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Scientific, Technical and Economic Committee for Fisheries (STECF)

Economic Performance of the EU Fish Processing Industry Sector (STECF-OWP-12-01)

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This report was reviewed by the STECF by written procedure in January/February 2012

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ECONOMIC PERFORMANCE OF THE EU FISH PROCESSING INDUSTRY SECTOR (STECF-OWP-12-01)

MARCH 2012

Request to the STECF

STECF is requested to review the Report on the evaluation of data collected on the fish processing sector for 2011 prepared by independent experts under contract to the European Commission. STECF is requested to evaluate the report's findings and make any appropriate comments and recommendations.

Introduction

The European Commission contracted a number of Expert Fisheries Economists to provide an overview of the structure and economic performance of the EU fish processing industry in 2011 using data and information collected under the Data Collection Regulation (DCR), cf. Council Regulations 199/2008, 1543/2000 and Commission Regulations 1581/2004 and 1639/2001and the Data Collection Framework (DCF), Commission Regulation (EC) No. 665/2008 of the 14 July 2008 and Commission Decision (2008/949/EC). The STECF review was conducted by correspondence and adopted the report by written procedure in mid February 2012.

STECF observation

The independent report on the evaluation of data collected on the fish processing sector for 2011 provides a comprehensive overview of the latest information available on the industry's structure and economic performance.

STECF notes that the procedure of contracting individual experts to develop the report on the EU fish processing sector appeared to work relatively well. This was the first attempt to follow such a procedure and there were no major issues with Member States' data submissions. However, it had been the intention to include a chapter in the report focussing on a specific aspect of the processing sector but this proved to be too ambitious in the time available, given the constraints imposed through 20 individual experts working by correspondence. It also proved impossible to complete the transfer of the data collected under the DCR (2006-2008) into DCF format to provide a longer time series.

STECF notes that while each of the contracted Experts were provided with separate Terms of Reference, detailed Terms of Reference were not specified for the group as a whole. Hence the Expert group necessarily used its initiative to determine what would most likely be of interest.

STECF further observes that the changes in the fish processing sector within one year are likely to be relatively minor.

One of the main tasks of the STECF is to provide advice on the sustainable exploitation of living resources. However, the link between the catching sector and the processing sector is not well defined. There is a need to find a means of collecting data on raw material either through the DCF or by other means in order that conclusions can be drawn with regard to the influence of the processing sector on sustainability.

STECF conclusions

STECF concludes that the procedure of contracting individual experts worked relatively well but if the Commission wishes to have a dedicated chapter containing an in-depth analysis of specific aspects of the processing industry in future reports, the Expert group will need detailed guidance from the Commission on what is to be addressed. There is a need for the Commission to provide explicit terms of reference and depending on the expectations, consideration should to be given for a selected group of relevant Experts to receive additional time under the contractual arrangements.

Notwithstanding the comments above, STECF concludes that the Expert group has done an outstanding job in compiling the 2011 report in the time allotted. The 2011 Report was completed within 22 working days.

STECF recommendations

Given that the link between the catching sector and the processing sector is not well defined, STECF reiterates its previous recommendation that consideration needs to be given as to data on raw material can be collected either through the DCF or by other means in order that conclusions can be drawn with regard to the influence of the processing sector on sustainability

Given that annual changes in the structure and performance of the Fish processing sector are likely to be minor, STECF considers that annual reports are likely to be a waste of resources and recommends that a better use of resources would be to prepare future Reports every 2 to 3 years.

REPORT TO THE STECF

EXPERT WORKING GROUP ON EVALUATION OF DATA COLLECTED ON THE FISH PROCESSING INDUSTRY SECTOR

Work done done by correspondance during November 2011

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

1. EXECUTIVE SUMMARY

The 2011 Annual Economic Report (AER) on the European Union (EU) fish processing industry provides a comprehensive overview of the latest information available on the sector's structure and economic performance. The report has been produced by fisheries economists from the JRC and a group of economic experts convened under the Scientific, Technical and Economic Committee for Fisheries (STECF). The data used to compile 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).

In 2009, the fish processing sector in the EU comprised over 3,500 enterprises with fish processing as main activity, accounting for about €25.5 thousand million of turnover and more than €6 thousand million of Gross Added Value (GVA). The fish processing industry employed around 150 thousand people in the whole of Europe.

The fish processing industry revealed improvement in terms of turnover in 2009 when compared to 2008, despite the global and sectorial situations. Even after the start of the global financial crisis many countries reported increases in several socioeconomic indicators in 2008, including turnover, net profit and employment. Additionally, and at a first glance at 2010/11, many experts report a better situation than in 2008/9.

Overall the sector is suffering from very low margins, which continue to decrease owing essentially to increases in raw materials and energy costs that cannot be translated into price increases due to the retail sector's high negotiation power.

The fish processing enterprises in many Member States seem to be more efficient in reacting to increasing costs than in previous years. In several countries the expectations are positive indicating that total assets are higher than dept.

2. RECOMMENDATIONS OF THE WORKING GROUP

There are no specific recommendations from the group of experts.

3. INTRODUCTION

3.1. Background

This report, also known as the 2011 Annual Economic Report (AER) on the European Union (EU) Fish Processing Industry, is the third report of its kind produced for the sector, after the previous years SGECA-09-03 and SGECA 10-04 reports. This report provides a comprehensive overview of the latest information available on the structure, social, economical and competitive performance of the fish processing industry at the national and EU level.

This publication includes:

- An overview of the coverage and quality of the data submitted by Member State
- A short review of the processing sector at the EU level using indicators from the national chapters.
- A detailed economic and structural assessment of the processing sector for most of the Member States that are required to deliver data
- A compilation of all the data submitted by Member States (Appendix I).

The report has been produced by fisheries economists from DG JRC and a group of economic experts convened under the Scientific, Technical and Economic Committee for Fisheries (STECF). The group consisted of 20 independent experts. The list of experts can be found in section 3.3.

The economic data used in this publication for the years 2006 and 2007 were collected under the framework of the Data Collection Regulation (DCR), cf. Council Regulations 199/2008, 1543/2000 and Commission Regulations 1581/2004 and 1639/2001. For the years 2008 and 2009, data were collected under the Data Collection Framework (DCF), Commission Regulation (EC) No. 665/2008 of the 14 July 2008 and Commission Decision (2008/949/EC).

Data presented in this report on the EU fish processing industry relate to enterprises whose main activity is defined according to the Eurostat definition under NACE Code 15.20: ‘Processing and preserving of fish and fish products’.

The NACE Code 15.20 class includes:

- Preparation and preservation of fish, crustaceans and molluscs: freezing, deep-freezing, drying, smoking, salting, immersing in brine, canning, etc.
- Production of fish, crustacean and mollusc products: cooked fish, fish fillets, roes, caviar, caviar substitutes, etc.
- Production of prepared fish dishes
- Production of fish-meal for animal feed

This class also includes:

- Activities of vessels only engaged in the processing and preserving of fish

However, this class excludes:

- Activities of vessels engaged both in fishing, processing and preserving of fish, (code 05.01)
- Production of oils and fats from marine material, (code 15.41)
- Manufacture of fish soups (code 15.89).

3.2. Terms of Reference

As this report was prepared by a group of experts via individual contracts, TORs for the entire group were not provided by the Commission. However, according to the National Chapter template and indicators proposed in the STECF Expert Working Group on Methodologies for 2011 economic reports, the group was requested to work on the following items for the 2011 fish processing report:

1) Data coverage and data quality section
2) Overview of the EU sector
3) National chapters for all EU Member States requested to deliver data for the fish processing industry following the DCF.

3.3. Participants

STECF members
Döring, Ralf (coordinator)
Malvarosa, Loretta
Motova, Arina

External Experts

Avdelas, Lamprakis

Avdic, Edo

Beukers, Rik

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Lees, Janek

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Mongruel, Remi

Moura, Carlos

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Pienkowska, Barbara

Stroie, Constantin

Vassallo, Darcelle

JRC experts

Virtanen, Jarno

European Commission (JRC)

Contini, Franca

Virtanen, Jarno

Zanzi, Antonella

See Appendix II for contact details of the participants.

3.4. Glossary

See section 8: Glossary of data requested and indicators.

3.5. Coordinators comments

This report is the third report on the processing industry in the European Union and was prepared by individual contracts for experts. The group was successful in preparing the report and in presenting information on the main developments in the fish processing sector. However, it was not possible to continue with the work on transferring the data and indicators collected under the DCR in a format comparable to the actual DCF.

The group was not requested to produce a special theme chapter as proposed in the EWG 11-03 methodological report. The basic idea was to have an analysis of the 2008/09 data that were collected under the new DCF and present time series for the years 2006-2009 as far as possible.

It was possible to produce national chapters for 19 of the 22 countries which are requested to deliver data under DCF. National chapters for Belgium, Bulgaria and Cyprus were not produced and are missing in the report.

5 EU OVERVIEW CHAPTER TEMPLATE

5.1 Introduction

In the following chapter an overview of the whole EU is given. The EU is one of the main importers and exporters of fish products in the world.

5.2 Data coverage and quality

The analysis of the economic performance of the fish processing sector in the EU is based on national statistics and data for the fish processing industry collected under the Data Collection Framework of the EU. The data call was issued on the 20 July 2011, and the deadline for the submission was established at 21 August 2011. The data call requested data for the years 2006-2009.

Although the quality and coverage of the data reported under the DCF are the responsibilities of the Member States, JRC undertakes quality and coverage checking procedures which are presented in the following tables. The procedure was much the same as for last year's report (see SGECA 10-04 report, p. 19).

Not all countries of the EU are requested to deliver data under the DCF. These include the five countries that do not have access to coastal waters (Austria, Czech Republic, Hungary, Luxembourg and Slovakia). Out of the remaining 22 countries that are participating in the DCF framework, Bulgaria and Romania became members in 2008 and had to collect 2007 data but did not reported data for 2007 and only partly for 2008.

All 22 Member States that were obliged submitted some data. The data call was answered by 18 countries before the deadline, and all countries submitted their data before the start of the report preparing process. However, it must be said that data from Cyprus and Malta presents confidentiality issues, due to the existence of less than 10 companies undertaking fish processing as main activity.

Table 5.1 lists the first and final date of data submission by Member State. Additionally, some comments regarding data and its submission process is presented.

Table 5.1 Stages of data submission and resubmission

Country	First submission	Last submission	Comments
Belgium		11/14/2011	resubmisson
Bulgaria	8/18/2011	8/18/2011	
Cyprus	9/1/2011	9/29/2011	resubmission - missing parameters DCR
Denmark	8/11/2011	11/15/2011	resubmisson/minor corrections
Estonia	8/21/2011	11/17/2011	resubmisson/minor corrections
Finland	8/17/2011	11/14/2011	resubmisson/minor corrections
France	8/19/2011	8/24/2011	missing parametersn DCR
Germany	8/19/2011	8/19/2011	
Greece	9/8/2011	9/8/2011	
Ireland	8/19/2011	8/19/2011	
Italy	8/2/2011	8/2/2011	missing parameters
Latvia	8/8/2011	8/8/2011	missing parameters
Lithuania	8/4/2011	8/18/2011	
Malta	8/24/2011	11/17/2011	resubmisson/minor corrections - missing parameters
Netherlands	8/17/2011	10/18/2011	resubmisson/minor corrections - missing parameters
Poland	8/19/2011	11/28/2011	resubmisson/minor corrections
Portugal	7/22/2011	11/21/2011	resubmisson/minor corrections
Romania	8/17/2011	8/17/2011	
Slovenia	8/12/2011	8/12/2011	
Spain	3/8/2011	9/8/2011	
Sweden	8/18/2011	11/4/2011	resubmisson/minor corrections
United Kingdom	8/16/2011	8/16/2011	

late submission
submitted at deadline

However, it should be noted that templates submitted by MS may not contain all the variables requested.

The templates for the data uploading correspond to the main socio-economic parameters collected for 2006-2009. This also includes the parameter raw material which was requested under DCR but not for DCF years. Nevertheless, in many national chapters information on raw material and main products are given.

An overview of the submitted parameters is given in Table 5.2.

Table 5.2: Data submitted by template for each Member State

Country	dcf_proind_08	dcf_prodind_09	dcf_prodind_ma_08	dcf_prodind_ma_09	dcr_price_06	dcr_price_07	dcr_prodind_06	dcr_prodind_07	dcr_raw_06	dcr_raw_07	dcr_turnover_06	dcr_turnover_07
Belgium	1	1	1	1	1	1	1	1	1	1	1	1
Bulgaria	1	1	1	1	-	-	-	-	-	-	-	-
Cyprus			1	1	-	-	1	1				
Denmark	1	1	1	1	1	1	1	1	1	1	1	1
Estonia	1	1	1	1			1	1				
Finland	1	1	1	1			1	1	1	1	1	1
France	1	1	1	1			1	1				
Germany	1	1	1	1	1	1	1	1	1	1	1	1
Greece	1	1	1	1	1	1	1	1	1	1	1	1
Ireland	1	1	1	1	1	1	1	1	1	1	1	1
Italy			1	1			1	1	1	1		
Latvia	1	1	1	1	1	1	1	1	1		1	1
Lithuania	1	1	1	1	1	1	1	1	1	1	1	1
Malta	1	1	1	1	1	1	1	1	1	1		
Netherlands			1	1			1	1				
Poland	1	1	1	1	1	1	1	1	1	1	1	1
Portugal			1	1	1	1	1	1	1	1	1	1
Romania	1	1	1	1	-	-	-	-	-	-	-	-
Slovenia	1	1	1	1		1		1		1		1
Spain	1	1	1	1	1	1	1	1	1		1	1
Sweden			1	1			1	1				
United Kingdom	1	1	1	1			1	1	1	1	1	1
Total	17	17	22	22	11	11	19	20	14	13	12	13
	77%	77%	100%	100%	58%	58%	95%	100%	70%	65%	60%	65%

" " = template not uploaded
"1" = template uploaded
" - " = template not requested

value = null
value = zero
no value available

Overall, data submission improved compared to last year's report and the main indicators for the DCF are now delivered by all MS. However, some MS continue to not deliver data on several of the requested parameters, such as, capacity utilisation.

The quality of the data is checked, both automatically during the uploading process and manually by experts when producing the national chapters. As a result of these checks several data resubmissions had to be done.

In fact, JRC and STECF economic working groups encouraged MS to check the data that is to be submitted with other available official data in order to ensure quality and homogeneity between the data sources. Nonetheless, there are still divergences and these are explained in more detail the individual national chapters.

As highlighted last year, there are essentially two reasons for divergences with EUROSTAT data (see also SGECA 10-04, p. 23):

- Undercoverage: in several countries there is a threshold for employment applied to the official statistics. This threshold is not considered in the DCF and the data submitted should also include companies with fewer employees.
- Expert knowledge: JRC and national experts when checking the submitted data may use their own knowledge to correct mistakes in the data.

JRC also performed checks when calculating the indicators to see how robust the data was.

All MS obliged to submit data are now included in the EU overview (see below), as compared to last year when Belgium was excluded. The missing parameters from some Members States have implied that not all indicators can be estimated for all Member States, but this is covered in more detail in the national chapters.

5.3 Overview of the sector

The main indicators estimated for the fish processing industry are presented Table 5.3.

The fish processing industry employed almost 150 thousand people (corresponding to 118 thousand in FTE) in the whole of Europe, and accounted for more than €6 thousand million of Gross Value Added. When comparing these values with those of the EU fishing fleet, the actual importance of the sector can be more fully appreciated. Based on data from the 2011 AER of the EU fishing fleet, the primary fishing sector employed around 135 thousand fishermen (excluding Greece), and achieved an estimated €3 thousand million in Gross Added Value (GVA) and €1.3 thousand million of operating cash flow (OCF) in 2009.

The fish processing sector comprised of more than 3,500 enterprises (with fish processing as main activity) in 2009. A further 900 companies were reported to doing fish processing but not as their main activity However, taking into account that only about half of the Member States reported data on enterprises that undertake fish processing but not as their main activity, as well as the inherent difficulties in collecting the information, this number can be expected to be much higher. Nonetheless, there has been a progressive increase in reporting this data from 2008, where only 8 countries reported companies with fish processing not as main activity.

Table 5.3: EU overview on the basic indicators

Country	Number of enterprises	FTE	Gross Value Added (million €)	EBIT (million €)	Return on Investment (%)	Labour productivity (€/FTE)	Average salary (€)
Belgium	15	515				193	41
Bulgaria	45	1,934	28	20	55	14,230	2,098
Cyprus	3	43	1	-1	-9	15,754	12,010
Denmark	123	3,596	290	49	4	80,726	55,808
Estonia	51	1,746	21	4	6	12,281	9,557
Finland	137	742	39	8	9	52,540	36,378
France	311	14,983	805	107	5	53,720	42,940
Germany	263	7,268	318	30	7	43,808	34,464
Greece	114	1,957	169			86,303	
Ireland	172	2,596	210	116	45	80,709	30,931
Italy	414	5,436	332	56	2	61,041	39,568
Latvia	91	6,850	23			3,286	2,611
Lithuania	35	3,995	83	48	25	20,868	7,544
Malta	10	116	-14	-20	-144	-120,833	20,139
Netherlands	95	2,775	123	19	2	44,269	30,608
Poland	225	15,893	235	85	10	14,818	7,997
Portugal	191	6,613	1,023			154,679	50,365
Romania	13	564	24	22	116	43,063	3,059
Slovenia	13	210	9	3	12	43,144	20,756
Spain	585	18,449	1,301			70,535	23,339
Sweden	226	1,736	101	20	5	57,959	40,775
United Kingdom	441	19,586	903	197	15	46,103	31,787

5.4 Socio-economic performance and competitiveness

Turnover and income

Under DCF, three income sources are requested: turnover, other income and direct subsidies (see Fig. 5.1). In 2009, enterprises with fish processing as main activity accounted for around €25.5 thousand million in turnover. While other enterprises that did fish processing but not as their main activity accounted for €2.3 thousand million in turnover.

Most countries reported zero direct subsidies. The countries that reported subsidies, reported amounts comparatively low compared to the overall income. Since the target population

comprises enterprises with fish processing as their main activity, turnover essentially reflects the value of the fish processing in Member States. Only Slovenia reported a significant amount of other income, due to the fact that data from enterprises that do fish processing but not as their main activity were also included in order to avoid confidentiality issues.

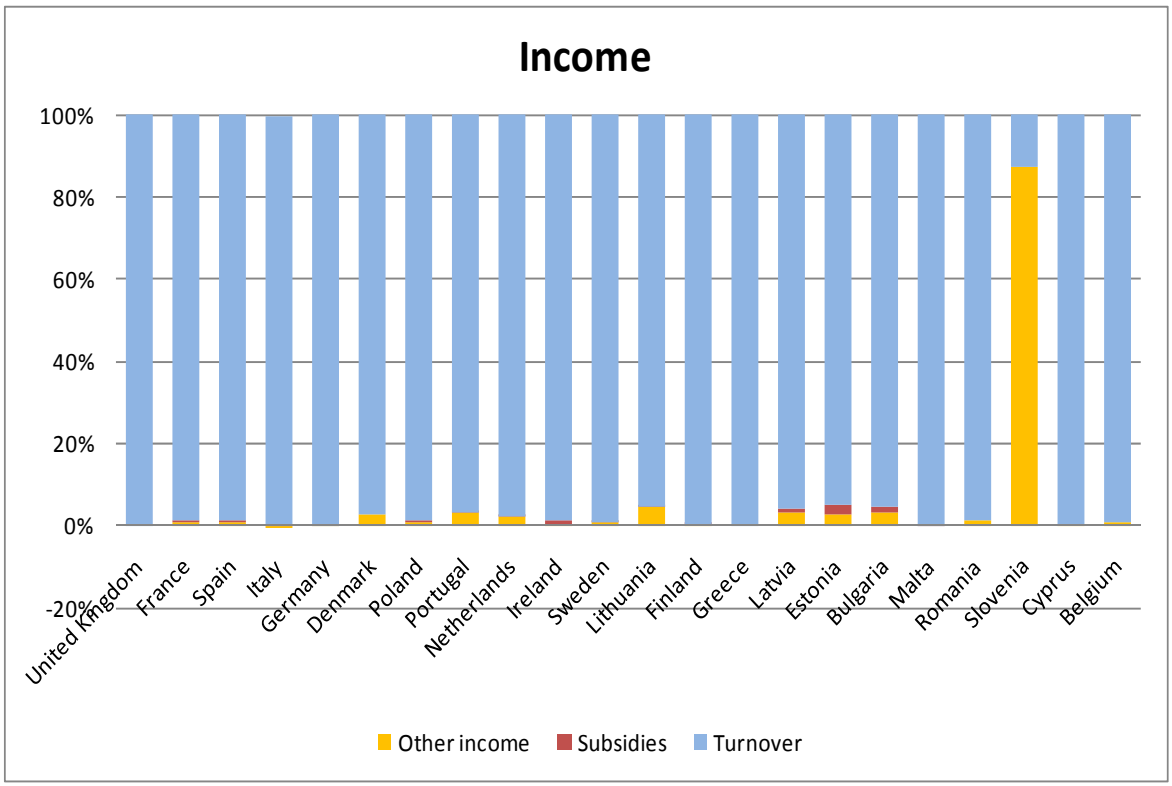


Figure 5.1: Sources of income

Cost structure

Figure 5.2 presents operational cost structure of fish processing industry by country. Fish as the raw material is by far the most important cost item in the industry. The cost share of raw material varies from two thirds to over 90% of all operational costs. Labour costs are the second highest cost item.

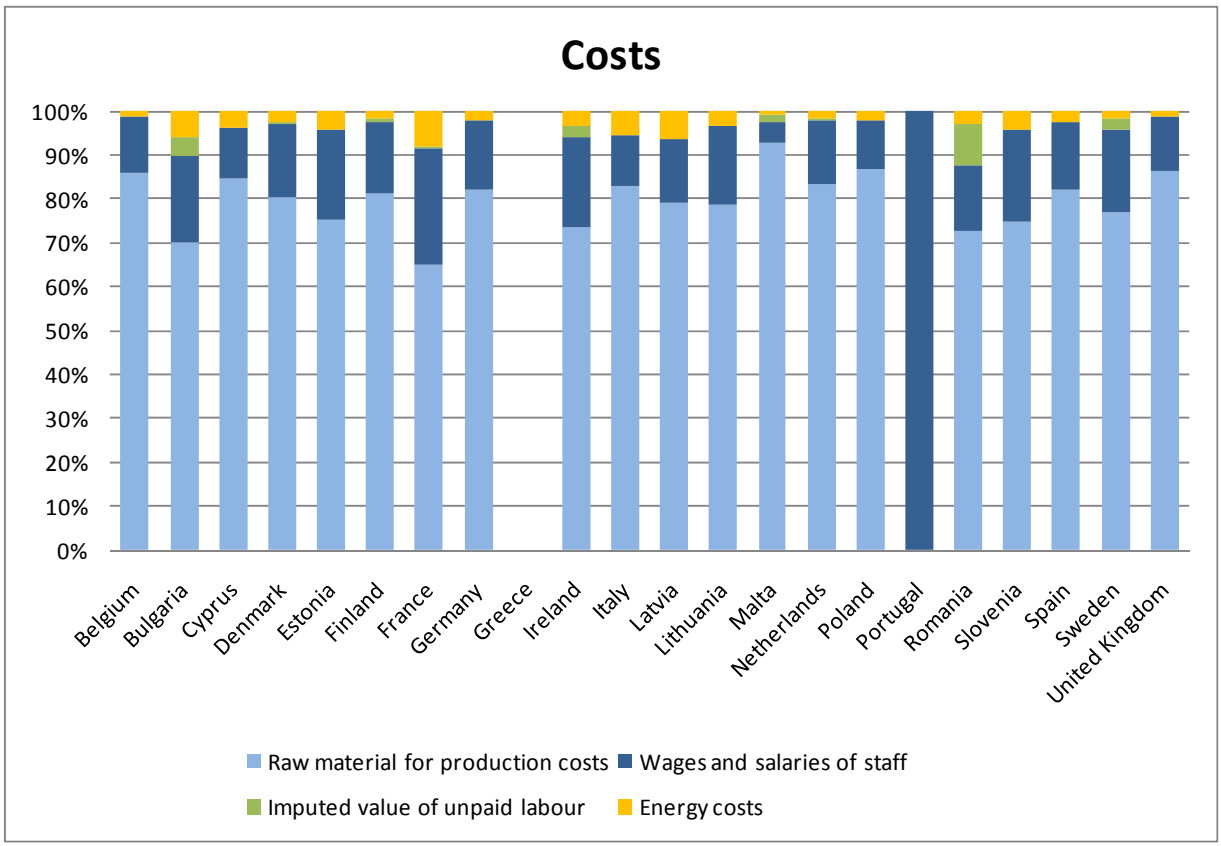


Figure 5.2: Cost structure in companies with fish processing as main activity

Employment

The fish processing industry employed around 150 thousand people in the whole of Europe, with an annual average wage of around €26 thousand in 2008.

Figure 5.3 shows the employment by gender by country. At the EU level, employment is evenly divided between genders. However there are major differences between countries.

In Estonia, Latvia, Lithuania and Poland more than 60% of the employees are women. In Ireland, Malta and the UK, the opposite is observed where more than 60% of the employees are men.

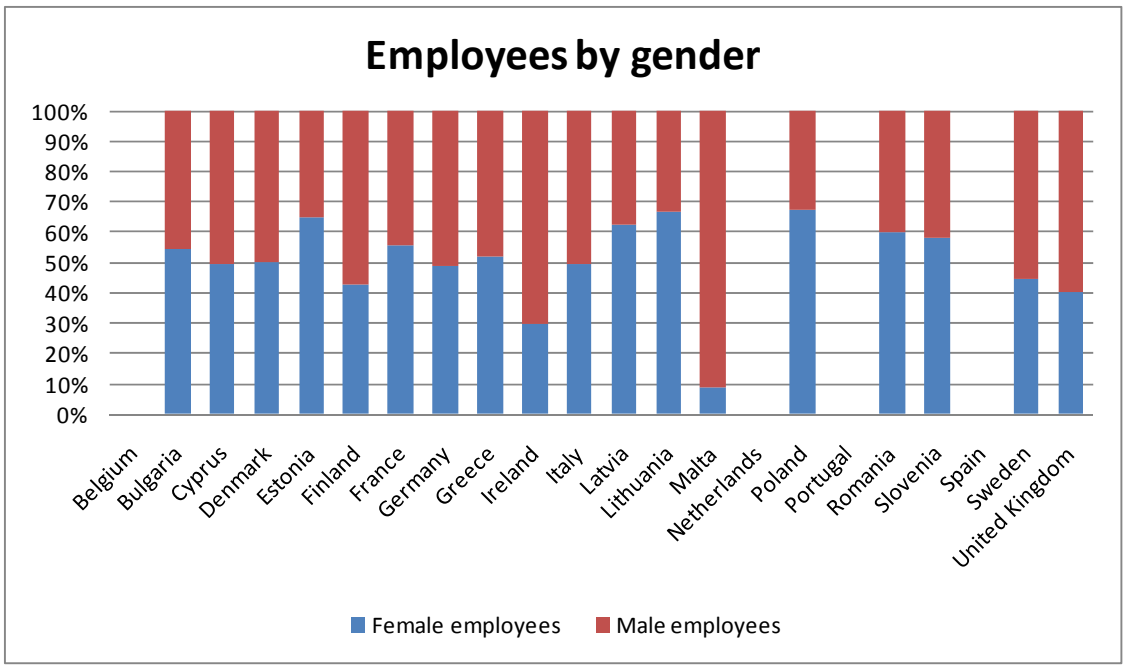


Figure 5.3: Employment by gender

Figure 5.4 presents the average earnings by countries. The variation is significant and in general, the newer Member States have lower average salaries. The results may partly reflect the data quality and are discussed further in the national chapters.

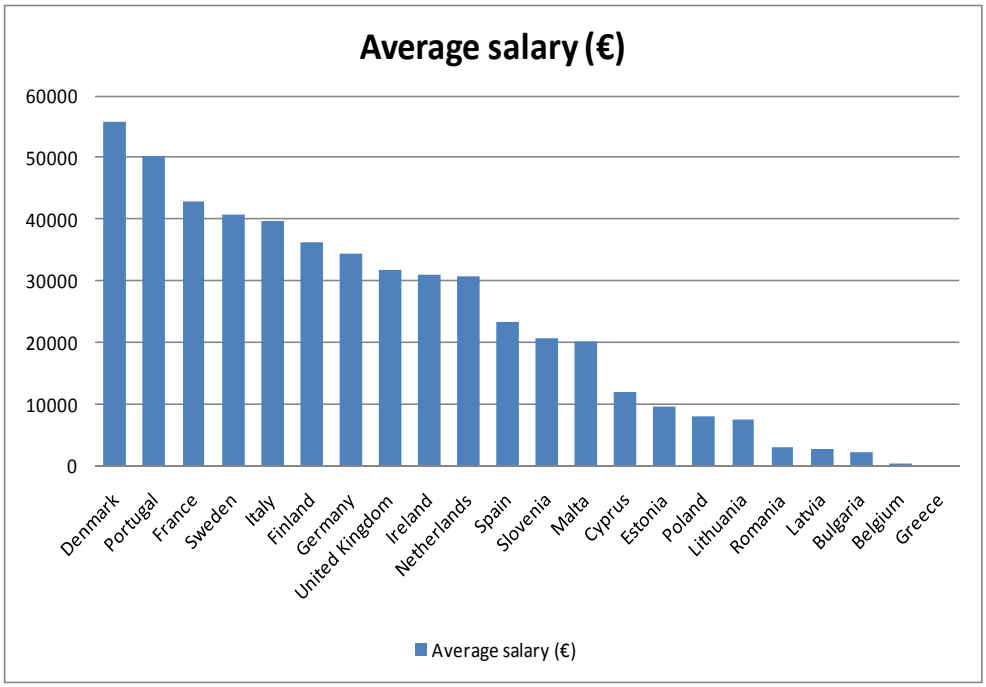


Figure 5.4: Average salary per employee

Figure 5.5 shows that there are still significant differences in productivity in the fish processing sector by Member State. However, it should be also taken into account that it is difficult to obtain conclusions from Figure 5.5 as several Member States did not report data for the smaller fish processing enterprises.

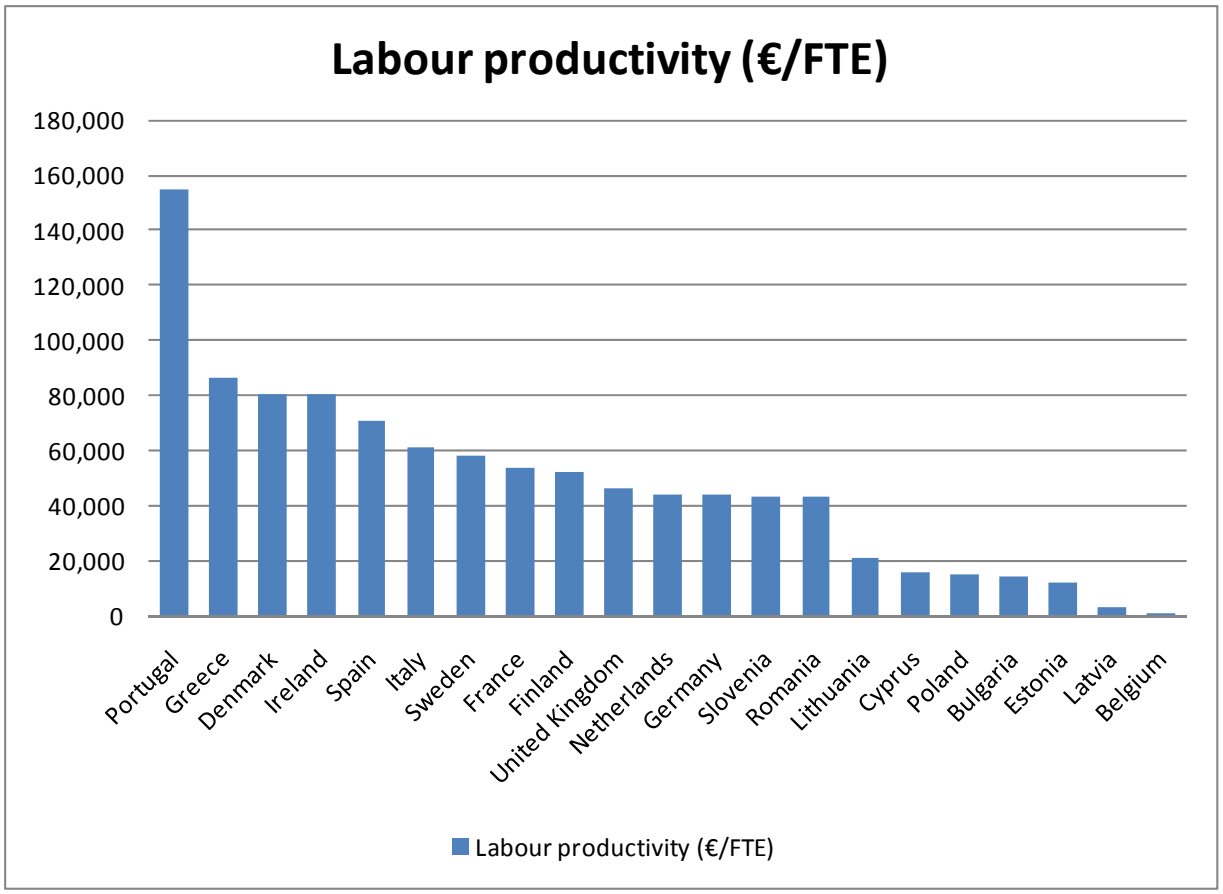


Figure 5.5: Labour productivity

As Figure 5.6 reveals, there is a high importance of raw material costs for the industry. In several countries running costs are at or nearly 100% of the turnover which means that companies are basically not able to cover fixed costs if there are no other sources of income.

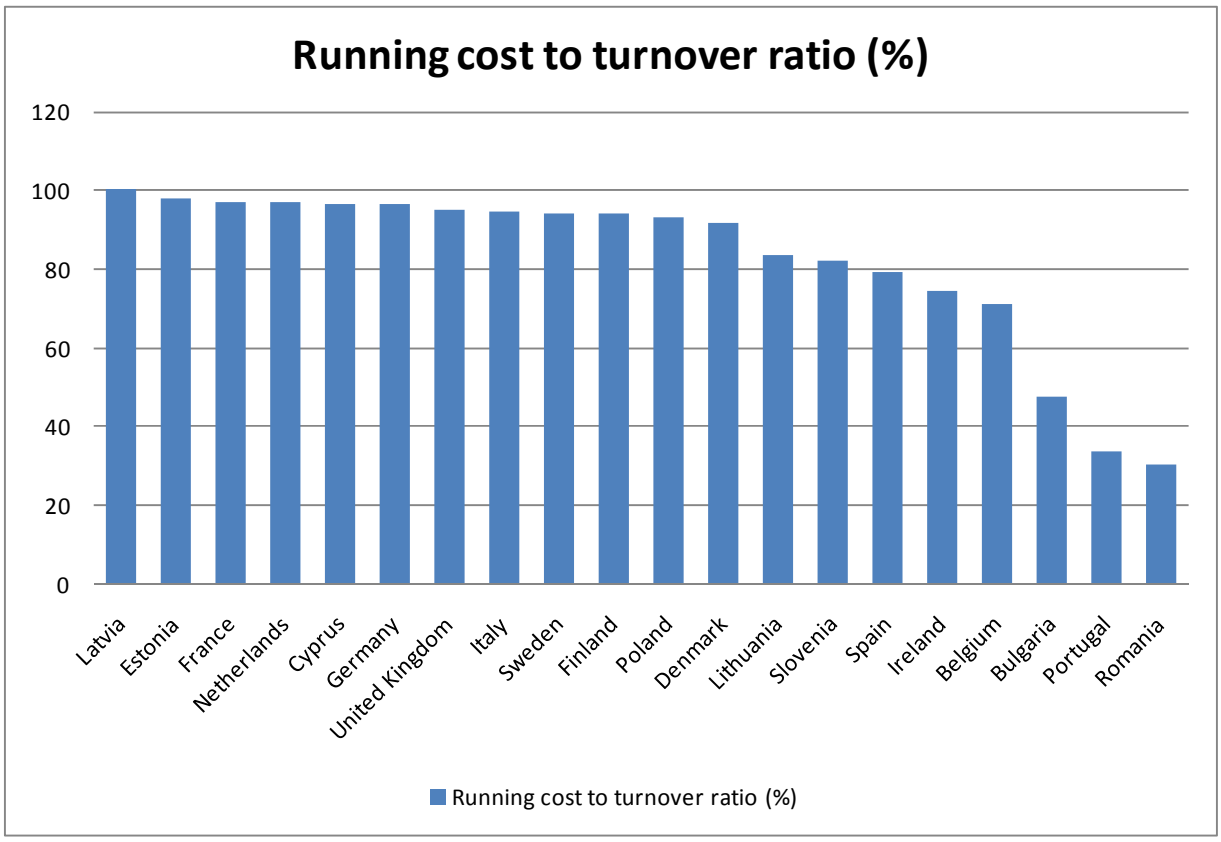


Figure 5.6: Profitability

5.5 Comment on sector's performance and possible development in the future

As mentioned above, the fish processing sector in the EU comprised more than 3,500 enterprises with fish processing as main activity, accounting for €25.5 thousand million in turnover and more than €6 thousand million in Gross Added Value in 2009. The fish processing industry employed around 150 thousand people in the whole of Europe.

It proved very difficult to perform a temporal analysis from the available data, due essentially to changes in the parameters submitted owing to change in the regulation as well as missing data for some years for several countries. Our perception from the available data is that the fish processing industry has improved in terms turnover, despite the global and sectorial situations. Even after the start of the financial crisis in 2008 many countries report an increase in several socioeconomic indicators, such as, turnover, net profit or employment. Also at first look at 2010/11, many experts report a better situation than in 2008/9. However, with the debt crisis

deteriorating and spending cuts in many countries, it is expected that purchasing power will decrease further in the coming years and the industry will probably have to adjust their production accordingly. In Greece and Ireland changes are already visible as enterprises are also not able to get credit from banks.

In fact, the sector is suffering from very low margins, which continue to decrease due to increases in raw material and energy costs that cannot be translated into price increases due to the retail sector's high negotiation power.

With the expectation of an increase in demand for fish products in the coming years/decades, the industry may face problems in obtaining access to raw material. However, in light of the favourable developments of several European stock sizes and the proposed target of every stock being at a level able to produce maximum sustainable yield, landings in Europe may increase in the coming years.

The fish processing companies in many countries seem to be more efficient in reacting to increasing costs than previous years. In several countries, expectations are positive which indicates that total assets are higher than dept. In these countries, enterprises are investing in their operations.

6 NATIONAL CHAPTERS

6.1 Belgium

This year it was not possible to produce a national chapter for Belgium as no expert was available. Therefore, only basic figures and tables are presented.

6.1.1 Overview of the sector

No comments.

6.1.2 Socio-Economic aspects

No comments.

Figure 6.1.1: Size distribution of the Belgian fish processing industry

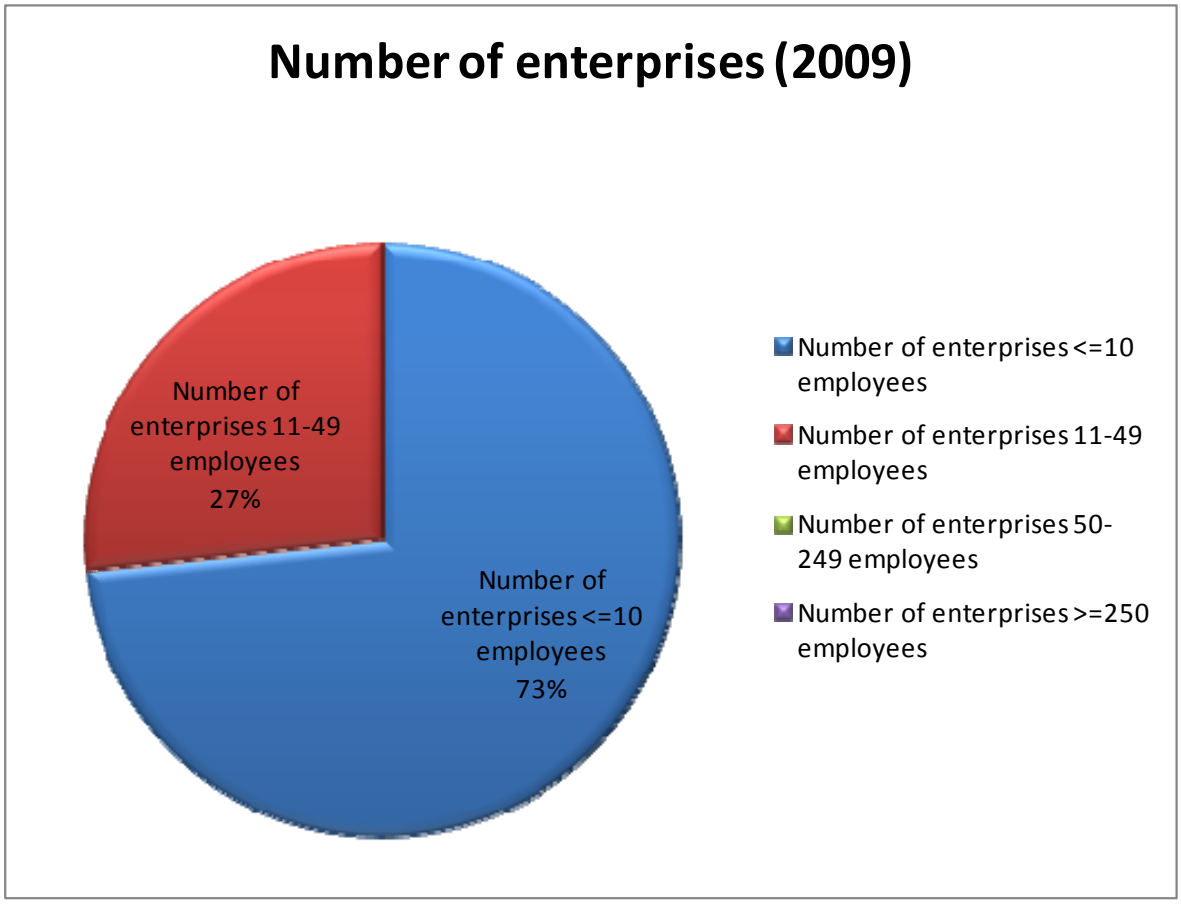
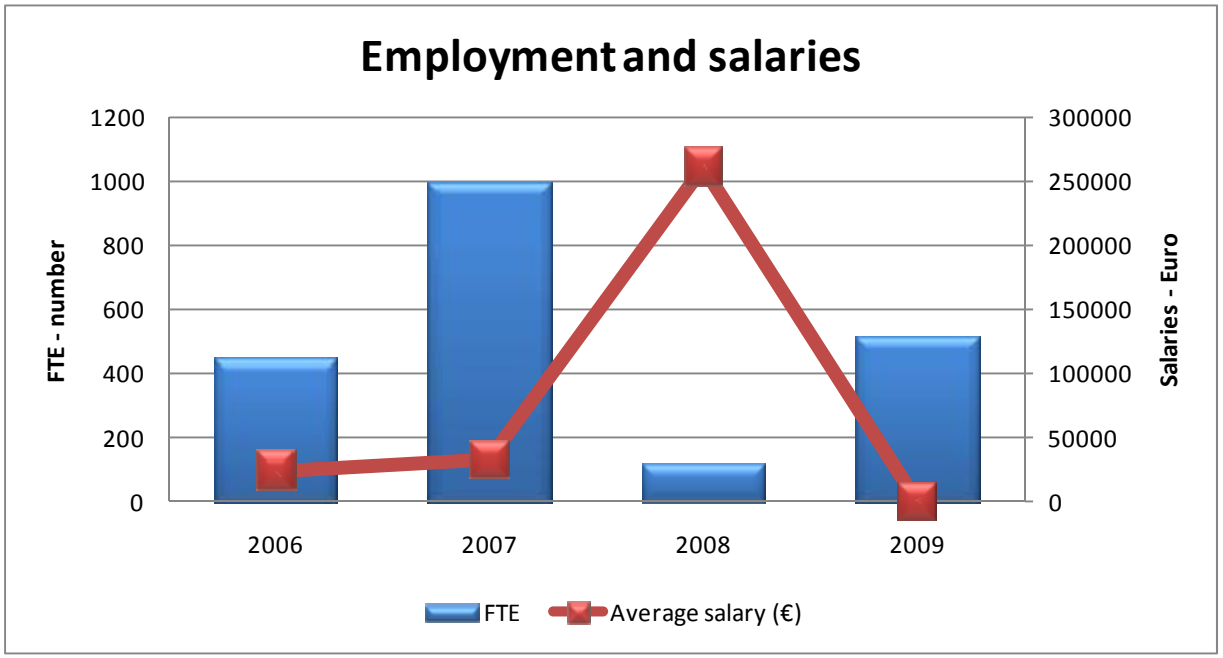


Table 6.1.1: Socio-economic performance indicators.

Structural Indicators	2006	2007	2008	2009
Number of enterprises	255	235	27	15
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees				
Female employees				
Total employees	504.2	1083	147	541
FTE	443.4	993	119	515
Average salary (€)	24077.35679	####	####	40.6
Employment per enterpris	1.738824	4.23	4.41	34.4
% of unpaid work (%)				

Figure 6.1.2: Employment and average salary



6.1.3 Economic performance

No comments.

Figure 6.1.3: Distribution of the operating costs in the Belgian fish processing industry

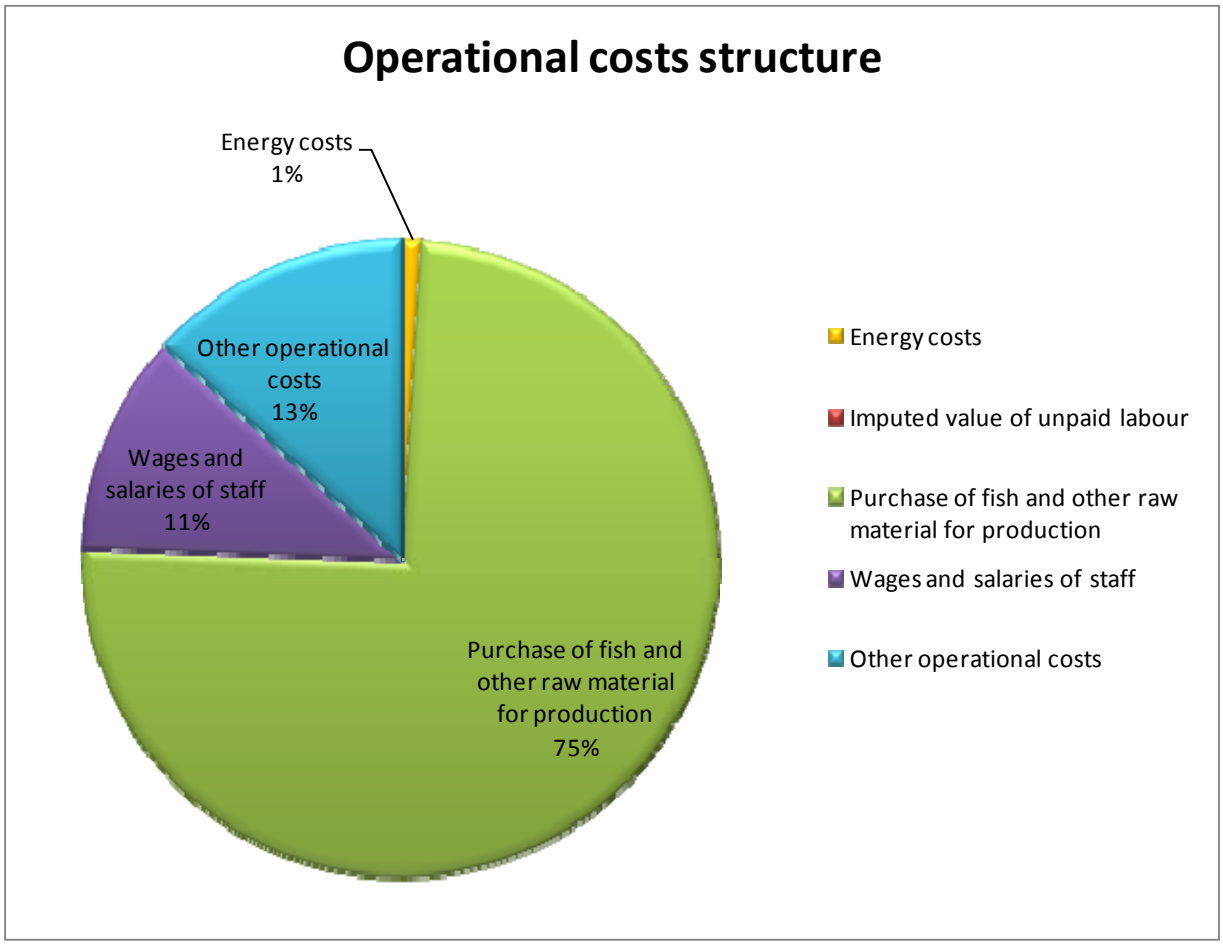


Table 6.1.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	186	393	424	
Gross Value Added (million €)	57	85	-306	
Operating Cash Flow (million €)	46	52	-337	
EBIT (million €)			-345	
Net profit (million €)	43	36	-346	
Return on Investment (%)				
Financial position (%)				
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	128290	85230	-2571022	193
Running cost to turnover ratio (%)	79	89	180	71
Capital productivity (%)	68	30		
Future Industry Expectations (%)				

6.1.4 Trends and triggers

No comment.

6.1.5 Data issues

Significant differences between DCR (until 2007) and DCF data (2008 and 2009) were observed. However, without specific knowledge on the Belgium fish processing industry and the data collection procedure, it was not possible to evaluate or correct any errors in the data.

6.2 Bulgaria

It was not possible to produce a national chapter for Bulgaria as no expert was available. Therefore, only the basic figures and tables are presented.

6.2.1 Overview of the sector

No comments.

6.2.2 Socio-Economic aspects

No comments.

