4	14.1	15.1	14.7	-2% $\searrow$	11.9
Engine power (thousand kW)	1067.9	1027.3	983.2	936.0	-5%	$\searrow$	903.7	-	139.0	135.5	146.9	144.3	-2% $\searrow$	111.6
No. Enterprises (N)	12093	10616	10351	10096	-2%	$\searrow$	9776	-	-	-	-	-	-	-
<b>Employment</b>														
FTE (N)	30715	35844	33678	32194	-4%	$\searrow$	31166	-	5033	7261	8222	8356	2% $\nearrow$	8036
Average wage per FTE (thousand €)	16.6	20.5	18.8	20.5	9%	$\nearrow$	-	-	15.3	18.0	14.3	15.2	6% $\nearrow$	-
<b>Fishing Effort</b>														
Days at Sea (thousand days)	n/a	n/a	n/a	n/a	-	-	-	n/a	n/a	n/a	n/a	-	-	-
GTfishing days (thousands)	n/a	n/a	n/a	n/a	-	-	-	n/a	n/a	n/a	n/a	-	-	-
Energy consumption (million litres)	n/a	n/a	n/a	n/a	-	-	-	n/a	n/a	n/a	n/a	-	-	-
Fuel consumption per kg landed (litre/kg)	n/a	n/a	n/a	-	-	-	-	n/a	n/a	n/a	-	-	-	-
<b>Production</b>														
Landings weight (thousand tonnes)	n/a	n/a	n/a	n/a	-	-	674.6	-	n/a	n/a	n/a	n/a	-	11.7
Landings value (million €)	n/a	n/a	n/a	n/a	-	-	-	n/a	n/a	n/a	n/a	-	-	-

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012/2013



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.35 Spanish fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

## National Fleet Economic performance

The amount of income generated by the Spanish fleet in 2011 was €1,982 million. This consisted of €1,947 million in landings value and €35 million in non-fishing income. The Spanish fleet's income increased 11% between 2010 and 2011. Total operating costs incurred by the national fleet in 2011 equated to €1,802 million, amounting to 88% of income. Crew cost and fuel costs, the two major fishing expenses, were €658 and €440 million respectively (Table 5.53). Between 2010 and 2011, total operating costs increased 9% largely due to fuel costs, which amounted to almost 22% of total income in 2011. The opposite trend was observed in the small scale fleet; each cost category decreased between 2010 and 2011.

Table 5.53 Spanish national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	1445.2	1846.5	1757.5	1947.1	↗ 11%	-	111.9	180.4	186.3	162.9	↘ -13%	-
Other income	-	-	15.8	35.0	↗ 122%	25.4	-	-	-	1.7	2.3	↗ 34%
<b>Costs</b>												
Labour costs	508.2	735.7	631.9	658.5	↗ 4%	-	76.9	131.0	117.8	127.1	↗ 8%	-
Energy costs	380.0	346.4	355.7	439.7	↗ 24%	-	14.4	18.1	24.4	22.1	↘ -9%	-
Repair costs	109.1	141.3	133.1	143.8	↗ 8%	-	7.9	15.0	12.9	7.0	↘ -46%	-
Other variable costs	343.8	201.9	408.9	422.9	↗ 3%	-	17.4	24.3	27.8	18.9	↘ -32%	-
Non-variable costs	99.3	156.0	123.0	136.7	↗ 11%	132.4	2.9	5.6	6.4	5.3	↘ -17%	5.1
Capital costs	176.0	225.9	144.6	161.8	↗ 12%	141.3	6.4	9.4	8.5	8.3	↘ -2%	9.1
<b>Economic Indicators</b>												
GVA	513.0	1000.9	752.6	839.0	↗ 11%	-	69.3	117.4	116.7	111.9	↘ -4%	-
Gross profit	4.8	265.2	120.7	180.5	↗ 49%	-	-7.6	-13.6	-1.1	-15.2	↘ -1263%	-
Net profit	-171.2	39.3	-23.9	18.6	↗ 178%	-	-14.0	-23.0	-9.6	-23.6	↘ -145%	-
<b>Capital value</b>												
Fleet depreciated replacement value	-	-	-	516.6	-	258.3	-	-	-	41.9	-	-
In-year investments	97.1	26.9	44.4	30.8	↘ -31%	-	6.8	4.4	4.7	4.1	↘ -11%	-
<b>Profitability and development trends</b>												
Net profit margin (%)	-11.9	2.1	-1.4	0.9	↗ 170%	-	-12.5	-12.7	-5.1	-14.3	↘ -179%	-
development trend	Improved				↗ 125%	Deteriorated				↘ -41%		
RoFTA (%)	-29.2	6.9	-4.4	3.6	↗ 183%	-	-75.0	-105.9	-48.2	-53.8	↘ -11%	-
development trend	Improved				↗ 141%	Improved				↗ 30%		
GVA per FTE (thousand €)	16.7	27.9	22.4	26.1	↗ 17%	-	13.8	16.2	14.2	13.4	↘ -6%	-
development trend	Improved				↗ 17%	Deteriorated				↘ -9%		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Spanish national fleet in 2011 was €839 million, €180 million and €19 million, respectively. Gross Value Added (GVA), gross profit and net profit increased by 11%, 49% and 178% respectively between 2010 and 2011. In 2011, the Spanish fleet had an estimated (depreciated) replacement value of €517 million and investments amounted to €31 million in 2011.

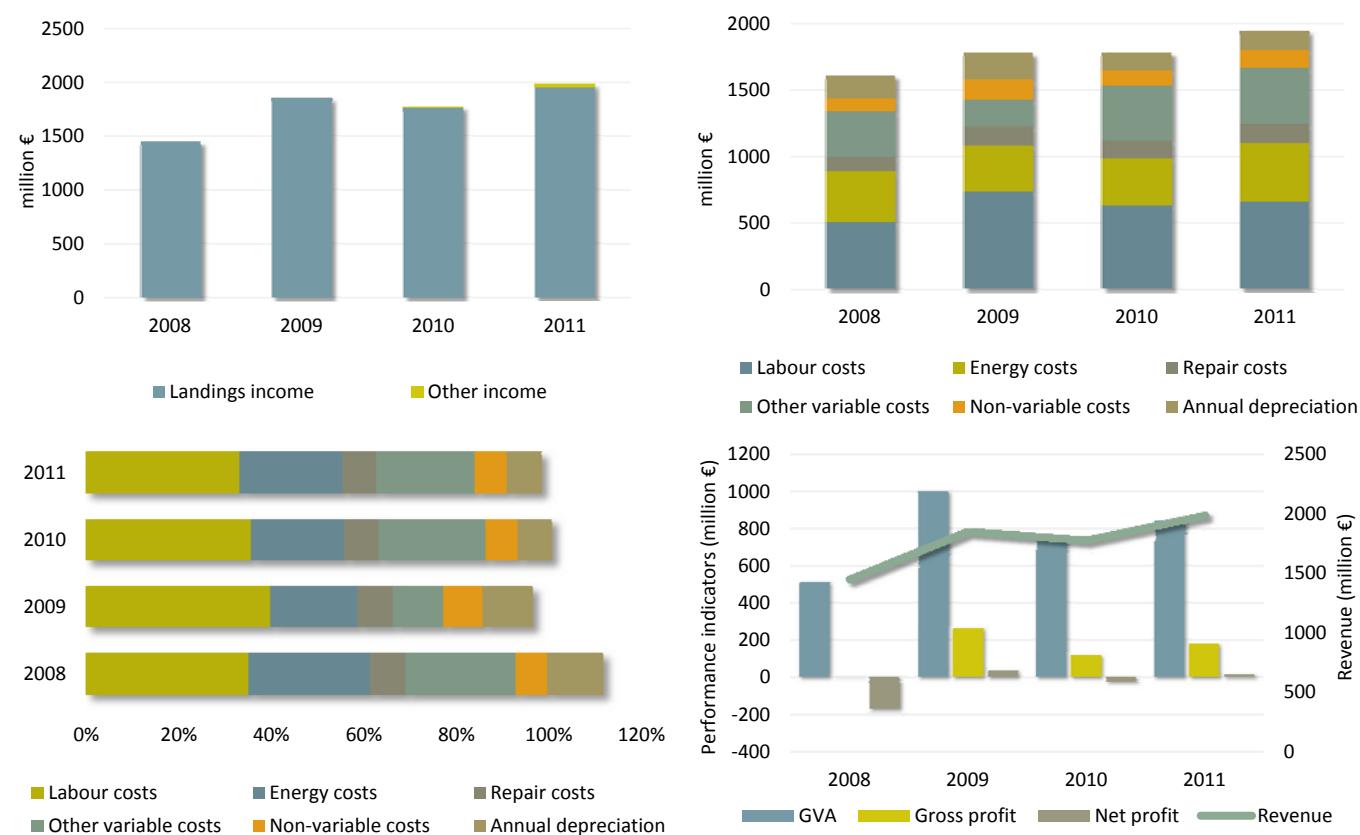
## Fleet Segment Level Economic performance

The Spanish fleet is highly diversified with a broad range of vessel types targeting many different species such as tunas, cod, anchovies, sardines, squid, cuttlefish, octopus mainly in the Mediterranean and Northeast Atlantic. The national fleet consisted of 55 (DCF) fleet segments in 2011, with 15 inactive length classes consisting of 1,007 vessels. 11 of the active fleet segments made losses in 2011 while 28 made an overall profit. Table 5.54 provides a breakdown of key performance indicators for all 55 fleet segments in 2011. A short description of the three most important segments in terms of total landings income is provided below.

**Demersal trawl / seine 24-40m** – 430 vessels make up this segment which operates predominantly in area 27. In 2011, the total landings income was almost €221 million and around 2,200 FTEs were employed in this fleet segment, contributing to 12% and 8% of the income from landings generated and FTEs in the Spanish fleet, respectively. This fleet segment was unprofitable, with a reported gross loss of around €1.6 million.

**Purse seine over 40m** – Vessels in this segment operate in other fishing regions. The total landings income was €330 million and around 14,300 FTEs were employed in this fleet segment in 2011, contributing to 17% and 5% of the income from landings and FTEs generated by the MS fishing fleet, respectively. This fleet segment was profitable with a reported gross profit of €58 million in 2011.

**Demersal trawl / seine over 40m** – This segment operates predominantly in other (distant) regions. This segment made about €167 million in total landings income and employed 871 FTEs, contributing to 9% and 3% of the total income from landings and FTEs generated by the MS fishing fleet, respectively. This fleet segment reported a gross profit of €21 million in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.36 Spanish fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

In 2012, according to the official statistics of the Ministry for Agriculture, Food and Environment (<http://www.magrama.gob.es>), in size of the Spanish fishing fleet continues to decrease. Between 2011 and 2012, the size of the Spanish fleet reduced 4%, which particularly affects the distant water fleet segments, which decreased by 6%. According to the Spanish marine fisheries statistics, in the period 2010-2011 the total volume and value landed by the Spanish fleet increased 12% and 8% respectively, reaching 2008 levels.

## Data issues

Spain did not provide fishing effort data or data on volume and value of landings per species for most of the years requested in the DCF data call and therefore the level of analysis possible for the Spanish fleet is limited, which also affects regional and EU level analyses.

Table 5.54 Main socio-economic performance indicators by fleet segment in the Spanish national fishing fleet in 2011

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA27	DFNVL0010	23	-	26	-	n/a	-	n/a	-	n/a	-	n/a	-	300	-	11.3	-	300	-	221	-	45.5	-	High	208%	Improved
AREA27	DFNVL1012	11	-	25	-	n/a	-	n/a	-	n/a	-	n/a	-	451	-	17.9	-	143	-	-	-	-	-	-	-	-
AREA27	DFNVL1218	44	-19%	140	-13%	n/a	-	n/a	-	n/a	-	n/a	-	3090	1%	22.1	16%	743	-15%	430	17%	9.3	15%	Reasonable	374%	Improved
AREA27	DFNVL1824	36	3%	314	-23%	n/a	-	n/a	-	n/a	-	n/a	-	13300	193%	42.4	282%	3000	373%	2162	746%	10.5	363%	High	356%	Improved
AREA27	DTSVL1824	13	-85%	77	-82%	n/a	-	n/a	-	n/a	-	n/a	-	2149	-77%	28.0	30%	816	-68%	35	103%	0.7	112%	Reasonable	-29%	Deteriorated
AREA27	DTSVL2440	202	-13%	2458	0%	n/a	-	n/a	-	n/a	-	n/a	-	70918	-3%	28.9	-3%	-1695	-114%	-24334	-422%	-10.9	-316%	Weak	18%	Improved
AREA27	DTSVL40XX	33	-3%	931	-3%	n/a	-	n/a	-	n/a	-	n/a	-	46551	-37%	50.0	-35%	9933	-72%	1366	-94%	1.1	-93%	Reasonable	-63%	Deteriorated
AREA27	HOKVL0010	55	17%	62	-18%	n/a	-	n/a	-	n/a	-	n/a	-	797	-41%	12.8	-28%	538	115%	505	-	40.0	-	High	841%	Improved
AREA27	HOKVL1012	73	-13%	202	-2%	n/a	-	n/a	-	n/a	-	n/a	-	4553	54%	22.6	58%	1447	179%	51	102%	0.8	101%	Reasonable	102%	Improved
AREA27	HOKVL1218	94	-22%	534	7%	n/a	-	n/a	-	n/a	-	n/a	-	12613	169%	23.6	153%	1364	185%	1029	-	4.7	-	Reasonable	255%	Improved
AREA27	HOKVL1824	31	-18%	243	53%	n/a	-	n/a	-	n/a	-	n/a	-	5836	2%	24.0	-33%	930	-38%	-395	-286%	-3.2	-233%	Weak	-300%	Deteriorated
AREA27	HOKVL2440	24	-31%	380	-16%	n/a	-	n/a	-	n/a	-	n/a	-	13282	5%	34.9	25%	3394	-1%	-522	-134%	-1.9	-128%	Weak	-424%	Deteriorated
AREA27	PGPVL1218	28	-	50	-	n/a	-	n/a	-	n/a	-	n/a	-	805	-	16.2	-	50	-	-220	-	-15.9	-	Weak	-	-
AREA27	PGPVL2440	61	0%	1502	137%	n/a	-	n/a	-	n/a	-	n/a	-	33975	18%	22.6	-50%	9130	306%	8032	1326%	12.4	1123%	High	1123%	Improved
AREA27	PMPVL0010	3746	-13%	3241	-24%	n/a	-	n/a	-	n/a	-	n/a	-	50777	-14%	15.7	13%	-967	78%	-2790	59%	-4.1	43%	Weak	10%	Improved
AREA27	PMPVL1012	279	-13%	711	-11%	n/a	-	n/a	-	n/a	-	n/a	-	8827	-37%	12.4	-30%	-1382	-173%	-1805	-420%	-13.2	-578%	Weak	-1032%	Deteriorated
AREA27	PMPVL1218	228	-31%	699	-20%	n/a	-	n/a	-	n/a	-	n/a	-	9026	-42%	12.9	-27%	-185	-109%	-3752	-	-25.2	-	Weak	-425%	Deteriorated
AREA27	PSVL1012	17	-32%	63	-41%	n/a	-	n/a	-	n/a	-	n/a	-	1497	9%	23.9	84%	74	124%	-41	-	-2.0	-	Weak	-7%	Deteriorated
AREA27	PSVL1218	83	-40%	728	50%	n/a	-	n/a	-	n/a	-	n/a	-	7002	-60%	9.6	-74%	1781	-76%	732	-89%	5.9	-81%	Reasonable	-62%	Deteriorated
AREA27	PSVL1824	86	-22%	853	91%	n/a	-	n/a	-	n/a	-	n/a	-	40370	165%	47.3	39%	11715	160%	3447	-	6.0	-	Reasonable	1043%	Improved
AREA27	PSVL2440	107	-10%	1645	-18%	n/a	-	n/a	-	n/a	-	n/a	-	70620	57%	42.9	91%	26235	87%	16311	34%	18.7	12%	High	447%	Improved
AREA37	DTSVL1218	173	-5%	565	-2%	n/a	-	n/a	-	n/a	-	n/a	-	8310	-32%	14.7	-31%	23	-92%	-2733	-3%	-12.3	-61%	Weak	-198%	Deteriorated
AREA37	DTSVL1824	376	-8%	1507	-19%	n/a	-	n/a	-	n/a	-	n/a	-	35187	12%	23.4	38%	9306	125%	-2450	71%	-2.9	75%	Weak	82%	Improved
AREA37	DTSVL2440	163	-5%	699	-17%	n/a	-	n/a	-	n/a	-	n/a	-	11606	-62%	16.6	-54%	-2866	-2740%	-9462	-148%	-16.4	-154%	Weak	-41%	Deteriorated
AREA37	DTSVL0612	25	-4%	35	-28%	n/a	-	n/a	-	n/a	-	n/a	-	1015	-15%	28.9	19%	316	2%	-	-	-	-	-	-	-
AREA37	HOKVL1218	102	-14%	329	44%	n/a	-	n/a	-	n/a	-	n/a	-	3330	76%	10.1	22%	-1106	80%	-2560	-	-25.7	-	Weak	-86%	Deteriorated
AREA37	HOKVL1824	34	48%	186	82%	n/a	-	n/a	-	n/a	-	n/a	-	5552	115%	29.8	18%	1456	365%	240	152%	2.1	124%	Reasonable	118%	Improved

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

Table 4.57 Continued Main socio-economic performance indicators by fleet segment in the Spanish national fishing fleet in 2011, percentage change to 2010.

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA37	HOKVL0612	193	12%	401	-17%	n/a	-	n/a	-	n/a	-	n/a	-	11738	30%	29.3	56%	5597	202%	4670	1373%	31.5	1319%	High	242%	Improved
AREA37	PGPVL1218	15	-	55	-	n/a	-	n/a	-	n/a	-	n/a	-	877	-	15.8	-	128	-	-144	-	-10.4	-	Weak	-	-
AREA37	PMPVL1218	108	3%	241	-10%	n/a	-	n/a	-	n/a	-	n/a	-	5024	-36%	20.8	-29%	1484	142%	924	116%	10.5	128%	High	122%	Improved
AREA37	PMPVL0612	1144	-9%	1582	-5%	n/a	-	n/a	-	n/a	-	n/a	-	25493	-19%	16.1	-15%	-2474	-133%	-4596	-191%	-12.3	-215%	Weak	-161%	Deteriorated
AREA37	PMPVL0006	190	-21%	34	-	n/a	-	n/a	-	n/a	-	n/a	-	272	-	7.9	-	42	-	-50	-	-12.8	-	Weak	88%	Improved
AREA37	PSVL1218	100	-8%	880	21%	n/a	-	n/a	-	n/a	-	n/a	-	13471	-11%	15.3	-26%	2518	28%	2020	343%	9.9	355%	Reasonable	64%	Improved
AREA37	PSVL1824	100	-2%	380	-72%	n/a	-	n/a	-	n/a	-	n/a	-	7412	-56%	19.5	56%	1470	-56%	340	119%	2.2	131%	Reasonable	140%	Improved
AREA37	PSVL2440	26	0%	254	-2%	n/a	-	n/a	-	n/a	-	n/a	-	11198	20%	44.2	23%	2779	45%	1046	166%	5.6	99%	Reasonable	226%	Improved
AREA37	PSVL0612	22	-21%	90	178%	n/a	-	n/a	-	n/a	-	n/a	-	1942	1165%	21.6	355%	419	173%	-	-	-	-	-	-	-
ORF	DTSVL1218	57	-	382	-	n/a	-	n/a	-	n/a	-	n/a	-	5681	-	14.9	-	1930	-	1173	-	9.1	-	Reasonable	-	-
ORF	DTSVL1824	68	-	438	-	n/a	-	n/a	-	n/a	-	n/a	-	5937	-	13.6	-	2463	-	-1155	-	-7.2	-	Weak	-	-
ORF	DTSVL2440	65	0%	786	-67%	n/a	-	n/a	-	n/a	-	n/a	-	13028	24%	16.6	274%	1164	109%	-1075	95%	-1.6	94%	Weak	93%	Improved
ORF	DTSVL40XX	29	-6%	967	-12%	n/a	-	n/a	-	n/a	-	n/a	-	60386	64%	62.4	85%	21838	126%	16670	612%	9.5	321%	Reasonable	311%	Improved
ORF	HOKVL1218	14	-7%	52	64%	n/a	-	n/a	-	n/a	-	n/a	-	1630	1672%	31.1	984%	596	6171%	358	1494%	13.0	239%	High	200%	Improved
ORF	HOKVL1824	15	50%	182	100%	n/a	-	n/a	-	n/a	-	n/a	-	6949	5658%	38.2	2773%	4411	755%	4193	472%	17.6	166%	High	158%	Improved
ORF	HOKVL2440	103	-16%	1485	-15%	n/a	-	n/a	-	n/a	-	n/a	-	50370	16%	33.9	36%	13965	108%	2497	279%	1.9	288%	Reasonable	121%	Improved
ORF	HOKVL40XX	30	-12%	790	-14%	n/a	-	n/a	-	n/a	-	n/a	-	24678	52%	31.2	78%	14699	847%	4049	166%	5.5	182%	Reasonable	152%	Improved
ORF	MGPVL1824	17	-	119	-	n/a	-	n/a	-	n/a	-	n/a	-	1945	-	16.3	-	720	-	86	-	1.7	-	Reasonable	-	-
ORF	PMPVL0010	1005	80%	1839	233%	n/a	-	n/a	-	n/a	-	n/a	-	6646	379%	3.6	184%	-18489	-676%	-19665	-	-107.5	-	Weak	-163%	Deteriorated
ORF	PMPVL1012	98	133%	207	59%	n/a	-	n/a	-	n/a	-	n/a	-	1719	9%	8.3	-32%	75	-70%	-185	-	-6.3	-	Weak	90%	Improved
ORF	PMPVL1218	160	357%	377	634%	n/a	-	n/a	-	n/a	-	n/a	-	1733	1044%	4.6	229%	-2431	7%	-4580	-	-73.8	-	Weak	-1423%	Deteriorated
ORF	PMPVL2440	18	6%	171	20%	n/a	-	n/a	-	n/a	-	n/a	-	-14	-102%	-0.1	-102%	-6238	-645%	-7158	-546%	-64.1	-137%	Weak	-141%	Deteriorated
ORF	PSVL0010	16	-73%	34	14%	n/a	-	n/a	-	n/a	-	n/a	-	-80	-117%	-2.4	-115%	-80	44%	-88	-	-89.1	-	Weak	-	-
ORF	PSVL1012	12	0%	63	-	n/a	-	n/a	-	n/a	-	n/a	-	1065	43%	17.0	20%	66	141%	7	102%	0.5	102%	Reasonable	102%	Improved
ORF	PSVL1218	58	-	338	-	n/a	-	n/a	-	n/a	-	n/a	-	4327	797%	12.8	77%	-123	55%	-905	-112%	-9.8	68%	Weak	55%	Improved
ORF	PSVL1824	22	-	226	-	n/a	-	n/a	-	n/a	-	n/a	-	6088	-	26.9	-	1383	-	-	-	3.0	-	Reasonable	-	-
ORF	PSVL40XX	40	-	1591	-	n/a	-	n/a	-	n/a	-	n/a	-	107385	-	67.5	-	58106	-	-	-	10.7	-	High	255%	Improved

## 5.19 SWEDEN

### Fleet Structure, Fishing Activity and Production

In 2012 the Swedish fishing fleet consisted of 1 322 registered vessels, with a combined gross tonnage of 30 thousand GT, a total power of 169 thousand kW and an average age of 32 years. The size of the Swedish fleet decreased between 2008 and 2012; the number of vessels decreased by 13% and GT and kW decreased by 31% and 20% respectively (Table 5.55). The major factors causing the fleet to decrease include entry barriers, bad profitability, scrapping campaigns, introduction of transferable fishing rights and natural wastage due to age.

In 2012, the number of fishing enterprises in the Swedish fleet totalled 1,056, with the vast majority (79%), owning a single vessel. Only 21% of the enterprises owned two to five fishing vessels. Total employment in 2011 was estimated at 1 679 jobs, corresponding to 876 FTEs. The level of employment decreased between 2008 and 2011, with total employed decreasing by 15% and the number of FTEs decreasing by 16% over the period. The major factors causing employment to decrease include of course the decreasing fleet size but also less labour intensive vessels.

Table 5.55 Swedish national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

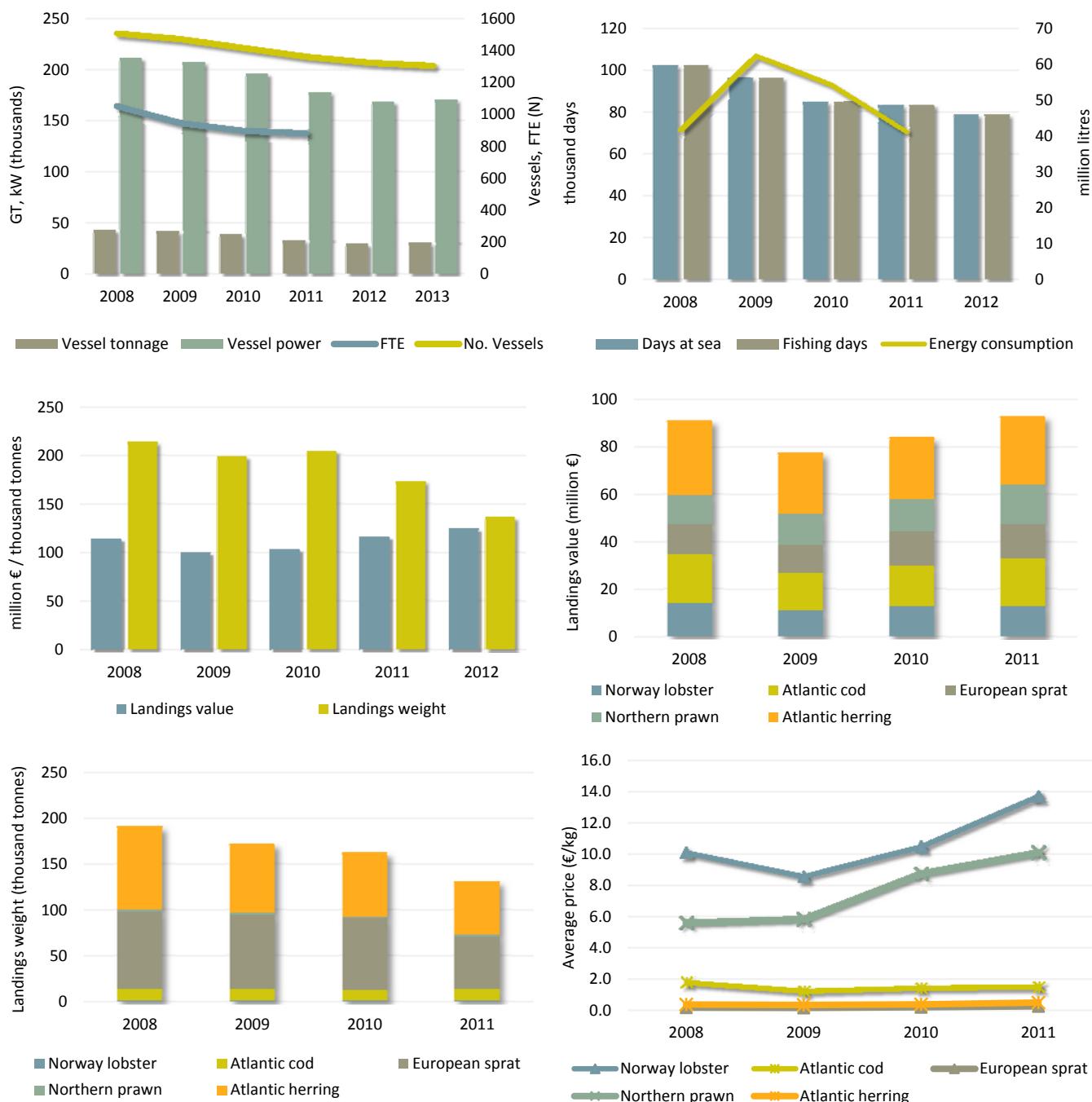
Variable	NATIONAL FLEET					%Δ 2010-11	SMALL SCALE FLEET					%Δ 2010-11	2012
	2008	2009	2010	2011	2012		2008	2009	2010	2011	2012		
<b>Structure</b>													
All Vessels	1507	1471	1415	1359	-4%	↘	1322	1302	828	823	780	761	-2% ↘
Inactive vessels	359	339	351	328	-7%	↘	304	-	-	-	-	-	-
Average vessel age (years)	30	30	31	31	1%	↔	32	32	28	29	29	30	2% ↗
GT(thousand tonnes)	43.0	41.7	38.6	32.9	-15%	↘	29.5	30.5	3.8	3.8	3.6	3.6	0% ↔
Engine power (thousand kW)	211.8	207.9	196.4	178.2	-9%	↘	169.1	170.8	54.1	54.7	52.3	52.5	0% ↔
No. Enterprises (N)	1211	1181	1134	1089	-4%	↘	1056	-	800	800	758	744	-2% ↘
<b>Employment</b>													
FTE (N)	1133	1019	990	974	-2%	↘	947	-	470	383	384	367	-4% ↘
Average wage per FTE (thousand €)	24.7	24.3	28.3	28.0	-1%	↔	33.0	-	21.4	21.4	24.5	26.6	9% ↗
<b>Fishing Effort</b>													
Days at Sea (thousand days)	102.4	96.6	85.1	83.7	-2%	↘	78.8	-	67.5	64.1	56.7	54.3	-4% ↘
GTfishing days (thousands)	6411	5878	5066	5186	2%	↗	4569	-	321	317	273	265	-3% ↘
Energy consumption (million litres)	41.4	62.2	54.1	40.9	-24%	↘	-	-	3.2	4.4	4.2	4.9	16% ↗
Fuel consumption per kg landed (litre/kg)	0.19	0.31	0.26	0.24	-8%	↘	-	-	0.44	0.65	0.76	0.93	22% ↗
<b>Production</b>													
Landings weight (thousand tonnes)	214.1	199.3	204.4	173.4	-15%	↘	136.5	-	7.4	6.8	5.6	5.3	-5% ↘
Landings value (million €)	114.4	100.4	103.3	116.5	13%	↗	124.3	-	15.2	12.9	13.0	13.8	6% ↗

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2012 the Swedish fleet spent a total of around 79 thousand days at sea. The total numbers of days at sea decreased by around 23% between 2008 and 2012. The major factors causing the decrease include lower quotas and increasing catch per effort. The quantity of fuel consumed in 2011 totalled around 41 million litres, a decrease of around 34% from 2009, driven by fewer days at sea and increased fuel efficiency.

The total volume landed by the Swedish fleet in 2011 was 173 thousand tonnes of seafood, with a landed value of €117 million. The total volume decreased while the value of landings increased over the period analysed. The highest landed value (€214 million) by the national fleet was achieved in 2008. The total landed value followed the price statistics; in particular lobster and prawn prices, which increased from 2010. Landed value was also strongly affected by currency exchange and landings weight. In terms of landings weight, decreasing quotas (particularly on pelagic species such as herring and sprat) affects the results. The major factors causing the increase in value are prices as quotas have decreased.

The prices obtained for key species targeted by the Swedish fleet either remained stable or increased between 2008 and 2011. Herring, sprat and cod prices were stable during the period while lobster and prawn prices increased. Lobster achieved the highest average price per kilo in 2011 (close to €14 per kg), followed by prawn (just above €10 per kg).



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.37 Swedish fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

## National Fleet Economic performance

The total amount of income generated by the Swedish national fleet in 2011 was slightly over €130 million. This consisted of €116 million in landings value and €14 million in non-fishing income. The Swedish fleet's total income decreased between 2010 and 2011. This was due to the fact that other income was very high in 2010; a result of the introduction of transferable quotas. Both income and cost data for 2010 is affected by the introduction of transferable quotas in the Swedish Pelagic fishery and the resulting heavy reduction in pelagic vessels. Over the period 2008 and 2011 the total income has increased.

Total operating costs incurred by the Swedish national fleet in 2011 equated to €130 million, amounting to almost 100% of total income. Crew cost and fuel costs, the two major fishing expenses, were €27 and €28 million respectively (Table 5.56). Between 2008 and 2011, total operating costs increased, largely due to increasing other variable and non-variable costs. Labour, energy, and repair costs were stable, and capital costs decreased due to a diminishing fleet size. Overall the increases in price for cost items during the period are compensated by less fishing and a decreasing fleet. In 2010 a system

of tradable fishing rights was introduced in the Swedish pelagic fleet. This seems to have particularly affected the other income variable (which is technically not supposed to include incomes from selling fishing rights). The overall economic performance trend for the Swedish fleet (excluding 2010) is positive.

Table 5.56 Swedish national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%).

Variable (million €)	National Fleet					%Δ 2010-11	2012	Small scale fleet					%Δ 2010-11	2012
	2008	2009	2010	2011	2012			2008	2009	2010	2011	2012		
<b>Income</b>														
Landings income	114.0	106.0	104.6	116.2	↗ 11%	124.3		15.0	12.7	12.6	13.5	↗ 7%	14.8	
Other income	4.9	17.1	37.7	14.3	↘ -62%	26.0		3.7	2.5	2.8	7.3	↗ 158%	5.1	
<b>Costs</b>														
Labour costs	28.0	24.8	28.0	27.3	↘ -3%	31.2		10.0	8.2	9.4	9.8	↗ 4%	6.8	
Energy costs	26.1	24.8	28.2	27.6	↘ -2%	31.1		2.2	2.1	2.6	3.5	↗ 34%	4.0	
Repair costs	20.3	23.3	23.0	20.6	↘ -10%	19.4		3.5	2.9	2.8	3.3	↗ 15%	3.1	
Other variable costs	5.6	6.6	8.7	13.3	↗ 54%	12.6		1.1	1.2	1.3	1.9	↗ 49%	1.9	
Non-variable costs	7.8	9.7	9.8	9.2	↘ -5%	9.0		1.5	1.8	2.0	2.4	↗ 17%	2.3	
Capital costs	37.7	35.3	31.4	32.4	↗ 3%	31.2		4.7	7.9	5.2	5.1	↘ -2%	5.1	
<b>Economic Indicators</b>														
GVA	59.1	58.8	72.7	59.8	↘ -18%	78.3		10.3	7.1	6.7	9.7	↗ 46%	8.6	
Gross profit	31.1	34.0	44.7	32.5	↘ -27%	47.1		0.3	-1.0	-2.7	-0.1	↗ 98%	1.8	
Net profit	-6.7	-1.3	13.3	0.2	↘ -99%	15.8		-4.4	-8.9	-7.9	-5.2	↗ 35%	-3.3	
<b>Capital value</b>														
Fleet depreciated replacement value	165.6	163.3	159.9	164.3	↗ 3%	162.1		37.8	37.4	24.8	24.7	↔ 0%	24.8	
In-year investments	12.7	4.5	8.1	5.3	↘ -34%			0.5	1.1	1.4	1.4	↗ 4%		
<b>Profitability and development trends</b>														
Net profit margin (%)	-5.6	-1.1	9.3	0.1	↘ -99%	10.5		-23.4	-58.4	-51.5	-24.9	↗ 52%	-16.5	
development trend	Deteriorated				↘ -86%			Improved				↗ 44%		
RoFTA (%)	-4.0	-0.8	8.3	0.1	↘ -99%	9.8		-9.2	-23.7	-32.0	-20.9	↗ 35%	-13.2	
development trend	Deteriorated				↘ -91%			Stable				↗ 3%		
GVA per FTE (thousand €)	52.1	57.7	73.4	61.4	↘ -16%	82.6		22.0	18.7	17.4	26.5	↗ 52%	24.0	
development trend	Stable				↔ 1%			Improved				↗ 37%		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

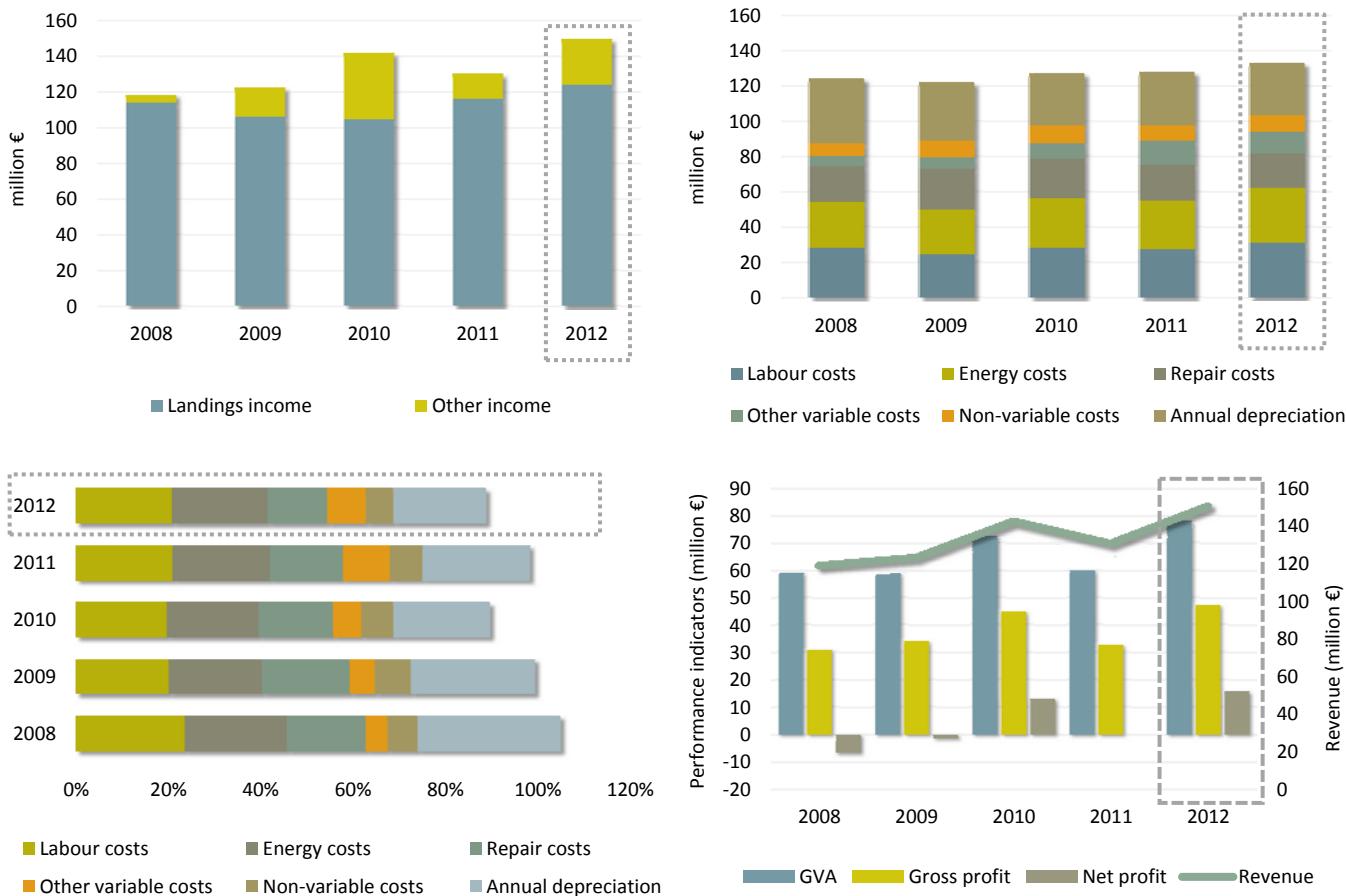
In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the Swedish national fleet in 2011 were €59.8 million, €32.5 million and €0.2 million, respectively. Gross Value Added (GVA) and gross profit were stable between 2008 and 2011 (apart from 2010). Net profit generally increased between 2008 and 2011, with the exception being 2010 (the aforementioned issues transferable fishing rights introduction). The major factors causing the improvement in economic performance include a diminishing fleet and introduction of transferable quotas. In 2011, the Swedish fleet had an estimated (depreciated) replacement value of €164 million. Investments by the fleet amounted to €5 million in 2011.

## Fleet Segment Level Economic performance

The Swedish fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Baltic Sea, Skagerrak, and Kattegat. The national fleet consisted of 10 clustered fleet segments in 2011, with 3 clustered inactive length classes consisting of 328 vessels. One of the active fleet segments made losses in 2011 while 6 made an overall gross profit. All segments with vessels over 12m made positive net profit. Table 5.57 provides a breakdown of key performance indicators for all fleet segments in 2011. A short description of the 2 most important segments in terms of total value of landings is provided below.

**Demersal trawl / seine 24-40m** – 49 vessels make up this segment which operates predominantly in the Baltic Sea. The fleet targets a variety of species, in particular pelagic species such as herring and sprat. In 2011, the total value of landings was almost €61 million and around 238 FTEs were employed in this fleet segment, contributing to 52% and 24% of the total income from landings and FTEs in the Swedish fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €22 million and net profit of €2.5 million in 2011.

**Demersal trawl seine 18-24m** – 44 vessels make up this segment which operates predominantly in the Baltic Sea, Skagerrak and Kattegat. The fleet targets a variety of species but in particular pelagic species, cod, lobster and prawn. In 2011, the total value of landings was more than €20 million and around 129 FTEs were employed in this fleet segment, contributing 17% and 13% of the total income from landings and FTEs in the Swedish fishing fleet, respectively. This fleet segment was profitable, with a reported gross profit of around €5.4 million and net profit of €3.2 million in 2011.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.38 Swedish fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

Towards the end of 2009 Sweden introduced a tradable fishing right system for pelagic quotas. Vessels in the system are here clustered together with other vessels, mostly in the demersal trawl /seine 18-24m and 24-40m segments. Therefore a clear positive effect of the system cannot be seen. The first transactions took place in the beginning of 2010. The first effects of these transactions became visible in late 2010 in terms of profitability for the pelagic fisheries. The effect of the new system can be better seen in the profitability of 2011 once capacity had been removed. However decreases in quotas for pelagic species (most importantly for herring and sprat) have a negative effect on the expected profitability increase resulting from the introduction of the system.

Fuel prices increased during 2010 and 2011 and remained at high levels during the beginning of 2012, which had an effect on all fisheries. The increase is supposed to have the greatest effect on segments fishing with active gears (e.g. trawls and seiners). In general, fuel consumption has decreased since 2009. The large demersal and pelagic vessels, demersal trawl / seines 24-40m, decreased their fuel consumption in 2011; however, the midsize demersal and pelagic vessels, demersal

trawl / seines 18-24m, increased their use of fuel. Lower fuel consumption was generally the result of decreased number of days spent at sea and better fuel efficiency. Most of the rest of the Swedish fleet also decreased their use of fuel. The question is however, how much further fuel efficiency rationalisation can occur without significant investments in new technologies and newer vessels.

The general trend since the beginning of the 2000s is a decrease in capacity, i.e. the number of vessels which is also reflected in the reduction of total engine power and gross tonnage. This is partly due to management efforts directed at decreasing fleet size in order to bring it in balance with the resources. But that is not the whole truth since a part of the decrease is due to the fact that many fishermen have left the trade since they cannot make a living from fishing anymore. Some of the fishermen operating inside the pelagic fishing rights system have sold their rights and then left the sector while others just left the sector without being compensated. The profitability of the diminishing Swedish fleet is increasing perhaps not as fast as expected due to decreasing quotas.

The analysis of economic performance shows that all Swedish segments with vessels over 12 meters are making positive net profits. The segments with vessels with a length of less than 12 meters are all making negative net profits. Fuel prices have increased during 2010 and 2011 and stayed at a high level during the beginning of 2012, and which will have an effect on all fisheries. The increase is supposed to have had the most effect on the segments with small vessels fishing with active gears (e.g. trawls and seiners). The segments fishing with passive gear are heavily affected by increasing populations of seals in recent years.

There is also a crew recruitment problem as jobs on board fishing vessels is not a particularly attractive way of living for younger people due to the low wages and relatively poor working conditions compared to other jobs on land. This poor recruitment is reflected in the increasing average age of Swedish fishermen. This coupled with a decreasing fleet size and increasing average age is expected to continue for some time.

