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**Assessment of the status, development and diversification  
of fisheries-dependent communities**

**Oostende Case Study Report**

**June 2010**



## Acronyms

ACFA	Advisory Committee on Fisheries and Aquaculture
Blim	Biomass limit reference point
Bpa	Biomass precautionary approach reference point
EU	European Union
Flim	Fishing mortality limit reference point
Fpa	Fishing mortality precautionary approach reference point
FTE	Full time employment
GDP	Gross Domestic Product
GT	Gross ton
GVS	Large Fleet segment
ICES	International council for the Exploration of the Sea
ILVO	The Institute for Agricultural and Fisheries Research
KHBO	Catholic High School, Brugge
KVS	Small fleet segment
kW	Kilo watt
NUTS	Nomenclature of Territorial Units
MSY	Maximum Sustainable Yield
Ro-Ro	Roll on, roll off transport
SSB	Spawning Stock Biomass
STECF	Scientific Technical and Economic Committee for Fisheries

This report has been prepared through a joint collaboration between Alyné Delaney (IFM, Aalborg University, Denmark) and Sanne De Smet and Dirk Verhaeghe (ILVO, Belgium). The authors acknowledge the important role played by local stakeholders in providing both the quantitative data and the qualitative information presented in this report. This support has been critical in generating primary data not previously available for the Oostende area.

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## 1 Introduction

### 1.1. General description of the location

Oostende is one of the two most important fishing ports in Belgium. Belgium has a limited littoral region, of barely 67 km, which covers only the Flemish part of Belgium. Oostende's fisheries sector mirrors the Flemish fisheries sector quite: the Flemish fisheries sector has faced some challenges in the last several years, particularly due to fish quotas stemming from a decrease in the fish stocks. Furthermore, the sector has had to contend with the doubling of fuel prices and decreased fish prices.

In general, the fishing community of Oostende is in decline. Nationally, the number of vessels decreased to 87 in early 2010. The number of vessels registered in Oostende stabilized in 2007 at 27. The continuous decline of fleet numbers is the result of both de-commissioning rounds and restructuring – which involved the movement towards larger vessels with merged engine powers, resulting consequently, in a loss of fishing licenses. Fishing activity is almost exclusively devoted to catching demersal stocks (plaice, sole and cod) and shrimp. The main fleet segment is made up of beam trawlers.

In 2008, fish landed in the port of Oostende by Belgian vessels had a total monetary value of 30 million euro. This is about 40% of the total value landed in Belgian ports by Belgian vessels<sup>1</sup>. The number of landings by foreign vessels has decreased sharply the last few years. This is probably due to the high fuel costs. The total supply from foreign vessels in the port of Oostende decreased from 125 tonnes in 2007, to 40 tonnes in 2008, a reduction of 70%. In terms of monetary value, the decrease in supply meant the value was only 0.19 million euro, which equals a reduction of 75%. In absolute figures, this supply is negligible. In 2008, the returns from Belgian vessels landing in Belgian ports were 66.6 million euro. The supply from foreign vessels in Oostende equals 90-95% of the total supply from foreign vessels in Belgium. Most foreign vessels landing in Belgian ports are from Dutch origin<sup>2</sup>. Due to the globalisation of the fish trade, the delivery to retail trades is flooded with imported products<sup>3</sup>. The provisioning from own landings amounts to approximately 12.3%<sup>4</sup>.

The port of Oostende is multifaceted. In addition to being an important fishing port, Oostende is also an important regional commercial port and marina. The commercial port contains both passengers and goods transport. The most important activity of the commercial port is the RORO-traffic (Roll-On and Roll-Off). This sector, however, has had some turbulent years recently; several companies went bankrupt, and their activities were taken over by other operators. Furthermore, a few companies reopened a line to Oostend. Nevertheless, in absolute terms of transported goods, this activity has not been negatively affected by these changes with the number of tons transport increasing by 3.6% in 2007. Additionally, despite a decrease in the number of cruise ships, the number of passengers transported through Oostende increased with 7.1% in 2007. In the same timespan, containerization dropped<sup>5</sup>.