Figure 6.2.1: Size distribution of the Bulgarian fish processing industry

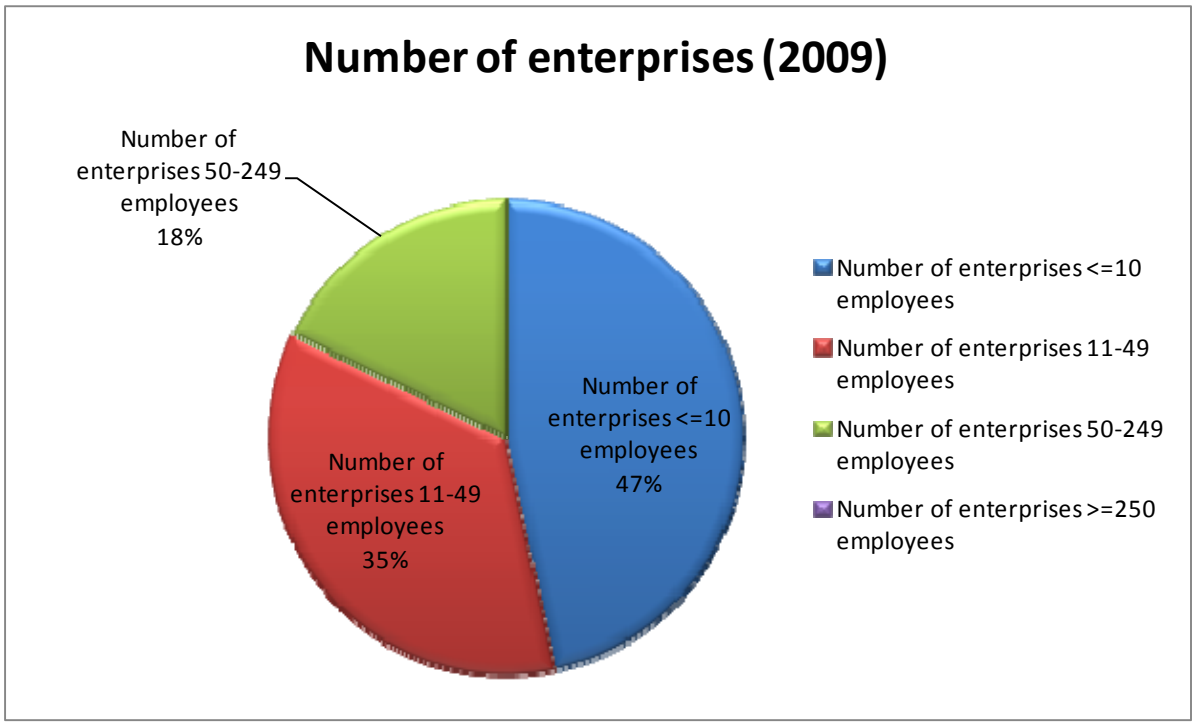
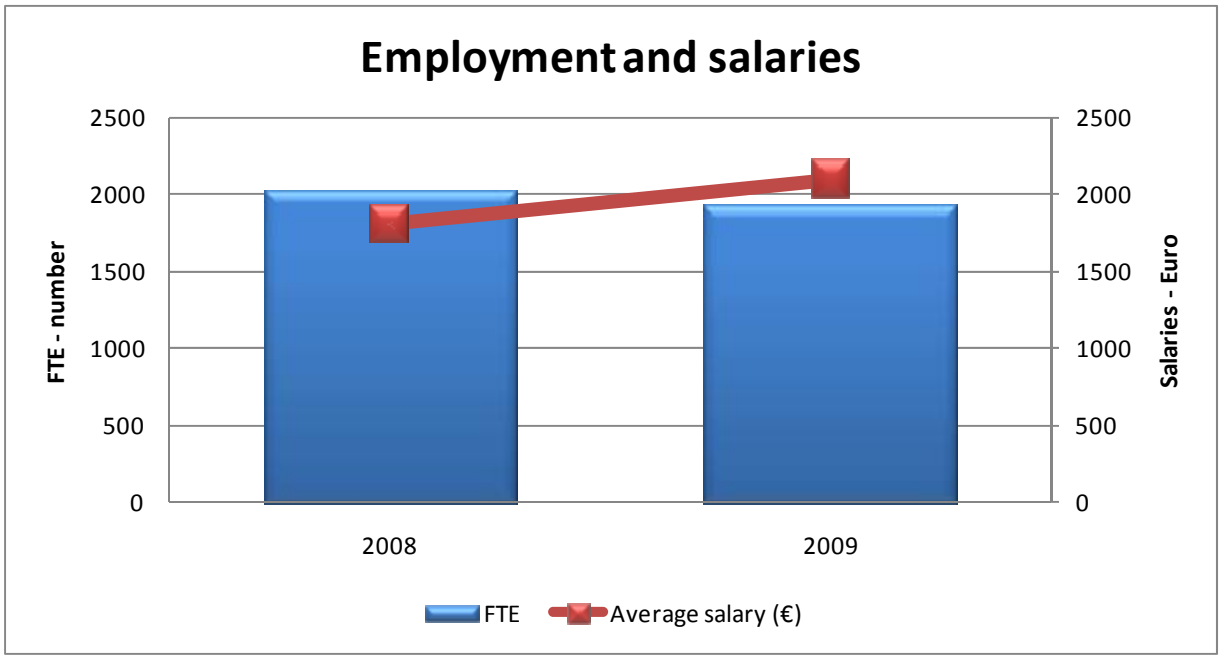


Table 6.2.1: Socio-economic performance indicators.

Structural Indicators	2008	2009
Number of enterprises	45	45
Social Indicators	**2008**	**2009**
Male employees	908	883
Female employees	1116	1051
Total employees	2024	1934
FTE	2024	1934
Average salary (€)	1805.19124	2098.388175
Employment per enterprise	44.977778	42.977778
% of unpaid work (%)		10.332354

Figure 6.2.2: Employment and average salary.



6.2.3 Economic performance

No comments.

Figure 6.2.3: Distribution of operating costs in the Bulgarian fish processing industry.

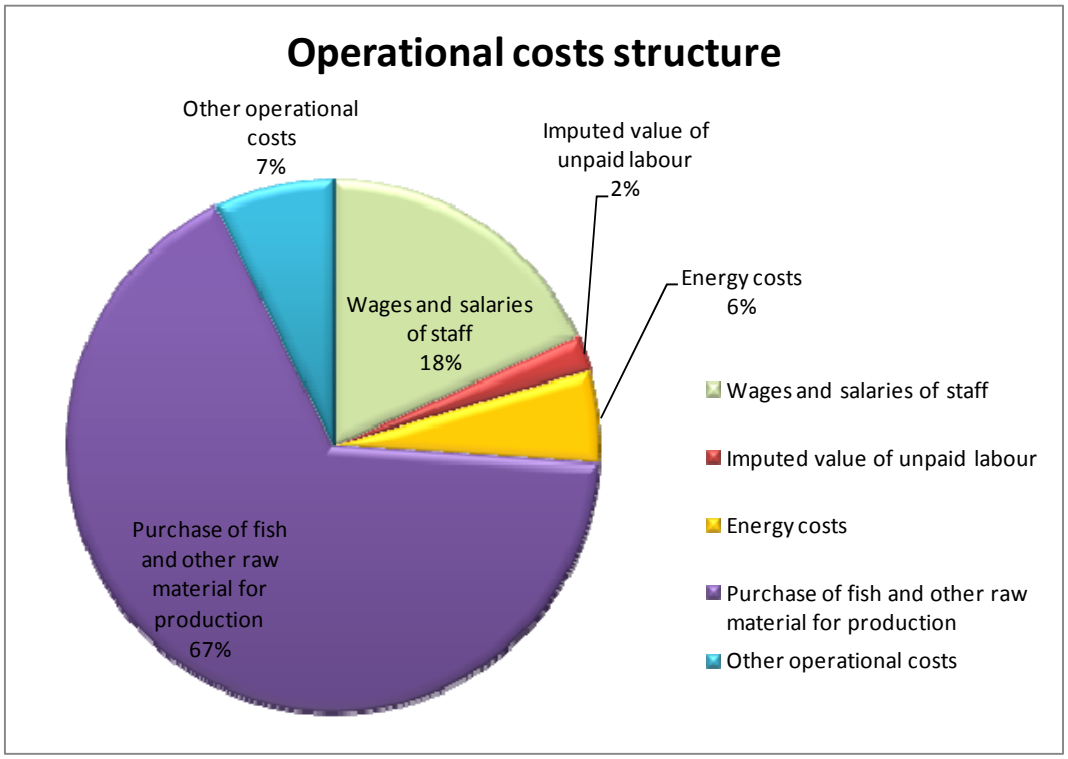


Table 6.2.2: Economic performance and productivity indicators.

Economic Performance Indicators	**2008**	**2009**
Turnover (million €)	49	42
Gross Value Added (million €)	25	28
Operating Cash Flow (million €)	21	24
EBIT (million €)	18	20
Net profit (million €)	17	19
Return on Investment (%)	39	55
Financial position (%)	53	52
Productivity Indicators	**2008**	**2009**
Labour productivity (€/FTE)	12177	14230
Running cost to turnover ratio (%)	63	47
Capital productivity (%)	53	73
Future Industry Expectations (%)		11

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations ((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.2.4 Trends and triggers

No comments.

6.2.5 Data issues

No comments.

6.3 Cyprus

It was not possible to produce a national chapter for Cyprus as no expert was available. Additionally, the reduced size of the fish processing sector in Cyprus may present confidentially issues. Therefore, only basic figures and tables are presented.

6.3.1 Overview of the sector

No comments.

6.3.2 Socio-Economic aspects

No comments.

Figure 6.3.1: Size distribution of the fish processing industry of Cyprus.

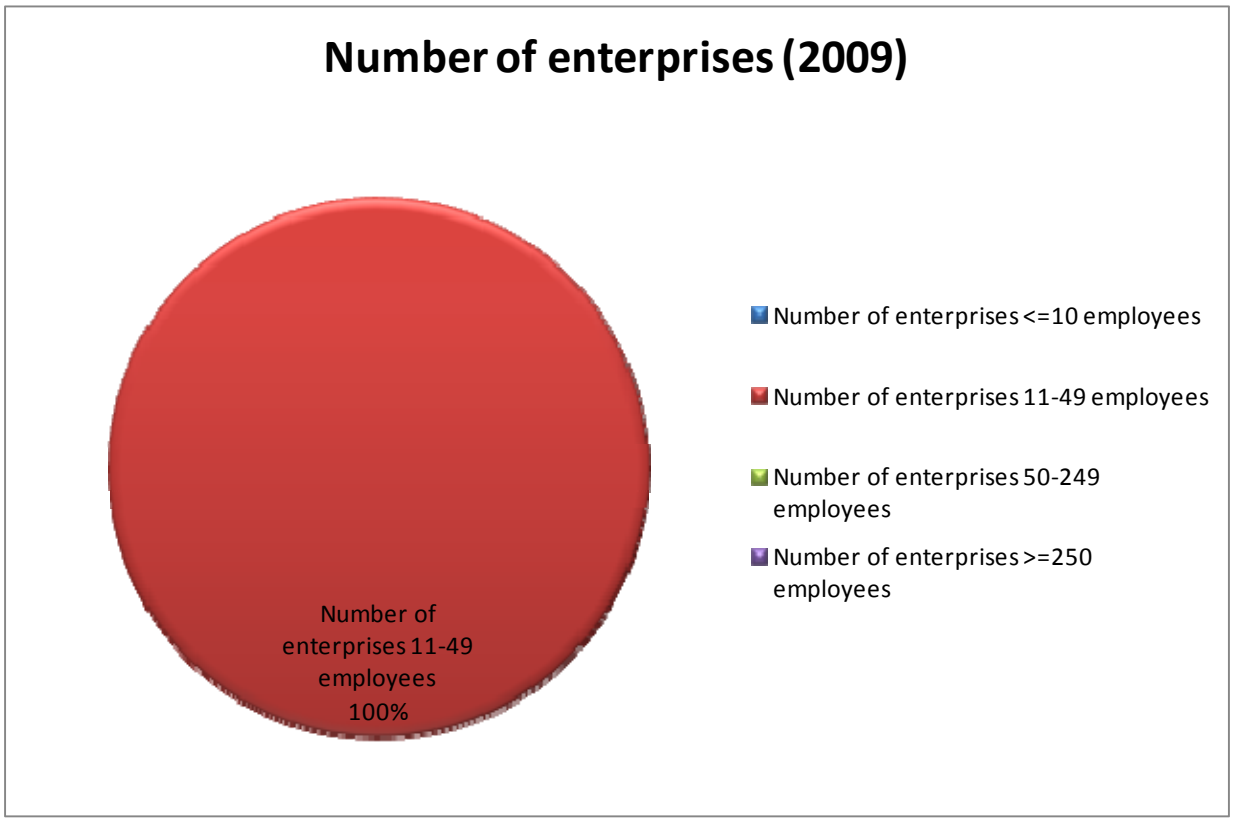
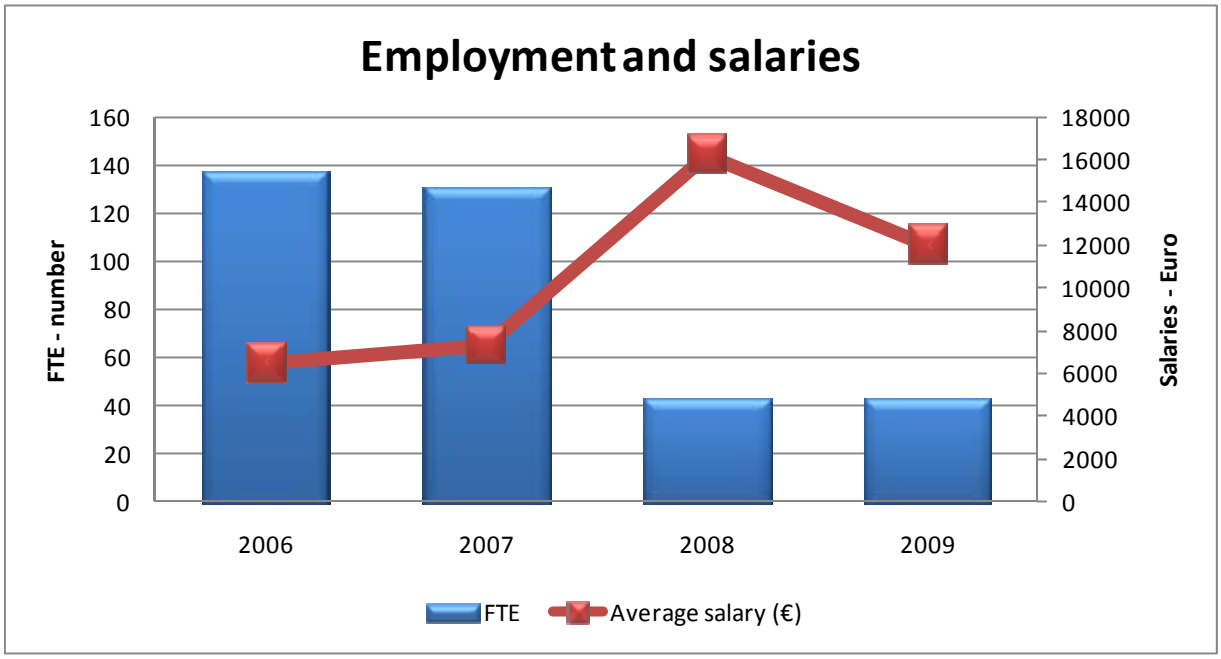


Table 6.3.1: Socio-economic performance indicators.

Structural Indicators	2006	2007	2008	2009
Number of enterprises	18	18	4	3
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			24	26
Female employees			32	17
Total employees	144	139	56	43
FTE	137	131	43	43
Average salary (€)	6494	7300	16229	12010
Employment per enterpris	8	7	11	14
% of unpaid work (%)				

Figure 6.3.2: Employment and average salary.



6.3.3 Economic performance

No comments.

Figure 6.3.3: Distribution of the operating costs in the fish processing industry of Cyprus.

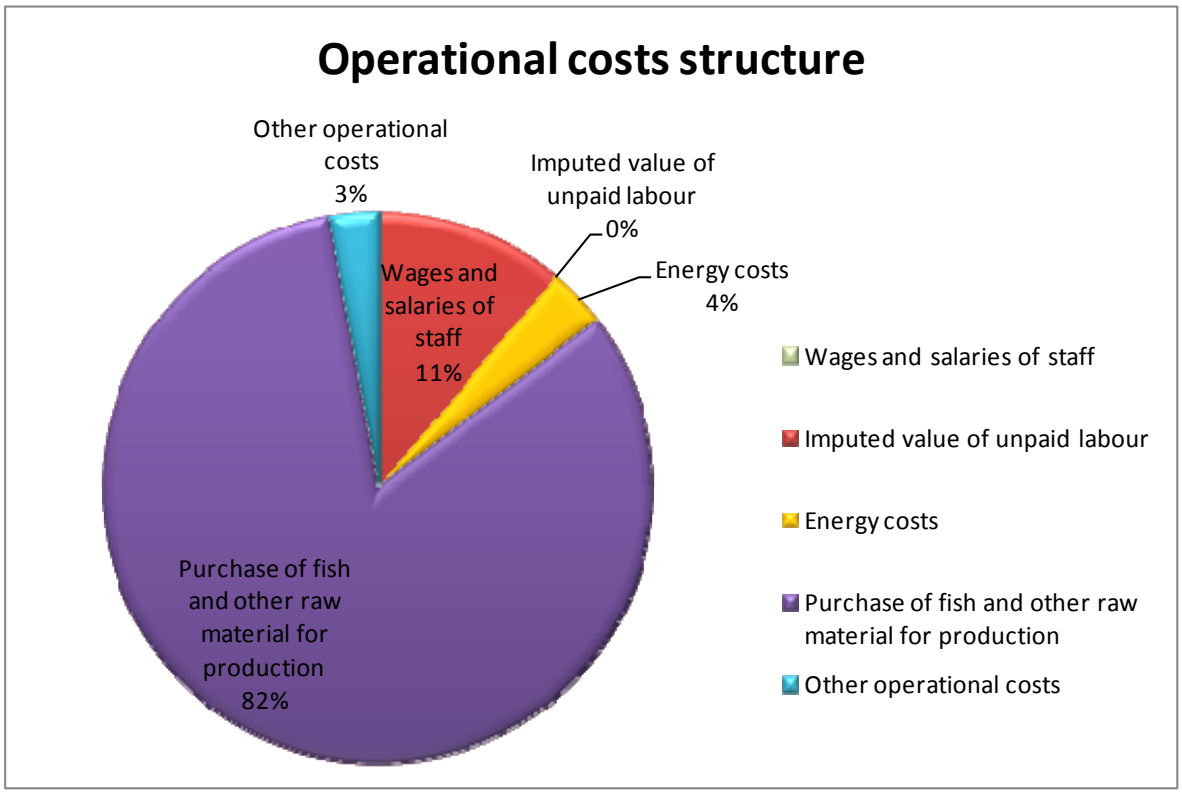


Table 6.3.2: Economic performance and productivity indicators.

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	10	9	4	5
Gross Value Added (million €)	6	5	3	1
Operating Cash Flow (million €)	6	5	3	0
EBIT (million €)	5	5	2	-1
Net profit (million €)	4	3	2	-1
Return on Investment (%)	158	108	30	-9
Financial position (%)			39	84
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	46539	39419	75474	15754
Running cost to turnover ratio (%)	46	74	36	97
Capital productivity (%)	190	113	43	12
Future Industry Expectations (%)	-6	9	-1	-11

6.3.4 Trends and triggers

No comments.

6.3.5 Data issues

No comments.

6.4 Denmark

6.4.1 Overview of the sector

In 2009, there were 123 firms in the Danish fish processing industry, a 5% increase (6 firms) relative to 2008. The turnover decreased in the same period by 1%, corresponding to turnover of €1.7 billion in 2009. The total amount of raw material used in the industry measured as output in terms of commodities from the industry (processed raw material) decreased by 2%, from 566 thousand tons to 552 thousand tons. The decrease in production for human consumption was 15%, whereas fishmeal and oil increased by 6%. The Danish fish processing sector employed a total of 3 596 full-time employees in 2009, which equates to a decrease of 13% compared to 2008.

The structural development in the fish processing industry is characterised by a reduction in the number of work places from 254 in 1995 to 172 in 2009. The number of full-time employees fell during the same period from 6 822 to 3 596 FTEs. The average size of the workplace, measured by the number of full-time employees, fell from 27 to 21 employees per work place.

Main products and main segments

Denmark is one of the world's largest importers and exporters of fish and fish products. The Danish industry produces a large variety of different products based on many different species. Raw material in the Danish processing industry is measured as output from the industry and not as raw material going into the industry. Nevertheless, the output data provides a good overview of the species used and the importance of each species for the industry.

The most important species for consumption in terms of volume is herring (29%), followed by salmon (17%) and cod (16%). In terms of value the most important species are salmon (29%), cod (17%), and herring (12%). Production of cod has been decreasing in both value and volume between 2006 and 2009. The production of salmon increased between 2006 and 2008, but has since decreased (2008 to 2009). The volume and value of herring decreased between 2008 and 2009.

Production of fish meal and fish oil is an important part of the fish processing industry in Denmark, and is based on fish for reduction. In 2009 fish for reduction made up for 65% of the total Danish catch and 26% of the total value. The value and volume of fish for reduction has increased between 2007 and 2009.

Table 6.4.1: Raw materials as output - Denmark

	Volume (tn)	Volume (tn)	Volume (tn)	Volume (tn)	Value ('000€)	Value ('000€)	Value ('000€)	Value ('000€)
	2006	2007	2008	2009	2006	2007	2008	2009
Herring	71 521	60 817	65 789	56 090	124 462	113 575	115 860	99 328
Cod	41 446	37 103	35 346	30 576	200 134	192 742	181 317	142 339
Salmon	16 735	17 958	36 430	33 129	163 038	176 210	262 769	249 194
Others	93 416	70 517	81 923	74 547	390 591	336 828	383 602	368 145
Total for consumption	223 118	186 395	219 489	194 343	878 360	819 220	943 548	859 005
Fish for reduction	409 281	314 739	346 460	358 110	323 925	262 366	276 613	296 237
Total	632 399	501 134	565 949	552 453	1 202 285	1 081 720	1 220 296	1 155 108

Source: Calculation based on data from Statistics Denmark.

The Danish fish processing industry can be divided into segments based on the Industry Commodity Trade Statistics collected by Statistics Denmark. The Danish segmentation is based on the main species used in the Danish fish processing sector, namely:

- Cod and flatfish
- Herring and Mackerel (Prepared and preserved industry)
- Molluscs, Shrimps and Crustaceans

- Mixed production (mixed species)
- Salmonoids
- Fishmeal factories

The dependency on selected species in each sub-branch is high. The volume of cod and flatfish produced in the subsector covered 70% of the total amount produced in 2009. Herring and mackerel 79%, Molluscs, Shrimp and Crustaceans 83%, Salmonoids 82% and fishmeal factories 100% fish for reduction.

The sub-branch “Salmonoids” was the most important with a turnover of €0.4 billion and 1,088 fulltime employees. “Mixed production” was the second most important with 756 full-time employees and a turnover of €0.4 billion. The sub-branch “Cod and flatfish” had a turnover of €0.3 billion and employed 602 full-time. “Molluscs, Shrimps and Crustaceans” was the smallest sub-branch with a turnover of €0.1 billion and 188 full-time employees. In between were the sub-branches “Herring and mackerel” with €0.2 billion in turnover and 589 full-time employees and “Fishmeal factories” with a turnover of €0.2 billion and 291 full-time employees.

The sub-branches with the highest profitability, calculated as net profit divided by total assets, was “Molluscs, Shrimps and Crustaceans” and “Fishmeal factories” with a profitability of 22 and 9%, respectively. The “Cod and flatfish” sub-branch revealed the lowest performance, with a negative profitability of -11%. Profitability for the other sub-branches ranged between 2% and negative 4%.

The most important group of products for consumption, in terms of degree of processing, are prepared and preserved products, which accounted for 65% of the volume of processed products. Fresh fillet made up for 18%, while smoked, salted and dried covered 13%, and frozen fillet 5%. In terms of value prepared and preserved products were the most important, covering 58% of the total value, while smoked products covered 23%. Fresh and frozen fillet made up for 15 and 4%, respectively. Taking into account fish for reduction, fish meal and fish oil accounted for 65% of the total volume and 26% of the total value.

Table 6.4.2: Main products

	2006	2007	2008	2009	2006	2007	2008	2009
	Volume (tn)	Volume (tn)	Volume (tn)	Volume (tn)	Value ('000€)	Value ('000€)	Value ('000€)	Value ('000€)
Fresh fillet	52 581	28 615	43 023	34 065	120 027	87 366	141 801	127 151
Frozen fillet	14 126	12 218	14 297	9 006	44 355	39 113	38 441	38 172
Smoked	26 367	24 707	28 578	25 427	205 108	209 274	227 823	196 505
Prepared and preserved	130 044	120 855	133 591	125 846	508 871	483 468	535 618	497 177
Total for consumption	223 118	186 395	219 489	194 344	878 360	819 220	943 548	859 005
Fish meal fish oil	409 281	314 739	346 460	358 110	323 925	262 366	276 613	296 237
Total	632 399	501 134	565 949	552 453	1 202 285	1 081 720	1 220 296	1 155 108

Source: Calculation based on data from Statistics Denmark.

Dependency on domestic production

In general, the Danish fish processing industry are not dependent on domestic catches. The Danish fish processing industry buy and sell their products on the global market, which is a highly competitive market. Raw material for the industry is therefore bought from all over the world and the dependency of domestic catches is small. Nevertheless, domestic catches of cod, herring and mackerel have some importance.

The fish meal factories are the most dependent on domestic catches, but also receive raw material from other countries, mainly neighboring countries such as, Norway, Iceland, UK and Sweden.

The salmon industry using fresh products are for the most part dependent on the aquaculture production in Norway and UK, but frozen raw material for production are imported from all over

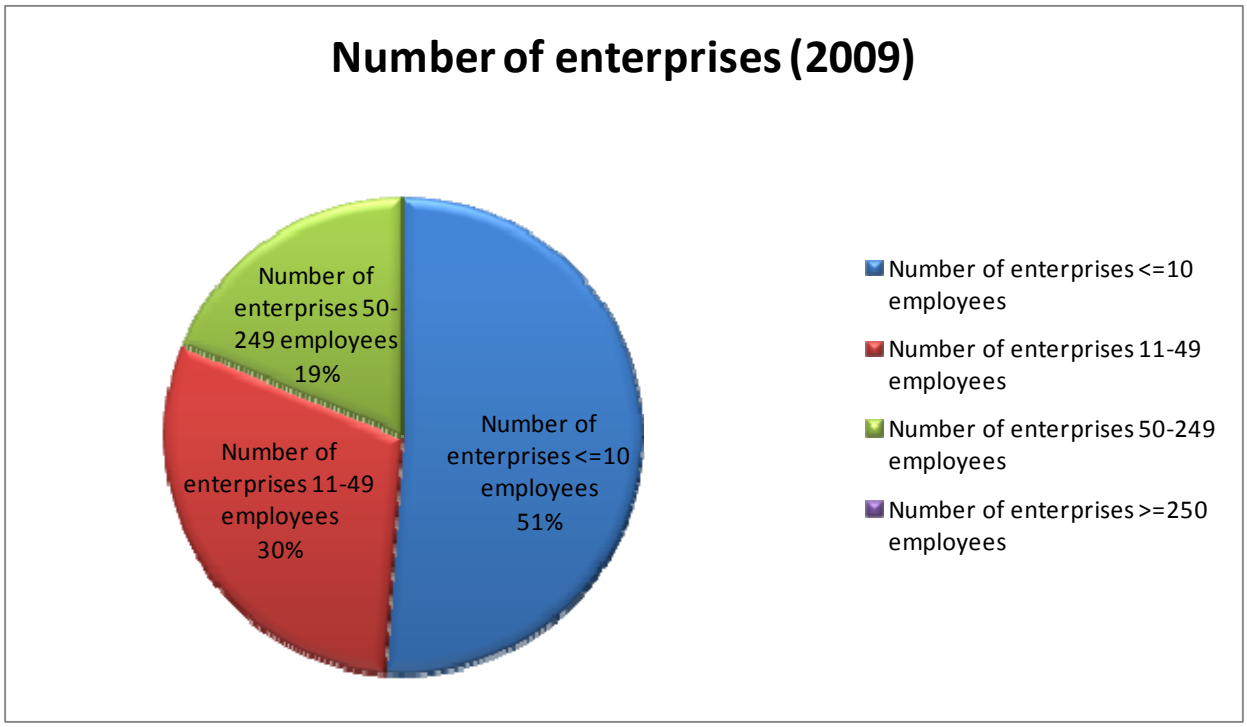
the world, mainly from Chile. The industry using fresh trout is for the most part dependent on raw material from Norway and domestic production, but again frozen raw material are imported from all over the world.

The imports by the Danish producers are dominated by Norway, due to the large amounts of salmon going through Denmark to the European marked. Other major exporters to Denmark are Sweden, Holland and UK. Also, exports are dominated by salmon that are exported to chiefly to Germany and France.

6.4.2 Socio-Economic aspects

The Danish fish processing industry is dominated by small and middle sized firms: 63 enterprises have less than 10 full time employees, corresponding to 51% of the enterprises in Denmark; 37 enterprises have between 10 and 49 employees and 23 have between 50 and 249 employees, corresponding to 30 % and 19 %, respectively. There are no large fish processing enterprises with more than 250 employees in Denmark. In terms of full time employment, the smallest segment employs 6% of the total numbers of full time employees. The segment between 10 and 49 employs 25%, whereas the segment between 50 and 249 employs 69% of the total numbers of full time employees in the Danish fish processing industry.

Figure 6.4.1: Size distribution of the 2009 fish processing industry



The Danish fish processing industry is mainly located around the most important harbors in Denmark. The most important areas in terms of value and volume of landings are the north and western parts of Jutland and some of the largest concentration of processing industry are located in these areas. Furthermore, some of the Danish islands are more depend on the local fisheries and processing industry, like Bornholm, because alternative job opportunities in these areas are low.

From 2006 to 2009, the numbers of enterprises in Denmark have been at a fairly stable level. The total number of employees has on the other hand been steadily declining. The numbers of employees has been slightly declining in the same period, whereas, the numbers of full time employed decreased rapidly from 4 147 in 2008 to 3 596 in 2009, corresponding to a decrease of 14%. The reason for this large change is a new data collection method in Statistics Denmark,

which provide better information on the numbers of full time equivalent employed in the industry.

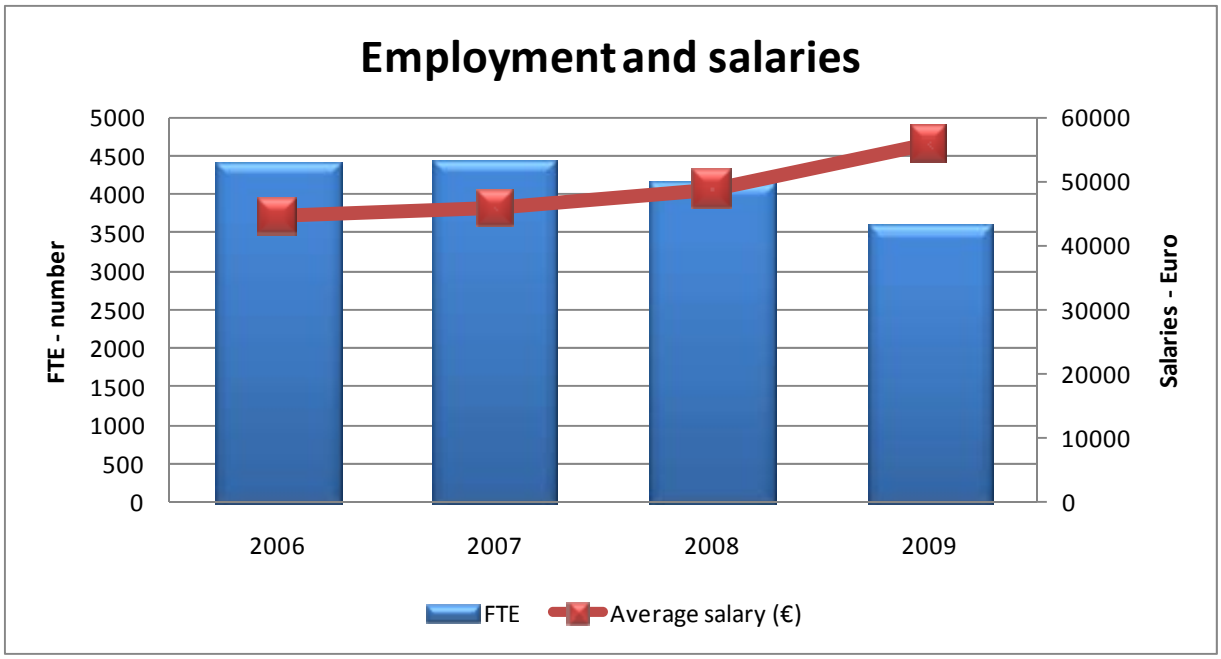
Table 6.4.3: Socio-economic performance indicators

Structural Indicators	2006	2007	2008	2009
Number of enterprises	124	128	117	123
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			2146	2121
Female employees			2233	2106
Total employees	4440	4441	4379	4227
FTE	4414	4428	4147	3596
Average salary (€)	44612	45863	48789	55808
Employment per enterprise	36	35	35	29
% of unpaid work (%)			1	1

In 2009, the total number of employed in the fish processing industry was 4 227 of which 2 121 was male and 2 106 female. The average salary per FTE has increased from 49 to 56 thousand euro per year from 2008 to 2009. The turnover per FTE has also been increasing from 411 to 471 thousand euro per FTE.

The value of unpaid labor in the Danish fish processing industry is insignificant. In 2008 and 2009, the value was estimated to less than 1% of total wages and salaries.

Figure 6.4.2: Employment and average salary

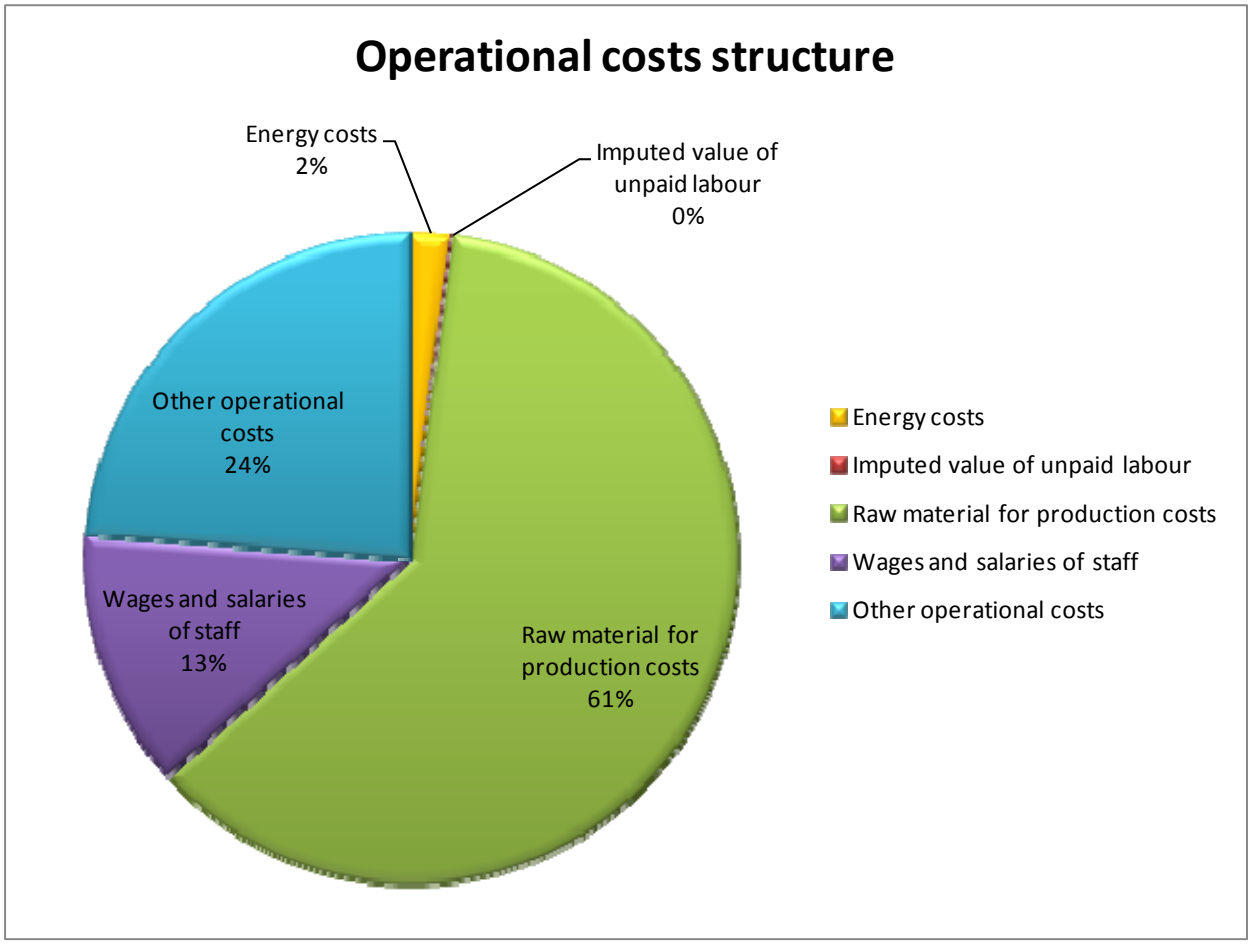


6.4.3 Economic performance

In 2009, the net profit of the Danish fish processing industry was positive for the first time in four years. The sub branches contributing the most to the positive results are the production of shrimp and mussels and the fish meal factories.

The cost of raw material (fish) is the most important input in the processing industry, and covers 61% of the total running cost. Other operational cost is the second most important cost item. It covers 24% of the costs and includes both other operational cost and resale commodities. Wages and salaries and energy costs cover 13% and 2%, respectively.

Figure 6.4.3: Distribution of the operating costs in the Danish fish processing industry



The running cost to turnover have declined from above 100% to 92% from 2006 to 2009, which implies that there is more room for covering the payment of fixed cost and achieve a positive result for the fish processing industry as a whole. The turnover has been falling, but the GVA has been increasing from 2007 to 2009. As a result, the EBIT, net profit and the return on investment have been increasing.

The labor productivity has also been increasing, because of the increasing GVA and the falling numbers of full time employees in the sector. Capital productivity has increased from 21% in 2006 to 24% in 2009.

Table 6.4.4: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	2048	1891	1703	1693
Gross Value Added (million €)	242	223	257	290
Operating Cash Flow (million €)	45	19	54	90
EBIT (million €)	12	-16	13	49
Net profit (million €)	-13	-31	-28	14
Return on Investment (%)	1	-1	1	4
Financial position (%)			75	73
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	54848	50260	61884	80726
Running cost to turnover ratio (%)	100	102	96	92
Capital productivity (%)	21	18	21	24
Future Industry Expectations (%)	-1	2	-1	0

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.4.4 Trends and triggers

The production of fish for human consumption decreased 11% and the production of fishmeal and oil decreased 1% from 2009 to 2010. In 2010, the production based on shrimp and mussels rose in relation to 2009, whereas production based on all other species fell. Furthermore, the production of product forms; fresh and frozen filet, smoked, prepared and preserved products decreased from 2009 to 2010. Sales prices and raw material prices were on average increasing for most species.

In 2011, the profitability in the fish processing sector for consumption and the fish meal factories are expected to increase, due to increased prices on fish for consumption, fish meal and oil. The financial crisis is not over, but the economy is recovering. The dollar is expected to increase its value relative to Euro, which means higher prices in the European fish market. In the traditional markets for fish species such as cod, flatfish and shrimp in Western Europe the demand are expected to increase slightly due to increasing purchasing power.

The salmon processing faced high prices on raw material in the beginning of 2011, because of the collapse of the aquaculture sector in Chile, but in the middle of 2011 the prices dropped. This will probably result in a positive result, because the price of the processed product will not be decreasing as much as the price for raw material.

A new regulation on aquaculture production is implemented in 2011. The production in the Danish aquaculture sector is expected to increase in the coming years, providing more raw materials for the industry. This could potentially have a positive effect on the processing industry in Denmark, especially the sub branches processing trout and salmon.

6.4.5 Data issues

Data for the Danish fish processing industry is collected by Statistics Denmark. The data covers all enterprises in the business register covered by NACE 10.20. Data is processed to comply with the DCF and DCR in cooperation with the Danish Institute of Food and Resource Economics. The data collected by Statistics Denmark follows the definition of the Structural Business Statistics (SBS) and is, therefore; comparable with Eurostat data and data from other member states that are using the SBS definition as suggested in the DCR and DCF.

In Statistics Denmark, the Account Statistics are available approximately 20 month after the end of the reference year.

Data can be disaggregated on to the 4 segment on numbers of employees as requested by the DCF. In Statistics Denmark and other statistical offices the numbers of full time employees are used instead of the number of employees.

To avoid problems with confidentiality, segments should in general include more than 10 enterprises. In 2009, there are no enterprises with more than 250 full time employees.

In Denmark, the enterprises covered by NACE 10.20 are in most cases not involved in trading. The enterprises covered by NACE 10.20 cover more than 90% of the fish processing in Denmark and is a very good estimate of the total income and production of Danish processing industry.

The data collected and processed for the DCF and DCR can be slightly different from the data that are being published by Eurostat on the processing industry. This is because the data for the DCF and DCR are combined from three different statistics in Statistics Denmark; the Account

Statistics, the Industry Commodities Trade Statistics, and the Raw Material Statistics, where data for Eurostat only covers data from the Account Statistics. The three statistics are combined too get more detailed information on the raw material use in the fish processing industry. Furthermore; combining the three statistics provide information on the species used in processing and information about what kind of product is produced and how much they are processed.

6.5 Estonia

6.5.1 Overview of the sector

In 2009 there were 51 enterprises whose main activity was fish processing in Estonia, 80% of which were rather small having up to 49 employees per enterprise. The number of total employees was 1847, about 1746 FTE. The turnover of production was nearly €100 million in 2009. Additionally, there were also 13 enterprises that carried out fish processing but not as a main activity. Their turnover attributed to fish processing was €1.15 million.

Baltic herring and sprat caught by trawlers from the Baltic Sea are the most important local raw material for the Estonian fish processing enterprises. Fish is sold fresh or frozen (mostly to the eastern markets but occasionally also to western fish meal factories), or processed in Estonia before selling in the local market or abroad. Estonian coastal fishing provides reasonably large volumes of expensive freshwater fish like perch, pikeperch and pike which are used as raw material for fillets. Raw material for ready-made products is import origin mainly (e.g. ocean fish). Due to its small size, the fish markets and processing enterprises do not depend on domestic aquaculture production.

The fish processing sector in Estonia is largely dependent on export. The value of fish products were sold in 2009 was €97 million and 74% of these were exported, see the Table 6.5.1.

Table 6.5.1: Fish products sales of the Estonian fish processing industry at current prices in 2004-2009

	2004	2005	2006	2007	2008	2009
Total sales (mEUR)	88	90	97	88	105	97
Export (mEUR)	59	63	73	64	78	72
The share of export (%)	68	70	75	73	74	74

Source: Statistics Estonia

Due to the type of product, the origin of the raw material and the location of the main markets, Estonian fish processing enterprises can be broadly divided into the four groups:

- Frozen fish producers – local raw material is used (Baltic herring and sprat from the Baltic Sea), products are marketed in the eastern markets (e.g. Russia, Ukraine, Belarus);
- Producers of fish fillets and delicacy products – local or imported raw material is used (e.g. perch, pikeperch), products are marketed in the western markets (e.g. Switzerland, Germany, Denmark, Finland, Sweden);
- Fast food producers – imported raw material is used (e.g. ocean fish), products are marketed in the eastern and western markets (e.g. Lithuania, Finland, Czech Republic);
- Canned fish producers – local or imported raw material is used, products are marketed mainly in the eastern markets (e.g. Russia, Ukraine, Kazakhstan).

Output of all four groups is also represented in the local market. The main products in the Estonian fish processing industry in 2009 were frozen fish, preserves and conserves. But also smoked fish, fish fillets and ready-made products were represented in assortment, see the Table 6.5.2.

Table 6.5.2: Production in the Estonian fish processing industry in 2004-2009

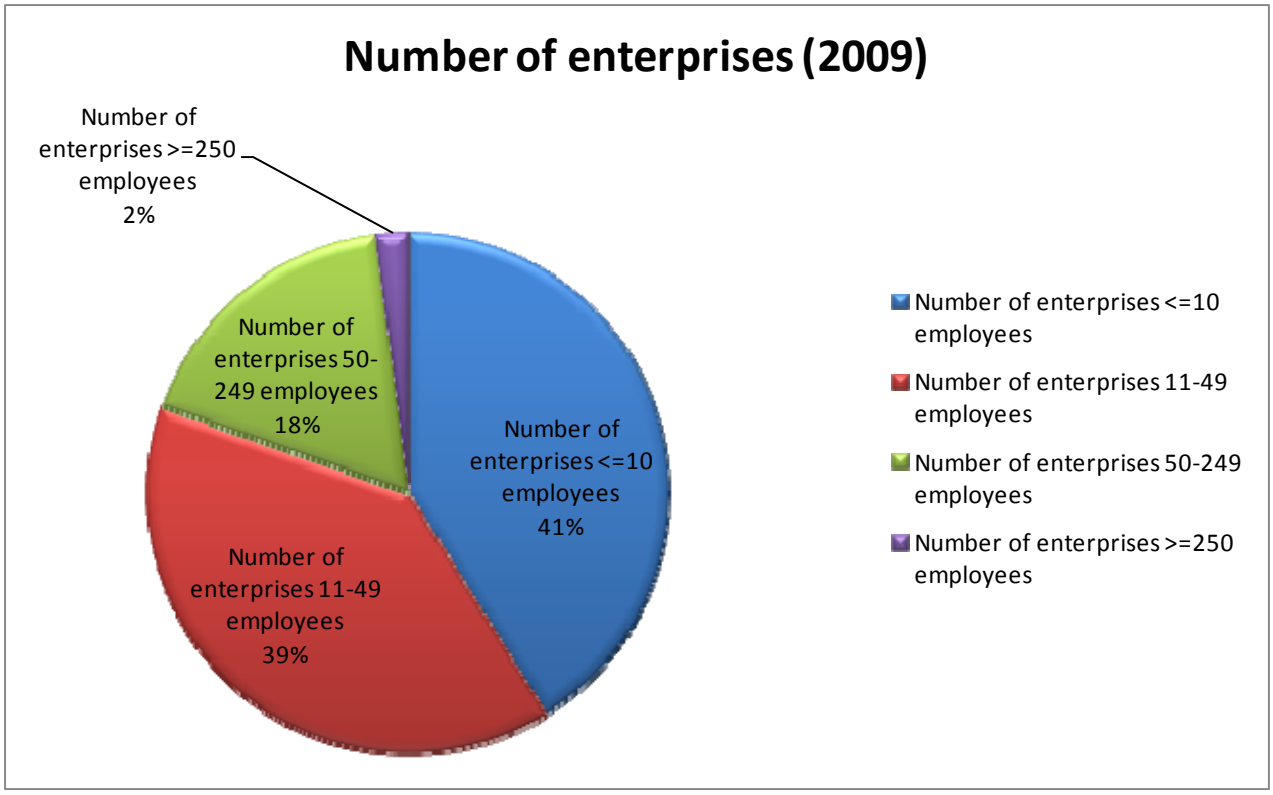
Product group (1000 tons)	2004	2005	2006	2007	2008	2009
Frozen fish	32	40.3	40.3	36.5	30.3	34.6
Salted, spiced, dried, breaded	24.3	27.4	27	24.4	20.8	25.1
Canned fish	14.6	9.7	7.4	5.1	7.1	3.6
Smoked fish	3	3.3	3.1	3.6	3.8	3.2
Fresh or chilled fish, fillets, minced	4.3	4.1	5.4	3.5	3.3	4.1
Culinary (in oil, marinade, sauce)	1.7	1.3	1.3	2.9	1.5	1.7

Source: Statistics Estonia

6.5.2 Socio-Economic aspects

In 2009 there were 51 enterprises whose main activity was fish processing in Estonia. Around 80% of them accounted for micro- and small enterprises, 21 and 20 enterprises respectively. There were also 9 medium-sized enterprises and only 1 enterprise that employed more than 249 persons. General overview for enterprises by the size category is presented in Figure 6.5.1. Compared to the previous year the total number of enterprises did not change significantly in 2009. However, some changes took place in different size classes – increased the proportion of micro- and medium-sized enterprises.

Figure 6.5.1: Size distribution of the Estonian fish processing industry

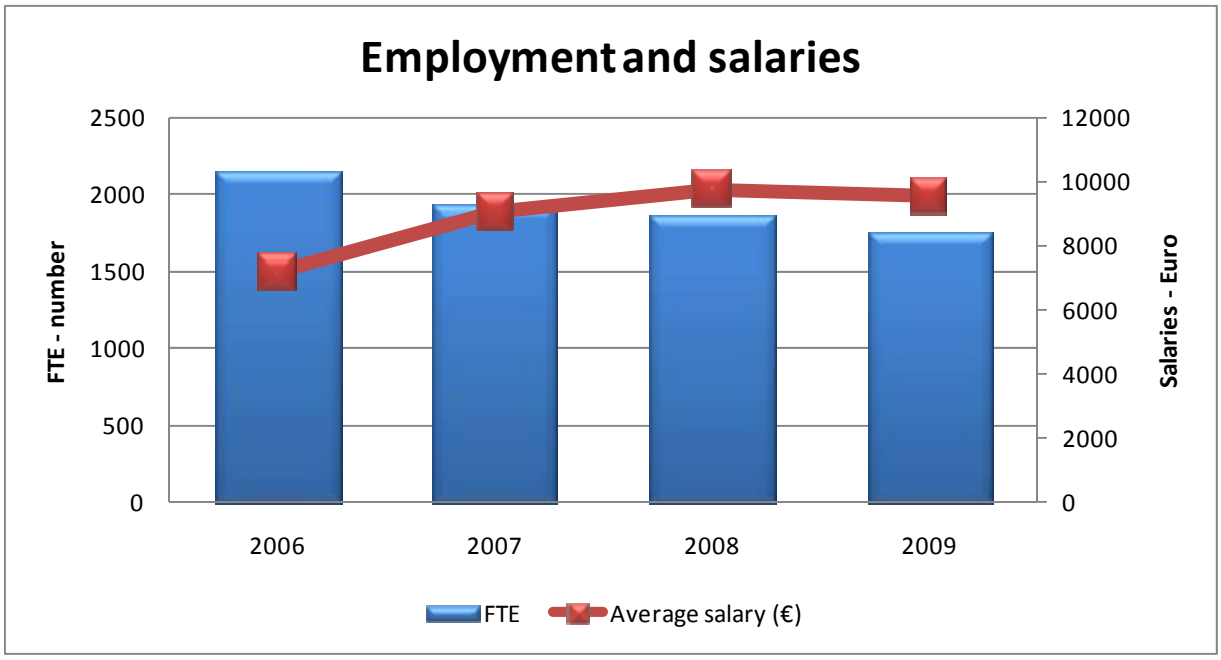


The total number of employees in the Estonian fish processing industry was 1847 in 2009, of which 35% were male and 65% female. Compared to 2008, the number of FTEs decreased 6% in 2009, from 1864 to 1746. Than the average salary showed a rising trend during the previous years and reached to €9 759 in 2008, then it turned into 2% recession in 2009.