## **Data issues**

Since 2005, the Swedish data collection is mostly based on census data mixed with a census survey in order to distinguish specific cost items. The introduction of an ITR system has affected the 2010 data. Half of the vessels that had more than half of the total landing value left the fleet. There are most probably incomes in the 'other income' variable that is the result of selling quotas. The effect is therefore that the profitability of 2010 is higher than it should be (since incomes and costs from fishing rights should be kept outside in this analysis). At the same time some costs of buying fishing rights may have been recorded in the variable other costs as well as in the 'in year investments' variable. Sweden is currently performing an evaluation of the introduction of the fishing right system.

There are no major data issues in the Swedish part of the data collection. The main problems has previously stem from changes in certain methodologies over time which interrupted time series mostly on the expenditure side of the economic data. One example is the issues with the estimation of capital costs. Since few, if any, new vessels have been built or even entered the Swedish fleet in recent years, reliable observations on price per capacity unit to use as input in the PIM-model is impossible to find. Sweden tries to work around this issue by estimating insurance values for each vessel from a survey. The insurance values are later used as a base for estimating the price per capacity unit used in the model. However there are issues connected with using insurance values since they may include or exclude certain values. Old wooden vessels cannot be insured and newer vessels normally don't need full insurance since part of the vessel is insured by guarantees. This issue has now been taken into consideration by using different models for estimating price per capacity unit for the Swedish data.

Another important issue is clustering. With a small and diminishing fleet Sweden is forced to cluster most of the economic data and also report cluster definitions. At the same time Sweden is recommended to report un-clustered transversal data on capacity, landings etc. Previously Sweden has used different clusters for different years. Sweden has now worked around this problem, recalculated all data, and is now using the same clusters for the whole DCF period. This makes it easier to follow the trends.

Most of the Swedish data comes from registers but cost data is collected separately. Sweden is using mandatory questionnaires for data on costs. Previously Sweden has used probability sampling when sending out the questionnaires. Since the start of 2012 the questionnaires requesting 2011 data are sent to all vessels (census). Instead of getting 60% response from a 50% sample, Sweden now gets more than 80% response from a census sample. Meaning that the number of data points increased threefold.

Table 5.57 Main socio-economic performance indicators by fleet segment in the Swedish national fishing fleet in 2011

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011	Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend
AREA27	DFNVL0010	613	-3%	255	-6%	43055	-6%	3108	21%	8049	1%	2319	-12%	6752	67%	23.8	78%	-798	76%	-3986	41%	-28.7	59%	Weak	46%	Improved
AREA27	DFNVL1012	141	-1%	75	3%	10551	0%	1809	8%	5434	13%	2772	0%	2966	13%	35.4	9%	733	15%	-1181	4%	-17.2	19%	Weak	41%	Improved
AREA27	DFNVL1218	22	10%	20	-7%	2055	15%	441	-32%	1805	0%	902	-23%	1054	52%	48.4	64%	474	305%	190	219%	9.6	219%	Reasonable	125%	Improved
AREA27	DTSVL1012	80	11%	54	11%	4750	10%	1501	-24%	5455	14%	1446	3%	2948	6%	49.2	-5%	949	-30%	-683	-462%	-11.4	-484%	Weak	93%	Improved
AREA27	DTSVL1218	82	-11%	105	-6%	7648	-3%	5025	4%	14724	9%	6711	-11%	6217	-19%	53.1	-14%	4170	-3%	1901	-27%	12.8	-28%	High	156%	Improved
AREA27	DTSVL1824	44	-10%	129	12%	6635	10%	7854	28%	20240	18%	15475	0%	8862	-11%	61.7	-21%	5393	-17%	3249	-33%	14.6	-38%	High	14%	Improved
AREA27	DTSVL2440	49	-11%	238	-5%	8961	0%	21162	-42%	60826	14%	143776	-17%	30992	-31%	117.4	-27%	21619	-39%	2533	-84%	3.9	-80%	Reasonable	-82%	Deteriorated

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)).

## 5.20 UNITED KINGDOM

### Fleet Structure, Fishing Activity and Production

In 2012, the UK fishing fleet consisted of 6,414 registered vessels, with a combined gross tonnage of 202,000 GT, a total power of 807,000 kW and an average age of 25 years. The size of the UK fishing fleet decreased between 2008 and 2012, with the number of vessels falling by 6% and GT and kW decreasing by 5% and 6% respectively (Table 5.58, Figure 5.39). The major factor causing the fleet to decrease was technological creep exacerbated by a lowering of the average age of the fleet, large parts of which are under the application of effort controls.

In 2012, the number of fishing enterprises in the UK fleet totalled 4,336, with the vast majority (96%) owning a single vessel. Total employment in 2011 was estimated at 12,405 jobs, corresponding to 7,192 FTEs. The level of employment decreased between 2008 and 2011, with total employed decreasing by just 1.7% but the number of FTEs decreasing by 9.9% over the period, a trend which continued into 2012 with a fall in FTEs between 2011 and 2012 of 0.8%. The major factors causing employment to decrease relate to the declining number of fishing vessels and a continued substitution of capital for labour.

Table 5.58 UK national fleet structure, activity and production trends: 2008-2013.

Arrows indicate change ( $\Delta$ ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change ( $\Delta$  between -1 and +1%)

Variable	NATIONAL FLEET				%Δ 2010-11	SMALL SCALE FLEET				%Δ 2010-11	2012	
	2008	2009	2010	2011		2012	2013	2008	2009	2010		
<b>Structure</b>												
All Vessels	6796	6616	6544	6467	-1% ↘	6414	6405	3094	3086	3101	3198	3% ↗ 3126
Inactive vessels	2088	1958	1956	1815	-7% ↘	1849	-	-	-	-	-	-
Average vessel age (years)	27	27	26	25	-3% ↘	25	25	26	25	25	28	13% ↗ 23
GT(thousand tonnes)	212.2	207.2	207.6	207.2	0% ↔	201.5	200.7	12.0	12.0	12.0	12.2	1% ↗ 11.9
Engine power (thousand kW)	860.1	839.6	834.7	825.9	-1% ↘	807.1	804.3	181.9	183.7	183.2	190.3	4% ↗ 187.1
No. Enterprises (N)	4490	4441	4372	4427	1% ↗	4336	-	2982	2970	2981	3062	3% ↗ 3126
<b>Employment</b>												
FTE (N)	7983	7519	7589	7192	-5% ↘	7133	-	4609	4792	5098	5386	6% ↗ 5554
Average wage per FTE (thousand €)	26.5	26.2	25.7	31.6	23% ↗	31.8	-	10.1	7.6	7.6	6.6	-13% ↘ 4.7
<b>Fishing Effort</b>												
Days at Sea (thousand days)	446.3	424.7	420.4	414.5	-1% ↘	397.3	-	230.9	213.4	216.0	221.2	2% ↗ 209.6
GTfishing days (thousands)	24176	23935	22883	22161	-3% ↘	20769	-	949	871	873	875	0% ↔ 874
Energy consumption (million litres)	298.2	288.0	283.3	268.1	-5% ↘	-	-	27.8	25.9	26.4	25.7	-3% ↘ -
Fuel consumption per kg landed (litre/kg)	0.53	0.51	0.51	0.45	-12% ↘	-	-	0.75	0.73	0.69	0.66	-4% ↘ -
<b>Production</b>												
Landings weight (thousand tonnes)	559.4	562.2	553.9	597.3	8% ↗	611.8	-	36.9	35.2	38.4	38.8	1% ↗ 41.3
Landings value (million €)	766.9	736.1	794.3	948.7	19% ↗	936.9	-	105.3	86.6	96.5	103.6	7% ↗ 109.8

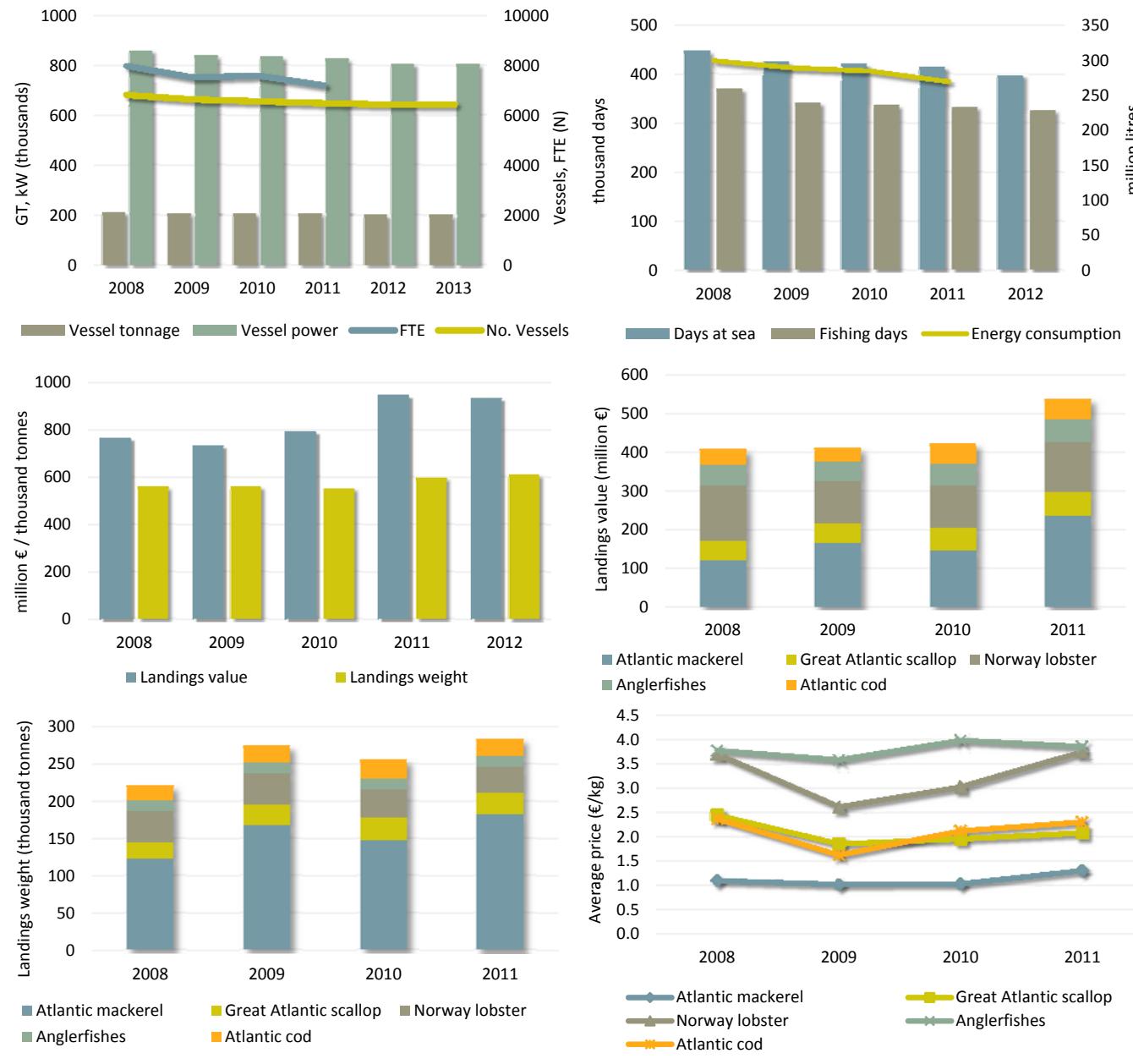
Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012/2013 are provisional.

In 2012 the UK fleet spent a total of around 397,000 days at sea. The total number of days at sea has fallen steadily between 2008 and 2012 by around 11%. The major factors causing the decrease in days at sea include continuing falls in the days that are permitted to be spent at sea under the CFP effort controls for some UK fleets. The quantity of fuel consumed in 2011 totalled around 268 million litres, a decrease of around 10% from 2008. The major factors causing the decrease in fuel consumption include falling numbers of vessels, increasing fuel efficiency of newer engines and the rising cost of fuel.

The total volume landed by the UK fleet in 2012 was 612,000 tonnes of seafood, with a landed value of €937 million. The total volume and value of landings increased by 9% over the period analysed. In 2012, mackerel generated the highest landed value (€191 million) by the national fleet, followed by Norway lobster (€136 million), scallops (€69 million), monkfish/anglers (€52 million) and then herring (€46 million). In terms of landings weight, in 2012 mackerel was 169,000 tonnes, followed herring (87 thousand tonnes), and then haddock (35 thousand tonnes). The major factors causing the changes in volume and value of landings include a decline in mackerel landings and an increase in herring landings. The potential benefit to the fleet of an increase in landings of haddock was largely cancelled out by a fall in price.

The changes in prices obtained for these key species varied between 2011 and 2012. Norway lobster achieved the highest average price per kilo in 2012 (€4.191 per kg), followed by scallops (€4.032 per kg). While the inverse relationship between price and quantity largely prevails, it does not explain the fall in price of mackerel and the increase in price of scallops.

Mackerel accounted for 27% of the total landings value obtained by the UK fleet in 2011, decreasing to 22% of total income in 2012, while Norway lobster remained largely stable, increasing from 15% in 2011 to 16% in 2012. The decline in importance of mackerel reflects both the drop in landings and the decline in its price. The 6% fall in Norway lobster landings between 2011 and 2012 was compensated for by a 12% increase in price, a seemingly inelastic response that may reflect price inflation in other foodstuffs and a different (domestic rather than export) market from mackerel.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.39 UK fleet main trends 2008-2012/13

Top left – capacity and employment; top right – fishing effort and fuel consumption; middle left – landings in value and weight; middle right – top 5 species in terms of value landed in 2011; bottom left - top 5 species in terms of weight landed in 2011; and bottom right – average landed prices for main species.

## National Fleet Economic performance

The total amount of income generated by the UK national fleet in 2012 was €994 million. This consisted of €937 million in landings value and €57 million in non-fishing income. The UK fleet's total income increased 17% between 2010 and 2012. Total operating costs incurred by the UK national fleet in 2012 equated to €783 million, amounting to 79% of total income. Crew cost and fuel costs, the two major fishing expenses, were €227 and €194 million respectively, Table 5.59. Between 2008 and 2012, total operating costs increased by 19%, largely due to an increase in fuel costs, which amounted to 20% of total income in 2012.

In terms of economic performance, the total amount of Gross Value Added (GVA), gross profit and net profit generated by the UK national fleet in 2012 were €400 million, €173 million and €124 million respectively. Gross Value Added (GVA), gross

profit and net profit decreased 7%, 14% and 22% respectively between 2011 and 2012. The major factors causing the decline in economic performance included a 15% increase in fuel costs despite the number of days at sea remaining almost unchanged.

The UK fleet had an estimated (depreciated) replacement value of €538 million in 2012 and an estimated value of fishing rights of £714 million in 2011. Investments by the fleet amounted to €46 million in 2011. The major factors causing a change in the capital value of the fleet include a rise of 28% in the value of fishing rights between 2010 and 2011.

Table 5.59 UK national fishing fleet economic performance in 2011 and projections for 2012.

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Variable (million €)	National Fleet				%Δ 2010-11	2012	Small scale fleet				%Δ 2010-11	2012
	2008	2009	2010	2011			2008	2009	2010	2011		
<b>Income</b>												
Landings income	785.0	738.2	795.9	948.7	↗ 19%	937.0	107.0	89.5	98.5	104.6	↗ 6%	109.8
Other income	24.3	13.0	14.7	23.1	↗ 57%	18.9	4.6	2.2	3.4	4.1	↗ 21%	3.8
<b>Costs</b>												
Labour costs	211.3	197.2	195.2	227.3	↗ 16%	227.1	46.4	36.5	38.8	35.6	↘ -8%	26.4
Energy costs	169.9	114.4	133.8	169.3	↗ 26%	194.1	15.8	10.3	12.5	16.2	↗ 30%	19.9
Repair costs	75.9	71.7	76.5	86.5	↗ 13%	82.9	8.6	5.9	7.6	9.4	↗ 24%	9.6
Other variable costs	129.1	130.4	134.2	164.7	↗ 23%	157.9	15.3	15.0	16.7	23.1	↗ 38%	23.7
Non-variable costs	69.4	73.7	110.1	121.8	↗ 11%	120.8	9.8	9.2	11.6	9.0	↘ -22%	9.3
Capital costs	54.3	62.9	55.9	44.6	↘ -20%	48.6	6.9	7.1	7.6	5.6	↘ -26%	6.4
<b>Economic Indicators</b>												
GVA	365.0	361.0	356.1	429.5	↗ 21%	400.2	62.0	51.3	53.6	50.9	↘ -5%	51.0
Gross profit	153.8	163.8	160.9	202.2	↗ 26%	173.0	15.7	14.7	14.7	15.3	↗ 4%	24.6
Net profit	99.4	101.0	105.0	157.7	↗ 50%	124.4	8.8	7.7	7.1	9.6	↗ 36%	18.2
<b>Capital value</b>												
Fleet depreciated replacement value	506.0	527.2	551.5	525.4	↘ -5%	538.5	63.6	63.3	74.9	65.7	↘ -12%	70.3
In-year investments	44.7	32.6	62.5	46.2	↘ -26%		0.9	9.0	15.7	19.3	↗ 23%	
<b>Profitability and development trends</b>												
Net profit margin (%)	12.3	13.4	13.0	16.2	↗ 25%	13.0	7.9	8.4	7.0	8.9	↗ 27%	16.0
development trend	Improved				↗ 26%		Improved				↗ 15%	
RoFTA (%)	19.7	19.2	19.0	30.0	↗ 58%	23.1	19.5	16.9	13.9	20.0	↗ 43%	25.9
development trend	Improved				↗ 56%		Improved				↗ 19%	
GVA per FTE (thousand €)	45.7	48.0	46.9	59.7	↗ 27%	56.1	13.5	10.7	10.5	9.4	↘ -10%	9.2
development trend	Improved				↗ 27%		Deteriorated				↘ -18%	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

## Fleet Segment Level Economic performance

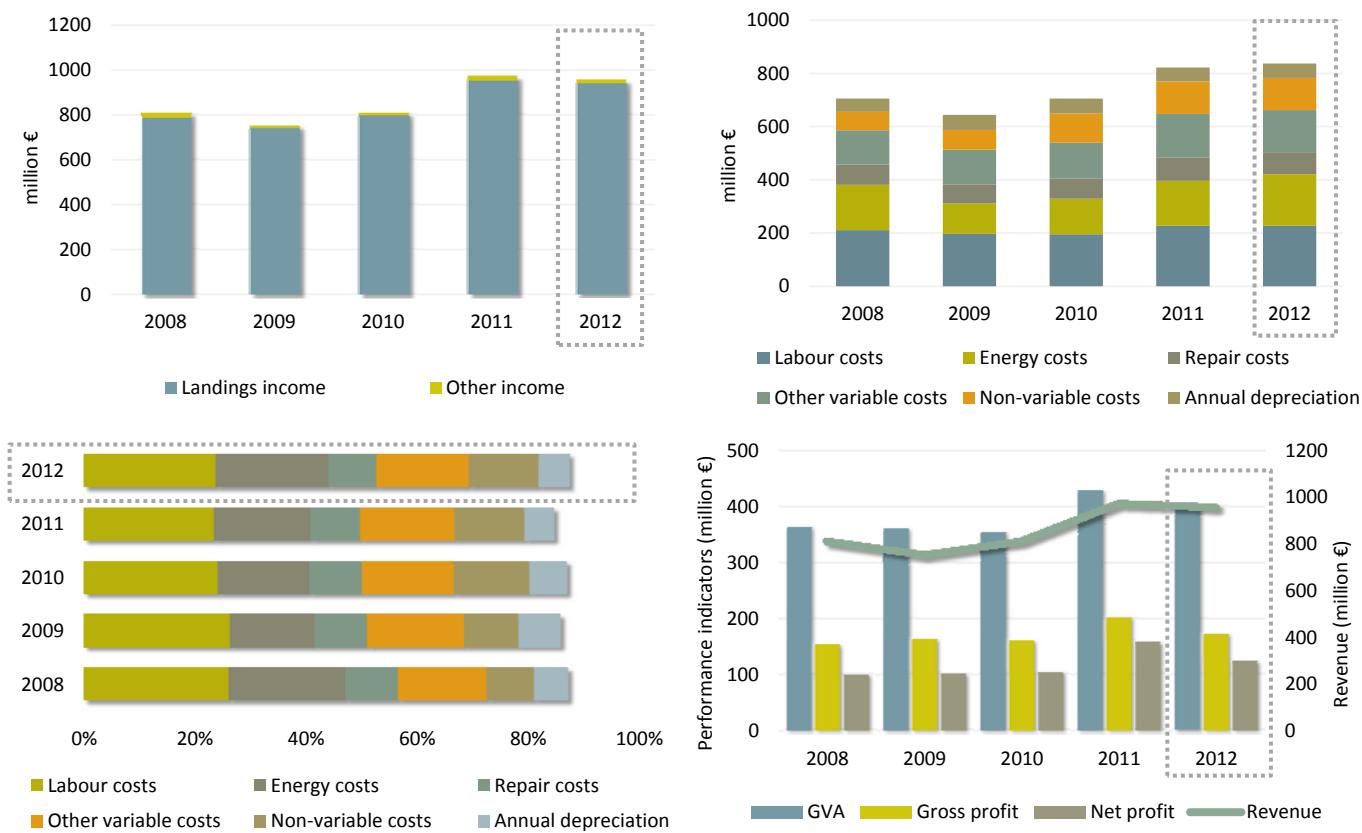
The UK fleet is highly diversified with a broad range of vessel types targeting different species predominantly in ICES areas II (Bering Sea), IV (North Sea), V and VI (West of Scotland) and VII (English Channel and Western Approaches). The national fleet consisted of 29 (DCF) fleet segments and 6,467 vessels in 2011, with 3 inactive length classes consisting of 1815 vessels. Five of the active fleet segments made losses in 2011 while 21 made a reasonable or better profit. 14 fleet segments improved their profitability while an almost equal number, 12 segments, showing deterioration. Table 5.60 provides a breakdown of key performance indicators for all UK fleet segments in 2011. A short description of the three most important segments in terms of total value of landings is provided below. These three fleets alone contribute more than 50% of fleet total landings value.

**Pelagic Trawl >40m** – 31 vessels make up this segment which operates predominantly in ICES areas IIa, IVa, VIa and VII. The fleet targets pelagic species, mainly mackerel and herring. In 2011, the total value of landings was almost €277 million and around 408 FTEs were employed in this fleet segment, contributing 29% of the UK fleet total income from landings and 6% of FTEs generated by the UK fishing fleet. This fleet segment was profitable, with a reported gross profit of around €93

million and net profit of €82 million in 2011. The volume of landings increased by 13% but strong prices meant a 57% increase in the value of landings compared to the previous year.

**Demersal Trawl and Seine 24m to <40m** – 97 vessels make up this segment which operates predominantly around the UK coast in ICES areas II, IV, Vb, VI, and VII. The fleet targets a variety of species but in particular the demersal species, such as monkfish, cod, haddock and whiting, and the shellfish species, Norway lobster. In 2011, the total value of landings was €125 million and around 698 FTEs were employed in this fleet segment, contributing 13% of the total income from landings and 10% of FTEs generated by the UK fishing fleet. This fleet segment was profitable, with a reported gross profit of around €29 million and net profit of €24 million in 2011

**Demersal Trawl and Seine 18m to <24m** – 194 vessels make up this segment which operates predominantly around the UK coast in ICES areas II, IV, Vb, VI, and VII. The fleet targets a variety of species but in particular the demersal species, such as monkfish, cod, haddock and whiting, and the shellfish species, Norway lobster. In 2011, the total value of landings was €113 million and around 1,039 FTEs were employed in this fleet segment, contributing 12% of the total income from landings and 15% of FTEs generated by the UK fishing fleet. This fleet segment was profitable, with a reported gross profit of around €22 million and net profit of almost €16 million in 2011. The fleet has been fairly stable in terms of capital and FTEs employed. The 5% improvement in the value of landings, despite a decline in the volume of landings, suggests there has been strong demand for the fleet segment's products.



Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)); data for 2012 are provisional.

Figure 5.40 UK fleet main economic performance trends 2008-2012

Top left – income structure; top right – cost structure; bottom left – cost items as a percentage of income (fishing income and other income); bottom right – economic performance indicators (projections figures for 2012).

## Assessment and Future Trends

### National Fleet

The increase in the value of landings of 22% from 2008 to 2012 matches almost exactly the 23% increase in the consumer price index for fish and seafood and represents a real rate of growth of 7% over the period brought about by a 9% increase in landings. The decline in landings of mackerel has been compensated for by increases in herring and the other species important to the UK fleet. The number of vessels continues to fall steadily from 6,796 in 2008 to 6,414 in 2012 but the falling average age suggests that there has been little if any fall in capacity, newer boats being more effective than older ones. The fall in FTEs from 7,519 in 2009 – there was a decommissioning scheme in 2008 which distorts the impression for that year - to 7,113 in 2012 suggests that the cost of labour is continuing to cause substitution of capital for labour but the magnitude of the trend is not unduly strong.

While overall the fleet is profitable, with 16% of income being retained as net profit, there are considerable variations within the fleet segments and these are inconsistent within the segments or according to vessel size or according to the number of vessels within a segment offering little indication of the cause of the variability. The value of fishing rights showed a sharp increase of 29% between 2010 and 2011 reflecting optimism about the prospects of the industry.

Energy efficiency of the fleet continued to improve, by 6%, between 2010 and 2011, a consequence of the decreasing average age of vessels in the UK fleet.

The impending ban on discarding will likely add to the fuel costs of vessels, and their carbon emissions per tonne of saleable fish. The impact is to lower the profitability of efficiently-managed fisheries reducing output and total revenue, and also to a lesser extent the capital employed (probably manifesting itself in fewer vessels). The ban and associated increased costs will ultimately have little or no effect on the profitability of poorly-managed fisheries. It may add to the pressure on stocks by initially reducing fleet sizes which in turn will lead to short-run increases in landings. This, however, may slightly increase the rate of decline of poorly-managed fisheries.

An influx of vessels from the North Sea fishery for Norway lobster to the fishery west of Scotland has led to a shortage of kilowatt days-at-sea available to catch the quota. It is difficult to envisage how this will be resolved if the full quota is to be taken.

#### ***Small Scale Fleet***

The increase in the value of landings of 7% from 2010 to 2011 is considerably poorer than 19% increase experienced by the national fleet as a whole, indicating that the smaller vessels have not been able to exploit the species where demand has been strongest. Landings by volume remained unchanged over the period.

The number of vessels rose from 2,859 in 2010 to 2,959 in 2011, an increase of 3%, indicating their exemption from the FQA system to fish a pool of quota. FTEs rose by 7% from 4,487 to 4,801 over the same period. The fleet is profitable, with 9% of income being retained as net profit.

Some 30 Marine Protected Areas are in the course of being implemented in England. The importance of these to the fleets is variable but it is more likely that their impact will be mainly on the small-scale fleet which is less able to sail longer distances to avoid them.

A Judicial Review has recently approved a government decision to re-allocate some quota from the 10m and over vessel sector to the under 10m sector. At the time of publication it is not clear whether the Court decision will be subject to appeal.

#### ***Distant Water Fleet***

The UK distant water fleet consists of a few very large vessels fishing in Arctic waters and in the northern Atlantic near Greenland. The value of landings remained fairly steady at around €12m between 2010 and 2011. Little other information can be separated from the aggregate because the size of the fleet is too small to protect the commercial sensitivity of the data.

A ban on bottom trawling and the introduction of capacity limits has been proposed by the European Commission for the distant waters fleet. The impact of a ban on bottom trawling would add to costs though this would only impact negatively and in the short-run on fisheries with tradable quota. The longer-run effects are hard to judge. Capacity limits have only a short-run effect and may in the long-run lead to capital stuffing where quota is not tradable.

#### ***Data issues***

There have been no significant data issues in producing this chapter, and the coverage and quality appear to be good. The reader should note that UK fleet revenues and costs do not include trade in quota. Quota trades take two forms; transfer in perpetuity and transfers for a defined period, usually one year - generally called leasing. There are two components within each of these. First, there is the windfall accruing to those enjoying the initial allocation of the resource in 1999 and secondly the normal capital gain or loss arising on transfer of the asset. Only the latter should be included in the accounts used in this report. However, it is impossible to identify the contribution of each component, but as the proportion of the total value is declining with each transfer of the original allocation, the problem will disappear as time goes by. Initially, however, the windfall component will be by far the greater proportion and hence for the time being omission of transfers limits any distortion of the fleet profitability figures.

Table 5.60 Main socio-economic performance indicators by fleet segment in the UK national fishing fleet in 2011

Development trend based on %Δ net profit margin 2011 to average net profit margin 2008-2010. Arrows indicate change (Δ) in relation to 2010: (↗) increase; (↘) decrease and (↔) stable/no change (Δ between -1 and +1%)

Supra Region	Fleet segment	No. of vessels (N)	2011															Profitability (2011)	Net profit margin %Δ 2011 - average (2008-10)	Economic development trend						
			% Δ 2010-2011	FTE (N)	% Δ 2010-2011	Days at sea (days)	% Δ 2010-2011	Energy consumption (litres)	% Δ 2010-2011	Value of landings (thousand €)	% Δ 2010-2011	Weight of landings (thousand tonnes)	% Δ 2010-2011	GVA (thousand €)	% Δ 2010-2011	GVA per FTE (€/FTE)	% Δ 2010-2011	Gross profit (thousand €)	% Δ 2010-2011	Net profit (thousand €)	% Δ 2010-2011	Net profit margin (%)	% Δ 2010-2011			
AREA27	DFNVL0010	656	11%	1103	20%	30037	14%	2727	8%	13590	18%	5561	2%	8492	16%	7.7	-3%	2637	46%	1629	202%	11.0	146%	High	411%	Improved
AREA27	DFNVL1012	21	-22%	51	-21%	1827	-17%	455	-13%	2128	5%	1460	48%	850	-21%	16.6	0%	159	-70%	73	-82%	3.4	-82%	Reasonable	-32%	Deteriorated
AREA27	DFNVL1218	15	7%	56	12%	2046	2%	874	5%	6178	29%	2604	78%	2552	-1%	45.4	-12%	504	-63%	404	-68%	6.5	-75%	Reasonable	-64%	Deteriorated
AREA27	DFNVL2440	14	-13%	112	-5%	3567	14%	2018	15%	13602	14%	3506	10%	5637	-15%	50.4	-11%	1144	-68%	907	-72%	6.7	-76%	Reasonable	-67%	Deteriorated
AREA27	DTSVL0010	246	0%	533	-2%	19227	2%	3761	2%	13633	10%	4844	0%	6836	19%	12.8	21%	2379	66%	1528	256%	10.9	218%	High	519%	Improved
AREA27	DTSVL1012	124	1%	308	-9%	14239	-4%	4296	-3%	12783	9%	5132	-1%	5880	16%	19.1	27%	2226	-1%	1783	4%	13.3	-7%	High	45%	Improved
AREA27	DTSVL1218	235	-8%	823	-11%	35313	-10%	19911	-9%	57428	14%	24677	-10%	26722	29%	32.5	45%	11171	33%	9304	53%	15.3	30%	High	35%	Improved
AREA27	DTSVL1824	194	-8%	1039	-6%	32151	-12%	41456	-12%	113087	9%	44397	-10%	49960	20%	48.1	27%	22415	23%	15725	65%	13.3	47%	High	79%	Improved
AREA27	DTSVL2440	97	-4%	698	-5%	19125	-7%	50378	-7%	125124	5%	59253	-4%	53998	4%	77.3	9%	29276	14%	24175	27%	18.9	21%	High	106%	Improved
AREA27	DTSVL40XX	13	0%	165	7%	3168	8%	20646	3%	50325	5%	26610	-7%	4177	-75%	25.4	-77%	-1967	-116%	-3910	-140%	-7.7	-136%	Weak	-121%	Deteriorated
AREA27	FPOVL0010	1764	3%	2712	3%	139907	4%	15888	-4%	58065	7%	19872	0%	29288	-2%	10.8	-4%	9100	31%	6187	80%	10.2	71%	High	45%	Improved
AREA27	FPOVL1012	201	1%	533	-2%	28385	-7%	4101	-6%	21176	3%	8840	0%	8639	-20%	16.2	-18%	3075	-40%	2242	-45%	10.5	-45%	High	-48%	Deteriorated
AREA27	FPOVL1218	71	-1%	303	6%	11189	-9%	6343	-9%	18403	0%	10728	1%	7256	0%	23.9	-6%	1319	-37%	552	-52%	2.8	-54%	Reasonable	-70%	Deteriorated
AREA27	FPOVL1824	15	7%	113	33%	3545	0%	2629	-1%	10753	10%	7125	8%	4866	12%	43.0	-16%	1422	-10%	845	6%	7.5	-7%	Reasonable	-27%	Deteriorated
AREA27	HOKVL0010	468	-3%	779	2%	17456	-7%	1746	-14%	6821	0%	2425	-6%	2247	-35%	2.9	-37%	-33	-130%	-654	8%	-9.4	7%	Weak	14%	Improved
AREA27	HOKVL2440	18	-10%	130	-7%	3588	-11%	5326	-12%	16173	-1%	6737	-1%	3292	-58%	25.3	-55%	-3010	-125%	-3145	-107%	-19.3	-109%	Weak	-652%	Deteriorated
AREA27	DRBVL0010	144	16%	290	19%	8935	2%	1297	-5%	9861	10%	5715	27%	5509	5%	19.0	-11%	2110	14%	1596	42%	16.1	33%	High	-8%	Deteriorated
AREA27	DRBVL1218	91	26%	239	6%	11878	28%	3487	16%	20038	28%	19529	72%	11370	6%	47.5	0%	5503	0%	4299	0%	21.8	-6%	High	-10%	Deteriorated
AREA27	DRBVL1824	21	-9%	99	-1%	3697	-19%	2124	-16%	15166	7%	17845	35%	10043	16%	101.2	17%	5470	18%	4966	26%	31.4	17%	High	28%	Improved
AREA27	DRBVL2440	26	-4%	181	25%	5266	-8%	4796	-2%	26373	5%	18922	11%	16121	8%	89.2	-14%	8426	7%	7479	12%	28.1	8%	High	19%	Improved
AREA27	PGPVL0010	102	13%	207	30%	5046	22%	813	61%	2910	42%	980	11%	1335	16%	6.4	-11%	337	37%	161	127%	5.3	119%	Reasonable	157%	Improved
AREA27	PSVL40XX	31	3%	408	-3%	1988	0%	43834	1%	281568	59%	280671	15%	148165	93%	363.3	98%	92502	103%	82258	160%	28.8	63%	High	33%	Improved
AREA27	TBBVL0010	20	-47%	46	-36%	910	-39%	472	-38%	770	-19%	483	22%	31	-80%	0.7	-69%	-115	-66%	-155	-6%	-26.3	-68%	Weak	-268%	Deteriorated
AREA27	TBBVL1218	17	-41%	50	-21%	1456	-49%	1237	-55%	1814	-34%	827	-34%	49	-76%	1.0	-70%	-304	24%	-393	31%	-25.9	-26%	Weak	-77%	Deteriorated
AREA27	TBBVL1824	15	0%	70	-7%	3538	-3%	4496	-4%	11771	12%	3371	3%	4045	14%	58.1	22%	918	3%	398	44%	3.4	28%	Reasonable	298%	Improved
AREA27	TBBVL2440	33	3%	227	5%	7006	2%	23025	-4%	39167	10%	15245	3%	12176	7%	53.5	2%	5548	19%	4149	40%	10.5	27%	High	66%	Improved

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013))

## 7. REGIONAL ANALYSIS

### KEY FINDINGS

- **The EU Baltic Sea fleet** consisted of 33 specific DCF fleet segments containing 10 or more vessels in 2011. The levels of GVA generated by 13 out of the 33 fleet segments were classed as ‘deteriorating’ in 2011, 4 classed as ‘stable’ and 16 as ‘improving’. The amount of gross profit generated by 10 out of the 33 fleet segments were classed as ‘deteriorating’ in 2011, 14 as ‘improving’ and 9 as ‘stable’. Net profit margins generated by 12 fleet segments were classed as ‘deteriorating’ in 2011, while 17 were classed as ‘improving’ and 4 as ‘stable’. GVA per FTE generated by 14 out of the 33 fleet segments were classed as ‘deteriorating’ in 2011, 18 as ‘improving’ and just one was classified as ‘stable’.
- **The EU Mediterranean and Black Sea fleet** consisted of 70 DCF fleet segments containing 10 or more vessels in 2011. The levels of GVA generated by 40 out of the 70 segments were classed as ‘deteriorating’ in 2011, 3 as ‘stable’ and 19 as ‘improving’. The amount of gross profit generated by 33 out of the 70 fleet segments were classed as ‘deteriorating’ in 2011, 25 as ‘improving’ and 4 as ‘stable’. The net profit margins generated by 25 fleet segments were classified as ‘deteriorating’ in 2011, while 15 were classed as ‘improving’ and 4 as ‘stable’. It was not possible to assign development trend classifications to 26 fleet segments. GVA per FTE generated by 32 out of the 70 fleet were classed as ‘deteriorating’ in 2011, 26 as ‘improving’ and 8 were classified as ‘stable’.
- **The EU North Atlantic fleet** consisted of 90 specific DCF fleet segments containing 10 or more vessels in 2011. The levels of GVA generated by 18 out of the 90 fleet segments were classed as ‘deteriorating’ in 2011, 3 were classed as ‘stable’ and 28 were classed as ‘improving’. It was not possible to classify the other 41 segments due to missing data. The amount of gross profit generated by 19 out of the 90 fleet segments were classed as ‘deteriorating’ in 2011, 28 as ‘improving’ and 43 were unclassifiable due to missing data. The net profit margins generated by 18 fleet segments were classed as ‘deteriorating’ in 2011, while 27 were classed as ‘improving’ and 2 as ‘stable’. GVA per FTE generated by 16 out of the 90 fleet segments were classed as ‘deteriorating’ in 2011, 28 as ‘improving’ and 4 were classified as ‘stable’. It was not possible to classify the remaining 42 segments due to missing data
- **EU North Sea and Eastern Arctic fleet** consisted of approximately 67 specific DCF fleet segments containing 10 or more vessels in 2011. The levels of GVA generated by 20 out of the 67 fleet segments were classed as ‘deteriorating’ in 2011, 7 as ‘stable’, 23 as ‘improving’, and it was not possible to categorise the remaining 16 (French segments) due to missing data. The amount of gross profit generated by 20 out of the 67 fleet segments were classed as ‘deteriorating’ in 2011, 26 as ‘improving’ and 4 as ‘stable’. The net profit margins generated by 18 fleet segments were classed as ‘deteriorating’ in 2011, while 29 were classed as ‘improving’ and 2 as ‘stable’. GVA per FTE generated by 18 out of the 62 fleet segments were classed as ‘deteriorating’ in 2011, 37 were classed as ‘improving’ and 8 as ‘stable’.
- DCF data on the **EU Long-distance fleet** is extremely limited; the coverage of DCF landings data compared to corresponding FAO statistics was just 35% in 2011. Spain is the main EU Member State fishing in long-distance regions, covering around 48% of all capture production in 2011, when, according to the FAO there were 12 MS operating in ‘long-distance’ regions. Total catches of EU countries in the South and Central Atlantic, Pacific and Indian Oceans amounted to 1.067 million tonnes in 2011, 2% less than in 2010. The Atlantic Eastern Central area (60%) was the most important fishing area, followed by Indian Ocean (17%) and then the South West Atlantic (12%). FAO data on landings by species suggests that Skipjack tuna achieved the highest landed weight by the EU fleet in 2011 in ‘long distance regions’ at 282 thousand tonnes, followed by yellowfin tuna (122 thousand tonnes) and then European pilchard (110 thousand tonnes).

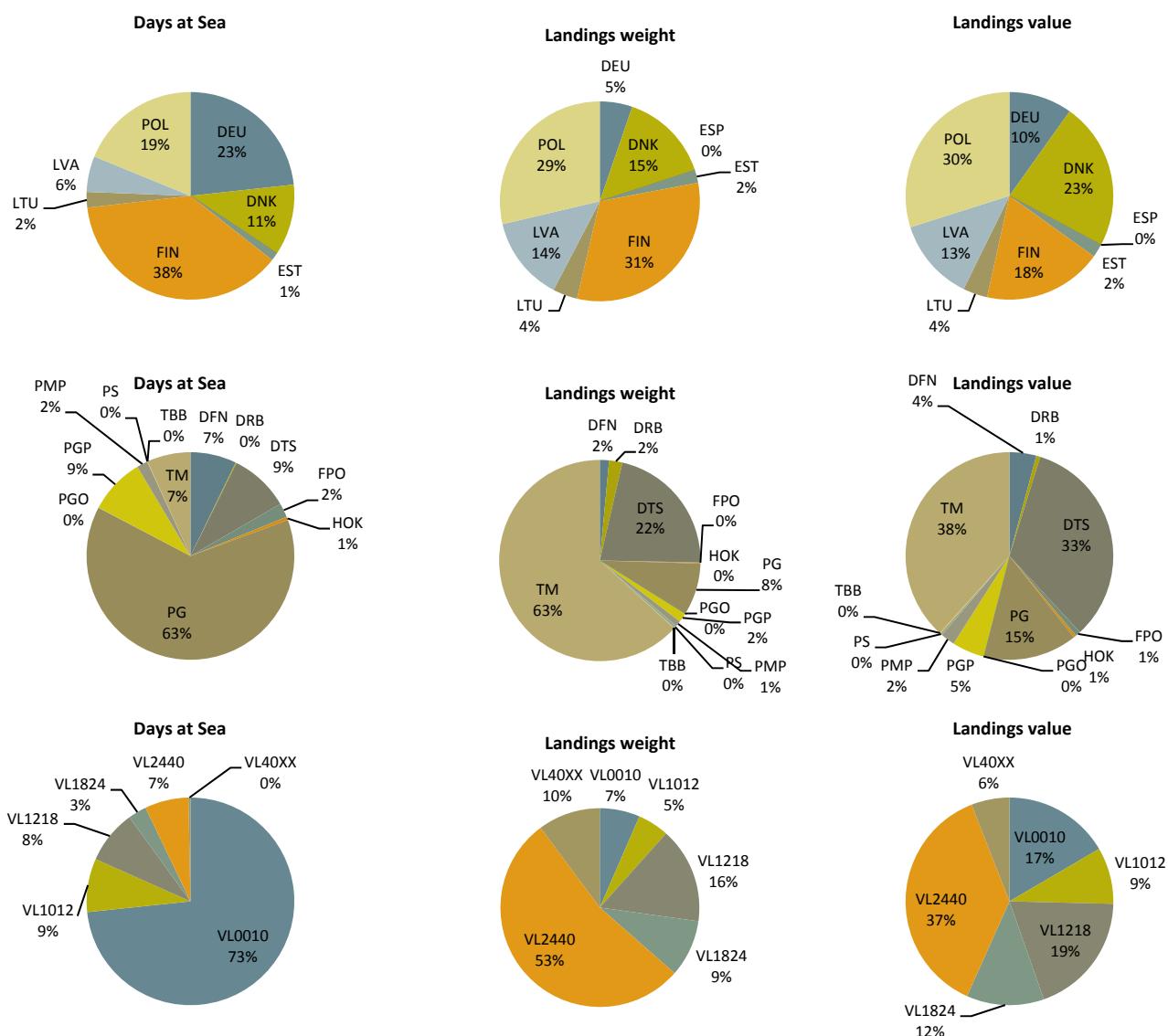
To assess the economic performance of the EU fleet at regional sea basin level, JRC and STECF EWG 13-04 produced estimates on the structure and economic performance of fleet segments by allocating vessels, FTEs, incomes and costs to the sea basin using the effort and landings data available at the higher disaggregation level. This is the first time the procedure has been carried out in the Annual Economic Report and therefore the exercise should be considered more as an exploratory exercise than factual statements that are considered robust enough to inform or influence policy decisions. See Methodology (section 8.4) for more details on the method used to disaggregate and allocate economic variables at the sea basin level.