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<sup>1</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Department landbouw en visserij [The belgian fisherie: Supply and returns 2008]

<sup>2</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008, hoofdstuk IV and X [The belgian fisherie: Supply and returns 2008, chapter IV and X]

<sup>3</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

<sup>4</sup> Rede van de gouverneur 2007; "West Vlaanderen, door de zee gedreven"

<sup>5</sup> AG Haven Oostende (2008) and Jaaroverzicht Vlaamse havens 2007

## 1.2. Location

The community of Oostende ( $51.23^{\circ}\text{N}$  ;  $2.92^{\circ}\text{E}$ <sup>6</sup>) is located within the region of the North Sea, along the Belgian coast. It is located in the “*arrondissement*” [district] Oostende (NUTS3, code: BE255, see figure 3), in the province of “West Vlaanderen” (NUTS2, BE25, see figure 2), in the “Vlaams Gewest” (NUTS1, BE2, see figure 1). It is centrally situated along the Flemish coastline, 35 km from the Dutch border and 30 km from the French border<sup>7</sup>. In 2008, the district had a population of 149,000 inhabitants. About half of the population lives in the main city, Oostende. In 2008; 69,000 inhabitants lived in Oostende city<sup>8</sup>. The area of Oostende consists of 3,772 ha. In 2003, the population density was 1,804 inhabitants per km<sup>2</sup><sup>9</sup>. This has since slightly increased. This figure is higher than the average of other Belgian regional capitals.

Few statistics are available on the scale of the city of Oostende; most are only available on the district, province or national level. In these cases data of the minimum geographical level were given.

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<sup>6</sup> BMM/MUMM: Beheerseenheid van het mathematisch model van de Noordzee en het schelde-estuarium

<sup>7</sup> Stadsmonografie Oostende 2004, Project stedenbeleid, ministerie van de Vlaamse gemeenschap

<sup>8</sup> West-Vlaanderen sociaaleconomisch - Feiten en Cijfers, editie 2009

<sup>9</sup> Stadsmonografie Oostende 2004, Project stedenbeleid, ministerie van de Vlaamse gemeenschap



**Figure 1. The European union – NUTS level 1 (Source: Eurostat)**



**Figure 2. Belgium – NUTS level (Source: Eurostat)**

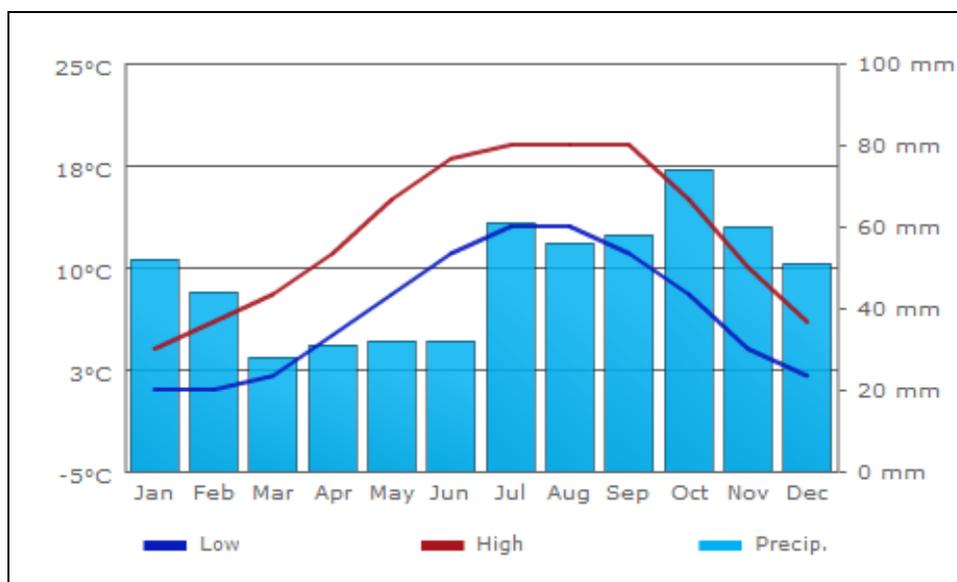


**Figure 3. Belgium – NUTS level 3 (Source: Eurostat)**

### 1.3. Key geographical characteristics of the community

Oostende is well connected to other areas, being easily accessible by road, rail, sea and air. Several ways to enter Oostende are through the airport, seaport, yacht-basin, train station or tram and bus station. Oostende is the end/starting point of motorways through which you can easily reach the main Belgian cities (Brugge, Gent and Brussel) and European cities. The train station is the starting/end point of quite a few national and international connections. A few kilometers from the city centre, lies an airport which offers both passenger transport and goods traffic. In Oostende, there is also a canal leading to the European inland waterway network<sup>10</sup>.