Table 6.5.3: Socio-economic performance indicators

Structural Indicators	2006	2007	2008	2009
Number of enterprises	55	57	50	51
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			677	646
Female employees			1259	1201
Total employees	2370	2103	1936	1847
FTE	2151	1932	1864	1746
Average salary (€)	7169	9040	9759	9557
Employment per enterprise	39	34	37	34
% of unpaid work (%)				

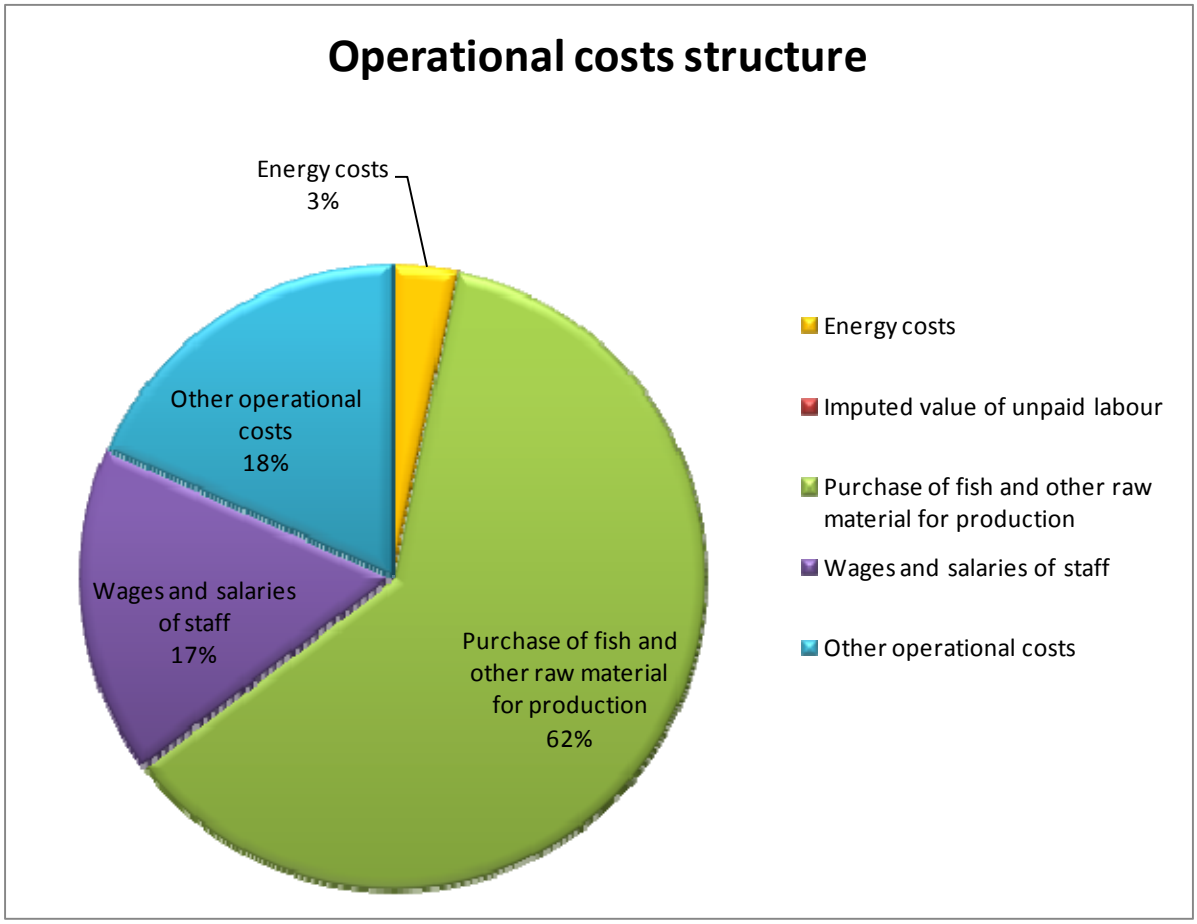
Figure 6.5.2: Employment and average salary



6.5.3 Economic performance

The total amount of operational costs by the Estonian fish processing industry in 2009 was €98 million. The bulk (62%) of this was formed by costs related purchase of fish and other raw material. The parts of labour and energy costs were 17% and 3% respectively. Compared to 2008, the total operational costs decreased 13% in 2009.

Figure 6.5.3: Distribution of the operating costs in the Estonian fish processing industry



The turnover of production decreased approximately 14% and was nearly €100 million in 2009. In comparing the other economic performance indicators between 2008 and 2009, then GVA decreased by 13% to €21.4 million in 2009, however OCF, EBIT and net profit increased 5%, 8% and 47% respectively. Return on investment increased from 5% in 2008 to 6% in 2009. The financial position of the processing enterprises fell by 1%. The productivity indicator as running cost to turnover ratio was 98% in 2009. This refers that the operational costs are very high in comparison with the turnover and that the profitability of the Estonian fish processing sector is low.

Table 6.5.4: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	110	99	117	100
Gross Value Added (million €)	20	24	25	21
Operating Cash Flow (million €)	4	6	7	7
EBIT (million €)	0	3	3	4
Net profit (million €)	-1	1	2	2
Return on Investment (%)	1	4	5	6
Financial position (%)			71	70
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	9079	12296	13234	12281
Running cost to turnover ratio (%)	98	99	97	98
Capital productivity (%)	37	39	37	35
Future Industry Expectations (%)	-7	-6	8	1

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.5.4 Trends and triggers

In a short summary, if describe the general situation of the Estonian fish processing sector in 2009, then it was waiting for better times. The number of primary fish processing enterprises remained at the same level as in 2008. However, the activity of enterprises was affected by economic crisis. Compared to 2008, the turnover of production decreased approximately 14% in 2009. Also the number of employees and the average salary decreased. Enterprises kept costs as low as possible. There is not to expect significant changes in 2010.

The Estonian fish processing enterprises may apply investment subsidy from the European Fisheries Fund. The aim of this subsidy is to develop and modernise the processing of fishery products.

6.5.5 Data issues

The overview concerning fish products sales and production volumes of different fish products is based on figures of the Statistics Estonia. Data for socio-economic and economic performance originate from the financial statements of all fish processing enterprises and are collected by the

Estonian Marine Institute. Estonian fish processing industry data refer to enterprises whose main activity is defined according to the Eurostat definition under NACE Code 15.20 as ‘Processing and preserving of fish and fish products’. More detailed data about the input of raw material was not available.

6.6 Finland

6.6.1 Overview of the sector

There were 198 fish processing enterprises operating in Finland in 2009, of which 137 were processing fish as their main activity. These main activity enterprises processed fish with a turnover of €195 million. In 2009 fish processing enterprises used 75 million kg of fish as raw material, 56 million were domestic fish and 19 million kg were imported. The processing industry employed 742 FTEs in 2009, corresponding to a 9% increase relative to previous years. Also production in terms of volume processed increased by 1 million kg between 2007 and 2009.

The fish processing industry in Finland is highly concentrated in the sense that 10% of the companies with the highest turnover produced around 75% of the total revenue generated by the industry in 2009. The small enterprises valued by turnover (50% of the enterprises) accounted only for 4% of the total income of the fish processing industry.

Main products and raw materials

The main species used in Finnish processing are Baltic herring, rainbow trout and salmon. Baltic herring is the most important species in terms of volume and rainbow trout is the most important in terms of value. The Finnish industry also processes various freshwater fish species.

The main processing products are (hot and cold) smoked products of rainbow trout, salmon and herring. There is also a notable production of salted rainbow trout. Imported herring is produced as semi-preserved product. There is also some production of ready-to-eat food, in particular of rainbow trout.

In the fish processing industry, 75% of the main sources of raw material were domestic landings and aquaculture products. Farmed rainbow trout and salmon were the most important species for raw material in terms of value in 2009. Baltic herring was the most important species in terms of volume; 37 thousand tons were processed in 2009.

Table 6.6.1 Raw materials in 2009.

Main raw materials	Volume (tn)
Baltic herring	36,528
Rainbow trout	14,579
Salmon	13,733
Herring	4,178
Other	5,799
Total	74,817

Source FGFRI: Fish processing 2009.

The main market for Baltic herring is the Russian export market. The strong increase of the processing sector has mainly been based on imported cultured fish while the consumption of domestic fish and fish products has decreased considerably during the past 10 years. About one quarter of the raw material is now imported. Norwegian salmon constituted the most important imported species for processing in 2009, and together with rainbow trout, comprised the most important species in terms of value; production volumes for both species reached 28 thousand tons in 2009.

6.6.2 Socio-Economic aspects

Fish processing sector is dominated with micro enterprises employing less than 11 persons. These enterprises amounted for 91% of all the main activity enterprises in the industry in 2009.

There were only 9 enterprises employing 11-49 persons and 3 enterprises employing more than 50 persons. There are no enterprises employing more than 50 persons.

Figure 6.6.1: Size distribution of the Finnish fish processing industry

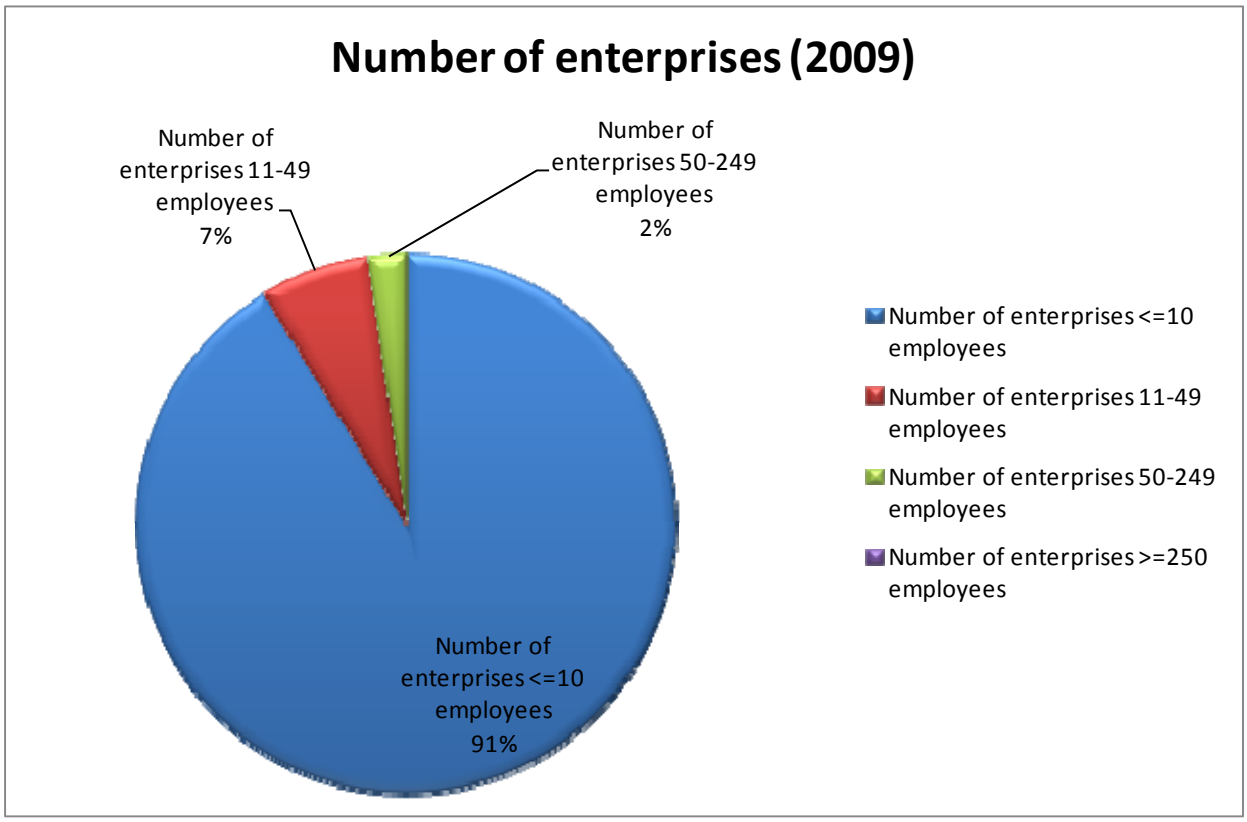
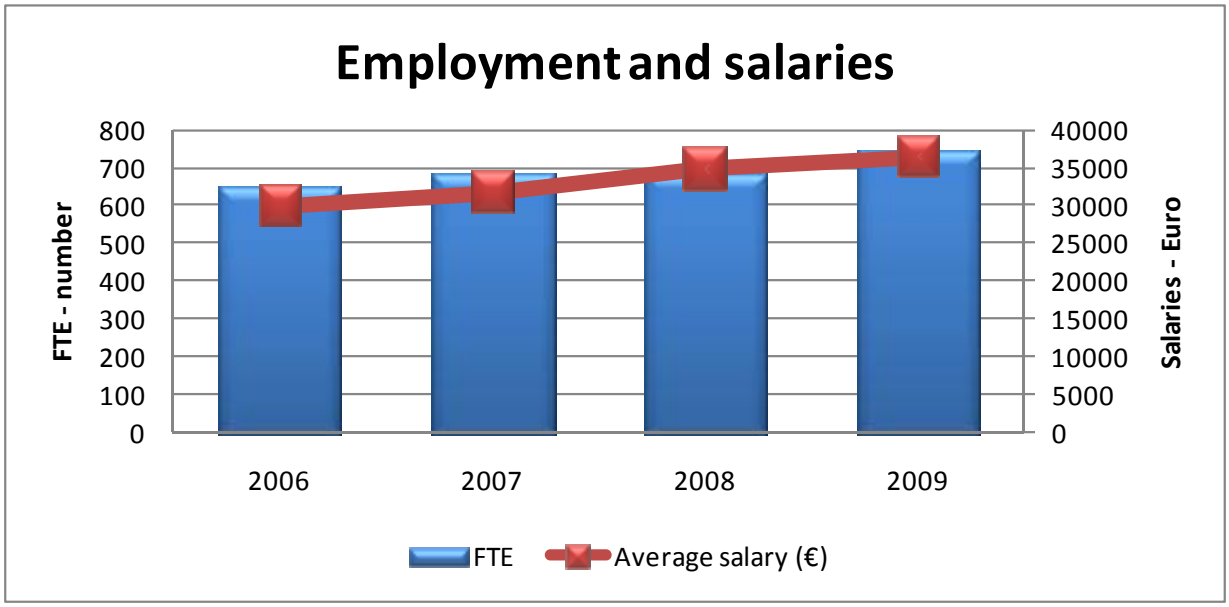


Table 6.6.2: Socio-economic performance indicators.

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	142	146	143	137
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			539	510
Female employees			422	370
Total employees	824	936	961	880
FTE	646	683	682	742
Average salary (€)	29831	31669	34787	36378
Employment per enterprise	5	5	5	5
% of unpaid work (%)			4	3

The number of enterprises decreased in 2009 by 4% while employment measured in FTE increased by 9%. The full time equivalent employment has increased by 15% from 2006. However, the total employment has decreased since 2008. Male employees are dominant in the sector, with 58% of the total employees. Fish processing employed 742 FTEs in 2009 with an average of 5 FTEs or 6 employees per firm. Salary per FTE has increased considerably since 2006. In 2009 the average salary was €36,378 while in 2008 it was €34,787. The annual salary increase was 5%.

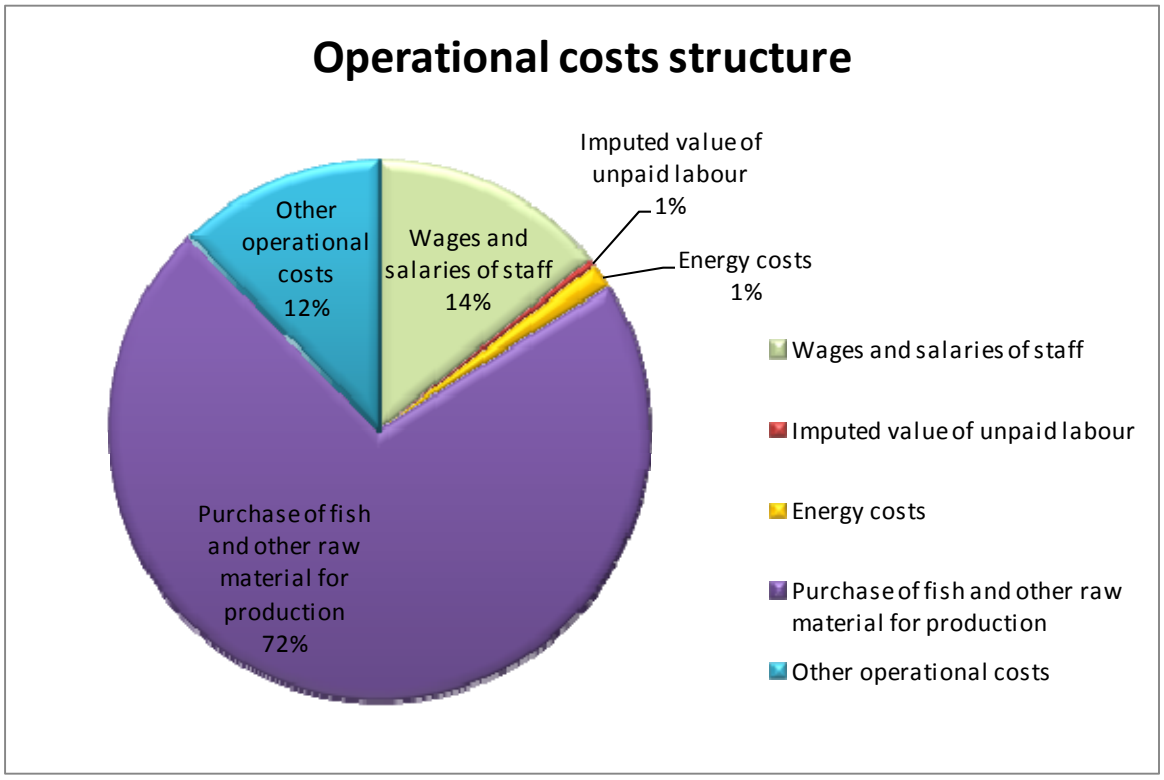
Figure 6.6.2: Employment and average salary



6.6.3 Economic performance

Increasing costs and fluctuations in the price of raw materials (fish) are affecting the profitability of the industry. Total running costs were high in 2009 at around 94% of the turnover. Raw materials were the major cost item; they accounted for 72% of the total production costs. Wages and salaries made up 14%, and other operational costs 12% of the total operational costs. Energy costs and imputed value of unpaid labour each accounted for only a percentage of the total operational costs.

Figure 6.6.3: Distribution of the operating costs in the 2009 fish processing industry



The recent increase of the processing sector in Finland has mainly been based on imported cultured fish. The processing and fish retail sectors started to grow intensively when the import restrictions of fresh fish were dissolved in the beginning of the 90s. Turnover of fish processing in Finland has increased dramatically also during the past 4 years. The increase has been 45% (inflation not accounted for). In 2009 the turnover of the sector was 195 million euros with an annual increase of 22%.

The gross value added of processing industry increased by 20% in 2009. GVA was €39 million while it was €32 million in the previous year. There was even a bigger annual increase (32%) in the operating cash flow as labour costs were relatively higher in 2008. Operating cash flow in 2009 was €12 million. Earnings before interest and tax increased by 39%, amounting to around €8.2 million in 2009. Due to relatively lower net financial costs the net profit increased by 77%, amounting to €6.4 million in 2009. The Return on investment was estimated at 9% and financial

position (debt/assets) at 77%. Labour productivity has increased significantly during the past 4 years: in 2009 the GVA per FTE was €52,540 while in 2006 it was €46,887. Capital productivity (GVA/assets) was 45%.

Table 6.6.3: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	135	145	160	195
Gross Value Added (million €)	30	32	32	39
Operating Cash Flow (million €)	12	11	9	12
EBIT (million €)	9	8	6	8
Net profit (million €)	8	7	4	6
Return on Investment (%)	12	12	8	9
Financial position (%)			77	77
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	46887	46698	47633	52540
Running cost to turnover ratio (%)	92	93	95	94
Capital productivity (%)	41	48	44	45
Future Industry Expectations (%)	6	1	-1	4

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations ((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.6.4 Trends and triggers

According to an Economic Outlook of Finnish Fishery Enterprises (2011) by FGFRI, there was a slight improvement in the economic development of the fisheries sector in 2010. The financial situation of the large fish processing enterprises improved considerably in 2010. The domestic demand for large enterprises' products increased, which also positively affected average prices. The small enterprises assessed that their economical performance had barely changed in 2010. Income from the fisheries sector on the whole exceeded that of 2009. At the beginning of 2011 both small and large processing enterprises expected the business situation to continue favorably. Finnish fish processing enterprises continue to invest in new production technologies while increasing production volumes. Demand for local and/or ecological food is increasing and positively affecting the domestic demand of fish.

The Finnish Ministry of Agriculture and Forestry developed a national development plan for fish processing and fish retail in September 2010. The plan is supplementing Finland's strategy plan and action plan for commercial fisheries for 2007-2013. These kinds of development plans have previously been defined for aquaculture and commercial fishing. The aim of the development plans is to improve the business environment and competitiveness of fisheries in Finland. More specific targets for fish processing and fish retail development plan are:

- Securing the raw material supply for processing, improving the profitability of domestic commercial fishing and aquaculture
- Improving the infrastructure and logistics of the production chain
- Increasing the consumption of fish and finding new markets for fish products
- Improving the research and development
- Securing the availability of labour and maintaining high professional standards
- Continuous improvement of business and production knowledge of the enterprises
- Improving the corporate structure and reinforcing the performance

6.6.5 Data issues

The economic data is compiled by combining data from the Structural Business Statistics from Statistics Finland (SF) and survey data from the Finnish Game and Fisheries Research Institute (FGFRI). Economic data is based on financial statement statistics and regional and industrial statistics of SF. Financial data covers all enterprises having fish processing as their main activity and with a turnover above 9 821 euros in 2009. FGFRI carries out a survey on processed fish production every second year. The latest information available while writing the report was from 2009. The production survey is carried out as a stratified survey with a target population including all enterprises operating in fish processing, as well as enterprises that do not have fish processing as their main activity.

Statistics Finland delivers the Structural Business Statistics data of fish processing sector to Eurostat. As FGFRI is using SF data in the analysis, there should be no major differences in the

data between DCF and Eurostat. In case of small differences, this is due to revisions in financial statement statistics of SF.

6.7 France

6.7.1 Overview of the sector

The fish processing sector is a small component of the food processing sector in France: turnover of the fish processing industries accounts for no more than 2 to 3% of the total turnover of the whole food processing industry. According to the collected data for 2009, the French fish processing sector encompasses 311 companies which employ 15,590 persons and generate a total turnover of €4.3 billion. According to the French data collection office FranceAgriMer, the turnover of these companies for seafood production is only €3.6 billion. According to French professional data sources (published by Prodcom), this sector produced 478,530 tons of processed seafood products in 2009, valued at around €2.94 billion.

It is difficult to analyse the evolution of the structure of the sector due to changes in the data collection methodology in recent years. The general trends observed for the sector between 2006 and 2009 are: stability in the number of companies, a slight decrease (3.4%) in the volume of processed seafood production and a slight increase (5.2%) in total turnover of the fish processing industry during the same period.

The deficit of the French trade balance for seafood products amounted to €3.25 billion in 2010, corresponding to an increase of 14% since 2009. Imports were stable in terms of volume (1.12 millions tons), but their value increased by 10% in 2010 (€4.46 billion); however, imports include a significant amount of processed food (mainly canned tuna). The French seafood processing industry is heavily reliant on imported raw material. Salmon (mainly aquaculture salmon from Norway), shrimp and white fish (cod and pollock) are the main imported species used by the processing industry. Imports come from Norway, the United Kingdom, Spain, Netherlands and the USA.

The activity of the French fish processing industry is dominated by the production of prepared dishes with fish, crustaceans and molluscs (€620 million in 2009), the production of fresh and

refrigerated fish fillets (€535 million in 2009), smoked salmon (€514 million), canned fish (€314 million, from which more than half is canned tuna, valued at €166 million) and surimi (€164 million).

Table 6.7.1: Main products of the French fish processing industry

	2008 *Volume (tons)*	2009 *Volume (tons)*	2008 *Value (million €)*	2009 *Value (million €)*
Fresh, refrigerated and frozen fish	127 167	129 362	665	678
incl. Fresh and refrigerated fish fillets	*89 060*	*93 901*	*530*	*535*
Smoked, dried and salted fish	45 913	50 799	645	648
incl. Smoked salmon	*30 618*	*32 598*	*535*	*514*
Prepared dishes with fish, crustaceans and molluscs	128 181	119 679	720	620
Prepared molluscs and crustaceans	53 813	54 297	358	348
Canned fish (tuna, mackerel, sardine)	63 703	58 753	333	314
incl. Canned tuna	*37 643*	*35 595*	*184*	*166*
Prepared fish	55 838	65 640	317	332
incl. Surimi	*37 394*	*39 366*	*173*	*164*
Total seafood production	**474 615**	**478 530**	**3 039**	**2 940**

6.7.2 Socio-Economic aspects

The French fish processing industry is highly concentrated: in 2009, 20% of the companies cumulate more than 85% of the turnover generated by seafood production (€3.6 billion), and the 10 first companies (3.2%) alone accumulate nearly 45% of this turnover. On the other hand, the sector includes numerous small companies: 50% of the companies employ less than 10 persons, and 83% employ less than 50 persons. Only 17 companies (5%) employ more than 250 persons.

Figure 6.7.1: Size distribution of the French fish processing industry

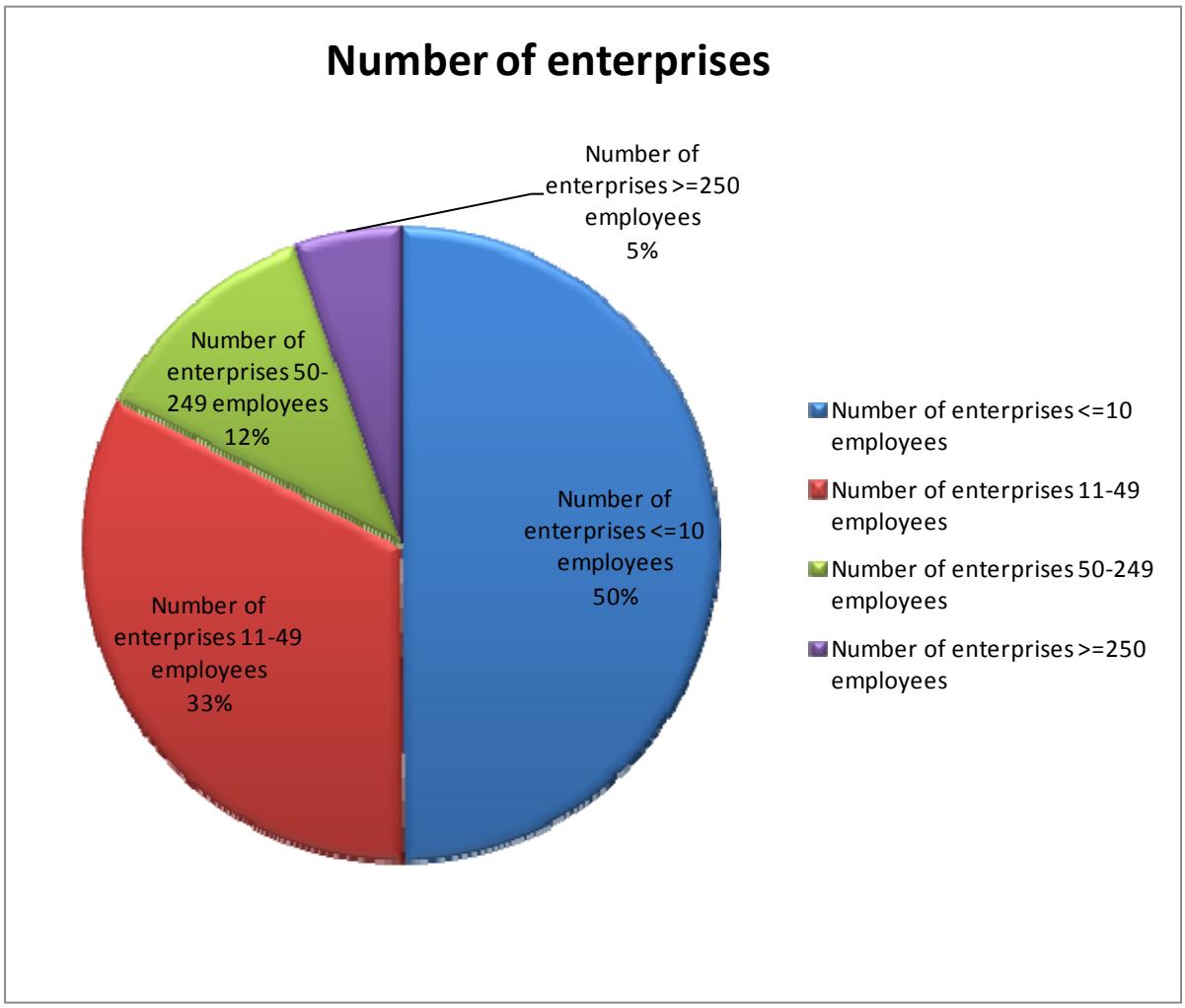
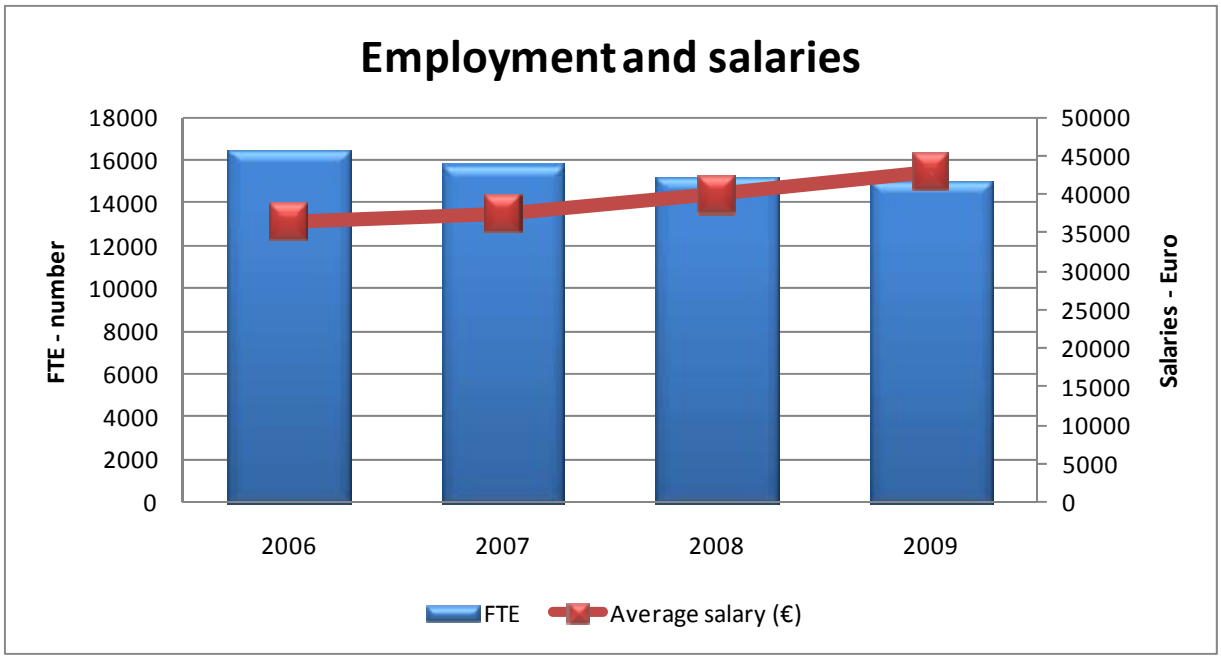


Table 6.7.2: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	310	320	327	311
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			6942.7	6859
Female employees			8729.3	8731
Total employees	16787	16315	15672	15590
FTE	16450	15744	15202	14983
Average salary (€)	36473	37488	39932	42940
Employment per enterprise	53	49	46	48
% of unpaid work (%)				

Between 2006 and 2009, the French fish processing industry lost 7% of its jobs, which corresponds to a decrease by 9% in terms of full-time equivalents. However, the proportion of part-time jobs remains low and the average salary has increased by 18% since 2006. Female employees represent the majority of the workers (56%).

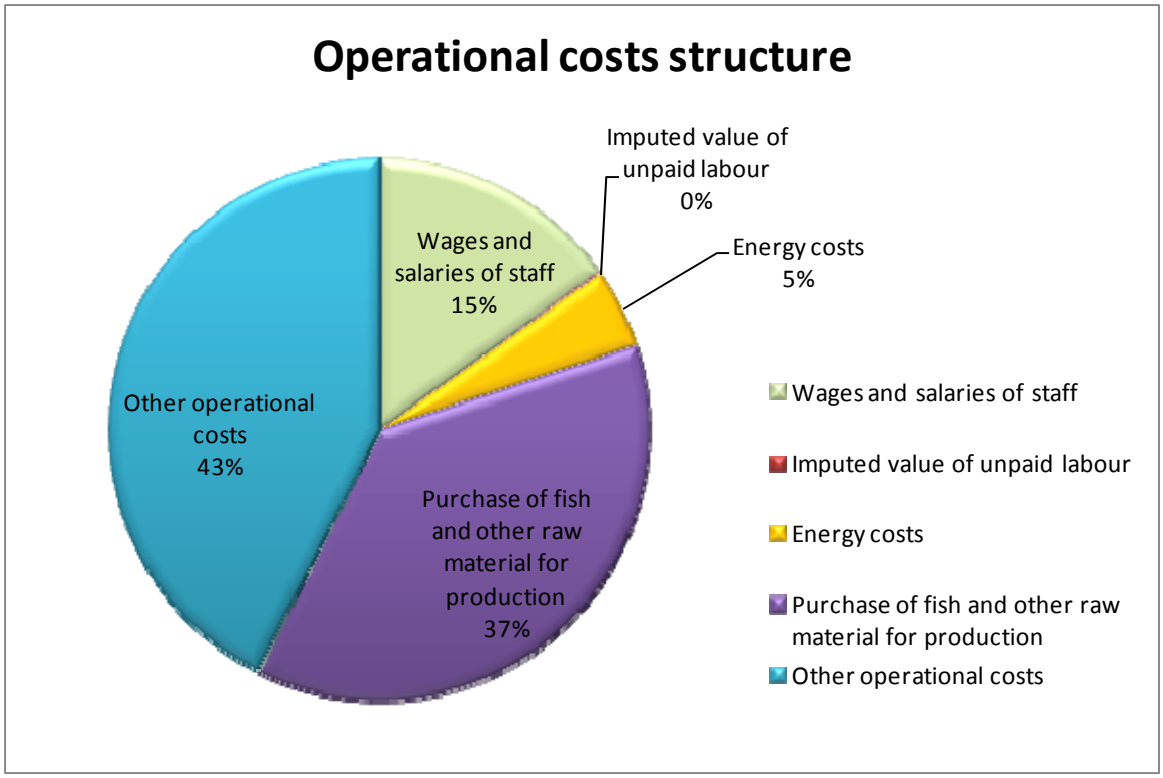
Figure 6.7.2: Employment and average salary



6.7.3 Economic performance

The cost structure of the French fish processing industry shows that raw material represents only the second largest share (37%) of the operational costs. This share seems relatively low and suggests that raw material purchases may be underestimated in the data, while other operating costs may be overestimated (in other words, it may be suspected that 'other operational costs' includes a significant amount of raw material). However, the gross added value, which is estimated from the total turnover less all the operational costs except labour costs, represents a share of the total turnover (19%) which may be considered to be normal.

Figure 6.7.3: Distribution of the operating costs in the French fish processing industry



The economic performances of the fish processing sector are rather low and are even lower in 2009 with comparison to 2008: the net profit has plummeted from €244 million to €114 million, the return on investment has decreased from 12% to only 5% and the labour productivity from €59 158 per employee to €53 720. Basically, these low performances are explained by the high level of the operational costs, which represented already 94% of the turnover in 2008 and have reached 97% in 2009. On other hand, the financial position of the industry is far much better in 2009 than it was in 2008, which is due to the fact that the debt decreased from €1.42 to €1.12 billion. Investments have increased from €80.3 to €141.5 million, which denotes positive expectations from the future of the industry. Thus, as a more important share of the cash flow seems to have been used for reducing the debt and increasing investments, this may also explain why economic performances are lower in 2009.

Table 6.7.3: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	4122	4292	4315	4335
Gross Value Added (million €)	751	695	899	805
Operating Cash Flow (million €)	155	108	301	165
EBIT (million €)	18	-35	240	107
Net profit (million €)	34	0	244	114
Return on Investment (%)			12	5
Financial position (%)			70	58
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	45651	44147	59158	53720
Running cost to turnover ratio (%)	98	98	94	97
Capital productivity (%)			44	41
Future Industry Expectations (%)			1	4

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations ((Net investment-Depreciation)/Total Capital)
Financial position (Debt/Total Assets)

6.7.4 Trends and triggers

According to Kantar Worldpanel whose data are estimated to cover 80% of the consumption, the French consumption of processed seafood products was steadily increasing in the recent years. In 2010, the global increase in the demand hides wide disparities among products, in relation to different consumption behaviours. As regards high value prepared fish products, the demand is still increasing for smoked salmon and surimi, but it is decreasing for cooked shrimp. The demand for canned fish is decreasing as regards preparations with vegetables while it is increasing for basic canned products, which denotes the preference of low-revenue households for cheapest products in the current context of economic crisis. The economic crisis may generate deeper negative effects on the fish processing industry in the next years.

6.7.5 Data issues

It is difficult to analyse the evolution of the structure of the sector due to changes in the data collection methodology in recent years. In 2007, a change intervened in the nomenclature which applies to seafood products: in addition to the existing "fish processing" classification (code NACE 10.20Z), the production of "prepared dishes based on seafood" was included in the "prepared dishes" general classification (code NACE 10.85Z). Following this change in the nomenclature, the data collection survey focused on the 10.20Z companies and the number of companies was estimated to be only 214 in the 2008 STECF Report. In 2009, the methodology for the data collection survey changed and it included also companies from other classification codes (mainly the code NACE 10.85Z) for which fish processing is the main activity, meaning that seafood products are responsible for at least 50% of their turnover. This is why the number of companies was re-assessed and estimated to be 327 in 2008. However, the identification of fish processing companies remains still incomplete as the data does not include companies for which fish processing is not the main activity. On the other hand, the fact that most of the companies which are included in the data collection survey do not only process seafood products explain the difference between the estimated global turnover of the fish processing sector and the value of the seafood products processed in France which is estimated by professional sources.

Three sources are used to produce the data regarding the French fish processing industry:

- databases from the National Statistics Institute (SIRENE database), which concern only the companies employing more than 20 people;
- financial data files of companies who have published their balance sheet and account;
- the data collection survey implemented by FranceAgriMer, which targets all the companies of the sector, including the companies employing less than 20 people.

Because few companies answer to this last survey, the final database is made of crossed-data from these three sources, based on the identification number of the companies. This database includes only the 311 companies of the secondary processing sector. FranceAgriMer implements also a survey which targets the companies of the primary processing sector ("mareyeurs"), which were not considered in this chapter. The result of this survey indicates that the French primary processing sector includes 305 companies in 2009, which provide 4600 jobs, generate a turnover worth €1.7 billion and create around €240 million of added value.

6.8 Germany

6.8.1 Overview of the sector

The German fish processing sector is comprised of around 263 enterprises with a total turnover of about €2,038 million. More than 90% of the sector's employees are working in entities with 20 or more employees, and more than 94% of the sector's turnover is produced in this segment. A total of 7,581 persons are directly employed in the sector.

Around 505,611 tonnes of fish and seafood products were manufactured in 2009, a slight increase compared to the 500,010 tonnes produced in 2008. Of this, fresh fish processing amounted to 7,906 tonnes, frozen fish products 225,975 tonnes, smoked fish 15,035 tonnes, mollusc and shellfish 10,317 tonnes of production, salads 27,193 tonnes and prepared fish and fish products 173,455 tonnes.

More than 87% of the German fish and seafood demand is covered by imports. The most important species in the German market are pollack (21,4%), herring (17,8%), salmon (13,8%), tuna (9,9%) and pangasius (6,7%).

The main source for fish and fish products in terms of import value are Non-EU countries, with China as the most important country of origin, followed by Norway, USA and Vietnam. Main import EU countries include: Poland, the Netherlands and Denmark. Germany is currently investigating the source of fish, if from wild catches or aquaculture in more detail. Results will be ready for the next EU-report.

Table 6.8.1: Main Products of the German Fish Processing Industry (ex-factory prices)

Main products	*2006 (vol)*	*2007 (vol)*	*2008 (vol)*	*2009 (vol)*	*2006 (val)*	*2007 (val)*	*2008 (val)*	*2009 (val)*
Fish fingers and breaded fish fillet	*154 852*	*174 409*	*192 680*	*169 637*	*410 665*	*469 951*	*550 532*	*518 492*
Herring processed and/or preserved	*77 117*	*83 612*	*86 591*	*80 967*	*224 712*	*257 098*	*255 871*	*245 433*
Frozen fish fillet	*58 549*	*57 199*	*54 969*	*54 425*	*160 681*	*160 800*	*154 053*	*162 563*
Smoked and dried salmon	*12 940*	*10 520*	*8 387*	*8572*	*144 379*	*111 621*	*81 872*	*86 907*
Fish Salad	*31 120*	*27 469*	*25 671*	*27 193*	*127 977*	*122 617*	*119 010*	*138 911*
Total	*334 578*	*353 209*	*368 298*	*340 794*	*1.068.414*	*1.122.087*	*1.061.338*	*1.152.306*
Sector total	*473.361*	*472.600*	*500.010*	*505.611*	*1.657.175*	*1.711.299*	*1.786.404*	*1 758 827*

6.8.2 Socio-Economic aspects

Around 52% of the employees are male and 48% female. The majority of the 263 enterprises, i.e. 184 entities, belong to the segment with 10 or less employees. The spatial distribution in terms of employment shows around one quarter of the employees are working in Bremerhaven, a structural weak region of Germany on the North Sea Coast, while around one eights are located in Cuxhaven, also a city on the North Sea Coast, about 40 Km north of Bremerhaven.

Figure 6.8.1: Size distribution of the German fish processing industry

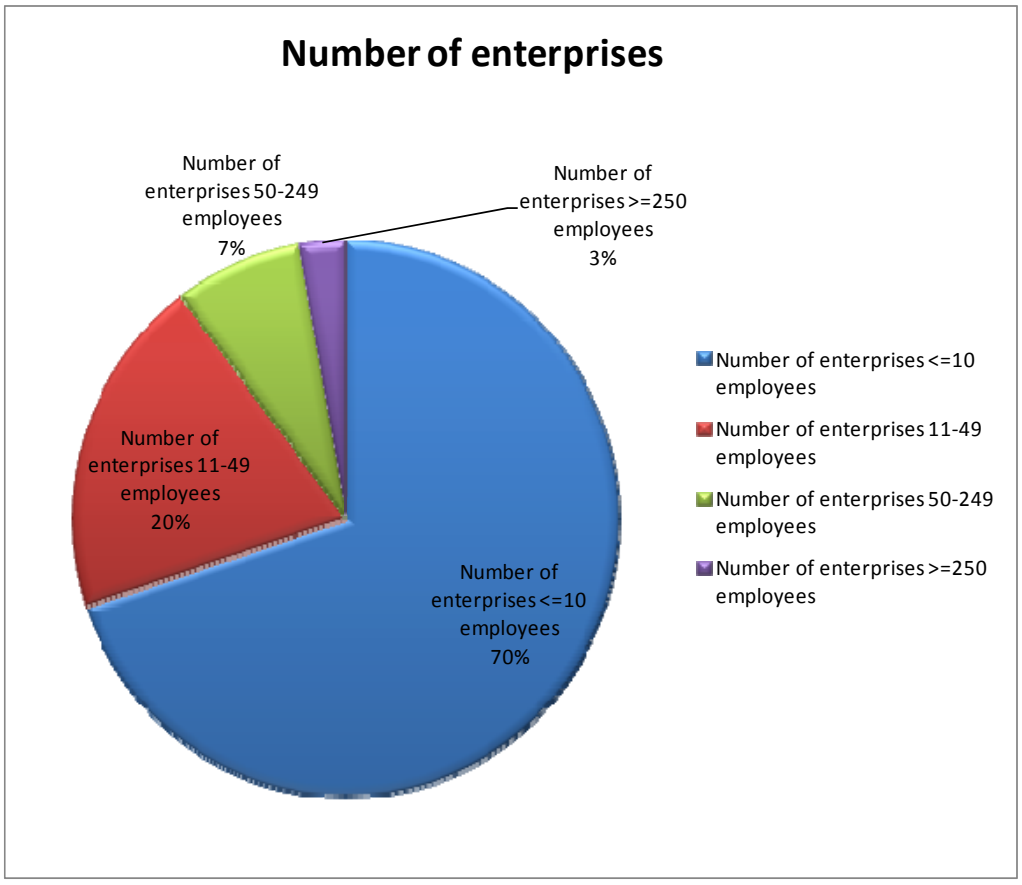


Table 6.8.2: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	62	60	282	263
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			4272	3938
Female employees			4197	3643
Total employees	8407	7834	8469	7581
FTE	8105	7750	8082	7268
Average salary (€)	34048	33728	33511	34464
Employment per enterprise	131	129	29	28
% of unpaid work (%)				

Figure 6.8.2: Employment and average salary

Wages and Salaries figures were taken from enterprises with 20 and more employees. As the number of enterprises has declined (one reason being mergers with other food processing enterprises), the absolute value of wages and salaries has also decreased (Fig. 6.8.2). In Table 6.8.2 the mean wage gives a more adaequate pictures of the issue. The number of employees shown in Table 6.8.1 corresponds to the number of employees on the 30 September in enterprises with 20 and more employees. As there is a high proportion of seasonal work, the figures may vary more than compared to average employment numbers, which are 8524 for 2006, 8155 for 2007, 7920 for 2008, and 7590 for 2009. The variation may also reflect the increasing importance of subcontracted labour in the sector.

6.8.3 Economic performance

The cost structure compared to 2008 data remains more or less the same with a slight increase of the raw material share (from 63 to 66%) and other operational cost share decreasing from 23 to 19%. The return on investment is almost the same as in 2008, while the gross value added is lower for the second time since 2007. Obviously, this is due to a decrease in turnover as the ratio

of GVA to turnover remains at about 15%. While most of the productivity indicators have approximately the same value as in the year before, capital productivity has increased significantly. Net profit is still under pressure. The pressure is threefold: from the retail sector; competitors from abroad and increasing raw material costs (Figure 6.8.3 and Table 6.8.3).

The future industry expectations indicator, an indicator developed by Michael Ebeling, changed from 1,7% to -1,6%. If this is not a single event and holds through to next year, then the tendency will be a decreasing sector.

Figure 6.8.3: Distribution of the operating costs in the German fish processing industry

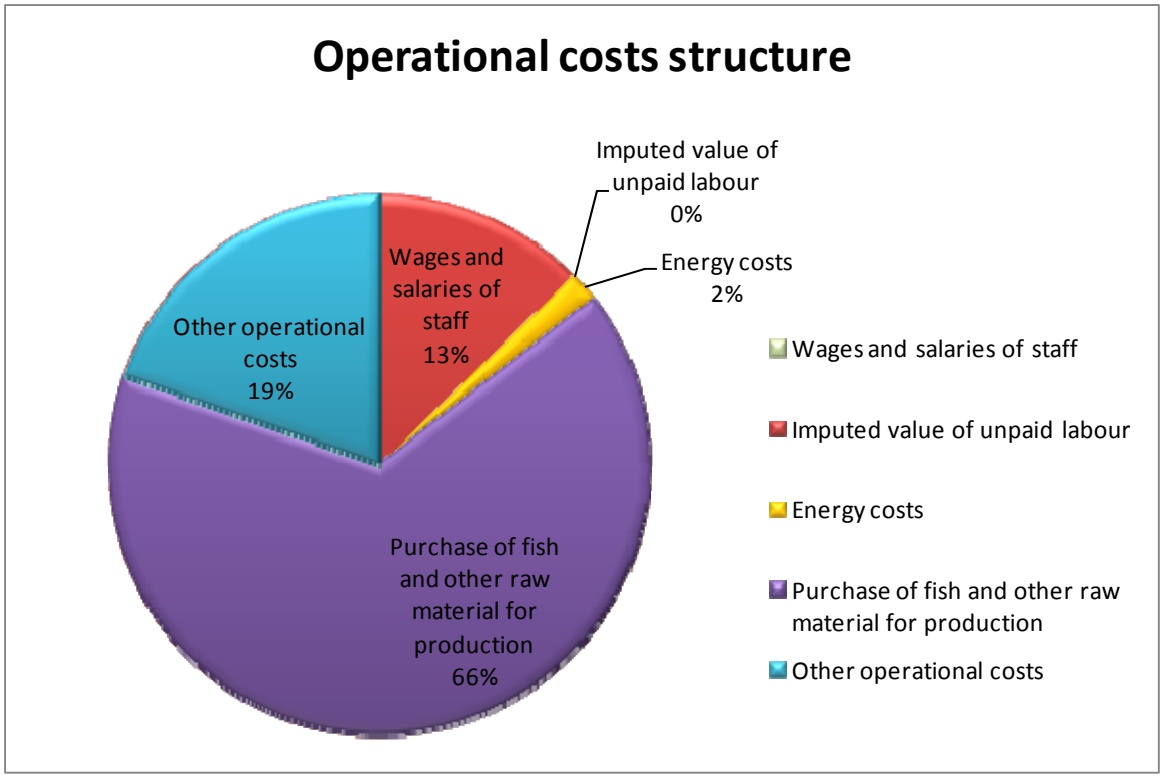


Table 6.8.3: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover	2096940000	2064373000	2373233000	2038379000
Gross Value Added	365917000	386612000	358846000	318398000
Operating Cash Flow	89959000	125222000	88007000	67912000
Earnings Before Interest and Tax	43053000	71896000	47243000	29701000
Net profit	26372000	50520000	28251000	15307000
Return on Investment	8	11	8	7
Financial position			54	54
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity	45147	49885	44401	43808
Running cost to turnover ratio	96	94	96	97
Capital productivity	69	57	61	78
Future Industry Expectations	0	0	0	0

6.8.4 Trends and triggers

It is too early to report a decreasing trend in the sector, but several signals, for example negative future expectations indicator and decreasing GVA may reflect such a tendency. With the exception of 2008, the number of employees is the lowest in the last 10 years. More and more production is coming from abroad while Germany faces further movement of fish processing factories abroad (subsidised by the EU). Additionally, one can see more and more semi-processed fishery products coming from non-EU countries to Germany.

6.8.5 Data issues

Except for the data on debt, financial position and raw material by species (2006/07), and total value of assets, which were asked for in a separate survey by the Institute of Sea Fisheries (SF), all data are from different Statistics from the Federal Statistical Office (FSO) in Germany. Answering the FSO surveys is mandatory, while answering questionnaires from the SF is voluntary. Hence, response rates differ substantially as well as precision levels.