## 7.1. BALTIC SEA

### *EU Baltic Sea fleet general overview*

The Baltic Sea consists of ICES areas IIIb, IIIc and IIId. Eight Member States were involved in Baltic Sea fisheries in 2012. These countries were Denmark, Sweden, Finland, Estonia, Latvia, Lithuania, Poland and Germany. In terms of data coverage, no economic data for the Estonian fleet was submitted for 2011, while incomplete Estonian transversal data was available for 2012. In addition, for confidentiality reasons, the total landings weight excludes the German pelagic trawl segment, which would have increased the total volume of catch of the German fleet by around 25%. Trends should therefore be interpreted with care.

The latest official DCF data suggests that the EU Baltic fleet spent a total of around 392 thousand days at sea in 2012, a decrease of 2% compared to 2011. The weight and value of landings generated by the EU Baltic Sea fleet amounted to approximately 510 thousand tonnes and €237 million respectively. Finland, Germany and Poland together accounted for around 80% of the total days at sea (mostly generated by small scale fisheries). Passive gear vessels accounted for 63% of the total number of days at sea in the Baltic and over three quarters of the total days were recorded by vessels under 10m. The pie charts presented in Figure 7.1 indicate the proportion of days at sea, landings weight and value attributable to each Baltic Sea Member State, gear type and length class in 2012.



Source: EU Member States DCF data submissions

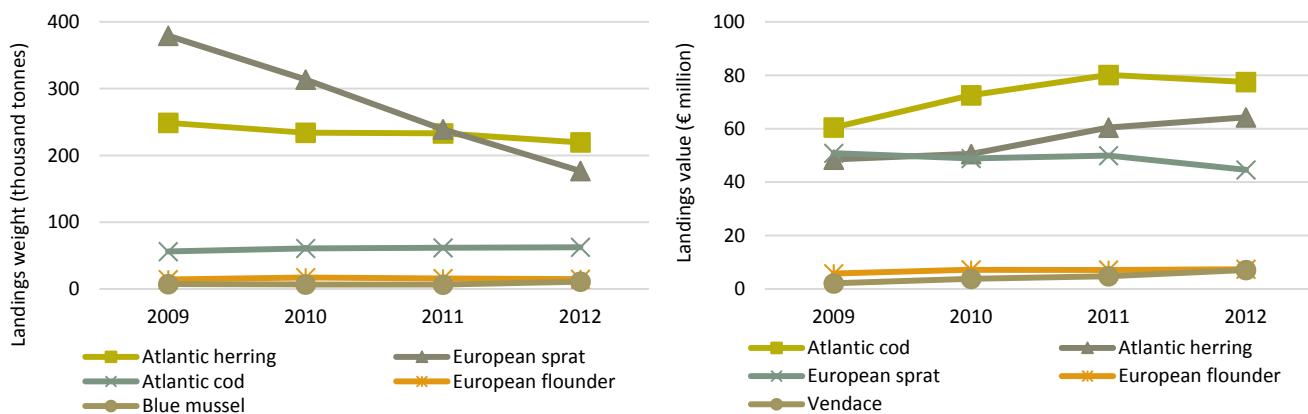
Figure 7.1 EU Baltic Sea fleet effort and landings by MS, gear type and length class in 2012

In terms of landed weight, Finland (133 thousand tonnes), Poland (121 thousand tonnes) and Sweden (89 thousand tonnes) were again the leading countries (together accounting for 59% of the total volume of Baltic Sea landings) followed by Denmark, Latvia and Germany. The data suggest that total weight of landings in the Baltic Sea decreased 11% between 2011 and 2012, although how true this trend is depends on the extent of missing Estonian landings data. Pelagic trawls generated

by the far highest landed weight, with 67% of the total volume, followed by demersal trawls and seines (20%). Vessels 24-40m in length generated 58% of the total volume landed.

Poland (€56 million), Sweden (€51 million) and Denmark (€43 million) collectively accounted for around 60% of the total value of landings in the Baltic Sea in 2012, followed by Finland, Latvia and Germany (again, bear in mind the exclusion of German pelagic landings). Value landed was more evenly split between pelagic trawls (39%) and demersal trawls and seines (33%), reflecting the lower value of pelagic species. The total value of landings in the Baltic Sea was stable between 2011 and 2012.

In 2012 herring (220 thousand tonnes) overtook sprat (177 thousand tonnes) in terms of total volume landed, followed by cod (62 thousand tonnes) and then flounder (15 thousand tonnes), (Figure 7.2). Cod generated the highest value of landings in 2012 (€77 million), followed by herring (€64 million), and then sprat (€45 million). The volume of sprat landed in the Baltic Sea decreased 26% from 2011 to 2012, while the value of sprat landed decreased 11%. Baltic sprat quota (subdivisions 22-32) decreased again between 2011 and 2012, causing the decrease in volume landed. Although the total volume of Baltic herring landed decreased 5% between 2011 and 2012, the value of those landings increased 8% over the same period. Cod landings remained relatively stable in both volume and value terms between 2011 and 2012.



Source: EU Member States DCF data submissions. 2012 data are preliminary.

Figure 7.2 EU Baltic Sea fleet volume and value of top 5 species landed: 2008-2012

### *EU Baltic Sea fleet economic performance*

As DCF economic data is collected at fleet segment and supra region level, the economic data for fleet segments that operate in the Baltic Sea does not always exclusively relate to the fishing activity of those vessels in the Baltic region. For example, a Danish trawl segment that spends half of its time in the Baltic and half of its time in the North Sea will only have economic performance data available at supra region level 27, which consists of the Baltic, the North Sea and the North Atlantic. Therefore, to assess the economic performance of the EU fleet at regional sea basin level, JRC and EWG 13-04 have produced estimates of the structure and economic performance of fleet segments operating in the Baltic Sea area by allocating vessels, FTEs, incomes and costs to the region based on the effort and landings data available at Baltic Sea level. This is the first time the procedure has been carried out in the Annual Economic Report and therefore the exercise should be considered more as an exploratory exercise than factual statements that are considered robust enough to inform or influence policy decisions.

According to the available data and estimations carried out by STECF EWG 13-04 and the JRC, there were eight EU Member States, seven main gear types and approximately 33 specific DCF fleet segments containing 10 or more vessels (Member State, gear type and length class combinations) operating in the Baltic Sea in 2011.

### *EU Baltic Sea fleet Income*

The total amount of income generated by the 'Baltic Sea fleet' in 2011 was an estimated €236 million (plus €13.8 million of missing Estonian landings), 64% of which was split between three Member States - Sweden (€59 million), Poland (€46 million) and Denmark (€45 million), Figure 7.1. Five out of seven Member States fleet operating in the Baltic generated overall increases in income between 2011 and 2012. The Finnish Baltic fleet generated the largest increase in income (18%), followed closely by the Polish Baltic fleet (17%). The two Member States Baltic Sea fleets who saw income decrease between 2011 and 2012 were Denmark (-2%) and Sweden (-9%). Estonia failed to provide any economic performance data for 2011 and is therefore excluded from the analysis.

**At gear type level**, vessels predominantly using the demersal trawls and seines generated the most income from the Baltic Sea region in 2011 (€101 million, 6% decrease from 2010), followed by pelagic trawls (€67 million, 5% increase from 2010) and the passive gears (€32 million, 6% decrease from 2010), (Table 7.2.).

**At fleet segment level**, the Swedish demersal trawl and seine segment seines generated the most income from the Baltic Sea region in 2011 (€28 million, 27% decrease from 2010), followed by the Polish pelagic trawl 24-40m segment (€20 million, 20% increase from 2010) and then the Finnish pelagic trawl 24-40m segment (€19 million, 34% increase from 2010). The Polish demersal trawl 12-18m segment experienced the most significant increase in income between 2010 and 2011 (+58%), while the Polish hooks 12-18m segment experienced the most significant decrease in income during the same period (-48%) (Table 7.3).

### **EU Baltic Sea fleet Gross Value Added (GVA)**

**At the national level**, the Swedish Baltic fleet is estimated to have generated the highest GVA in 2011 (€26.4 million), followed by Denmark (€19.4 million) and then Poland (€16.5 million). The levels of GVA generated by four Member States Baltic Sea fleets were classed as ‘deteriorating’ in 2011 (Denmark, Finland, Germany and Latvia), while two were classed as ‘improving’ (Lithuania and Sweden) and the Polish fleet was classed as ‘stable’, see Table 7.1. More information on the ‘development trend’ classification can be found in the Methodology chapter (section 8.3).

**At gear type level**, demersal trawls and seines are estimated to have generated the highest GVA in 2011 (€45 million), followed by pelagic trawls (€25 million) and then passive gears (€10 million). The levels of GVA generated by five out of the seven Baltic Sea gear types were classed as ‘deteriorating’ in 2011 (pelagic trawls, passive gears, polyvalent passive gears and polyvalent mobile and passive gears), while two were classed as ‘stable’ (demersal trawls and seines and drift and fixed nets), see Table 7.2.

**At fleet segment level**, the Swedish demersal trawl 24-40m segment was estimated to have generated the highest GVA in 2011 (€13 million), followed by the Polish pelagic trawl 24-40m segment (€7.4 million) and then the Latvian pelagic trawl 24-40m segment (€6.6 million). The levels of GVA generated by 13 out of the 33 Baltic Sea fleet segments were classed as ‘deteriorating’ in 2011, four classed as ‘stable’ and 16 were classed as ‘improving’, see Table 7.3.

### **EU Baltic Sea fleet Gross Profit**

**At the national level**, the Swedish Baltic Sea fleet is estimated to have generated the largest gross profit in 2011 (€12.4 million), followed by Latvia (€7.4 million) and then Poland (€6.5 million). The amount of gross profit generated by four Member States Baltic Sea fleets were classed as ‘deteriorating’ in 2011 (Poland, Finland, Germany and Latvia), while three were classed as ‘improving’ (Lithuania, Denmark and Sweden), see Table 7.1.

**At gear type level**, demersal trawls and seines are estimated to have generated the highest gross profit in 2011 (€21.3 million), followed by pelagic trawls (€11.8 million) and then passive gears (€2.0 million). The amount of gross profit generated by three out of the seven gear types operating in the Baltic Sea were classed as ‘deteriorating’ in 2011 (pelagic trawls, gears using hooks and passive gears), while the other four gear types were classed as ‘improving’, see Table 7.2.

**At fleet segment level**, the Swedish demersal trawl 24-40m segment was estimated to have generated the highest gross profit in 2011 (€8.8 million), followed by the Latvian pelagic trawl 24-40m segment (€6.6 million) and then the Swedish demersal trawl 12-18m segment (€2.7 million). The amount of gross profit generated by 10 out of the 33 fleet segments operating in the Baltic Sea were classed as ‘deteriorating’ in 2011, 14 were classed as ‘improving’ and 9 were classified as ‘stable’, see Table 7.3.

2012 and 2013 EU Fleet Economic Performance Projections

Table 7.1 EU Baltic Sea fleet economic performance by Member State in 2011

Baltic Sea	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)	
					%Δ	%Δ	%Δ	%Δ	2011	2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend
		2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Denmark	678	-4%	359	-7%	38.8	-1%	70.1	-17%	45.0	-2%	19.4	Deteriorated	0.3	Improved	-29%	Weak	Improved	53.9	Improved
Finland	1,649	2%	316	1%	148.2	-1%	119.7	-2%	35.5	18%	12.3	Deteriorated	3.9	Deteriorated	-2%	Weak	Deteriorated	38.9	Deteriorated
Germany	948	-2%	748	0%	77.0	-1%	20.7	-18%	20.0	3%	6.5	Deteriorated	-0.1	Deteriorated	-23%	Weak	Deteriorated	8.7	Deteriorated
Latvia	319	-59%	378	-27%	19.6	-55%	63.1	-15%	22.6	3%	10.7	Deteriorated	7.4	Deteriorated	28%	High	Stable	28.3	Improved
Lithuania	93	-3%	206	1%	7.0	-2%	16.0	-14%	7.3	4%	2.2	Improved	1.0	Improved	10%	Medium	Improved	10.8	Improved
Poland	637	-2%	966	4%	57.2	2%	110.8	1%	46.4	17%	16.5	Stable	6.5	Deteriorated	10%	Medium	Deteriorated	17.1	Improved
Sweden	593	-2%	492	-1%	47.0	-1%	108.7	-19%	59.2	-9%	26.4	Improved	12.6	Improved	-1%	Weak	Improved	53.7	Improved

Source: EU Member States DCF data submissions. N.B. Estonia failed to provide any economic performance data for 2011 and is therefore excluded from the analysis.

Table 7.2 EU Baltic Sea fleet economic performance by gear type in 2011

Baltic Sea	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)	
					%Δ	%Δ	%Δ	%Δ	2011	2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend
		2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
DFN	555	-5%	390	-16%	41.5	-6%	8.6	-21%	17.5	9%	7.1	Stable	-0.9	Improved	-26%	Weak	Improved	18.2	Improved
DTS	322	1%	906	7%	35.2	3%	188.4	-20%	100.7	-6%	44.6	Stable	21.3	Improved	-2%	Weak	Improved	49.2	Stable
HOK	27	-27%	49	-35%	1.1	-39%	0.1	-79%	0.8	-48%	-0.9	Deteriorated	-1.2	Deteriorated	-166%	Weak	Deteriorated	-17.6	Deteriorated
PG	2,973	0%	1031	5%	255.4	-1%	38.6	-4%	31.9	-6%	9.9	Deteriorated	2.0	Deteriorated	-4%	Weak	Deteriorated	9.6	Deteriorated
PGP	818	-36%	356	-26%	34.5	-40%	8.3	9%	12.9	0%	5.8	Deteriorated	-1.7	Improved	-31%	Weak	Improved	16.4	Improved
PMP	35	-8%	41	-11%	6.3	4%	6.0	-4%	4.7	-17%	1.9	Deteriorated	-0.2	Improved	-28%	Weak	Improved	46.7	Improved
TM	180	-16%	687	-23%	25.2	4%	315.9	-7%	66.6	5%	24.9	Deteriorated	11.8	Deteriorated	10%	Medium	Deteriorated	36.2	Improved

Source: EU Member States DCF data submissions. N.B. Estonia failed to provide any economic performance data for 2011 and is therefore excluded from the analysis.

## ***EU Baltic Sea fleet Net Profit***

**At national level**, the estimates suggest that the Latvian Baltic Sea fleet generated the highest net profit margin in 2011 (28%) followed by the Lithuanian fleet (10%) and the Polish fleet (10%). Four Member States Baltic Seas fleet were classed as having ‘weak’ profitability in 2011 (Denmark, Finland, Germany and Sweden), two were classed as having ‘medium’ profitability (Lithuania and Poland) and Latvia was classed as having ‘high’ profitability. More information on the ‘2011 profitability’ classification methodology can be found in Section 8.3. The net profit margins generated by three Member States Baltic Sea fleets were classed as ‘deteriorating’ in 2011 (Finland, Germany and Poland), while three were classed as ‘improving’ (Denmark, Lithuania and Sweden) and the Latvian fleet was classed as ‘stable’, see Table 7.1.

**At gear type level**, the estimates suggest that pelagic trawls generated the highest net profit margin in 2011 (10%). This gear type was classified as having ‘medium’ profitability in 2011, while the other six gear types were classed as having ‘weak’ profitability. The net profit margins generated by three gear types were classed as ‘deteriorating’ in 2011 (pelagic trawls, passive gear and gears using hooks) while the other four were classed as ‘improving’, see Table 7.2.

**At fleet segment level**, the estimates suggest that the Polish demersal trawl and seine 18-24m segment generated the highest net profit margin in 2011 (43%), followed by the Latvian drift and fixed nets 24-40m segment (42%) and then the Swedish demersal trawl 12-18m segment (38%). 16 fleet segments out of 33 were classed as having ‘weak’ profitability in 2011, 4 segments were classed as having ‘medium’ profitability and 13 segments was classed as having ‘high’ profitability. The net profit margins generated by 12 fleet segments were classed as ‘deteriorating’ in 2011, while 17 were classed as ‘improving’ and 4 were classed as ‘stable’, see Table 7.3.

## ***EU Baltic Sea fleet GVA per full-time equivalent (FTE)***

**At the national level**, the Danish Baltic Sea fleet is estimated to have generated the highest GVA per FTE in 2011 (€53.9 thousand), followed by the Swedish fleet (€53.7 thousand) and then the Finnish fleet (€38.9 thousand). The GVA per FTE generated by two national Baltic fleets were classed as ‘deteriorating’ in 2011 (Finland and Germany), while the other five were classed as ‘improving’ (Denmark, Sweden, Latvia, Lithuania and Poland), see Table 7.1.

**At gear type level**, demersal trawls and seines are estimated to have generated the highest GVA per FTE in 2011 (€49.2 thousand), followed by polyvalent mobile and passive gears (€46.7 thousand) and then pelagic trawls (€36.2 thousand). GVA per FTE for two out of the seven gear types operating in the Baltic Sea were classed as ‘deteriorating’ in 2011 (gears using hooks and passive gears), demersal trawls and seines were classified as ‘stable’ and the other four gear types were classed as ‘improving’, see Table 7.2.

**At fleet segment level**, the Swedish demersal trawls 12-18m segment was estimated to have generated the highest GVA per FTE in 2011 (€113.9 thousand), followed by the Swedish demersal trawls 10-12m segment (€113.6 thousand) and then the Swedish demersal trawls 24-40m segment (€108.6 thousand). GVA per FTE generated by 14 out of the 33 fleet segments operating in the Baltic Sea were classed as ‘deteriorating’ in 2011, 18 were classed as ‘improving’ and just one was classified as ‘stable’, see Table 7.3.

Table 7.3 EU Baltic Sea fleet economic performance by fleet segment in 2011

Baltic Sea			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)		
			2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	Trend	2011	Trend	Profit margin	Profitability	Development Trend	2011	Development Trend	
MS	Fleet segment																					
DEU	DTS	VL1012	16	0%	8	-11%	1.4	4%	1.3	-26%	1,426.8	21%	431.4	Improved	31.9	Improved	-11%	Weak	Improved	53.9	Improved	
DEU	DTS	VL1218	32	-9%	27	-7%	3.1	-13%	4.8	-18%	3,524.0	-3%	1,622.6	Deteriorated	269.0	Deteriorated	-18%	Weak	Deteriorated	59.5	Stable	
DEU	DTS	VL1824	12	-1%	28	-5%	1.6	-5%	5.1	-4%	3,980.1	22%	1,494.8	Deteriorated	53.6	Deteriorated	-25%	Weak	Deteriorated	52.6	Improved	
DEU	PG	VL0010	816	-2%	612	1%	63.5	0%	4.2	-13%	6,183.6	9%	2,118.3	Deteriorated	381.7	Deteriorated	-12%	Weak	Deteriorated	3.5	Deteriorated	
DEU	PG	VL1012	61	-7%	47	6%	6.1	1%	2.2	-25%	2,350.5	-14%	851.4	Deteriorated	-	28.3	Deteriorated	-21%	Weak	Deteriorated	18.1	Deteriorated
DNK	DTS	VL1218	40	-15%	72	-16%	5.0	-14%	18.5	-19%	11,060.6	-9%	6,073.3	Deteriorated	1,877.2	Improved	0%	Medium	Improved	83.8	Improved	
DNK	PGP	VL0010	526	-2%	108	-2%	18.2	1%	3.1	1%	8,289.1	0%	3,743.7	Improved	-1,714.2	Stable	-38%	Weak	Stable	34.7	Improved	
DNK	PGP	VL1012	41	-9%	31	-4%	4.7	-2%	1.5	-9%	2,451.7	-6%	805.2	Deteriorated	-	663.2	Improved	-46%	Weak	Improved	26.0	Deteriorated
DNK	PMP	VL1012	17	-14%	17	0%	1.4	-24%	0.8	-22%	1,504.1	-6%	527.8	Improved	-	304.6	Improved	-55%	Weak	Improved	31.6	Improved
DNK	PMP	VL1218	18	0%	24	-15%	1.9	9%	4.5	-5%	3,236.3	-20%	1,381.5	Stable	136.2	Improved	-15%	Weak	Stable	57.2	Improved	
FIN	PG	VL0010	1,548	2%	201	-4%	142.0	-1%	8.1	4%	11,217.1	2%	4,203.5	Deteriorated	708.4	Deteriorated	-5%	Weak	Deteriorated	20.9	Deteriorated	
FIN	PG	VL1012	41	-13%	7	-30%	0.8	-60%	2.0	-15%	851.1	-30%	328.0	Deteriorated	21.0	Deteriorated	-18%	Weak	Deteriorated	46.9	Deteriorated	
FIN	TM	VL1218	21	-5%	15	88%	1.2	27%	6.4	-30%	1,857.3	41%	822.0	Improved	310.0	Stable	9%	Medium	Improved	54.8	Deteriorated	
FIN	TM	VL1824	12	0%	18	38%	1.1	15%	14.9	-5%	2,126.3	7%	1,389.4	Improved	512.0	Stable	17%	High	Improved	77.2	Deteriorated	
FIN	TM	VL2440	21	24%	74	4%	2.9	18%	88.2	1%	19,250.8	34%	5,394.7	Stable	2,208.3	Improved	-4%	Weak	Deteriorated	72.9	Deteriorated	
LTU	DTS	VL2440	20	11%	139	13%	1.8	19%	3.1	-50%	3,621.0	-12%	620.3	Deteriorated	-	52.4	Deteriorated	-7%	Weak	Deteriorated	4.5	Deteriorated
LTU	PG	VL0010	60	-5%	19	4%	3.4	-12%	0.3	36%	227.1	44%	138.4	Improved	42.8	Stable	16%	High	Improved	7.5	Improved	
LVA	DFN	VL2440	10	-44%	31	-26%	1.4	-27%	1.7	-28%	2,647.3	-19%	1,493.7	Improved	1,212.3	Improved	42%	High	Improved	48.2	Improved	
LVA	PGP	VL0010	245	-64%	202	-39%	10.8	-68%	3.3	30%	1,265.9	0%	1,164.9	Improved	1,073.2	Improved	82%	High	Improved	5.8	Improved	
LVA	TM	VL1218	16	-6%	33	6%	2.7	4%	11.1	7%	3,488.4	23%	1,410.6	Improved	823.9	Improved	19%	High	Improved	42.7	Improved	
LVA	TM	VL2440	48	-2%	112	-6%	4.7	-4%	47.0	-20%	15,218.1	5%	6,626.4	Deteriorated	4,280.6	Deteriorated	24%	High	Deteriorated	59.2	Deteriorated	
POL	DFN	VL1218	15	-32%	73	-37%	1.7	-30%	1.4	-31%	1,654.9	-34%	1,050.8	Deteriorated	501.1	Stable	27%	High	Improved	14.4	Improved	
POL	DTS	VL1218	70	49%	236	67%	6.2	60%	10.7	48%	7,975.8	58%	3,937.2	Improved	2,176.4	Improved	22%	High	Improved	16.7	Deteriorated	
POL	DTS	VL1824	20	0%	58	2%	1.6	-9%	4.1	-24%	3,392.5	35%	2,156.9	Improved	1,554.1	Improved	43%	High	Improved	37.2	Improved	
POL	HOK	VL1218	27	-27%	49	-35%	1.1	-39%	0.1	-79%	791.0	-48%	-	860.9	Deteriorated	-1,165.2	Deteriorated	-166%	Weak	Deteriorated	-17.6	Deteriorated
POL	TM	VL2440	44	-4%	357	-13%	5.9	-6%	77.5	-3%	20,096.8	20%	7,410.0	Improved	2,572.2	Stable	8%	Medium	Deteriorated	20.8	Improved	
SWE	DFN	VL0010	394	-2%	182	-5%	27.7	-4%	1.7	-11%	7,112.7	49%	2,521.2	Improved	-2,260.0	Stable	-59%	Weak	Stable	13.9	Improved	
SWE	DFN	VL1012	98	-1%	58	2%	7.4	-1%	2.0	-7%	3,677.8	18%	961.9	Deteriorated	-	534.8	Deteriorated	-49%	Weak	Improved	16.5	Deteriorated
SWE	DFN	VL1218	17	7%	17	-10%	1.6	12%	0.8	-12%	1,512.6	30%	806.1	Improved	365.8	Improved	11%	High	Improved	48.8	Improved	
SWE	DTS	VL1012	20	0%	15	1%	1.2	0%	1.0	6%	2,448.7	-1%	1,690.9	Improved	1,115.5	Improved	30%	High	Improved	113.6	Improved	
SWE	DTS	VL1218	21	3%	31	9%	2.0	13%	5.7	-11%	5,770.1	10%	3,495.9	Improved	2,724.9	Improved	38%	High	Improved	113.9	Improved	
SWE	DTS	VL1824	21	3%	69	30%	3.2	26%	12.2	-5%	10,360.2	13%	3,931.7	Stable	2,311.3	Stable	13%	High	Stable	56.8	Deteriorated	
SWE	DTS	VL2440	22	-15%	120	-10%	4.1	-5%	85.2	-22%	28,288.7	-27%	13,010.1	Stable	8,846.3	Stable	3%	Medium	Deteriorated	108.6	Improved	

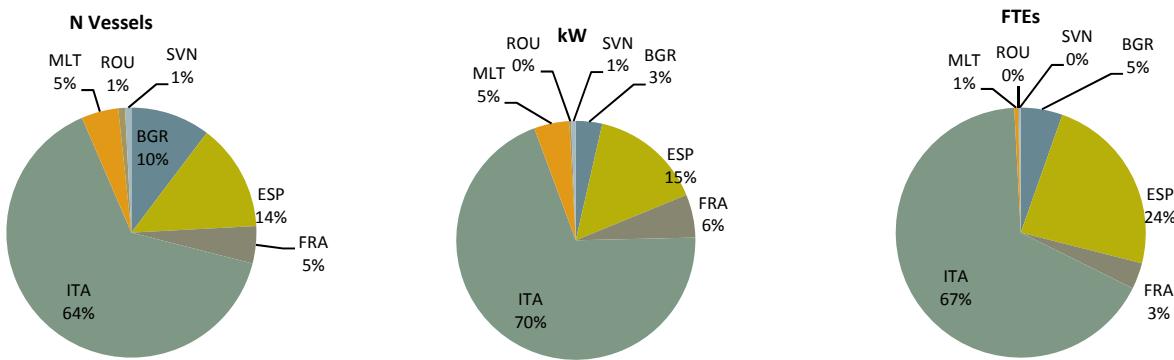
N.B. Estonia failed to provide any economic performance data for 2011 and is therefore excluded from the analysis. It should also be noted that the Swedish pelagic trawl vessels now fall under 'DTS' gear codes due to both the substantial drop in pelagic vessels numbers and the catch composition of the remaining vessels which also includes certain demersal species.

## 7.2. Mediterranean and Black Sea

### EU Mediterranean and Black Sea Fleet General Overview

EU Member States fishing in Mediterranean waters include Spain, France, Italy, Slovenia, Greece, Malta, Cyprus and Portugal. Bulgaria and Romania fish exclusively in the Black sea. For the purposes of this analysis, no data was available from Greece (they did not submit any data under the DCF in 2013). Spain did not submit any data on volume and value of landings by species or fishing effort for the years 2008-2011, although they did submit data on volumes landed for 2012. As a result of missing Greek and Spanish data (two major Mediterranean players in fisheries), Italian fleet production and effort represents the vast majority. Similar to previous years, a fully comprehensive and realistic analysis could therefore not be carried out.

The latest DCF data suggests that the EU fleet fishing in the Mediterranean and Black Sea consisted of just under 22,800 vessels, with a total gross tonnage (GT) of 279 thousand tonnes and total engine power of 1.75 million kilowatts in 2011 (all excluding Greece), see Figure 7.3. The Italian fleet accounted for around 64% of the total number of vessels, followed at a very long distance by the Spanish fleet (14%) and then the Bulgarian fleet (10%). In terms of kilowatts, the Italian fleet represents the majority (70%), followed by the Spanish fleet (15%) and then French fleet (6%). The Slovenian fleet is the oldest in the region. Employment data submitted suggests that the total Full-time equivalents (FTEs) employed on-board vessels operating in the Mediterranean and Black Sea was around 31,000 in 2011. The Italian fleet accounted for around 67% of the total FTEs, followed by the Spanish fleet (24%) and then the Bulgarian fleet (5%). Based on this information, a typical vessel operating in the region employed 1.4 FTEs in 2011.



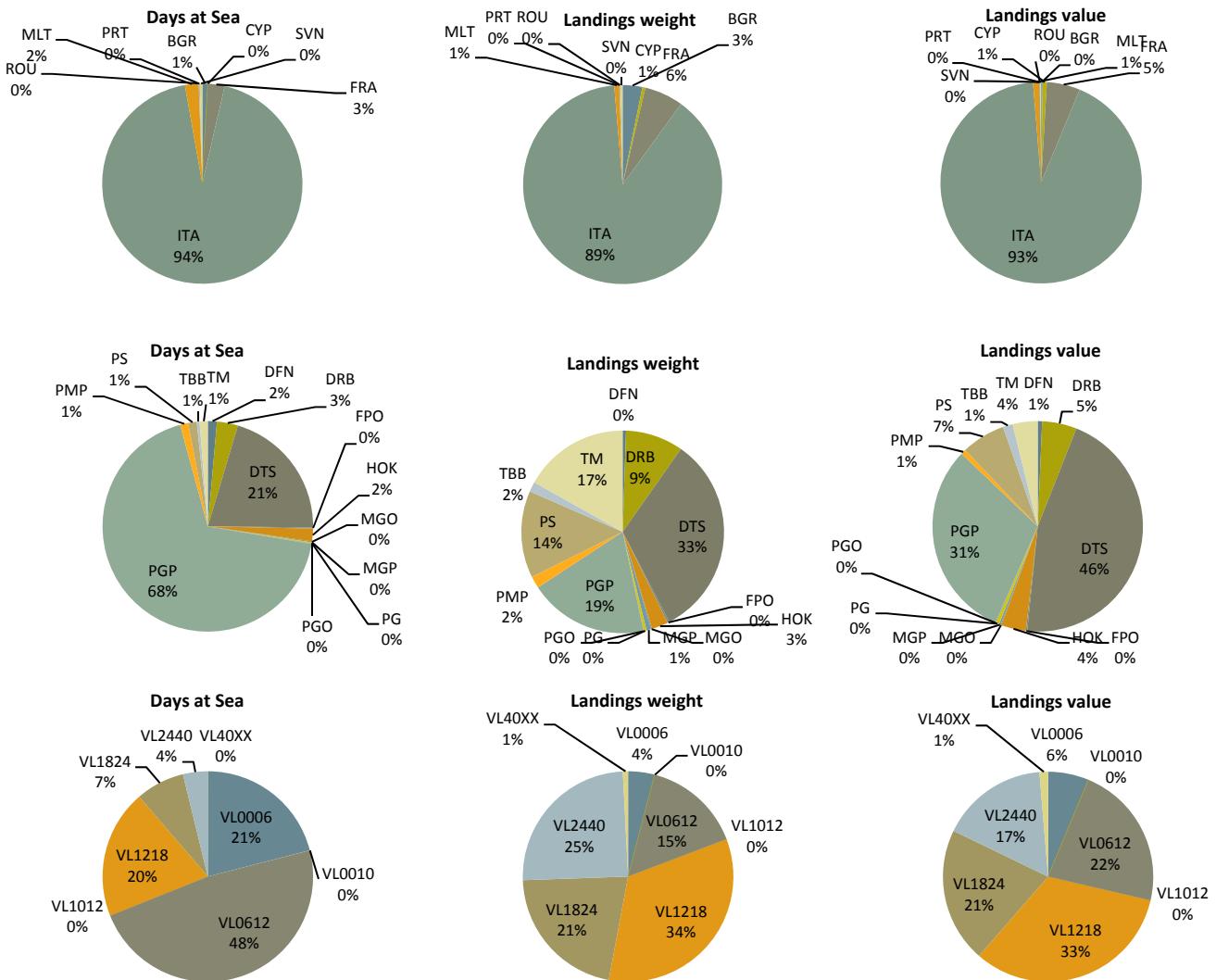
Source: EU Member States DCF data submissions

Figure 7.3 EU Mediterranean and Black Sea fleet capacity and employment 2011

The Mediterranean and Black Sea fleet (excluding Spain, Greece and Cyprus, all of who did not provide 2011 effort data) spent a total of around 1.87 million days at sea in 2011, an increase of around 3% compared to 2010. The weight and value of landings generated by the EU Mediterranean and Black Sea fleet in 2011 amounted to approximately 237 thousand tonnes and €1.18 billion respectively. It should again be emphasised that the lack of Spanish, French and Greek data does not allow for a very realistic analysis of the Euro-Mediterranean fishery fleet production. Of the countries who submitted data, the Italian fleet accounted for 94% of the total number of days, followed at some distance by the French and Maltese fleets (around 5% of the total both combined). Vessels predominantly using polyvalent passive gears accounted for 68% of the total number of days at sea in the Mediterranean and Black Sea area and 48% of the total days were recorded by vessels 6-12m in length. Total energy (fuel) consumption amounted to 1.3 billion litres in 2011, however because of the lack of data from Greece, Spain and Cyprus in reality the total should be significantly higher. Of the Member States who did provide data, the Italian fleet consumes, unsurprisingly, the largest amount of fuel (95%). The pie charts presented in Figure 7.4 indicate the proportion of days at sea, landings weight and value attributable to each North Sea Member State, gear type and length class in 2011.

In terms of landed weight, Italy (210 thousand tonnes), France (15 thousand tonnes) and Bulgaria (8 thousand tonnes) were again the leading countries of those who provided data (together accounting for 98% of the total volume of landings by the EU Mediterranean and Black Sea fleet excluding Spain, Greece and Cyprus). The data suggest that total weight of landings in the Mediterranean and Black sea decreased by around 5.5% between 2010 and 2011. Demersal trawls and seines generated by far the highest landed weight, with 33% of the total volume, followed by polyvalent passive gears (19%). Vessels over 12-18m in length generated 34% of the total volume landed, see Figure 7.4.

The Italian (€1.1 billion) and French (€63 million) fleets collectively accounted for around 98% of the total value of landings by the EU Mediterranean and Black Sea fleet excluding Spain, Greece and Cyprus. Almost half of the total value landed by the EU Mediterranean and Black Sea fleet excluding Spain, Greece and Cyprus was predominantly generated by demersal trawls and seines, while one third of the total value landed was generated by vessels 12-18m in length. The total value landed by the EU Mediterranean and Black Sea fleet excluding Spain, Greece and Cyprus remained relatively stable between 2010 and 2011, decreasing by just €4 million, see Figure 7.4.



Source: EU Member States DCF data submissions

Figure 7.4 EU Mediterranean and Black Sea fleet effort and landings in 2011

The main species for the EU Mediterranean and Black Sea fleet (excluding Spanish and Greek landings) in 2011 in terms of volume was European Anchovy (49 thousand tonnes, decrease of 15% from 2010), followed by Striped Venus (20 thousand tonnes, stable between 2010 and 2011) and then European Pilchard (16 thousand tonnes, decrease of 12% from 2010), see Figure 7.5 (left). European Pilchards are mainly landed in the Adriatic Sea by Italian dredgers.

In terms of value, European hake was the most important species landed by the EU Mediterranean and Black Sea fleet (excluding Spanish and Greek landings) in 2011 (€93 million, a 6% decrease from 2010), followed by European anchovy (€81 million, a 2% increase from 2010) and then deep water rose shrimp (€74 million, a 3% decrease from 2010), see Figure 7.5 (right). Once again, this data may not show the true picture since important landings from two significant contributors to landings (Spain and Greece) are missing. These species combined accounted for under 25% of the total value of landings by the EU Mediterranean and Black Sea fleet, indicating that the fleet highly diversified and not overly dependent on any one particular species.

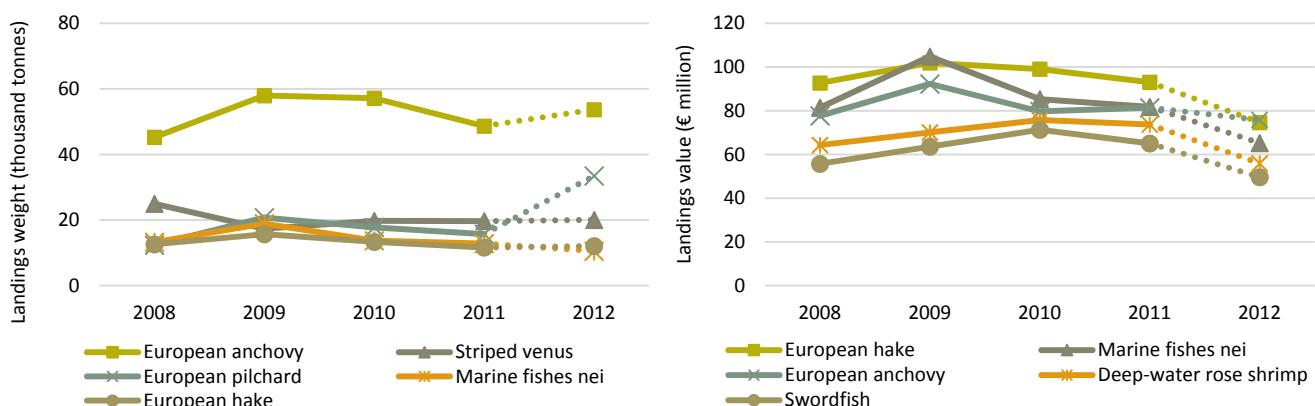


Figure 7.5 EU Mediterranean & Black Sea fleet volume and value of top 5 species landed: 2008-2012

Source: EU Member States DCF data submissions. 2012 data are preliminary.

### EU Mediterranean and Black Sea fleet economic performance

Under the DCF, economic data is requested at supra region level. As the Mediterranean and Black Sea region falls under one specific supra region (Area 37) it is possible to calculate profitability indicators for fleets that operate solely within the region. Table 7.4, Table 7.5 and Table 7.6 contain a summary of economic performance of the Mediterranean and Black Sea fleet by Member State, gear type and fleet segments respectively. According to the available data, there were seven EU Member States, thirteen main gear types and approximately seventy specific DCF fleet segments containing 10 or more vessels (Member State, gear type and length class combinations) operating in the Mediterranean and Black Sea in 2011.

### EU Mediterranean and Black Sea fleet Income

The total amount of income generated by the 'EU Mediterranean and Black Sea fleet' (excluding Greece) in 2011 was €1.5 billion, 99% of which was split between three Member States - Italy (€1.1 billion), Spain (€310 million) and France (€89 million), see Table 7.4. Three out of seven EU Member States fleet operating in the Mediterranean and Black Sea generated overall increases in income between 2010 and 2011. The Romanian Black Sea fleet generated the largest increase in income (278%), followed by the Maltese fleet (24%). The four Member States Mediterranean and Black Sea fleets who saw income decrease between 2010 and 2011 included France (-8%) and Spain (-4%). Greece failed to provide any economic performance data for 2011 and is therefore excluded from the analysis.

**At gear type level**, vessels predominantly using demersal trawls and seines generated the most income from the Mediterranean and Black Sea region in 2011 (€707 million, 5% decrease from 2010), followed by polyvalent passive gears (€364 million, 8% increase from 2010) and then purse seines (€130 million, 4% increase from 2010). Drift and fixed nets experienced the most significant decrease in income between 2010 and 2011 (-27%), while passive gears experienced the most significant increase in income during the same period (+160%), see Table 7.5.

**At fleet segment level**, the Italian polyvalent passive gear 6-12m segment generated the most income from the Mediterranean and Black Sea region in 2011 (€227 million, 5% increase from 2010), followed by the Italian demersal trawls and seines 12-18m segment (€205 million, 5% decrease from 2010) and then the Italian demersal trawls and seines 18-24m segment (€103 million, 6% decrease from 2010). The Spanish purse seiners 6-12m segment experienced the most significant increase in income between 2010 and 2011 (+921%), while the Bulgarian drift and fixed nets 6-12m segment experienced the most significant decrease in income during the same period (-97%), see Table 7.6.

### EU Mediterranean and Black Sea fleet Gross Value Added (GVA)

**At the national level**, the Italian Mediterranean and Black Sea fleet is estimated to have generated the highest GVA in 2011 (€574 million), followed by Spanish Mediterranean and Black Sea fleet (€143 million) and then the French Mediterranean and Black Sea fleet (€48 million). The levels of GVA generated by five out of seven Member States Mediterranean and Black Sea fleets were classed as 'deteriorating' in 2011, while two were classed as 'improving' (Malta and Slovenia), see Table 7.4. More information on the 'development trend' classification methodology can be found in Section 8.3.

**At gear type level**, vessels predominantly using demersal trawls and seines are estimated to have generated the highest GVA in 2011 ((€283 million, 5% decrease from 2010), followed by polyvalent passive gears (€227 million, 8% increase from 2010) and then purse seines (€79 million, 4% increase from 2010). The levels of GVA generated by seven out of thirteen

Mediterranean and Black Sea gear types were classed as ‘deteriorating’ in 2011, while three were classed as ‘stable’ and three were classed as ‘improving’, see Table 7.5.

**At fleet segment level**, the Italian polyvalent passive gear 6-12m segment was estimated to have generated the highest GVA in 2011 (€135 million), followed by the Italian demersal trawls and seines 12-18m segment (€94 million) and then the Italian demersal trawls and seines 18-24m segment (€77 million). The levels of GVA generated by 40 out of the 70 Mediterranean and Black Sea fleet segments were classed as ‘deteriorating’ in 2011, 3 classed as ‘stable’ and 19 were classed as ‘improving’, see Table 7.6.

### ***EU Mediterranean and Black Sea fleet Gross Profit***

**At the national level**, the Italian Mediterranean and Black Sea fleet is estimated to have generated the largest gross profit in 2011 (€296 million), followed by the Spanish Mediterranean and Black Sea fleet (€19 million) and then the French Mediterranean and Black Sea fleet (€14 million). The amount of gross profit generated by four Member States Mediterranean and Black Sea fleets were classed as ‘deteriorating’ in 2011, while the other three were classed as ‘improving’ (Malta, Slovenia and Spain) , see Table 7.4.

**At gear type level**, polyvalent passive gears are estimated to have generated the highest gross profit in 2011 (€123 million), followed by vessels predominantly using demersal trawls and seines (€113 million) and then purse seines (€27 million). The amount of gross profit generated by six out of the thirteen gear types operating in the Mediterranean and Black Sea were classed as ‘deteriorating’ in 2011, while the five gear types were classed as ‘improving’ and two were classed as stable, see Table 7.5.

**At fleet segment level**, the Italian polyvalent passive gear 6-12m segment was estimated to have generated the highest gross profit in 2011 (€74 million), followed by the Italian demersal trawls and seines 12-18m segment (€45 million) and then the Italian demersal trawls and seines 18-24m segment (€39 million). The amount of gross profit generated by 33 out of the 70 fleet segments operating in the Mediterranean and Black Sea were classed as ‘deteriorating’ in 2011, 25 were classed as ‘improving’ and 4 were classified as ‘stable’, see Table 7.6.

### ***EU Mediterranean and Black Sea fleet Net Profit***

**At national level**, the estimates suggest that the Italian fleet generated the highest net profit margin in 2011 (7.5%). In fact the Italian fleet was the only EU Member State to generate an overall net profit from Mediterranean and Black Sea fisheries in 2011 according to the data submitted. The Spanish Mediterranean fleet made a net loss of 4.1% and the Slovenian fleet made a net loss of 12.9%. The biggest loss was reported by the Bulgarian Black Sea fleet (-174%). Thus, five out of the seven EU Member States fleets operating in the Mediterranean and Black Sea in 2012 were categorised as having ‘weak’ profitability. Only Italy was classified as having ‘high’ profitability, while it was not possible to estimate net profit margin for the French Mediterranean fleet. More information on the ‘2011 profitability’ classification methodology can be found in Section 8.3. The net profit margins generated by three Member States North Sea fleets were classed as ‘deteriorating’ in 2011 (Bulgaria, Italy and Malta), while two were classed as ‘improving’ (Slovenia and Spain). It was not possible to categorise the development trend for the French and Romanian fleets, see Table 7.4.

**At gear type level**, the estimates suggest that dredges generated the highest net profit margin in 2011 (19.3%) followed by polyvalent passive gears (17.0%) and then hooks (0.5%). These gear types were classified as having ‘high’ profitability in 2011, while the seven gear types were classed as having ‘weak’ profitability. The net profit margins generated by eight gear types were classed as ‘deteriorating’ in 2011 while three were classed as ‘improving’ (including posts and traps and seines, see Table 7.5).