The average temperature in Oostende is 9.5 °C: from 2-5 °C for the coldest months to 14-19°C for the hottest months. Average annual precipitation is 579 mm/year falling on 138 days each year, there are about 1,760 hours sun per year. Figure 4 shows a climate chart for Oostende.<sup>11</sup>



**Figure 4. Annual climate variation (temperature and rainfall) for Oostende (Source:<http://www.climatedata.eu/climate.php?loc=bexx0022&lang=en>)**

The Flemish coastline is situated in the southern bight of the North Sea, just to the east of the entrance to the Canal. It is part of a maritime plain which extends along the North Sea from the cliffs of Boulonnais in France, to Denmark. The Belgian part of this low-lying zone is 65 km long and 10-15 km wide<sup>12</sup>. Seawards from the coastline, are situated the “Belgian territorial sea” and the “Belgian continental shelf”. These are three legally defined areas over which Belgium has a jurisdiction. This Belgian part of the North Sea is 3,462 km<sup>2</sup> and is at low tide nowhere more than 45 m deep. It is characterized by the presence of a complex system of sandbanks, which are mainly orientated parallel to the coast.

<sup>10</sup> Stadsmonografie Oostende 2004, Project stedenbeleid, ministerie van de Vlaamse gemeenschap

<sup>11</sup> <http://www.climatedata.eu/climate.php?loc=bexx0022&lang=en>

<sup>12</sup> Rappé G., Leten M., Provoost S., Hoys M. & M. Hoffmann (1996). Biologie. In: Provoost, S. & Hoffmann, M. (red.) Ecosysteemvisie voor de Vlaamse kust. I. Ecosysteembeschrijving: 167-372



In the 9<sup>th</sup> century, Oostende was a small fishing village on the eastern side of a sandbank (origin name: eastern= oost end=einde). Within the 12<sup>th</sup> century the village further developed. In 1445, Filips De Goede gave permission for a port to be dug. This promoted the fishery. In the early 18<sup>th</sup> century, Oostende experienced a short flourishing period, with the foundation of the "Oostendse compagnie". The first three Belgian ships to sail to China and India to get spices, silk, coffee, tea and other goods left Oostende in 1724. Although these activities were stopped after a period of ten years, the city continued to develop. In 1771, a lighthouse was built with docklands dug in the fishing port only a few years later. In the early 19<sup>th</sup> century, a new dockyard was brought into use, this heralded a new thriving era. Tourism became very important at this point in time. The inauguration of the railway line between Brussels and Oostende in 1838, and the connection between Dover and Oostende by boat in 1846, made sure that the city became more accessible. As a consequence, the tourism infrastructure was further developed and expanded. In 1905 a new port was put into use. Oostende became the stopping place for monarchs, aristocracy and dignitary and bloomed into one of the most elegant and fashionable bathing/seaside resorts of Europe. During both World Wars, the city was heavily bombed, but rebuilt each time. With the opening of the motorway in 1956 and the expansion of the airport in 1976 Oostende became readily accessible for international transport<sup>15</sup>.

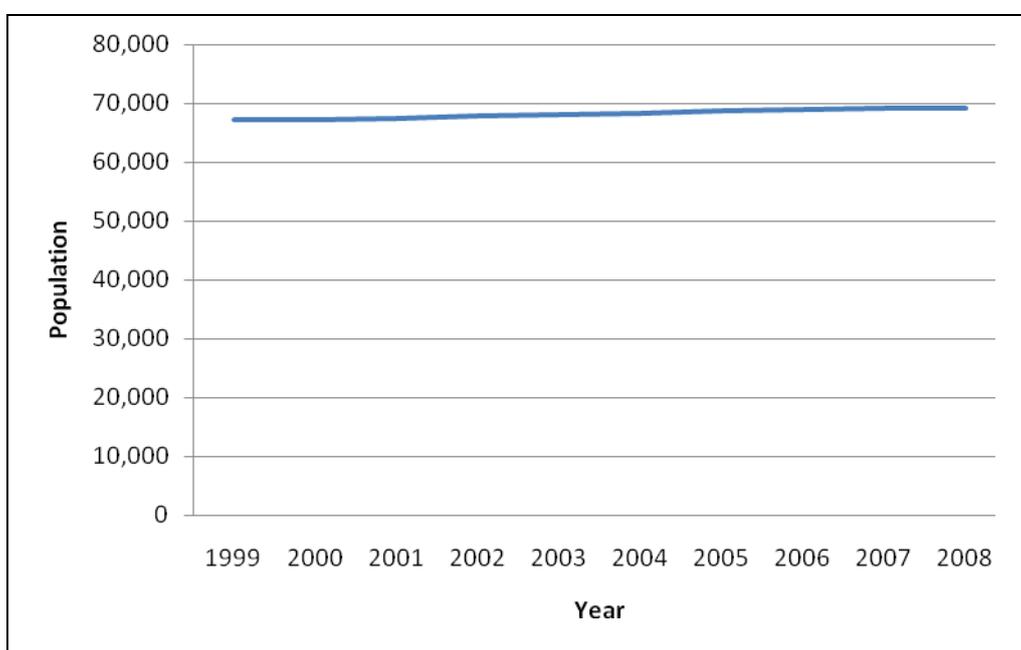
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<sup>15</sup> Stadsmonografie Oostende 2004; Project stedenbeleid, ministerie van de Vlaamse gemeenschap