As most data of good quality is only available for enterprises with 20 and more employees, calculation of performance indicators is primarily based on this 20 and more stratum, unless otherwise indicated.

Differences between the production statistics at Eurostat and the German National Production Statistic arise for some years due to different confidentiality methods applied. Although Eurostat does not collect data itself and only uses Member States data, some differences occur due to different definitions in publications.

To overcome the confidentiality problem Eurostat may proceed as the FSO in Germany. The total of all processed fish products is given, but not each single “Prodcom” category. So at least there is a figure of the total production which is lacking for the whole of Europe.

6.9 Greece

6.9.1 Overview of the sector

The number of enterprises involved in the processing sector of fisheries products in Greece has decreased from 160 in 2007 to 151 in 2008 and 2009. Legal form of the enterprises ranges across all the available forms in Greece and is distributed evenly (app. 50%) between personal enterprises and limited liability companies.

In accordance to the number of enterprises, employment in the sector, expressed as full time equivalent, declined from 2175 in 2007 to 1957 in 2009 after a peak at 2261 in 2008. Employment during 2009 has been highly effected by the discontinuation of the activities of AMASA HELLAS S.A. which employed approximately 120 employees.

The turnover of the sector varies considerably, ranging from €169 million in 2009 to €437 million in 2008.

The number of enterprises, as reported by Greece, as well as employment and turnover refers to all the enterprises that carry out fish processing, including those that carry out fish processing but not as a main activity. Please refer to the data issues section.

Three main segments, in terms of raw material origin may be identified in the sector:

- fresh raw material from capture fisheries mainly of local or national origin (sardines, anchovies)
- fresh raw material from aquaculture mainly of local or national origin (trout, mussels, seabream, seabass)
- mainly frozen imported raw material (various fish species, squids, octopus)

While imported fresh raw material is mainly of Mediterranean origin, frozen raw material origin varies according to species for fish and octopus. Squid is mainly imported from America and Oceania.

Table 6.9.1: Sales volume & value and number of enterprises by product type

Kg

Product	2006	2007	2008	2009
Smoked herrings (including fillets)	377,616	377,785	436,529	345,440
Dried fish, whether or not salted	625,153	606,501	390,213	494,824
Prepared or preserved sardines, sardinella, brisling and sprats	2,162,913	1,838,832	1,813,144	1,587,952
Prepared or preserved tuna, skipjack and bonito	1,384,851	1,531,614	1,429,420	1,160,095
Prepared or preserved mackerel	665,074	592,513	607,677	374,845
Prepared or preserved anchovies	760,665	678,906	604,918	560,873
Prepared/preserved crustaceans, molluscs and other aquatic invertebrates	1,509,706	1,851,074	1,885,600	
Smoked fish			25,845	
Total	7,485,978	7,477,225	7,193,346	4,524,029

Euro

Product	2006	2007	2008	2009
Smoked herrings (including fillets)	1.695.932	1.542.315	1.644.000	1.842.060
Dried fish, whether or not salted	2.853.871	3.567.755	2.549.645	3.471.590
Prepared or preserved sardines, sardinella, brisling and sprats	8.248.024	7.695.745	7.817.351	10.015.870
Prepared or preserved tuna, skipjack and bonito	6.529.443	7.216.032	7.017.195	7.172.562
Prepared or preserved mackerel	3.310.072	3.333.102	3.429.026	2.384.299
Prepared or preserved anchovies	3.004.520	2.885.662	2.606.121	3.583.909
Prepared/preserved crustaceans, molluscs and other aquatic invertebrates	10.458.813	12.864.863	13.300.682	
Smoked fish			184.092	
Total	36,100,675	39,105,474	38,548,112	28,470,290

Number

Product	2006	2007	2008	2009
Smoked herrings (including fillets)	3	4	3	3
Dried fish, whether or not salted	4	4	3	3
Prepared or preserved sardines, sardinella, brisling and sprats	6	6	6	6
Prepared or preserved tuna, skipjack and bonito	5	5	5	5
Prepared or preserved mackerel	6	6	6	5
Prepared or preserved anchovies	4	4	4	5
Prepared/preserved crustaceans, molluscs and other aquatic invertebrates	3	3	3	
Smoked fish			3	
Total	31	32	33	27

Source: Hellenic Statistical Authority

The number of enterprises and sales by product type, according to the NACE 15.20[1] classification, are presented in the table above. Differences to the data reported under the DCF regulation are obvious. Nearly one fifth of the enterprises are included in the sector under NACE 15.20 classification.

During the reporting period (2006-2009), prepared or preserved sardines, sardinella, brisling and sprats is the main product type in terms of volume (28%) representing 24% of the sales value. In terms of value, prepared/preserved crustaceans, molluscs and other aquatic invertebrates is the main product type (26%) representing 20% of the sales volume. Sales of prepared or preserved tuna, skipjack and bonito account for 21% of the total volume and 20% of the total value. These three main product types account for nearly 70% of the sector, both in terms of volume and value.

6.9.2 Socio-Economic aspects

The vast majority (99%) of the fish processing enterprises in Greece, presented in the next figure, are SME's in terms of employment. 60% of enterprises are micro sized while small and medium sized enterprises account for 29% and 10% respectively.

Employment is nearly equally distributed between men (48%) and women (52%) in terms of total number of employees while the percentage of male employment rises slightly if full time equivalent is considered. Average employment per enterprise decreased from 22 employees in 2006 to 20 employees in 2009.

Mean wage for 2007 was €13,366. Unfortunately, data provided by Greece for 2008 and 2009 does not include wage data.

1 NACE (rev. 2): 10.20 for 2008 and 2009

Figure 6.9.1: Size distribution of the Greek fish processing industry

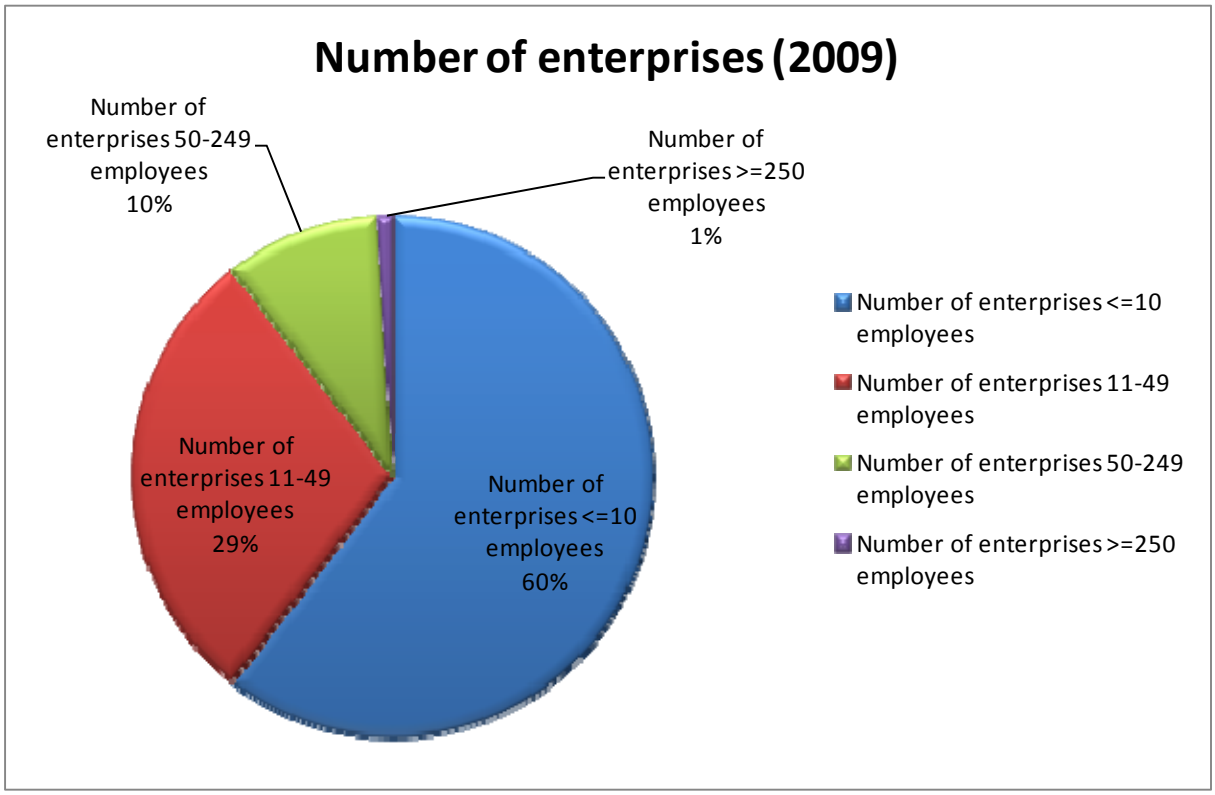
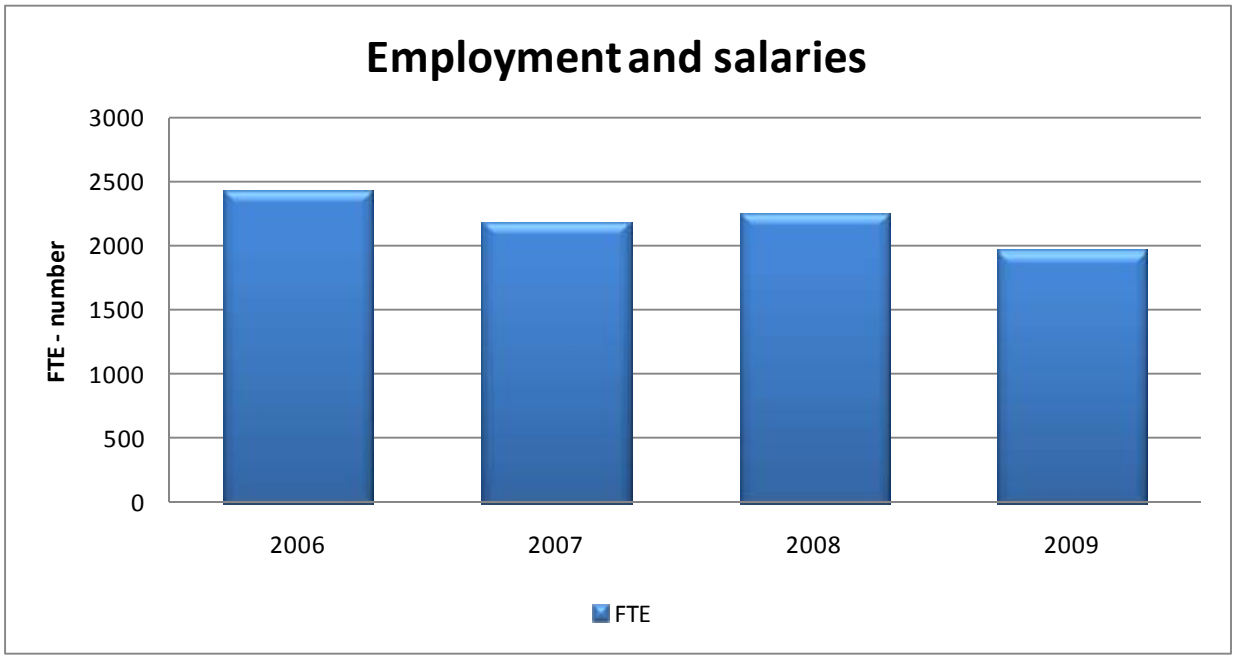


Table 6.9.2: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	135	160	109	114
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			1233	1117
Female employees			1366	1202
Total employees	2918	2553	2599	2319
FTE	2422	2175	2261	1957
Average salary (€)	0	13366	0	0
Employment per enterpris	18	14	21	17
% of unpaid work (%)				

* Number of enterprises and social indicators in the table above, for 2008 and 2009, refer to the sample rather than the all enterprises in the sector (population) and may not be comparable to previous years

Figure 6.9.2: Employment and average salary



6.9.3 Economic performance

Unfortunately, no data has been submitted for the distribution of the operating costs in the Greek fish processing industry for 2008 and 2009. Based on data included in the 2010 Annual Economic Report (AER) on the European Union (EU) Fish Processing Industry, for the year 2007, raw material cost is the main (63%) operational cost component of the industry followed by salaries (19%), other operational costs (15%) and energy costs (3%).

Turnover of the sector is estimated at approximately €437 million for 2008 and €169 million for 2009. As stated in the data provided by Greece, turnover occasionally includes both processed and traded products which may explain variation of turnover.

Gross Value Added was estimated at approximately €223 million in 2007, while for the same year, labour productivity was estimated at approximately €102 thousand and running cost to turnover ratio is estimated at 81%. Submitted data does not allow the estimation of performance indicators of the Greek fish processing sector for 2008 and 2009.

An analysis of the performance of the Greek fish processing enterprises according to the NACE 15.20 classification and relevant indicators are presented by the Foundation for Economic & Industrial Research (IOBE[2]). IOBE (p. 105, 2010) presents evidence of a considerable decrease (-53%) of the net profit of the Greek fish processing industry for 2008 followed by a smaller decrease (-6,4%) during 2009. On the contrary, IOBE (p. 105, 2010) states that gross profit of the sector increased during 2009.

6.9.4 Trends and triggers

As an effect of the world financial crisis and the Greek debt crisis, availability of working capital through bank loans is declining rapidly in the Greek economy. Furthermore, purchasing power of Greek households is also declining rapidly. Hence, Greek fish processing sector production and sales are expected to decline.

The rapid expansion of imported frozen Pangasius fillets, in the Greek market is also expected to have a negative effect on the Greek fish processing sector.

Parasitic infestation (Anisakis) of squid from New Zealand is expected to decrease the availability of raw material for the sector during 2011.

6.9.5 Data issues

As discussed earlier, data provided by Greece refer to all the enterprises that carry out fish processing, including those that carry out fish processing but not as a main activity. Nearly one fifth of the enterprises reported by Greece under DCF are included in the sector under NACE 15.20 classification according to the Hellenic Statistics Authority. As a result, DCF data are not directly comparable to the Eurostat data.

2 IOBE (2011). Greek food and beverage industry (in Greek). Available to download at: http://www.iobe.gr/media/sebt/tro10.pdf

While data collection for enterprises that carry out fish processing but not as a main activity is mandatory in the first year of each programming period, Greek economic data required by DCF are partially available only for 2007. Moreover, turnover figures may occasionally include trade, thus leading to an overestimation of annual turnover.

In Greece, detailed disclosure of annual financial statements is mandatory for all the limited liability companies but not for personal enterprises. Economic data on fish processing is collected annually by the Hellenic Statistics Authority and the General Direction for Fisheries. There also exist private online databases (accessible on a fee basis) which collect detailed financial data for all limited liability companies and basic financial information for personal enterprises.

Data, other than disclosed financial statements, is considered to be confidential in Greece and presentation of such data should not allow for the identification of individual enterprises.

6.10 Ireland

6.10.1 Overview of the sector

There were 172 fish processing enterprises in Ireland in 2009. The number of fish processing enterprises has reduced in recent years due to the economic difficulties in the country. The total turnover of the Irish fish processing industry in 2009 was €500 million which is a decrease of 4% from 2008. In 2009 Ireland had seafood exports of €332 million and seafood imports of €171 million. There were approximately 2,596 FTE's employed in the fish processing industry which was made up of 1,817 Male FTE's and 779 Female FTE's.

The industry comprised of finfish, shellfish, smoked, pelagic and whitefish operators. Shellfish companies accounted for the largest number of fish processing companies in Ireland. Many companies in Ireland specialised in more than one species.

In 2009 there was 222 thousand tonnes of wild catch landed into Ireland with a value of €205 million. The primary landing ports in Ireland in 2009 were Killybegs, Castletownbere, Dingle, Dunmore East, Ros a Mhíl, Union Hall, Greencastle, Duncannon, Howth, Clogherhead and Rosslare. These ports accounted for 83% of all fish landings in Ireland in 2009. The top fisheries species landed in 2009 were Atlantic Mackerel, Monkfish, Norway Lobster, Hake and Horse Mackerel

Aquaculture production in 2009 in Ireland was 47,408 Tonnes with an overall value of €106 million. Irish aquaculture accounted for 20% of total fish production but it is anticipated this will grow at 7.5% per annum from 2012 with the introduction of new aquaculture technologies. By 2020 it is estimated that aquaculture will account for 32% of Irish fish production.

The primary aquaculture species in Ireland were Bottom Mussels (37%), Salmon, predominately organic salmon (26%), Rope Mussels (19%) and Gigas Oysters (14%). The most valuable of these species was Salmon which accounted for 61% of the overall aquaculture production in Ireland. Aquaculture sites are located in the coastal communities with the largest number of enterprises in counties Donegal (66), Cork (64) and Galway (52) followed by Kerry (37), Mayo

(35), Waterford (20) and Clare (18). Salmon is produced on sites on the West Coast of Ireland from Donegal to Cork.

In 2009 Ireland imported 91,713 Tonnes of Seafood with a value of €171 million which is an increase of 49% from 2008 when 61,488 Tonnes of Seafood were imported. The top species imported were Fish Meal and Oils (45%), Blue Whiting (14%) and Pelagics (28%).

For the same period exports amounted to 213,004 Tonnes with a value of €331 million. This was an increase of 47,259 tonnes or 28% from 2008. Pelagic species accounted for the greatest volume exports (53%) and value exports (35%) in 2009. Volume exports to EU countries amounted to 64% in 2009. The main format of exports was frozen products excluding fillets which accounted for 50% of Irish export volume in 2009.

Seafood per capita consumption in Ireland was estimated at 16.7kg/annum. With growing and stable aquaculture production and the broadening of the Irish seafood palette, seafood consumption is expected to grow towards EU norms of in excess of 20kgs per annum.

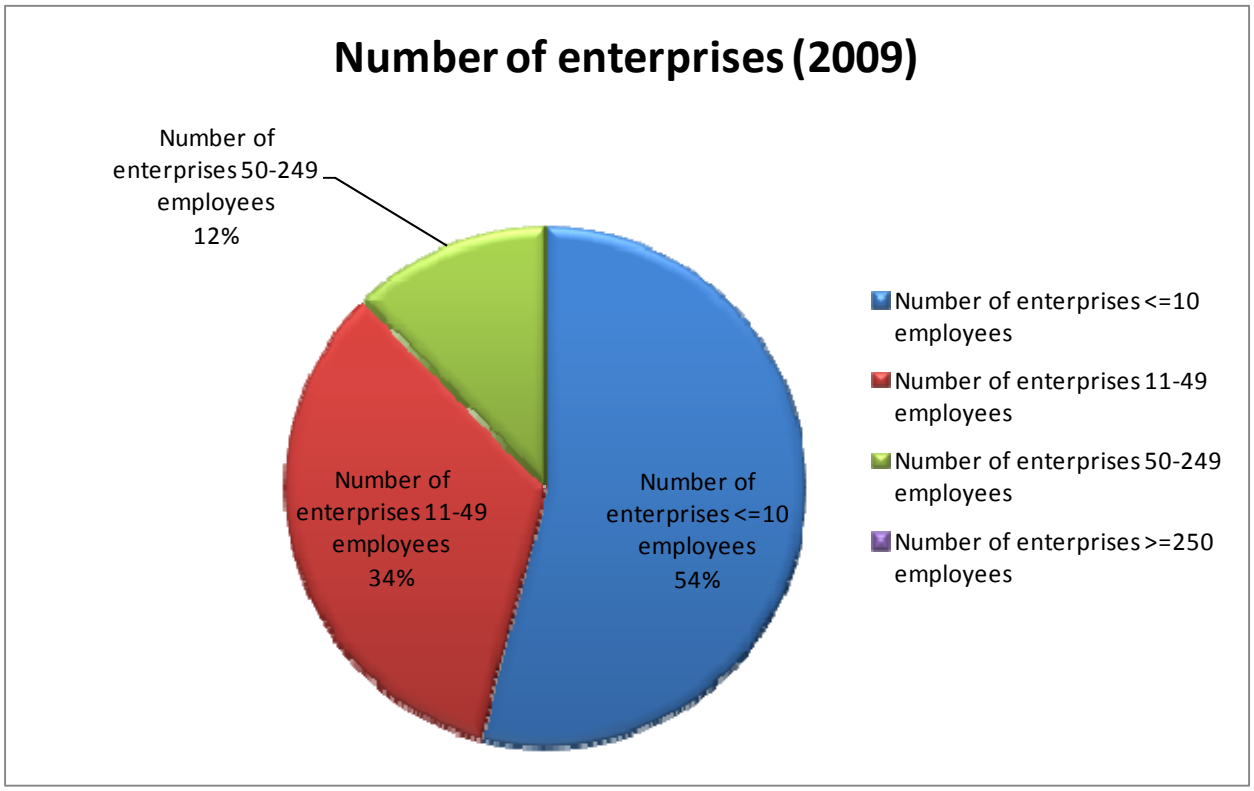
6.10.2 Socio-Economic aspects

The Irish fish processing industry was comprised of mostly small enterprises with less than 10 employees which accounts for 54% of all Irish fish processing companies. 34% of Irish fish processing companies had between 11 and 49 employees, 12% had between 50 and 249 employees and there was no large company in Ireland with more than 250 employees.

Primarily Irish fish processing companies were located in coastal communities in counties Donegal, Dublin, Wexford, Cork, Kerry and Galway. These companies were an integral part of the communities they are based in as these coastal communities depend on this industry for employment.

The economic downturn has led to rising unemployment in Ireland. The reduction in funding available and the difficulty in accessing funds has impacted heavily on small and medium enterprises which accounted for the majority of the Irish fish processing industry.

Figure 6.10.1: Size distribution of the Irish fish processing industry



In 2008 and 2009 the numbers of enterprises and the total number employed was reported as unchanged due to the lack of accurate data available.

There were more males employed in the Irish fish processing sector than female employees. The average salary per employee went from €32,243 in 2008 to €30,931 in 2009 which was a decrease of 4%. This was in line with the reduction being seen in the average industrial wage in Ireland. The average number employed per enterprise was 15 and did not change between years. The value of unpaid work was 6% in 2008 and 2009 as these companies are all registered companies operating a full payroll system. Data was submitted for unpaid labour but it was an insignificant amount.

Table 6.10.1: Socio-economic performance indicators

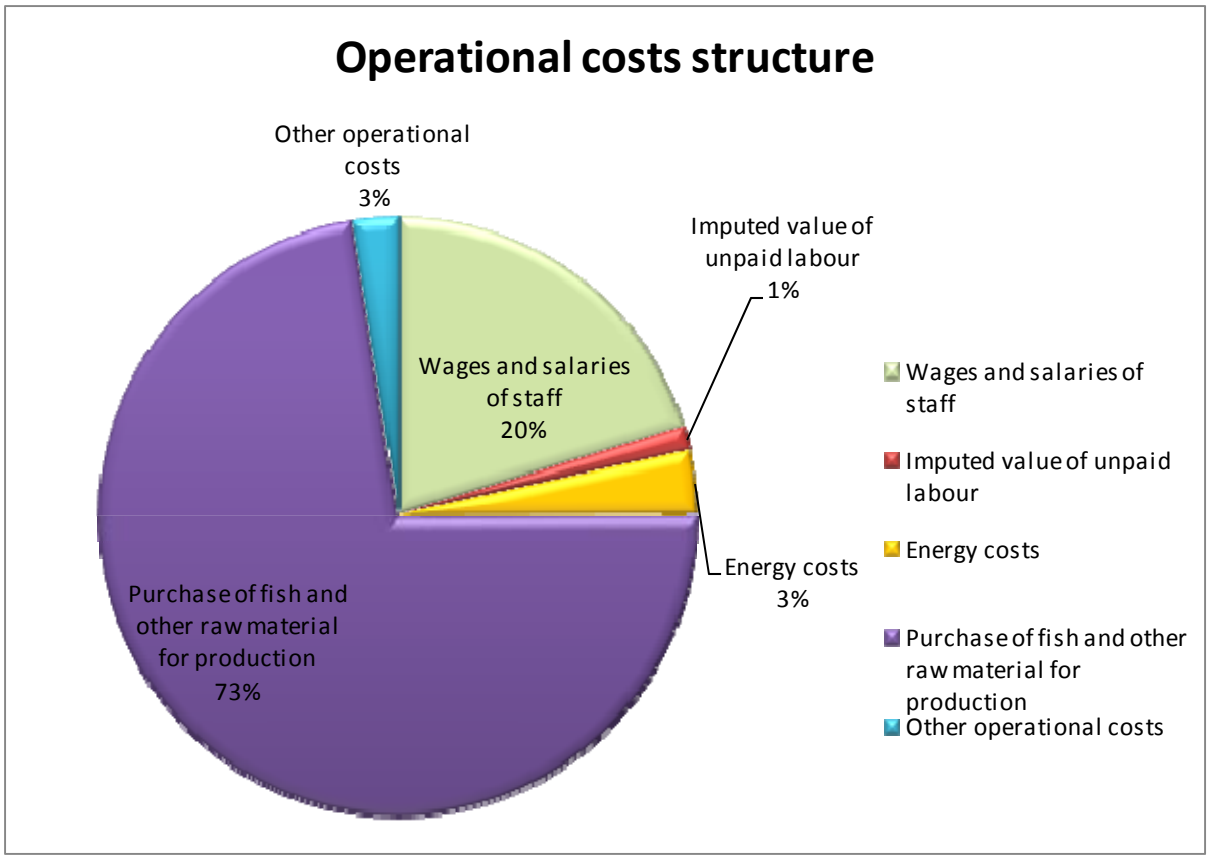
Structural Indicators	2006	2007	2008	2009
Number of enterprises	198	198	172	172
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			2007	2007
Female employees			860	860
Total employees			2867	2867
FTE			2596	2596
Average salary (€)			32243	30931
Employment per enterprise	0	0	15	15
% of unpaid work (%)			6	6

Figure 6.10.2: Employment and average salary

6.10.3 Economic performance

In 2009, total production costs were €372 million, 74% of the total industry turnover. The purchase of fish and other raw material for production was the largest cost accounting for 73% of the overall operating costs, followed by wages and salaries at 20%, energy costs and other operational costs at 3% and unpaid labour at 1%.

Figure 6.10.3: Distribution of the operating costs in the Irish fish processing industry



In 2009, turnover decreased by 4% between 2008 and 2009. The Gross Value Added also decreased by 5% from €222 million in 2008 to €210 million in 2009. Operating Cash Flow has decreased by 7% from €144 million in 2008 to €134 million in 2009. Earning before Interest and Tax (EBIT) which is a measure of a firm's profitability, decreased by 9% between 2008 and 2009. Net Profit decreased from 2008 to 2009 by 10% from €125 million in 2008 to €113

million in 2009. Labour productivity decreased by 5%. There was no change in the Running cost to Turnover Ratio between 2008 and 2009. Future Industry Expectations reached a value of -3 in 2008 and -4 in 2009.

Table 6.10.2: Economic performance and productivity indicators

Economic Performance Indicators	2008	2009
Turnover (million €)	523	500
Gross Value Added (million €)	222	210
Operating Cash Flow (million €)	144	134
EBIT (million €)	128	116
Net profit (million €)	125	113
Productivity Indicators	**2008**	**2009**
Labour productivity (€/FTE)	85348	80709
Running cost to turnover ratio (%)	74	74
Future Industry Expectations (%)	-3	-4

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.10.4 Trends and triggers

Exports are very important to the Irish Fish processing industry. Although the value of exports decreased slightly in 2009, they rose again in 2010 and appear to be performing well in 2011. The primary export markets for Ireland were France, Spain and the United Kingdom with market shares of 24%, 14% and 12% respectively. The pelagic sector was the only sector to show growth in 2009 increasing by 3% in value. Declines were noted both the shellfish and salmon sectors dropping in value by 12% and 25% respectively. Whitefish also suffered with total export value decline of 11% in 2009

Retail sales amounted to €172 million in 2009, a drop of 6% from 2008. Food service sales amounted to €180 million, a decrease from 2008 which reflected the economic situation in Ireland during that time period and since then.

In 2010 the Irish government launched a strategy called "*Food Harvest 2020, a vision for Irish agri food and fisheries"*. This strategy looked at specific sector issues and seeks to address these in order to realise the potential that exists in the Irish Seafood Industry. This strategy focuses on access to raw material for the Irish fish processing sector and aims to support innovation and the creation of added value products.

During 2009, Bord Iascaigh Mhara (BIM) delivered the 'Making Plans that Matter' pilot programme to 10 leading seafood value adding companies. This programme provided targeted business planning to aid development and drive growth in the Irish processing sector. The programme delivered new sales of €13 million, the development of 9 new markets, 38 new products developed, 18 new seafood processes and 43 new jobs.
In 2009, BIM launched the Seafood Development Centre. This was the first dedicated innovation facility for the Irish seafood sector. Through the support of the SDC, companies can exploit market opportunities and maximise the potential for success through integrated business development and new product development strategies.

BIM and Sustainable Energy Ireland (SEI) developed the Seafood Energy Management Action Programme (SEAMAP) to assist seafood processors to reduce costs and drive operation efficiency. Fourteen companies participated in the pilot programmes held in Donegal and Dublin. The average savings for these companies was 16% for those who participated in the Donegal programme and 21% for those who participated in the Dublin programme.

Government grant aid was approved in 2010 and 2011 for a Processing Investment Scheme. In 2010, nine approved projects invested €4.7 million in the Irish processing sector with grant aid of €1.3 million. This investment will result in new sales of €26 million and the creation of 82 new jobs.

6.10.5 Data issues

In 2009, this data collection framework was completed using information gathered in a Benchmark Study of the Irish fish processing sector that was undertaken. Due to the lack of

regulation to make it a legal obligation to complete a survey regarding the Irish fish processing sector, it was very difficult to get companies to respond to a structured survey form. This changed as in 2010 with the introduction of a statutory instrument SI 132/2010 which makes it mandatory for all companies to maintain data of (*a*) quantities and species of raw material entering the plant, (*b*) quantities and types of products produced, and (*c*) economic data as listed in Annex XII of the Commission Decision in order to allow them complete to complete the survey form.

Data collected is treated as confidential and is not disclosed in any format whereby the companies or individuals can be identified. All primary data is stored electronically and is protected under the terms of the Data Protection Acts.

6.11 Italy

6.11.1 Overview of the sector

In 2009, there were 414[1] fish processing enterprises registered in Italy. The number of people employed amounted to 7,550 persons, corresponding to 5,436 FTE. The sector produced a turnover of €2,393 million in 2009.

The canning sector is the main segment of the Italian fish processing industry. The main products are canned and preserved tunas although there are also a significant number of companies that process anchovies, sardines and shellfish.

From sources external to the DCF[2], the value of production of the seafood canning industry amounted to €1,306 million in 2008 while the value of the freezing sector production amounted to €116 million in the same year.

In any case the fish processing industry has a very low importance in the overall food processing industry; with the fish canning industry accounting for 1% of the total turnover of the whole agri-food industry (even though it increased by 6.2% relative to 2008), while the seafood freezing sector's contribution was slightly higher at 4%.

As far the dependency on domestic production, the Italian fish processing industry is heavily dependent on imports, especially the tuna canning industry which is the most important at the national level.

In recent years, the increase in production costs, primarily due to the decrease of tuna catches, has led the Italian companies to become totally dependent on the supply of raw materials from abroad, or to change their production and marketing strategies.

On one hand, imports of frozen, fresh and refrigerated tuna (mostly from Spain) is again increasing at the expense of the semi-manufactured tuna loins (mostly imported from Ecuador,

[1] Data refers only to enterprises not managed on a personal basis.

[2] ISMEA, 2010, Indicatori del sistema agroalimentare italiano - 2009. Sezione D- Analisi di settore, 33 pp., Roma, Novembre 2010..

Colombia and ACP countries), more expensive than the first: the Italian tuna canning industry imported more than 37,000 tonnes of tuna loins in 2009, about 2% more than in 2008, and almost 16,600 tons of frozen tuna (-3.1% than in 2008). In the first eight months of 2010, on the contrary, the trend has completely changed, showing a significant decline in the imports of tuna loins (-14%) and a very high increase in imports of frozen tuna (+20%).

Furthermore, the need to reduce costs has led several companies to relocate production to areas closer to fishing grounds and where labour cost is lower. At the same time, some Italian canned tuna brands have been acquired by foreign companies, especially Spanish. This means that Italy imports from Spain finished products (50% of the overall production in 2007) and only distributes them in the market.

Only recently has there been an interest by the processing industry to process raw materials from aquaculture, as an opportunity to decrease the dependency from imports. This trend has been observed mainly for the production of freshwater species, chiefly trout and salmon trout. Processed aquaculture fish products represent an opportunity and a potential future link between the aquaculture and the processing industries. A larger percentage of processed trout has been sold in the national market. For the export market this species has been sold mainly in filled freezing.

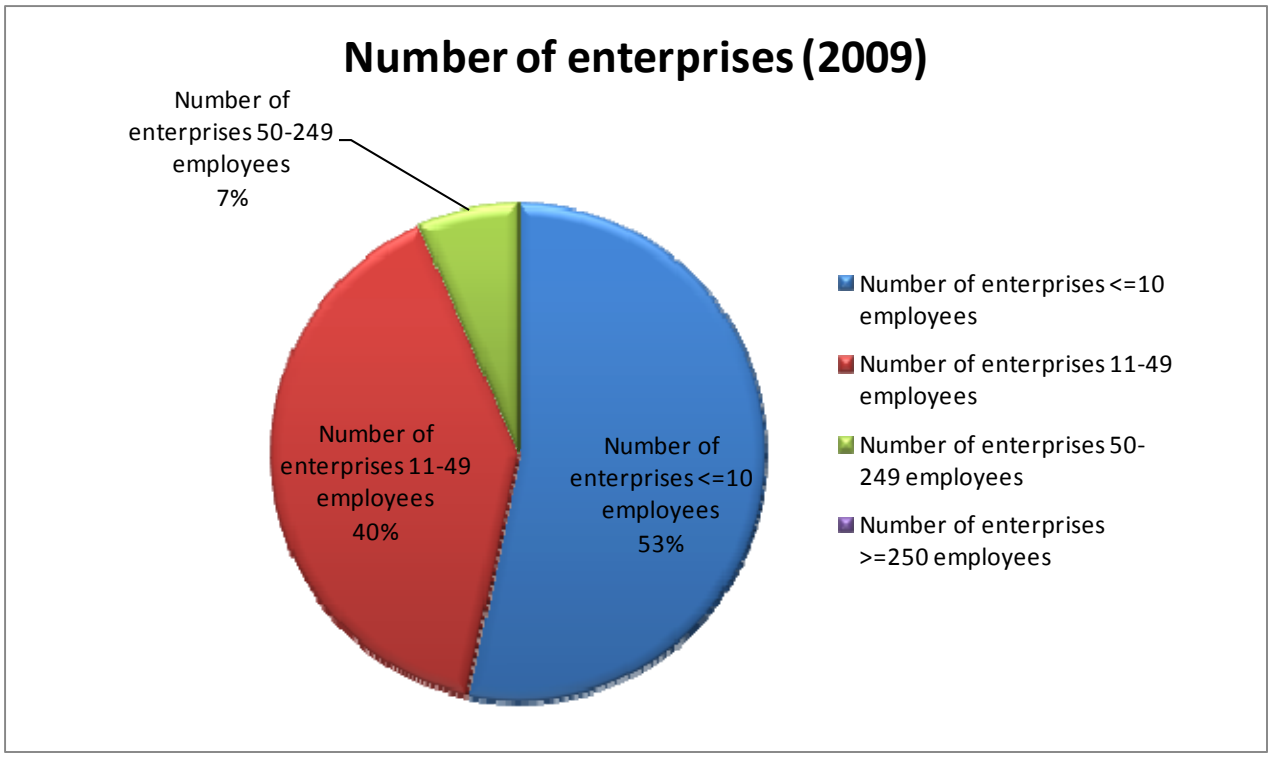
6.11.2 Socio-Economic aspects

According to data collected under the DCF, the Italian fish processing sector comprised 414 enterprises in 2009. The fish processing industry is characterised by its dual organisation in the market: on the one hand, there is the so-called modern sector with a few large industrial companies, and on the other the traditional, highly atomised and formed mainly by micro, small and medium-sized enterprises, many of which are family based.

The pie chart in figure 6.11.1, taking into account the dimensional characteristics of the sector, shows that 53% of the total number of enterprises in the Italian fish processing sector are micro enterprises, i.e. companies with up to a maximum of 10 employees while it can be strongly asserted that the Italian fish processing industry is dominated by small companies, e.g. 93% of enterprises are made up of companies with less than 50 employees (sum of classes <10 and 11-49).

Around 53% of the fish processing enterprises are located in southern Italy and islands, 20% in the northeast, 18% in the central regions and only 8% in the northwest. Indeed, the regions with the largest number of companies are Sicily (22%) and Campania (14%). Sicily is, by far, the region with highest number of employees (19% of the national total). The classification of enterprises by legal status (the main legal forms were considered) shows a preponderance of a Ltd. form (74%) due to the prevalence of the small and medium enterprises.

Figure 6.11.1: Size distribution of the Italian fish processing industry



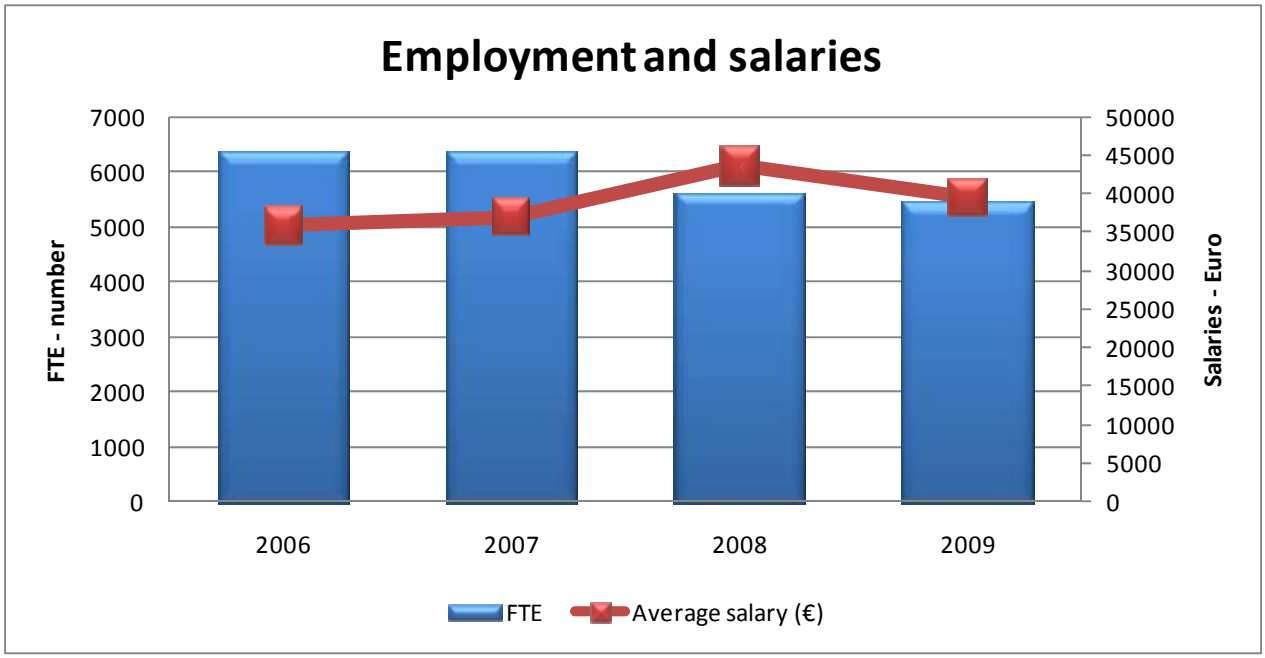
As far as the qualitative features of employment, the statistics survey shows that the Italian fish processing industry is an equal opportunity industry: the number of men and women employed in the sector is almost equal (table 6.11.1). Furthermore, it can be said that the part-time work has not a significant role as shown by figures on FTE: the full time units are about 72% of the total number of people working in the sector.

Table 6.11.1: Socio-economic performance indicators

Structural Indicators	2006	2007	2008	2009
Number of enterprises	372	372	376	414
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			3891	3790
Female employees			3860	3760
Total employees	7750	7750	7750	7550
FTE	6355	6355	5580	5436
Average salary (€)	35749	36990	43606	39568
Employment per enterprise	17	17	15	13
% of unpaid work (%)				

The indicator employees per enterprise (FTE/enterprise) decreased over the period 2006-2009 partly due to the reduction of people employed and partly due to a new estimation methodology (applied since 2008) which provide better information on the numbers of full time equivalent employed in the industry.

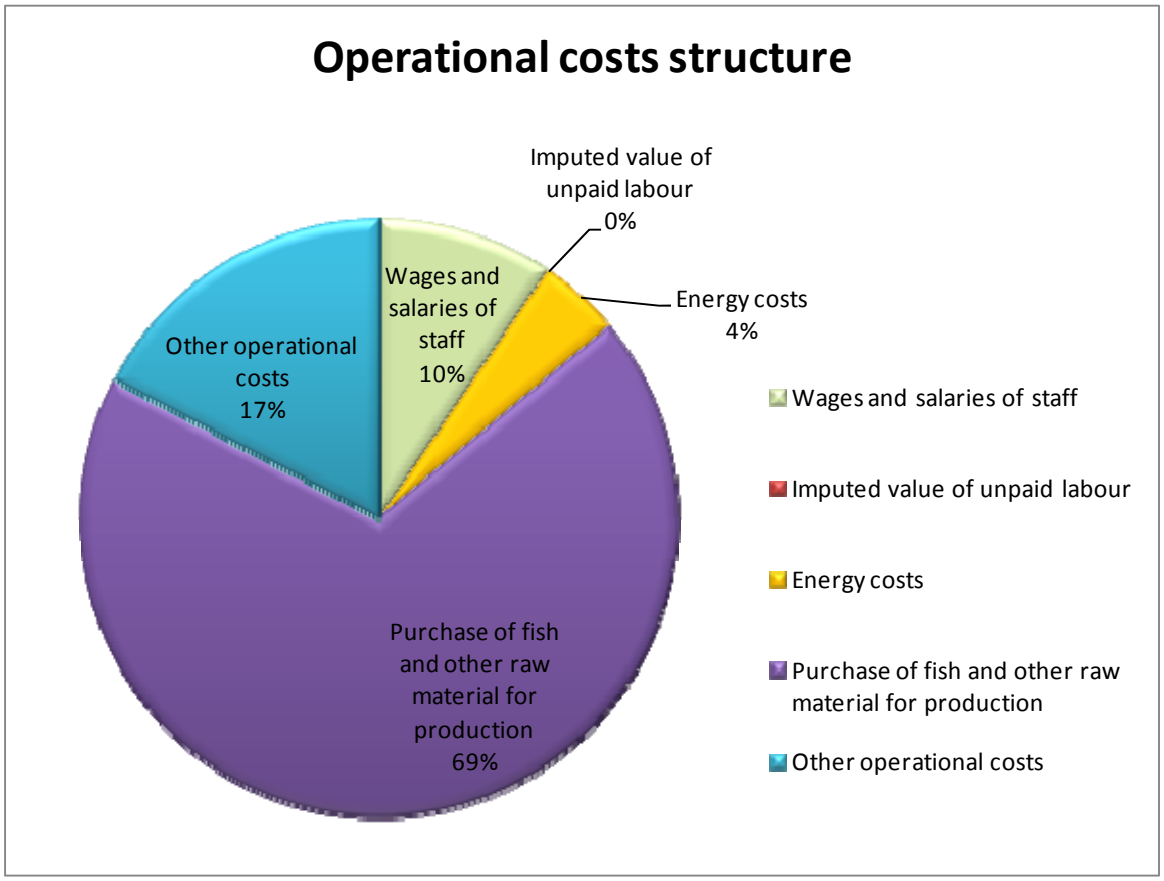
Figure 6.11.2: Employment and average salary



6.11.3 Economic performance

Total operational costs were equal to €2,269 million in 2009, representing about 95% of the turnover. The great amount of costs (69%) is represented by purchase of raw materials and other products needed for the production. Labour costs represented 10% of the running costs while energy costs impacted by 4%. A rather significant cost item is represented by other operational costs.

Figure 6.11.3: Distribution of the operating costs in the Italian fish processing industry



The value of the turnover of the sector was equal, in 2009, to €2,393 million, registering a decrease of -24% with respect to the previous year value, due to the generalised financial crisis that impacted the overall agri-food sector as well as the fish processing one (strongly dependent on foreign imports for the raw materials supply).

After a significant decrease in 2008, the GVA produced by the sector in 2009, equal to about €332 million, registers a slight increase (+8%), substantially due to the high decrease in the total value of operational costs (raw materials +energy costs +other running costs), equal to -29%, more than proportional if compared to decrease in the income (turnover +other income) produced by the sector during the year 2009 (-25%).

The slight increase in the GVA along with a decrease of the labour costs (wages and salaries of staff) of -12%, resulted in a recovery of the operating cash flow produced by the sector in 2009. Indeed, in 2009, the OCF, equal to about €122 million, came back, more or less, to the ante-crisis level (2007).

In the same way a very significant increase can be seen in the EBIT level, switching from less than €20 million to €56 million in the period 2008-2009, notwithstanding a significant increase in the costs of capital (depreciation) of +33%.

Table 6.11.2: Economic performance and productivity indicators

Economic Performance Indicators	**2006**	**2007**	**2008**	**2009**
Turnover (million €)			3159	2393
Gross Value Added (million €)	326	358	306	332
Operating Cash Flow (million €)	99	123	69	122
EBIT (million €)	36	62	20	56
Net profit (million €)			76	87
Return on Investment (%)	2	3	1	2
Financial position (%)			69	66
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	51320	56363	54910	61041
Running cost to turnover ratio (%)			99	95
Capital productivity (%)	16	16	13	14
Future Industry Expectations (%)	-3	-3	8	-7

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

The net profit of the sector (the result after taking into account financial costs and gains), is, for 2009, higher than the EBIT (about €87 million, +15% compared to 2008), meaning that the management of capital assets have produced income higher than costs.

The ability of the capital invested in the sector to produce income shows a significant improvement in 2009: indeed, the ROI indicator (EBIT/total asset) increased from 0.83% to 2.53%. This good performance should be solely attributed to the increase in the EBIT level, the value of total assets being almost stable in the period 2008-2009,.

As far as the financial position, a very slight improvement is registered since the 2008 level (from 69% to 66%), to be attributed to the decrease in the level of debts.

The labour productivity has also been increasing (from about 55 to more than €61 million, +11%), because of the increasing GVA and the falling numbers of FTE in the sector. Because the almost stable capital level, the capital productivity increase appears to be lower (+8%).

The running cost to turnover ratio has declined from above a 99 % to 95 % from 2008 to 2009, which implies that there is more room, for the sector, to pay fixed costs.

As far as the future industry expectation, the performance of the sector is not so good. Indeed, if the 2008 indicator is equal to 8%, meaning that the willing of the sector was only to maintain its production capacity, the worsening of the indicator to a negative value (-7% in 2009, due to a negative value of net investments in the same year) means that the sector is not even covering its depreciation costs, thus disinvesting with the possible intention to reduce its presence in the market.

6.11.4 Trends and triggers

As shown by the productive structure and on employment figures, the Italian fish processing sector has been characterised, in the last decades, and also in the latest years, by a restructuring process, generally applying to the overall agri-food sector.

A re-sizing of the productive system is in-progress, induced by technological processes and resulting in an increase of the number of enterprises, and a reduction of staff: according to the

historical census (official data), there has been an increase of 14% of businesses and a corresponding reduction of staff by 37% in the period 1981-2001. The trend is confirmed by the latest figures.

As far as the production, according to external sources of data[3], there seem to be signals toward a recovery process for the fish processing industry, affected by a negative trend in the latest years. Indeed, the trend of the index of industrial production of the fish processing industry shows that a decline of the production started in the second half of 2008, with the explosion of the financial crisis and continued until the third quarter of 2009. In the subsequent period, the negative trend was reversed, with a growth trend starting in the last months of 2009 and continuing over 2010 (7.9%, for the period January-September 2010).

6.11.5 Data issues

Data for the Italian fish processing industry within the DCF is collected by mean of a yearly survey carried out on a sample extracted on the national business register (Chamber of Commerce). This register provides all the necessary information about the population units (location and contact information, type of activity, etc.). The collection of the data required by Annex XII of the DCF regulation has been carried out through the analysis of the balance sheets and financial accounts of the sampled enterprises. The register allows to make queries on balance sheets for enterprises having a commitment in publishing them (only capital companies). For this reason the Italian data collection covers only capital companies hence excluding those firms constituted as partnerships (limited, ordinary or general partnerships) or individual firms. The population has been individuated by selecting all the firms established as capital companies and declaring to carrying out the NACE economic activity 15.2 (now 10.2) at the end of the year.

Considering that the unpaid labour assumes a major relevance especially in small enterprises (generally established in the forms of limited, ordinary or general partnerships and individual firms) and taking into account the change in the data collection methodology (collection of data only for capital companies), the variable “imputed value of unpaid labour” has not been

[3] Ismea and Istat.

estimated for the Italian fish processing sector, even though the Italian national programme 2011-2013 foresees to estimate this variable starting from the reference year 2010. Furthermore, data on turnover and employment for enterprises which do not have fish processing as their main activity has not been collected, because the business register used to collect data does not allow to clearly identify them.

The current methodology of data collection for the Italian fish processing sector has been used to fill the lack of official data for Italy within the SBS. Indeed, the Italian national statistical Institute (ISTAT) as well as Eurostat have not published data related to the Italian fish processing industry (NACE economic activity 15.2) until 2008 because of confidentiality reasons of the second level. Confidentiality of the second level applies to an economic activity where publication of data related to this economic activity allows to infer on data related to another economic activity covered by a confidentiality of the primary level. The primary confidentiality applies, on the other hand, to those sectors where the number of firms is so low to pose privacy issues (possible identification of entities involved).

It appears that since the entry into force of the NACE Rev. 2 the situation has changed because the food industry has been separated by the tobacco one (that created the problem). As a consequence it is likely that in the future the two data collection methodologies would be integrated.

6.12 Latvia

6.12.1 Overview of the sector

Fish processing is a well-developed old tradition in Latvia. In most cases, fish processing enterprises are situated in coastal regions. This type of economic activity is very important for Latvian agriculture and for employment especially in these coastal areas. In total, there were 7687 people employed in 2009, and the majority of enterprises in the segment with less than 10 employees were family businesses.

There were 91 registered economic active fish processing enterprises in 2009, with a total turnover of €153 million. The number of enterprises did not change significantly between 2008 and 2009. All fish processing enterprises operate according to European Union standards.