**At fleet segment level**, the estimates suggest that the Slovenian drift and fixed nets 6-12m segment generated the highest net profit margin in 2011 (47%), followed by Italian polyvalent passive gear segment (36%) and then Spanish hooks 6-12m segment (33%). 28 fleet segments out of 70 were classed as having ‘weak’ profitability in 2011, while 22 segments were classed as having ‘high’ profitability. It was not possible to assign a profitability classification to 20 fleet segments. The net profit margins generated by 25 fleet segments were classed as ‘deteriorating’ in 2011, while 15 were classed as ‘improving’ and 4 were classed as ‘stable’. It was not possible to assign development trend classifications to 26 fleet segments, see Table 7.6.

### ***EU Mediterranean and Black Sea fleet GVA per full-time equivalent (FTE)***

**At the national level**, the French Mediterranean fleet is estimated to have generated the highest GVA per FTE in 2011 (€46 thousand), followed by the Italian fleet (€28 thousand) and then the Maltese fleet (€23 thousand). The GVA per FTE

generated by four national Mediterranean and Black Sea fleets were classed as 'deteriorating' in 2011 (Bulgaria, France, Italy and Spain), while the other three were classed as 'improving' (Malta, Romania and Slovenia), see Table 7.4.

**At gear type level**, dredges are estimated to have generated the highest GVA per FTE in 2011 (€116 thousand), followed by beam trawls (€46 thousand) and then pots and traps (€43 thousand). GVA per FTE for 5 out of the 13 gear types operating in the Mediterranean and Black Sea were classed as 'deteriorating' in 2011, 4 were classified as 'stable' and the other 4 gear types were classed as 'improving', see Table 7.5.

**At fleet segment level**, the Italian purse seine over 40m segment was estimated to have generated the highest GVA per FTE in 2011 (€220 thousand), followed by the Italian pelagic trawl 12-18m segment (€123 thousand) and then the Italian dredge 12-18m segment (€116 thousand). GVA per FTE generated by 32 out of the 70 fleet segments operating in the Mediterranean and Black Sea were classed as 'deteriorating' in 2011, 26 were classed as 'improving' and 8 were classified as 'stable', see Table 7.6.

Table 7.4 EU Mediterranean and Black Sea fleet economic performance by Member State in 2011

Med. & Black Sea	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)		
	2011	%Δ	2011	%Δ	2011	%Δ	2011	%Δ	2011	%Δ	2011	Trend	2011	Trend	2011	Trend	Profit margin	Profitability	Development Trend	2011
Bulgaria	1,010	-27%	1668	-42%	16.1	-5%	7.6	-17%	2.7	-60%	-2.3	Deteriorated	-3.9	Deteriorated	-174.2%	Weak	Deteriorated	-1.4	Deteriorated	
France	1,094	16%	1043	2%	42.2	-5%	9.8	-19%	89.6	-8%	48.2	Deteriorated	13.9	Deteriorated	n/a	n/a	n/a	46.3	Deteriorated	
Italy	13,303	0%	20,599	-5%	1,748	5%	210.3	-6%	1,090	-1%	574.4	Deteriorated	295.5	Deteriorated	7.5%	High	Deteriorated	27.9	Deteriorated	
Malta	634	-25%	155	-40%	41.3	-37%	1.9	5%	11.4	24%	3.6	Improved	-3.9	Improved	-109.0%	Weak	Deteriorated	23.5	Improved	
Romania	43	16%	4	-20%	0.5	-38%	0.2	601%	0.2	278%	0.1	Deteriorated	0.02	Deteriorated	-5.5%	Weak	n/a	15.8	Improved	
Slovenia	84	-8%	77	-5%	7.6	-1%	0.7	-6%	2.7	11%	1.6	Improved	0.03	Improved	-12.9%	Weak	Improved	20.7	Improved	
Spain	2,784	-7%	7262	-14%	n/a	n/a	n/a	n/a	309.9	-4%	142.7	Deteriorated	19.0	Improved	-4.1%	Weak	Improved	19.7	Deteriorated	

Table 7.5 EU Mediterranean and Black Sea fleet economic performance by gear type in 2011

Med. & Black Sea	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)		
	2011	%Δ	2011	%Δ	2011	%Δ	2011	%Δ	2011	%Δ	2011	Trend	2011	Trend	2011	Trend	Profit margin	Profitability	Development Trend	2011
DFN	610	-57%	1,880	-39%	25.9	-20%	1.3	8%	28.0	-27%	20.0	Deteriorated	6.6	Deteriorated	-6.7%	Weak	Deteriorated	10.6	Deteriorated	
DRB	719	1%	392	-3%	60.1	-5%	21.8	0%	63.0	-1%	45.3	Deteriorated	24.9	Deteriorated	19.3%	High	Deteriorated	115.5	Stable	
DTS	3,410	-2%	9,968	-14%	375.6	-7%	72.0	-12%	707.3	-5%	282.6	Deteriorated	112.7	Deteriorated	-1.8%	Weak	Deteriorated	28.3	Deteriorated	
FPO	197	19%	98	51%	3.5	7%	0.6	66%	5.8	124%	4.2	Improved	1.3	Improved	-1.1%	Weak	Improved	42.7	Improved	
HOK	744	4%	1,650	-2%	36.1	37%	6.2	7%	82.5	11%	44.7	Stable	15.0	Improved	0.5%	High	Deteriorated	27.1	Stable	
MGO	56	51%	52	21%	2.2	134%	0.4	-4%	2.2	39%	1.3	Improved	-0.09	Deteriorated	-48.8%	Weak	Deteriorated	24.1	Deteriorated	
MGP	8	-27%	14	-67%	1.0	-48%	1.8	-21%	4.1	-25%	1.8	n/a	0.39	n/a	n/a	n/a	n/a	130.1	Improved	
PG	41	14%	2	-56%	0.4	-53%	0.1	-8%	0.1	160%	0.03	Improved	0.007	Improved	1.1%	High	n/a	11.9	Improved	
PGO	131	-8%	88	-4%	1.7	-24%	0.1	-21%	3.3	-28%	2.6	Deteriorated	0.87	Improved	n/a	n/a	n/a	29.8	Stable	
PGP	9,809	0%	11,376	2%	1,271.3	7%	45.0	8%	363.6	8%	227.2	Stable	122.5	Stable	17.0%	High	Deteriorated	20.0	Stable	
PMP	2,413	10%	2,167	-8%	22.7	-16%	4.3	-27%	55.1	-24%	32.5	Stable	-2.2	Improved	-11.3%	Weak	Improved	15.0	Deteriorated	
PS	554	3%	2,473	-21%	24.3	11%	33.2	5%	129.6	4%	78.7	Deteriorated	26.7	Stable	0.2%	High	Improved	31.8	Improved	
TBB	71	-2%	174	-42%	8.2	-21%	3.7	0%	17.4	-11%	7.9	Deteriorated	3.6	Deteriorated	-4.7%	Weak	Deteriorated	45.6	Improved	
TM	188	-9%	474	-25%	23.2	-14%	39.9	-21%	44.9	-10%	19.6	Deteriorated	8.3	Deteriorated	-1.3%	Weak	Deteriorated	41.3	Deteriorated	

Table 7.6 EU Mediterranean and Black Sea fleet economic performance by fleet segment in 2011

Mediterranean & Black Sea			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)			
			MS	Fleet segment	2011	%Δ	2010	2011	%Δ	2010	2011	%Δ	2010	2011	%Δ	2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend
BGR	DFN	VL0612	43	-95%	1423	-45%	n/a	n/a	0.1	-2%	0.2	-97%	-	999	Deteriorated	-	1,883	Deteriorated	-43.7%	Weak	Deteriorated	-0.7	Deteriorated
BGR	PMP	VL1218	43	-60%	193	-11%	0.8	-43%	1.2	-40%	0.2	-90%	-	2,245	Deteriorated	-	2,697	Deteriorated	#####	Weak	Deteriorated	-11.6	Deteriorated
BGR	TM	VL1824	16	-41%	52	-25%	2.6	16%	3.5	-7%	1.6	314%	954	Improved	652	Improved	n/a	n/a	n/a	18.3	Improved		
ESP	DTS	VL0612	25	-4%	35	-28%	n/a	n/a	n/a	n/a	1.7	-9%	1,015	Deteriorated	316	Improved	n/a	n/a	n/a	28.9	Improved		
ESP	DTS	VL1218	173	-5%	565	-2%	n/a	n/a	n/a	n/a	22.3	-36%	8,310	Deteriorated	23	Deteriorated	-7.8%	Weak	Deteriorated	14.7	Deteriorated		
ESP	DTS	VL1824	376	-8%	1507	-19%	n/a	n/a	n/a	n/a	86.0	15%	35,187	Deteriorated	9,306	Improved	-3.3%	Weak	Improved	23.4	Improved		
ESP	DTS	VL2440	163	-5%	699	-17%	n/a	n/a	n/a	n/a	57.6	-2%	11,606	Deteriorated	-	2,866	Deteriorated	-16.1%	Weak	Deteriorated	16.6	Deteriorated	
ESP	HOK	VL0612	193	12%	401	-17%	n/a	n/a	n/a	n/a	14.8	4%	11,738	Improved	5,597	Improved	32.7%	High	Improved	29.3	Improved		
ESP	HOK	VL1218	102	-14%	329	44%	n/a	n/a	n/a	n/a	9.9	89%	3,330	Deteriorated	-	1,106	Improved	-48.6%	Weak	n/a	10.1	Deteriorated	
ESP	HOK	VL1824	34	48%	186	82%	n/a	n/a	n/a	n/a	11.5	119%	5,552	Improved	1,456	Improved	4.5%	High	Improved	29.8	Improved		
ESP	PGP	VL0612	13	n/a	23	n/a	n/a	n/a	n/a	0.5	n/a	317	n/a	-	61	n/a	n/a	n/a	n/a	n/a	13.6	n/a	
ESP	PGP	VL1218	15	n/a	55	n/a	n/a	n/a	n/a	1.4	n/a	877	n/a	128	n/a	n/a	n/a	Weak	n/a	15.8	n/a		
ESP	PMP	VL0006	190	-21%	34	n/a	n/a	n/a	n/a	0.4	n/a	272	n/a	42	n/a	n/a	n/a	Weak	n/a	7.9	Deteriorated		
ESP	PMP	VL0612	1,144	-9%	1582	-5%	n/a	n/a	n/a	n/a	37.4	-21%	25,493	Stable	-	2,474	Deteriorated	-9.8%	Weak	Deteriorated	16.1	Deteriorated	
ESP	PMP	VL1218	108	3%	241	-10%	n/a	n/a	n/a	n/a	8.8	-42%	5,024	Improved	1,484	Improved	6.1%	High	Improved	20.8	Improved		
ESP	PS	VL0612	22	-21%	90	178%	n/a	n/a	n/a	n/a	2.7	921%	1,942	Improved	419	Improved	n/a	n/a	n/a	21.6	Improved		
ESP	PS	VL1218	100	-8%	880	21%	n/a	n/a	n/a	n/a	20.4	-3%	13,471	Deteriorated	2,518	Stable	9.7%	High	Improved	15.3	Deteriorated		
ESP	PS	VL1824	100	-2%	380	-72%	n/a	n/a	n/a	n/a	15.8	-40%	7,412	Deteriorated	1,470	Deteriorated	1.3%	High	Improved	19.5	Stable		
ESP	PS	VL2440	26	0%	254	-2%	n/a	n/a	n/a	n/a	18.8	34%	11,198	Improved	2,779	Improved	7.4%	High	Improved	44.2	Deteriorated		
FRA	DFN	VL0006	79	7%	43	-10%	2.4	26%	0.2	32%	2.8	28%	2,216	Improved	827	Improved	n/a	n/a	n/a	51.5	Improved		
FRA	DFN	VL0612	411	1%	360	1%	17.3	-3%	0.9	8%	23.5	-21%	17,706	Deteriorated	7,327	Deteriorated	n/a	n/a	n/a	49.2	Stable		
FRA	DFN	VL1218	10	-23%	11	-31%	0.5	92%	0.0	-15%	0.4	-47%	205	Deteriorated	40	Deteriorated	n/a	n/a	n/a	18.6	Deteriorated		

Table 7.6 EU Mediterranean and Black Sea fleet economic performance by fleet segment in 2011 continued

Mediterranean & Black Sea			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)	
			2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	Profit margin	Profitability	Development Trend	2011	Development Trend
MS	Fleet segment																				
FRA	DRB	VL0612	11	-8%	5	4%	0.2	-34%	0.0	-25%	0.3	-26%	211	Deteriorated	62	Stable	n/a	n/a	n/a	42.1	Deteriorated
FRA	DTS	VL1824	30	-12%	80	-38%	5.3	-15%	2.4	41%	11.6	-17%	4,326	Deteriorated	984	Deteriorated	n/a	n/a	n/a	54.1	Deteriorated
FRA	DTS	VL2440	42	2%	140	-15%	n/a	n/a	n/a	n/a	20.0	-5%	4,273	Deteriorated	733	Deteriorated	n/a	n/a	n/a	30.5	Deteriorated
FRA	FPO	VL0006	80	8%	51	6%	2.3	-3%	0.2	20%	2.6	55%	2,111	Improved	746	Improved	n/a	n/a	n/a	41.4	Improved
FRA	FPO	VL0612	37	12%	47	176%	1.0	2%	0.2	48%	3.1	245%	2,079	Improved	626	Improved	n/a	n/a	n/a	44.2	Improved
FRA	HOK	VL0612	40	n/a	23	n/a	1.9	n/a	0.1	n/a	2.4	n/a	1,704	n/a	911	n/a	n/a	n/a	n/a	74.1	Improved
FRA	MGO	VL0612	13	-7%	16	-3%	0.6	46%	0.1	52%	0.7	-16%	548	Deteriorated	107	Deteriorated	n/a	n/a	n/a	34.3	Deteriorated
FRA	PGO	VL0006	61	-10%	36	-10%	0.6	-35%	0.1	-9%	1.5	-33%	1,252	Deteriorated	442	Improved	n/a	n/a	n/a	34.8	Stable
FRA	PGO	VL0612	70	-5%	52	0%	1.1	-16%	0.0	-39%	1.8	-22%	1,372	Deteriorated	430	Improved	n/a	n/a	n/a	26.4	Deteriorated
FRA	PGP	VL0006	51	-12%	38	6%	1.8	-2%	0.2	112%	2.1	49%	1,556	Improved	485	Improved	n/a	n/a	n/a	41.0	Improved
FRA	PGP	VL0612	76	n/a	64	n/a	3.3	n/a	0.3	n/a	3.4	n/a	2,338	n/a	709	n/a	n/a	n/a	n/a	36.5	Improved
FRA	PMP	VL0612	18	n/a	10	n/a	0.8	n/a	0.1	n/a	0.9	n/a	605	n/a	231	n/a	n/a	n/a	n/a	60.5	Improved
FRA	PS	VL0612	13	-19%	26	-21%	0.9	19%	0.3	-26%	1.4	-18%	974	Deteriorated	269	Improved	n/a	n/a	n/a	37.5	Deteriorated
ITA	DRB	VL1218	708	1%	387	-3%	59.9	-4%	21.8	0%	62.6	-1%	45,083	Deteriorated	24,801	Deteriorated	19.3%	High	Deteriorated	116.5	Stable
ITA	DTS	VL0612	178	3%	157	-37%	18.0	-14%	1.6	-27%	10.7	-22%	4,198	Deteriorated	1,867	Deteriorated	3.4%	High	Deteriorated	26.7	Deteriorated
ITA	DTS	VL1218	1,424	2%	3038	-10%	200.1	-2%	30.0	-5%	205.1	-5%	93,744	Deteriorated	45,158	Deteriorated	9.8%	High	Deteriorated	30.9	Deteriorated
ITA	DTS	VL1824	731	-1%	2369	-11%	111.0	-3%	26.1	-9%	183.4	-6%	76,756	Deteriorated	38,892	Deteriorated	-2.2%	Weak	Deteriorated	32.4	Deteriorated
ITA	DTS	VL2440	233	-15%	1353	-18%	38.4	-16%	11.5	-11%	105.8	-6%	42,501	Deteriorated	19,751	Deteriorated	-12.0%	Weak	Improved	31.4	Improved
ITA	HOK	VL1218	142	13%	364	-12%	15.7	6%	2.6	-6%	22.6	-9%	12,989	Deteriorated	6,320	Deteriorated	13.1%	High	Deteriorated	35.7	Stable
ITA	HOK	VL1824	48	-5%	242	-9%	7.8	-8%	2.7	13%	16.5	-12%	8,100	Deteriorated	4,057	Deteriorated	3.4%	High	Deteriorated	33.5	Deteriorated
ITA	PGP	VL0006	2,821	-1%	2592	1%	355.7	17%	8.3	19%	68.5	16%	48,903	Improved	26,974	Improved	36.2%	High	Improved	18.9	Improved
ITA	PGP	VL0612	6,012	1%	7384	0%	817.3	7%	28.1	6%	226.8	5%	135,408	Deteriorated	74,137	Stable	14.7%	High	Deteriorated	18.3	Deteriorated

Table 7.6 EU Mediterranean and Black Sea fleet economic performance by fleet segment in 2011 continued

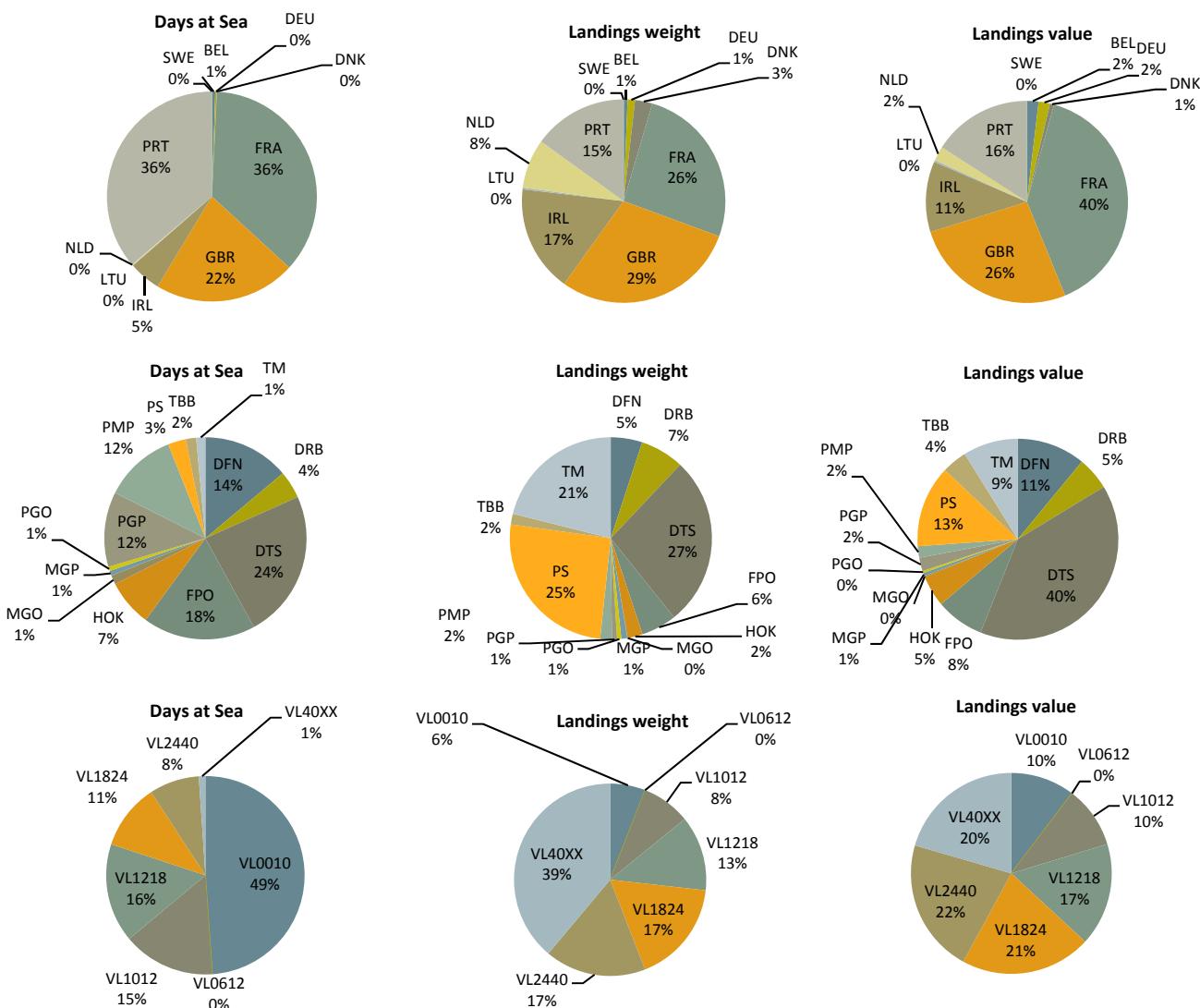
Mediterranean & Black Sea			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)			
			MS	Fleet segment	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend		
ITA	PGP	VL1218	448	-8%	1213	9%	66.0	0%	7.6	-2%	58.6	-3%	36,407.2	Stable	21,342.7	Stable	19.3%	High	Stable	30.0	Deteriorated		
ITA	PMP	VL0612	42	14%	20	-67%	4.9	21%	0.2	1%	2.0	8%	1,173.0	Deteriorated	550.7	Deteriorated	18.0%	High	Deteriorated	58.7	Improved		
ITA	PMP	VL1218	37	-29%	75	-34%	4.6	-17%	0.5	-14%	4.1	-15%	1,981.3	Deteriorated	1,090.0	Deteriorated	15.2%	High	Stable	26.4	Stable		
ITA	PS	VL1218	132	5%	331	15%	12.8	5%	9.1	29%	22.6	28%	13,125.0	Improved	5,745.3	Improved	18.4%	High	Improved	39.7	Improved		
ITA	PS	VL1824	47	1%	161	30%	3.6	10%	8.6	-2%	15.3	15%	10,858.1	Stable	5,047.9	Deteriorated	19.3%	High	Deteriorated	67.4	Deteriorated		
ITA	PS	VL2440	64	9%	307	1%	5.4	6%	11.4	-15%	19.6	15%	12,035.6	Deteriorated	6,033.8	Deteriorated	-5.3%	Weak	Improved	39.2	Deteriorated		
ITA	PS	VL40XX	17	n/a	21	n/a	0.3	n/a	0.9	n/a	6.2	n/a	4,621.6	n/a	2,113.0	n/a	n/a	Weak	n/a	220.1	Deteriorated		
ITA	TBB	VL1218	12	0%	20	-45%	0.9	-32%	0.3	-41%	1.2	-30%	465.5	Deteriorated	190.5	Deteriorated	-9.8%	Weak	Deteriorated	23.3	Stable		
ITA	TBB	VL1824	27	4%	27	-74%	3.5	-10%	0.8	-4%	6.0	10%	1,793.2	Deteriorated	397.5	Deteriorated	-14.5%	Weak	Deteriorated	66.4	Improved		
ITA	TBB	VL2440	32	-7%	127	-21%	3.8	-26%	2.7	9%	10.3	-17%	5,669.0	Deteriorated	3,061.5	Deteriorated	1.1%	High	Deteriorated	44.6	Deteriorated		
ITA	TM	VL1218	26	-31%	21	-74%	3.1	-47%	5.7	-47%	5.1	-40%	2,580.1	Deteriorated	1,015.9	Deteriorated	6.5%	High	Deteriorated	122.9	Improved		
ITA	TM	VL1824	44	23%	120	-7%	5.2	-15%	8.6	-27%	8.3	-27%	3,329.3	Deteriorated	1,534.8	Deteriorated	-4.4%	Weak	Deteriorated	27.7	Deteriorated		
ITA	TM	VL2440	77	5%	270	-20%	10.6	-10%	21.3	-8%	29.2	1%	12,679.0	Deteriorated	5,458.1	Deteriorated	-0.9%	Weak	Deteriorated	47.0	Stable		
MLT	HOK	VL0006	34	-3%	n/a	n/a	1.3	268%	0.0	67%	0.1	79%	-	12.9	Deteriorated	-	188.2	Improved	-582.7%	Weak	Improved	n/a	n/a
MLT	HOK	VL0612	101	80%	35	62%	6.0	481%	0.4	176%	2.0	133%	813.5	Improved	-	1,215.9	Deteriorated	-252.7%	Weak	Deteriorated	23.4	Improved	
MLT	HOK	VL1218	11	-45%	41	3%	0.7	-24%	0.1	-38%	0.8	-13%	287.1	Deteriorated	-	234.2	Deteriorated	-75.0%	Weak	Stable	7.0	Deteriorated	
MLT	HOK	VL1824	16	7%	12	-79%	1.1	18%	0.2	-5%	1.4	13%	272.1	Deteriorated	-	394.3	Deteriorated	-182.9%	Weak	Deteriorated	23.0	Improved	
MLT	MGO	VL0612	29	142%	17	70%	1.0	406%	0.1	24%	0.5	120%	103.5	Improved	-	378.2	Deteriorated	-316.9%	Weak	Deteriorated	6.0	Deteriorated	
MLT	MGO	VL1218	10	11%	13	n/a	0.3	13%	0.1	-48%	0.5	n/a	252.3	n/a	-	99.0	n/a	Weak	n/a	18.9	Deteriorated		
MLT	PGP	VL0006	216	-33%	n/a	n/a	19.8	-38%	0.2	24%	1.2	38%	918.8	Improved	-	176.6	Improved	-65.3%	Weak	Improved	n/a	n/a	
MLT	PGP	VL0612	153	-15%	3	-63%	7.2	-59%	0.2	13%	0.9	-19%	321.6	Improved	-	1,038.1	Improved	-186.8%	Weak	Deteriorated	96.6	Improved	
MLT	PMP	VL0612	13	-90%	2	-94%	1.4	-86%	0.0	-85%	0.2	-81%	16.1	Deteriorated	-	449.8	Improved	-59.1%	Weak	Improved	7.1	Deteriorated	
ROU	PG	VL0006	41	14%	2	-56%	0.4	-53%	0.0	47%	0.1	45%	28.2	Improved	-	7.5	Improved	2.9%	High	n/a	11.9	Improved	
SVN	DFN	VL0006	27	-10%	16	-8%	2.2	5%	0.0	17%	0.1	-22%	18.1	Deteriorated	-	207.7	Deteriorated	-208.3%	Weak	Deteriorated	1.1	Deteriorated	
SVN	DFN	VL0612	35	-5%	26	-18%	3.5	8%	0.0	-2%	1.0	34%	837.4	Improved	-	476.3	Improved	47.1%	High	Improved	32.6	Improved	
SVN	DTS	VL1218	16	-11%	15	-3%	1.2	-23%	0.1	1%	0.7	10%	320.1	Improved	-	74.4	Improved	-28.9%	Weak	Stable	21.4	Improved	

### 7.3. North Atlantic

## *EU North Atlantic fleet general overview*

The North Atlantic covers ICES subdivisions V, VI, VII (except VIId) and VIII, IX, X, XII, as well as NAFO areas (area 21). Fisheries in the North Atlantic are targeted by vessels from 10 different EU countries: Belgium, Denmark, France, Germany, Ireland, Lithuania, Portugal, Spain, The Netherlands and the United Kingdom. Data on effort, landings volume and value data by species are not available for the Spanish fleet and therefore the Spanish fleet has been excluded from this analysis.

The latest DCF data suggests that the EU North Atlantic fleet spent a total of around 993 thousand days at sea in 2011, a decrease of around 2% compared to 2010. The weight and value of landings generated by the EU North Atlantic fleet in 2011 amounted to approximately one million tonnes and €1.7 billion respectively. The Portuguese, French and UK North Atlantic fleets together accounted for around 94% of the total days at sea in the region. Vessels predominantly using demersal trawls and seines accounted for 24% of the total number of days at sea in the North Atlantic area and almost 50% of the total days were recorded by vessels under 10m in length. It should be noted that days at sea figures for Ireland are only for the over 10m fleet. The pie charts presented in Figure 7.6 indicate the proportion of days at sea, landings weight and value attributable to each Member State's fleet operating in the North Atlantic, as well as gear type and length class in 2011.



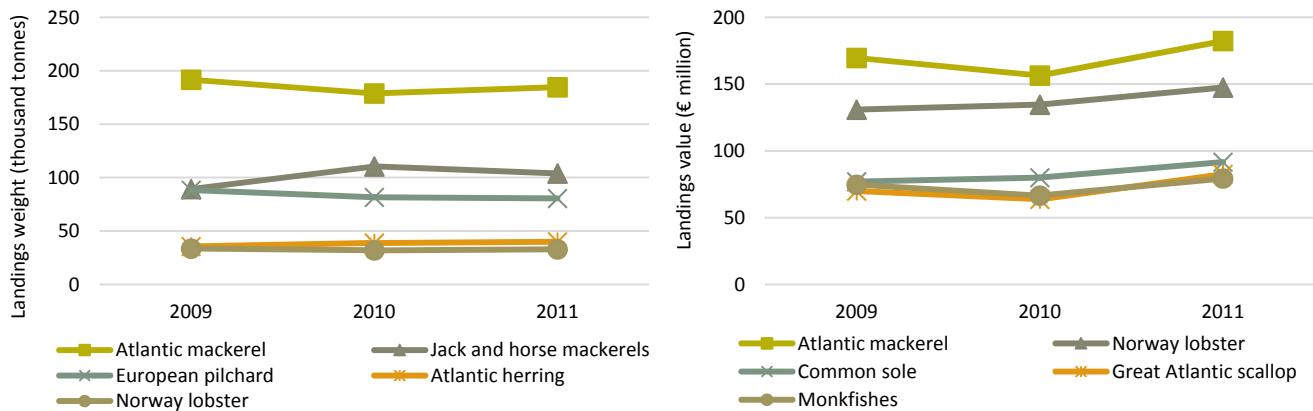
Source: EU Member States DCF data submissions

Figure 7.6 EU North Atlantic fleet effort and landings in 2011

In terms of landed weight, the UK (301 thousand tonnes), the French (268 thousand tonnes) and the Irish (174 thousand tonnes) were the leading national fleets (together accounting for 72% of the total volume of landings by the EU North Atlantic fleet) followed by the Portuguese, the Dutch and the Danish fleets. The data suggest that total weight of landings

achieved by the EU North Atlantic fleet decreased by around 9% between 2010 and 2011. The pelagic fleet (for the purposes of this analysis the pelagic fleet is both PS and TM codes in Figure 7.7) generated by far the highest landed weight, with 46% of the total volume landed, followed by demersal trawls and seines (27%). Vessels over 40m in length generated 39% of the total volume landed.

The French (€663 million), UK (€443 million) and Portuguese (€267 million) fleets collectively accounted for around 82% of the total value of landings by the EU North Atlantic fleet in 2011, followed by the Irish, Dutch and Belgian fleets. 40% of the total value landed by the EU North Atlantic fleet was predominantly generated by demersal trawls and seines. The total value landed by the EU North Atlantic fleet increased approximately 10% between 2010 and 2011. Once again the Irish data exclude landings data for vessels under 10m as these vessels do not use logbooks.



Source: EU Member States DCF data submissions. 2012 data are preliminary.

Figure 7.7 EU North Atlantic fleet weight and value landed of top 5 species: 2008-2012

At the time of writing 2012 landings data was not available for France or Ireland, while French data was also not available for 2008, and therefore time series landings by species is restricted to the period 2009-2011 only. The main species for the EU North Atlantic fleet in 2011 in terms of volume landed was mackerel (185 thousand tonnes, 3% increase from 2010), followed by jack and horse mackerel (104 thousand tonnes, 6% decrease from 2010) and pilchards (80 thousand tonnes, 1% decrease). Landings volumes of the main species targeted were generally stable from 2010 to 2011; see Figure 7.7 (left). Boarfish landings had become the second most important species landed in terms of volume in the North Atlantic in 2010 (138 thousand tonnes) due to a significant increase in the Irish total volume of Boarfish landings by over 66 thousand tonnes. These landings reduced by 63 thousand tonnes in 2011 however and thus dropped out of the top 6 species landed. In terms of landed value, mackerel was the most important species in 2011 (€182 million, a 17% increase from 2010), followed by Norway Lobster (€147 million, a 10% increase from 2010) and then sole (€91 million, a 15% increase from 2010), see Figure 7.7 (right). The landed value of most major species appears to have increased significantly, in particular scallops which increased 30%.

### ***EU North Atlantic fleet economic performance***

As DCF economic data is collected at fleet segment and supra region level, the economic data for fleet segments that operate in the North Atlantic does not always exclusively relate to the fishing activity of those vessels in the North Atlantic region. For example, a UK demersal trawl segment that spends half of its time in the North Atlantic and half of its time in the North Sea will only have economic performance data available at supra region level 27, which consists of the Baltic Sea, the North Sea and the North Atlantic. Therefore, to assess the economic performance of the EU fleet at each regional sea basin level, JRC and EWG 13-04 have produced estimates of the structure and economic performance of fleet segments operating in the North Atlantic Sea area by allocating vessels, FTEs, incomes and costs to the region based on the effort and landings data available at North Atlantic regional level. This is the first time the procedure has been carried out in the Annual Economic Report and therefore the exercise should be considered as an exploratory exercise with draft outputs rather than outputs that are intended to be factual statements that are considered robust enough to inform or influence policy decisions.

According to the available data and estimations carried out by STECF EWG 13-04 and the JRC, there were eight EU Member States, 13 main gear types and approximately 90 specific DCF fleet segments containing 10 or more vessels (Member State, gear type and length class combinations) operating in the North Atlantic in 2011.

The main segment operating in the North Atlantic in terms of volume is the UK purse seine/pelagic trawl over 40m fleet. The UK pelagic sector is reported under the gear code PS (Purse Seiners). This segment catches significant volumes and in 2011 generated around €139 million with landings of 147 thousand tonnes and is highly profitable. The Dutch over 40m pelagic

trawl vessels are less profitable and has deteriorated with a total landed value of €21.7 million in 2011, a decrease of 37% from 2010 resulting in negative GVA and profits. The purse seine fleet is notably important in Portugal.

Landings from both the 18-24m and 24-40m purse seiners come entirely from the North Atlantic. These two length categories land a total of 49.9 and 20.5 thousand tonnes respectively with a corresponding landed value of €33.2 million and €16.7 million. These segments are also important in terms of employment representing 985 and 500 FTEs respectively. The demersal trawl and seine vessels operating in the North Atlantic region are all important for the French, UK, Portuguese and Irish fleets, particularly the 18-24m and 24-40m length classes. The demersal 24-40m segments are significant for the French, UK and Portuguese fleets with landings values of around €52.1, €41.3 million and €46 million respectively.

### **EU North Atlantic fleet Income**

The total amount of income generated by the ‘North Atlantic fleet’ in 2011 was an estimated €1.7 billion, 86% of which was split between three Member States - the French (€706 million), UK (€454 million) and Portuguese (€339 million) fleets, see Table 7.7. Six out of the eight Member States fleet operating in the North Atlantic generated overall increases in income between 2010 and 2011. The German North Atlantic fleet generated the largest increase in income (36%), followed closely by the Portuguese North Atlantic fleet (34%). The two Member States North Atlantic fleets who saw income decrease between 2010 and 2011 were the Dutch (-34%) and Irish (-30%). Spain failed to provide any economic performance data for 2011 and is therefore excluded from the analysis.

**At gear type level,** vessels predominantly using demersal trawls and seines generated the most income from the North Atlantic region in 2011 (€690 million, 19% increase from 2010), followed pelagic trawls (€301 million) and then drift and fixed nets (€223 million, 17% increase from 2010). Fixed pots and trap vessels experienced the most significant decrease in income between 2010 and 2011 (-20%), while the pelagic trawl vessels experienced the most significant increase in income during the same period (Table 7.8).

**At fleet segment level,** the UK purse seine (pelagic trawl) over 40m fleet segment generated the most income from the North Atlantic region in 2011 (€139 million, 32% increase from 2010), followed by the French demersal trawl 18-24m segment (€113 million, 18% increase from 2010) and then the French demersal trawl and seine 12-18m segment (€82 million, 14% increase from 2010). According to the data the Irish dredge 10-12m segment experienced the most significant increase in income between 2010 and 2011 (1458%), while the Portuguese drift and fixed nets 0-10m segment experienced the most significant decrease in income during the same period (-58%), see Table 7.9.

### **EU North Atlantic fleet Gross Value Added (GVA)**

**At the national level,** the French North Atlantic fleet is estimated to have generated the highest GVA in 2011 (€373 million), followed by the Portuguese North Atlantic fleet (€219 million) and then the UK North Atlantic fleet (€177 million). The levels of GVA generated by two Member States North Atlantic fleets were classed as ‘deteriorating’ in 2011 (Irish and Dutch), while five were classed as ‘improving’ (UK, Portuguese, German, Belgian and Danish) and it was not possible to classify the development trend for the French North Atlantic fleet due to missing data for 2008, see Table 7.7. More information on the ‘development trend’ classification methodology can be found in Section 8.3.

**At gear type level,** demersal trawls and seines are estimated to have generated the highest GVA in 2011 (€297 million), followed by pelagic trawls and seines (€138 million) and then drift and fixed nets (€127 million). The level of GVA generated by all but one North Atlantic gear type was classed as ‘improving’, see Table 7.8.

**At fleet segment level,** the UK purse seine (pelagic trawl) over 40m segment was estimated to have generated the highest GVA in 2011 (€63 million), followed by the French demersal trawl 18-24m segment (€44 million) and then the French demersal trawl and seine 12-18m segment (€39 million). The levels of GVA generated by 18 out of the 90 North Atlantic fleet segments were classed as ‘deteriorating’ in 2011, 3 classed as ‘stable’ and 28 were classed as ‘improving’. It was not possible to classify the other 41 segments due to missing data, see Table 7.9.

### **EU North Atlantic fleet Gross Profit**

**At the national level,** the French North Atlantic fleet is estimated to have generated the largest gross profit in 2011 (€113 million), followed by the Portuguese North Atlantic fleet (€88 million) and then the UK North Atlantic fleet (€66 million). The amount of gross profit generated by the Dutch North Atlantic fleet was classed as ‘deteriorating’ in 2011, while the rest were classed as ‘improving’, see Table 7.7.

**At gear type level,** demersal trawls and seines are estimated to have generated the highest gross profit in 2011 (€103 million), followed by drift and fixed nets (€47 million) and then pelagic trawls and seines (€39 million). Similar to GVA, the level of gross profit generated by all but one North Atlantic gear type were classed as ‘improving’, see Table 7.8.

**At fleet segment level**, the UK purse seine (pelagic trawl) over 40m segment was estimated to have generated the highest gross profit in 2011 (€36 million), followed by the Portuguese demersal trawl and seine over 40m segment (€15 million) and then the French demersal trawl and seine 18-24m segment (€12 million). The amount of gross profit generated by 19 out of the 90 fleet segments operating in the North Atlantic were classed as ‘deteriorating’ in 2011, 28 were classed as ‘improving’ and 43 were unclassifiable due to missing data, see Table 7.9.

### *EU North Atlantic fleet Net Profit*

**At national level**, the estimates suggest that the Irish North Atlantic fleet generated the highest net profit margin in 2011 (13%) followed by the Portuguese North Atlantic fleet (10%) and the UK North Atlantic fleet (9%). Four Member States North Atlantic fleets were classed as having ‘medium’ profitability (UK, French, German and Belgian fleets) and the Irish and Portuguese fleets was classed as having ‘high’ profitability. More information on the ‘2011 profitability’ classification methodology can be found in Section 8.3. The net profit margins generated by all Member States North Atlantic fleets were classed as ‘improving’ in 2011 (although it was not possible to assess the status of the French fleet due to missing data), see Table 7.7.

**At gear type level**, the estimates suggest that purse seines generated the highest net profit margin in 2011 (21%), followed by dredges (19%) and then polyvalent passive gears (16%). These gear types were all classified as having ‘high’ profitability in 2011, along with three other static gear groupings. Tow gear groupings we classified as having ‘medium’ profitability (demersal trawls and seines and hooks), while the other five were classed as having ‘weak’ profitability. The net profit margins generated by three gear types were classed as ‘deteriorating’ in 2011 (pelagic trawls and polyvalent mobile and passive gears) while eight were classed as ‘improving’, see Table 7.8.

**At fleet segment level**, the estimates suggest that the Portuguese hooks 0-10m and Irish pots and traps segments both generated the highest net profit margin in 2011 (55%), followed by Irish dredges 10-12m segment (53%). 17 fleet segments out of 90 were classed as having ‘weak’ profitability in 2011, 22 segments were classed as having ‘medium’ profitability and 49 segments was classed as having ‘high’ profitability. Only two segments were not assigned a profitability classification due to missing data. The net profit margins generated by 18 fleet segments were classed as ‘deteriorating’ in 2011, while 27 were classed as ‘improving’ and 2 were classed as ‘stable’, see Table 7.9.