## 2 Demographic aspects

### 2.1 Population and population age structure

The Oostende population increased steadily through 1973, peaking at almost 72,000 inhabitants. From that point, the number of inhabitants slightly decreased until 2000 with only about 67,000 inhabitants left. Since this time, the population trend has seen only a slight annual increase (see figure 6). In 2008, there were over 69,000 inhabitants. The decrease in the population number during the second half of the 1970s can probably be explained by a restructuring in society: at that time, many houses in Oostende began to be used as second homes. The population trend in Oostende contrasts with regional and national trends. At these levels, the population has seen a constant increase<sup>16,17,18</sup>. Figure 6 shows the trend in the population of Oostende in the last 10 years.



**Figure 6. Changes in population of Oostende between 1999 and 2008 (Source: FOD Economie – Algemene Directie Statistiek en Economische Informatie (ADSEI)).**

The composition of the population of Oostende by age-class shows a prevalence of persons between 18 and 64 years old. In 2008, 10,720 persons or 15% of the community was between 0 and 17 years old; 40,815 persons or 59% was between 18 and 64 years old and 17,640 persons or 26% was older than 64. The population is ageing in Oostende. During the last decade, a slight decrease in the youngest age class is noted, a status quo in the middle age class and a slight increase in the oldest age class (see figure 7). In 1999, the figures were as follows. 17% of the population were younger than 18; 60% were between 18 and 64 and 23% were older than 65<sup>19</sup>. The ratios between the different age classes do not resemble the regional and national figures. At these levels, a higher percentage of people are situated in the youngest age group (about 20%) with fewer in the oldest age group (about 18%).

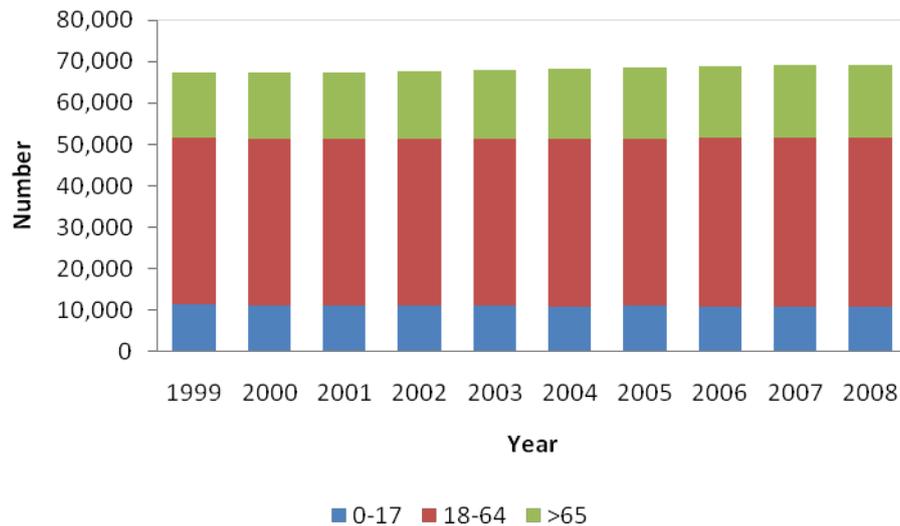
<sup>16</sup> Rijksregister

<sup>17</sup> FOD Economie – algemene directie statistiek en Economische Informatie (ADSEI)

<sup>18</sup> Stadsmonografie Oostende 2004; Project stedenbeleid, ministerie van de Vlaamse gemeenschap

<sup>19</sup> FOD Economie – algemene directie statistiek en Economische Informatie (ADSEI)

Hence, the population in Oostende is ageing. This is primarily due to the immigration of older people coming in the area for retirement. The natural increase of the population is negative, as the number of people dying is higher than the number of births. Due to this low number of births, the youth numbers are smaller in Oostende compared to other Flemish cities. As a consequence of this, in the short term, fewer people will enter the labour market compared to people leaving it<sup>20</sup>.