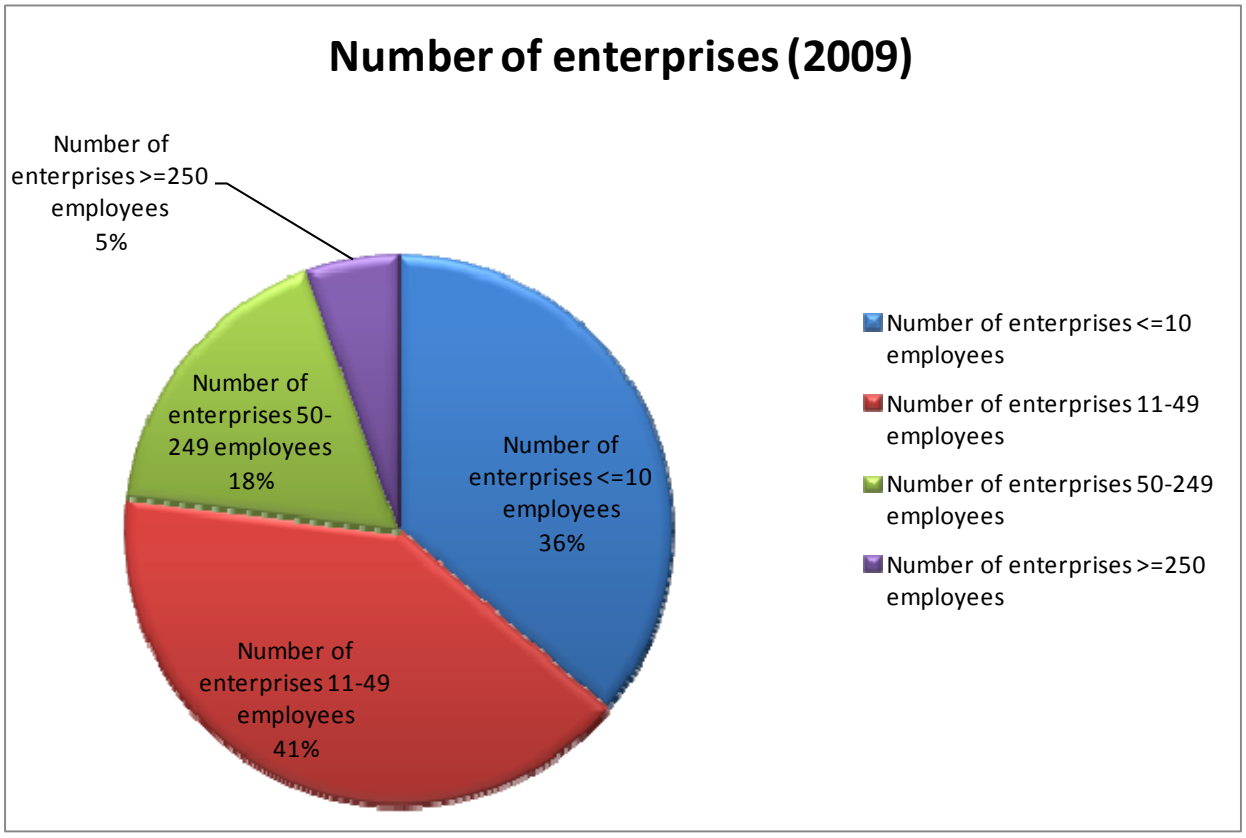
Fish processing production has an important share in total Latvian export and supplies domestic market. In 2009, fish processing products were exported to 51 countries and imported from 41 countries. The main type of imported products by volume were “Fresh or chilled fish”, “Frozen fish and Fresh, chilled or frozen fish fillets and other fish meat (whether or not minced)”.”Prepared or canned fish” was the main export and domestic market product type. Fish products are made basically from Baltic fishes, and the range is very wide. North Sea and North East Atlantic herring and mackerel imported from Norway were used for raw material for the production of canned fish. The biggest fish markets are concentrated in the Riga, Daugavpils, Liepaja and Jelgava cities.

Most of the fish processing enterprises are located in Riga and Roja. A substantial number of enterprises are also situated along the Latvian coast and in the Kurzeme region. Some are located in Tukums, Engure, Carnikava and Kekava. Small fish processing enterprises are generally situated near fishing settlements and some fishermen have smokehouses and sell smoked, salted and brine fish to tourists.

6.12.2 Socio-Economic aspects

The number of fish processing enterprises decreased slightly from 109 in 2006 to 91 in 2009. There are only 5 big enterprises which have more than 250 employed people. Small and middle size companies dominate in Latvia and comprise around 77% of all enterprises (Figure 6.12.1). There were 33 enterprises which had less than 10 employees and 16 enterprises which were included in the segment 50-249 employees. The biggest segment 11< 49 employees consisted of 37 enterprises in 2009.

Figure 6.12.1: Size distribution of the Latvian fish processing industry



There were a total of 7687 persons employed in 2009; of which 6850 were employed full time (Table 6.12.1). The number of female employees was greater than male employees, corresponding to 4744 and 2943, respectively. Number of full time employed increased by 18% from 2008 to 2009. The mean wage showed a significant decrease of 54% from 2008 to 2009 and corresponded to €217 per month in 2009 (Figure 6.12.1). Total wage similarly decreased, by

44% from 2008 to 2009. The main reason for the salary reduction was the direct impact of the global economic crises. The average employment per enterprise, for all segments increased by 22% from 2008 to 2009 and was 59 and 75 persons, respectively.

Table 6.12.1: Socio economic performance indicators

Structural Indicators	2006	2007	2008	2009
Number of enterprises	109	109	95	91
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			2149	2943
Female employees			3646	4744
Total employees	7498	6151	5795	7687
FTE	7184	5803	5592	6850
Average salary (€)	3286	4093	5664	2611
Employment per enterprise	66	53	59	75
% of unpaid work (%)			1	1

Figure 6.12.2: Employment and average salary

6.12.3 Economic performance

Operational costs share was 99% of total fish processing industry costs (Figure 6.12.3). Share of Purchase and raw material for production made up of 63% to the all operational costs. The value of operational costs demonstrated decreasing by 24% from 2008 to 2009. It could be explained by diminishment of total production volume by 20% in 2009. The total Turnover sharply decreased by 30% from 2008 to 2009 and was €215 to million in 2008 and €153 million in 2009 (Table 6.12.3). The Gross Value Added and Operating Cash Flow also reduced significantly by 59% and 73% respectively. On the other hand, Subsides increased 14 times from 2008 to 2009. Despite of the growth of Subsidies income of a lot of companies did not cover a high value of costs. Total profit for the fish processing industry, which estimated at €12 million in 2008 changed to total loss of about €2 million in 2009. The negative impact of the economic situation is also evident in the productivity indicators. Labour and Capital productivity indicators reduced by 66% and 54% respectively.

The total volume of exported production was of about 100 thousand tonnes with the total value of €115.6 million in 2009. The most important trade partners for Latvian export were Estonia, Lithuania and Russia with the exported value €25.6, €20.5 and €14.0 million respectively. The most exported product types by value were "Prepared or canned fish, caviar and caviar substitutes prepared from fish eggs" (KN 1604) with the value €52.2 million and "Fresh or chilled fish" (KN 0302) with €24.2 million. The largest volume export was 39.3 thousand tones for "Prepared or canned fish, caviar and caviar substitutes prepared from fish eggs" (KN 1604). The second export product type by volume was "Frozen whole salt water fish" (KN 0303) and its volume was 34.6 thousand tones. The volume and value of total export reduced in some degree by 17% and 18 % respectively from 2008 to 2009.

The total input of imported production was €79.0 million and 42.9 thousand tons in 2009. The main important trade partners for import were Lithuania, Sweden and Norway with the imported value €23.3, €19.4 and €9.2 million, respectively. The most imported products by volume and value were "Fresh or chilled fish" (KN 0302) and "Frozen whole salt water fish" (KN 0303). Theirs volume were 10.3 and 18.5 thousand tones and value €30.2 and €22.3 million, respectively in 2009.

The most profitable type of products was “Prepared or canned fish” (KN 1604) which brought revenue €71.4 million in 2009. Followed by “Fish, dried, salted or in brine, smoked fish” (KN 0305) €15.5 million, “Frozen whole salt water fish” (KN 0303) €9.7 million respectively.

Figure 6.12.3: Distribution of the operating costs in the Latvian fish processing industry

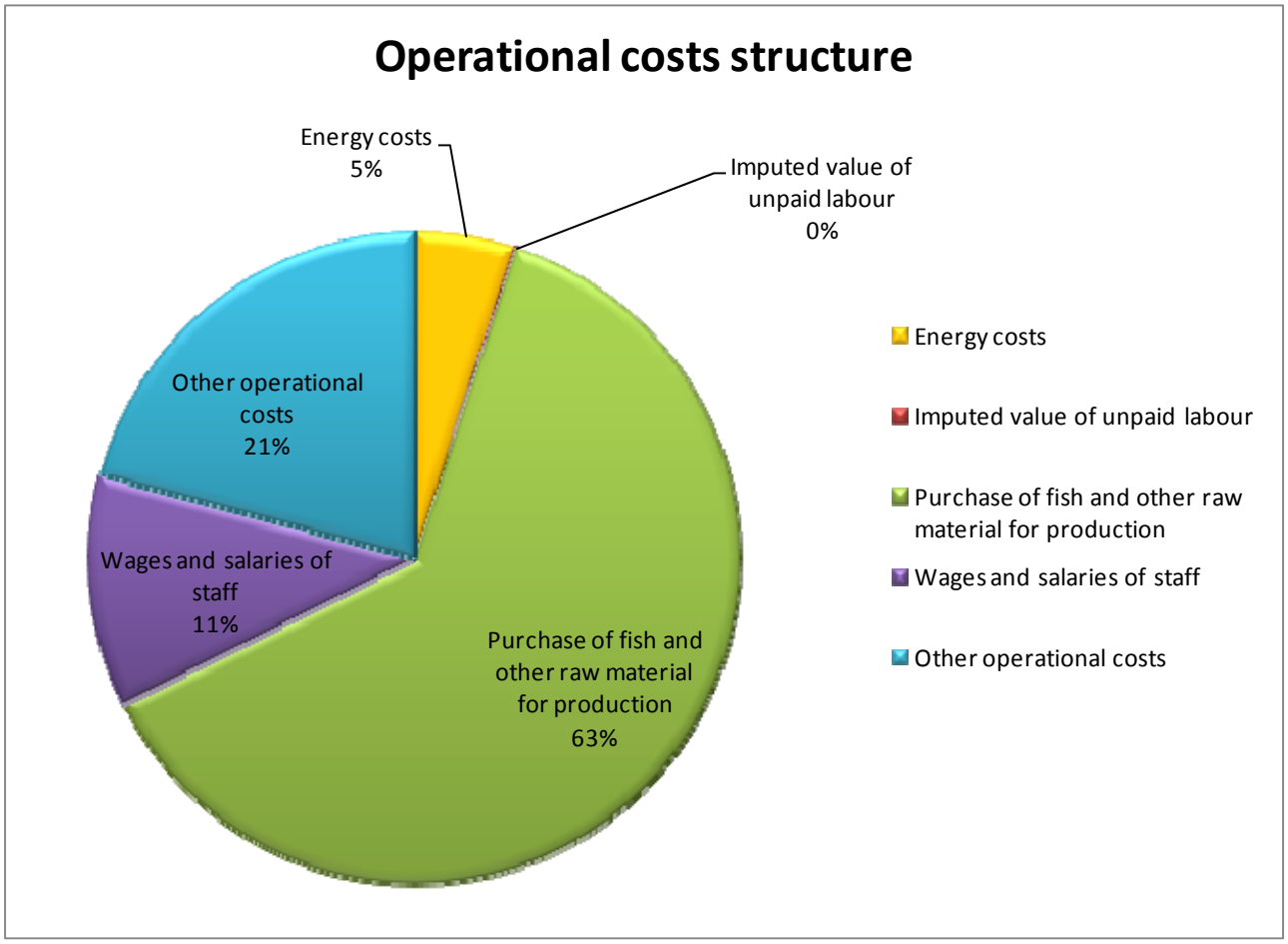


Table 6.12.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	166	167	215	153
Gross Value Added (million €)	160	39	54	23
Operating Cash Flow (million €)	137	16	23	6
EBIT (million €)		11	14	0
Net profit (million €)		9	12	-2
Return on Investment (%)			13	0
Financial position (%)			75	82
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	22340	6754	9712	3286
Running cost to turnover ratio (%)	20	98	94	100
Capital productivity (%)			48	22
Future Industry Expectations (%)			-2	-1

6.12.4 Trends and triggers

In the end of 2008 and in 2009 the fish processing industry received a negative impact from the global economic crisis, which led to significant decrease of fish production volumes and turnover. In spite of the crisis range of products in the domestic market has not decreased. Some of Latvian fish processing companies used European financial funds to develop theirs enterprises. The owners used an additional funding to invest it in the new equipments and for modernization of the processing process and for productivity increase.

The negative influence to the Latvian canned fish export was “Riga Sprats” ban to Russia. The main reason of the “Riga Sprats” interruption of export was high level of content of benzopyrene in the canned fish. Latvian canned fish “Riga Sprats” returned again to the Russian market in 2010. Processing industry companies absorb successfully new foreign markets. In 2010 the economic situation in the fish processing sector showed a growth of total turnover and was profitable.

6.12.5 Data issues

- Data quality

Economic variables of processing industry are based on the information provided by Central Statistical Bureau of Latvia (CSB). CSB collects economic data basing on the questionnaires/statistical forms and administrative sources. Questionnaires/statistical forms are distributed by CSB to the owners of processing enterprises. All economic active enterprises are involved in the survey. The participation of the enterprises where are more than 10 employments is obligatory according to the Latvian national legislation. The data for small segment which have less than 10 employments were requested from Latvian Revenue Service.

The data collection type was Census for all fish processing industry segments in 2008 and 2009. Economic data for the Latvian fish processing industry were collected for the first time in 2006 and 2007. The type of data collection was Probability Sample Survey. The coverage rate was about 70%.

- Data availability

The existing data for 2006 cannot be used in the economic analysis, due to that it was a first requested year and a lot of cost parameters were absent.

- Confidentiality

The data received from CSB by company size category were arranged by the number of person employed to protect the data confidentiality. These data were provided to JRC according to the Call for data concerning the EU fish processing industry 2006-2009 structure.

Input of expert about the differences between processing and trade. For some countries processing and trade is integrated, overestimation/underestimation.

The processing production volume of about 10% more than the sold volume own produced production in 2009.

- Differences with Eurostat

All the data for 2008 and 2009 were collected acording to the Structural Business Statistics (SBS) COMMISSION REGULATION (EC) No 250/2009 amending Commission Regulation (EC) No 2700/98 definitions. Turnover and price data for 2006 and 2007, as well as information on import, export and main product type mentioned in the text were collected according to EUROSTAT PRODCOM NACE Rev.2. codification.

6.13 Lithuania

6.13.1 Overview of the sector

There were 35 fish processing enterprises in Lithuania in 2009. The number of businesses reduced by 5% since 2008 and may be affected by economic crisis and reduced consumption on the domestic market. However Lithuanian fish processing sector is fast growing sector, generating positive trade balance. The total turnover was €261.7 million in 2009, annual increase of 10-35% is observed during the last 3 years.

Lithuanian main fish processing products are aromatized sea products, salted and soused fish as well as smoked and frozen fish products. Surimi products, marinated herrings as well as processed Atlantic salmon, mostly exported to other EU and third countries, are the main production output. Only 20% of total value of production is sold at Lithuanian domestic market, how ether it is relatively cheap production accounting almost 33% of total volume of production.

Almost half of fish processing plants are situated in the coastal areas (Klaipeda district) however only few businesses, run by fishermen are processing local fish. The main fish processing businesses are importing raw material from other countries.

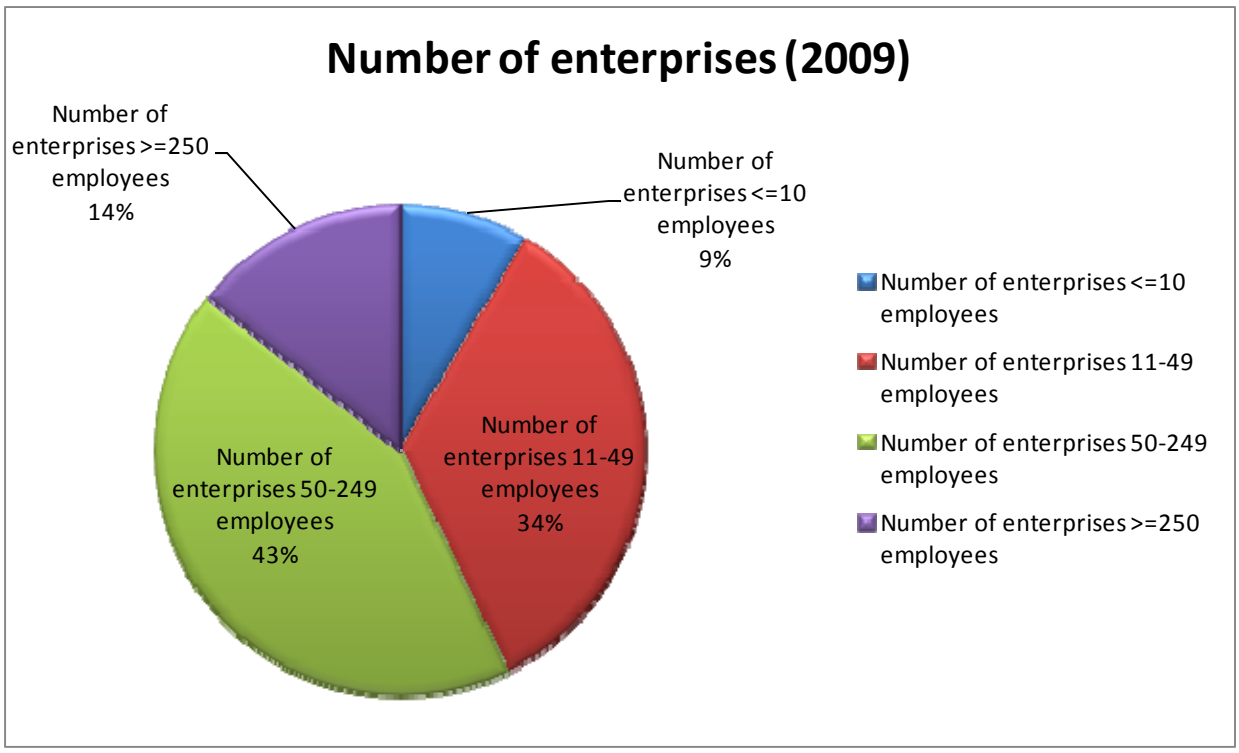
6.13.2 Socio-Economic aspects

Lithuanian fish processing sector is mostly represented by medium enterprises with 50-249 employees. The average number of employees per enterprise was 165 in 2009. Figures are also showing the growth of enterprises in terms of number of employees. The number of employees per enterprise increased by 28% since 2007.

There were only 9% of micro enterprises with less than 10 employees in 2009, this group of enterprises also decreased by 50%. Micro businesses are usually more depended on the general economic situation and purchase power of consumers. It is also difficult for micro companies to diversify their products as well as markets; therefore economic crisis firstly affected small

producers. Simultaneously the number of big enterprises (> 250 employees) reduced by 29% in 2009 increasing the number of medium businesses by 25%. The composition of Lithuanian fish processing sector in 2009 could be found in the figure 6.13.1.

Figure 6.13.1: Size distribution of the Lithuanian fish processing industry



Lithuanian fish processing sector is quite modernized, the products are exported to the EU as well as to the Former Soviet Union countries. But it is still quite dependent on the labour work, which has the same trends as main production indicators during recent 3 years.

Fish processing sector provided a job for 5766 persons in 2009. Traditionally male are mostly employed in the fishery, while female in fish processing sector this is also the case for Lithuanian fish processing sector, where female represented more than 65% of the total number of employees. Comparing with 2008 data, employment in the fish processing sector increased by 15%, the relative composition by gender changed as well, increasing the males share in the working force. The increase of male employees in fish processing sector could be explained by

the economic deterioration in the country and increase of unemployment in 2009. There were more males ready to work for relatively lower salary.

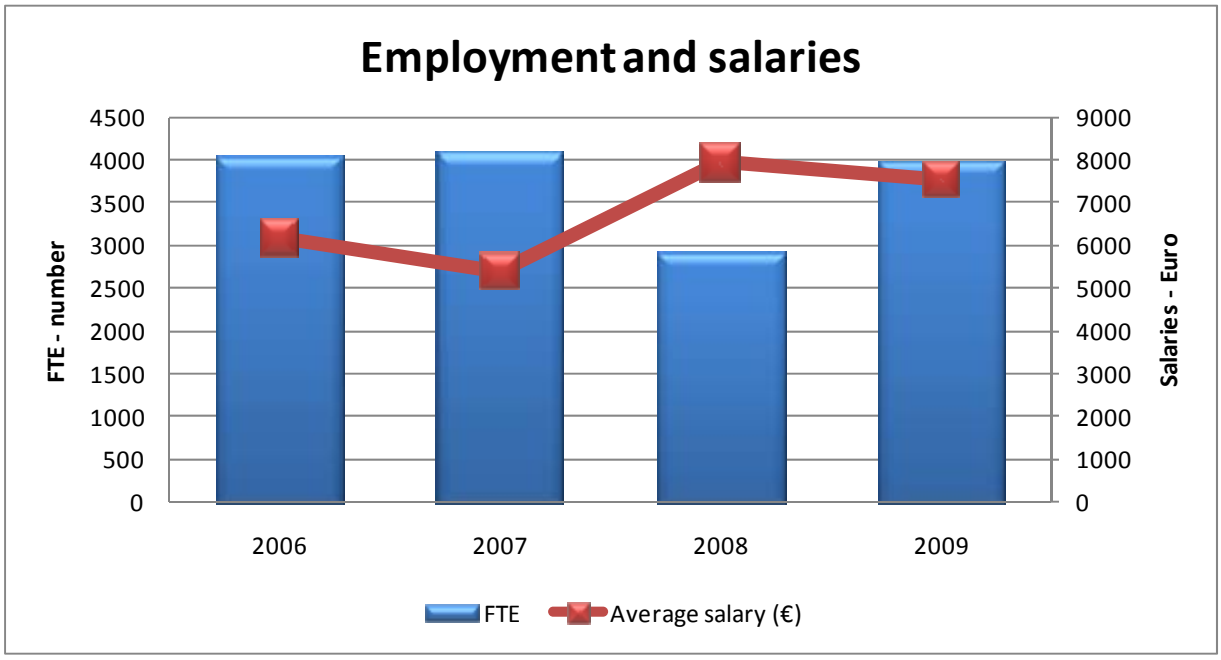
Employment in terms of full time equivalent was equal 3995 in 2009. This indicator could be considered as being quite stable in 2006-2009 if not the case of substantial decrease by 29% in 2008 (while the number of employees increased by 8%). This situation could be affected by changes in the data collection pattern and coverage of the main producers in the sample.

Table 6.13.1: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	37	36	37	35
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			1583	1995
Female employees			3430	3771
Total employees	5035	4632	5013	5766
FTE	4039	4088	2912	3995
Average salary (€)	6190	5383	7930	7544
Employment per enterpris	109	114	79	114
% of unpaid work (%)				

The average salary per full time employee in fish processing sector was €7544 in 2009. Decrease by 5% is observed, comparing with 2008. The overall average gross earnings per employee in Lithuania were €7145 in 2009, so the sector provided quite good possibilities for the employees, salaries in fish processing sector were comparatively higher than average in Lithuania. However, due to private nature of the sector, average salaries decreased faster in 2009 than the overall average of Lithuania.

Figure 6.13.2: Employment and average salary



6.13.3 Economic performance

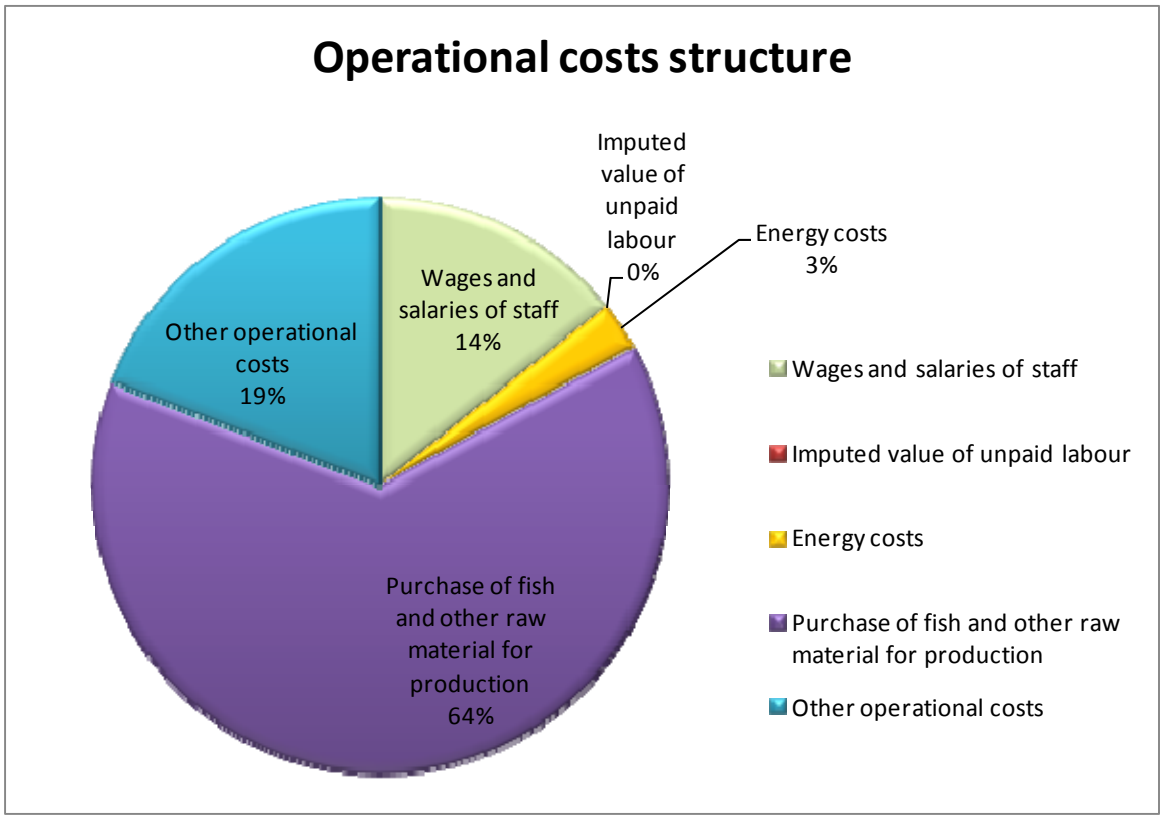
The economic performance of Lithuanian fish processing sector, despite of economic crisis improved in 2008-2009. As it is already been mentioned, the turnover of the sector is growing each year and reached almost €250 million in 2009. Estimated Gross Value Added was 83.4 millions in 2009, 16% higher than in 2008 and almost 2.4 times higher than in 2006. All economic performance indicators are showing further increase in 2009, compared with 2008 and 2006 data.

Purchase of fish and other raw material for production is the main cost item of Lithuanian fish processing sector. It represented about 64% of total costs in 2009 as well as in 2008. Lithuanian fishing sector landed about 155 – 187 thousand tonnes of fish annually in 2006-2009, however most of this fish never reach Lithuanian coast as being landed in other counties. The domestic supply of raw fish is mostly presented by Baltic cod, herring, pikeperch, smelt and some other fish species caught in the inland waters and Baltic Sea, therefore most of the raw materials are imported.

Wages and salaries of staff have been relatively stable in the cost structure accounting about 14% of total costs in 2009 and 2008.

Analysis of production data, coming from National Statistical Office, is showing reduction of processed fish sales on a local market in terms of volume and value of production since 2008. Only 25% of money earned selling fish products (NACE code 10.2 Processing and preserving of fish, crustaceans and molluscs) came from domestic market in 2009, while the rest production been exported to Germany, Latvia, France, Estonia, Russia, Belgium and others. Considering the data, collected by Veterinary service, all fish processing plants been allowed to sell their products all over the EU, 7 of them been licensed to export fish products to Russian market.

Figure 6.13.3: Distribution of the operating costs in the Lithuanian fish processing industry



The industry generated €44.7 million net profit in 2009. The profitability indicator is showing gradual increase of economic performance of Lithuanian fish processing sector from -3% in

2006 – 2007 to 15% in 2008 and 17% in 2009. Estimated return on investment also improved since 2006-2007 and reached 25% in 2009, how ether comparing 2008 data this indicator is showing decrease by 1%. The decrease of return on investment is also influenced by increase of total value of assets by 18% in 2009, which is affected by increase of investment in the sector as well as EFF support.

The net investment to fish processing sector in 2009 increased by 39% comparing with 2008 and reached €9.2 million or 20% of net profit of the same year.

The future industry Expectations indicator is also showing positive trends of investment and suggests further growth of the sector. This indicator was positive in 2009 and estimated at 2%, however the ratio of investment minus depreciation to total value of assets decreased since 2008, then had reached 10%.

Table 6.13.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	131	178	195	250
Gross Value Added (million €)	34	28	72	83
Operating Cash Flow (million €)	9	6	49	53
EBIT (million €)	0	-1	42	48
Net profit (million €)	-4	-5	34	45
Return on Investment (%)	0	-1	26	25
Financial position (%)			68	51
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	8466	6738	24668	20868
Running cost to turnover ratio (%)	93	97	89	83
Capital productivity (%)	30	15	45	44
Future Industry Expectations (%)	-8	-4	10	2

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.13.4 Trends and triggers

Further increase of fish production is expected in 2010 and 2011 as there were new investments co-financed by EFF in 2009-2010 boosting capacities and increasing the range of products of the sector.

Most of economic indications, as well as 2010 results are also showing further growth of Lithuanian fish processing sector as well as export. The volume of production has expanded by 19%, while the growth of value of production reached 31% in 2010. According to the results of trade statistics, the value of export also increased in 2010 by 18%. Fish and fish products trade balance has been positive during the last 5 years and the sector is further expected to be foreign exchange generating.

6.13.5 Data issues

The data collected for 2009 represents almost all fish processing sector. The data been collected from the sample of 31 enterprises, representing 89% of total population of fish processing industry. There are no major shortfalls. The value of production and sales, collected by Statistics of Lithuanian (NACE code 10.2) is almost the same as turnover and the difference is less than 1%.

6.14 Malta

6.14.1 Overview of the sector

The number of fish processing enterprises during the year 2009 amounted to 10 enterprises. The industry employed 116 full-time equivalents in total, out of which 88 per cent were male employees. The turnover during the year 2009 amounted to around €37 million which is equal to a 1 per cent increase over the previous year. The total income including subsidies and other income also amounted to around €37 million and the increase was too equal to 1 per cent when compared to the year 2008. This shows that subsidies and other income generated apart from fish processing activities were not influential factors for the total income generated by the industry during the year 2009.

The fish processing industry in Malta is of a small dimension and the limited activity relates mainly to local aquaculture harvesting and packing. There is also some limited activity related to capture fisheries, whereby fish caught locally and even imported from Africa and the Far East both fresh and frozen, is processed. In this case some activity in terms of slicing, filleting, portioning, rewrapping and smoking takes place. The activity depends mostly on the processing of blue fin tuna, aquaculture produce and imported salmon. Imported fish which is processed is exported to European markets. The main reason why fish processing has remained rather limited is that the local catch usually consists of high-value fish which is consumed in its fresh state or exported.

6.14.2 Socio-Economic aspects

The fish processing industry in Malta during the year 2009 was equally divided between two categories in terms of size based on the number of employees. Data shows that 50 per cent of the companies employed 10 employees or less, while the rest of the companies employed 11-49 employees. See figure 6.14.1.

Figure 6.14.1: Size distribution of the Maltese fish processing industry

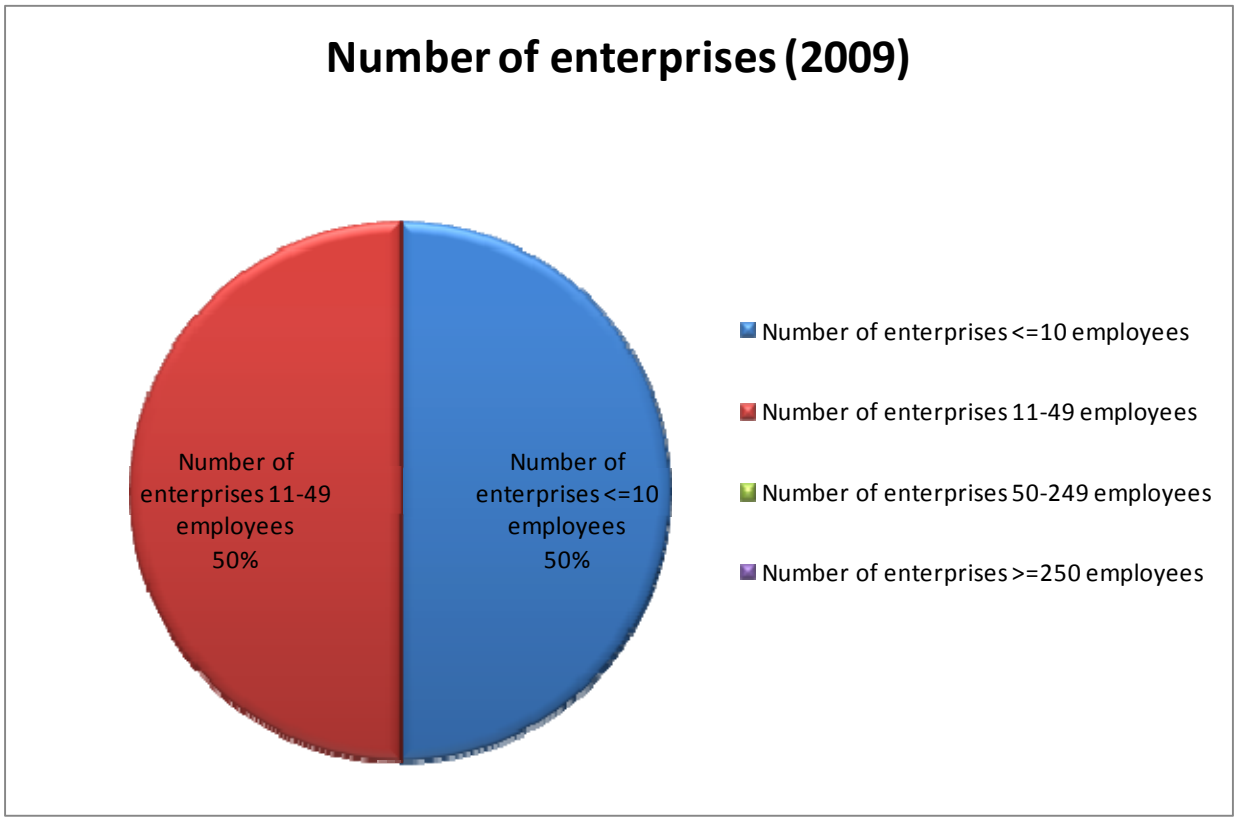


Table 6.14.1: Socio-economic performance indicators

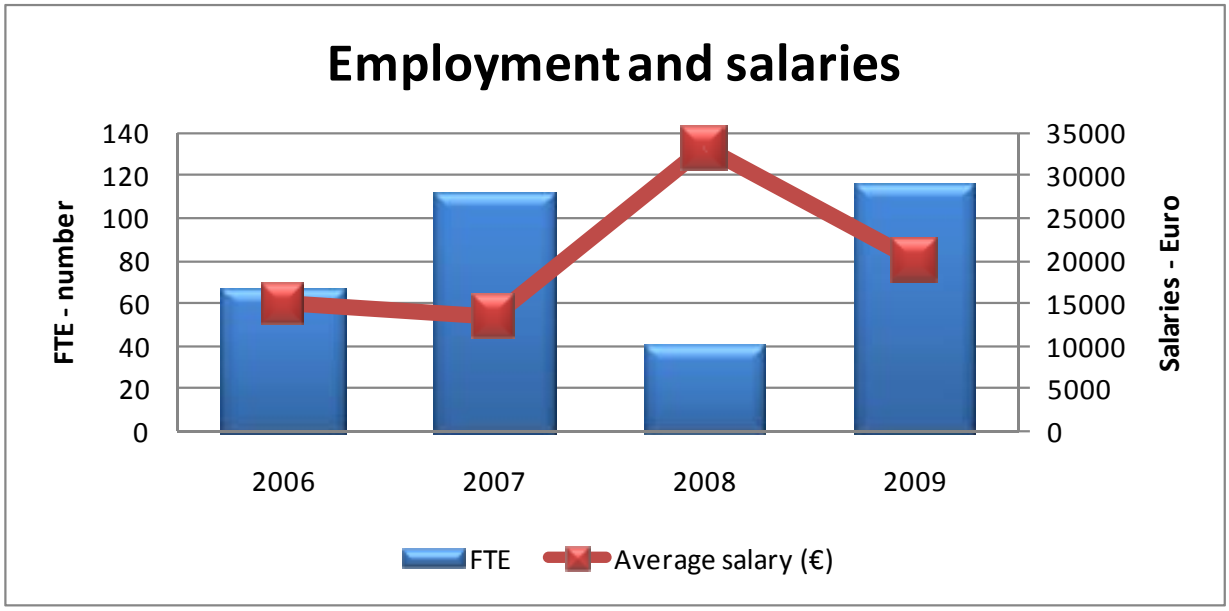
Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	7	7	7	10
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			53	118
Female employees			3	13
Total employees	67	112	56	131
FTE	67	112	40	116
Average salary (€)	15111	13557	33196	20139
Employment per enterpris	10	16	6	12
% of unpaid work (%)			10	12

During the year 2009, the number of enterprises increased when compared to the previous year. Total employment also increased by 134 per cent over the year 2008. Female employment registered a higher percentage change when compared to male employment. The number of full-

time equivalent employees also resulted in an increase which is equal to 190 per cent when compared to the year 2008. This increase can be partially attributed to the increase in the number of enterprises and the increase of employment per enterprise. However, there also exists the possibility that enterprises provided data which incorporates both the employees working in fish processing activities as well as those working in other activities such as aquaculture and retail which make part of the same enterprise.

The mean wage for the year 2009 was equal to €20,139, which is equivalent to a 39 per cent decrease when compared to the previous year. A possible reason behind this decrease could be that the mean wage for the year 2008 reflected the total remuneration paid to all the employees engaged in all the activities of the enterprise such as fish processing, aquaculture and retail. On the other hand the number of employees was only related to fish processing activities. This will of course result in a higher value for the mean wage. The percentage of unpaid work remained stable when compared to the previous year. The figure for the year 2009 equal to 12 per cent shows that the industry is highly characterised by a paid workforce rather than an un-paid one.

Figure 6.14.2: Employment and average salary



6.14.3 Economic performance

The value of turnover for the year 2009 amounted to around €37 million which is equivalent to around 1 per cent increase when compared to the year 2008. Data for the years 2006-2009 shows that turnover has remained relatively stable along the years, with the exception for the year 2007 which experienced a substantial decrease. This is due to the fact that there has been a decrease in tuna production from fish farms during that period which is very much related to fish processing in Malta.

The gross value added for the year 2009 amounted to -€14 million. The latter shows that the 1% increase in turnover was not sufficient to make up for the 44 per cent increase in energy costs, 81 per cent increase in raw material costs and 36 per cent increase in other operational costs when compared to the year 2008. The year 2009 also experienced a negative value for operating cash flow approximately equal to €16 million, meaning that the industry is not generating enough cash from its operations but on the contrary is making a significant loss. The increasing labour costs (an increase of 71 per cent when compared to 2008) which are equivalent to wages and salaries further contributed to the industry's negative outlook in terms of the generation of operating cash. The increase in the amount of depreciation of capital in addition to the other production costs, amounting to an increase of 109 per cent when compared to 2008, contributed to the earnings before interest and tax amounting to approximately -€20 million. The increase in financial costs when compared to the previous year further negatively affected the industry's economic performance resulting in a net profit approximately amounting to -€22 million.

The ROI for the year 2009 is equal to -144 per cent meaning that the accumulated invested capital, which is equivalent to the total value of assets has made substantial losses and the money invested into the industry was not transformed into earnings. The financial position which is equivalent to the debt/asset ratio has remained relatively stable for the years 2008 and 2009. The ratio for the year 2009 is equal to 223 per cent, meaning that the value of debt in the industry is more than double the value of total assets.

Figure 6.14.3: Distribution of the operating costs in the Maltese fish processing industry

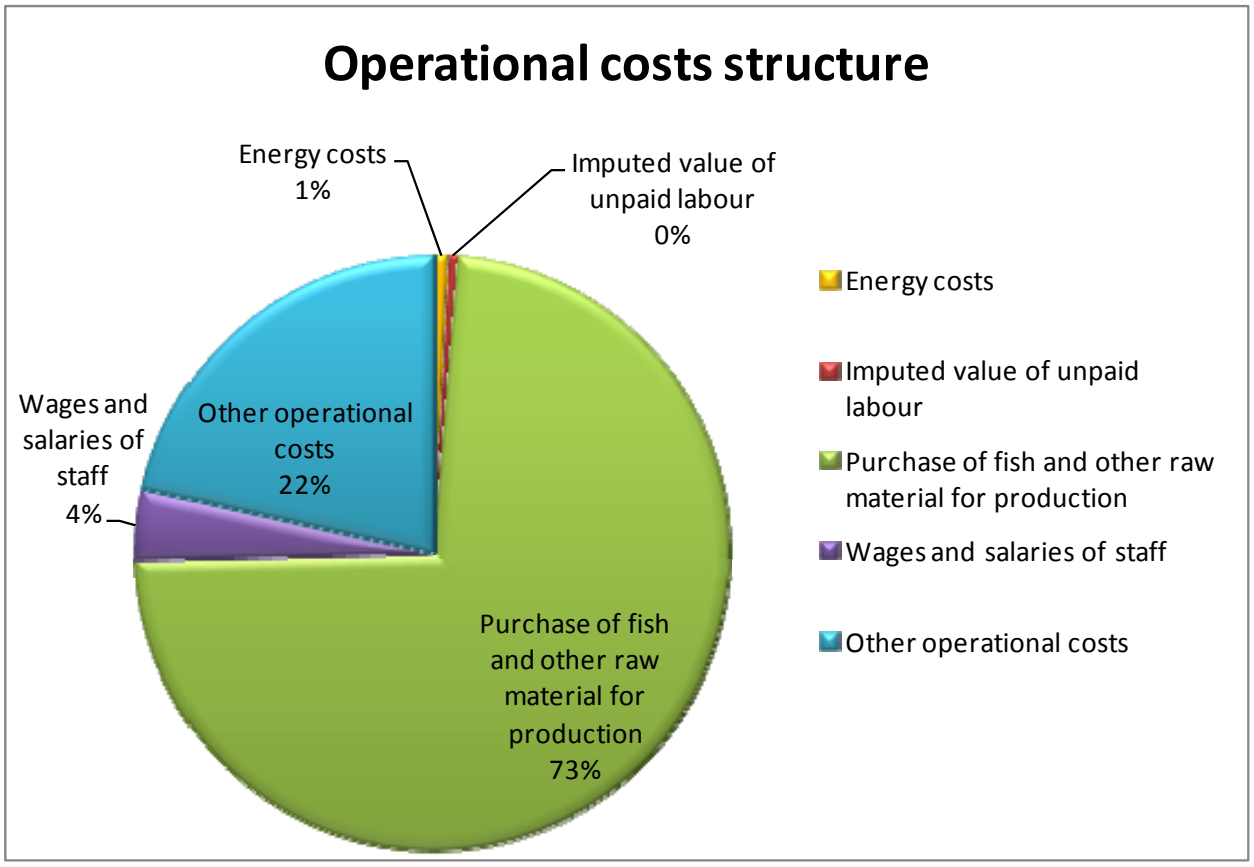


Figure 6.14.3 shows that for the year 2009 the chunk of total operational costs is attributed to raw material costs which is equal to 73 per cent. This is followed by other operational costs amounting to 22 per cent of the total operational costs. Energy costs and the value of un-paid labour are the lowest costs for the industry having a share of 1 and 0 per cent of the total operational costs.

Table 6.14.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	34	12	37	37
Gross Value Added (million €)	-1	-25	6	-14
Operating Cash Flow (million €)			5	-16
EBIT (million €)			3	-20
Net profit (million €)	-3	-27	2	-22
Return on Investment (%)			38	-144
Financial position (%)			208	223
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	-17241	-219100	160295	-120833
Running cost to turnover ratio (%)	106	320	86	144
Capital productivity (%)			74	-100
Future Industry Expectations (%)			-6	-25

In 2009, labour productivity was equal to -€120,833. This means that on average per each full-time equivalent employee the industry's value added is equal to -€120,833. The capital productivity was also negatively affected and is equal -100 per cent, meaning that a unit of capital is equivalent to a one unit of loss in terms of gross value added. This clearly shows that the value for capital for the year 2009 did not contribute to expand the industry. The future industry expectations index is also negative and is equal to -25 per cent, meaning that every unit of investment net of depreciation is contributing to a 0.25 of a unit decrease in capital. This of course produces a negative future expectation and therefore a lack of confidence in the industry. One possible reason for the negative values related to gross value added and as a consequence to the productivity indicators is the increase in energy, raw material and other operational costs. This is shown by the running costs to turnover ratio which is equal to 144 per cent for the year 2009. This ratio also includes in its calculation labour costs which also increased by 71 per cent when compared to the year 2008.

6.14.4 Trends and triggers

In view of the need for sustainability to be maintained whilst at the same time increase the per capita consumption of fish a shift from capture fishes to aquaculture species could be needed to take place in the future. The Maltese aquaculture industry has over the last few years continued

to expand as the demand for aquaculture species has continued to increase. This expansion is being accompanied by research efforts to introduce new species in terms of aquaculture to provide consumers with a wider choice whilst at the same time reduce the pressure on wild stocks. For this thrust to be successful it is essential that the local aquaculture industry expands its fish processing and packaging operations and becomes well geared to take up the challenge especially in terms of becoming more competitive and offering consumers a wider choice of products. Although fish processing activity could not be the main activity, local operators would still be required to undertake a restructuring / modernisation effort.

The fish processing sector could also be improved by adding value to fisheries products which are present but which are not consumed on a large scale. Examples include the processing of Chub mackerel (*Scomber japonicus*) which although is present in good quantities it is usually sold as fish meal for the local tuna ranching activities. The mackerel could be easily processed and used for human consumption.

6.14.5 Data issues

During the year 2009 the fish processing industry comprised of 10 enterprises and a census was conducted to collect the data required. Direct interviews based on questionnaires as well as postal questionnaires were used to gather all the data needed. Company accounts were used as data sources. The response rate was equal to 60 per cent so the data collected was raised to the total population.

Operating cash flow and earnings before interest and tax indicators for the years 2006 and 2007 are missing because depreciation data was not collected under the Data Collection Regulation. As regards the return on investment indicator for the years 2006 and 2007, net profit could have been used in the calculation instead of EBIT, however this was not possible due to the fact that the total investments for these years in reality refers to net investments made during the particular year and not related to the accumulated value of capital. The latter also justifies the missing financial position indicator for the years 2006 and 2007.

As highlighted previously, most of the fish processing enterprises are engaged in other activities such as aquaculture, retail and trade. For this reason, data might be inflated. Due to the small market size in terms of number of companies, data confidentiality can be an issue in the case of Malta.

6.15 Netherlands

6.15.1 Overview of the sector

The Dutch processing industry in 2009 has a turnover of €688 million, and consist of 95 companies. The level of employment in 2009 was 2775 FTE. In The Netherlands processing is often integrated with trading activities and therefore it is often difficult to distinguish processing companies from wholesalers. Most processing companies still source their raw material from the North Sea fisheries, although the number of imported farmed fish (pangasius, tilapia, shrimp) for processing is increasing. The main product segments are flatfish, shrimp, herring and mussels. Flatfish is mainly processed into frozen fillets and exported to Southern Europe. Most of the processing companies are located in or near the main Dutch harbours and fish auctions like Urk, IJmuiden and Scheveningen.

6.15.2 Socio-Economic aspects

Most of the enterprises in the Dutch fish processing industry are small companies with less than 10 employees. According to the 2009 there were no enterprises with more than 250 employees. However, there are processing companies with more than 250 employees. A possible explanation is that these companies are seen as wholesalers because they are more involved in trading then in processing. This might also be the reason that the number of enterprises compared to 2008 has decreased to 95 enterprises. Therefore it is also remarkable that the number of employees (and also the employment per enterprise) has been increased compared to 2009. The average salary has decreased significantly compared to 2008, most likely this can be related to the economic and financial downturn, but also the increased number of FTE is contributing to this.