Table 7.7 EU North Atlantic fleet economic performance by Member State in 2011

North Atlantic	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)	
	%Δ		%Δ		%Δ		%Δ		%Δ		Development		Development		Profit margin	Profitability	Development	2011	Development
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	Trend	2011	Trend	2011	2010	2011	2011	Trend
Belgium	19	6%	113	11%	5.1	10%	6.4	28%	32.3	27%	14.9	Improved	5.1	Improved	6%	Medium	Improved	131.4	Improved
France	2,419	11%	4,529	-9%	357.9	8%	268.0	22%	706.4	20%	372.9	n/a	113.4	n/a	8%	Medium	n/a	82.3	n/a
Germany	10	15%	122	17%	2.1	19%	12.2	46%	30.8	36%	15.9	Improved	5.5	Improved	8%	Medium	Improved	130.4	Improved
Ireland	619	1%	1,728	-9%	48.8	-9%	174.1	-31%	146.8	-30%	64.2	Deteriorated	30.9	Improved	-1%	Weak	Deteriorated	37.1	Deteriorated
Portugal	4,726	-1%	15,770	14%	359.4	-1%	154.6	-9%	339.1	34%	218.9	Improved	88.4	Improved	10%	High	Improved	13.9	Stable
United Kingdom	2,373	0%	5,824	1%	216.7	-2%	301.4	8%	453.5	18%	176.9	Improved	66.1	Improved	9%	Medium	Improved	30.4	Improved

Table 7.8 EU North Atlantic fleet economic performance by gear type in 2011

North Atlantic	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)	
	%Δ		%Δ		%Δ		%Δ		%Δ		Development		Development		Profit margin	Profitability	Development	2011	Development
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	Trend	2011	Trend	2011	2010	2011	2011	Trend
DFN	1,662	-3%	4057	-10%	138.3	2%	52.2	13%	222.7	17%	126.8	Improved	46.7	Improved	13%	High	Improved	31.3	Improved
DRB	424	9%	917	-18%	44.2	10%	72.2	29%	75.9	-7%	44.3	Improved	19.9	Improved	19%	High	Improved	48.3	Improved
DTS	1,377	3%	5453	-7%	237.2	-1%	285.7	2%	689.6	19%	297.1	Improved	102.8	Improved	6%	Medium	Improved	54.5	Improved
FPO	1,837	-4%	3762	-6%	178.8	-4%	58.3	5%	141.2	-20%	77.8	Improved	29.3	Improved	13%	High	Improved	20.7	Improved
HOK	979	1%	1993	-6%	73.6	-12%	24.1	13%	100.0	19%	57.8	Improved	19.3	Improved	8%	Medium	Improved	29.0	Improved
MGO	150	n/a	82	n/a	14.6	n/a	0.5	n/a	12.4	n/a	8.1	n/a	2.9	n/a	-8%	Weak	n/a	98.4	n/a
MGP	37	-14%	57	-28%	7.7	88%	9.8	143%	9.2	53%	4.8	Improved	1.5	Improved	-2%	Weak	Deteriorated	84.5	Improved
PGO	118	n/a	122	n/a	6.7	n/a	7.1	n/a	7.6	n/a	5.8	n/a	1.9	n/a	15%	High	n/a	47.4	n/a
PGP	1,817	0%	3465	-11%	118.8	0%	8.3	3%	50.9	21%	35.8	Improved	15.5	Improved	16%	High	Improved	10.3	Improved
PMP	1,375	0%	4936	70%	115.3	-2%	19.2	-47%	70.2	44%	47.5	Improved	13.8	Improved	-2%	Weak	Deteriorated	9.6	Improved
PS	247	12%	2594	93%	27.8	22%	258.8	16%	223.4	87%	125.4	Improved	58.3	Improved	21%	High	Improved	48.3	Improved
TBB	73	-2%	348	-8%	15.9	5%	17.3	21%	61.4	19%	18.2	Improved	2.7	Improved	-3%	Weak	Improved	52.2	Improved
TM	78	-8%	499	-30%	13.0	-11%	211.8	-41%	78.2	-46%	12.6	Deteriorated	-19.7	Deteriorated	-63%	Weak	Deteriorated	25.3	Deteriorated

Table 7.9 EU North Atlantic fleet economic performance by Member State in 2011

North Atlantic			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)	
			MS	Fleet segment	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend
BEL	TBB	VL2440	15	6%	97	11%	4.2	11%	5.5	29%	28,644	26%	13,193	Improved	4,500	Improved	6%	Medium	Improved	135.8	Improved
FRA	DFN	VL0010	289	-8%	259	-15%	38.9	20%	3.2	7%	22,847	3%	13,192	n/a	2,990	n/a	5%	Medium	n/a	50.9	n/a
FRA	DFN	VL1012	113	-1%	259	-19%	17.8	-6%	6.6	6%	31,191	11%	19,785	n/a	6,510	n/a	14%	High	n/a	76.3	n/a
FRA	DFN	VL1218	67	-6%	213	-15%	12.7	-15%	6.0	0%	32,216	7%	18,854	n/a	5,111	n/a	10%	Medium	n/a	88.7	n/a
FRA	DFN	VL1824	38	2%	290	36%	8.4	1%	7.1	24%	32,006	43%	19,325	n/a	6,276	n/a	14%	High	n/a	66.7	n/a
FRA	DFN	VL2440	24	4%	276	-4%	4.8	-4%	12.0	28%	34,701	21%	20,877	n/a	8,690	n/a	18%	High	n/a	75.6	n/a
FRA	DRB	VL0010	73	5%	60	0%	6.1	17%	8.0	69%	6,870	5%	4,904	n/a	1,865	n/a	17%	High	n/a	81.3	n/a
FRA	DRB	VL1012	46	-11%	84	-16%	5.7	-1%	9.2	-10%	11,290	15%	6,239	n/a	2,129	n/a	10%	Medium	n/a	73.9	n/a
FRA	DRB	VL1218	19	-12%	63	-9%	3.4	-3%	5.7	14%	8,611	-8%	4,162	n/a	1,113	n/a	4%	Medium	n/a	66.0	n/a
FRA	DTS	VL0010	84	2%	65	-17%	12.2	-5%	1.2	32%	8,440	8%	3,940	n/a	617	n/a	-2%	Weak	n/a	60.9	n/a
FRA	DTS	VL1012	140	0%	213	-9%	22.6	8%	8.2	10%	34,368	8%	18,432	n/a	5,695	n/a	8%	Medium	n/a	86.5	n/a
FRA	DTS	VL1218	163	5%	362	-24%	34.7	2%	19.0	-4%	82,118	14%	39,215	n/a	10,231	n/a	6%	Medium	n/a	108.4	n/a
FRA	DTS	VL1824	125	3%	596	-8%	31.6	4%	39.1	20%	113,043	18%	43,972	n/a	11,987	n/a	2%	Medium	n/a	73.8	n/a
FRA	DTS	VL2440	34	-25%	148	-46%	13.4	3%	25.9	13%	52,108	17%	23,620	n/a	8,978	n/a	11%	High	n/a	159.9	n/a
FRA	FPO	VL0010	247	2%	291	1%	28.3	9%	6.6	16%	26,549	1%	16,392	n/a	5,092	n/a	13%	High	n/a	56.3	n/a
FRA	FPO	VL1012	53	0%	120	-11%	9.4	5%	8.7	55%	15,005	-5%	9,288	n/a	2,865	n/a	13%	High	n/a	77.3	n/a
FRA	FPO	VL1824	12	0%	52	-17%	2.4	4%	3.5	32%	7,732	37%	4,938	n/a	2,125	n/a	17%	High	n/a	95.4	n/a
FRA	HOK	VL0010	233	-6%	168	-30%	23.8	-32%	2.8	2%	24,688	14%	15,710	n/a	4,297	n/a	n/a	n/a	n/a	93.6	n/a
FRA	HOK	VL1012	43	-4%	69	-21%	7.2	4%	1.9	12%	9,121	2%	5,211	n/a	1,616	n/a	9%	Medium	n/a	75.6	n/a
FRA	MGO	VL0010	141	n/a	78	n/a	14.1	n/a	0.4	n/a	11,747	n/a	7,595	n/a	2,681	n/a	n/a	n/a	n/a	97.5	n/a
FRA	MGP	VL0010	14	-1%	11	-42%	4.0	174%	3.0	4%	886	-52%	304	n/a	-24	n/a	-21%	Weak	n/a	27.1	n/a
FRA	MGP	VL1012	15	-13%	24	-34%	2.2	-7%	4.6	305%	3,857	-4%	1,814	n/a	375	n/a	0%	Medium	n/a	76.4	n/a
FRA	PGO	VL0010	118	n/a	122	n/a	6.7	n/a	7.1	n/a	7,642	n/a	5,797	n/a	1,897	n/a	15%	High	n/a	47.4	n/a
FRA	PGP	VL0010	83	9%	94	11%	9.8	4%	0.9	39%	11,384	354%	6,993	n/a	2,016	n/a	13%	High	n/a	74.4	n/a
FRA	PMP	VL0010	55	-10%	60	-18%	5.7	-8%	2.9	-16%	5,967	-13%	3,804	n/a	1,334	n/a	14%	High	n/a	63.0	n/a
FRA	PMP	VL1012	68	-3%	118	-6%	10.6	8%	12.3	51%	13,284	-20%	8,006	n/a	2,485	n/a	10%	High	n/a	67.8	n/a
FRA	PS	VL1218	29	n/a	126	n/a	4.3	n/a	23.9	n/a	17,338	n/a	11,813	n/a	3,235	n/a	12%	High	n/a	93.8	n/a
FRA	TM	VL1218	11	-30%	27	-61%	2.3	-29%	3.2	-27%	7,686	-8%	3,682	n/a	1,154	n/a	7%	Medium	n/a	137.5	n/a
FRA	TM	VL1824	25	5%	36	-67%	5.5	13%	9.1	16%	19,181	6%	8,071	n/a	1,821	n/a	0%	Medium	n/a	224.0	n/a

Table 7.9 EU North Atlantic fleet economic performance by Member State in 2011 continued

North Atlantic			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)		
			2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend	
MS	Fleet segment																					
GBR	DFN	VL0010	213	13%	359	22%	9.8	16%	3.0	2%	5,487	27%	3,425	Improved	1,355	Improved	18%	High	Improved	9.5	Stable	
GBR	DFN	VL1012	11	-16%	28	-15%	1.0	-11%	1.3	71%	1,526	32%	819	Improved	330	Improved	18%	High	Improved	29.5	Improved	
GBR	DFN	VL1218	14	5%	52	10%	1.9	0%	2.5	85%	5,674	32%	2,342	Improved	463	Deteriorated	6%	Medium	Deteriorated	45.4	Improved	
GBR	DRB	VL0010	76	28%	153	31%	4.7	13%	3.5	17%	6,408	26%	4,101	Improved	1,956	Improved	26%	High	Improved	26.8	Stable	
GBR	DRB	VL1218	74	40%	195	17%	9.7	41%	14.6	71%	16,827	31%	10,045	Improved	5,037	Improved	23%	High	Improved	51.6	Improved	
GBR	DRB	VL1824	13	-2%	61	6%	2.3	-13%	15.6	53%	10,548	20%	6,963	Improved	3,916	Improved	34%	High	Improved	113.3	Improved	
GBR	DRB	VL2440	13	4%	91	35%	2.7	-1%	11.5	32%	10,972	-1%	5,654	Deteriorated	2,484	Deteriorated	18%	High	Deteriorated	61.8	Deteriorated	
GBR	DTS	VL0010	100	-1%	218	-3%	7.9	1%	2.1	-2%	5,858	6%	2,933	Deteriorated	1,073	Improved	11%	High	Improved	13.5	Improved	
GBR	DTS	VL1012	82	-5%	204	-14%	9.4	-10%	3.7	-4%	9,127	5%	4,142	Improved	1,652	Improved	14%	High	Improved	20.3	Improved	
GBR	DTS	VL1218	170	-7%	594	-10%	25.5	-9%	18.1	-7%	40,928	22%	16,166	Improved	5,733	Improved	10%	High	Improved	27.2	Improved	
GBR	DTS	VL1824	75	3%	403	6%	12.5	-1%	11.8	4%	30,259	30%	3,783	Improved	-	3,266	-	Weak	Stable	9.4	Improved	
GBR	DTS	VL2440	36	-3%	258	-4%	7.1	-6%	16.4	-10%	41,395	-1%	14,007	Improved	6,013	Improved	9%	Medium	Improved	54.2	Improved	
GBR	FPO	VL0010	836	-5%	1285	-5%	66.3	-4%	9.8	-6%	29,461	-8%	14,688	Deteriorated	4,926	Deteriorated	11%	High	Deteriorated	11.4	Deteriorated	
GBR	FPO	VL1012	110	-5%	292	-8%	15.5	-13%	5.0	-8%	12,112	-6%	5,202	Deteriorated	2,034	Deteriorated	12%	High	Deteriorated	17.8	Deteriorated	
GBR	FPO	VL1218	47	2%	202	9%	7.5	-6%	7.4	5%	12,683	8%	4,554	Stable	680	Deteriorated	1%	Medium	Deteriorated	22.5	Deteriorated	
GBR	FPO	VL1824	11	2%	82	26%	2.6	-5%	5.3	5%	7,826	7%	3,230	Improved	829	Deteriorated	4%	Medium	Deteriorated	39.5	Deteriorated	
GBR	HOK	VL0010	372	6%	619	12%	13.9	2%	1.8	0%	5,411	10%	1,692	Deteriorated	-	95	Deteriorated	-13%	Weak	Deteriorated	2.7	Deteriorated
GBR	HOK	VL2440	12	-6%	87	-2%	2.4	-7%	4.8	13%	11,653	12%	2,993	n/a	-	1,510	n/a	-14%	Weak	n/a	34.5	n/a
GBR	PGP	VL0010	34	-9%	69	4%	1.7	-2%	0.3	8%	758	22%	194	Deteriorated	-	76	Deteriorated	-19%	Weak	Improved	2.8	Deteriorated
GBR	PS	VL40XX	17	-14%	226	-20%	1.1	-17%	147.4	5%	139,431	32%	63,223	Improved	36,046	Improved	21%	High	Improved	279.5	Improved	
GBR	TBB	VL1824	14	16%	67	8%	3.4	12%	3.3	16%	11,487	30%	4,046	Improved	1,003	Improved	4%	Medium	Improved	60.5	Improved	
GBR	TBB	VL2440	24	21%	163	23%	5.0	19%	5.9	31%	20,031	42%	460	Improved	-	2,901	Improved	-20%	Weak	Stable	2.8	Improved
IRL	DFN	VL1012	239	5%	402	44%	0.6	-28%	0.2	-63%	20,116	155%	8,372	n/a	8,214	n/a	41%	High	n/a	20.8	n/a	
IRL	DFN	VL1824	13	-28%	32	-49%	1.7	-27%	2.2	33%	3,838	66%	2,163	Improved	1,244	Improved	26%	High	Improved	68.3	Improved	
IRL	DRB	VL1012	23	53%	64	-8%	1.3	32%	0.5	39%	1,600	1452%	1,034	Improved	943	n/a	53%	High	n/a	16.2	Improved	
IRL	DTs	VL1218	69	-10%	150	-17%	7.0	-21%	5.6	28%	10,934	64%	5,882	Improved	3,210	Improved	13%	High	Improved	39.3	Improved	
IRL	DTs	VL1824	64	-1%	431	1%	12.9	-6%	20.2	10%	45,976	47%	18,696	Improved	6,787	Improved	11%	High	Improved	43.4	Improved	
IRL	DTs	VL2440	40	17%	312	10%	8.5	1%	19.9	35%	38,229	38%	14,300	Improved	7,183	Improved	12%	High	Improved	45.8	Improved	
IRL	FPO	VL1012	88	-5%	141	0%	6.7	-13%	4.4	-4%	8,025	-22%	5,699	Improved	4,860	n/a	55%	High	n/a	40.4	Improved	
IRL	FPO	VL1218	19	-12%	29	-45%	2.3	-15%	2.7	2%	1,336	47%	374	Deteriorated	43	Improved	-16%	Weak	Improved	12.7	Improved	
IRL	TM	VL40XX	16	-12%	n/a	n/a	1.2	-37%	81.9	-52%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Deteriorated	n/a	n/a	

Table 7.9 EU North Atlantic fleet economic performance by Member State in 2011 continued

North Atlantic			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)			
			2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	%Δ	2011	Development	2011	Development	Profit margin	Profitability	Development	2011	Development	
MS	Fleet segment																						
PRT	DFN	VL0010	510	-7%	956	-25%	16.0	-7%	0.5	-24%	3,275	-58%	2,320	Deteriorated	924	Deteriorated	-3%	Weak	Deteriorated	2.4	Deteriorated		
PRT	DFN	VL1012	20	-13%	59	-38%	2.9	-2%	0.3	-29%	1,389	-23%	1,142	Deteriorated	695	Deteriorated	30%	High	Deteriorated	19.4	Improved		
PRT	DFN	VL1218	72	-15%	452	-32%	13.1	-5%	2.5	-25%	9,787	-23%	6,323	Deteriorated	3,020	Deteriorated	5%	Medium	Deteriorated	14.0	Stable		
PRT	DFN	VL1824	26	8%	315	10%	5.6	24%	2.1	34%	6,956	1%	3,765	n/a	250	n/a	-22%	Weak	n/a	12.0	n/a		
PRT	DRB	VL0010	37	12%	58	-28%	3.0	2%	0.2	-9%	407	-36%	83	Deteriorated	-	27	Deteriorated	-51%	Weak	Deteriorated	1.4	Deteriorated	
PRT	DRB	VL1012	22	-12%	47	-49%	1.9	-14%	0.3	-26%	578	-31%	210	Deteriorated	-	17	Deteriorated	-48%	Weak	Deteriorated	4.5	Deteriorated	
PRT	DRB	VL1218	14	-18%	37	-59%	1.2	-9%	0.4	8%	1,186	0%	640	Stable	359	Improved	6%	Medium	Improved	17.3	Improved		
PRT	DTS	VL0010	75	-1%	168	-14%	7.3	-1%	0.5	30%	2,774	17%	1,287	Deteriorated	294	Deteriorated	2%	Medium	Deteriorated	7.7	Deteriorated		
PRT	DTS	VL1012	10	67%	25	-4%	1.0	70%	0.2	275%	704	120%	550	Improved	413	Improved	45%	High	Improved	22.0	Improved		
PRT	DTS	VL2440	62	n/a	596	14%	13.0	4%	19.1	17%	46,010	12%	21,367	n/a	5,496	n/a	-5%	Weak	n/a	35.9	n/a		
PRT	DTS	VL40XX	12	3%	374	3%	2.9	18%	16.8	5%	50,555	56%	27,703	Improved	15,123	Improved	14%	High	Improved	74.0	Improved		
PRT	FPO	VL0010	302	-8%	607	-10%	21.0	-14%	1.0	-41%	5,923	-25%	4,164	n/a	2,202	n/a	19%	High	n/a	6.9	n/a		
PRT	FPO	VL1012	47	-6%	166	-13%	6.2	1%	0.7	-28%	3,372	-19%	2,866	Deteriorated	2,173	Deteriorated	49%	High	Deteriorated	17.3	Deteriorated		
PRT	FPO	VL1218	55	2%	427	8%	8.7	13%	2.0	-11%	7,822	-20%	4,451	Deteriorated	956	Deteriorated	-3%	Weak	Deteriorated	10.4	Deteriorated		
PRT	HOK	VL0010	223	-7%	227	-49%	12.1	-5%	0.3	-34%	2,779	-15%	2,312	n/a	1,859	n/a	55%	High	n/a	10.2	n/a		
PRT	HOK	VL1012	12	8%	65	-4%	1.5	-10%	0.2	-29%	987	-21%	568	Deteriorated	78	Deteriorated	-5%	Weak	Deteriorated	8.7	Deteriorated		
PRT	HOK	VL1218	21	0%	149	-28%	3.4	26%	1.8	9%	5,848	-15%	4,610	Stable	2,768	Improved	38%	High	Improved	30.9	Improved		
PRT	HOK	VL1824	25	0%	313	14%	4.3	5%	3.9	-3%	12,484	-14%	8,926	Improved	4,156	Improved	21%	High	Improved	28.5	Deteriorated		
PRT	HOK	VL2440	25	67%	285	86%	3.4	0%	3.2	-10%	16,305	48%	10,065	Improved	5,188	Improved	15%	High	Improved	35.3	Improved		
PRT	PGP	VL0010	1,628	0%	2892	-17%	99.5	-1%	5.0	-7%	26,941	-14%	20,258	n/a	10,253	n/a	20%	High	n/a	7.0	n/a		
PRT	PGP	VL1012	24	4%	87	2%	2.1	9%	0.3	62%	3,641	217%	2,889	n/a	740	n/a	7%	Medium	n/a	33.3	n/a		
PRT	PGP	VL1218	36	38%	268	75%	4.4	64%	1.2	65%	5,109	44%	3,531	Deteriorated	1,908	Deteriorated	17%	High	Deteriorated	13.2	Deteriorated		
PRT	PMP	VL0010	1,076	-1%	3353	57%	71.6	-10%	1.7	-74%	15,884	-16%	10,100	n/a	1,225	n/a	-45%	Weak	n/a	3.0	n/a		
PRT	PMP	VL1012	89	5%	655	17%	11.8	6%	0.1	-98%	8,715	34%	6,323	Improved	388	Improved	-9%	Weak	Improved	9.7	Improved		
PRT	PMP	VL1218	53	-5%	401	n/a	8.8	10%	0.5	-92%	10,094	n/a	7,928	n/a	2,549	n/a	15%	High	n/a	19.8	n/a		
PRT	PMP	VL2440	25	17%	340	n/a	5.8	111%	0.7	-92%	15,130	n/a	10,654	n/a	5,596	n/a	19%	High	n/a	31.4	n/a		
PRT	PS	VL0010	60	11%	238	-35%	3.8	6%	2.5	1%	2,947	13%	2,523	Improved	1,532	Improved	41%	High	Improved	10.6	Improved		
PRT	PS	VL1012	33	-6%	235	-21%	3.7	-6%	4.6	-2%	5,392	17%	3,498	Deteriorated	814	Deteriorated	7%	Medium	Deteriorated	14.9	Stable		
PRT	PS	VL1218	35	-3%	384	-4%	4.5	13%	10.0	8%	8,357	23%	6,742	Improved	2,457	Improved	26%	High	Improved	17.6	Improved		
PRT	PS	VL1824	53	-2%	985	n/a	7.8	10%	49.9	16%	33,213	n/a	24,998	n/a	10,212	n/a	28%	High	n/a	25.4	n/a		
PRT	PS	VL2440	20	-5%	400	n/a	2.7	-6%	20.5	-9%	16,759	n/a	12,597	n/a	4,037	n/a	21%	High	n/a	31.5	n/a		

***EU North Atlantic fleet GVA per full-time equivalent (FTE)***

**At the national level**, the Belgian North Atlantic fleet is estimated to have generated the highest GVA per FTE in 2011 (€131.4 thousand), followed by the German North Atlantic fleet (€130.4 thousand) and then the French North Atlantic fleet (€82.3 thousand). The GVA per FTE generated by just one national North Atlantic fleet were classed as ‘deteriorating’ in 2011 (the Irish fleet), the Portuguese fleet was classed as ‘stable’, while the other four were classed as ‘improving’ (Belgian, German, French and UK fleets), see Table 7.7.

**At gear type level**, demersal trawls and seines are estimated to have generated the highest GVA per FTE in 2011 (of the major gear types; €54.5 thousand), followed by beam trawls (€52.2 thousand) and then purse seines (€48.3 thousand). GVA per FTE for only one out of the thirteen gear types operating in the North Atlantic were classed as ‘deteriorating’ in 2011 (pelagic trawls) while ten were classed as ‘improving’, see Table 7.8.

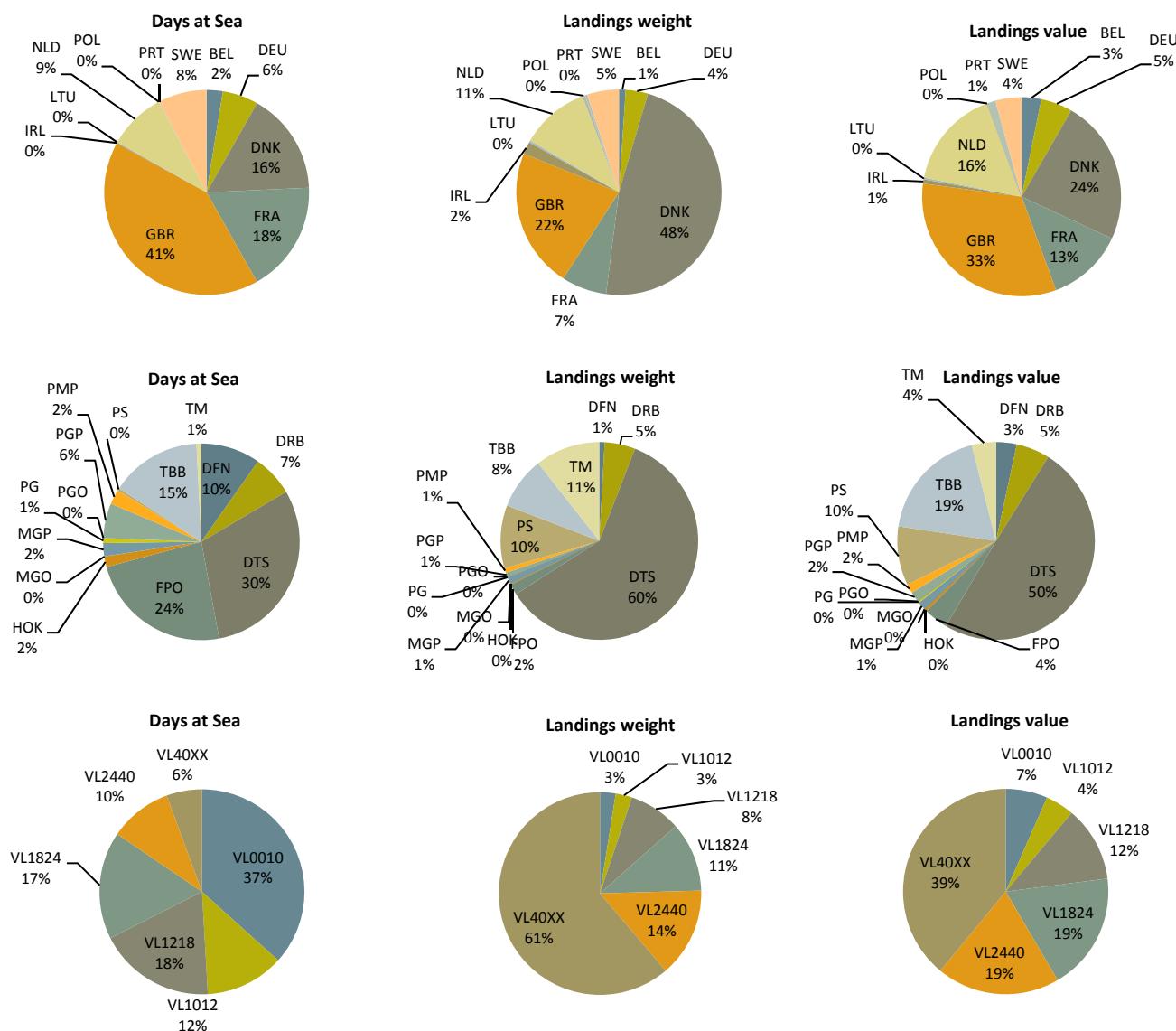
**At fleet segment level**, the UK purse seine over 40m segment was estimated to have generated the highest GVA per FTE in 2011 (€279.5 thousand), followed by the French pelagic trawl 18-24m segment (€224 thousand) and then the French demersal trawls and seines 24-40m segment (€159.9 thousand). GVA per FTE generated by 16 out of the 90 fleet segments operating in the North Sea were classed as ‘deteriorating’ in 2011, 28 were classed as ‘improving’ and 4 were classified as ‘stable’. It was not possible to classify the remaining 42 segments due to missing data, see Table 7.9.

## **7.4. North Sea and Eastern Arctic area**

*EU North Sea and Eastern Arctic fleet general overview*

The North Sea and Eastern Arctic area includes ICES areas IIIa, IV, VIId, I and II. The Member States with reported landings in these areas include Belgium, Germany, Denmark, France, UK, Ireland, Lithuania, Netherlands, Poland, Portugal and Sweden. Not all of the Member States who operate in these areas provided effort and landings data for 2012 and therefore we have limited the analysis to 2008-2011 only. In addition, for confidentiality reasons data on the German pelagic trawl segment is not available. Trends should therefore be interpreted with care. For simplicity from this point on we will refer to the EU vessels operating in the aforementioned ICES areas as the EU North Sea fleet.

The latest DCF data suggests that the EU North Sea fleet spent a total of around 478 thousand days at sea in 2011, a decrease of around 3% compared to 2010. The weight and value of landings generated by the EU North Sea fleet in 2011 amounted to approximately 1.3 million tonnes and €1.5 billion respectively. The UK, French and Danish North Sea fleets together accounted for around 75% of the total days at sea in the region. Vessels predominantly using demersal trawls and seines accounted for 30% of the total number of days at sea in the North Sea and Eastern Arctic area and 37% of the total days were recorded by vessels under 10m in length. The pie charts presented in Figure 7.8 indicate the proportion of days at sea, landings weight and value attributable to each North Sea Member State, gear type and length class in 2011.



Source: EU Member States DCF data submissions

Figure 7.8 EU North Sea and Eastern Arctic fleet effort and landings in 2011

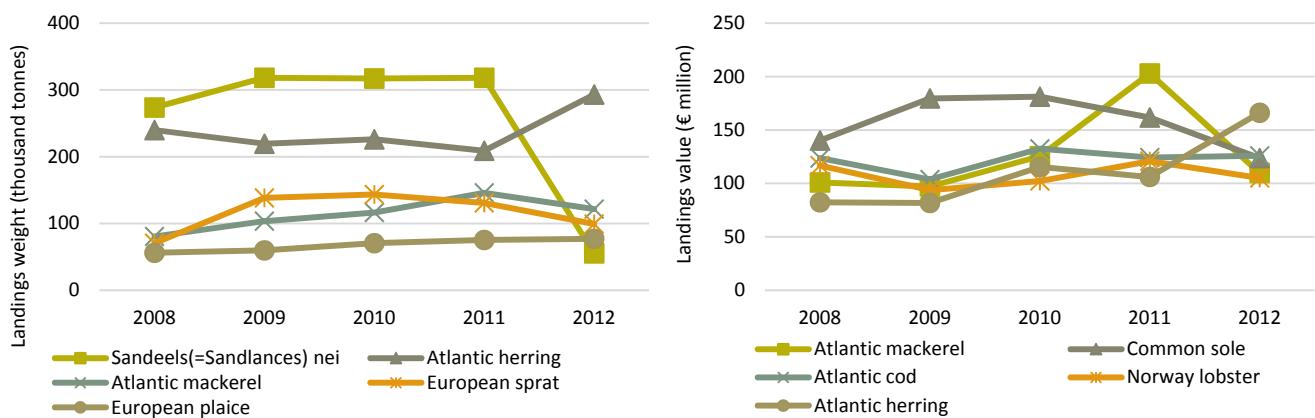
Note that for this analysis there were no data on value of landings for Poland. French volume and value data were provided at the 11th hour. Note also that Spanish and French effort and landings data was not provided for 2008 and 2009 which does not affect the 2011 situation but does affect the accuracy of time series information presented. In addition, data for German

pelagic fleet could not be included for confidentiality reasons. However, that fleet accounts for less than 3% of the total volume landed in the North Sea.

In terms of landed weight, Denmark (612 thousand tonnes), the UK (284 thousand tonnes) and the Netherlands (140 thousand tonnes) were again the leading countries (together accounting for 80% of the total volume of landings by the EU North Sea fleet) followed by France, Sweden and Germany. The data suggest that total weight of landings in the North Sea decreased by around 7% between 2010 and 2011. Demersal trawls and seines generated by the far the highest landed weight, with 60% of the total volume, followed by pelagic trawls and seines (11%). Vessels over 40m in length generated 61% of the total volume landed.

The UK (€494 million), Danish (€356 million) and Dutch (€246 million) fleets collectively accounted for around 73% of the total value of landings by the EU North Sea fleet in 2011, followed by the French, German and Swedish fleets. Half of the total value landed by the EU North Sea fleet was predominantly generated by demersal trawls and seines, while almost 40% of the total value landed was generated by vessels over 40m in length. The total value landed by the EU North Sea fleet increased approximately 4% between 2010 and 2011.

The main species for the EU North Sea fleet in 2011 in terms of volume landed was sandeel (318 thousand tonnes). The volume of landings of sandeel remained stable during the period 2009-2011 however significant cuts in the TAC for this quota species in 2012 resulted in a much lower volume landed. There was a decrease in volume landed of Atlantic herring of 12% in 2011, resulting in 209 thousand tonnes landed. The volume of mackerel landed overtook the volume of sprat landed for the first time in recent years; Atlantic mackerel increased 16% in 2011. It appears that landings of relatively low value 'industrial' species (sandeel, sprat, herring, Norway pout) have decreased, the majority being landed by the Danish fleet. In terms of demersal species, cod and plaice were the most prevalent in terms of volume landed, see Figure 7.9 (left).



Source: EU Member States DCF data submissions. 2012 data are preliminary.

Figure 7.9 EU North Sea and Eastern Arctic fleet weight and value landed of top 5 species: 2008-2012

In terms of value, Atlantic mackerel was the most important species in 2011 (€203 million, a 62% increase from 2010). In recent years sole was the dominant species in the North Sea and Eastern Arctic but in 2011 value of landings dropped (to €162 million, a decrease of 11% from 2010). The data suggest that in 2011 cod was the third most important species landed in terms of value (124 million), followed by Norway Lobster (€121 million) and Atlantic herring (€106 million), see Figure 7.9 (right).

### ***EU North Sea and Eastern Arctic fleet economic performance***

As DCF economic data is collected at fleet segment and supra region level, the economic data for fleet segments that operate in the North Sea does not always exclusively relate to the fishing activity of those vessels in the North Sea region. For example, a Danish trawl segment that spends half of its time in the Baltic Sea and half of its time in the North Sea will only have economic performance data available at supra region level 27, which consists of the Baltic Sea, the North Sea and the North Atlantic. Therefore, to assess the economic performance of the EU fleet at regional sea basin level, JRC and EWG 13-04 have produced estimates of the structure and economic performance of fleet segments operating in the Baltic Sea area by allocating vessels, FTEs, incomes and costs to the region based on the effort and landings data available at Baltic Sea level. This is the first time the procedure has been carried out in the Annual Economic Report and therefore the exercise should be considered more as an exploratory exercise than factual statements that are considered robust enough to inform or influence policy decisions.

According to the available data and estimations carried out by STECF EWG 13-04 and the JRC, there were seven EU Member States, eleven main (DCF) gear types and approximately 67 specific DCF fleet segments containing 10 or more vessels (Member State, gear type and length class combinations) operating in the North Sea in 2011, see Table 7.10, Table 7.11 and Table 7.12 respectively.

### ***EU North Sea and Eastern Arctic fleet Income***

The total amount of income generated by the 'North Sea fleet' in 2011 was an estimated €1.5 billion, 72% of which was split between three Member States - the UK North Sea fleet (€506 million), the Danish North Sea fleet (€340 million) and the Dutch North Sea fleet (€237 million), see Table 7.10. Only the UK (+22%) and French (+16%) North Sea fleets generated an overall increase in income between 2010 and 2011. The German North Sea fleet experienced the largest decrease in income between 2010 and 2011 (-20%).

At gear type level, vessels predominantly using demersal trawls and seines generated the most income from the North Sea region in 2011 (€768 million, 3% increase from 2010), followed by beam trawls (€281 million, 14% decrease from 2010) and then purse seines (€142 million, 92% increase from 2010). Pelagic trawls experienced the most significant decrease in income during the same period (-43%), see Table 7.11.

At fleet segment level, the Danish demersal trawls and seines over 40m segment generated the most income from the North Sea region in 2011 (€153 million, 5% decrease from 2010), followed by the UK purse seine over 40m segment (€142 million, 92% increase from 2010) and then the Dutch beam trawl over 40m segment (€106 million, 13% decrease from 2010). The Dutch beam trawl 12-18m segment experienced the most significant increase in income between 2010 and 2011 (+620%), while the UK dredges 12-18m segment experienced the most significant decrease in income during the same period (-50%), see Table 7.12.

### ***EU North Sea and Eastern Arctic fleet Gross Value Added (GVA)***

**At the national level**, the UK North Sea fleet is estimated to have generated the highest GVA in 2011 (€256 million), followed by the Danish North Sea fleet (€222 million) and then the French North Sea fleet (€104 million). The levels of GVA generated by three out of seven Member States North Sea fleets were classed as 'deteriorating' in 2011 (the Dutch, German and Swedish fleets), while another three were classed as 'improving' (the UK and Danish fleets) while the Belgian fleet was classed as 'stable', see Table 7.10. It was not possible to assess the development trend for France due to missing data. More information on the 'development trend' classification methodology can be found in Section 8.3.

**At gear type level**, demersal trawls and seines are estimated to have generated the highest GVA in 2011 (€413 million), followed by beam trawls (€113 million) and then purse seines (€89 million). The levels of GVA generated by two out of the twelve North Sea gear types were classed as 'deteriorating' in 2011 (beam trawls and pelagic trawls), while the other nine gear types were classed as 'improving', see Table 7.11. It was not possible to classify the MGP gear type.

**At fleet segment level**, the Danish demersal trawls and seines over 40m segment was estimated to have generated the highest GVA in 2011 (€118 million), followed by the UK purse seine over 40m segment (€89 million) and then the UK demersal trawls and seines 18-24m segment (€46 million). The levels of GVA generated by 20 out of the 67 North Sea fleet segments were classed as 'deteriorating' in 2011, 7 classed as 'stable', 23 were classed as 'improving', and it was not possible to categorise a the remaining 16 (French segments) due to missing data, see Table 7.12.

Table 7.10 EU North Sea and Eastern Arctic fleet economic performance by Member State in 2011

North Sea	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €) %Δ		Gross Value Added (million €) Development		Gross profit (million €) Development		Net profit 2011 Profitability Development			GVA per FTE (thousand €) Development		
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
Belgium	64	-3%	228	-8%	12.2	-9%	13.7	-9%	50.0	-8%	21.0	Stable	4.4	Improved	-2%	Weak	Improved	92.3	Improved	
Denmark	924	-1%	1,290	-7%	76.9	-3%	612.7	-11%	339.8	-3%	222.4	Improved	128.7	Improved	16%	High	Improved	172.4	Improved	
France	519	14%	1,259	6%	84.1	20%	92.0	9%	206.4	16%	103.5	n/a	32.2	n/a	7%	Medium	n/a	82.2	n/a	
Germany	260	-4%	389	-25%	27.0	-24%	45.2	-16%	78.9	-20%	35.4	Deteriorated	9.4	Deteriorated	-5%	Weak	Deteriorated	91.0	Improved	
Netherlands	556	-2%	1,382	-14%	43.4	-10%	139.6	-12%	236.9	-3%	87.5	Deteriorated	32.2	Improved	0%	Weak	Deteriorated	63.3	Improved	
Sweden	438	-5%	482	-2%	36.6	-3%	64.7	-8%	71.3	-8%	33.4	Deteriorated	20.0	Deteriorated	7%	Medium	Deteriorated	69.2	Deteriorated	
United Kingdom	2,272	3%	5,383	1%	196.5	-1%	284.0	6%	506.1	22%	256.0	Improved	141.7	Improved	24%	High	Improved	47.6	Improved	

Table 7.11 EU North Sea and Eastern Arctic fleet economic performance by gear type in 2011

North Sea	N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €) %Δ		Gross Value Added (million €) Development		Gross profit (million €) Development		Net profit 2011 Profitability Development			GVA per FTE (thousand €) Development		
	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
DFN	874	3%	1260	5%	64.0	3%	12.0	-1%	64.1	6%	36.7	Improved	10.5	Improved	8%	Medium	Improved	29.2	Improved	
DRB	285	5%	664	9%	32.5	11%	64.9	32%	89.1	28%	53.5	Improved	28.1	Improved	10%	High	Stable	80.6	Improved	
DTS	1,067	-1%	3884	-6%	150.8	-2%	827.6	-11%	767.9	3%	412.7	Improved	230.0	Improved	17%	High	Improved	106.2	Improved	
FPO	1,099	11%	1870	10%	97.6	10%	22.1	6%	56.9	19%	26.3	Improved	7.7	Improved	8%	Medium	Improved	14.1	Stable	
HOK	136	-18%	202	-24%	7.9	-20%	2.0	-27%	7.3	-17%	3.5	Improved	0.5	Deteriorated	6%	Medium	Improved	17.3	Improved	
MGP	48	7%	96	-4%	8.1	35%	5.2	6%	16.2	7%	8.3	n/a	2.4	n/a	6%	Medium	n/a	86.4	n/a	
PG	205	-4%	31	534%	3.8	-17%	0.7	-69%	4.8	5186%	4.4	Improved	4.3	Improved	88%	High	Improved	140.8	Improved	
PGP	623	1%	391	31%	28.1	0%	9.6	-17%	28.4	1%	16.7	Improved	3.7	Improved	0%	Weak	Improved	42.5	Deteriorated	
PMP	68	7%	162	11%	11.4	18%	9.7	12%	26.0	15%	14.4	Improved	5.3	Improved	3%	Medium	Improved	88.5	Improved	
PS	12	24%	157	17%	0.8	20%	124.8	24%	141.8	92%	88.8	Improved	61.1	Improved	40%	High	Improved	564.2	Improved	
TBB	611	-7%	1572	-24%	70.6	-20%	110.0	-5%	281.3	-14%	112.7	Deteriorated	39.3	Deteriorated	4%	Medium	Deteriorated	71.7	Improved	
TM	12	-8%	181	-8%	2.2	-17%	101.2	-13%	30.2	-43%	1.7	Deteriorated	-10.1	Deteriorated	-70%	Weak	Deteriorated	9.2	Deteriorated	

## ***EU North Sea and Eastern Arctic fleet Gross Profit***

**At the national level**, the UK North Sea fleet is estimated to have generated the largest gross profit in 2011 (€142 million), followed by the Danish North Sea fleet (€129 million) and then the Dutch North Sea fleet (€32 million). The amount of gross profit generated by two Member States North Sea fleets were classed as ‘deteriorating’ in 2011 (the Swedish and German fleets), while the other four were classed as ‘improving’, see Table 7.10.

**At gear type level**, demersal trawls and seines are estimated to have generated the highest gross profit in 2011 (€230 million), followed by purse seines (€61 million) and then beam trawls (€39 million). The amount of gross profit generated by three out of the twelve gear types operating in the North Sea were classed as ‘deteriorating’ in 2011 (beam trawls, hooks and pelagic trawls), while the other eight gear types were classed as ‘improving’, see Table 7.11.

**At fleet segment level**, the Danish demersal trawls and seines over 40m segment was estimated to have generated the highest gross profit in 2011 (€91 million), followed by the UK purse seine over 40m segment (€61 million) and then the UK demersal trawls and seines 18-24m segment (€26 million). The amount of gross profit generated by 20 out of the 67 fleet segments operating in the North Sea were classed as ‘deteriorating’ in 2011, 26 were classed as ‘improving’ and 4 were classified as ‘stable’, see Table 7.12.

## ***EU North Sea and Eastern Arctic fleet Net Profit***

**At national level**, the estimates suggest that the UK fleet generated the highest net profit margin in 2011 (24%) followed by the Danish North Sea fleet (16%) and the French North Sea fleet (7%). Three Member States North Sea fleet were classed as having ‘weak’ profitability in 2011 (The Dutch, German and Belgian fleets), two were classed as having ‘medium’ profitability (the French and Swedish fleets) and two was classed as having ‘high’ profitability (the UK and Danish fleets). More information on the ‘2011 profitability’ classification methodology can be found in Section 8.3. The net profit margins generated by three Member States North Sea fleets were classed as ‘deteriorating’ in 2011 (the Swedish, Dutch and German fleets), while three were classed as ‘improving’ (the UK, Danish and Belgian fleets), see Table 7.10.

**At gear type level**, the estimates suggest that purse seines generated the highest net profit margin in 2011 (40%) followed by demersal trawls and seines (17%) and then dredges (10%). These gear types were classified as having ‘high’ profitability in 2011, while, six gear types were classified as having medium profitability and the other two gear types were classed as having ‘weak’ profitability. The net profit margins generated by two gear types were classed as ‘deteriorating’ in 2011 (beam trawls and pelagic trawls) while seven were classed as ‘improving’ and one was classed as stable, see Table 7.11.

**At fleet segment level**, the estimates suggest that the UK purse seine over 40m segment generated the highest net profit margin in 2011 (40%), followed by the Danish demersal trawl and seine over 40m segment (36%) and then the UK dredge 24-40m segment (34%). 20 fleet segments out of 62 were classed as having ‘weak’ profitability in 2011, 22 segments were classed as having ‘medium’ profitability and 20 segments was classed as having ‘high’ profitability. The net profit margins generated by 18 fleet segments were classed as ‘deteriorating’ in 2011, while 29 were classed as ‘improving’ and 2 were classed as ‘stable’, see Table 7.12.