Figure 6.15.1: Size distribution of the Dutch fish processing industry

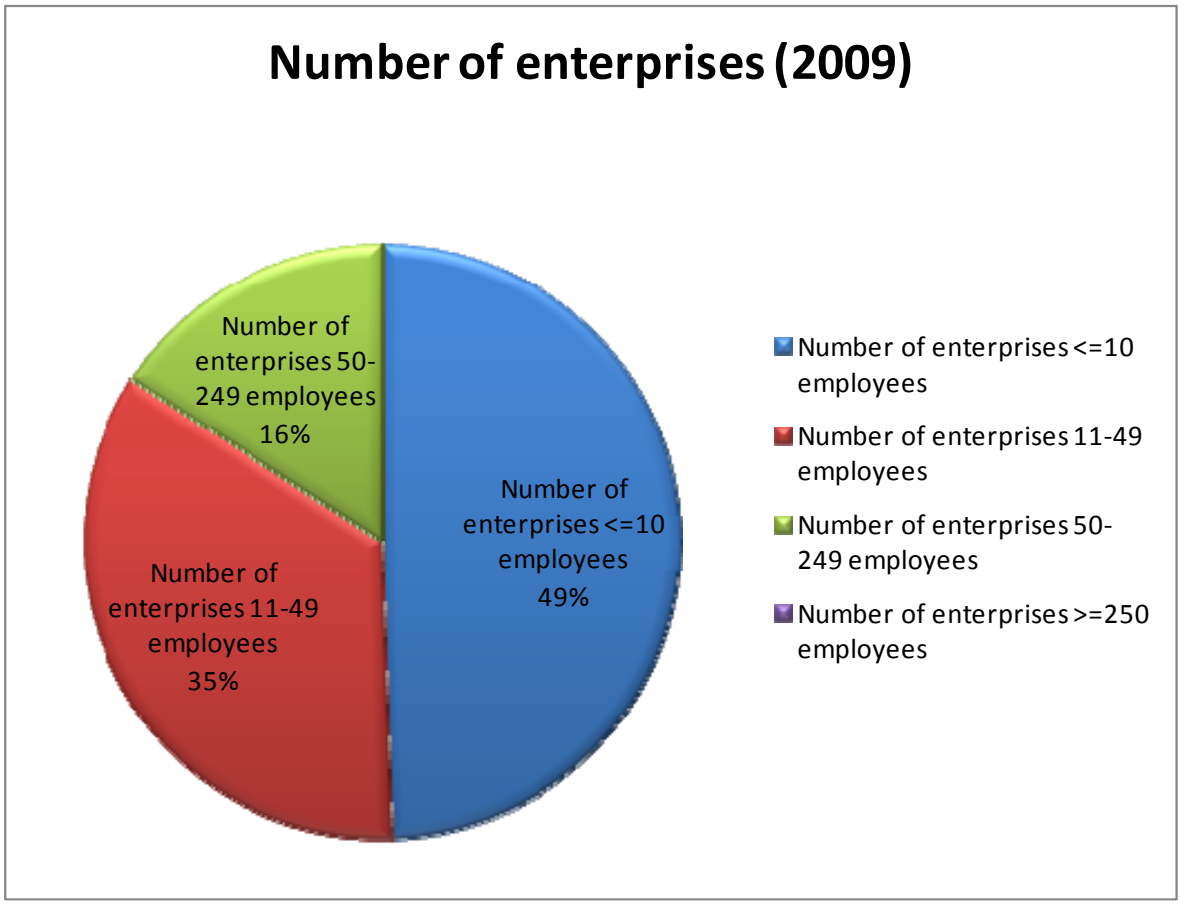
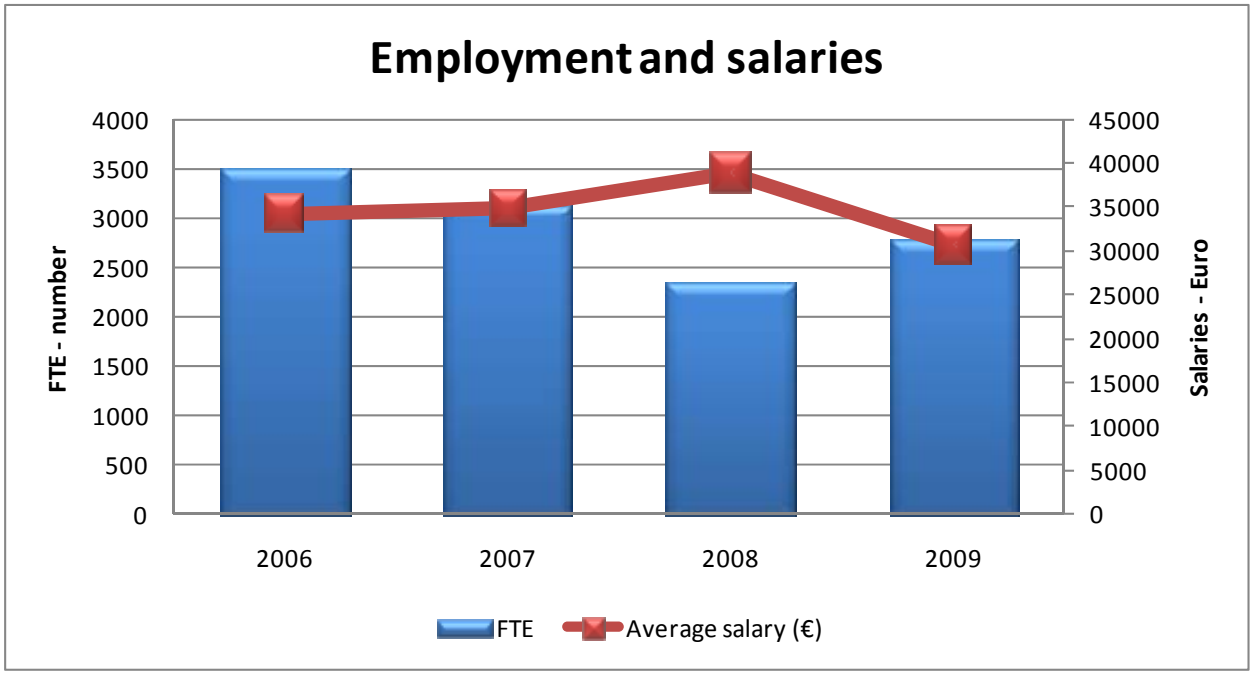


Table 6.15.1: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	112	124	101	95
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees				
Female employees				
Total employees	4151	3723	2953	3453
FTE	3501	3120	2335	2775
Average salary (€)	34268	34850	38927	30608
Employment per enterprise	31	25	23	29
% of unpaid work (%)			3	

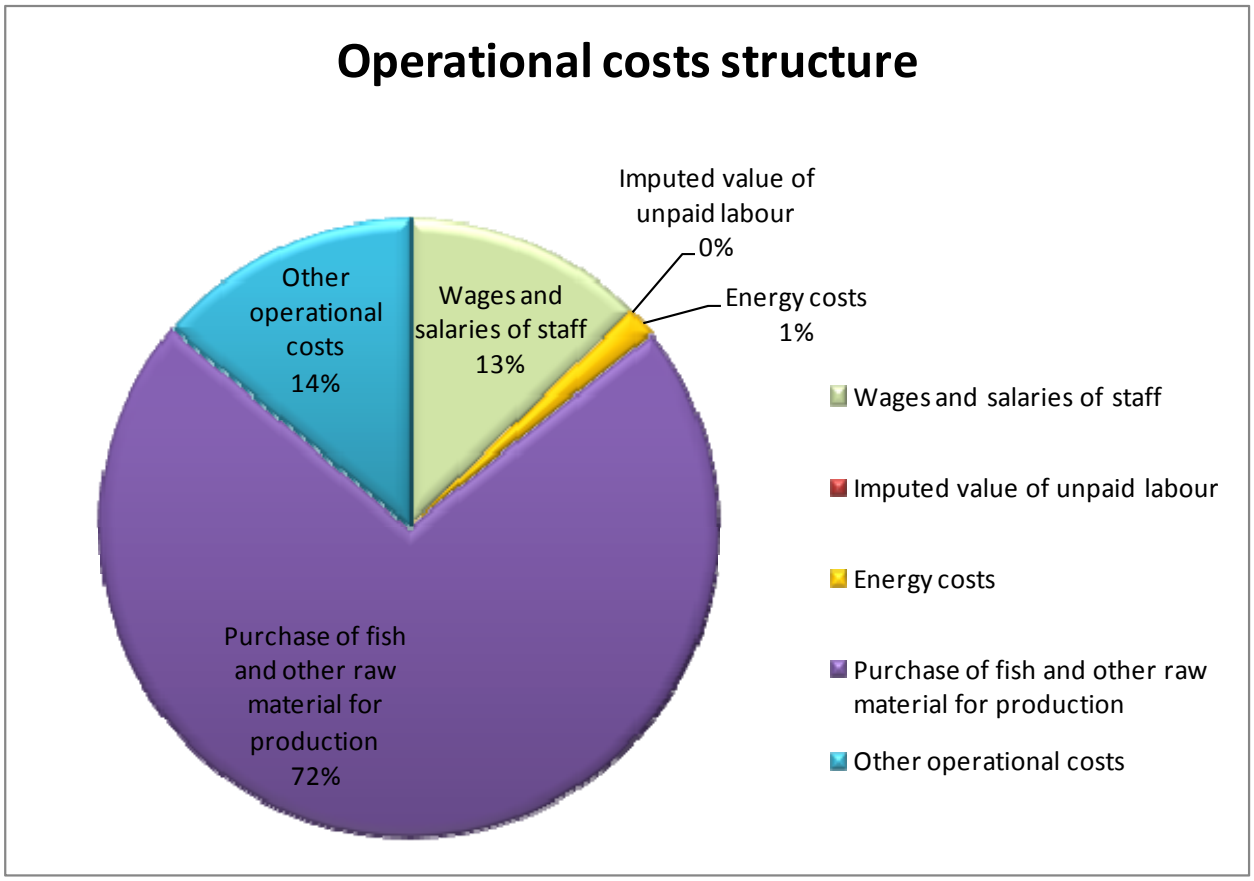
Figure 6.15.2: Employment and average salary



6.15.3 Economic performance

When taking into account the cost structure of the fish processing industry the cost of raw material account for almost 75% of the total cost. Wages and salaries for the staff has a share of almost 15% of the total production cost. Compared to 2008, the cost of raw material are about 25 million Euro's lower in 2009.

Figure 6.15.3: Distribution of the operating costs in the Dutch fish processing industry



Most of the economic performance indicators show a decrease compared to the previous years. Turnover, Gross Value Added (GVA) decreases. Net profit however was slightly improved compared to 2008. It seems that the fish processing industry did not face serious problems because of the economic and financial crisis in 2009. Return of Investment and the financial position of the enterprises also went backwards. Since GVA decreased and the number of employees increased, labour productivity decreased significantly. Running cost to turnover ratio and capital productivity remained relatively stable.

Table 6.15.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	799	757	712	689
Gross Value Added (million €)	160	163	139	123
Operating Cash Flow (million €)	55	57	50	38
EBIT (million €)	33	40	34	19
Net profit (million €)	27	31	25	27
Return on Investment (%)			3	2
Financial position (%)			70	66
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	45670	52200	59659	44269
Running cost to turnover ratio (%)	96	96	95	97
Capital productivity (%)			14	15
Future Industry Expectations (%)			-43	-23

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.15.4 Trends and triggers

The Dutch fish processing industry is becoming more depending on imported fish products. Developments in the fish processing industry are difficult to relate because of the fact the wholesalers are not taken into account. In 2009 the Dutch fish processing and wholesaling industry accounted for more than €3 billion with over 250 companies. As with the catching sector sustainability becomes an important issue for the fish processing industry. As large supermarkets are shifting towards sustainable caught fish products, the fish processing industry also face important changes. Sustainable sourcing becomes more relevant. Other interesting trends that might reflect the processing industry are the reform of the Common Fisheries Policy, and the fact that according to the processors, margins are under pressure.

6.15.5 Data issues

Most of the indicators for the Dutch fish processing industry have been collected from the Dutch Statistical Office, where most of the requested indicators are available. For some missing indicators data from the National Chamber of Commerce have been collected. This procedure was also conducted in previous years. As mentioned before, because fish processing and wholesaling are integrated it is difficult to find out which enterprises can be pointed out as processors. More enterprises might have become wholesalers because of the increasing availability of imported raw material. To improve the data quality and to find out which enterprises are considered as processors requires more qualitative research methods like face-to-face interviews.

6.16 Poland

6.16.1 Overview of the sector

In 2009 there were 260 fish processing companies involved in fish processing approved by the General Veterinary Inspectorate to intra-community trade according to Council Regulation (EC) no. 853/2004 and to direct sales in the internal market in accordance with the regulation of the Minister of Agriculture and Rural Development of December 29, 2006. 225 of them defined the primary production under the NACE Code 10.20. The remaining ones were involved in fish business, but as a secondary activity.

In 2009, the turnover of fish processing industry, defined as a main activity, amounted to 1.46 billion Euros. There was an increase of 1.3% compared to the previous year despite strong depreciation of the zloty against the Euro in 2009. In terms of the Polish zloty the turnover increased by 24% from 2008 to 2009.

The number of people employed in fish processing companies increased by 2.4% to 16 746.

In 2009 the volume of production of fish processing industry defined as a main activity decreased to 366.3 thousand tonnes (5%)[1]. The most important group of products were prepared and preserved fish with the share of 51% of the total production. The production of fish prepared and preserved decreased by 5% compared to the previous year. Processed or preserved herrings covered 53% of production in this group of products. The production of processed and preserved herring decreased by 8% compared to 2008.

The second largest group were smoked products with a 20% share in production volume. Also the production of smoked fish decreased by 3% compared to the previous year. In this group the largest share of 55% had smoked salmon whose production increased by 47%.

Other groups of products had a smaller share of production volume. Frozen filets covered 7% of the volume of total production, salted fish 5% and fresh filets 4%. Trends in their production

[1] Data regarding the fish processing production include economic entities employing 9 and more persons.

were different. Production of frozen filets increased by 8% while production of salted fish decreased by 6% and fresh filets by 50%.

In terms of value smoked products covered 40% of sold production, mainly smoked salmon with share of 32%. The second group were processed and preserved herring with the share of 17%. And the third group were fillets (fresh and frozen) with the share of 12%.

Imports played a dominant role in the supply of raw materials because of limited ability to harvest fish from the Baltic Sea and limited production of aquaculture. Polish deep-sea fishery sold their catches in foreign markets.

In 2009, Baltic catch amounted to 117 thousand tonnes and aquaculture production for consumption was about 35 thousand tonnes. The Baltic basic catch were sprat (65%), herring (17%), cod (8%), and flounder (8%). The main aquaculture species were carp (52%) which was generally sold alive and rainbow trout (40%) was raw material for the processing.

In 2009, Poland imported 419.8 thousand tonnes of fish and fish products, with the value of 852.9 million Euros. It was a decrease in both cases by 1.2%. More than 80% of imported fish and fish products were raw materials for fish processing. The most important species, in terms of volume, were herrings (89.3 thousand tonnes), salmon (88.6 thousand tonnes), Alaska Pollock (35.1 thousand tonnes), mackerels (33.7 thousand tonnes), pangasius (27.9 thousand tonnes) and cod (27.6 thousand tonnes). Poland most of fish imported from Norway (130 thousand tonnes), China (44 thousand tonnes), Denmark (37 thousand tonnes), Germany (34 thousand tonnes) and Vietnam (29 thousand tonnes).

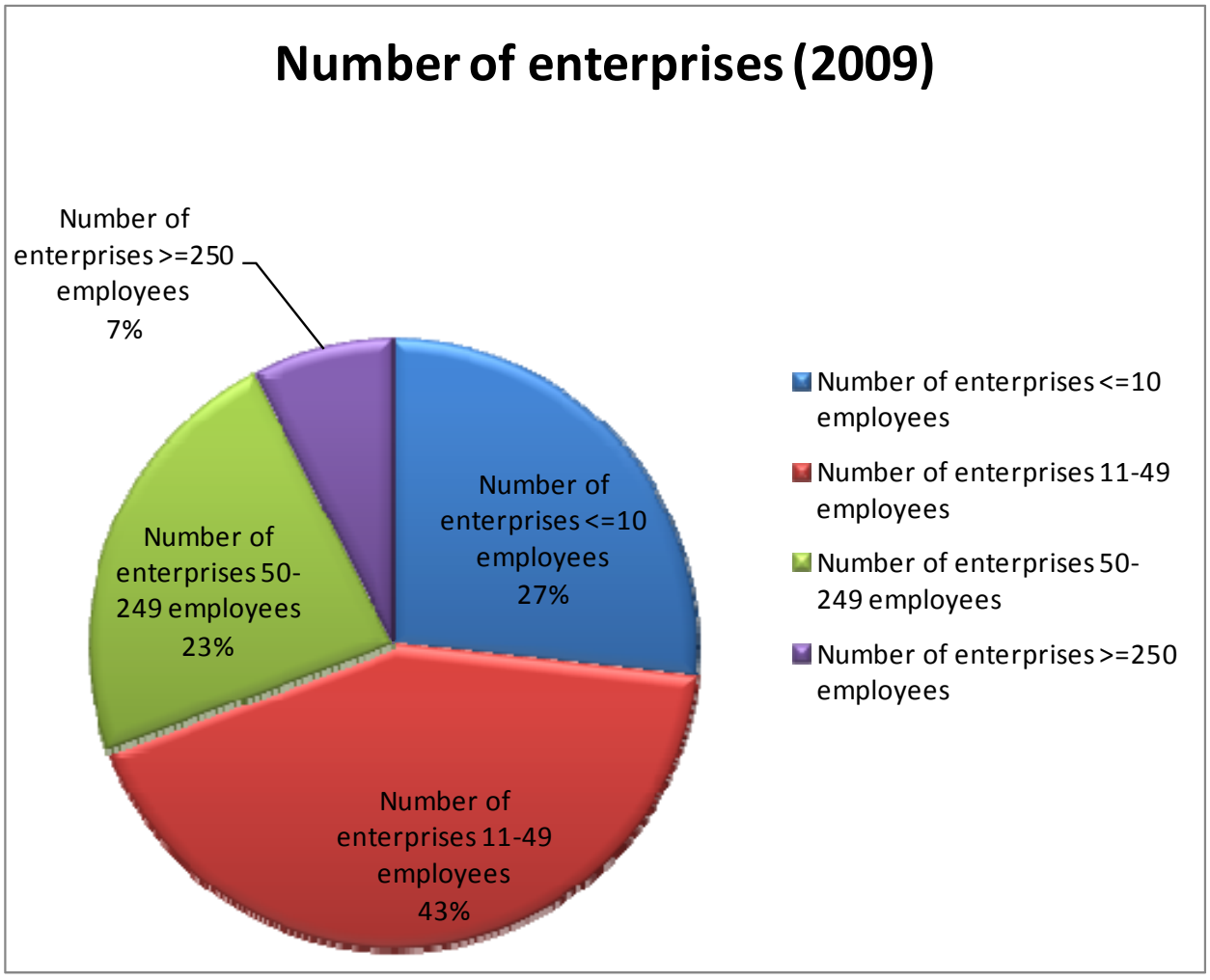
Most production was concentrated in 17 large fish processing companies with more than 250 employees. This part of the whole sector stood for 65% of the whole sector turnover, 60% of total fish processing production and 55% of the whole sectors' employment.

In 2009 companies which processed fish as a secondary activity attributed to fish processing €16.0 million turnover. This was a decrease by 35% compared with the previous year.

6.16.2 Socio-Economic aspects

The Polish fish processing industry is dominated by small and middle sized firms. In 2009 there were 156 firms with 49 and less employees. They have a 10% share in the turnover, 14% in the volume production and 11% in employment. 52 enterprises with 50-249 employees (25% of number) contributed 25% of the sector sales, 26% of volume production and 34% of employment. 17 large fish processing companies with more than 250 employees (7% of number) shared of 65% of the whole turnover, 60% of total fish processing production and 55% of the whole sectors' employment.

Figure 6.16.1: Size distribution of the Polish fish processing industry



About 60% of Polish fish processing industry is located in the coastal region in Pomorskie and Zachodniopomorskie voivodeships. In 2009 the companies operating in the coastal voivodeships constituted 69% of turnover in fish processing and 65% of total production. In these voivodeships 61% of workers is employed in the fish processing industry

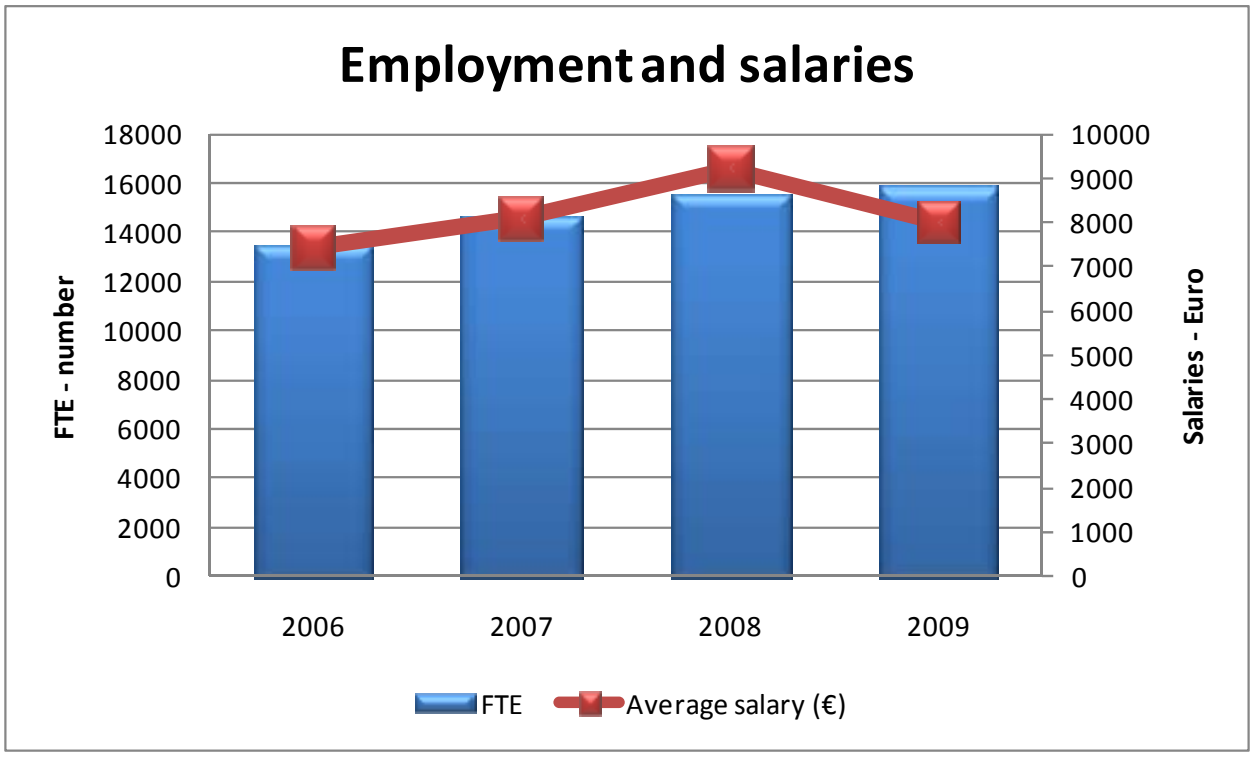
In 2009, despite the global crisis, fish processing industry in Poland had better results than the previous year. The number of fish processing plants under the NACE Code 10.20 increased to 225. The total number of employed increased by 2% and amounted to 16746 persons. As in previous years the majority of the employed (68%) were women. Most employees worked full-time and FTE amounted to 15 893 and increased by 2% compared to the previous year. The average employment (in FTE) per firm was 71 persons and increased by 1 FTE from the previous year.

The average salary per employee (in FTE) was almost 8 thousand Euros and this was a decrease of 13% over the previous year as a result of strong depreciation of the zloty against the Euro in 2009. In terms of the Polish zloty the average salary per FTE increased by 6% from 2008 to 2009.

Table 6.16.1: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	189	187	223	225
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			5291	5410
Female employees			11064	11336
Total employees	14715	15846	16355	16746
FTE	13469	14660	15577	15893
Average salary (€)	7424	8090	9222	7997
Employment per enterpris	71	78	70	71
% of unpaid work (%)				

Figure 6.16.2: Employment and average salary

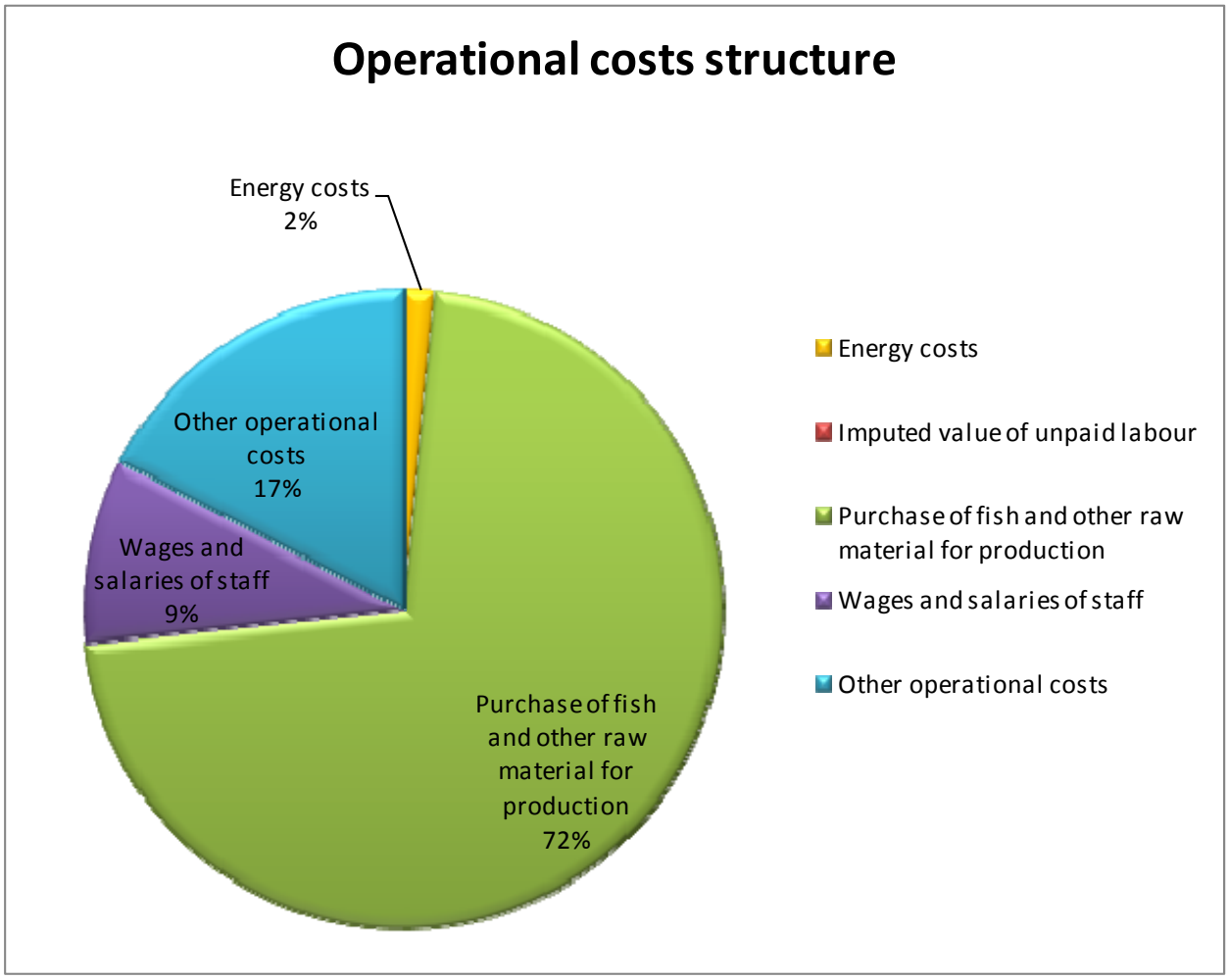


6.16.3 Economic performance

In 2009 the economic performance of fish processing industry in Poland has improved over the previous year. The turnover increased to €1.46 billion (1.3%) despite the depreciation of the zloty against the Euro in 2009. In terms of the Polish zloty the turnover increased by 24% compared to 2008.

Total production costs were equal to €1.36 billion, which means 93% of the turnover. The greatest amount of production costs (72%) was represented by the purchase of raw materials and other products needed for the production and resale in the same condition. The second was represented by other operational costs (17%). The third by labour costs (9%), and the last by energy costs (2%).

Figure 6.16.3: Distribution of the operating costs in the Polish fish processing industry



In 2009 economic performance indicators in the Polish fish processing industry have improved over the previous year. The contribution of fish processing to the national economy, measured by Gross Value Added (GVA) indicator, increased in 2009 by 2.0% and amounted to €235.5 million. The amount of cash a company generates from its operations, measured by Operating Cash Flow (OCF) indicator, increased by 23.7% and amounted to €115.0 million. Earnings before interest and taxes (EBIT) was equal to about €85 million, showing an increase by 37.7%. Net profit, the final net result of the sector, amounted to almost €65 million which represented an increase of 165.8% compared to 2008. Return on Investment (ROI) indicating the sector's ability to innovate and investments increase to 10%. The financial position indicator decreased to 65%, which shows a smaller share of borrowed capital in financing activities of the fish processing industry.

In 2009 the labour productivity of the sector (GVA/FTE) remained unchanged at €14.82 thousand per one FTE. The capital productivity of the sector (GVA/Total assets) has improved to 27% which means that GVA per unit of capital increased by 4% compared with the previous year. Turnover grew faster than the running cost, which was reflected in improved running cost to turnover ratio (with 95.0% a year ago to 93.0%). But the Future Industry Expectation ratio decreased to 1.6% compared to 5.8% in 2008.

Table 6.16.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	1087	1231	1441	1461
Gross Value Added (million €)	139	190	231	235
Operating Cash Flow (million €)	42	75	93	115
EBIT (million €)	21	51	62	85
Net profit (million €)	16	47	24	65
Return on Investment (%)	4	7	6	10
Financial position (%)			63	65
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	10328	12972	14820	14818
Running cost to turnover ratio (%)	97	95	95	93
Capital productivity (%)	23	27	23	27
Future Industry Expectations (%)	4	7	6	2

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.16.4 Trends and triggers

In 2009 as in previous years a key driver of fish processing sector development was growing export. The share of revenues from direct exports in turnover accounted for more than 50% of the value of products sold. For some product groups, such as smoked salmon, this share was even higher and amounted to 77%.

Exports of fish and fish products amounted to 328.8 thousand tonnes with a value of €840.5 million increased by 41.4% and 5.1% respectively. In terms of value the main exported products were dried fish, salted, smoked, mainly smoked salmon, which amounted to 31.5 thousand tonnes with a value of €292.1 million which means a decrease by respectively 1.3% and 4.1% compared to the previous year. In terms of volume the main exported products were prepared and preserved fish, mainly herrings, which amounted to 90.7 thousand tonnes with a value of €245.9 million which means a decrease respectively 0.2% and 1.7% compared to 2008. The main export market for Polish fish processing products was the EU market with 92% share in volume for prepared and preserved fish, 98% for smoked and salted fish and 79% for fillets (fresh and frozen). Most of prepared and preserved fish (56%), smoked fish (72%), fillets- fresh and frozen (19%) were sent to the German market.

In 2010 there was a further development of the fish processing industry in Poland. As in previous years, exports and investment will be the factor that accelerates the fish processing.

Investment were continued on the basis of financial support of the operational program "Sustainable development of fisheries sector and coastal fishing areas 2007-2013", in which 105 million are planned for subsidies for investment in fish processing. But sector's economic performance declined compared to previous years.

6.16.5 Data issues

Economic variables of processing industry are based on the information provided with questionnaires that included all economic parameters included in Appendix XII of Commission Decision 2008/949/EC. The study was census and questionnaire with economic variables was sent to all processing companies approved by the General Veterinary Inspectorate:

- to intra-community trade according to Council Regulation (EC) no. 853/2004 of April 29, 2004, which sets forth detailed requirements regarding hygiene in foodstuffs of animal origin, Appendix IIII Section VIII Fishery Products.

- to make direct sales in accordance with the regulation of the Minister of Agriculture and Rural Development of December 29, 2006 regarding veterinarian requirements during the production of products of animal origin for direct sale (Journal of Laws of 2007. No. 5, pos. 38).

Answering the questionnaire is mandatory but the response rate was 71% in 2008 and 70% in 2009.

Collected data are subject to statistical confidentiality, which means that they can only be used for compilations and statistical analysis, without the possibility of sharing individual and personal data.

In Poland, some fish processing plants in addition to running the production also are involved in trade in raw materials and finished products. This means that some companies buys raw material for resale without processing or buys for example canned fish for resale. In 2009, the share of value of goods and materials resold in total turnover increased to 15.7%.

Differences between Eurostat data and data collected in the DCF probably arise from the fact that DCF collects data from whole population but Eurostat includes economic entities keeping accounting ledgers employing more than 9 person.

The differences in the number of fish processing plants due to the fact that Eurostat gives the number of registered companies under the NACE Code 10.20, and the DCF includes the number of active establishments approved by the General Veterinary Inspectorate.

6.17 Portugal

6.17.1 Overview of the sector

In 2009, Fish Processing Industry in Portugal consisted on 191 enterprises, 93 of which were small enterprises with less than 11 employees. Most enterprises are located in the north (91) and centre (60) of the country. These enterprises employed 6613 persons and production amounted to 203 thousand tonnes, and a total turnover of €993 million.

There are three main segments in Fish Processing in Portugal, frozen industry, cannery and preparation, salting and drying, each with their own specificity.

Frozen industry produced 109 470[1] tonnes in 2009. The main products of this segments are frozen cod, frozen sardine and frozen hake.

Salting and drying produced 53 thousand tonnes in 2009. The main product of this industry is salted dried cod. This industry is most concentrated near one port (Aveiro) and the final product is mainly for consumption in the national market.

Cannery and preparation produced 40.5 thousand tonnes in 2009. Main products include preparations and cannery of sardine, horse mackerel and tuna. This industry is concentrated near major ports, Matosinhos (North), Peniche (Center) and Algarve (South). One of the reasons for is the high dependency of the industry on the national production, namely small pelagics such as sardine and horse-mackerel.

6.17.2 Socio-Economic aspects

The majority of the Portuguese fish processing enterprises are small companies with less than 11 employees. By contrast, only 2% of the enterprises have more than 250 employees.

There was a reduction of 20 enterprises between 2008 and 2009, yet the number of employees has remained largely the same (-50 employees in 2009, corresponding to a difference of about -1%) and the average wage increased by 2.5%.

[1] Source of data on production is the publication “Fisheries Statistics 2010”, a joint publication of NSI and DGPA

Figure 6.17.1: Size distribution of the Portuguese fish processing industry

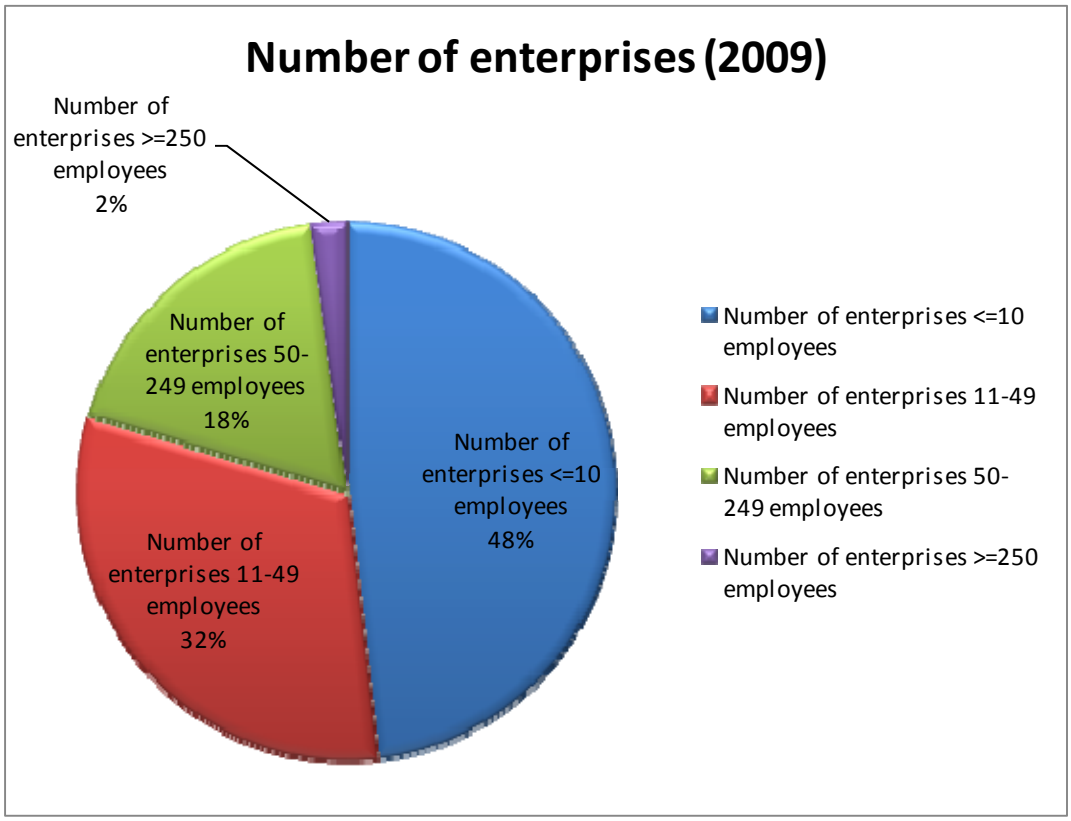
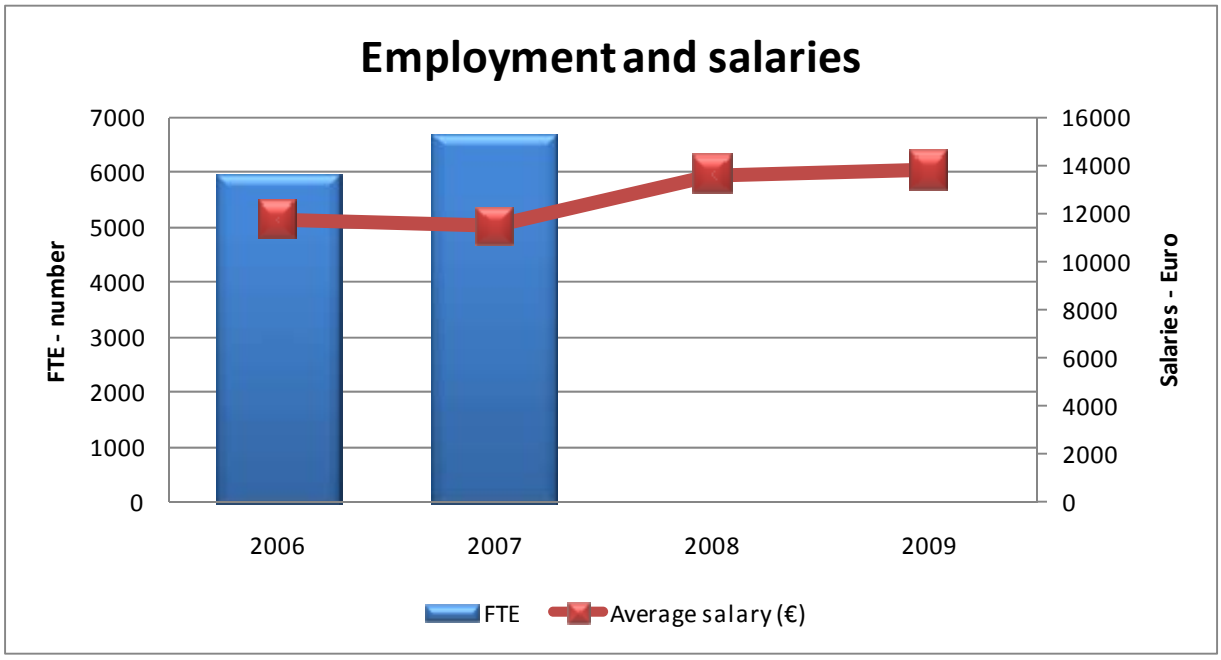


Table 6.17.1: Socio-economic performance indicators

Structural Indicators	**2006**	**2007**	**2008**	**2009**
Number of enterprises	141	147	211	191
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees				
Female employees				
Total employees	5942	6663	6668	6613
FTE	5942	6663		
Average salary (€)	11724	11453	13587	13782
Employment per enterprise	42	45	0	0
% of unpaid work (%)				

Figure 6.17.2: Employment and average salary



6.17.3 Economic performance

In 2009, total turnover was €993 million, a decrease of 9% compared to 2008. Frozen industry produced 109 470 tonnes[2] in 2009, an increase of 10% over the previous year, while the sales amount to 86.8 thousand tonnes, with a value of €305 million. From 2008 to 2009 there was an increase of 10% on sales but the value of sales remained at 2008 levels, which translates to a decrease in the average price per kilo, from 3.87 €/kg to 3.51 €/kg.

Salting and drying produced 53 thousand tonnes in 2009, an increase of 11% over the previous year, while sales amount to 38.9 thousand tonnes, with a value of €214 million. The main product of this industry is salted dried cod. The average price per kilo decreased from 7.13 €/kg to 5.51 €/kg.

Cannery and preparation produced 40.5 thousand tonnes, a decrease of 9% over the previous year, while sales amount to 37.6 thousand tonnes, with a value of €166.5 million. Wheras the

[2] Source of data on production and sales is the publication "Fisheries Statistics 2010", a joint publication of NSI and DGPA

value of sales decreased by 13% over the previous year, there was an increase of 13% in the average price per kilo, from 3.88 €/kg to 4.43 €/kg.

Data on the purchase of raw materials and on energy cost is not yet available for 2009. Purchase of raw materials represented, in 2008, the largest share of the cost structure, with 86% of total costs. Labour costs are, historically, the second main cost item. In 2008 this costs amount to 9.7% of the total cost.

Figure 6.17.3: Distribution of the operating costs in the 2009 fish processing industry

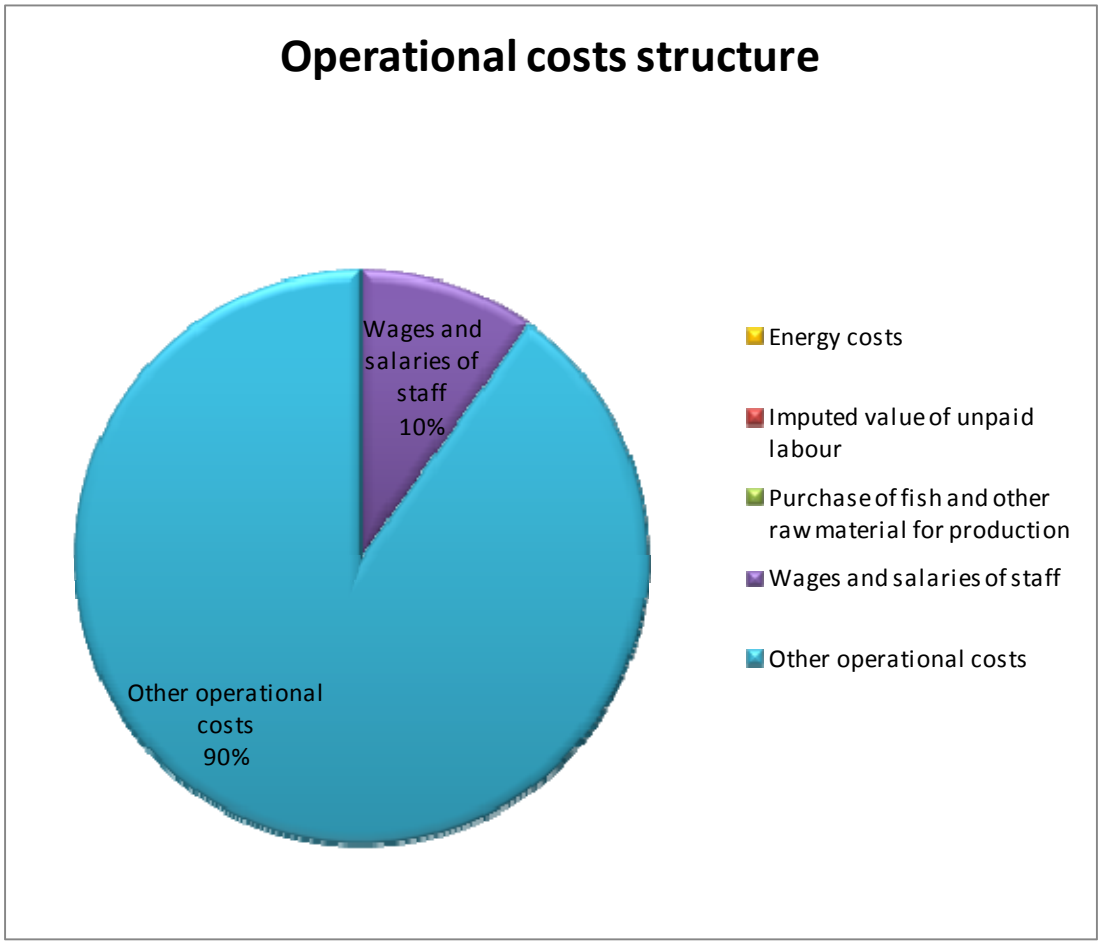


Table 6.17.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	1309	1338	1093	993
Gross Value Added (million €)	156	151	-429	196
Operating Cash Flow (million €)	87	75	-517	108
EBIT (million €)				
Net profit (million €)	55	43		
Return on Investment (%)				
Financial position (%)			65	64
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	26337	22702	-64325	29680
Running cost to turnover ratio (%)	95	96	151	93
Capital productivity (%)	33	32	-41	20
Future Industry Expectations (%)			4	5

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations ((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.17.4 Trends and triggers

The Portuguese fish processing industry still has an enormous dependency on imports, a dependency which will continue in the near future. Only cannery still depends more on domestic production (for sardine and mackerel), while salting and drying sector depends almost exclusively from imports. In 2007 91% of raw material used by salting and drying sector has their origin on imports.

6.17.5 Data issues

Data for years 2006 and 2007 was collected under DCR. Data for 2008 and 2009 is from the Portuguese National Statistics Institute (NSI), under Structural Business Statistics (SBS) and Supply and Use Tables (SUT). Due to the nature of the collected data and the different sources used it's not possible to compare the 2006-2007 data with the 2008-2009 data.
Data for 2009 is not complete. Some variables. Like the purchase of fish are not available at the time of the report and therefore is not possible to make a complete analysis for this year.

6.18 Romania

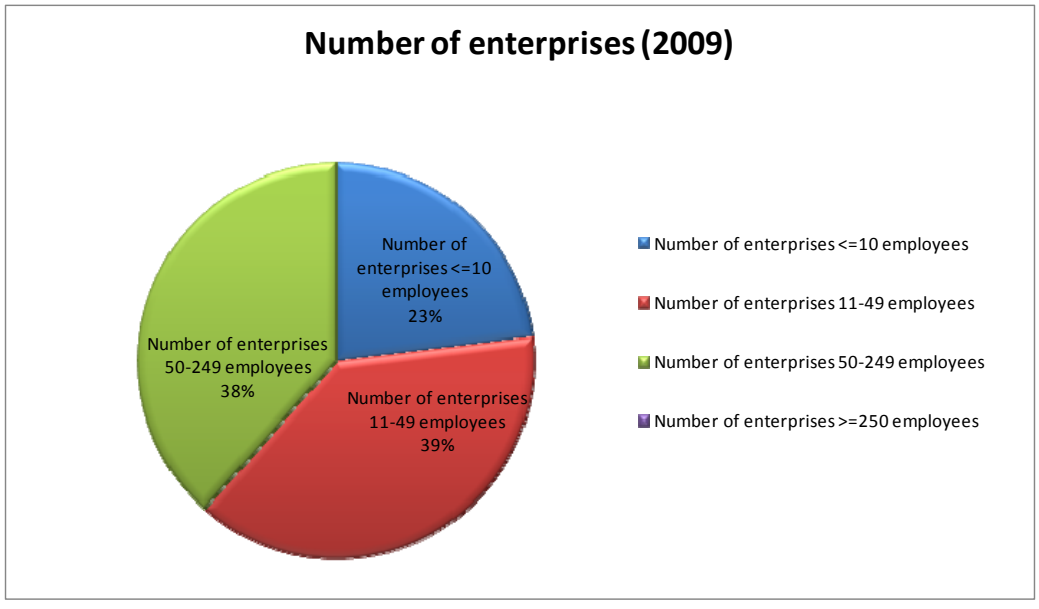
6.18.1 Overview of the sector

The National Program for Data Collection was implemented in Romania in 2008. The dimension of the sector is big as per the number of productive units – 13 private companies. The employment number was 572 in 2009; an increase of employees versus 2008 by 61 persons – 12%. As FTE, this value was 564 in 2009, of which 340 were female and 224 male. The value of the sector reached €31,939 million in 2009 showing an increase of 12% compared to 2008 – €28,426 million in terms of turnover.

The processing production is based on domestic supply from aquaculture and fresh water fishing (as species: carp, including Asian carp species, catfish) and imported marine fish species (such as salmon, seabream, cod). The imported species mainly originate from Norway, UK, Greece and some quantities from SE Asia. The structure of products could be described as being based on precooked fish, marinate and smoked fish as main products and salads: fish and eggs-fish.

The companies are the same (13 for each analysed year) with the same percentage of capacity, considering the number of employees – Fig. 6.18.1 located near the country's main cities.

Figure 6.18.1: Size distribution of the 2009 fish processing industry



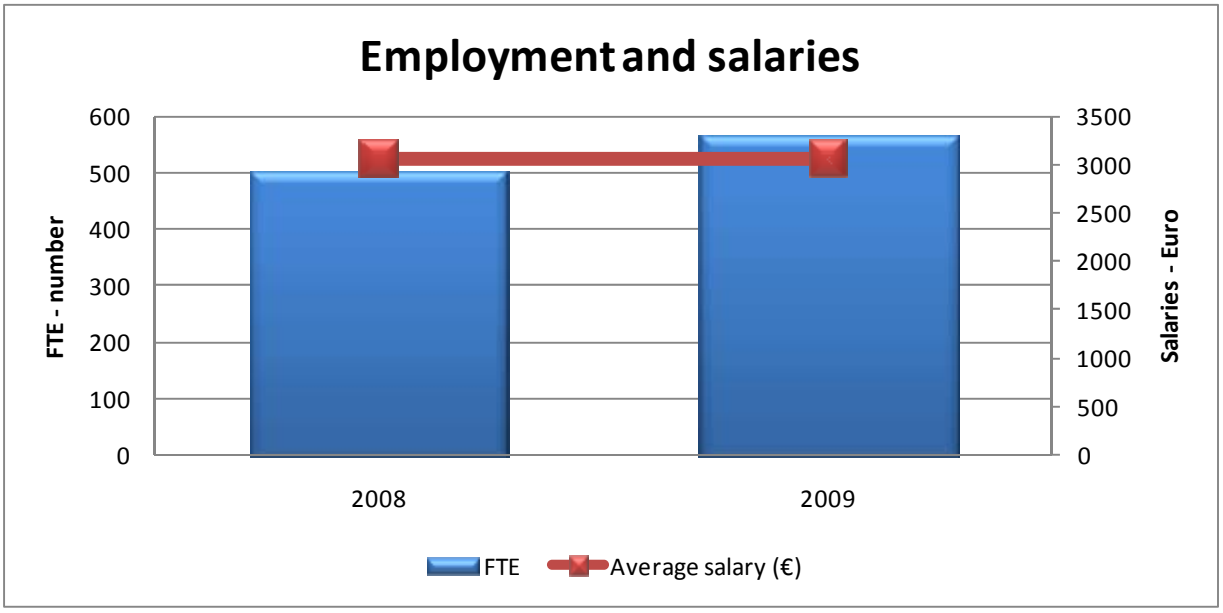
6.18.2 Socio-Economic aspects

The Romanian processing sector is not a large one in the national economy as a whole. As illustrated in. Table 6.18.1 a slight increase of in employment was observed from 2008 to 2009, but no increase in the mean wage, which is similar for both years. This is owed to the domestic demand market caused by the effects of the economic crisis. Both indicators “mean wages” and “salaries” are not at a level to encourage the workers to the sector, being under the mean wage of the national economy.

Table 6.18.1: Socio-economic performance indicators

Structural Indicators	2008	2009
Number of enterprises	13	13
Social Indicators	**2008**	**2009**
Male employees	206	230
Female employees	307	342
Total employees	513	572
FTE	503	564
Average salary (€)	3055	3059
Employment per enterprise	39	43
% of unpaid work (%)	24	24

Figure 6.18.2: Employment and average salary



6.18.3 Economic performance

The low level of the domestic market influences the level size of the sector (Table 6.18.3), with turnover not exceeding €32 thousand in 2009, despite the 12% increase versus 2008. Despite the satisfactory evolution of other indicators such as gross value added, operating cash flow, EBIT and net

profit the economic situation of the sector could be considered satisfactory, not decreasing from 2008 to 2009.

The social indicator of labour productivity shows a small increase from 2008 to 2009, meantime running cost to turnover being the same and a small decrease of capital productivity –these indicators demonstrate a stagnation of the sector due to the economic crisis, as financial position decreased slightly from 85% in 2008 to 84% in 2009.

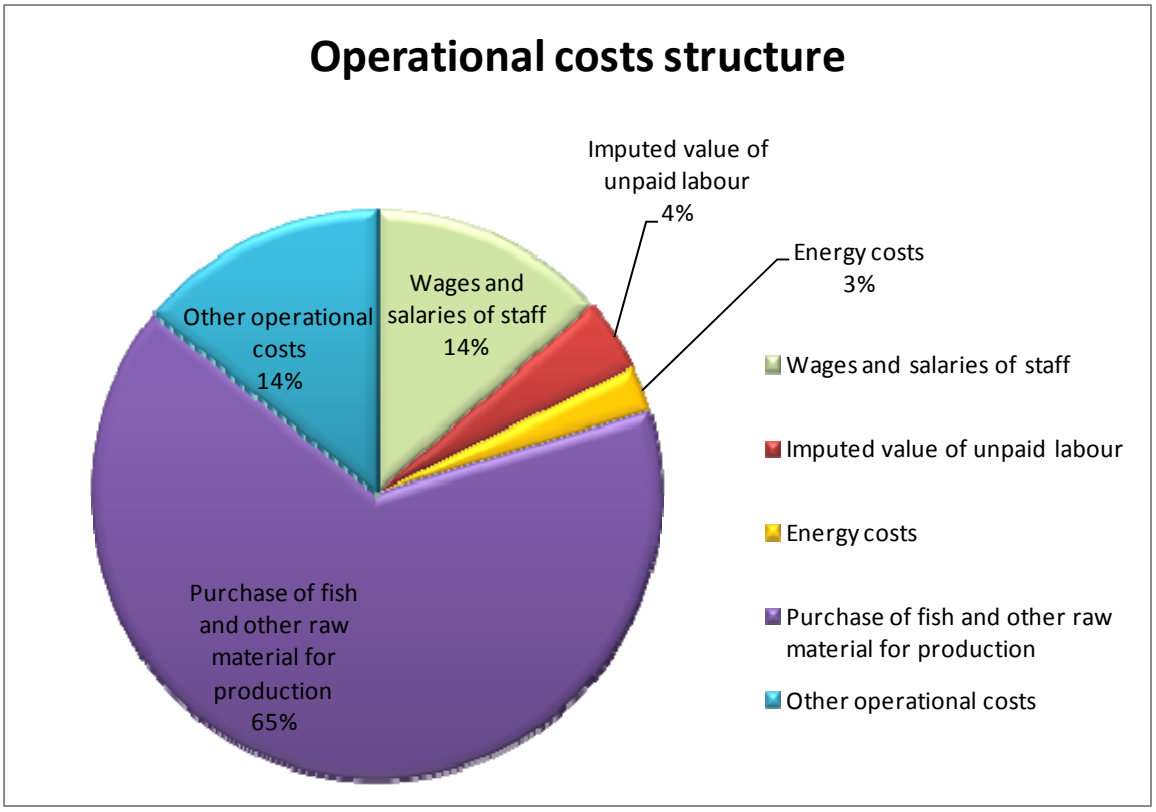
Table 6.18.2: Economic performance and productivity indicators

Economic Performance Indicators	2008	2009
Turnover (million €)	28	32
Gross Value Added (million €)	22	24
Operating Cash Flow (million €)	20	23
EBIT (million €)	20	22
Net profit (million €)	13	15
Return on Investment (%)	118	116
Financial position (%)	85	84
Productivity Indicators	**2008**	**2009**
Labour productivity (€/FTE)	42946	43063
Running cost to turnover ratio (%)	30	30
Capital productivity (%)	130	128
Future Industry Expectations (%)	-3	14

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

The processing industry in Romania for the two analysed years illustrates a relative stability. Analysing the cost structure and its distribution, as per Figure 6.18.4, a very relevant observation is done considering the percentage of purchase of fish and raw material for production and other operational costs – 79%, namely the incipient development of the production concentration financial efforts. The low level of the salaries in the sector, compared to the national average illustrates the concentration of the owners to the exclusive profit.

Figure 6.18.3: Distribution of the operating costs in the 2009 fish processing industry



6.18.4 Trends and triggers

The evolution of the sector is quite poor from the period of two years analysed. The relative stability is owed to the low level of the salaries. The production sector is not able to furnish the market with products, both in quantity and assortments, to cover consumer preferences. The diversification of the production is still a challenge for the sector. As an example the canned products are imported in large quantities when compared to the domestic production.

6.18.5 Data issues

Data submitted by Romania under DCF for the processing sector could be improved in the next years by offering more details and improved level coverage for all data asked under regulation and DCF provisions. The segmentation of enterprises numbers correspond to DCF. As a general recommendation Romania should improve the number data sources in order to improve the possibility of comparative appreciation and analyses, especially for the differences between processing and trade and to ensure the validation with Eurostat data

6.19 Slovenia

6.19.1 Overview of the sector

- In 2009 there were 13 companies in the Slovenian fish processing sector. Between 2007 and 2009 the number of companies increased by 18%. In 2009 Slovenia had 9 companies with less then 10 employees, 3 companies with 11-49 employees and one company with 50-249 employees.

- In 2009 the turnover was €26122901. Between 2007 and 2009 the turnover of Slovenian fish processing industry decreased by 10 %.

- The value of raw material decreased by 5 % from 2008 to 2009 and it amounted €15585749 in 2009.

- In the Slovenian fish processing sector there were 223 employees in 2009. With respect to the gender of those in employment, women predominated with 130 employees. According to the FTE there were 210 FTE employees in 2009. Among them 123 were women and 87 men.

Slovenian fish processing industry mainly depends on imports of raw materials. The raw material for fish processing industry is traded from all over the world, but most of the raw material comes from the EU. Only a few companies depend on local landings of sardines and anchovy.

In 2009 Slovenia imported 15751 tonnes of fish and fish products, while the Slovenian volume of landings for this year amounted 865 tonnes. In the same year Slovenian aquaculture sector produced 1307 tonnes of fish and shellfish.

The main products in Slovenian fish processing industry are various canned fish, tuna pate, squid – fresh or frozen, dried cod spread, Alaska Pollock and hake filet. Turnover from the canned fish and tuna pate represented around 65% of all turnover from Slovenian fish processing sector.

Most Slovenian fish processing companies are located on the Slovenian coast, including the largest Slovenian company which employs 52% of all persons employed in processing industry and represents around 45% of all income. All companies which are located on the Slovenian coast represent 72% of all income of Slovenian fish processing industry.

6.19.2 Socio-Economic aspects

The total number of fish processing enterprises in Slovenia was 13 in 2009. The vast majority of them had ten or fewer employees. Three enterprises had 11 to 49 employees and only one enterprise had more then 50 employees. In Slovenia there is no large fish processing company with more than 250 employees. Slovenia has a few processing companies that are entirely committed to fishery products. Most companies do have different types of processing activities, of which fish may be one, but not necessairly the most important one.

In terms of full time employment, the smallest segment only employs 15% of the total numbers of full time employees. The segment between 10 and 49 employs 30%, whereas the segment between 50 and 249 employs 55% of the total numbers of full time employees in the Slovenian fish processing industry.

Figure 6.19.1: Size distribution of the Slovenian fish processing industry

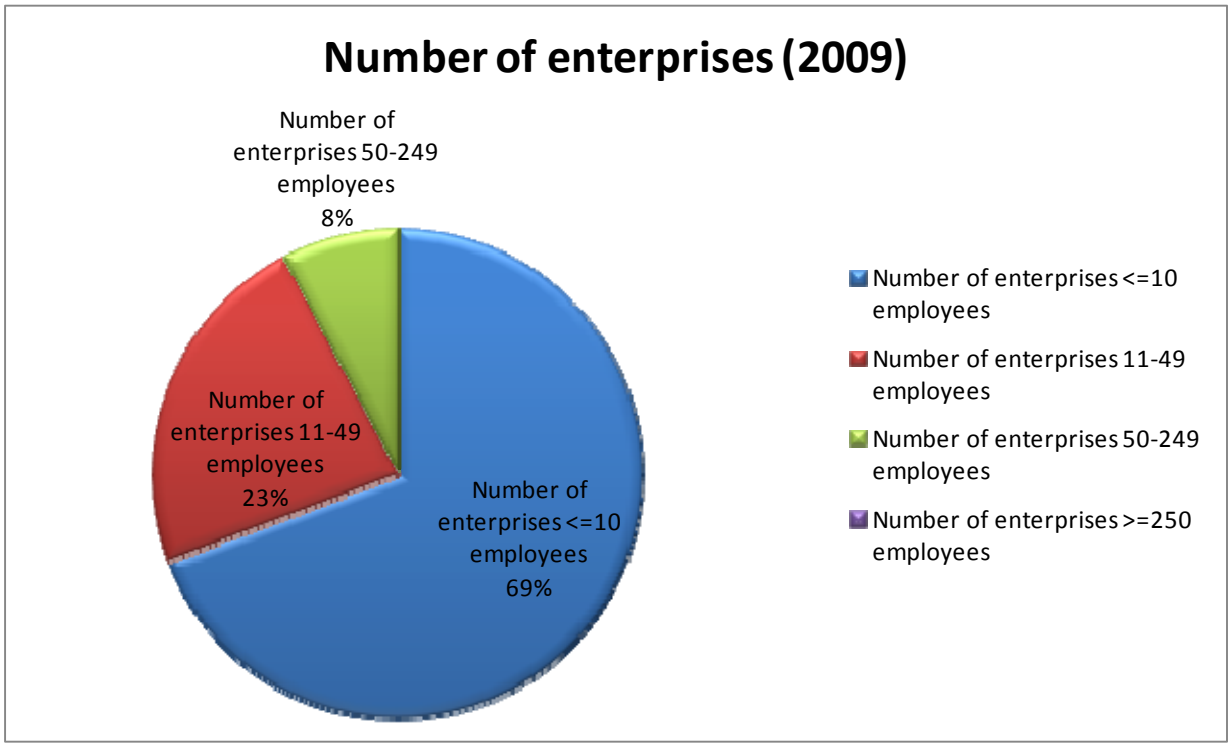


Table 6.19.1: Socio-economic performance indicators

Structural Indicators	**2007**	**2008**	**2009**
Number of enterprises	11	12	13
Social Indicators	**2007**	**2008**	**2009**
Male employees		105	93
Female employees		145	130
Total employees	241	250	223
FTE	213	211	210
Average salary (€)	18074	20523	20756
Employment per enterprise	19	18	16
% of unpaid work (%)			

Total employment was 223 jobs and 210 FTEs in the Slovenian fish processing sector in 2009, see Table 6.19.1. The level of employment in the Slovenian fish processing sector has decreased between 2007 and 2009. The total number employed decreased by 7,5% between 2007 and 2009

while the number of FTEs decreased by 1,4%. Among all employees, 42% are male and 58% female.

Mean wage per employee in the Slovenian fishing processing industry amounted to €20756 in 2009 and was 21% higher than the average wage in Slovenia in the same year, which was €17076. Mean wage in fish processing sector increased by 15% from 2007 to 2009. Higher average wage is mainly due to the increase of the minimum wage in Slovenia in 2009.

Figure 6.19.2: Employment and average salary

6.19.3 Economic performance

The cost of raw material (fish) is the most important input in the processing industry, and covers 73% of the total running cost. Wages and salaries of staff is the second most important cost item covering 20% of the total running cost. Energy costs and Other operational costs cover 4% and 3%, respectively.

Figure 6.19.3: Distribution of the operating costs in the Slovenian fish processing industry

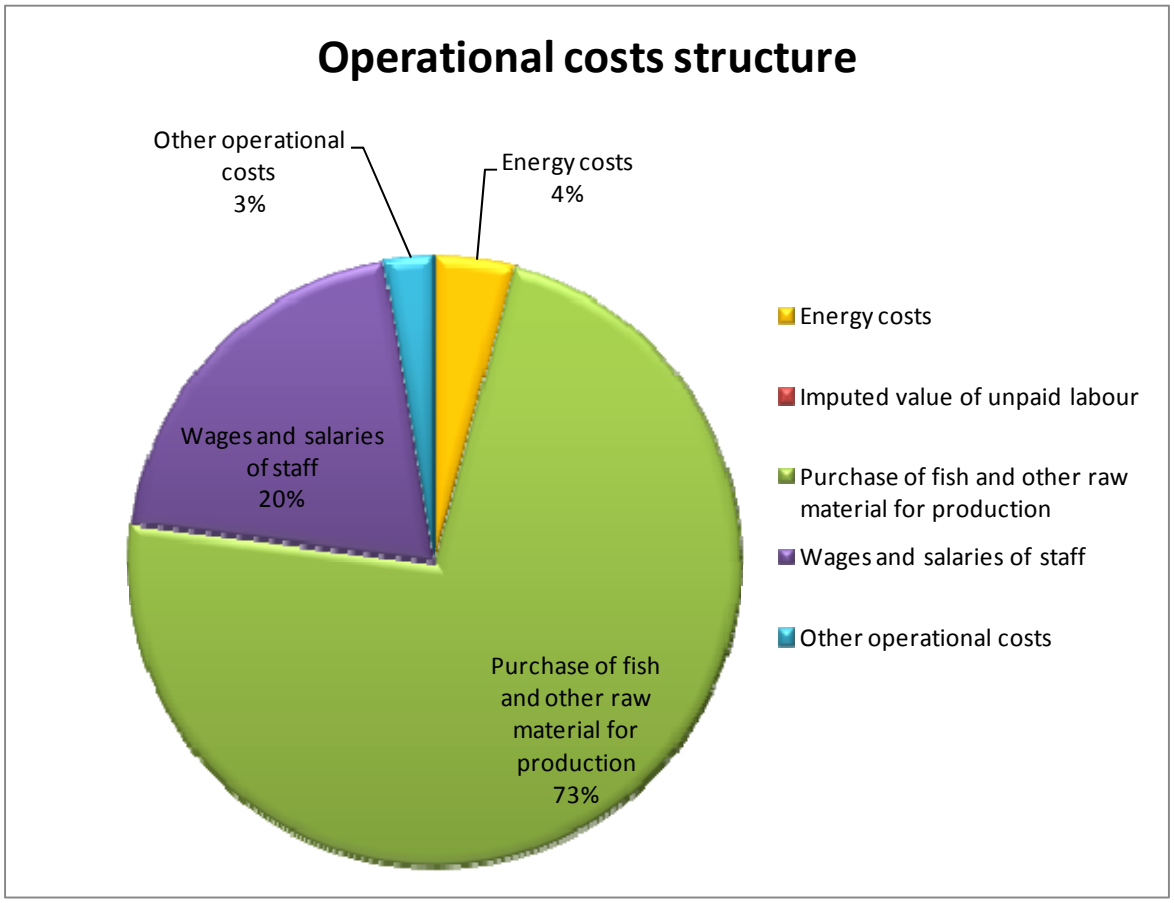


Table 6.19.2: Economic performance and productivity indicators

Economic Performance Indicators	2007	2008	2009
Turnover (million €)	26	29	26
Gross Value Added (million €)	9	11	9
Operating Cash Flow (million €)	6	7	5
EBIT (million €)	5	6	3
Net profit (million €)	5	4	3
Return on Investment (%)	146	11	12
Financial position (%)		78	46
Productivity Indicators	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	40306	52860	43144
Running cost to turnover ratio (%)	77	75	82
Capital productivity (%)	248	21	32
Future Industry Expectations (%)	73	-1	-3

The total amount of income generated by the Slovenian fish processing industry, in 2009, was €203 million. This consisted of €26 million in turnover and €176 million in other income.

Slovenia has just a few processing companies that are entirely committed to fishery products. Most companies do have different types of processing activities, of which fish may be one, but not necessarily the most important one. That is the reason for very large share of other income in total income – 87%.

In the period between 2008 and 2009 the turnover decreased by 10,34%. Profit also decreased by 25% in the same period. Reasons for the decreasing trend of turnover and profit are mainly due to the global economic crisis and, consequently, lower purchasing power of consumers.

GVA and OCF decreased by 18% and 29% between 2008 and 2009. We also recorded a decrease of EBIT by 50% in the same period.

GVA per employee was €40629 (€43144 per FTE employee) in 2009, which is above the Slovenian GVA per employee average of the same year – €33137.

The Slovenian fish processing industry had an estimated value of assets of €53 million and a return on investment of 12%.

6.19.4 Trends and triggers

Slovenia consumes around 9 kg of fish per year per capita, which is well below the European average of 22,3 kg. However, fish consumption per capita in Slovenia is growing due to increasing awareness of healthy lifestyles. So in the future we can expect further development of the fisheries processing industry in Slovenia and therefore higher revenues from this sector. Because of the increased number of enterprises in the future and resulting increased competition we can expect a fall in prices of fish products and thus lower profits.

Slovenian fisheries sector is affected by the small size of our sea fishing area, significant characteristic of Slovenian fleet is also age. Average age was calculated at approximately 34,2 years in 2009. Hence, and because of increase in markets, the Slovenian fish processing industry will be even more dependent on imports of fish raw material.

6.19.5 Data issues

According to the data from Veterinary Administration of the Republic of Slovenia (VURS) fourteen companies are authorised for processing of marine fish and other marine organisms in Slovenia. From this list were excluded two companies which do not process maritime organisms.

Target populations in Slovenia for collecting economic data are all companies who have a license for the processing of maritime organisms and the processing involved in practice. The number of such enterprises in Slovenia in 2009 was thirteen. In June 2010 the questionnaires were sent to all enterprises.

In cases where a questionnaire, as the only source, was used the response rate was 70%. In cases where the data from annual accounts of business enterprises was used the response rate was 100%, because we have economic reports for all investigated companies.

Economic data on the fish processing industry are collected from accounting records – AJPES (Agency of the Republic of Slovenia for Public Legal Records and Related Services) and through questionnaires that are sent to all processing companies in Slovenia.

Slovenia has a few processing companies that are entirely committed to fishery products. Most companies do have different types of processing activities, of which fish may be one, but not necessairly the most important one. This was taken into account when we putting together the questionnaires and in the subsequent analysis of the data provided. Because of the large differences between turnover and total income, only turnover was used in calculating the indicators (GVA, OCF).

The national programme for collection of economic data for the processing industry combines information from three main resources:

- Questionnaire information returned from processing companies on a voluntary basis,
- The Central Statistical Office of Slovenia,
- The annual accounts of business enterprises.

The data collected from all sources are combined in such a way that a complete set of accounting items is compared for each business enterprise.

The economic variables were collected on the basis of Council Regulation (EC) No 199/2008 and the Appendix XII to the Commission Decision (EC) 949/2008. Slovenia has uploaded the complete set of requested data to the JRC server before the deadline.

Slovenia reported data also from companies with fish processing not as main activity to avoid confidentiality issues. In this case there is a high proportion of other income.

There are differences between the DCF data and Eurostat data. Difference occurred because of better data coverage in the DCF data.

6.20 Spain

6.20.1 Overview of the sector

The number of firms in the Spanish processing sector rose slightly, from 572 in 2008 to 585 in 2009 with a turnover of €4,112 M. The value of raw materials fell to €2,283M, a year on year drop of over 6%. Production volume dropped to a total of 877,848 tonnes, representing a near 2% decrease. Total employment in the sector fell by over 600 to 19331 employees (>2%). No data is available for male and female participation in the workforce. Full time employment fell by over 400, which represents a decrease of over 3% from 2008.

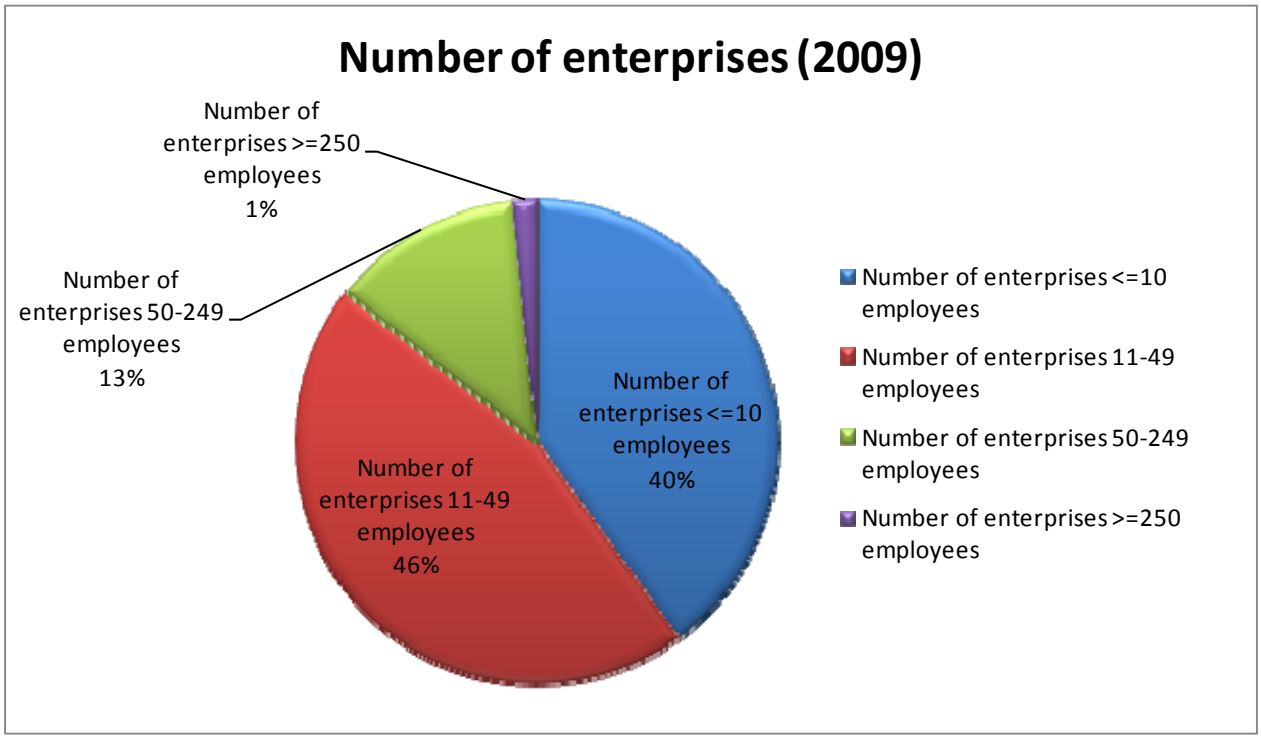
6.20.2 Socio-Economic aspects

Nature of the industry: concentration

The number of firms in the Spanish processing sector rose slightly, from 572 in 2008 to 585 in 2009. This recuperation still leaves the sector below the levels reached in 2006 and 2007. Within the industry there have been varying changes depending on the category. The category of firm employing 10 workers or less has seen a slight decrease of just over 2%, while the number of firm employing between 11 and 49 has experienced an increase of over 8%. The category employing between 50 and 249 workers remains unchanged from 2008 and finally those employing over 250 have seen a near 20% decrease in number of firms.

There have been some slight changes to the structure of the industry this year with the major segments represented by firms of 10 employees or less and those employing less than 50 forming 85.6% of all firms, up from 84.9% in 2008. Two major fish processing firms had left the industry in 2009, these representing nearly 20% of the firms employing more than 250 people. No further data has been supplied in relation to these segments of the industry therefore their shares of total production are unknown.

Figure 6.20.1: Size distribution of the Spanish fish processing industry



Main products and main segments

Tuna, squid, cuttlefish, lobster and prawns, sardines and cod are the main raw materials of the Spanish processing sector. Data on the Spanish processing sector is published in the annual industrial production survey (INE, 2010) under NACE Rev 2 categories. The sector labeled as "Manufacture and Preservation of Fish and Products Based on Fish" consists of five main categories; Prepared or preserved (except in prepared dishes); Frozen fish; Molluscs and other frozen aquatic invertebrates (including dried or in brine); Molluscs and other aquatic invertebrates, preserved or prepared; and finally Frozen crustaceans (including cooked but not peeled). The largest category, Prepared or preserved, saw a 12% decrease in size in 2009, representing 43% of the sector in 2008 and 39% in 2009. The second largest sector, Frozen fish, saw a 20% increase in its size, reaching 18% of the processing sector in 2009, a 4% increase on the year before. Overall, the sector decreased production in 2009 by over 2%, from 892,375[1] tonnes to 872,822 tonnes in 2009. Likewise, the value of the sector fell by over 2% in the year

[1] This figure for total production in 2008 is different to that used in the 2010 report.

from €3,568 M to €3,482 M. The main product categories by single species are canned tuna (230,572 tonnes), squid (44,735), dried cuttlefish and squid (44,537) and lobster and prawns (46,566).

Dependency on domestic production

For some products from this sector the raw material employed comes in its majority from national resources. For example, the products preserved mussels and preserved sardines are mainly sourced from the national extractive sector, (MARM, 2010). For other products like smoked salmon or surimi, that have traditionally depended on imported raw material. However, over the years, the combination of decreasing landings and a growing processing sector have resulted in increased importation of raw materials.

The demand for fish and seafood in Spain is much higher than the supply, resulting in the importation of various species from around the world. The country exported 1.013.993 tonnes of seafood in 2009 yet it imported a total of 1.484.693 tonnes, (ANFACO, 2010). Processed fish products represent an important component of total imports (~10%). The main species imported are tuna loins, tuna, surimi, sardines and anchovy. America was the source of over 55% of imports of processed sea food to Spain in 2009, Asia, Africa and then Europe being the next biggest sources respectively.

Employment and salaries

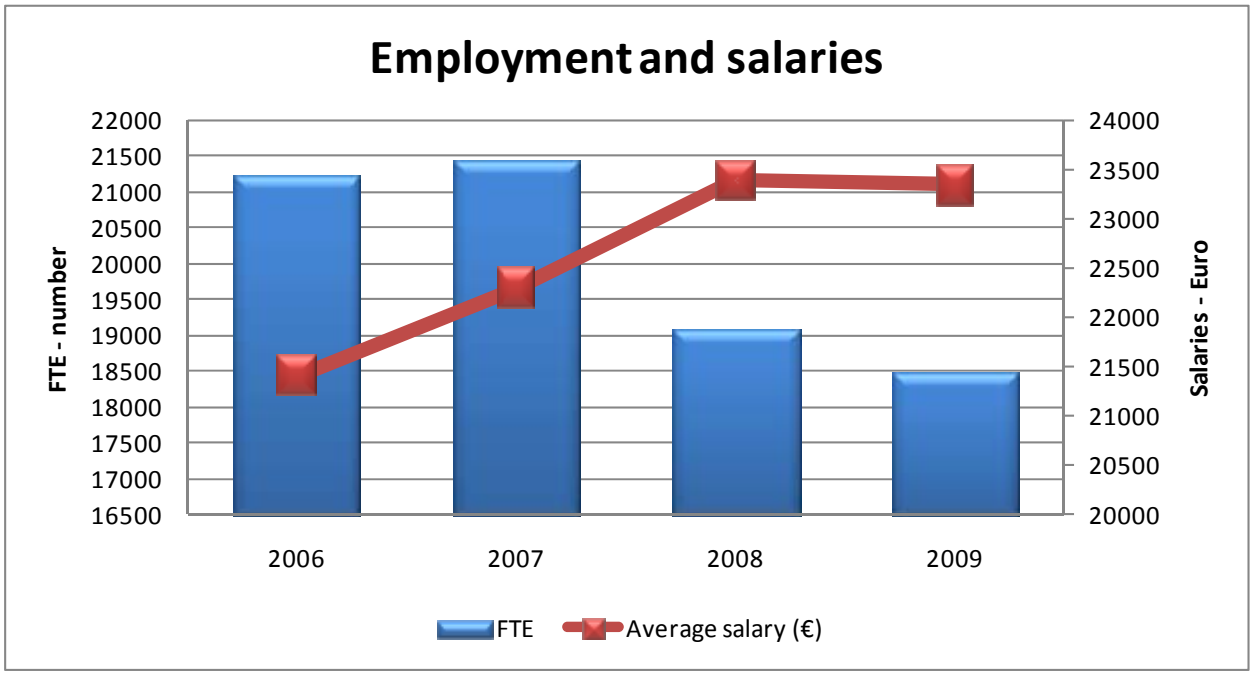
After the steep fall in employment in 2008 of 13% the slight decrease in 2009 represents a stabilization of sorts, with total employment in the industry falling 2% and full time employment falling 3%. Nevertheless, total employment is at its lowest point in the last four years and remains over 15% below the level of 2007.

Table 6.20.1: Socio-economic performance indicators

Structural Indicators	2006	2007	2008	2009
Number of enterprises	592	620	572	585
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees				
Female employees				
Total employees	22248	22798	19737	19331
FTE	21221.11	21417.78	19094	18449
Average salary (€)	21401	22297	23392	23339
Employment per enterprise	36	35	33	32
% of unpaid work (%)				

Total expenditure of the industry on wages and salaries fell from over €446M to around €430M in 2009, a 3.6% fall year on year. However, as full time employment also fell (by 3.4%) the effect on mean wages has been limited. The mean wage per full time employment fell in 2009 by €53 which represents less than a 0.01% change on the year before. This slight change ends the positive trend this indicator has experienced over the last four years, the current wage 9% higher than in 2006.

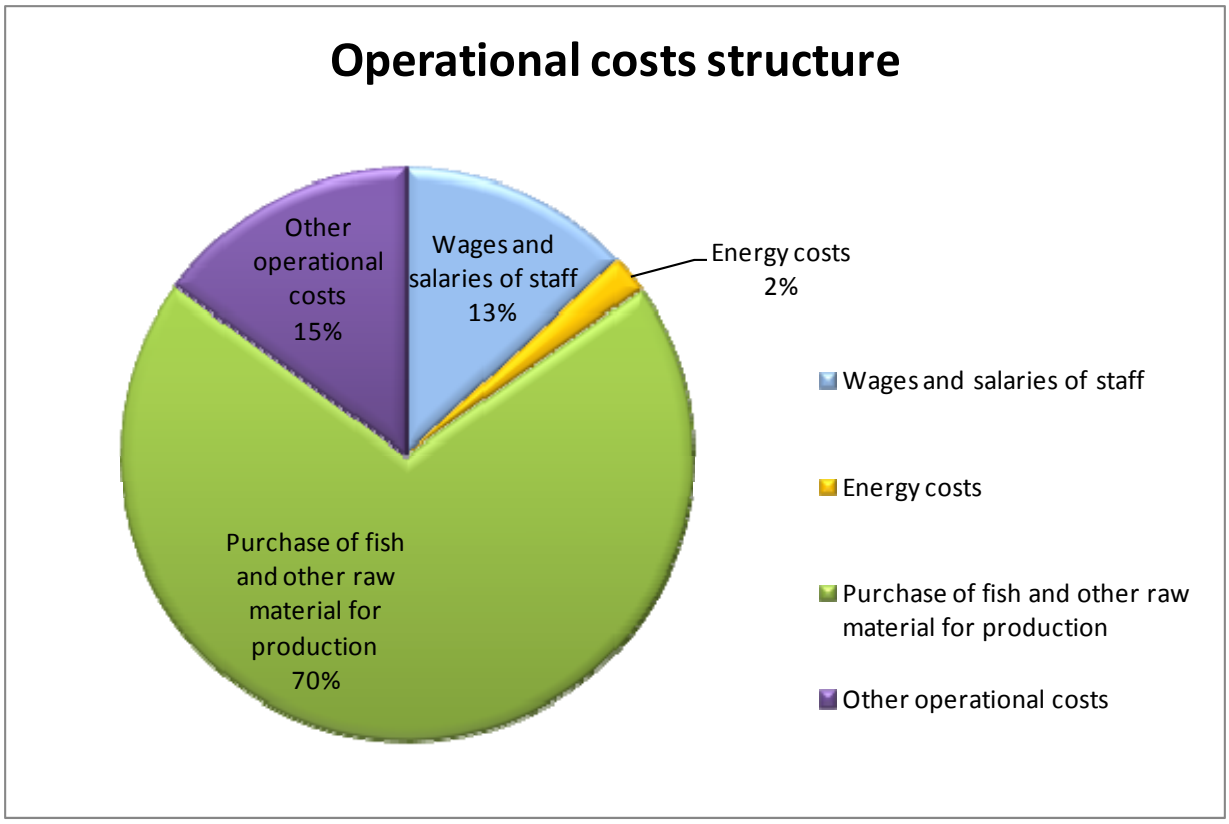
Figure 6.20.2: Employment and average salary



6.20.3 Economic performance

The total production costs in 2009 show a clear fall from the year before, decreasing by €157 million to a total of €3,269 million. This represents a decrease of nearly 5% in the year, allowing the share of total costs in relation to turnover to fall from 83% in 2008 to 80% in 2009. The purchase of fish and other raw materials for production remains the largest component of all the operational cost structure of the industry. However, this cost component has fallen by 1% since 2008. Like the year before the second largest component is "Other operational costs", increasing by 1%. Wages and salaries and energy costs represent the same proportion as the year before.

Figure 6.20.3: Distribution of the operating costs in the Spanish fish processing industry



There was a marked contrast to the performance of the sector in 2009 compared to the year before. In 2008 the sectors' turnover, gross value added, operating cash flow and net profit all fell significantly. However, in this year turnover decreased slightly (less than 1%), while gross

value added and operating cash flow increased significantly (9% and 16% respectively). This represents a steady recovery for the sector. The four remaining economic performance indicators, EBIT, net profit, return on investment and financial position cannot be calculated at this moment due to lack of data on depreciation and the total value of assets.

Table 6.20.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover (million €)	4296	4550	4148	4112
Gross Value Added (million €)	1499	1629	1198	1301
Operating Cash Flow (million €)	1061	1168	776	899
EBIT (million €)	934	1041		
Net profit (million €)	974	1095		
Return on Investment (%)				
Financial position (%)				
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	70657	76051	62746	70535
Running cost to turnover ratio (%)	76	75	83	80
Capital productivity (%)				
Future Industry Expectations (%)				

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

Labour productivity, the measure of gross value added per full time employee, improved in 2009, increasing by nearly €8,000. This increase of over 12% was due to the combination of GVA increasing by 9% and full time employment falling by over 3%. The running cost to turnover ratio fell from 83% to 80%, still at least 4% higher than in 2006 and 2007. The final productivity indicators cannot be calculated as the data for total assets and total capital, necessary for the capital productivity and future industry expectations indicators, have not been supplied.

6.20.4 Trends and triggers

The economic performance of the industry has improved in 2009, with many costs falling substantially. Total operating costs fell by 5%, in larger part due to a near 7% reduction in the biggest cost category, the purchase of fish and other raw material for production. Turnover fell for the second year in a row albeit by a slight margin. The main economic indicators provided show positive trends for the year with gross value added and operating cash flow increasing strongly.

In 2009 the Bay of Biscay anchovy fishery opened for the first time since 2006. Within a short space of time the prices fell to very low levels, resulting in a non-profitable activity for the fishermen. One of the main reasons for the low prices of anchovy was that the processing sector had made contracts with other countries to import their anchovy. Therefore, many firms had contractual obligations to import anchovy from their clients, preventing a sufficient demand from building up in relation to the locally caught anchovy. In 2009 the imports of prepared anchovy fell significantly, by over 28%, (ANFACO 2010) however no information is available on the consumption of raw materials from Spain or other countries. For the processing sector of anchovy low prices can be foreseen for the raw material as demand remains weak for the Bay of Biscay anchovy due to the lower priced foreign anchovy.

Despite the improvement in the economic situation of the industry in 2009 there remain threats in the near and medium terms. If stocks of species such as tuna continue to decline, then prices will inevitably rise. The concentration of the processing industry in Galicia is another cause for concern. The region accounts for over 81% of Spanish exports of prepared, preserved and semi preserved seafood products and 48% of total seafood product exports, (ANFACO 2010). Any negative developments in the industry will disproportionately affect this region within Spain.

6.20.5 Data issues

In the 2010 report on the Spanish processing sector it was noted that due to the change from DCR to DCF there were some doubts as to the quality of the data or methodology applied. This hindered analysis of the trends from 2006 to 2008 as some variables showed big changes (employment decreasing by over 3000) while other variables such as turnover remained stable.

For 2009 the data are of the same methodology as the preceding year and so short term trends can be ascertained with more confidence.

No data has been provided for male and female employment in the sector. While full time employment and total employment have been provided a value of 0% has been supplied for the Imputed value of unpaid labour. For the Economic performance and productivity indicators the indicators of Earnings before interest and tax, Net profit, Return on investment, Financial position, Capital productivity and Future industry expectations cannot be calculated due to the lack of data on the variables Total assets and Total capital. This lack of data for the Spanish processing industry prevents an in depth analysis of its current situation and hinders accurate forecasting for the industry.

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6.21 Sweden

6.21.1 Overview of the sector

From 2006 to 2009 the total number of enterprises operating in the Swedish processing industry increased from 208 to 226, an increase that was most significant for the smaller enterprises. The number of full time employees (FTE) increased slightly from 1 724 to 1 736 although it fluctuated during the period. The net turnover decreased from being well above €500 million to a total of €467 million. This decrease is mostly due to different exchange rates (SEK to EURO), calculated in Swedish currency the turnover increases with 4% from 2006 to 2009.

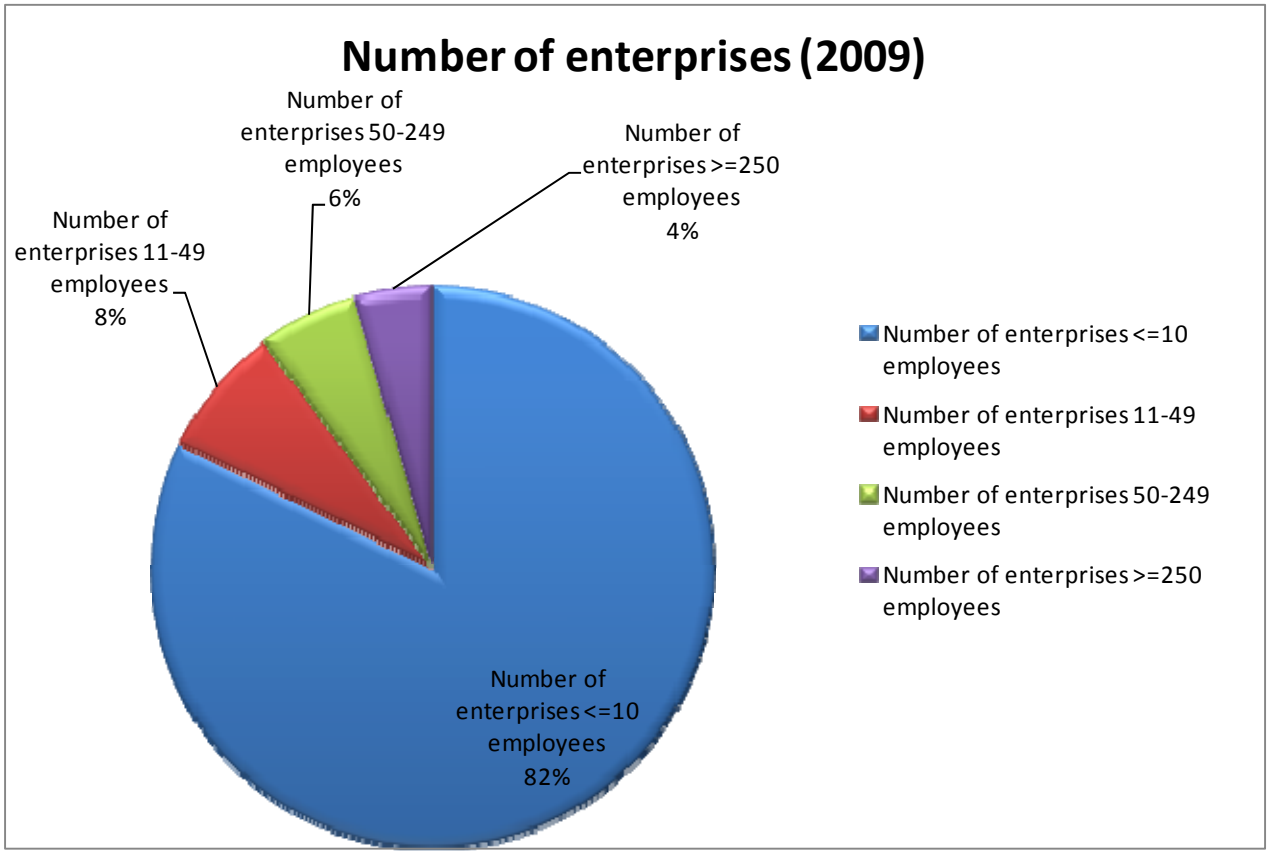
The Swedish processing industry is mainly located to the west and the south coast of Sweden, as is the major part of the fishing fleet. Many Swedish companies have been bought by or merged with Norwegian or Icelandic companies since the Swedish entrance to EU in 1997. This development has increased the availability of raw material to the Swedish industry, and has also been a way for Norwegian and Icelandic companies to get access to the EU market. Swedish fish processing companies import about three forth of their raw material, mainly from Norway and Denmark. The main output is herring and cod products, but they also produce prawn, salmon, mackerel and haddock products.

The Swedish processing industry produces a wide range of products, ranging from filleted herring and cod to prepared dishes, caviar substitutes and various smoked products. The main part of the income comes from various form of products made from herring and cod. But sprat, salmon, haddock, mackerel and shrimps is also important species for the Swedish processing industry. The sector itself is very heterogeneous with both small family businesses processing their own landings and larger enterprises with an industrial production.

6.21.2 Socio-Economic aspects

In 2009 a total of 226 firms operated in the fish processing industry in Sweden. Small-scale. Businesses are the most common and especially firms with only the owner working for the firm (zero FTE). There were 104 such firms in 2009 (106 in 2008) which is a significant increase since 2001. In total more than 80% of the companies have less than ten employees (see figure 6.21.1). Many of the small companies are economically connected to the fishery operations.

Figure 6.21.1: Size distribution of the Swedish fish processing industry



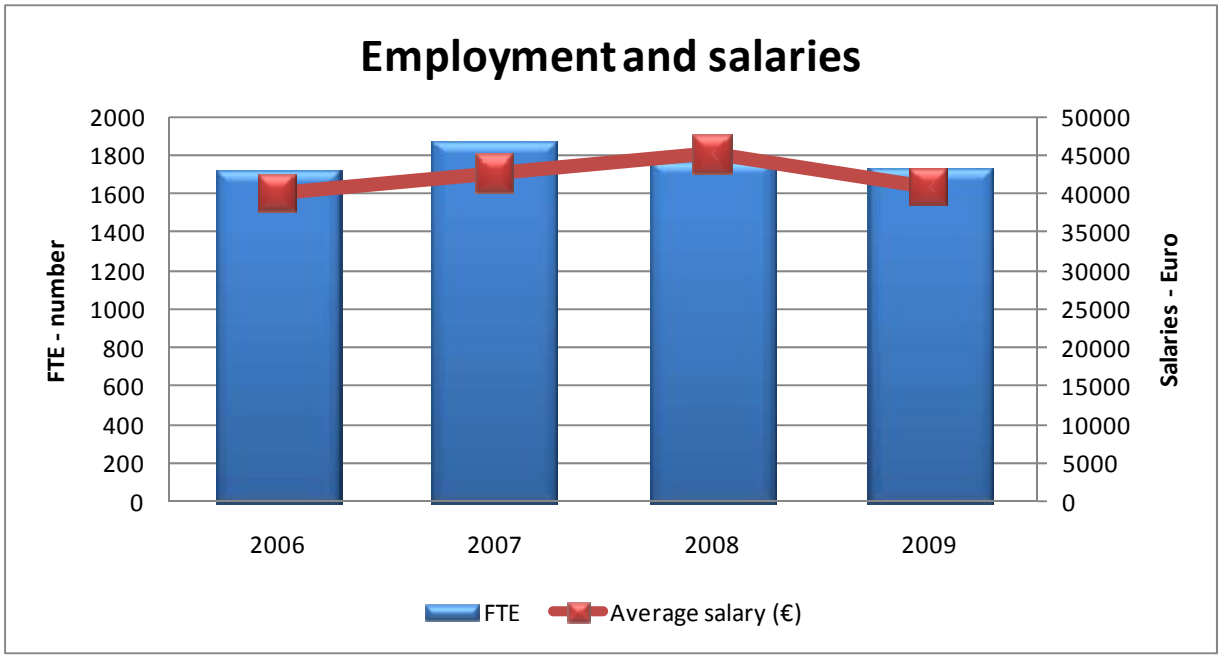
Due to the nature of the data the only segmentation possibilities today is by the size of the business. Segmentation by species or product is currently not available. A relationship between business size and diversification is expected to exist since smaller enterprises tend to specialise whereas larger enterprises produce a wider range of products.

The total number of employees in the Swedish processing industry were in 2009 just above 2 000, of which 57% are male and 43% female. As a result of the increase in number of smaller companies the average number of employment per company has decreased, from 10 in 2008 to 9 in 2009.

Table 6.21.1: Socio-economic performance indicators

Structural Indicators	2006	2007	2008	2009
Number of enterprises	208	219	214	226
Social Indicators	**2006**	**2007**	**2008**	**2009**
Male employees			1187	1116
Female employees			978	875
Total employees			2216	2042
FTE	1724	1867	1773	1736
Average salary (€)	40106.21247	####	####	####
Employment per enterpris	8.288462	8.53	8.29	7.68
% of unpaid work (%)			4.15	6.19

Figure 6.21.2: Employment and average salary



6.21.3 Economic performance

The performance of the Swedish process industry is highly dependent on the prices of raw material which amounts to 62% of the total operational costs. The prices have fluctuated heavily throughout the years. The dependence of imports also makes the industry sensible to fluctuations in exchange rates.

Figure 6.21.3: Distribution of the operating costs in the Swedish fish processing industry

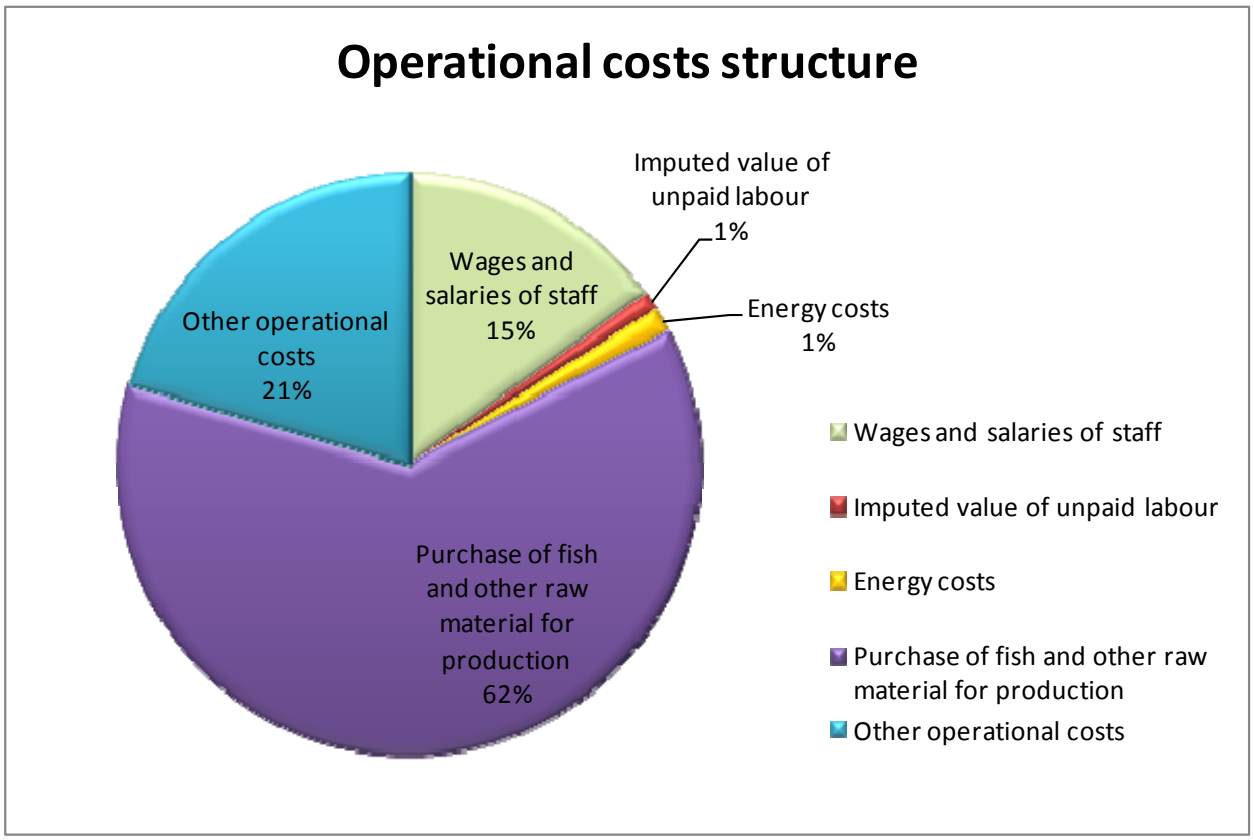


Table 6.21.2 below shows a fairly stable development 2006-2009. Performance measured as OCF, EBIT and Return on Investment decreased somewhat from 2006 to 2007 while GVA, number of employees and number of firms increased. The decrease was due to a more rapid increase of cost than turnover. In 2008 however, there was a slight decrease in the figures just mentioned except for net profits which increased. The increase in net profits was due to higher financial earnings in 2008 than 2007, which resulted in a positive financial result (financial yield minus financial costs) which added to EBIT. In 2009 the turnover, the GVA and the OCF was

still decreasing but the EBIT and the Return of Investments increased. The financial position was also better in 2009 compared to 2008. Recalculated in Swedish currency all the economic performance indicators including Labour productivity increase from 2008 to 2009 except turnover that slightly decreased (< 1%).

Table 6.21.2: Economic performance and productivity indicators

Economic Performance Indicators	2006	2007	2008	2009
Turnover	514049857	537164679	519301927	467192229
Gross Value Added	108432244	115150364	110364609	100617140
Operating Cash Flow	39394017	36640661	30567088	30102970
Earnings Before Interest and Tax	27075337	23235975	18254452	19650140
Net profit	20357451	15694810	19053928	19550914
Return on Investment	5	5	5	5
Financial position			63	51
Productivity Indicators	**2006**	**2007**	**2008**	**2009**
Labour productivity	62896	61677	62247	57959
Running cost to turnover ratio	94	94	95	94
Capital productivity	21	27	28	25
Future Industry Expectations	0	0	0	0

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

In Swedish waters there are insufficient quantities of fish of the correct species, size or quality to satisfy the requirements of the Swedish processing industry's need for raw material. The processing industry is therefore highly dependent on imported raw material. Approximately 70 - 80% of the input raw material in the processing industry is imported where Norway is the largest trading partners. Farmed salmon from Norway stand out as the most imported raw material used by the Swedish processing industry. Since traditional species has become more expensive the industry also has started to import from countries such as Chile and New Zeeland to acquire different fish species. Data on trade patterns and domestic landings displays a clear pattern where domestic landings are decreasing and the imports of fish that is fresh, frozen or primarily processed is increasing. Dependency of domestic production depends itself on the size of the enterprise.

Smaller family enterprises are more dependent on local landings than larger enterprises. The export of the same goods has been increasing as well but at slower rate. The supply of raw material to the processing industry from domestic aquaculture amounts to approximately 4 percent of the supply from domestic landings measures in weight. However, measured in value, domestic aquaculture amounted to almost one third of domestic landings. The supply of raw material from domestic aquaculture is expected to increase in the future but not to an extent that it will affect the importance of imported raw material. Rather, imported raw material is likely to play an even bigger part for the fish processing industry in the future.