Table 7.12 EU North Sea and Eastern Arctic fleet economic performance by fleet segment in 2011

North Sea			N vessels		FTE		Days at Sea (thousand)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)	
			MS	Fleet segment	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend
BEL	TBB	VL1824	31	-7%	83	-7%	5.4	-12%	3.7	-21%	14,689	-15%	5,126	Deteriorated	230	Improved	-11%	Weak	Stable	62.1	Deteriorated
BEL	TBB	VL2440	14	-22%	89	-19%	3.8	-18%	7.8	-8%	27,467	-10%	13,331	Stable	5,030	Improved	9%	Medium	Improved	150.0	Improved
DEU	DTS	VL1824	17	-5%	43	-9%	2.3	-9%	3.7	3%	8,849	10%	5,128	Stable	2,214	Deteriorated	8%	Medium	Deteriorated	120.5	Stable
DEU	DTS	VL2440	10	-18%	39	-14%	1.6	-17%	8.1	-13%	15,077	-2%	9,168	Improved	5,691	Improved	27%	High	Improved	235.0	Improved
DEU	TBB	VL1012	19	19%	11	22%	1.6	21%	0.2	-1%	475	-21%	184	Deteriorated	-157	Deteriorated	-54%	Weak	Deteriorated	16.8	Deteriorated
DEU	TBB	VL1218	126	-5%	82	-42%	11.6	-29%	9.9	-10%	17,200	-26%	9,295	Deteriorated	2,502	Deteriorated	-1%	Weak	Deteriorated	113.8	Improved
DEU	TBB	VL1824	61	0%	57	-37%	5.9	-28%	6.0	-6%	10,727	-30%	4,641	Deteriorated	819	Deteriorated	-16%	Weak	Deteriorated	82.1	Stable
DNK	DRB	VL1012	25	4%	17	-1%	1.7	44%	12.7	29%	2,818	18%	1,792	Deteriorated	861	Improved	-1%	Weak	Improved	104.9	Improved
DNK	DRB	VL1218	22	5%	18	38%	1.7	69%	15.2	42%	3,625	82%	2,024	Improved	1,035	Improved	-15%	Weak	Improved	111.1	Improved
DNK	DTS	VL0010	10	24%	7	93%	0.4	58%	0.1	46%	985	15%	485	Improved	107	n/a	-8%	Weak	n/a	70.2	Improved
DNK	DTS	VL1218	116	-4%	213	-6%	14.7	-3%	29.6	-15%	31,843	-6%	17,202	Stable	5,014	Stable	-1%	Weak	Improved	80.9	Improved
DNK	DTS	VL1824	61	2%	234	-3%	9.7	-6%	38.6	-19%	42,863	2%	25,025	Improved	10,244	Improved	7%	Medium	Improved	106.9	Improved
DNK	DTS	VL2440	35	-9%	221	-6%	7.8	-12%	51.9	-43%	50,344	-7%	26,941	Stable	12,618	Stable	3%	Medium	Deteriorated	122.0	Improved
DNK	DTS	VL40XX	25	11%	185	-25%	4.4	-8%	439.5	-7%	153,409	-5%	118,483	Improved	90,662	Improved	36%	High	Improved	640.6	Improved
DNK	PGP	VL0010	486	0%	99	0%	16.8	3%	3.0	2%	9,271	6%	5,079	Improved	-157	Improved	-16%	Weak	Improved	51.1	Improved
DNK	PGP	VL1012	16	-25%	12	-21%	1.8	-20%	0.9	-5%	1,957	-7%	1,326	Deteriorated	646	Deteriorated	24%	High	Improved	111.8	Improved
DNK	PGP	VL1218	42	5%	101	28%	5.1	-11%	4.7	-28%	13,550	18%	8,583	Improved	2,784	Improved	5%	Medium	Improved	84.7	Improved
DNK	PMP	VL1218	29	-12%	37	-25%	2.9	-4%	3.9	-4%	5,633	-27%	2,765	Deteriorated	721	Deteriorated	-5%	Weak	Deteriorated	74.0	Stable
DNK	PMP	VL1824	15	-6%	86	8%	2.3	3%	3.5	16%	15,186	23%	8,428	Improved	3,349	Improved	5%	Medium	Improved	98.3	Improved
DNK	TBB	VL1218	11	0%	16	-24%	1.2	-32%	2.0	50%	2,050	-14%	961	Deteriorated	42	Deteriorated	-31%	Weak	Deteriorated	61.7	Deteriorated
DNK	TBB	VL1824	18	6%	35	-37%	2.1	-17%	5.1	82%	4,853	-17%	2,441	Deteriorated	379	Deteriorated	-27%	Weak	Deteriorated	70.2	Stable
FRA	DFN	VL0010	44	-14%	40	-21%	5.9	12%	1.0	3%	6,168	11%	4,691	n/a	1,937	n/a	27%	High	n/a	118.2	n/a
FRA	DFN	VL1012	77	11%	176	-9%	12.1	6%	3.4	4%	20,717	4%	12,986	n/a	4,169	n/a	13%	High	n/a	73.9	n/a
FRA	DFN	VL1218	11	-7%	36	-16%	2.2	-16%	0.9	-9%	5,074	-12%	2,785	n/a	620	n/a	6%	Medium	n/a	76.5	n/a
FRA	DRB	VL1012	37	11%	67	5%	4.5	22%	3.1	61%	9,422	19%	5,441	n/a	2,011	n/a	13%	High	n/a	81.7	n/a
FRA	DRB	VL1218	66	1%	213	5%	11.6	11%	11.5	33%	29,052	14%	14,024	n/a	3,737	n/a	4%	Medium	n/a	65.9	n/a

Table 7.12 EU North Sea and Eastern Arctic fleet economic performance by fleet segment in 2011 continued

North Sea			N vessels		FTE		Days at Sea (thousand)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)	
			MS	Fleet segment	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend
FRA	DTS	VL0010	19	32%	14	7%	2.7	23%	0.4	65%	3,329	57%	2,332	n/a	1,021	n/a	25%	High	n/a	162.7	n/a
FRA	DTS	VL1012	23	55%	35	41%	3.7	67%	1.7	95%	5,350	83%	2,745	n/a	762	n/a	5%	Medium	n/a	78.8	n/a
FRA	DTS	VL1218	17	122%	39	61%	3.7	115%	2.8	72%	8,064	121%	3,459	n/a	613	n/a	0%	Medium	n/a	89.1	n/a
FRA	DTS	VL1824	30	2%	144	-8%	7.7	4%	18.8	1%	31,488	4%	14,780	n/a	5,871	n/a	11%	High	n/a	102.5	n/a
FRA	FPO	VL0010	43	37%	51	35%	5.0	45%	1.4	81%	4,214	52%	2,434	n/a	641	n/a	9%	Medium	n/a	47.7	n/a
FRA	HOK	VL0010	36	47%	26	10%	3.7	6%	0.3	9%	2,383	6%	982	n/a	-120	n/a	n/a	n/a	n/a	37.5	n/a
FRA	MGP	VL1012	23	-28%	35	-46%	3.3	-23%	1.8	-21%	7,066	-21%	4,033	n/a	1,397	n/a	12%	High	n/a	114.4	n/a
FRA	MGP	VL1218	23	n/a	59	n/a	4.2	n/a	3.3	n/a	8,866	n/a	4,070	n/a	924	n/a	n/a	n/a	n/a	68.8	n/a
GBR	DFN	VL0010	443	10%	744	18%	20.3	13%	2.5	2%	9,348	21%	5,067	Improved	1,282	Improved	5%	Medium	Improved	6.8	Deteriorated
GBR	DFN	VL1012	10	-28%	24	-28%	0.8	-24%	0.1	-39%	628	-30%	30	Deteriorated	-171	Deteriorated	-35%	Weak	Deteriorated	1.3	Deteriorated
GBR	DRB	VL0010	68	5%	138	7%	4.2	-8%	2.3	46%	3,488	-17%	1,408	Deteriorated	154	Deteriorated	-4%	Weak	Deteriorated	10.2	Deteriorated
GBR	DRB	VL1218	17	-11%	45	-25%	2.2	-10%	5.0	77%	2,886	-50%	1,325	Deteriorated	466	Deteriorated	7%	Medium	Deteriorated	29.6	Deteriorated
GBR	DRB	VL2440	13	-11%	89	16%	2.6	-15%	7.4	-10%	15,665	6%	10,467	Improved	5,942	Improved	34%	High	Improved	117.1	Improved
GBR	DTS	VL0010	146	1%	316	-2%	11.4	2%	2.8	1%	8,137	16%	3,903	Improved	1,306	Improved	9%	Medium	Improved	12.4	Improved
GBR	DTS	VL1012	42	16%	104	5%	4.8	11%	1.4	7%	4,271	29%	1,738	Improved	573	Improved	9%	Medium	Improved	16.8	Improved
GBR	DTS	VL1218	65	-10%	228	-13%	9.8	-12%	6.6	-16%	20,077	10%	10,556	Stable	5,438	Stable	24%	High	Stable	46.2	Improved
GBR	DTS	VL1824	119	-15%	636	-12%	19.7	-18%	32.6	-14%	87,977	7%	46,177	Improved	25,681	Improved	24%	High	Improved	72.6	Improved
GBR	DTS	VL2440	61	-5%	440	-6%	12.0	-8%	42.9	-1%	86,623	9%	39,991	Improved	23,263	Improved	22%	High	Improved	90.9	Improved
GBR	FPO	VL0010	928	11%	1426	11%	73.6	12%	10.1	7%	30,991	22%	14,601	Improved	4,174	Improved	8%	Medium	Improved	10.2	Stable
GBR	FPO	VL1012	91	10%	241	6%	12.9	1%	3.8	12%	9,154	12%	3,436	Stable	1,041	Deteriorated	7%	Medium	Deteriorated	14.2	Deteriorated
GBR	FPO	VL1218	24	-7%	101	0%	3.7	-14%	3.3	-8%	6,754	-1%	2,701	Deteriorated	638	Deteriorated	5%	Medium	Deteriorated	26.8	Stable
GBR	HOK	VL0010	96	-28%	160	-25%	3.6	-31%	0.6	-20%	1,518	-27%	556	Deteriorated	63	Improved	-6%	Weak	Improved	3.5	Deteriorated
GBR	PGP	VL0010	68	29%	138	49%	3.4	39%	0.7	12%	2,269	51%	1,141	Improved	414	Improved	12%	High	Improved	8.3	Stable
GBR	PS	VL40XX	12	24%	157	17%	0.8	20%	124.8	24%	141,767	92%	88,755	Improved	61,123	Improved	40%	High	Improved	564.2	Improved
GBR	TBB	VL0010	16	-42%	37	-29%	0.7	-33%	0.5	27%	535	-33%	92	Deteriorated	-39	Deteriorated	-14%	Weak	Deteriorated	2.5	Deteriorated
GBR	TBB	VL1218	14	-45%	42	-26%	1.2	-52%	0.7	-35%	1,170	-50%	-69	Deteriorated	-341	Stable	-37%	Weak	Improved	-1.6	Deteriorated

Table 7.12 EU North Sea and Eastern Arctic fleet economic performance by fleet segment in 2011 continued

North Sea			N vessels		FTE		Days at Sea (thousand)		Volume landed (1000 tonnes)		Income (thousand €)		Gross Value Added (thousand €)		Gross profit (thousand €)		Net profit 2011			GVA per FTE (thousand €)		
			MS	Fleet segment	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	Trend	2011	Trend	Profit margin	Profitability	Development Trend	2011	Development Trend	
NLD	DRB	VL0010	16	0%	10	n/a	0.6	68%	3.8	86%	12,039	n/a	11,782	n/a	11,765	n/a	n/a	n/a	n/a	n/a	1148.3	n/a
NLD	DTS	VL0010	22	-19%	0	n/a	0.5	635%	1.3	2542%	2,974	n/a	2,973	n/a	2,973	n/a	n/a	n/a	n/a	n/a	74331.6	n/a
NLD	DTS	VL1824	14	17%	97	28%	2.2	9%	2.8	-6%	8,847	28%	4,537	Improved	2,371	Improved	20%	High	Improved	46.5	Improved	
NLD	DTS	VL2440	21	15%	85	-21%	2.9	-21%	5.9	-22%	17,690	-11%	8,546	Improved	3,643	Improved	12%	High	Improved	101.1	Improved	
NLD	PG	VL0010	199	-4%	27	n/a	3.2	-18%	0.6	-72%	4,665	n/a	4,399	n/a	4,373	n/a	93%	High	n/a	165.7	n/a	
NLD	TBB	VL1218	11	-8%	79	190%	2.9	213%	4.6	475%	13,733	620%	6,107	Improved	2,784	Improved	16%	High	Improved	77.4	Improved	
NLD	TBB	VL1824	170	0%	401	-31%	15.0	-20%	17.7	-8%	36,403	-21%	13,127	Deteriorated	585	Deteriorated	-10%	Weak	Deteriorated	32.8	Deteriorated	
NLD	TBB	VL2440	32	-6%	128	-46%	3.5	-30%	7.1	-20%	19,473	-25%	6,227	Deteriorated	1,221	Deteriorated	3%	Medium	Deteriorated	48.8	Improved	
NLD	TBB	VL40XX	64	0%	401	-7%	11.7	-9%	32.9	-9%	106,211	-13%	37,731	Deteriorated	17,420	Deteriorated	9%	Medium	Deteriorated	94.0	Deteriorated	
SWE	DFN	VL0010	219	-6%	101	-9%	15.4	-8%	0.6	-17%	6,789	40%	4,231	Improved	1,462	Improved	6%	Medium	Improved	41.7	Improved	
SWE	DFN	VL1012	43	1%	25	5%	3.2	2%	0.7	29%	3,187	19%	2,004	Improved	1,268	Improved	23%	High	Improved	78.8	Improved	
SWE	DTS	VL1012	60	15%	45	16%	3.6	14%	0.5	-2%	3,552	-9%	1,257	Improved	-167	Deteriorated	-37%	Weak	Improved	27.9	Deteriorated	
SWE	DTS	VL1218	61	-15%	86	-10%	5.6	-7%	1.0	-12%	9,126	-4%	2,721	Deteriorated	1,445	Deteriorated	-1%	Weak	Improved	31.5	Deteriorated	
SWE	DTS	VL1824	23	-20%	74	1%	3.4	-2%	3.3	21%	11,835	5%	4,930	Stable	3,081	Improved	17%	High	Improved	66.3	Improved	
SWE	DTS	VL2440	27	-7%	144	0%	4.9	5%	58.6	-9%	36,368	-18%	17,986	Deteriorated	12,777	Deteriorated	8%	Medium	Deteriorated	124.8	Deteriorated	

### ***EU North Sea and Eastern Arctic fleet GVA per full-time equivalent (FTE)***

**At the national level**, the Danish North Sea fleet is estimated to have generated the highest GVA per FTE in 2011 (€172 thousand), followed by the Belgian North Sea fleet (€92 thousand) and then the German North Sea fleet (€91 thousand). The GVA per FTE generated by the Swedish North Sea fleet was classed as ‘deteriorating’ in 2011, the French North Sea fleet was classified as stable while the other five national North Sea fleets were classed as ‘improving’, see Table 7.10.

**At gear type level**, purse seines are estimated to have generated the highest GVA per FTE in 2011 (€564 thousand), followed by demersal trawls and seines (€106 thousand) and then polyvalent mobile and passive gears (€89 thousand). GVA per FTE for two out of the eleven gear types operating in the Baltic Sea were classed as ‘deteriorating’ in 2011 (pelagic trawls and polyvalent passive gears), two were classified as ‘stable’ and the other seven gear types were classed as ‘improving’, see Table 7.11.

**At fleet segment level**, the Danish demersal trawls and seines over 40m segment was estimated to have generated the highest GVA per FTE in 2011 (€640 thousand), followed by the UK purse seine over 40m segment (€564 million) and then the German demersal trawls and seines 24-40m segment (€235 thousand). GVA per FTE generated by 18 out of the 62 fleet segments operating in the North Sea were classed as ‘deteriorating’ in 2011, 37 were classed as ‘improving’ and 8 was classified as ‘stable’, see Table 7.12.

### ***EU North Sea and Eastern Arctic management issues***

The management plans in force in 2013 that impact on the North Sea and Eastern Arctic are mainly:

- Long-term plan for cod stocks and the fisheries exploiting those stocks (Council Regulation (EC) No 1342/2008).
- Measures for the recovery of eel - Area covered includes EU estuaries and rivers that flow into seas in ICES areas III, IV, VI, VII, VIII, IX and the Mediterranean (Council Regulation (EC) No 1100/2007 of 18 September 2007).

The long term plan for cod impacts on all fleets that have quota for cod and that interact with the cod fisheries. In 2010, 86% of cod volume was landed by the demersal trawl/seine fleet (DTS) of which 97% was landed by vessels greater than 18m. Days at sea restrictions are becoming more constraining to the fleets that will have an effect on economic performance.

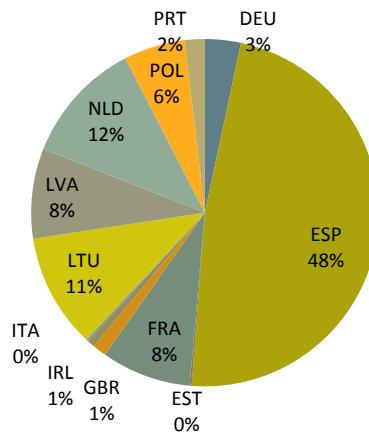
Other management measures that may affect economic performance of the fleets operating in the North Sea and Eastern Arctic include marine protected areas and other legislation that has a multispecies impact.

## 7.5. Long-distance fishing regions

### *EU 'Long distance' fleet general overview*

Although the main fishing grounds for the EU fishing fleet are the Baltic Sea, North Sea, North Atlantic and Mediterranean Sea, parts of the EU fleet operate much further afield. This analysis is concentrated on all the other regions where the EU fleets are present and operational. The majority of production in 'Other Regions' is the result of high seas vessels (usually over 40m) however there are some regions such as Madeira and the Canary islands, where coastal fleets of EU Member States also operate.

For the analysis we present both DCF data provided by Member States and FAO capture production by country and area, so as to provide as much information as possible. DCF data on the EU fleet fishing in other regions is extremely limited; the coverage of DCF landings data compared to corresponding FAO statistics was just 35% in 2011. Spain is the main EU Member State fishing in the other regions, covering around 48% of capture production in other regions (FAO data, see Figure 7.10), however for the 2013 DCF data call Spain did not provide data on effort, weight and value of landings by species. Spain did however provide economic data on costs and income as well as employment. France and Italy did not provide effort data for their fleets operating in other regions despite the fact that they did provide data on volume and value landed in the other regions. Although the UK provided effort and landings data for other regions, due to the small number of vessels involved (less than ten) the economic performance data for those vessels is allocated to supra region 27, where the vast majority of UK vessels operate. In addition, Estonia, Poland, Germany and Latvia, who collectively account for around 17% of catches in other regions (FAO data), could not provide any economic data, mainly due to confidentiality reasons. Poland provided the number of employees, effort, and of landings, but not the corresponding value due to confidentiality reasons.



Source: FAO

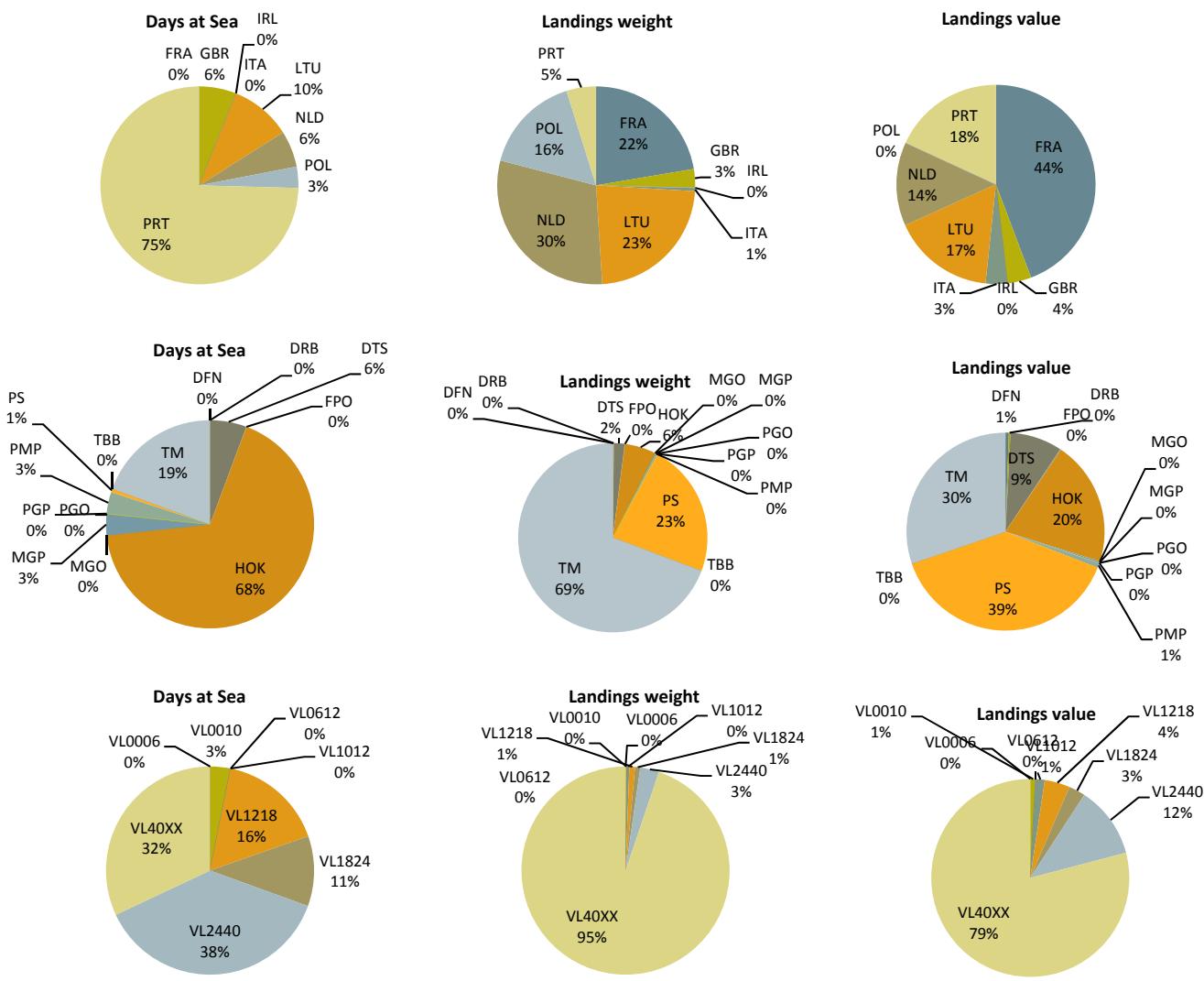
Figure 7.10 FAO for 2011 (catches) and DCF (weight of landings) data comparison.

According to FAO statistics there were 12 MS operating in 'Other Regions' in 2011. However, under the DCF capacity and employment (FTE) was available for only 8 and 5 member states respectively. According to the data provided, the total number of vessels of those 8 MS was just under 4,000. The majority of these vessels were French (49%), followed by Spanish (46%) and then Portuguese (3%). The data on number of vessels were also available for Germany, Estonia, Latvia (Latvia did not provide data, but the number of vessels is known), France, Italy, Lithuania, Poland and Portugal. Data were not available for the United Kingdom, Ireland or the Netherlands. Other capacity indicators were also provided by 8 MS: Spain, Germany, Estonia, France, Italy, Lithuania, Poland and Portugal. Based on the provided data the total capacity of vessels, operated in the 'Other Regions' in 2011 was 323 thousand GT and 717 thousand kW. Compared to 2010, the total capacity of the EU fleet operating in 'Other Regions' decreased by around 4% and 7% respectively. Data on employment (FTE) were provided only by Spain, France, Lithuania, Poland and Portugal. Spain had the highest share of employment (83%). Based on this data, the total number of crew members operating in 'Other Regions' was 12,122 in 2011.

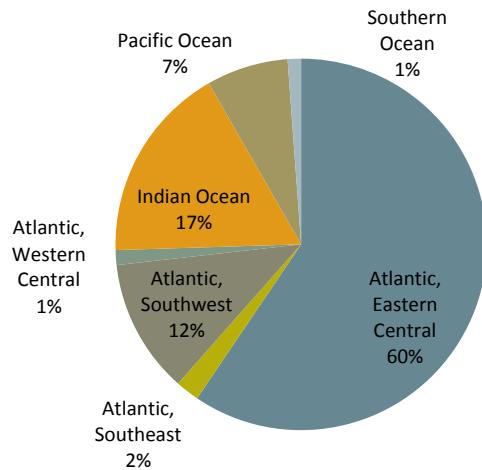
In 2011 the French "tropical" Purse Seiners operated in the Indian Ocean and in Western African waters. The French industrial purse seine fleet consisted of 18 vessels in 2011. The average length of these vessels is 74m, employing on average 24 FTEs. The total volume landed of tropical tuna was more than 86 thousand tons in 2011. The majority were caught by freezer tuna seiners operating in the Indian Ocean and Atlantic Ocean. Catch composition in 2011 comprises yellowfin tuna (42 thousand tons), skipjack tuna (40 thousand tons), big eye tuna (4.5 thousand tons) and albacore (404 tons). The total value landed by those 18 vessels was €122 million in 2011, an increase of 36% due to a slight increase in volume and higher prices. In addition, catch composition changed in 2011 with an increasing proportion of yellowfin tuna weighing more 10kg,

which is this is the best-valued tuna species. Profitability was negatively impacted by higher fuel prices and cost of resource access. The cost of EU fisheries agreements signed with certain third countries is partly paid by private French armament. In addition, the cost of presence of French military to protect vessels against piracy increased total costs.

According to the data provided, the number of days at sea by EU vessels operating in 'Other Regions' was just over 21,000, an increase of 8.5% compared to 2010 (data was only available for the UK, Lithuania, the Netherlands, Poland, Portugal, data was not available for Italy and France). Around three quarters of the total days reported in the other regions related to Portuguese vessels. The number of days at sea increased significantly for Dutch fleet (+51%), Polish and Lithuanian distant fleet reported a lower number of days at sea in 2011. Effort increased slightly (12%) in Portuguese distant fleet. 68% of total days at sea were by gears using hooks, followed by pelagic trawls (19%). 38% of total days reported were carried out by vessels 24-40m in length, followed by vessels over 40m (32%), see Figure 7.11.



dataset contains only around 35% of the total volume landed by the EU fleet in distant regions. According to the FAO, the Atlantic Eastern Central area (60%) was the most important fishing area, followed by Indian Ocean (17%) and then the South West Atlantic (12%), see Figure 7.12.



Source: FAO

Figure 7.12 EU 'Other Regions' catches by fishing areas in 2011 (FAO).

Three German vessels were fishing in 'Other Regions' in 2011 - all pelagic freezer trawlers. For confidentiality reasons no details on costs and earnings can be provided. One vessel was fishing in the South Pacific, targeting mainly Chilean jack mackerel which was landed in Brazil. This fishery has been abandoned in the mid of the year due to poor catches and has not been resumed since. Two vessels were fishing for eight months in Mauritanian waters, catching mainly sardinella, sardine, horse mackerel, Spanish mackerel and bonito. The catch was landed either in Mauritania or in the Netherlands. One of these vessels also fished in Moroccan waters, targeting Spanish mackerel and horse mackerel. The catch was landed in Morocco. According to the German pelagic industry, all their catch has been used for human consumption. Pelagic fisheries in Mauritanian waters took place for a short period only. Other activities outside ICES/NAFO areas did not take place in 2012: negotiations with Morocco and Mauritania failed in the end, and the fishery in the South Pacific had become unprofitable in 2011 and is no longer performed.

There were five Latvian distant seas over 40m trawlers operating in CECAF area (EEZ of Mauritania and Morocco) in 2011. All the vessels belong to the three fishing companies and so economic data could not be provided due the confidentiality reasons. The total volume landed by the Latvian fleet operating in the 'Other Regions' in 2011 was over 90 thousand tonnes of fish. Volume landed in the Mauritanian fishing zone 3.13 was 71 thousand tonnes. The main landed species were Atlantic chub mackerel (21 thousand tonnes), Madeiran sardinella (over 18 thousand tonnes) and sardine (11 thousand tonnes). The total landed weight in the Mauritanian fishing zone 3.11 was 10 thousand tonnes. The main landed species were Atlantic chub mackerel (3 thousand tonnes), Madeiran sardinella (over 1 thousand tonnes), chub mackerel (1 thousand tonnes) and sardine (over 2 thousand tonnes). The total landed weight in the Morocco fishing zone was 8 thousand tonnes. The main landed species were chub mackerel (4 thousand tonnes) and jack and horse mackerels (2 thousand tonnes). In 2011 Mauritania and Morocco did not define quotas for their fishing area. However, it was possible to buy permission from native princes who are fishing rights owners for fishing in their territorial waters. To obtain the permits it is necessary to arrangement a job on-board for local people from Mauritania and Morocco. Crew on board are usually Latvian citizens. The salary is higher than Latvian national average and average salary in the fishery sector. There is no official agreement between Latvia and Mauritania and Morocco. There were no landings from 'Other Regions' into the Latvian ports. The catches from Latvian vessels are usually landed in the ports of Mauritania or Morocco. Thus for previous years information on days at sea, catches and value of landings were received directly from the vessel owners or from Latvian observers.

There is a high likelihood that data for some EU Member States in some years were not provided on volume and value of landings for individual species, so the trends contained in Figure 7.13 should be treated with care. Specifically, in terms of volume, there is no UK data for round sardinella for 2010, while there is no data on Atlantic horse mackerel or European pilchard for the French fleet in 2009, incomplete DCF data sets were submitted, a coherent time series analysis of landings by species was not possible for the 'Other Regions'.

Data coverage for the corresponding landings values follows a similar trend. According to the available data, the main species for the EU 'other region' fleet in 2011 in terms of volume landed was round sardinella (99 thousand tonnes, 9% increase from 2010), followed by European pilchard (77 thousand tonnes, 53% increase from 2010) and then yellowfin tuna (39 thousand

tonnes, 8% decrease). In terms of value, the main species for the EU 'other region' fleet in 2011 was yellowfin tuna (€68 million, 8% increase from 2010), followed by skipjack tuna (€42 million, 46% increase from 2010) and then round sardinella (€29 million, 17% decrease). Despite the concerns over data coverage, the average prices obtained for all these key species do seem to be relatively stable between 2008 and 2011. Yellowfin tuna achieved the highest average price per kilo in 2011 (€0.75 per kg), followed by chub mackerel (€0.74 per kg) and then round sardinella (€0.68 per kg).

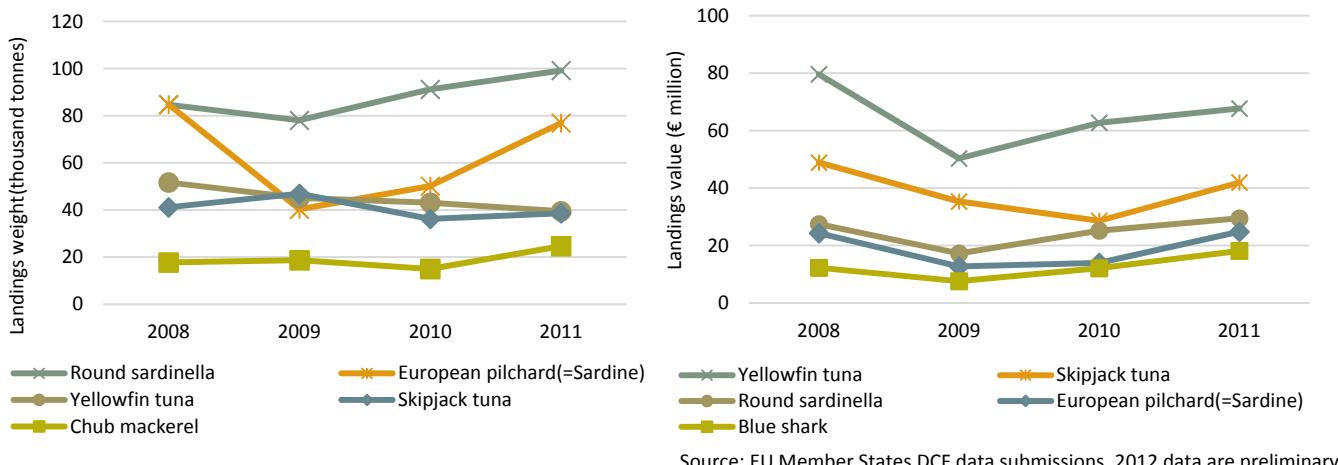


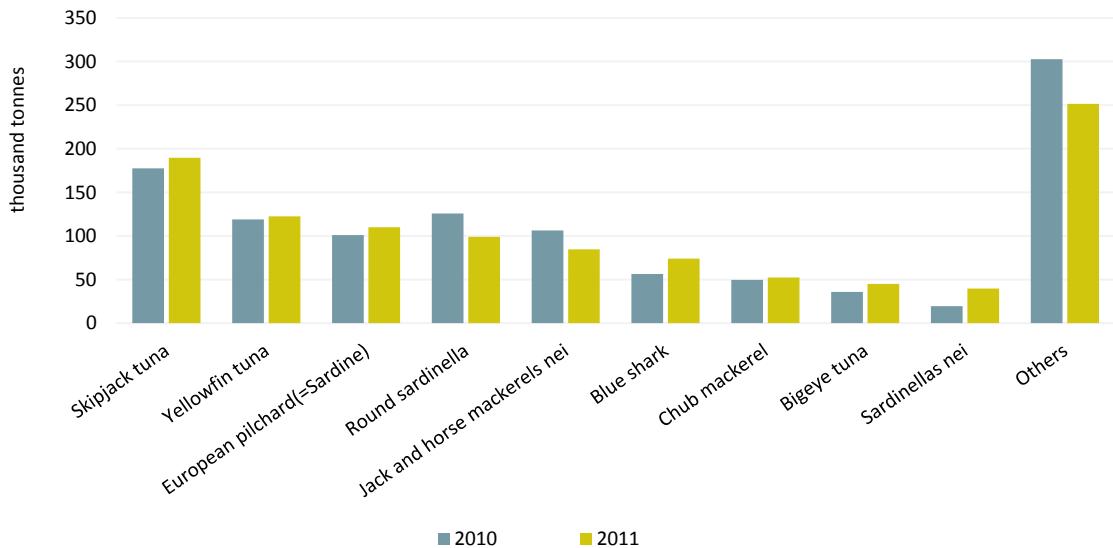
Figure 7.13 EU 'Other Regions' landings by top 5 species in 2008-2011 (DCF).

Again, contrasting the DCF landings data with the official FAO statistics is revealing: FAO data on landings by species suggests that Skipjack tuna achieved the highest landed weight by the EU fleet in 2011 in 'Other Regions' at 190 thousand tonnes, followed by Yellowfin tuna (122 thousand tonnes) and then European pilchard (110 thousand tonnes), see Figure 7.13.

In 2012, around 81% of the total value landed by Lithuanian fleet was contributed by the long distance fleet, which employs around 372 FTEs. The crew for long distance vessels consist mostly from Lithuanian employees as well as mixed foreign employees from non EU countries including from the area where the vessel operates. Salaries paid in this sector are much higher compared to gross average wage in Lithuania. In 2011 wages paid were approximately 55% higher than average gross wage in Lithuania, significantly higher compare to salaries paid for crew of demersal trawlers and coastal fishery boats less than 10m. The main fishing regions for the Lithuanian long distance fleet are CECAF where it operates based on bilateral agreements. The main species for long distance vessels in CECAF region are Cunene horse mackerel, round sardinella and European pilchard which generates the largest share of income. Other important regions are NAFO and NEAFC where vessels target mainly demersal species. All catches from the long distance fleet are landed and sold solely in other countries. Lithuanian ports fish supplies are only from Baltic Sea and coastal area.

In 2011 the Dutch pelagic fleet consisted of 12 vessels. The vessels were mainly operating in the Northeast Atlantic Ocean and some vessels also (partly) in the North Sea. However, according to an EU-agreement with the Mauritanian government some Dutch vessels (limited capacity) were allowed to fish in Mauritanian waters. In 2011 a few vessels of the fleet operated in African waters (approximately one thousand days at sea, 25% of total days at sea). The pelagic fleet themselves paid for licences also to get final access to the Mauritanian waters. Catches were quota restricted.

Total FTE in the fleet is around 500 of which approximately 25% (125 FTE) can be accounted to Mauritanian waters. Fishing in Mauritanian waters: the vessels crew were partly consisted of Mauritanian fishermen. Approximately 55% of the crew was Dutch nationality, 20% Mauritanian, 15% Portuguese and 10% Russian/Lithuanian. The salary for crew (depending on function and the share in revenues) is on par with the national average. The vessels in Mauritanian waters mainly targeted sardines. Other by-catch can be more profitable but these quantities are very small (less than 1%). Almost all landings in Mauritanian waters are sold to African countries. In 2012 the fishery agreement with the Mauritanian government ended and a new agreement could not be established. Some vessels were timely tied up during summertime because of lack of other fishing rights and opportunities in Northeast Atlantic waters and in the Pacific. As at June 2013 a new agreement is still not foreseen and it is expected that vessels will be tied up during summertime again.



(Source: Fishstat FAO)

Figure 7.14 EU 'Other Regions' catches by fish species in 2010 and 2011 (according to FAO).

After termination of fisheries in Pacific waters (outside Chilean EEZ) caused by poor Chilean jack mackerel stocks the economic performance of the Polish long distance fleet is highly dependent on access to Moroccan and Mauritanian fishing grounds and quotas available. If the EU efforts to reach an agreement that will allow the EU fleet to return to the Moroccan waters fail, the Polish fleet will probably consider moving to Atlantic-Antarctic fishing grounds to commence a krill fishery. This however may happen only if a ready market for krill products is found.

The Portuguese fleet is highly diversified with a broad range of vessel types targeting different species predominantly in the Portuguese Exclusive Economic Zone (27.9.a for the mainland fleet, 27.10 for the Azores's fleet and CECAF 34.1.2 for the Madeira's fleet). 18 vessels make up the hooks 24-40m segment which operates in the Africa Coast and Indian Ocean (FAO 34, 41, 51, 57). The fleet targets a variety of species but in particular large pelagic fishes, such as blue shark, bigeye tuna and swordfish. In 2011 the total value of landings was almost €21 million and around 285 FTEs were employed in this fleet segment, contributing to 5% and 2% of the total income from landings and FTEs generated by the Portuguese fishing fleet.

The Italian 'Other Regions' fleet is mainly located in Mauritania, Seychelles, Mauritius, Madagascar and the Comoros. The key species are yellowfin tuna, skipjack tuna, octopus and common shrimp. There are only 14 vessels and the information could not be provided for confidentiality reasons. There is only one Irish and one Estonian company operating in other regions. Economic information could therefore not be provided due the confidentiality reasons.

### ***EU other regions fleet economic performance***

According to the available data, there were approximately xx specific DCF fleet segments (Member State, gear type and length class combinations) operating in the other regions in 2011, see Table 7.13. This table do not include data for all the EU segments operating in 'other regions' due to missing data or confidentiality reasons, while some of the fleet segments reported contain only partial data due to confidentiality.

The largest EU fleet segment in terms of overall income operating in other fishing regions in 2011 was the Spanish purse seine over 40m segment. This segment contained 40 vessels in 2011, employing 1591 FTEs. The fleet segment generated an income of €334 million in 2011, a 15% increase from 2010. This segment also generated the highest GVA of all the fleets operating in the other regions (€107 million (32% of total income)), generated a gross profit of 17% of total income and a GVA per FTE of €67 thousand. In comparison the French over 40m purse seine fleet segment (18 vessels, less than half the size of the Spanish purse seine over 40m fleet) generated a GVA as a percentage of total income of 46% and a GVA per FTE of €128 thousand, almost double the GVA per FTE achieved the Spanish over 40m purse seine fleet.

In terms of income, the other most important EU fleet segments operating in other regions in 2011 were mainly Spanish: demersal trawlers 24-40m (65 vessels, income of €68 million) and over 40m (29 vessels, income of €175 million). Spanish hooks 24-40m (103 vessels, income of €129 million) and over 40m (30 vessels, income of €74 million) were also significant.

Of the ten 24-40m and over 40m fleet segments for which there was good economic data (the aforementioned Spanish purse seine, demersal trawl and hooks, French purse seines, Lithuanian pelagic trawls, Italian demersal trawls and Portuguese hook and demersal trawls), eight out of the ten segment were classified as having an ‘improving’ GVA indicator, with only the Italian demersal trawl fleet classified as ‘deteriorating’. However, for the same segments, gross profits for all but one segment (Lithuanian pelagic trawl over 40m) was classified as ‘deteriorating’. Despite this deterioration, just over half of these segments were classified as being highly profitable in 2011, with only the Spanish demersal trawl 24-40m and over 40m segments, the Italian demersal trawl over 40m segment and the Portuguese demersal trawl 24-40m segment being classified as having a ‘weak’ profitability in 2011. Finally, GVA per FTE was classified as ‘deteriorating’ for all but one segment in 2011; the Portuguese demersal trawl 24-40m segment, see Table 7.13.

Table 7.13 EU 'Other Regions' fleet economic performance by fleet segment in 2011

Other Fishing Regions			N vessels		FTE		Days at Sea (thousand days)		Volume landed (1000 tonnes)		Income (million €)		Gross Value Added (million €)		Gross profit (million €)		Net profit 2011			GVA per FTE (thousand €)	
			MS	Fleet segment	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	2011	%Δ 2010	Development Trend	2011	Development Trend	Profit margin	Profitability	Development Trend	2011	Development Trend	
DEU	TM	VL40XX	2	100%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
ESP	DTS	VL1218	57	n/a	382	n/a	n/a	n/a	n/a	n/a	12.9	n/a	5.7	n/a	1.9	n/a	n/a	High	n/a	14.9	n/a
ESP	DTS	VL1824	68	n/a	438	n/a	n/a	n/a	n/a	n/a	16.1	n/a	5.9	n/a	2.5	n/a	n/a	Weak	n/a	13.6	n/a
ESP	DTS	VL2440	65	0%	786	-67%	n/a	n/a	n/a	n/a	67.6	-20%	13.0	Stable	1.2	Deteriorated	-1.3%	Weak	Deteriorated	16.6	Deteriorated
ESP	DTS	VL40XX	29	-6%	967	-12%	n/a	n/a	n/a	n/a	175.3	69%	60.4	Improved	21.8	Deteriorated	16.1%	High	Deteriorated	62.4	Deteriorated
ESP	HOK	VL1218	14	-7%	52	64%	n/a	n/a	n/a	n/a	2.8	905%	1.6	Improved	0.6	n/a	130.3%	High	n/a	31.1	n/a
ESP	HOK	VL1824	15	50%	182	100%	n/a	n/a	n/a	n/a	23.9	465%	6.9	Improved	4.4	Deteriorated	99.3%	High	Deteriorated	38.2	Deteriorated
ESP	HOK	VL2440	103	-16%	1485	-15%	n/a	n/a	n/a	n/a	128.5	-6%	50.4	Improved	14.0	Deteriorated	1.8%	High	Deteriorated	33.9	Deteriorated
ESP	HOK	VL40XX	30	-12%	790	-14%	n/a	n/a	n/a	n/a	73.5	-19%	24.7	Improved	14.7	Deteriorated	4.4%	High	Deteriorated	31.2	Deteriorated
ESP	MGP	VL1824	17	n/a	119	n/a	n/a	n/a	n/a	n/a	4.9	n/a	1.9	n/a	0.7	n/a	n/a	High	n/a	16.3	n/a
ESP	PMP	VL0010	1005	80%	1839	233%	n/a	n/a	n/a	n/a	18.3	661%	6.6	Improved	-18.5	Deteriorated	-818.1%	Weak	Deteriorated	3.6	Deteriorated
ESP	PMP	VL1012	98	133%	207	59%	n/a	n/a	n/a	n/a	2.9	-7%	1.7	Improved	0.1	Deteriorated	-5.9%	Weak	Deteriorated	8.3	Deteriorated
ESP	PMP	VL1218	160	357%	377	634%	n/a	n/a	n/a	n/a	6.2	923%	1.7	Deteriorated	-2.4	Deteriorated	-754.9%	Weak	Improved	4.6	Deteriorated
ESP	PMP	VL2440	18	6%	171	20%	n/a	n/a	n/a	n/a	11.2	172%	-0.0	n/a	-6.2	Deteriorated	-174.6%	Weak	n/a	-0.1	n/a
ESP	PS	VL0010	16	-73%	34	14%	n/a	n/a	n/a	n/a	0.1	-82%	-0.1	Deteriorated	-0.1	n/a	-16.0%	Weak	n/a	-2.4	n/a
ESP	PS	VL1012	12	0%	63	19%	n/a	n/a	n/a	n/a	1.5	12%	1.1	n/a	0.1	n/a	0.5%	High	n/a	17.0	n/a
ESP	PS	VL1218	58	314%	338	408%	n/a	n/a	n/a	n/a	9.3	570%	4.3	Improved	-0.1	n/a	-65.4%	Weak	n/a	12.8	n/a
ESP	PS	VL1824	22	n/a	226	n/a	n/a	n/a	n/a	n/a	10.7	n/a	6.1	n/a	1.4	n/a	n/a	High	n/a	26.9	n/a
ESP	PS	VL40XX	40	21%	1591	-22%	n/a	n/a	n/a	n/a	333.9	15%	107.4	Improved	58.1	Deteriorated	12.3%	High	Deteriorated	67.5	Deteriorated
FRA	PS	VL40XX	18	0%	438	6%	n/a	n/a	82.0	-4%	121.8	36%	56.0	Improved	20.3	n/a	n/a	n/a	n/a	n/a	127.9
ITA	DTS	VL40XX	16	0%	n/a	n/a	n/a	n/a	2.0	17%	10.7	-12%	8.5	Deteriorated	7.6	Deteriorated	-3.0%	Weak	Improved	n/a	Deteriorated
LTU	TM	VL40XX	8	14%	368	20%	3.3	-6%	96.2	5%	39.0	10%	10.0	Improved	5.9	Improved	9.9%	High	Deteriorated	27.1	Deteriorated
POL	TM	VL40XX	3	0%	270	0%	0.7	-19%	63.9	15%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
PRT	DTS	VL2440	6	-25%	70	-4%	0.9	112%	0.9	3%	8.7	-30%	2.6	Improved	1.3	Deteriorated	-4.2%	Weak	Deteriorated	37.1	Improved
PRT	HOK	VL0010	58	-6%	142	-41%	0.3	-84%	0.1	-34%	0.8	-66%	0.3	Deteriorated	-0.2	Deteriorated	-16.7%	Weak	Deteriorated	2.2	Deteriorated
PRT	HOK	VL1218	20	-9%	236	-5%	3.4	8288%	1.8	-4%	6.6	13%	4.8	Deteriorated	1.9	Deteriorated	15.9%	High	Deteriorated	20.4	Deteriorated
PRT	HOK	VL2440	18	-14%	174	-25%	6.4	5%	9.7	4%	23.7	4%	10.2	Improved	7.1	Deteriorated	7.6%	High	Deteriorated	58.7	Deteriorated

## 8. AER REPORT METHODOLOGY

### 8.1. Introduction

This year's fishing fleet economic data call was issued by DG MARE on the 4 February 2013 with a one month deadline (4 March 2013).