6.21.4 Trends and triggers

The Swedish fish processing industry has shown a steady increase in net turnover from 2001 to 2007 both in totals and on average. Net profits has been fluctuating during the same period but displays a positive trend. In 2008 and 2009 however, the indicators shows a slight decline for the industry as a whole as turnover, gross value added (GVA), Return on Investment (ROI), EBIT, number of firms and FTE all decreased compared to 2007. Despite this decline net profit increased, but due to higher financial earnings (lower rents) rather than increase in turnover, especially regarding 2008. The weakening of the market due to the financial crisis in 2008 is a probable factor that might have affected the performance of the processing industry negatively, especially from a socio-economic perspective. Investments increased with 4% between 2009 compared to 2008 but had during the crisis in 2008 decreased with17 percent compared to 2007. The amount of investments is an indication of the enterprises view of the future and also reflects access to loan capital.

But as mentioned before, recalculating performance figures into Swedish currency will make difference. Then all indicators increase except turnover that tends to slightly decrease. It should be mentioned that the Swedish currency weakened to the EURO with 4% 2007-2008 and with 15% 2007-2009 measured as a yearly average while it was fairly stable 2007-2006. It even means that the decrease in turnover 2007-2009 is practically eliminated. However, inflation is

not accounted for in the calculations which in Sweden were minus 0.3% in 2009 and plus 3.4% in 2008 measured as a yearly average (source: Statistics Sweden, Consumer Price Index).

The Swedish fish processing industry is to a large extent affected by such issues as customer behavior and global development and supply of raw materials. Demand for fish products is expected to increase and will require that more and more raw material needs to be imported. The industries also need to plan its production which means that they have to combine domestic raw material with raw material from other countries. On the whole an increased competition for raw material is expected. Therefore, the newly started ITQ-system (1 November 2009) in the Swedish pelagic fishery will most probably give a win-win situation for the fishery as well as for the processing industry. The fishery can adapt operations better to the processing industry gaining in price etc. and the processing industry can invest in operation for better supply. Despite, the industry may also have to invest in foreign operations to ensure supply in the future, keeping in mind that a large part of the Swedish industry already is foreign owned.

Increased competition will be an incentive for enterprises to reduce cost. Incentives for cost reductions combined with an expected increase in customer demand, especially for highly processed products, are reasons for enterprises to outsource production to regions with low labour costs and easier access to raw materials. The outsourcing can already be seen.

6.21.5 Data issues

The Swedish data in this report are bought by the Swedish Board of Fisheries from Statistics Sweden and reported by Swedish Board of Fisheries. The reported data are as indicated in Commission Decision 2008/949/ appendix XII and consistent with the same data reported to Eurostat by Statistics Sweden. The calculations of indicators from the data collected under the data collection framework might differ from figures reported to Eurostat due to different methods of calculation. The description and interpretation of the Swedish data shows how important the currency can be. Even that it is important to use the same currency for all countries

for comparability; it can have large effect on the description of a single country. At last, energy costs are included in other running costs for 2006.

6.22 United Kingdom

6.22.1 Overview of the sector in 2009

In the UK fish processing industry there are 441 businesses processing seafood or salmon. These businesses show total full time equivalent positions of 19,586. The long term reduction in fish processing businesses in the UK are reflected in the estimates for 2009, after the slight uplift in 2008. Industry turnover has increased by 5% since 2008 from €5,601m to €5,891m.

The distribution of processing activity across the UK remains consistent with past years. There is continued dominance of processing activity in the Humberside and North East Scotland (Grampian) areas and rather modest levels of processing activity in more rural outlying areas such as Northern Ireland, Highlands and Islands and South West England.

Humberside and Grampian processing activity reveal primary processing to account for a larger share of their seafood processing units. These regions account for considerable volumes of whitefish processing (from international and localised sources respectively). Processing units in rural outlying areas engage in a much greater number of mixed processing units as a share of their overall processing activity. Concentrations of secondary processing units are found in Humberside, North England and South/Midlands/Wales regions. The profile of salmon processing units and employment by region reveals the continued dominance of Scotland, particularly outside Grampian.

The main products produced by the industry include:

- Whitefish fillets (cod, haddock, Pollock): fresh, frozen, breaded
- Shellfish (warm and cold water prawns, Nephrops): fresh, frozen, breaded
- Pelagic species (herring, mackerel): fresh, frozen, smoked
- Added value products including ready meals

The main market segments in the UK for the fish processing industry continue to be retail, food service and export markets. By value the retail and food service markets continue to account for the largest share of seafood sales value, with exports the least share.

Domestic economic conditions have led to a tightening in the UK food market. The retail market has shown some volume growth, however this has been driven by the frozen category whilst the chilled sector has seen a decline. Food service overall has seen declines in consumer traffic and spend; in seafood, however, there is a shift towards inexpensive meals, for example fish and chip shops have seen growth and large pub chains showing growth in traffic and seafood share. Major export species by sales value are salmon, mackerel and high value shellfish (Nephrops and scallops). Compared to 2008, exports in 2009 increased in volume by 15% and value by 16%, mainly because of the fall in Sterling compared to the Dollar and Euro. However exports to southern Mediterranean countries, such as high value shellfish, have suffered; Nephrops exports declined by 9% in value and 4% in volume compared to 2008.

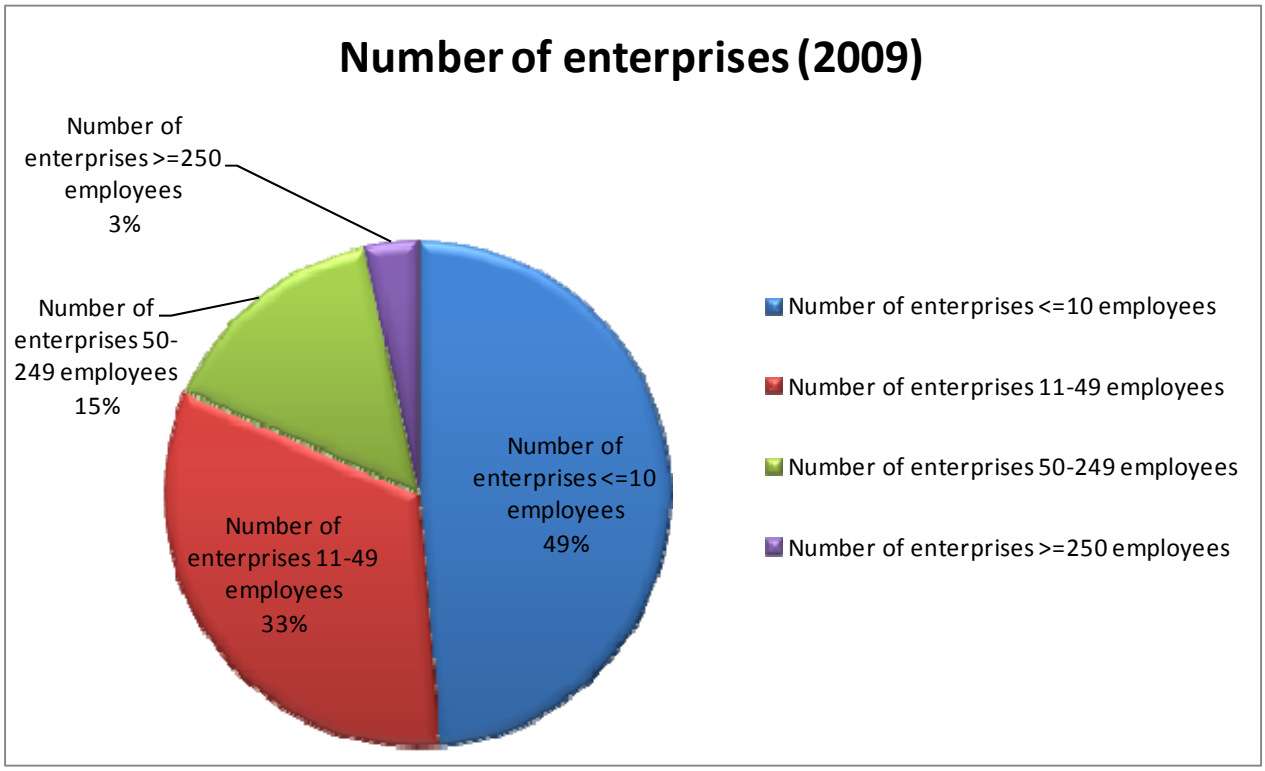
There is continued dependency on imported material for the UK market. Imports in 2009 reduced in volume by 8% and in value by 2%. The availability of whitefish from Iceland, Norway and Russia have an important influence on the UK market; and this period has experienced a contraction in Icelandic haddock and an increase in Icelandic domestic processing. However there have been notable increases in pangasius and warm water prawns (an increase of 25% value and 10% volume on 2008). Although the UK draws upon domestic salmon production, the contraction of Chilean salmon production has influenced the general availability of this material, reflected in the 15% increase in value and 2% reduction in volume of salmon imported compared to 2008.

6.22.2 Socio-Economic aspects

In recent times the industry has been characterised as having a small number of large multi-unit businesses, and a large number (or long tail) of small single unit businesses. This remains the case in 2009, however there is an indication the polarisation is being tempered somewhat with industry appearing less fragmented than in the past. When compared to 2008, the size

distribution in 2009 reveals a fall in the number of the smallest businesses (those with 10 FTEs or under) whose share has declined from 53% to 49% whilst the largest sized businesses (with 250 FTEs and over) have increased in number, increasing their share in the size distribution.

Figure 6.22.1: Size distribution of the UK fish processing industry



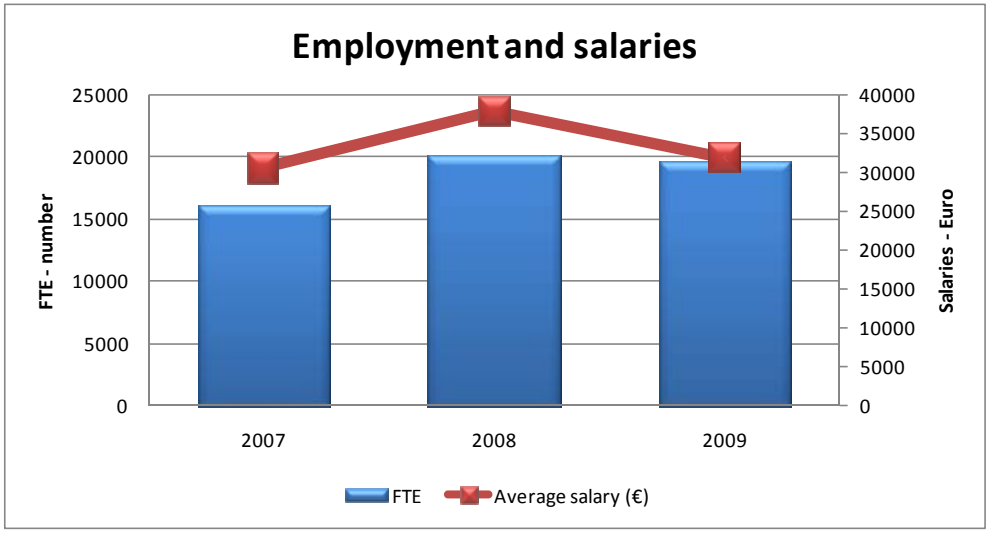
The socio-economic indicators for 2009 highlight fewer firms and lower employment with slightly higher turnover than in 2008. The reduction in businesses does not suggest businesses are no longer trading, although there is no doubt an element of this either through retirement or business failure. In addition to closures, some businesses no longer meet the definition of 'seafood processor' as used in this research. At least part of the reduction in units is the result of industry dynamics in which businesses are consolidating or changing their practices, moving away from processing activity towards seafood trading, retail or specialising as importers or exporters.

Compared to 2008, the number of FTEs has decreased slightly from 20,086 to 19,586. This change does not reflect the more dramatic change in the number of businesses. The change in FTEs reflects the loss in employment from smaller businesses (of which a proportionately higher number left the industry) coupled with the small increase in larger businesses. The mean wage stands at €31,787 a considerable reduction to the €37,864 in 2008. This may reflect the larger number of smaller businesses leaving the industry (and so proportionately more senior salaries removed from the 'wages and salaries of staff'), it may also reflect tough economic conditions in which bonuses or salary increases were not realised, or may be that employees took lower salaries in exchange for continued employment.

Table 6.22.1: Socio-economic performance indicators

Structural Indicators	**2007**	**2008**	**2009**
Number of enterprises	454	525	441
Social Indicators	**2007**	**2008**	**2009**
Male employees		25503	
Female employees		17002	
Total employees		42505	
FTE	16041	20086	19586
Average salary (€)	30503	37864	31787
Employment per enterprise	35	38	44
% of unpaid work (%)			

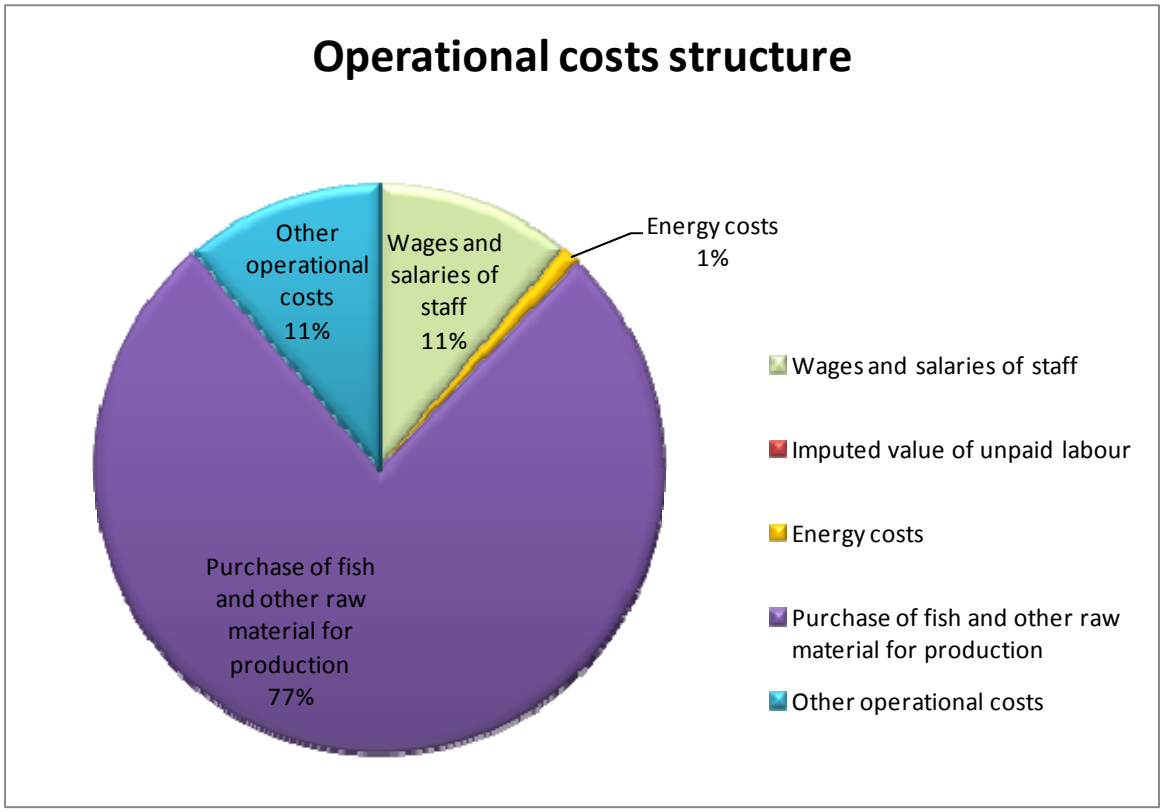
Figure 6.22.2: Employment and average salary



6.22.3 Economic performance

The cost structure is illustrated in Fig 6.22.3. The dominance of raw material costs and wages and salaries in operating costs are clearly revealed, with these items accounting for 77% and 11% of costs respectively. Cost items such as energy and other operational costs (such as transport, water charges, packaging etc) represent a combined 12% of operating costs. Comparison with the same items in 2008 reveals an increase in the share of raw material costs (from 74% in 2008) and a decrease in share of wages and salaries (from 14% in 2008).

Figure 6.22.3: Distribution of the operating costs in the UK fish processing industry



Economic and productivity indicators are shown in Table 6.22.2. Performance in 2009 shows improvement in all economic indicators (turnover, gross value added, operating cash flow, EBIT, net profit and R.o.I) compared with 2008. Higher turnover in 2009 is associated with higher

gross value added whilst a substantial improvement in operating cash flow can be seen in comparison with 2008 figures. EBIT and net profit have shown dramatic improvement in the 2008-2009 period. Return on investment appears much healthier in 2009 compared to 2008.

Performance is rather more mixed in the productivity indicators. Whilst the 2009 data suggests labour productivity has continued to improve since 2007, it has weakened in other aspects. This is particularly notable in terms of capital productivity, which has been in decline since 2007. The decline in capital investment since 2008 (reflected in lower future industry expectations), suggests an industry that is concerned with improving efficiencies, using profits to pay down debt and consolidating their financial position. This is to be expected in the tight market conditions and uncertainties in the financial sector.

Table 6.22.2: Economic performance and productivity indicators

Economic Performance Indicators	**2007**	**2008**	**2009**
Turnover (million €)	3525	5601	5892
Gross Value Added (million €)	608	858	903
Operating Cash Flow (million €)	118	98	280
EBIT (million €)		14	197
Net profit (million €)	9	-66	101
Return on Investment (%)	0	1	15
Financial position (%)		35	43
Productivity Indicators	**2007**	**2008**	**2009**
Labour productivity (€/FTE)	37887	42736	46103
Running cost to turnover ratio (%)	97	98	95
Capital productivity (%)	117	81	68
Future Industry Expectations (%)	0	7	-5

Labour productivity (GVA/FTE)
Capital productivity (GVA/Total assets)
Future industry Expectations((Net investment-Depreciation)/Total Capital)
Financial position (Dept/Total Assets)

6.22.4 Trends and triggers before and after 2009

This section highlights wider trends affecting the industry both before and after 2009. Since the 2008 credit crunch there have been notable changes to overall UK consumer confidence, price levels and food prices in particular. Consumer confidence remains low; in terms of consumer spending, both the RPI and the CPI exceeded 5% in Sept 2011. Food inflation, meanwhile, increased by 2.2% in 12 months to May 2010, and 4.9% in 12 months to May 2011.

The UK retail market shows a moribund market for seafood with both value and volume slowing in comparison to the last ten years. In the last three year period, ending August 2011:

- The value for all fish increased by 2.4%, but reduced in volume by -1.3%
- Fresh fish value increasing by 2.7% and reducing volume by -1.9%
- Frozen fish value (0.9%) increasing less than volume (1.3%)

Although UK food service was performing relatively well in 2009, trends in the last 12 months to June 2011 reveal a worsening situation:

- Fried fish servings are down
- Pubs have become more important
- Fish and chips have suffered declining levels of traffic.

However, when compared to overall price increases, retail data suggests overall value increasing in fish to have increased less than in the economy in general.

In this price conscious environment, additional competitive pressures are emerging on the horizon. These include increased volumes of imported species, from alternative whitefish stocks, but also pangasius and the potential resurgence in salmon volumes as Chilean aquaculture production recovers.

The reliance on imported supplies of raw materials and the degree to which this contributes to the operating costs of businesses means developments in this area can have a profound effect. A combination of changing economic fortunes, stock levels and government policy in Iceland have had a dramatic effect on Humberside processing region for example. In this case there is much less haddock available and what is available is now increasingly processed in Iceland before being exported to the UK; this has a disproportionate and negative effect on smaller processing operations engaged in primary processing. The growth in the availability of pangasius and a potential future increase in Chilean salmon continues to provide a cheap commodity alternative for traditional whitefish.

The moribund economic conditions mean continued difficulty in securing growth through sales (either through higher prices or higher volumes), often the opportunities for growth lie in acquisition and continued consolidation in the sector. Cash flow is a continuing problem, particularly for smaller operators. Not only does this pressurise the financial stability of the business but it also restricts flexibility to address key cost items – for example movement away from uncertain domestic supplies towards imported volumes which have to be paid for several days in advance. Larger businesses have greater financial leverage and can find opportunities in smaller businesses that are underperforming.

6.22.5 Data issues

This data is not based on processing activity as defined by Eurostat/NACE codes. The UK Annual Business Inquiry has a number of shortcomings, in its methodology and estimates, makes it ill suited to providing an overview of UK fish processing activity. Such shortcomings have meant that the UK Government commissions primary research to establish a profile of the UK fish processing industry.

Seafish conducts primary data collection on behalf of the UK Government. A census survey of all UK processing sites is conducted every 2 years, with estimates providing the data on processing sites in non-census years. This data is supported by an annual financial sample survey. The census survey defines a processing company as being a company which in some

way materially changes the fish. Included in the scope of the data collection are companies: of any size; engaged in any type of processing (primary, secondary, mixed); that process any type of fish: demersal fish, shell fish, cephalopods, exotic fish, pelagic fish, salmon; that also carry out other fish-related activities such as trading in which 50% or more of the turnover is generated from seafood / salmon processing (with the exception of collecting employment data from all fish processing companies). The financial data collection uses the results of the financial survey and data from UK business accounts (available from Companies House).

The scope of the data collection has a number of exclusions. These include: companies engaged in farming and distribution only; processors located in Isle of Man and Channel Islands; and financial analysis of businesses processing a wide range of food, of which fish is a small volume.

7. GLOSSARY

7.1. DCR parameters

Income (turnover)

The DCR regulation requested to deliver "Income (Turnover)" as one indicator. However, it was not clear on the regulation whether it was ask to provide the income or the turnover.

So, countries reported either turnover or income. Even though, at the SGECA-06-01 meeting, it was recommended that under indicator "Income (turnover)" turnover should be reported. It was also recommended at the SGECA-06-01 meeting to report other income separately.

Being aware of this issue, for this 2010 data call, it has been made possible that Member States could upload either Turnover or Total income (or both), so that there were no further misunderstandings and correct calculations could be performed. During the SGECA-10-04 meeting it was decided to also allow the possibility to report Subsidies and Other income, for a better calculation of the economic indicators.

Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover. It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted. Income classified as other operating income, financial income and extra-ordinary income in company accounts is excluded from turnover. Operating subsidies received from public authorities or the institutions of the European Union are also excluded (Structural Business Statistics (SBS) Code 12 11 0, Commission Regulation (EC) No 2700/98).

Production costs

The "Production costs" are considered the sum of labour costs, energy costs, raw material costs, packaging costs and other running costs.

Labour costs

"Labour costs" are equivalent to the Personnel costs on the Structural Business Statistics.

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

Personnel costs are made up of:

- wages and salaries
- employers' social security costs

All remuneration paid during the reference period is included, regardless of whether it is paid on the basis of working time, output or piecework, and whether it is paid regularly or not. Included are all gratuities, workplace and performance bonuses, ex gratia payments, thirteenth month pay (and similar fixed bonuses), payments made to employees in consideration of dismissal, lodging, transport, cost of living and family allowances, commissions, attendance fees, overtime, night work etc. as well as taxes, social security contributions and other amounts owed by the employees and retained at source by the employers. Also included are the social security costs for the employer. These include employer's social security contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, family allowances as well as other schemes. These costs are included regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature. Payments for agency workers are not included in personnel costs. (Structural Business Statistics (SBS) Code 13 31 0, Commission Regulation (EC) No 2700/98).

Wages and salaries: Wages and salaries are defined as "the total remuneration, in cash or in kind, payable to all persons counted on the payroll (including homeworkers), in return for work done during the accounting period." regardless of whether it is paid on the basis of working time, output or piecework and whether it is paid regularly or not. Wages and salaries include the values of any social contributions, income taxes, etc. payable by the employee even if they are actually withheld by the employer and paid directly to social insurance schemes, tax authorities, etc. on behalf of the employee. Wages and salaries do not include social contributions payable by the employer. Wages and salaries include: all gratuities, bonuses, ex gratia payments, "thirteenth month payments", severance payments, lodging, transport, cost-of-living, and family allowances, tips, commission, attendance fees, etc. received by employees, as well as taxes, social security contributions and other amounts payable by employees and withheld at source by the employer. Wages and salaries which the

employer continues to pay in the event of illness, occupational accident, maternity leave or short-time working may be recorded here or under social security costs, dependent upon the unit's accounting practices. Payments for agency workers are not included in wages and salaries. (Structural Business Statistics (SBS) Code 13 32 0, Commission Regulation (EC) No 2700/98).

Social security costs: Employers' social security costs correspond to an amount equal to the value of the social contributions incurred by employers in order to secure for their employees the entitlement to social benefits. Social security costs for the employer include the employer's social security contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, family allowances as well as other schemes. Included are the costs for all employees including homeworkers and apprentices. Charges are included for all schemes, regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature. Wages and salaries which the employer continues to pay in the event of illness, occupational accident, maternity leave or short-time working may be recorded here or under wages and salaries, dependent upon the unit's accounting practices. (Structural Business Statistics (SBS) Code 13 33 0, Commission Regulation (EC) No 2700/98).

Energy costs

“Energy costs” corresponds to the Purchases of energy products (in value) on the Structural Business Statistics.

Purchases of all energy products during the reference period should be included in this variable only if they are purchased to be used as fuel. Energy products purchased as a raw materials or for resale without transformation should be excluded. The figure should be given in value only. (Structural Business Statistics (SBS) Code 20 11 0, Commission Regulation (EC) No 2700/98).

All experts reported that the Member States are also including electricity costs on this cost item. Moreover, it was identified that it could be possible that fuel costs are placed in the raw materials and consumables account and electricity costs on the services. Italy explained that they are estimating these costs from both accounts.

Raw material cost (value)

“Raw material cost” is the cost of the unfinished goods purchased by a manufacturer in order to sell them, normally after some elaboration.

"Raw material cost", "Packaging costs" and "Other running costs" are part of the "Total purchases of goods and services" and the "Purchases of goods and services purchased for resale in the same condition as received" on the Structural Business Statistics. (Structural Business Statistics (SBS) Codes 13 11 0 and 13 12 0, Commission Regulation (EC) No 2700/98).

Packaging costs

"Packaging costs" account for the costs of the ancillary materials used to pack and wrap the products.

"Raw material cost", "Packaging costs" and "Other running costs" are part of the "Total purchases of goods and services" and the "Purchases of goods and services purchased for resale in the same condition as received" on the Structural Business Statistics. (Structural Business Statistics (SBS) Codes 13 11 0 and 13 12 0, Commission Regulation (EC) No 2700/98).

Other running costs

"Other running costs" accounts for other operational costs than "Raw material cost" and "Packaging costs".

"Raw material cost", "Packaging costs" and "Other running costs" are part of the "Total purchases of goods and services" and the "Purchases of goods and services purchased for resale in the same condition as received" on the Structural Business Statistics. (Structural Business Statistics (SBS) Codes 13 11 0 and 13 12 0, Commission Regulation (EC) No 2700/98).

Fixed costs

The DCR regulation requested to deliver "Fixed costs" as one indicator. It was not specified on the regulation what cost accounts should be included. However, SGECA 06-01 clarified the definition and recommended changes in the regulation with specific defintions that followed those made in DCF. "Fixed costs" were suggested to be changed to "Depreciation". Also it was recommended to include the parameters: Financial costs (net), Extraordinary costs (net) and taxes.

Despite SGECA-06-01 guidelines some Member States have not applied them on the data collected under the DCR regulation. It has happened that Member States were reporting either "Depreciation" or "Depreciation" + "Financial costs".

On the DCF regulation this has been solved since it is requested disaggregated "Depreciation", "Financial costs". During the SGECA-10-04 meeting it was decided to also allow the possibility to report for the DCR regulation period, data disaggregated on "Depreciation", "Financial costs", for a better understanding of the parameters and calculation of the economic indicators.

Raw material

"Raw materials" accounts for the volume of the unfinished goods purchased by a manufacturer in order to provide finished goods. In the DCR regulation it should be reported by species and total.

Financial position

Financial position is estimated as the ratio of own capital and borrowed capital (SGECA-09-03).

This indicator is directly collected under the DCR regulation.

DCR: Own Capital / Borrowed Capital

Investment (asset)

This parameter corresponds to the Balance sheet total of the Structural Business Statistics.

This variable consists of the sum of items 1 to 16 of the asset side of the balance sheet or of the sum of items 1 to 14 of the liability side of the balance sheet. (Structural Business Statistics (SBS) Code 43 30 0, Commission Regulation (EC) No 2700/98).

However, this indicator proved to be confusing, and some Member States (Latvia, Malta and Greece) reported "Net investment" instead of the "Total value of assets". So, during the SGECA-10-04 meeting it was decided to allow Member States the possibility to report also the "Net investments" for the DCR regulation period, in order to be clearer with the parameters requested and avoid confusions.

Prices/product

In the DCR regulation it is asked the prices (in Euro per tonne) of the finished goods should be reported by product.

Employment (total)

"Employment (total)" refers to the number of people employed (includes full-time and part-time employees) (SGECA-09-03). It corresponds to the "Number of people employed" of the Structural Business Statistics.

The number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams). It Includes persons absent for a short period (e.g. sick leave, paid leave or special leave), and also those on strike, but not those absent for an indefinite period. It also includes part-time workers who are regarded as such under the laws of the country concerned and who are on the pay-roll, as well as seasonal workers, apprentices and home workers on the pay-roll. The number of persons employed excludes manpower supplied to the unit by other enterprises, persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises, as well as those on compulsory military service. Unpaid family workers refer to persons who live with the proprietor of the unit and work regularly for the unit, but do not have a contract of service and do not receive a fixed sum for the work they perform. This is limited to those persons who are not included on the payroll of another unit as their principal occupation. (Structural Business Statistics (SBS) Code 16 11 0, Commission Regulation (EC) No 2700/98).

Employment (FTE)

The "Employment (FTE)" refers to the number of full time equivalent (methodologies to calculate one FTE varies between the countries) (SGECA-09-03). It corresponds to the Number of employees in full time equivalent units of the Structural Business Statistics.

The number of employees converted into full time equivalents (FTE). Figures for the number of persons working less than the standard working time of a full-year full-time worker, should be converted into full time equivalents, with regard to the working time of a full-time full-year employee in the unit. Included in this category are people working less than a standard working day, less than the standard number of working days in the week, or less than the standard number of weeks/months in the year The conversion should be carried out on the basis of the number of hours, days, weeks or months worked. (Structural Business Statistics (SBS) Code 16 14 0, Commission Regulation (EC) No 2700/98).

The FTE is normally calculated considering the total number of working hours in the sector divided by the average working hours of a full-time employee. Only Portugal declared that it was calculated considering the Full time and part time workers per month.

Capacity utilization

"Capacity utilization" refers to the extent to which the sector actually uses its installed productive capacity. Thus, it refers to the relationship between actual output that 'is' produced with the installed equipment and the potential output which 'could' be produced with it, if capacity was fully used.

Number of firms

The "Number of firms" is a count of the number of enterprises active during at least a part of the reference period (SGECA-09-03).

A count of the number of enterprises registered to the population concerned in the business register corrected for errors, in particular frame errors. Dormant units are excluded. This statistic should include all units active during at least a part of the reference period. (Structural Business Statistics (SBS) Code 11 11 0, Commission Regulation (EC) No 2700/98).

Both definitions are similar. However, there are often some divergences with Eurostat data. This is mostly due to the use of the Veterinary list (which is necessary to commercialise with food products) to update the business register and so companies that are dormant or focusing on other products have been excluded.

7.2. DCF parameters

Turnover

"Turnover" comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à-vis its customer and other similar deductible taxes directly linked to turnover. It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted. Income classified as other operating income, financial income and extra-ordinary income in company accounts is excluded from turnover.

Subsidies

Operating subsidies received from public authorities or the institutions of the European Union which are excluded from turnover. Includes direct payments; excludes social benefit payment and indirect subsidies e.g. investment subsidies.

Other income

Income classified as other operating income included in company accounts which are excluded from turnover; income coming from other activities, then fish processing.

Personnel costs

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home-workers) in return for work done by the latter. Personnel costs consists of "Wages and salaries" and "imputed value of unpaid labour"

Wages and salaries

Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home-workers) in return for work done by the latter

during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions.

Personnel costs are made up of:

— wages and salaries,

— employers' social security costs.

All remuneration paid during the reference period is included, regardless of whether it is paid on the basis of working time, output or piecework, and whether it is paid regularly or not. Included are all gratuities, workplace and performance bonuses, ex gratia payments, 13th month pay (and similar fixed bonuses), payments made to employees in consideration of dismissal, lodging, transport, cost of living and family allowances, commissions, attendance fees, overtime, night work, etc. as well as taxes, social security contributions and other amounts owed by the employees and retained at source by the employers. Also included are the social security costs for the employer. These include employer's social security contributions to schemes for retirement pensions, sickness, maternity, disability, unemployment, occupational accidents and diseases, family allowances as well as other

schemes. These costs are included regardless of whether they are statutory, collectively agreed, contractual or voluntary in nature.

Payments for agency workers are not included in personnel costs.

Imputed value of unpaid labour

Unpaid workers normally refers to persons who live with the proprietor of the unit and work regularly for the unit, but do not have a contract of service and do not receive a fixed sum for the work they perform. This is limited to those persons who are not included on the payroll of another unit as their principal occupation.

Thus, imputed value of unpaid labour estimates the value of the salaries that these unpaid workers would receive if their work was remunerated.

The chosen methodology to estimate this imputed value of unpaid labour should be explained by the Member State in their national programme.

Energy costs

Purchases of all energy products during the reference period should be included in this variable only if they are purchased to be used as fuel. Energy products purchased as a raw materials or for resale without transformation should be excluded. The figure should be given in value only. (Structural Business Statistics (SBS) Code 20 11 0, Commission Regulation (EC) No 2700/98).

All experts reported that the Member States are also including electricity costs on this cost item. Moreover, it was identified that it could be possible that fuel costs are placed in the raw materials and consumables account and electricity costs on the services. Italy explained that they are estimating these costs from both accounts.

Purchase of fish and other raw material for production

"Purchase of fish and other raw material for production" accounts for the cost of the unfinished goods (fish and other products) purchased by a manufacturer in order to sell them, normally after some elaboration.

"Purchase of fish and other raw material for production" and "Other operational costs" are part of the "Total purchases of goods and services" and the "Purchases of goods and services purchased for resale in the same condition as received" on the Structural Business Statistics. (Structural Business Statistics (SBS) Codes 13 11 0 and 13 12 0, Commission Regulation (EC) No 2700/98).

Other operational costs

“Other operational costs” corresponds to other running costs than “Raw material cost”. In the DCF regulation “Packaging costs” should be included in “Other operational costs”.

“Purchase of fish and other raw material for production” and “Other operational costs” are part of the “Total purchases of goods and services” and the “Purchases of goods and services purchased for resale in the same condition as received” on the Structural Business Statistics. (Structural Business Statistics (SBS) Codes 13 11 0 and 13 12 0, Commission Regulation (EC) No 2700/98).

Depreciation of capital

Depreciation refers to the decline in value of the assets. In accounting, it is used as the allocation of the cost of tangible assets to periods in which the assets are used, in order to reflect this decline in their value.

The chosen methodology to allocate these costs over periods should be explained in the national programme. ESA (6) 6.02 to 6.05 European System of Accounts 1995 (Regulation (EC) No 2223/96, Regulation (EC) No 1267/2003, Eurostat ESA 1995 manual).

Financial costs, net

Net financial costs should be accounted as the difference between financial income and financial costs, as defined in art. 23, item 9-11 for income and item 13 for costs of the IV Council Directive 78/660/EEC.

Extraordinary costs, net

“Extraordinary costs, net” is the difference between “Extraordinary income” and “Extraordinary charges”.

“Extraordinary income” and “Extraordinary charges” are the income and costs that arise otherwise than in the course of the company's ordinary activities (Article 29 of the Fourth Council Directive 78/660/EEC of 25 July 1978).

Total value of assets

This parameter corresponds to the Balance sheet total of the Structural Business Statistics and the Capital value in the European System of Accounts.

Balance sheet total consists of the sum of items 1 to 16 of the asset side of the balance sheet or of the sum of items 1 to 14 of the liability side of the balance sheet. (Structural Business Statistics (SBS) Code 43 30 0, Commission Regulation (EC) No 2700/98).

Capital value is the total accumulated value of all net investments in the enterprise at the end of the year. ESA 7.09 to 7.24 European System of Accounts 1995 (Regulation (EC) No 2223/96, Regulation (EC) No 1267/2003, Eurostat ESA 1995 manual)

The group also recommended deleting footnote 8 in Appendix 12 of Commission Decision 93/2010. The footnote refers to the DCR program (net, investment) and is by mistake adopted for the DCF program (total assets).

> *Total accumulated value of all net investments in the enterprise at the end of the year.*

Net Investments

"Net investments" refers to the difference between Purchase (Gross investment in tangible goods) and Sale (Sales of tangible investment goods) of assets during the year.

Gross investment in tangible goods is the Investment during the reference period in all tangible goods. Included are new and existing tangible capital goods, whether bought from third parties or produced for own use (i.e. Capitalised production of tangible capital goods), having a useful life of more than one year including non-produced tangible goods such as land. The threshold for the useful life of a good that can be capitalised may be increased according to company accounting practices where these practices require a greater expected useful life than the 1 year threshold indicated above.

All investments are valued prior to (i.e. gross of) value adjustments, and before the deduction of income from disposals. Purchased goods are valued at purchase price, i.e. transport and installation charges, fees, taxes and other costs of ownership transfer are included.

Own produced tangible goods are valued at production cost. Goods acquired through restructurations (such as mergers, take-overs, break-ups, split-off) are excluded. Purchases of small tools which are not capitalised are included under current expenditure. Also included are all additions, alterations, improvements and renovations which prolong the service life or increase the productive capacity of capital goods. Current maintenance costs are excluded as is the value and current expenditure on capital goods used under rental and lease contracts. Investment in intangible and financial assets are excluded. Concerning the recording of investments where the invoicing, delivery, payment and first use of the good may take place in different reference periods, the following method is proposed as an objective:

i) Investments are recorded when the ownership is transferred to the unit that intends to use them. Capitalised production is recorded when produced. Concerning the recording of

investments made in identifiable stages, each part-investment should be recorded in the reference period in which they are made.

In practice this may not be possible and company accounting conventions may mean that the following approximations to this method need to be used:

i) investments are recorded in the reference period in which they are delivered,

ii) investments are recorded in the reference period in which they enter into the production process,

iii) investments are recorded in the reference period in which they are invoiced,

iv) investments are recorded in the reference period in which they are paid for.

Gross investment in tangible goods is based on Gross investment in land (15 12 0) + Gross investment in existing buildings and structures (15 13 0) + Gross investment in construction and alteration of buildings (15 14 0) + Gross investment in machinery and equipment (15 15 0). (Structural Business Statistics (SBS) Code 15 11 0, Commission Regulation (EC) No 2700/98).

Sales of tangible goods includes the value of existing tangible capital goods, sold to third parties. Sales of tangible capital goods are valued at the price actually received (excluding VAT), and not at book value, after deducting any costs of ownership transfer incurred by the seller. Value adjustments and disposals other than by sale are excluded. (Structural Business Statistics (SBS) Code 15 21 0. Commission Regulation (EC) No 2700/98).

Debt

Financial assets created when creditors lend funds to debtors, either directly or through brokers, which are either evidenced by non-negotiable documents or not evidenced by documents.

Short-term loans - loans whose original maturity is normally one year or less, and in exceptional cases two years at the maximum, and loans repayable on demand.

Long-term loans - loans whose original maturity is normally more than one year, and in exceptional cases more than two years at the minimum.

Number of persons employed (Total employment)

This indicator refers to the number of people employed (including full-time and part-time employees) (SGECA-09-03). It corresponds to the Number of people employed of the Structural Business Statistics.

The number of persons employed is defined as the total number of persons who work in the observation unit (inclusive of working proprietors, partners working regularly in the unit and unpaid family workers), as well as persons who work outside the unit who belong to it and are paid by it (e.g. sales representatives, delivery personnel, repair and maintenance teams). It includes persons absent for a short period (e.g. sick leave, paid leave or special leave), and also those on strike, but not those absent for an indefinite period. It also includes part-time workers who are regarded as such under the laws of the country concerned and who are on the payroll, as well as seasonal workers, apprentices and home workers on the payroll.

The number of persons employed excludes manpower supplied to the unit by other enterprises, persons carrying out repair and maintenance work in the enquiry unit on behalf of other enterprises, as well as those on compulsory military service.

Unpaid family workers refer to persons who live with the proprietor of the unit and work regularly for the unit, but do not have a contract of service and do not receive a fixed sum for the work they perform. This is limited to those persons who are not included on the payroll of another unit as their principal occupation.

FTE National

The number of employees converted into full-time equivalents (FTE). Figures for the number of persons working less than the standard working time of a full-year full-time worker, should be converted into full-time equivalents, with regard to the working time of a full-time full-year employee in the unit.

Included in this category are people working less than a standard working day, less than the standard number of working days in the week, or less than the standard number of weeks/months in the year. The conversion should be carried out on the basis of the number of hours, days, weeks or months worked.

Number of enterprises:

A count of the number of enterprises registered to the population concerned in the business register corrected for errors, in particular frame errors. Dormant units are excluded. This statistic should include all units active during at least a part of the reference period. Number of enterprises should be reported by size category where the number of persons employed (in FTE) (Structural Business Statistics (SBS) Code 16 14 0, Commission Regulation (EC) No 2700/98) is (≤10; 11-49; 50-249 and >250).

Indicators

Salary per employee (FTE)

The salary per employee ratio shows the mean salary an employee is receiving on this sector. It includes the salaries and the social security costs and the estimated unpaid wages.

It is calculated as the ratio between “Wages and salaries of staff” and “Imputed value of unpaid labour” (“Labour costs” when considering DCR data) and the “Number of employees in full time equivalent”.

Employment per enterprise (FTE)

The employment per enterprise ratio shows the mean number of employees (in full time equivalent) that a firm has in this sector.

It is calculated as the ratio between the “Number of employees in full time equivalent” and the total “Number of enterprises”.

Percentage of unpaid work

The percentage of paid work shows the importance paid (and unpaid work) in the sector. It is calculated as the ratio of the “Wages and salaries of staff” by the sum of “Wages and salaries of staff” and the “Imputed value of unpaid labour”.

This indicator can only be calculated with DCF data because “Imputed value of unpaid labour” was not collected under the DCR regulation.

Gross Value Added (GVA)

Gross Value Added measures the contribution of the sector to the economy. The Gross Value Added indicator calculated in this report is similar, but does not exactly correspond to the Value added at factor cost of the Structural Business Statistics.

Value added at factor cost defined in the Structural Business Statistics is the gross income from operating activities after adjusting for operating subsidies and indirect taxes. It can be calculated from turnover, plus capitalised production, plus other operating income, plus or minus the changes in stocks, minus the purchases of goods and services, minus other taxes on products which are linked to turnover but not deductible, minus the duties and taxes linked to production. Alternatively it can be calculated from gross operating surplus by adding personnel costs. Income and expenditure classified as financial or extra-ordinary in company accounts is excluded from value added. Value added at factor costs is calculated "gross" as value adjustments (such as depreciation) are not subtracted. (Structural Business Statistics (SBS) Code 12 15 0, Commission Regulation (EC) No 2700/98).

Hence, the Gross Value Added indicator calculated in this report differs from the Value added of the Structural Business Statistics because “Change in stocks of goods and services”, “Capitalised production”, “Purchases of goods and services”, “Other taxes on products which are linked to turnover but not deductible” and “Duties and taxes linked to production” have not been taken into account. However, it should be considered that these accounts normally represent a small part of the income, so the use of this indicator is relevant.

Thus, Gross Value Added is calculated using the DCR and DCF data. During the SGECA-10-04 meeting it was decided that “Turnover” and “Other Income” could be reported disaggregated on a voluntary basis. In those cases that “Turnover” and “Other Income” have not been reported disaggregated for the DCR data, then the calculation would be considering “Total income” as the closest approximation to the sum of “Turnover” and “Other Income”.

DCR: GVA = Total Income – Energy costs – Raw materials (value) – Packaging costs – Other running costs.

In those cases that “Turnover” and “Other Income” have been reported disaggregated for the DCR data, then the calculation would be:

DCR: GVA = Turnover + Other Income – Energy costs – Raw materials (value) – Packaging costs – Other running costs.

DCF: GVA = Turnover + Other Income – Energy costs – Raw materials costs– Other Operational costs.

Operating Cash Flow (OCF)

"Operating Cash Flow" refers to the amount of cash a company generates from its operations.

DCR: Total income – Energy costs – Labour costs - Raw materials (value) – Packaging costs – Other running costs.

In those cases that “Turnover”, “Subsidies” and “Other Income” have been reported disaggregated for the DCR data, then the calculation would be:

DCR: Turnover + Subsidies + Other Income – Energy costs – Labour costs - Raw materials (value) – Packaging costs – Other running costs.

DCF: Turnover + Subsidies + Other Income – Energy costs – Labour costs – Raw materials costs– Other Operational costs

Earnings Before Interest and Tax (EBIT)

“Earnings before interest and taxes (EBIT)” or “Operating profit” is a measure of a firm's profitability that excludes interest and income tax expenses. Defined in SGECA-09-03 as Income minus all production costs minus depreciation.

“Earnings Before Interest and Tax” is calculated using the DCR and DCF data. During the SGECA-10-04 meeting it was decided that “Turnover” and “Other Income” could be reported disaggregated on a voluntary basis. In those cases that “Turnover” and “Other Income” have not been reported disaggregated for the DCR data, then the calculation would be considering “Total income” as the closest approximation to the sum of “Turnover” and “Other Income”.

During the SGECA-10-04 meeting it was also opened the possibility to report the DCR period data disaggregated on “Depreciation”, “Financial costs” and “Extraordinary costs” on a voluntary basis. If “Depreciation” was not reported disaggregated under the DCR, then this indicator cannot be calculated for 2006 and 2007.

DCR: Total income – Energy costs – Labour costs - Raw materials (value) – Packaging costs – Other running costs – Depreciation.

DCF: Total Income – Energy costs – Labour costs – Raw materials costs– Other Operational costs – Depreciation.

Net Profit

“Net Profit” corresponds to the income minus all production costs minus depreciation and interest costs (SGECA-09-03).

During the SGECA-10-04 meeting it was also opened the possibility to report the DCR period data disaggregated on “Depreciation”, “Financial costs” and “Extraordinary costs” on a voluntary basis. If “Depreciation” and “Financial costs” were not reported disaggregated under the DCR regulation, then this indicator is calculated for 2006 and 2007 using “Fixed costs”. If both parameters “Depreciation” and “Financial costs” were reported then the “Net Profit” is calculated using both of them, as in the DCF regulation.

DCR: Total income – (Energy costs + Labour costs + Raw materials (value) + Packaging costs + Other running costs) – Fixed costs.

DCF: Total Income – (Energy costs + Labour costs + Raw materials costs + Other Operational costs) – Depreciation – Financial costs.

Return on Investment (ROI)

SGECA-09-03 defined “Return on Investment” as a performance measure used to evaluate the efficiency of an investment. During the SGECA-10-04 meeting it was decided that it was

more appropriate to calculate the Return on Investment using the "Earnings Before Interest and Tax (EBIT)", rather than the Net profit.

DCR: EBIT / Total Investments

DCF: EBIT / Total Value of Assets

However, when the "Earnings Before Interest and Tax (EBIT)" could not be calculated, then "Net Profits" have been used as an approximation of the "Earnings Before Interest and Tax (EBIT)" to estimate the "Return on Investment".

Labour productivity

The Labour productivity is calculated by comparing Gross value added (GVA) with number of FTE.

DCF: GVA / FTE

Running Cost to Turnover Ratio in %

This indicator shows how much of the turnover (income) that is consumed by production costs.

DCF: (Energy costs + Labour costs + Raw materials (value) + Packaging costs + Other running costs) / Turnover

DCF: (Energy costs + Labour costs + Raw materials costs + Other Operational costs) / Turnover

Capital productivity

In 2011 we calculated capital productivity as a new indicator. Capital productivity is calculated as GVA devided by Total assests.

Financial Position

Financial position is estimated as the ratio of own capital and borrowed capital (SGECA-09-03).

This indicator was collected under the DCR regulation. STECF - SGECA 06-01 recommended the data collection to be including several indicators from the balance sheet: Net capital, Debts, Total liabilities (=Total assets: capital value), Total gross investments (replacing Investments: assets). Thus, it was proposed that financial position could be accounted based on these collected parameters and the "Financial position" indicator as such could be removed from the list. These guidelines are in line of DCF.

At the SGECA-06-01 meeting it was initially proposed the indicator share of borrowed capital that can be calculated from the balance sheet (total debts/total liabilities) On the DCR regulation the financial position was defined as: Own Capital / Borrowed Capital. Therefore this indicator was not reported for 2006-2007. For 2008-2009 the financial indicator was calculated as:. Debts / Total Assets.

8. REFERENCES

Scientific, Technical and Economic Committee for Fisheries (STECF) Report on the Evaluation of Data Collection Related to the Fish Processing Sector (SGECA 09 03)

Scientific, Technical and Economic Committee for Fisheries (STECF) Report of the Working Group on the evaluation of data collected on the fish processing sector (SGECA 10-04)

9. APPENDICES

9.1. Data Appendices

The data related to report on the evaluation of the Fish Processing sector is provided on the STECF webpage:

https://stecf.jrc.ec.europa.eu/reports/economic?p_p_id=20&p_p_lifecycle=0&p_p_state=maximized&p_p_col_id=column-2&p_p_col_count=1&_20_struts_action=%2Fdocument_library%2Fview&_20_folderId=324157

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Abstract

The 2011 Economic Report on the European Union (EU) fish processing industry provides a comprehensive overview of the latest information available on the structure and economic performance. The report has been produced by fisheries economists from the JRC and a group of economic experts convened under the Scientific, Technical and Economic Committee for Fisheries (STECF). 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).

The fish processing sector in the EU had more than 3,500 companies with fish processing as main activity that accounted for around 25.5 thousand million Euros of turnover and more than 6 thousand million Euros of Gross Added Value in 2009. The fish processing industry provided employment to around 150 thousand people in the whole Europe.

The fish processing industry shows improvement in terms of higher turnover in 2009 compared to 2008, despite the global and sectorial situations. Even after the start of the financial crisis in 2008 many countries report an increase in turnover, net profit or employment. Also on a first look at 2010/11 many experts report a better situation than in 2008/9.

Overall the sector is suffering from very low margins and they continue to decrease due to increases in the raw materials and energy costs that cannot be translated into price increases due to the high negotiation power of the retail sector.

The fish processing companies in many countries seem to be more efficient than previous years in its ability to react to increasing costs. In several countries there are positive expectations given that total assets are now higher than debt. The STECF reviewed the report by written procedure in February 2012.

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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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