The tables below outline all the DCF economic and transversal variables to be submitted for the years 2008-2013, along with their uploading acronyms and corresponding aggregation levels. All the various definitions for variables, aggregation levels, gear types, length classes, DCF supra regions, FAO sub regions, species, sampling strategies and precision levels can be found by navigating through the data collection website. See <https://datacollection.jrc.ec.europa.eu>

#### *European Member States*

<b>BEL</b> Belgium	<b>IRL</b> Ireland
<b>BGR</b> Bulgaria	<b>ITA</b> Italy
<b>CYP</b> Cyprus	<b>LTU</b> Lithuania
<b>DEU</b> Germany	<b>LVA</b> Latvia
<b>DNK</b> Denmark	<b>MLT</b> Malta
<b>ESP</b> Spain	<b>NLD</b> Netherlands
<b>EST</b> Estonia	<b>POL</b> Poland
<b>EU</b> European Union	<b>PRT</b> Portugal
<b>FIN</b> Finland	<b>ROU</b> Romania
<b>FRA</b> France	<b>SVN</b> Slovenia
<b>GBR</b> United Kingdom	<b>SWE</b> Sweden
<b>GRC</b> Greece	

#### *Fishing Technologies – DCF categories*

<b>DFN</b>	Drift and/or fixed netters
<b>DRB</b>	Dredgers
<b>DTS</b>	Demersal trawlers and/or demersal seiners
<b>FPO</b>	Vessels using pots and/or traps
<b>HOK</b>	Vessels using hooks
<b>MGO</b>	Vessel using other active gears
<b>MGP</b>	Vessels using polyvalent active gears only
<b>PG</b>	Vessels using passive gears only for vessels < 12m
<b>PGO</b>	Vessels using other passive gears
<b>PGP</b>	Vessels using polyvalent passive gears only
<b>PMP</b>	Vessels using active and passive gears
<b>PS</b>	Purse seiners
<b>TM</b>	Pelagic trawlers
<b>TBB</b>	Beam trawlers

Table 8.1 AER 2013 Fleet economic data call contents for years 2008-2013.

Data Type	Variable group	Variable	Variable's Acronym	Years	Aggregation level	Other requested fields	
Economic	Fishing Enterprises	One Vessel	OneVes	2008- 2012	Yearly by: 1. <a href="#">Fleet segment</a> 2. National totals	<a href="#">Sampling Strategy</a> , <a href="#">Achieved Sample Rate</a> , <a href="#">Coefficient of Variation (CV)</a> (For national totals, only achieved sample rate is requested)	
		Two to Five Vessels	TwoFiveVes				
		Six or More Vessels	SixMoreVes				
	Employment	Employment	totjob	2008- 2011			
		FTE	totNatFTE				
		Harmonised FTE	totHarmFTE				
	Income	Landings Income	totLandgInc	2008- 2012			
		Rights Income	totRightsInc	2008- 2011			
		Direct Subsidies	totDirSub				
		Other Income	totOtherInc				
	Expenditure (Cost)	Crew Wage	totCrewWage	2008- 2011	Yearly by: 1. Fleet segment, <a href="#">Supra Region</a> 2. National totals		
		Unpaid Labour	totUnpaidLab				
		Energy Costs	totEnerCost				
		Repair & Maintenance Costs	totRepCost				
		Other Variable Costs	totVarCost				
		Non-Variable Costs	totNoVarCost				
		Rights Cost	totRightsCost				
	Capital and Investments	Annual Depreciation	totDepCost	2008- 2011			
		Depreciation replacement	totDepRep				
		Fishing Rights	totRights				
		Investment	totInvest				
Transversal	Capacity	Average Vessel Age	avgAge	2008- 2013		<a href="#">* Maximum Sea Days – submission not compulsory under DCF</a>	
		Number of Vessels	totVes				
		Average LOA	avgLOA				
		GT	totGT				
		kW	totkW				
	Effort	Sea Days	totSeaDays	2008- 2012	Yearly by: 1. Fleet segment, <a href="#">FAO Area level 4</a> (Baltic), <a href="#">FAO Area level 3</a> (all other regions) 2. National totals		
		Fishing Days	totFishDays				
		kW Fishing Days	totkWFishDays				
		GT Fishing Days	totGTFishDays				
		Maximum Sea Days*	MaxSeaDays		Yearly by: 1. Fleet segment		
		Fishing Operations	totFishOpr				
		Traps	totTraps		Yearly by: 1. Fleet segment, Supra Region 2. National totals		
		Nets	totNets				
		Length of Nets	IngNets				
		Hooks	totHooks				
		Soak Time	totSoakTime				
	Landings	Trips	totTrips	2008- 2011			
		Energy Consumption	totEnerCons				
Recreational	Catches	Weight of Landings	totWghtLandg	2008- 2012	Yearly by: 1. Fleet segment, <a href="#">FAO Area level 4</a> (Baltic), <a href="#">FAO Area level 3</a> (all other regions) 2. National totals		
		Value of Landings	totValLandg				
		Weight of Catch	totWghtCatch	2008- 2012	Yearly, Region level 2 (see <a href="#">Appendix II</a> )		

## 8.2. Economic performance indicator calculations

From the data submitted by Member States, indicators were calculated in order to assess the economic performance of fleet segments, national fleets, regional fleets and the EU fleet as a whole. For economic performance calculations relating to the years 2008-2012, the following formulas were used:

### **Total Income:**

Total Income= Income from landings + income from fishing rights + other income + direct subsidies

### **Income (Revenue):**

Revenue = Income from landings + other income

### **Gross Value Added (GVA):**

GVA = Income from landings + other income – energy costs – repair costs – other variable costs – non variable costs

### **Gross Profit (GRP):**

GRP = Income from landings + other income – crew costs – unpaid labour - energy costs – repair and maintenance costs – other variable costs – non variable costs

### **Net Profit/Loss:**

Net Profit = Income from landings + other income – crew costs – unpaid labour - energy costs – repair costs – other variable costs – non variable costs – depreciation cost – opportunity cost of capital

Where opportunity cost of capital = fixed tangible asset value \* real interest

Where real interest ( $r$ ) =  $[(1 + i) / (1 + \pi)] - 1$ .

Where  $i$  is the nominal interest rate of the Member State in the year concerned and  $\pi$  is the inflation rate of the Member State in the year concerned. See table 11.3.

Note that direct subsidies have generally been excluded in the calculation of profit indicators throughout the report however in certain sections the profit calculation was conducted with and without direct subsidies for comparison (Net profit and Subsidised profit).

### **Rate of Return on Fixed Tangible Assets (ROFTA):**

ROFTA = net profit / tangible asset value (vessel depreciated replacement value)

### **Break-even revenue (BER):**

BER = (Fixed costs + opportunity costs of capital +depreciation) / (1-(crew costs + unpaid labour + energy costs + repair and maintenance costs + other variable costs)/Revenue)

### **Revenue to Break-even revenue Ratio (CR/BER):**

CR/BER = revenue / break-even revenue = Income from landings + other income / BER

Gives an indication of the short term profitability of the fleet/fleet segment (or over/under capitalised): if the ratio is greater than 1, then enough cash flow is generated to cover fixed costs (economically viable in the short term). If the ratio is less than 1, insufficient cash flow is generated to cover fixed costs (indicating that the segment is economically unviable in the short to mid-term).

Table 8.2 Inflation and nominal LT interest rates by EU Member State 2008-2012

	Inflation					LT (nominal) Interest rate				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
BEL	4.5	0	2.3	3.4	2.6	4.42	3.90	3.46	4.23	3.08
BGR	12	2.5	3	3.4	2.4	5.38	7.22	6.01	5.36	4.59
CYP	4.4	0.2	2.6	3.5	3.1	4.60	4.60	4.60	5.79	7.00
DEU	2.8	0.2	1.2	2.5	2.1	3.98	3.22	2.74	2.61	1.51
DNK	3.6	1.1	2.2	2.7	2.4	4.29	3.59	2.93	2.73	1.43
ESP	4.1	-0.2	2	3.1	2.4	4.37	3.98	4.25	5.44	5.89
EST	10.6	0.2	2.7	5.1	4.2	8.16	7.98	5.97		
FIN	3.9	1.6	1.7	3.3	3.2	4.29	3.74	3.01	3.01	1.91
FRA	3.2	0.1	1.7	2.3	2.2	4.23	3.65	3.12	3.32	2.58
GBR	3.6	2.2	3.3	4.5	2.8	4.50	3.36	3.36	2.87	1.76
GRC	4.2	1.3	4.7	3.1	1	4.80	5.17	9.09	15.75	23.33
IRE	3.1	-1.7	-1.6	1.2	1.9	4.53	5.23	5.74	9.60	6.31
ITA	3.5	0.8	1.6	2.9	3.3	4.68	4.31	4.04	5.42	5.58
LTH	11.1	4.2	1.2	4.1	3.2	5.61	14.00	5.57	5.16	4.91
LVA	15.3	3.3	-1.2	4.2	2.3	6.43	12.36	10.34	5.91	4.69
MLT	4.7	1.8	2	2.5	3.2	4.81	4.54	4.19	4.49	4.15
NLD	2.2	1	0.9	2.5	2.8	4.23	3.69	2.99	2.99	1.97
POL	4.2	4	2.7	3.9	3.7	6.07	6.12	5.78	5.97	5.10
PRT	2.7	-0.9	1.4	3.6	2.8	4.52	4.21	5.40	10.24	10.85
ROU	7.9	5.6	6.1	5.8	3.4	7.70	9.69	7.34	7.29	6.68
SVN	5.5	0.9	2.1	2.1	2.8	4.61	4.38	3.83	4.97	5.85
SWE	3.3	1.9	1.9	1.4	0.9	3.89	3.25	2.89	2.61	1.60

## 8.3. Economic performance indicator classification

### Development trend

The development trend, calculated as the change between 2011 and the average value 2008-2010, for the economic performance indicators analysed, such as GVA, gross profit, net profit and GVA/FTE were classified as **High**, **Reasonable** or **Weak** according to the criteria in Table 3.

Table 8.3 Development trend classification

Development - change 2011/2008-2010 average	
>5%	Improved
-5% - 5%	Stable
< -5%	Deterioration

Based on: Pavel, AER 2005

### Profitability

Profitability, as net profit (or net profit as a % of income, where income includes income from the sale of fish and other non-fishing income and excludes direct income subsidies and income from fishing rights) was classified as **High**, **Reasonable** or **Weak** according to the criteria in Table 3.

Table 8.4 Profitability classification

Profitability: Net profit margin in 2011		
>10%	High	Profitability is good and segment is generating a good amount of resource rent
0-10 %	Reasonable	Segment is profitable generating some resource rents
<0%	Weak	The segment is making losses; economic overcapacity

## 8.4. Economic performance projections

For economic performance forecasts at fleet segment and national level, the following formulas were used:

Crew wages (CW) were estimated as an average proportion of the value of landing (VaL) during the three previous years:

$$CW_t = \frac{\sum_{t-3}^{t-1} CW}{\sum_{t-3}^{t-1} VaL} \times VaL_t$$

Non-variable costs (NVC) were estimated using the change in capacity i.e. number of vessels (N):

$$NVC_t = \frac{N_t}{N_{t-1}} \times NVC_{t-1}$$

Variable costs (VC) are projected using changes in effort, i.e. Days at Sea (DAS):

$$VC_t = \frac{DAS_t}{DAS_{t-1}} \times VC_{t-1}$$

The same method is to be applied on variable costs is applied at repair and maintenance.

Fuel costs (FC) are projected using changes in effort (DAS) and change in average fuel price (P):

$$FC_t = \frac{DAS_t}{DAS_{t-1}} \times \frac{P_t}{P_{t-1}} \times FC_{t-1}$$

## 8.5. Disaggregation of economic data

Fleet economic data cannot be collected at higher resolution than defined in the DCF. Only landings (value and weight) and effort data (days at sea, fishing days, etc.) are provided by Member States at the sub-region level by fleet segment. Therefore, the correlation with transversal data is the only viable way for disaggregating economic data at the sea basin level (Baltic, North Sea, N Atlantic, and Mediterranean & Black Sea).

Several assumptions can be made based on correlations between transversal and economic data, which were previously examined during the PGECON workshop in Hamburg 2012. However, these analyses are still preliminary and considered as work in progress. PCEGON (2013) strongly recommended a study on the disaggregation that delivers a comprehensive analysis of different approaches and methods, while also addressing the availability of individual data which varies by MS.

Seeing that the methodology is still to be validated, this exploratory exercise set out to estimate the economic performance indicators at the sea basin level (Baltic, North Sea, N Atlantic, and Mediterranean & Black Sea) by MS and fleet segment.

For this exercise, transversal and economic data by fleet segment were disaggregated based on either the value of landings or effort (days at sea), as:

- (1) Value of landings (VaL) – used to allocate crew costs, costs for fishing rights and all income indicators;
- (2) Effort in days at sea (DAS) – used to allocate fuel costs, repair and maintenance costs, depreciation and variable and non-variable costs; number of vessels, capacity and employment indicators.

Number of vessels operating in the region ( $N_{reg}$ ) was disaggregated using the ratio between the number of days at sea in the region ( $DAS_{reg}$ ) and the total number of days at sea for the fleet segment ( $DAS_{tot}$ ), multiplied by the total number of vessels (N):

$$N_{reg} = \frac{DAS_{Reg}}{DAS_{Tot}} \times N_{tot}$$

The same method was applied to disaggregate the other capacity variables (GT and kW),

$$GT_{reg} = \frac{DAS_{Reg}}{DAS_{Tot}} \times GT_{tot}$$

$$kW_{reg} = \frac{DAS_{Reg}}{DAS_{Tot}} \times kW_{tot}$$

This method was also used to disaggregate the following cost items: energy, repair and maintenance, depreciation, variable and non-variable costs. For example: Fuel cost (FC) was allocated based on effort (DAS) as:

$$FC_{reg} = \frac{DAS_{reg}}{DAS_{tot}} \times FC_{tot}$$

To allocate crew costs (CW), the value of landings was used (VaL) as:

$$CW_{reg} = \frac{VaL_{Reg}}{VaL_{Tot}} \times CW_{tot}$$

The same method was applied to disaggregate fishing rights costs and income indicators.

Regional employment (FTE<sub>reg</sub>) was desegregated using the ratio between the number of vessels operating in the region (estimated) and the total number of vessels and multiplying by total FTE.

$$FTE_{reg} = \frac{N_{Reg}}{N_{Tot}} \times FTE_{tot}$$

## 9 List of Participants EWG 13-03 and 13-04

1 - Information on STECF members and invited experts' affiliations is displayed for information only. In some instances the details given below for STECF members may differ from that provided in Commission COMMISSION DECISION of 27 October 2010 on the appointment of members of the STECF (2010/C 292/04) as some members' employment details may have changed or have been subject to organisational changes in their main place of employment. In any case, as outlined in Article 13 of the Commission Decision (2005/629/EU and 2010/74/EU) on STECF, Members of the STECF, invited experts, and JRC experts shall act independently of Member States or stakeholders. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members and invited experts make declarations of commitment (yearly for STECF members) to act independently in the public interest of the European Union. STECF members and experts also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: <http://stecf.jrc.ec.europa.eu/adm-declarations>

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## **10 List of Background Documents**

Background documents are published on the EWG-13-04 meeting's web site on:

<http://stecf.jrc.ec.europa.eu/web/stecf/ewg1304>

List of background documents:

EWG-13-03 and 13-04 – Doc 1 - Declarations of invited and JRC experts (see also section 1.2 of this report – List of participants)

## 10. ANNEX TABLES

### Member State

Annex Table 1 – Belgian (BEL) national level data and estimated economic indicators: 2008-2011 and projections for 2012

BEL	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013	
Structure	No. Vessels	(number)	102	100	89	89	0%	↔	86	83
	No. Inactive vessels	(number)	4	8	5	6	20%	↗	4	3
	Average vessel age	(year)	22	23	23	24	4%	↗	25	26
	Vessel tonnage	(thousand tonne)	19.3	19.0	16.1	15.8	-1%	↘	15.3	15
	Vessel power	(thousand kW)	61	61	52	51	-1%	↔	49	48
	No. Enterprises	(number)	97	92	83	88	6%	↗	80	-
Employment	Total employed	(number)	458	409	400	377	-6%	↘	-	-
	FTE (national)	(number)	380	335	352	342	-3%	↘	330	-
	Average wage (FTE)	(thousand €)	74	74	74	77	5%	↗	71	-
	GVA per FTE	(thousand €)	53.9	91.4	103.0	105.0	2%	↗	88.1	-
Fishing effort & production	Days at sea	(thousand day)	19.5	17.7	17.9	17.2	-4%	↘	16.8	-
	Fishing days	(thousand days)	12.3	12.2	10.9	10.4	-4%	↘	10.1	-
	Energy consumption	(million litre)	42.4	52.9	46.4	40.3	-13%	↘	-	-
	Fuel consumption per kg landed	(litre/kg)	2.1	2.8	2.4	2.0	-15%	↘	-	-
	Landings weight	(thousand tonne)	20.0	19.0	19.8	20.1	2%	↗	21.9	-
	Landings value	(million €)	76.3	67.9	76.2	79.5	4%	↗	76.4	-
Income	Landings income	(million €)	76.3	68.1	76.3	79.4	4%	↗	75.8	-
	Other income	(million €)	2.3	4.3	3.6	2.9	-20%	↘	3.3	-
	Fishing rights income	(million €)	-	-	-	-	-	-	-	-
	Direct income subsidies	(million €)	1.3	0.9	1.5	2.7	84%	↗	2.1	-
Costs	Crew wage costs	(million €)	25.3	22.4	23.7	24.2	2%	↗	23.5	-
	Unpaid labour	(million €)	3	2.3	2.2	2.3	1%	↗	2.2	-
	Energy costs	(million €)	34.1	19.3	21.7	24.8	14%	↗	28.9	-
	Repair costs	(million €)	5.4	4.9	4.9	4.9	-2%	↘	4.7	-
	Other variable costs	(million €)	11.9	10.2	9.9	10.4	5%	↗	10.1	-
	Non-variable costs	(million €)	6.7	7.3	7.2	6.5	-10%	↘	6.2	-
	Rights costs	(million €)	-	-	-	-	-	-	-	-
	Annual depreciation	(million €)	10.4	8.5	8.7	8.6	0%	↔	8.6	-
	Opportunity costs of capital	(million €)	0.0	2.8	0.8	0.4	-52%	↘	0.3	-
Performance Indicators	GVA	(million €)	20.5	30.6	36.3	35.9	-1%	↔	29.1	-
	OCF	(million €)	-3.6	9.1	14.0	14.4	3%	↗	7.7	-
	Gross profit	(million €)	-7.7	5.9	10.3	9.5	-8%	↘	3.4	-
	Net profit	(million €)	-18.1	-5.4	0.9	0.5	-49%	↘	-5.5	-
	Net Profit margin	(%)	-23.0	-7.4	1.1	0.6	-51%	↘	-7.0	-
Capital value	Investments	(million €)	3.9	7.3	10.7	13.6	27%	↗	-	-
	Fishing rights	(million €)	-	-	-	-	-	-	-	-
	RoFTA	(%)	-33.9	-7.4	1.4	1.0	-25%	↘	-9.9	-
	Financial position (%)	(%)	69.0	74.0	88.0	81.0	-8%	↘	-	-

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012/2013 are provisional.

Annex Table 2 – Bulgarian (BGR) national level data and estimated economic indicators: 2008-2011 and projections for 2012

BGR	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	854	1118	1383	1010	-27% ↘	1192	1192
	No. Inactive vessels	(number)	1826	1303	1309	1335	2% ↗	1195	
	Average vessel age	(year)	14	15	20	22	10% ↗	24	25
	Vessel tonnage	(thousand tonne)	5.4	8.0	7.5	5.0	-34% ↘	5.1	5.1
	Vessel power	(thousand kW)	31.8	50.9	48.4	33.7	-30% ↘	37.6	37.6
	No. Enterprises	(number)	56	69	77	99	29% ↗	184	
Employment	Total employed	(number)	1433	1732	3933	3276	-17% ↘		
	FTE (national)	(number)	1507	1430	2889	1668	-42% ↘	1969	
	Average wage (FTE)	(thousand €)	0.6	1.0	0.9	1.0	14% ↗	2	
	GVA per FTE	(thousand €)	1.2	-0.2	-0.6	-0.9	-50% ↘	-0.8	
Fishing effort & production	Days at sea	(thousand day)	10.8	12.8	16.0	16.1	1% ↗	25.1	
	Fishing days	(thousand days)	10.8	12.8	16.0	16.1	1% ↗	25.1	
	Energy consumption	(million litre)	1.4	1.4	1.6	1.1	-32% ↘		
	Fuel consumption per kg landed	(litre/kg)	0.2	0.2	0.2	0.1	-18% ↘		
	Landings weight	(thousand tonne)	7.5	7.1	9.3	7.6	-18% ↘	8.1	
	Landings value	(million €)	3.1	2.8	2.3	2.7	19% ↗	4.4	
Income	Landings income	(million €)	3.2	3.1	2.2	2.7	26% ↗	4.6	
	Other income	(million €)	1.1	0.04	1.7			0.8	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)			0.8			0.4	
Costs	Crew wage costs	(million €)	0.8	1.2	2.0	1.5	-25% ↘	3.1	
	Unpaid labour	(million €)	0	0.3	0.5	0.2	-69% ↘	0.6	
	Energy costs	(million €)	1.4	0.8	1.8	1.5	-17% ↘	2.7	
	Repair costs	(million €)	0.7	0.6	1.0	0.6	-39% ↘	0.9	
	Other variable costs	(million €)	0.3	1.8	2.0	1.9	-8% ↘	2.9	
	Non-variable costs	(million €)	0.3	0.2	0.8	0.3	-67% ↘	0.3	
	Rights costs	(million €)							
	Annual depreciation	(million €)	0.1	0.2	0.7	0.1	-83% ↘	0.4	
	Opportunity costs of capital	(million €)	-0.1	0.1	0.5			0.4	
Economic performance indicators	GVA	(million €)	1.8	-0.2	-1.7	-1.5	13% ↗	-1.5	
	OCF	(million €)	1.0	-1.4	-2.9	-3.0	-3% ↘	-4.2	
	Gross profit	(million €)	0.9	-1.7	-4.2	-3.1	25% ↗	-5.2	
	Net profit	(million €)	1.0	-2.0	-5.4	-3.3	39% ↗	-6.0	
	Net Profit margin	(%)	22.3	-63.4	-141.0	-120.7	14% ↗	-	111.1
Capital value	Investments	(million €)	3.2	1.4	3.4	7.9	135% ↗		
	Fishing rights	(million €)							
	RoFTA	(%)	40.3	-79.8	-32.7	-2752.8	-8331% ↘	-	-72.2
	Financial position (%)	(%)	18.2	4.9	9.0	43.9	388% ↗		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012/2013 are provisional

Annex Table 3 – Cypriot (CYP) national level data and estimated economic indicators: 2008-2011 and projections for 2012

CYP	Variable	Unit	2008	2009	2010	2011	2012	%Δ 2011-10
Structure	No. Vessels	(number)						
	No. Inactive vessels	(number)						
	Average vessel age	(year)						
	Vessel tonnage	(thousand tonne)						
	Vessel power	(thousand kW)						
	No. Enterprises	(number)	531	533	911	962	849	6% 
	Total employed	(number)						
Employment	FTE (national)	(number)						
	Average wage (FTE)	(thousand €)						
	GVA per FTE	(thousand €)						
	Days at sea	(thousand day)						
	Energy consumption	(million litre)						
	Fuel consumption per kg landed	(litre/kg)						
	Landings weight	(thousand tonne)	2.0	1.4	1.4	1.1	1.1	-18% 
Fishing effort & production	Landings value	(million €)	13.2	8.8	10.2	8.0	7.3	-22% 
	Landings income	(million €)					7.4	
	Other income	(million €)						
	Fishing rights income	(million €)						
	Direct income subsidies	(million €)						
	Crew wage costs	(million €)						
	Unpaid labour	(million €)						
Income	Energy costs	(million €)						
	Repair costs	(million €)						
	Other variable costs	(million €)						
	Non-variable costs	(million €)						
	Rights costs	(million €)						
	Annual depreciation	(million €)						
	Opportunity costs of capital	(million €)						
Costs	GVA	(million €)						
	OCF	(million €)						
	Gross profit	(million €)						
	Net profit	(million €)						
	Net Profit margin	(%)						
	Investments	(million €)						
	Fishing rights	(million €)						
Economic performance Indicators	RoFTA	(%)						
	Financial position (%)	(%)						

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012/2013 are provisional.

Annex Table 4 – German (DEU) national level data and estimated economic indicators: 2008-2011 and projections for 2012

DEU	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	1861	1817	1759	1664	-5% ↘	1564	1543
	No. Inactive vessels	(number)	513	506	499	437	-12% ↘	411	367
	Average vessel age	(year)	27	28	28	29	4% ↗	29	30
	Vessel tonnage	(thousand tonne)	66.6	67.9	65.9	64.6	-2% ↘	62.1	62
	Vessel power	(thousand kW)	155	158	156	151	-3% ↘	142	141
	No. Enterprises	(number)	1293	1245	1198	1128	-6% ↘	1053	
Employment	Total employed	(number)	2068	1529	1744	1639	-6% ↘		
	FTE (national)	(number)	1615	1238	1365	1258	-8% ↘	1182	
	Average wage (FTE)	(thousand €)	26	36	33	34	3% ↗	34	
	GVA per FTE	(thousand €)	37.7	48.4	54.3	45.9	-15% ↘	58.9	
Fishing effort & production	Days at sea	(thousand day)	137.5	127.6	115.1	109.4	-5% ↘	118.6	
	Fishing days	(thousand days)	142.0	132.4	112.9	112.7	0% ↔	123.7	
	Energy consumption	(million litre)	48.3	46.1	47.1	41.6	-12% ↘		
	Fuel consumption per kg landed	(litre/kg)	0.4	0.4	0.5	0.5	-2% ↗		
	Landings weight	(thousand tonne)	110.2	113.7	87.3	78.1	-11% ↘	77.8	
	Landings value	(million €)	153.9	123.3	137.0	125.4	-8% ↘	149.8	
Income	Landings income	(million €)	149.8	122.5	135.6	125.9	-7% ↘	146.6	
	Other income	(million €)	2.7	3.2	4.5	3.8	-17% ↘	4.1	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	0.8	1.1	1.2	1.7	35% ↗	1.4	
Costs	Crew wage costs	(million €)	30.7	35.3	36.0	34.7	-4% ↘	40.4	
	Unpaid labour	(million €)	11	9.3	9.5	8.3	-13% ↘	9.9	
	Energy costs	(million €)	26.3	19.4	23.0	26.0	13% ↗	33.8	
	Repair costs	(million €)	18.8	18.7	18.7	18.5	-1% ↘	20.1	
	Other variable costs	(million €)	24.3	12.5	10.0	10.9	9% ↗	11.8	
	Non-variable costs	(million €)	22.1	15.1	14.3	16.4	15% ↗	15.5	
	Rights costs	(million €)							
	Annual depreciation	(million €)	25.2	23.4	22.9	21.1	-8% ↘	22.0	
	Opportunity costs of capital	(million €)	1.3	3.3	1.5	0.1	-93% ↘	-0.5	
Economic performance indicators	GVA	(million €)	60.9	59.9	74.1	57.8	-22% ↘	69.6	
	OCF	(million €)	31.0	25.7	39.4	24.7	-37% ↘	30.7	
	Gross profit	(million €)	18.9	15.3	28.7	14.8	-48% ↘	19.3	
	Net profit	(million €)	-7.5	-11.5	4.3	-6.4	-249% ↘	-2.1	
	Net Profit margin	(%)	-5.0	-9.1	3.1	-4.9	-261% ↘	-1.4	
Capital value	Investments	(million €)	18.4	24.8	21.8	24.8	14% ↗		
	Fishing rights	(million €)							
	RoFTA	(%)	-6.8	-10.4	4.3	-6.5	-252% ↘	-2.1	
	Financial position (%)	(%)	68.0	68.0	91.0	105.0	15% ↗		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012/2013 are provisional.

Annex Table 5 – Danish (DNK) national level data and estimated economic indicators: 2008–2011 and projections for 2012

DNK	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012
Structure	No. Vessels	(number)	2813	2786	2682	2663	-1% ↕	
	No. Inactive vessels	(number)	1003	1017	1043	1060	2% ↗	
	Average vessel age	(year)	29	29	29	30	2% ↗	
	Vessel tonnage	(thousand tonne)	78.8	74.4	68.0	67.5	-1% ↕	
	Vessel power	(thousand kW)	283	269	247	239	-3% ↘	
	No. Enterprises	(number)	1721	1655	1574	1553	-1% ↘	
Employment	Total employed	(number)	1801	1694	1528	1460	-4% ↘	
	FTE (national)	(number)	2061	1854	1804	1661	-8% ↘	
	Average wage (FTE)	(thousand €)	59	58	66	69	4% ↗	
	GVA per FTE	(thousand €)	97.3	93.1	148.0	150.0	1% ↗	
Fishing effort & production	Days at sea	(thousand day)	129.2	127.5	119.4	116.0	-3% ↘	113.0
	Fishing days	(thousand days)	122.5	120.6	112.5	108.5	-4% ↘	106.9
	Energy consumption	(million litre)	94.1	94.5	94.7	88.1	-7% ↘	
	Fuel consumption per kg landed	(litre/kg)	0.1	0.1	0.1	0.1	0% ↕	
	Landings weight	(thousand tonne)	690.5	773.0	822.3	710.9	-14% ↘	493.9
	Landings value	(million €)	334.5	285.8	384.2	412.9	7% ↗	372.7
Income	Landings income	(million €)	330.1	281.9	387.2	385.9	0% ↕	372.6
	Other income	(million €)	13.3	10.8	17.4	8.6	-50% ↘	13.0
	Fishing rights income	(million €)				8.0		4.0
	Direct income subsidies	(million €)	0.2	0.1	0.1	0.2	243% ↗	0.2
Costs	Crew wage costs	(million €)	77.3	67.7	79.0	75.4	-5% ↘	72.2
	Unpaid labour	(million €)	44	39.6	40.5	39.2	-3% ↘	37.3
	Energy costs	(million €)	51.8	33.9	45.1	53.2	18% ↗	62.1
	Repair costs	(million €)	37.1	35.8	39.1	40.9	5% ↗	39.9
	Other variable costs	(million €)	32.3	29.9	32.0	30.7	-4% ↘	29.9
	Non-variable costs	(million €)	21.7	20.6	21.3	20.5	-4% ↘	
	Rights costs	(million €)	7.1	6.6	11.6	16.9	47% ↗	14.2
	Annual depreciation	(million €)	88.7	82.7	85.5	88.6	4% ↗	87.0
	Opportunity costs of capital	(million €)	2.9	10.4	3.2	0.1	-96% ↘	
Economic performance Indicators	GVA	(million €)	200.5	172.6	267.1	249.1	-7% ↘	253.8
	OCF	(million €)	116.3	98.5	176.6	165.0	-7% ↘	171.5
	Gross profit	(million €)	78.9	65.3	147.5	134.5	-9% ↘	144.4
	Net profit	(million €)	-12.7	-27.7	58.9	45.8	-22% ↘	
	Net Profit margin	(%)	-3.7	-9.5	14.6	11.6	-20% ↘	
Capital value	Investments	(million €)	57.8	69.9	23.2	19.7	-15% ↘	
	Fishing rights	(million €)	348.2	846.3	739.3	737.7	0% ↕	
	RoFTA	(%)	-2.9	-6.6	13.3	11.3	-16% ↘	
	Financial position (%)	(%)	0.7	0.6	0.7	0.8	12% ↗	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 6 – Spanish (ESP) national level data and estimated economic indicators: 2008-2011 and projections for 2012

ESP	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012
Structure	No. Vessels	(number)	13115	11501	11209	10892	-3% ↘	10544
	No. Inactive vessels	(number)	3312	1818	854	1007	18% ↗	1617
	Average vessel age	(year)	28	26	27	28	4% ↗	28
	Vessel tonnage	(thousand tonne)	470.1	459.5	439.7	414.7	-6% ↘	400.1
	Vessel power	(thousand kW)	1068	1027	983	936	-5% ↘	904
	No. Enterprises	(number)	12093	10616	10351	10096	-2% ↘	9776
Employment	Total employed	(number)	30539	38045	39281	36294	-8% ↘	
	FTE (national)	(number)	30715	35844	33678	32194	-4% ↘	31166
	Average wage (FTE)	(thousand €)	17	21	19	20	9% ↗	
	GVA per FTE	(thousand €)	16.7	27.9	22.4	26.1	17% ↗	
Fishing effort & production	Days at sea	(thousand day)						
	Fishing days	(thousand days)						
	Energy consumption	(million litre)						
	Fuel consumption per kg landed	(litre/kg)						
	Landings weight	(thousand tonne)						674.6
Income	Landings value	(million €)						
	Landings income	(million €)	1445.2	1846.5	1757.5	1947.1	11% ↗	
	Other income	(million €)			15.8	35.0	122% ↗	25.4
	Fishing rights income	(million €)			0.6	0.1	-85% ↘	0.3
Costs	Direct income subsidies	(million €)	56.3	62.8	32.6	25.4	-22% ↘	29.0
	Crew wage costs	(million €)	425.2	598.6	522.1	551.2	6% ↗	
	Unpaid labour	(million €)	83	137.1	109.9	107.3	-2% ↘	0
	Energy costs	(million €)	380.0	346.4	355.7	439.7	24% ↗	
	Repair costs	(million €)	109.1	141.3	133.1	143.8	8% ↗	
	Other variable costs	(million €)	343.8	201.9	408.9	422.9	3% ↗	
	Non-variable costs	(million €)	99.3	156.0	123.0	136.7	11% ↗	132.4
	Rights costs	(million €)			8.2	7.4	-10% ↘	7.8
	Annual depreciation	(million €)	174.5	201.9	132.5	150.1	13% ↗	141.3
Economic performance Indicators	Opportunity costs of capital	(million €)	1.5	24.0	12.1	11.7	-3% ↘	
	GVA	(million €)	513.0	1000.9	752.6	839.0	11% ↗	
	OCF	(million €)	144.1	465.1	255.6	305.9	20% ↗	132.4
	Gross profit	(million €)	4.8	265.2	120.7	180.5	49% ↗	
	Net profit	(million €)	-171.2	39.3	-23.9	18.6	178% ↗	
Capital value	Net Profit margin	(%)	-11.9	2.1	-1.4	0.9	170% ↗	
	Investments	(million €)	97.1	26.9	44.4	30.8	-31% ↘	
	Fishing rights	(million €)			67.3	70.2	4% ↗	
	RoFTA	(%)	-29.2	6.9	-4.4	3.6	183% ↗	
	Financial position (%)	(%)				8.6		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 7 – Estonian (EST) national level data and estimated economic indicators: 2008-2011 and projections for 2012

EST	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	964	963	947	934	-1% ↘	932	1360
	No. Inactive vessels	(number)	14	22	13	11	- 15%	20	20
	Average vessel age	(year)	19	20	21	22	5% ↗	12.8	15
	Vessel tonnage	(thousand tonne)	19.8	17.8	17.4	14.7	- 15%	37	47
	Vessel power	(thousand kW)	50	46	44	40	- 11%	37	47
	No. Enterprises	(number)	687	686	662	659	0% ↔		
Employment	Total employed	(number)	3002	1895	1948				
	FTE (national)	(number)			521				
	Average wage (FTE)	(thousand €)			9				
	GVA per FTE	(thousand €)			14.0				
Fishing effort & production	Days at sea	(thousand day)							
	Fishing days	(thousand days)							
	Energy consumption	(million litre)	5.5	5.0	4.3				
	Fuel consumption per kg landed	(litre/kg)	0.1	0.1	0.1				
	Landings weight	(thousand tonne)	83.5	83.5	79.6	63.3	- 20% ↘	8.7	
	Landings value	(million €)	15.6	14.4	12.9	13.8	7% ↗	3.9	
Income	Landings income	(million €)	15.6	14.4	12.9	13.8	7% ↗	3.9	
	Other income	(million €)	0.1	0.1	0.1			0.1	
	Fishing rights income	(million €)			0.0	0.0			
	Direct income subsidies	(million €)	0.1	2.4	2.1			1.0	
Costs	Crew wage costs	(million €)	5.2	4.8	4.6			0.7	
	Unpaid labour	(million €)	0	0	0.04			0.0	
	Energy costs	(million €)	3.2	2.2	2.4				
	Repair costs	(million €)	0.8	1.3	1.4				
	Other variable costs	(million €)	1.5	1.4	1.4				
	Non-variable costs	(million €)	0.5	0.6	0.5				
	Rights costs	(million €)		0.4	0.02			0.01	
	Annual depreciation	(million €)	1.3	1.6	1.7			0.8	
	Opportunity costs of capital	(million €)	-0.4	1.3	0.6			-0.7	
Economic performance Indicators	GVA	(million €)	9.7	9.0	7.3				
	OCF	(million €)	4.5	6.2	4.8				
	Gross profit	(million €)	4.5	4.2	2.7			3.3	
	Net profit	(million €)	3.5	1.4	0.5			3.2	
	Net Profit margin (%)	(%)	22.4	9.4	3.4			80.2	
Capital value	Investments	(million €)	0.8	1.0	1.7				
	Fishing rights	(million €)	2.8	2.8	2.8				
	RoFTA	(%)	21.8	8.1	2.5			34.9	
	Financial position (%)	(%)	30.0	34.0	32.0				

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 8 – Finnish (FIN) national level data and estimated economic indicators: 2008-2011 and projections for 2012

FIN	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	3240	3240	3270	3365	3% ↗	3359	3241
	No. Inactive vessels	(number)	1687	1709	1662	1716	3% ↗	1310	
	Average vessel age	(year)	24	24	24	25	2% ↗	25	26
	Vessel tonnage	(thousand tonne)	16.4	16.9	16.4	16.7	2% ↗	15.6	16
	Vessel power	(thousand kW)	173	175	171	173	1% ↔	170	171
	No. Enterprises	(number)	1549	1531	1579	1613	2% ↗	2018	
Employment	Total employed	(number)	1613	1609	1703	1722	1% ↗		
	FTE (national)	(number)	264	229	313	316	1% ↔	315	
	Average wage (FTE)	(thousand €)	32	43	21	27	25% ↗	13	
	GVA per FTE	(thousand €)	51.9	69.7	39.1	38.9	-1% ↔	45.1	
Fishing effort & production	Days at sea	(thousand day)	129.5	143.0	148.9	148.2	-1% ↔	131.6	
	Fishing days	(thousand days)	128.7	143.0	149.7	147.3	-2% ↘	130.7	
	Energy consumption	(million litre)	8.7	13.5	13.6	14.2	4% ↗	16.1	
	Fuel consumption per kg landed	(litre/kg)	0.1	0.1	0.1	0.1	9% ↗		
	Landings weight	(thousand tonne)	111.5	117.5	122.1	119.7	-2% ↘	133.1	
	Landings value	(million €)	23.1	23.8	26.7	32.5	22% ↗	34.4	
Income	Landings income	(million €)	24.5	27.4	27.1	33.0	22% ↗	34.5	
	Other income	(million €)	2.3	5.1	3.1	2.5	-19% ↘	2.8	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	2.2	1.5	1.5	1.5	5% ↗	1.5	
Costs	Crew wage costs	(million €)	4.3	5.0	3.2	3.9	23% ↗	4.1	
	Unpaid labour	(million €)	4	4.9	3.5	4.5	29% ↗	4.6	
	Energy costs	(million €)	5.4	5.9	7.6	10.3	35% ↗	10.9	
	Repair costs	(million €)	3.7	5.0	4.0	4.8	20% ↗	4.3	
	Other variable costs	(million €)	0.9	1.5	2.2	3.0	32% ↗	2.6	
	Non-variable costs	(million €)	3.0	4.2	4.1	5.2	29% ↗	5.2	
	Rights costs	(million €)	0.2	0.3	0.3	0.3	7% ↗	0.3	
	Annual depreciation	(million €)	2.7	2.2	3.6	4.7	30% ↗	4.2	
	Opportunity costs of capital	(million €)	0.2	1.3	0.9	-0.2	-122% ↘	-0.8	
Economic performance indicators	GVA	(million €)	13.7	16.0	12.3	12.3	0% ↔	14.2	
	OCF	(million €)	11.5	12.2	10.2	9.6	-6% ↘	11.3	
	Gross profit	(million €)	5.2	6.1	5.6	3.9	-31% ↘	5.4	
	Net profit	(million €)	2.3	2.7	1.1	-0.7	-163% ↘	2.1	
	Net Profit margin	(%)	8.7	8.2	3.5	-1.9	-153% ↘	5.6	
Capital value	Investments	(million €)	5.0	3.4	4.4	15.5	256% ↗		
	Fishing rights	(million €)							
	RoFTA	(%)	3.7	4.4	1.6	-1.0	-161% ↘	3.1	
	Financial position (%)	(%)	85.0	56.0	49.0	52.0	6% ↗		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 9 French (FRA) national level data and estimated economic indicators: 2008-2011 and projections for 2012

FRA	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012
Structure	No. Vessels	(number)	6605	6475	6102	6004	-2% ↘	6149
	No. Inactive vessels	(number)						
	Average vessel age	(year)	20	21	21	21	3% ↗	22
	Vessel tonnage	(thousand tonne)	188.2	176.4	163.9	161.0	-2% ↘	156.1
	Vessel power	(thousand kW)	958	929	885	880	-1% ↔	884
	No. Enterprises	(number)	4166	5093	5185	5059	-2% ↘	4993
Employment	Total employed	(number)	11674	11960	10872	10713	-1% ↘	
	FTE (national)	(number)	8375	9058	8433	7447	-12% ↘	7627
	Average wage (FTE)	(thousand €)	47	45	46	55	20% ↗	
	GVA per FTE	(thousand €)	60.3	54.6	62.4	79.3	27% ↗	
Fishing effort & production	Days at sea	(thousand day)			507.1	492.8	-3% ↘	
	Fishing days	(thousand days)			463.7	455.3	-2% ↘	
	Energy consumption	(million litre)	294.6	383.5	357.3	341.6	-4% ↘	
	Fuel consumption per kg landed	(litre/kg)	0.7	0.9	0.8	0.7	-8% ↘	
	Landings weight	(thousand tonne)	433.8	431.3	447.2	463.6	4% ↗	
	Landings value	(million €)	903.7	876.3	924.3	1050.7	14% ↗	
Income	Landings income	(million €)	999.7	1007.6	1011.4	1136.9	12% ↗	
	Other income	(million €)	15.7	18.3	26.0	19.5	-25% ↘	22.7
	Fishing rights income	(million €)						
	Direct income subsidies	(million €)	28.1	10.7	5.9	8.6	46% ↗	7.3
Costs	Crew wage costs	(million €)	392.9	403.1	386.2	409.5	6% ↗	
	Unpaid labour	(million €)	0	0	0	0		
	Energy costs	(million €)	191.4	154.6	179.7	212.5	18% ↗	
	Repair costs	(million €)	71.2	85.6	80.6	87.9	9% ↗	
	Other variable costs	(million €)	65.3	136.4	104.2	125.5	21% ↗	
	Non-variable costs	(million €)	182.6	155.0	147.1	139.6	-5% ↘	143.0
	Rights costs	(million €)						
	Annual depreciation	(million €)	68.0	61.1	61.1	61.1	0% ↔	61.1
	Opportunity costs of capital	(million €)			16.6	13.0	-22% ↘	4.5
Economic performance Indicators	GVA	(million €)	504.9	494.2	525.9	590.8	12% ↗	
	OCF	(million €)	140.1	101.8	145.6	189.9	30% ↗	143.0
	Gross profit	(million €)	112.0	91.1	139.7	181.2	30% ↗	
	Net profit	(million €)			62.1	107.2	73% ↗	
	Net Profit margin	(%)			6.0	9.3	55% ↗	
Capital value	Investments	(million €)			106.4	73.2	-31% ↘	
	Fishing rights	(million €)						
	RoFTA	(%)			5.2	8.2	58% ↗	
	Financial position (%)	(%)						

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 10 – UK (GBR) national level data and estimated economic indicators: 2008-2011 and projections for 2012

GBR	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	6796	6616	6544	6467	-1% ↘	6414	6405
	No. Inactive vessels	(number)	2088	1958	1956	1815	-7% ↘	1849	
	Average vessel age	(year)	27	27	26	25	-3% ↘	25	25
	Vessel tonnage	(thousand tonne)	212.2	207.2	207.6	207.2	0% ↔	202	201
	Vessel power	(thousand kW)	860	840	835	826	-1% ↘	807	804
	No. Enterprises	(number)	4490	4441	4372	4427	1% ↗	4336	
Employment	Total employed	(number)	12614	12212	12703	12405	-2% ↘		
	FTE (national)	(number)	7983	7519	7589	7192	-5% ↘	7133	
	Average wage (FTE)	(thousand €)	26	26	26	32	23% ↗	30	
	GVA per FTE	(thousand €)	45.7	48.0	46.9	59.7	27% ↗	56.1	
Fishing effort & production	Days at sea	(thousand day)	446.3	424.7	420.4	414.5	-1% ↘	397.3	
	Fishing days	(thousand days)	369.5	341.5	336.1	333.0	-1% ↔	326.3	
	Energy consumption	(million litre)	298.2	288.0	283.3	268.1	-5% ↘		
	Fuel consumption per kg landed	(litre/kg)	0.5	0.5	0.5	0.5	-12% ↘		
	Landings weight	(thousand tonne)	559.4	562.2	553.9	597.3	8% ↗	611.8	
	Landings value	(million €)	766.9	736.1	794.3	948.7	19% ↗	936.9	
Income	Landings income	(million €)	785.0	738.2	795.9	948.7	19% ↗	937.0	
	Other income	(million €)	24.3	13.0	14.7	23.1	57% ↗	18.9	
	Fishing rights income	(million €)		2.4	2.0	1.7	-15% ↘	1.8	
	Direct income subsidies	(million €)	39.0	33.7	35.7	36.4	2% ↗	36.0	
Costs	Crew wage costs	(million €)	196.3	182.7	182.2	217.6	19% ↗	214.9	
	Unpaid labour	(million €)	15	14.4	13.0	9.7	-25% ↘	12.2	
	Energy costs	(million €)	169.9	114.4	133.8	169.3	26% ↗	194.1	
	Repair costs	(million €)	75.9	71.7	76.5	86.5	13% ↗	82.9	
	Other variable costs	(million €)	129.1	130.4	134.2	164.7	23% ↗	157.9	
	Non-variable costs	(million €)	69.4	73.7	110.1	121.8	11% ↗	120.8	
	Rights costs	(million €)	25.0	20.0	25.8	33.6	30% ↗	29.7	
	Annual depreciation	(million €)	49.9	56.9	55.6	52.8	-5% ↘	54.2	
	Opportunity costs of capital	(million €)	4.4	6.0	0.3	-8.2	-2663% ↘	-5.5	
Economic performance indicators	GVA	(million €)	365.0	361.0	356.1	429.5	21% ↗	400.2	
	OCF	(million €)	182.8	194.4	185.8	216.4	16% ↗	193.4	
	Gross profit	(million €)	153.8	163.8	160.9	202.2	26% ↗	173.0	
	Net profit	(million €)	99.4	101.0	105.0	157.7	50% ↗	124.4	
	Net Profit margin	(%)	12.3	13.4	13.0	16.2	25% ↗	13.0	
Capital value	Investments	(million €)	44.7	32.6	62.5	46.2	-26% ↘		
	Fishing rights	(million €)	551.7	567.3	557.9	714.4	28% ↗		
	RoFTA	(%)	19.7	19.2	19.0	30.0	58% ↗	23.1	
	Financial position (%)	(%)	43.6	52.6	47.3	39.2	-17% ↘		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 11 – Irish (IRL) national level data and estimated economic indicators: 2008-2011 and projections for 2012

IRL	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	1972	2044	2119	2162	2%	2203	2247
	No. Inactive vessels	(number)	705	750	785	802	2%	808	
	Average vessel age	(year)	24	25	25	25	2%	26	26
	Vessel tonnage	(thousand tonne)	78.3	71.7	70.8	72.2	2%	65	65
	Vessel power	(thousand kW)	216	198	197	202	3%	198	198
	No. Enterprises	(number)	1833	1866	1929	1846	-4%	1901	
Employment	Total employed	(number)	3987	3849	4399	4714	7%		
	FTE (national)	(number)	2761	2528	2825	3166	12%	3226	
	Average wage (FTE)	(thousand €)	17	15	21	21	-2%		
	GVA per FTE	(thousand €)	33.6	33.9	41.1	35.2	-14%		
Fishing effort & production	Days at sea	(thousand day)	49.6	49.5	54.3	49.5	-9%	56.4	
	Fishing days	(thousand days)	40.0	40.0	44.1	40.5	-8%	44.5	
	Energy consumption	(million litre)	75.7	73.9	65.0	63.8	-2%		
	Fuel consumption per kg landed	(litre/kg)	0.4	0.3	0.2	0.3	52%		
	Landings weight	(thousand tonne)	198.0	262.6	314.2	199.4	-37%		
	Landings value	(million €)	196.5	185.9	202.1	200.3	-1%		
Income	Landings income	(million €)	202.9	173.3	220.2	239.6	9%		
	Other income	(million €)	17.3	12.3	5.7	6.7	19%	6.2	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	22.9	16.4	1.0	0.6	-36%	0.8	
Costs	Crew wage costs	(million €)	46.5	38.7	59.9	62.3	4%		
	Unpaid labour	(million €)	0	0.1	0.4	4.1	946%		
	Energy costs	(million €)	43.6	32.7	38.6	49.8	29%	67.8	
	Repair costs	(million €)	21.0	23.5	24.0	29.7	24%	33.8	
	Other variable costs	(million €)	19.4	16.5	17.9	17.2	-4%	19.6	
	Non-variable costs	(million €)	43.5	27.2	29.3	38.1	30%	38.8	
	Rights costs	(million €)							
	Annual depreciation	(million €)	29.8	26.8	20.3	29.0	43%	24.6	
	Opportunity costs of capital	(million €)	5.9	28.9	38.2	30.5	-20%	22.6	
Economic performance indicators	GVA	(million €)	92.7	85.8	116.1	111.6	-4%		
	OCF	(million €)	69.2	63.4	57.2	49.9	-13%		
	Gross profit	(million €)	46.2	47.0	55.8	45.2	-19%		
	Net profit	(million €)	10.5	-8.7	-2.6	-14.3	-442%		
	Net Profit margin	(%)	4.8	-4.7	-1.2	-5.8	-397%		
Capital v alue	Investments	(million €)	37.7	14.5	41.5	28.7	-31%		
	Fishing rights	(million €)							
	RoFTA	(%)	2.5	-2.1	-0.5	-3.9	-648%		
	Financial position (%)	(%)	60.1	64.0	33.2	26.6	-20%		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012/2013 are provisional.

Annex Table 12 – Italian (ITA) national level data and estimated economic indicators: 2008-2011 and projections for 2012

ITA	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012
Structure	No. Vessels	(number)	15038	14977	14969	14715	-2% ↘	14828
	No. Inactive vessels	(number)	1568	1603	1685	1396	-17% ↘	1750
	Average vessel age	(year)	27	27	28	28	2% ↗	28
	Vessel tonnage	(thousand tonne)	199.0	197.6	191.2	185.0	-3% ↘	183.0
	Vessel power	(thousand kW)	1273	1271	1119	1237	11% ↗	1237
	No. Enterprises	(number)	9960	8663	8782			
Employment	Total employed	(number)	29349	28967	28982	28726	-1% ↔	
	FTE (national)	(number)	21728	22303	22002	20599	-6% ↘	20758
	Average wage (FTE)	(thousand €)	12	16	14	14	-6% ↘	10
	GVA per FTE	(thousand €)	26.7	34.2	29.7	28.3	-5% ↘	18.6
Fishing effort & production	Days at sea	(thousand day)	1590.8	1782.8	1667.8	1748.5	5% ↗	1555.8
	Fishing days	(thousand days)	1530.1	1751.5	1646.3	1742.3	6% ↗	1538.3
	Energy consumption	(million litre)	433.0	437.6	402.7	408.2	1% ↗	
	Fuel consumption per kg landed	(litre/kg)	1.9	1.8	1.8	1.9	7% ↗	
	Landings weight	(thousand tonne)	227.1	242.4	224.8	212.4	-6% ↘	194.2
	Landings value	(million €)	1105.7	1202.0	1114.8	1101.0	-1% ↘	905.2
Income	Landings income	(million €)	1105.6	1202.0	1114.9	1101.0	-1% ↘	905.3
	Other income	(million €)						
	Fishing rights income	(million €)						
	Direct income subsidies	(million €)	30.0	12.6	22.2			11.1
Costs	Crew wage costs	(million €)	218.2	300.0	265.0	227.6	-14% ↘	201.2
	Unpaid labour	(million €)	47	60.7	52.5	52.2	0% ↔	42.8
	Energy costs	(million €)	302.7	203.9	238.5	302.0	27% ↗	321.5
	Repair costs	(million €)	47.1	47.0	46.3	44.6	-4% ↘	39.7
	Other variable costs	(million €)	132.4	143.4	135.3	130.9	-3% ↘	116.5
	Non-variable costs	(million €)	43.8	44.6	41.9	40.6	-3% ↘	40.9
	Rights costs	(million €)	0.7	0.6	0.3			0.2
	Annual depreciation	(million €)	189.7	196.8	196.9	201.1	2% ↗	199.0
	Opportunity costs of capital	(million €)	10.6	32.0	23.4	22.5	-4% ↘	21.7
Economic performance Indicators	GVA	(million €)	579.6	763.0	652.9	582.9	-11% ↘	386.7
	OCF	(million €)	390.7	475.2	409.8	355.3	-13% ↘	196.4
	Gross profit	(million €)	314.1	402.4	335.5	303.2	-10% ↘	142.7
	Net profit	(million €)	113.8	173.6	115.1	79.6	-31% ↘	-78.0
	Net Profit margin	(%)	10.3	14.4	10.3	7.2	-30% ↘	-8.6
Capital value	Investments	(million €)	69.1	70.1	50.2	35.2	-30% ↘	
	Fishing rights	(million €)						
	RoFTA	(%)	12.3	18.9	11.8	8.7	-27% ↘	-8.2
	Financial position (%)	(%)	78.0	64.0	62.0	65.4	5% ↗	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 13 –Latvian ( LVA) national level data and estimated economic indicators: 2008-2011 and projections for 2012

LVA	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	858	814	771	319	-59% ↘	279	283
	No. Inactive vessels	(number)			88			77	
	Average vessel age	(year)	27	27	29	27	-7% ↘	27	29
	Vessel tonnage	(thousand tonne)	12.9	12.4	9.8	8.5	-13% ↘	8.3	9
	Vessel power	(thousand kW)	34	33	27	22	-16% ↘	22	22
	No. Enterprises	(number)	149	153	151	147	-3% ↘	121	
Employment	Total employed	(number)	1621	1666	1619	712	-56% ↘		
	FTE (national)	(number)	664	548	521	378	-27% ↘	331	
	Average wage (FTE)	(thousand €)	6.3	6.1	6.2	8.8	40% ↗	11	
	GVA per FTE	(thousand €)	20.3	20.5	22.1	28.3	28% ↗	37.9	
Fishing effort & production	Days at sea	(thousand day)	44.2	48.0	43.6	19.6	-55% ↘	19.5	
	Fishing days	(thousand days)	36.0	38.2	35.6	17.4	-51% ↘	17.3	
	Energy consumption	(million litre)	8.3	6.6	6.5	6.5	0% ↔		
	Fuel consumption per kg landed	(litre/kg)	0.1	0.1	0.1	0.1	11% ↗		
	Landings weight	(thousand tonne)	86.5	78.5	74.0	63.1	-15% ↘	57.5	
	Landings value	(million €)	23.1	17.5	21.0	21.8	3% ↗	23.9	
Income	Landings income	(million €)	23.1	17.5	21.0	21.8	3% ↗	23.8	
	Other income	(million €)	1.4	2.7	0.8	0.8	0% ↔	0.8	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	1.6	3.4	0.03	1.6	5233% ↗	0.8	
Costs	Crew wage costs	(million €)	4.1	3.3	3.2	3.3	2% ↗	3.6	
	Unpaid labour	(million €)	0.07	0.06	0.04	0.02	-50% ↘	0.04	
	Energy costs	(million €)	4.4	3.5	3.4	4.2	21% ↗	5.0	
	Repair costs	(million €)	1.0	0.9	0.8	0.9	10% ↗	0.9	
	Other variable costs	(million €)	3.1	2.1	2.5	2.6	4% ↗	2.6	
	Non-variable costs	(million €)	2.7	2.5	3.6	4.2	18% ↗	3.7	
	Rights costs	(million €)	0.2	0.2	0.2			0.1	
	Annual depreciation	(million €)		1.3	1.4	1.0	-27% ↘	1.2	
	Opportunity costs of capital	(million €)	-4.7	4.8	5.3	0.2	-97% ↘	0.9	
Economic performance indicators	GVA	(million €)	13.5	11.2	11.5	10.7	-7% ↘	12.5	
	OCF	(million €)	10.8	11.2	8.2	9.0	11% ↗	9.7	
	Gross profit	(million €)	9.3	7.9	8.2	7.4	-10% ↘	8.9	
	Net profit	(million €)		1.8	1.6	6.2	300% ↗	6.8	
	Net Profit margin	(%)		8.8	7.2	27.6	286% ↗	27.5	
Capital value	Investments	(million €)		0.2	0.3	0.4	15% ↗		
	Fishing rights	(million €)							
	RoFTA	(%)		3.2	3.4	64.6			
	Financial position (%)	(%)				0.2			

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 14 – Lituanian (LTU) national level data and estimated economic indicators: 2008-2011 and projections for 2012

LTU	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	250	219	193	171	-11% ↘	153	146
	No. Inactive vessels	(number)	125	95	89	68	-24% ↘	47	56
	Average vessel age	(year)	30	31	31	32	3% ↗	32	33
	Vessel tonnage	(thousand tonne)	61.0	50.5	49.3	46.0	-7% ↘	45.4	27
	Vessel power	(thousand kW)	69	60	56	54	-4% ↘	55	34
	No. Enterprises	(number)	99	95	77	70	-9% ↘	73	
Employment	Total employed	(number)	1046	712	706	768	9% ↗		
	FTE (national)	(number)	617	544	512	575	12% ↗	514	
	Average wage (FTE)	(thousand €)	13	10	9	9	8% ↗	6	
	GVA per FTE	(thousand €)	27.5	24.7	9.2	22.4	144% ↗	-1.3	
Fishing effort & production	Days at sea	(thousand day)	7.0	15.6	10.7	10.3	-3% ↘	12.4	
	Fishing days	(thousand days)	6.0	7.9	7.3	8.1	11% ↗	8.7	
	Energy consumption	(million litre)	27.8	31.3	24.5	26.4	8% ↗	53.0	
	Fuel consumption per kg landed	(litre/kg)	0.2	0.2	0.2	0.2	0% ↔		
	Landings weight	(thousand tonne)	176.1	209.1	108.6	114.6	6% ↗	58.5	
	Landings value	(million €)	84.3	36.2	46.9	65.6	40% ↗	37.9	
Income	Landings income	(million €)	80.6	50.3	39.5	46.5	18% ↗	40.5	
	Other income	(million €)	0.2	5.7	3.1	0.4	-86% ↘	1.8	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	0.0		0.1	0.3	160% ↗	0.2	
Costs	Crew wage costs	(million €)	8.1	5.4	4.4	5.4	21% ↗	3.3	
	Unpaid labour	(million €)	0	0.0	0.0	0.0	50% ↗	0.02	
	Energy costs	(million €)	24.1	11.5	13.0	12.3	-5% ↘	17.7	
	Repair costs	(million €)	13.5	9.0	5.8	6.1	5% ↗	7.3	
	Other variable costs	(million €)	20.3	17.7	15.2	12.7	-16% ↘	15.2	
	Non-variable costs	(million €)	5.9	4.3	3.9	3.0	-23% ↘	2.7	
	Rights costs	(million €)							
	Annual depreciation	(million €)	1.8	1.9	2.2	2.3	1% ↔	2.2	
	Opportunity costs of capital	(million €)	-2.7	4.7	2.2	0.5	-75% ↘	0.7	
Economic performance Indicators	GVA	(million €)	17.0	13.4	4.7	12.9	173% ↗	-0.6	
	OCF	(million €)	8.9	8.1	0.4	7.8	1997% ↗	-3.8	
	Gross profit	(million €)	8.9	8.0	0.3	7.5	2888% ↗	-4.0	
	Net profit	(million €)	9.8	1.4	-4.1	4.7	213% ↗	-7.0	
	Net Profit margin	(%)	12.1	2.5	-9.7	10.0	202% ↗	-16.5	
Capital value	Investments	(million €)		0.1	20.4	20.1	-1% ↘		
	Fishing rights	(million €)							
	RoFTA	(%)	17.8	2.8	-8.3	8.8	206% ↗	-13.5	
	Financial position (%)	(%)		47.0	61.0	63.0	3% ↗		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 15 – Maltese (MLT) national level data and estimated economic indicators: 2008-2011 and projections for 2012

MLT	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	1316	1111	1112	1087	-2% ↘	1060	1036
	No. Inactive vessels	(number)	613	332	264	453	72% ↗	276	13
	Average vessel age	(year)	25	24	25	26	3% ↗	26	27
	Vessel tonnage	(thousand tonne)	7.5	8.3	12.3	12.1	-2% ↘	8.1	8
	Vessel power	(thousand kW)	88	82	85	83	-2% ↘	78	75
	No. Enterprises	(number)	1297	1081	1076	1060	-1% ↘	1028	
Employment	Total employed	(number)	134	196	361	225	-38% ↘		
	FTE (national)	(number)	88	154	256	155	-39% ↘	151	
	Average wage (FTE)	(thousand €)	38	68	39	49	24% ↗	16	
	GVA per FTE	(thousand €)	41.3	16.1	5.2	39.5	666% ↗	53.0	
Fishing effort & production	Days at sea	(thousand day)	47.0	48.3	65.4	41.3	-37% ↘	33.7	
	Fishing days	(thousand days)	47.0	48.2	65.4	54.3	-17% ↘	56.0	
	Energy consumption	(million litre)	3.5	4.3	5.3	2.6	-51% ↘		
	Fuel consumption per kg landed	(litre/kg)	2.7	2.7	2.9	1.4	-53% ↘		
	Landings weight	(thousand tonne)	1.2	1.5	1.8	1.8	3% ↗	2.2	
	Landings value	(million €)	8.2	8.5	8.8	11.3	29% ↗	12.6	
Income	Landings income	(million €)	9.7	7.5	9.2	11.4	24% ↗	12.7	
	Other income	(million €)	0.2	0.5					
	Fishing rights income	(million €)		0.0	0.0	0.2	400% ↗	0.1	
	Direct income subsidies	(million €)	0.1	0.0	0.6	0.0	-93% ↘	0.3	
Costs	Crew wage costs	(million €)	1.1	1.3	2.4	1.5	-37% ↘	2.5	
	Unpaid labour	(million €)	2	9.2	7.6	6.1	-21% ↘	8.6	
	Energy costs	(million €)	1.9	2.1	3.6	2.2	-38% ↘	2.1	
	Repair costs	(million €)	1.2	0.9	1.0	0.8	-17% ↘	0.7	
	Other variable costs	(million €)	3.0	2.4	2.8	2.1	-26% ↘	1.7	
	Non-variable costs	(million €)	0.2	0.2	0.5	0.2	-69% ↘	0.2	
	Rights costs	(million €)		0.0	0.1	0.2	80% ↗	0.1	
	Annual depreciation	(million €)	5.2	3.5	12.3	19.2	56% ↗	15.7	
	Opportunity costs of capital	(million €)	0.0	1.1	1.3	1.6	24% ↗	0.5	
Economic performance indicators	GVA	(million €)	3.6	2.5	1.3	6.1	364% ↗	8.0	
	OCF	(million €)	2.6	1.2	-0.6	4.6	840% ↗	5.8	
	Gross profit	(million €)	0.3	-7.9	-8.8	-1.5	83% ↗	-3.1	
	Net profit	(million €)	-4.9	-12.5	-22.3	-22.2	0% ⇌	-19.3	
	Net Profit margin	(%)	-49.6	-156.4	-243.4	-195.5	20% ↗	-152.5	
Capital value	Investments	(million €)	0.9	0.9	1.4	1.6	14% ↗		
	Fishing rights	(million €)		1.8	1.7	0.2	-89% ↘		
	RoFTA	(%)	-13.0	-31.4	-37.7	-27.2	28% ↗	-27.4	
	Financial position (%)	(%)	24.0	48.0	42.0	51.0	21% ↗		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 16 – Dutch (NLD) national level data and estimated economic indicators: 2008-2011 and projections for 2012

NLD	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	726	712	725	738	+2% ↗	740	742
	No. Inactive vessels	(number)	127	143	145	168	+16% ↗	182	203
	Average vessel age	(year)	31	32	33	33	+2% ↗	32	35
	Vessel tonnage	(thousand tonne)	145.9	129.4	137.2	130.5	-5% ↘	133.7	129
	Vessel power	(thousand kW)	332	289	294	290	-1% ↘	286	276
	No. Enterprises	(number)	473	455	467	470	+1% ↔	471	
Employment	Total employed	(number)	3265	3220	3358	2763	-18% ↘		
	FTE (national)	(number)	2200	2207	2205	1768	-20% ↘	1773	
	Average wage (FTE)	(thousand €)	44	40	42	44	+5% ↗	47	
	GVA per FTE	(thousand €)	59.6	58.2	62.0	61.7	0% ↔	44.3	
Fishing effort & production	Days at sea	(thousand day)	50.5	49.2	50.9	46.1	-9% ↘	49.9	
	Fishing days	(thousand days)	44.3	43.1	44.6	36.3	-19% ↘	44.0	
	Energy consumption	(million litre)	246.9	223.2	212.8	193.8	-9% ↘		
	Fuel consumption per kg landed	(litre/kg)	0.6	0.7	0.6	0.6	+2% ↗		
	Landings weight	(thousand tonne)	388.5	335.4	381.6	339.4	-11% ↘	317.0	
	Landings value	(million €)	365.8	319.7	354.7	326.5	-8% ↘	333.8	
Income	Landings income	(million €)	365.8	319.7	354.7	326.6	-8% ↘	333.9	
	Other income	(million €)	1.4	2.1	0.2	1.0	+339% ↗	0.6	
	Fishing rights income	(million €)	2.2	2.3	3.7	2.5	-32% ↘	3.1	
	Direct income subsidies	(million €)							
Costs	Crew wage costs	(million €)	87.0	80.4	83.8	73.3	-12% ↘	77.0	
	Unpaid labour	(million €)	9	8.2	9.1	5.0	-46% ↘	6.9	
	Energy costs	(million €)	111.6	71.8	97.3	105.1	+8% ↗	136.2	
	Repair costs	(million €)	49.6	54.0	49.8	47.3	-5% ↘	51.2	
	Other variable costs	(million €)	31.9	28.2	31.1	29.2	-6% ↘	31.6	
	Non-variable costs	(million €)	42.9	39.6	40.1	37.0	-8% ↘	37.1	
	Rights costs	(million €)	6.2	5.9	5.4	4.8	-12% ↘	5.1	
	Annual depreciation	(million €)	32.6	29.9	37.4	26.1	-30% ↘	31.8	
	Opportunity costs of capital	(million €)	7.6	11.4	9.1	1.6	-82% ↘	-3.6	
Economic performance indicators	GVA	(million €)	131.2	128.3	136.7	109.1	-20% ↘	78.4	
	OCF	(million €)	40.3	44.3	51.2	33.5	-35% ↘	-0.5	
	Gross profit	(million €)	35.4	39.8	43.8	30.8	-30% ↘	-5.5	
	Net profit	(million €)	-4.8	-1.5	-2.8	3.0	+208% ↗	-33.7	
	Net Profit margin	(%)	-1.3	-0.5	-0.8	0.9	+216% ↗	-10.1	
Capital value	Investments	(million €)	23.2	68.8	28.1	18.8	-33% ↘		
	Fishing rights	(million €)	260.1	265.7	234.7	253.8	+8% ↗		
	RoFTA	(%)	-1.3	-0.4	-0.6	0.9	+238% ↗	-8.6	
	Financial position (%)	(%)	73.4	76.0	76.0	49.9	-34% ↘		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 17 – Polish (POL) national level data and estimated economic indicators: 2008-2011 and projections for 2012

POL	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	882	877	823	805	-2% ↘	805	798
	No. Inactive vessels	(number)	41	109	99	84	-15% ↘	38	798
	Average vessel age	(year)	27	28	27	28	2% ↗	28	29
	Vessel tonnage	(thousand tonne)	45.7	49.1	38.4	38.0	-1% ↘	33.6	33
	Vessel power	(thousand kW)	109	106	92	88	-4% ↘	83	82
	No. Enterprises	(number)	781	742	698	679	-3% ↘	699	
Employment	Total employed	(number)	3026	2512	2434	2411	-1% ↔		
	FTE (national)	(number)	1701	1604	1577	1576	0% ↔	1576	
	Average wage (FTE)	(thousand €)	6.8	5.8	7.2	8.1	12% ↗	9	
	GVA per FTE	(thousand €)	7.7	13.1	13.8	13.7	-1% ↘	15.4	
Fishing effort & production	Days at sea	(thousand day)	66.5	62.1	58.1	58.2	0% ↔	70.4	
	Fishing days	(thousand days)	62.5	59.9	55.5	56.3	2% ↗	62.5	
	Energy consumption	(million litre)	16.0	12.5	12.4	12.7	2% ↗		
	Fuel consumption per kg landed	(litre/kg)	0.13	0.06	0.07	0.07	0% ↔		
	Landings weight	(thousand tonne)	126.1	212.1	170.8	179.9	5% ↗	179.7	
	Landings value	(million €)	34.7	37.3	40.0	46.1	15% ↗	55.6	
Income	Landings income	(million €)	34.8	37.3	40.0	46.1	15% ↗	55.6	
	Other income	(million €)	0.7		0.2	0.4	147% ↗	0.3	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	21.5	18.0	14.9	17.2	16% ↗	16.0	
Costs	Crew wage costs	(million €)	11.5	9.2	11.4	11.7	3% ↗	14.9	
	Unpaid labour	(million €)				1.0		0.7	
	Energy costs	(million €)	10.0	6.6	7.8	10.3	32% ↗	14.9	
	Repair costs	(million €)	3.5	2.8	3.6	5.5	52% ↗	6.6	
	Other variable costs	(million €)	4.1	3.4	3.7	4.7	27% ↗	5.7	
	Non-variable costs	(million €)	4.8	3.5	3.3	4.5	34% ↗	4.5	
	Rights costs	(million €)							
	Annual depreciation	(million €)	1.6	1.4	1.7	2.1	27% ↗	1.9	
	Opportunity costs of capital	(million €)	1.9	2.7	3.0	1.8	-39% ↘	1.3	
Economic performance Indicators	GVA	(million €)	13.1	21.1	21.8	21.5	-1% ↘	24.2	
	OCF	(million €)	23.1	29.8	25.2	27.1	7% ↗	25.3	
	Gross profit	(million €)	1.6	11.8	10.4	8.8	-16% ↘	8.6	
	Net profit	(million €)	-1.9	7.8	5.7	4.8	-16% ↘	5.4	
	Net Profit margin	(%)	-5.2	20.8	14.3	10.4	-27% ↘	9.6	
Capital value	Investments	(million €)	7.6	2.0	12.2	16.5	35% ↗		
	Fishing rights	(million €)							
	RoFTA	(%)	-1.8	5.9	5.8	5.3	-9% ↘	5.7	
	Financial position (%)	(%)	8.0	6.0	4.2	25.0	495% ↗		

Source data: DCF 2013 Fleet Economic Member State data submissions; provisional figures for 2012

Annex Table 18 – Portugues (PRT) national level data and estimated economic indicators: 2008-2011, projections for 2012

PRT	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	8706	8641	8606	8557	-1% ↕	8397	8280
	No. Inactive vessels	(number)	3466	3512	3622	3691	2% ↗	4077	4136
	Average vessel age	(year)	27	27	28	28	1% ↗	29	30
	Vessel tonnage	(thousand tonne)	104.8	104.8	103.4	102.5	-1% ↕	101.3	100
	Vessel power	(thousand kW)	382	383	378	377	0% ↕	372	367
	No. Enterprises	(number)	4692	4576	4751	4533	-5% ↘	4080	
Employment	Total employed	(number)	17170	17514	17323	17234	-1% ↕		
	FTE (national)	(number)	17170	15633	17080	17188	1% ↕	16867	
	Average wage (FTE)	(thousand €)	9	8	8	9	6% ↗	11	
	GVA per FTE	(thousand €)	14.9	14.3	14.1	16.5	17% ↗	18.1	
Fishing effort & production	Days at sea	(thousand day)	411.1	392.2	383.7	375.1	-2% ↘	302.7	
	Fishing days	(thousand days)	398.8	381.8	372.9	354.7	-5% ↘	297.0	
	Energy consumption	(million litre)	120.2	122.8	127.8	107.3	-16% ↘		
	Fuel consumption per kg landed	(litre/kg)	0.7	0.8	0.7	0.6	-12% ↘		
	Landings weight	(thousand tonne)	185.9	161.5	189.2	178.8	-6% ↘	189.5	
	Landings value	(million €)	369.1	309.0	347.2	344.2	-1% ↕	431.9	
Income	Landings income	(million €)	414.7	361.5	377.3	431.0	14% ↗	431.8	
	Other income	(million €)			21.4	11.4	-47% ↘	16.4	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)		2.9	2.0	1.9	-5% ↘	2.0	
Costs	Crew wage costs	(million €)	155.4	123.9	139.4	152.8	10% ↗	182.5	
	Unpaid labour	(million €)	0	0.0	5.3	1.6	-69% ↘	4.3	
	Energy costs	(million €)	72.7	57.9	70.3	79.5	13% ↗	76.8	
	Repair costs	(million €)	24.1	22.7	16.7	27.5	65% ↗	22.2	
	Other variable costs	(million €)	35.9	37.4	44.9	37.1	-17% ↘	29.9	
	Non-variable costs	(million €)	25.6	20.2	26.0	14.7	-43% ↘	14.4	
	Rights costs	(million €)							
	Annual depreciation	(million €)	58.9	64.4	67.7	77.3	14% ↗	72.5	
Economic performance indicators	Opportunity costs of capital	(million €)	6.3	19.5	15.2	23.0	51% ↗	29.6	
	GVA	(million €)	256.4	223.4	240.9	283.6	18% ↗	304.9	
	OCF	(million €)	101.1	102.3	103.5	132.7	28% ↗	124.4	
	Gross profit	(million €)	101.1	99.4	96.1	129.2	34% ↗	118.1	
	Net profit	(million €)	35.9	15.5	13.2	29.0	119% ↗	16.0	
Capital value	Net Profit margin	(%)	8.7	4.3	3.3	6.6	97% ↗	3.6	
	Investments	(million €)	20.8	20.3	15.8	56.7	258% ↗		
	Fishing rights	(million €)							
	RoFTA	(%)	10.1	4.1	3.4	8.1	135% ↗	4.3	
	Financial position (%)	(%)							

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 19 – Romanian (ROU) national level data and estimated economic indicators: 2008-2011; projections for 2012

ROU	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013	
Structure	No. Vessels	(number)	441	440	429	488	14%	↗	261	275
	No. Inactive vessels	(number)	36	280	223	288	29%	↗	78	75
	Average vessel age	(year)	19	21	22	17	-24%	↘	12	12
	Vessel tonnage	(thousand tonne)	2.3	2.3	1.1	1.0	-5%	↘	0.7	0.9
	Vessel power	(thousand kW)	8.7	8.6	5.5	7.0	28%	↗	5.9	6.7
	No. Enterprises	(number)	138	33	43	105	144%	↗	91	
Employment	Total employed	(number)	875	289	444	454	2%	↗		
	FTE (national)	(number)	42	31	38	28	-26%	↘	15	
	Average wage (FTE)	(thousand €)	11.3	6.8	5.1	16.2	216%	↗	21	
	GVA per FTE	(thousand €)	11.7	15.6	6.4	30.3	376%	↗	12.4	
Fishing effort & production	Days at sea	(thousand day)	3.7	6.3	6.5	2.9	-56%	↘	3.5	
	Fishing days	(thousand days)	3.7	3.9	4.1	2.6	-38%	↘	3.3	
	Energy consumption	(million litre)	0.1	0.3	0.2	0.2	5%	↗	0.1	
	Fuel consumption per kg landed	(litre/kg)	0.3	0.9	0.9	0.4	-55%	↘		
	Landings weight	(thousand tonne)	0.5	0.3	0.2	0.5	136%	↗	0.8	
	Landings value	(million €)	0.7	0.6	0.5	1.4	192%	↗	0.9	
Income	Landings income	(million €)	0.7	0.6	0.5	1.4	190%	↗	0.9	
	Other income	(million €)								
	Fishing rights income	(million €)								
	Direct income subsidies	(million €)								
Costs	Crew wage costs	(million €)	0.5	0.2	0.2	0.5	130%	↗	0.3	
	Unpaid labour	(million €)	0	0	0	0			0	
	Energy costs	(million €)	0.1	0.1	0.2	0.3	24%	↗	0.4	
	Repair costs	(million €)	0.1	0.0	0.0	0.1	300%	↗	0.1	
	Other variable costs	(million €)	0.1	0.0	0.0	0.2	2100%	↗	0.3	
	Non-variable costs	(million €)								
	Rights costs	(million €)								
	Annual depreciation	(million €)	0.05	0.01	0.01	0.10	900%	↗	0.1	
Economic performance indicators	Opportunity costs of capital	(million €)				0.05				
	GVA	(million €)	0.49	0.48	0.24	0.86	258%	↗	0.2	
	OCF	(million €)	0.02	0.27	0.05	0.40	700%	↗	-0.1	
	Gross profit	(million €)	0.02	0.27	0.05	0.40	700%	↗	-0.1	
	Net profit	(million €)				0.24				
Capital value	Net Profit margin	(%)				17.1				
	Investments	(million €)				0.04				
	Fishing rights	(million €)								
	RoFTA	(%)				6.3				
	Financial position (%)	(%)				44.0				

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 20 – Slovenian (SVN) national level data and estimated economic indicators: 2008-2011 and projections for 2012

SVN	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	181	185	185	186	1% ↕	175	173
	No. Inactive vessels	(number)	93	98	94	102	9% ↗	93	92
	Average vessel age	(year)	33	34	35	36	2% ↗	36	37
	Vessel tonnage	(thousand tonne)	1.0	1.0	1.0	1.0	0% ↕	0.6	1
	Vessel power	(thousand kW)	11	11	11	11	-1% ↕	9	9
	No. Enterprises	(number)	135	138	132	138	5% ↗	137	
Employment	Total employed	(number)	109	117	116	114	-2% ↘		
	FTE (national)	(number)	77	82	81	77	-5% ↘	72	
	Average wage (FTE)	(thousand €)	13	16	18	20	14% ↗	11	
	GVA per FTE	(thousand €)	15.5	13.7	11.3	20.4	80% ↗	9.7	
Fishing effort & production	Days at sea	(thousand day)	6.8	6.9	7.7	7.7	-1% ↕	7.3	
	Fishing days	(thousand days)	6.8	6.9	7.7	7.7	-1% ↕	7.3	
	Energy consumption	(million litre)	0.4	0.6	0.5	0.5	4% ↗		
	Fuel consumption per kg landed	(litre/kg)	0.6	0.6	0.6	0.7	10% ↗		
	Landings weight	(thousand tonne)	0.6	0.8	0.7	0.7	-8% ↘	0.3	
	Landings value	(million €)	2.0	2.1	2.0	2.0	1% ↗	1.3	
Income	Landings income	(million €)	2.1	2.2	2.0	2.1	3% ↗	1.4	
	Other income	(million €)	0.2	0.2	0.4	0.6	47% ↗	0.5	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	0.1			0.1		0.1	
Costs	Crew wage costs	(million €)	0.8	1.0	1.1	1.2	6% ↗	0.8	
	Unpaid labour	(million €)	0	0.4	0.3	0.4	12% ↗	0.2	
	Energy costs	(million €)	0.5	0.6	0.6	0.6	11% ↗	0.7	
	Repair costs	(million €)	0.4	0.3	0.7	0.3	-62% ↘	0.3	
	Other variable costs	(million €)	0.2	0.4	0.2	0.2	0% ↕	0.2	
	Non-variable costs	(million €)	0.0	0.0	0.0	0.0	-33% ↘	0.0	
	Rights costs	(million €)							
	Annual depreciation	(million €)	0.2	0.2	0.2	0.3	29% ↗	0.2	
	Opportunity costs of capital	(million €)	0.0	0.1	0.1	0.1	117% ↗	0.1	
Economic performance indicators	GVA	(million €)	1.2	1.1	0.9	1.6	71% ↗	0.7	
	OCF	(million €)	0.5	0.2	-0.2	0.5	353% ↗	0.0	
	Gross profit	(million €)	0.2	-0.2	-0.5	0.0	102% ↗	0.4	-0.3
	Net profit	(million €)	0.1	-0.5	-0.8	-0.4	51% ↗	0.4	-0.6
	Net Profit margin	(%)	2.2	-21.5	-32.8	-14.5	56% ↗	0.4	-33.9
Capital value	Investments	(million €)	0.3	0.6	0.8	0.3	-60% ↘		
	Fishing rights	(million €)							
	RoFTA	(%)	1.8	-16.3	-23.1	-8.7	62% ↗	0.4	-16.2
	Financial position (%)	(%)	32.1	42.7	56.3	53.0	-6% ↘	0.4	

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

Annex Table 21 – Swedish (SWE) national level data and estimated economic indicators: 2008-2011 and projections for 2012

SWE	Variable	Unit	2008	2009	2010	2011	%Δ 2011-10	2012	2013
Structure	No. Vessels	(number)	1507	1471	1415	1359	-4% ↘	1322	1302
	No. Inactive vessels	(number)	359	339	351	328	-7% ↘	304	
	Average vessel age	(year)	30	30	31	31	1% ⇔	32	32
	Vessel tonnage	(thousand tonne)	43.0	41.7	38.6	32.9	-15% ↘	29.5	30
	Vessel power	(thousand kW)	212	208	196	178	-9% ↘	169	171
	No. Enterprises	(number)	1211	1181	1134	1089	-4% ↘	1056	
Employment	Total employed	(number)	1980	1758	1765	1679	-5% ↘		
	FTE (national)	(number)	1133	1019	990	974	-2% ↘	947	
	Average wage (FTE)	(thousand €)	25	24	28	28	-1% ⇔	16	
	GVA per FTE	(thousand €)	52.1	57.7	73.4	61.4	-16% ↘	82.6	
Fishing effort & production	Days at sea	(thousand day)	102.4	96.6	85.1	83.7	-2% ↘	78.8	
	Fishing days	(thousand days)	102.4	96.6	85.1	83.7	-2% ↘	78.8	
	Energy consumption	(million litre)	41.4	62.2	54.1	40.9	-24% ↘		
	Fuel consumption per kg landed	(litre/kg)	0.2	0.3	0.3	0.2	-8% ↘		
	Landings weight	(thousand tonne)	214.1	199.3	204.4	173.4	-15% ↘	136.5	
	Landings value	(million €)	114.4	100.4	103.3	116.5	13% ↗	124.3	
Income	Landings income	(million €)	114.0	106.0	104.6	116.2	11% ↗	124.3	
	Other income	(million €)	4.9	17.1	37.7	14.3	-62% ↘	26.0	
	Fishing rights income	(million €)							
	Direct income subsidies	(million €)	1.7						
Costs	Crew wage costs	(million €)	10.9	10.5	13.7	12.3	-10% ↘	14.7	
	Unpaid labour	(million €)	17	14.3	14.3	14.9	5% ↗	16.5	
	Energy costs	(million €)	26.1	24.8	28.2	27.6	-2% ↘	31.1	
	Repair costs	(million €)	20.3	23.3	23.0	20.6	-10% ↘	19.4	
	Other variable costs	(million €)	5.6	6.6	8.7	13.3	54% ↗	12.6	
	Non-variable costs	(million €)	7.8	9.7	9.8	9.2	-5% ↘	9.0	
	Rights costs	(million €)							
	Annual depreciation	(million €)	36.8	33.1	29.9	30.4	2% ↗	30.2	
	Opportunity costs of capital	(million €)	1.0	2.2	1.6	2.0	26% ↗	1.1	
Economic performance Indicators	GVA	(million €)	59.1	58.8	72.7	59.8	-18% ↘	78.3	
	OCF	(million €)	49.8	48.3	59.0	47.5	-20% ↘	63.6	
	Gross profit	(million €)	31.1	34.0	44.7	32.5	-27% ↘	47.1	
	Net profit	(million €)	-6.7	-1.3	13.3	0.2	-99% ↘	15.8	
	Net Profit margin	(%)	-5.6	-1.1	9.3	0.1	-99% ↘	10.5	
Capital value	Investments	(million €)	12.7	4.5	8.1	5.3	-34% ↘		
	Fishing rights	(million €)							
	RoFTA	(%)	-4.0	-0.8	8.3	0.1	-99% ↘	9.8	
	Financial position (%)	(%)	62.0	63.4	67.0	56.0	-16% ↘		

Data source: DCF 2013 Fleet Economic (MARE/A3/AC(2013)). Data for 2012 are provisional

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## Abstract

The 2013 Annual Economic Report (AER) on the European Union (EU) fishing fleet provides a comprehensive overview of the latest information available on the structure and economic performance of EU Member States fishing fleets. The Results on the economic performance indicate that the EU fishing fleet was again in profitable in 2011, with 6% of income being retained as net profit. On the whole, the EU fleet showed improvements in most of the main economic performance indicators analysed when compared to 2010. Yet, in view of the uncertain economic climate and rising fuel prices, the economic performance of the EU fleet in the near future is unclear. Projections for 2012 indicate increased income for over three-fifths of the fleets analysed but positive profit margins for less than half. This year's publication includes: (1) an economic and structural overview of the EU fishing fleet; (2) a detailed economic and structural overview of the fishing fleets from each EU Member State; (3) qualitative economic performance assessments for 2011 and 2012 for each EU Member State; (4) economic performance projections for 2013 using the EIAA and BEMTOOL models; (5) regional analyses of the EU fishing fleet; (6) economic assessment of fleets targeting stocks subject the EU fisheries management plans; (7) the latest information on EU fish prices and price trends at EU and Member State level.

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The Scientific, Technical and Economic Committee for Fisheries (STECF) has been established by the European Commission. The STECF is being consulted at regular intervals on matters pertaining to the conservation and management of living aquatic resources, including biological, economic, environmental, social and technical considerations.



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