**Figure 7. Age structure of population in Oostende between 1999 and 2008 (Source: FOD Economie – Algemene Directie Statistiek en Economische Informatie (ADSEI))**

## 2.2 Ethnicity and migration

It should be strongly noted that Belgian statistics do not identify ethnic composition but separate out only “Belgian people” and “foreigners”. In 2008, 5% of the total population of Oostende was foreigners. On the national and regional levels, this figure is much higher. In 2008, 9.1% of the Belgian population was foreigner and 5.8% of the “*Vlaams gewest*”. In the province of West Vlaanderen however, this figure is much lower, in 2008 it equaled to 2.5%. In 2008, the largest group of foreigners came from other from EU-countries (40%), followed by people of Asian descent (26%) and non-EU European nations (23%). Since 2002, the number of foreigners from EU countries has decreased, while the foreigners from Asian and European countries not belonging to the EU increased. The percentage of foreigners coming from the EU and African countries is a lot higher on the national level. On the other hand, the percentage of people with an Asian or European (not EU) nationality is much lower on the national level<sup>21</sup>.

Between 1992 and 1997, the number of immigrants was lower in Oostende compared to other Flemish cities and Flanders in general. In 1998, this percentage rose significantly from 25.4 to 48.6. Since this time, the immigration index is a lot higher in Oostende compared to the rest of Flanders and Flemish cities. At the same time (1998), the number of emigrants also strongly increased. Overall, the number of emigrants is higher in Oostende compared to the rest of Flanders. The balance between immigration and emigration is reflected by the migration index. The immigration index hung around zero during the period between 1992 and 1998, but since 1999 it is strongly positive. Consequently, Oostende has a much higher

<sup>20</sup> Stadsmonografie Oostende 2004; Project stedenbeleid, ministerie van de Vlaamse gemeenschap

<sup>21</sup> Rijksregister

attraction compared to other Flemish cities and Flanders in general. As noted earlier in section 2.1 it appears that elderly people are particularly attracted<sup>22</sup> to Oostende.

### 3 Economic aspects

The number of top companies (5,000 largest Belgian companies in terms of returns) with their main office in Oostende is stabilizing. In early 2009, 25 top companies were located in Oostende. For a city functioning as regional harbour and touristic place this number is not very large. Despite the small number of large companies, Oostende is a city of enterprise. There are many small businesses found within the service sector such as retail, catering, tourism and wellness sectors. Additionally, the employment levels from the “top 10” companies of Oostende has increased in the last few years: over the period 2000-2008, these companies generated 1,233 additional jobs, which is an increase of 50% (in 2002, a total of 2,212 people were employed by these top companies, compared to 3,445 in 2008)<sup>23</sup>.

The number of new start-up companies decreased steadily between 1995 and 2002. In 1995, 448 new companies were established, in 2001 this number decreased to 246, this is a reduction of 45%. In 2007, about 400 new companies were established. When the ratio between companies appearing and disappearing is considered, the number came from 8%, decreased until 6% but was in 2007 again up to the 8%<sup>24</sup>.

It is generally agreed that the port of Oostende plays a significant role in the regional economy. The companies related to the harbour had a net profit of 386 million euro, an added value of 83 million euro and employed 825 people in 2008. Compared to the previous years, the net profit and added value were higher than in 2007, but lower compared to 2006. The number of people employed by these companies increased year after year. Several companies situated along the harbour start to lose the connection with harbour. The future of the port on the long-term is situated in the outer port. However, home construction is also slated to take place in this area in the near future. Furthermore, as the Oostende’s fleet is getting smaller, the fishing port will be reduced in size and a yacht port will be constructed in its place. With the recent construction and the implementation of new offshore windmills, a new economic drive could plausibly be created. Though this new century witnessed extraordinary growth for the harbour, the 2009 recession has had an impact: maritime shipping traffic decreased to 5.3 million tonnes, 2.2 million ton less than in 2008<sup>25</sup>.

#### 3.1 Importance of economic activities

The lowest territorial unit for which eurostat publishes estimates about the added values per economic activity in Belgium, is the district level (NUTS 3). Figure 8, shows the value added per economic activity in the period 2003-2007. The total gross added value did increase each year over the period, from 5 billion euro in 2003 to 6.5 billion euro in 2007; this is an increase of 25%. All sectors increased their added value each year, except for the “Agriculture, hunting, forestry and fishing sector (letter A in graph)” and the “construction sector (letter F in graph)”. For those sectors however, their added value was higher in 2007 compared to 2003. The relative contribution of the sectors to the total added value (%) stayed equal over the years. The primary sector, including agriculture, hunting forestry and fishery, contributed 1% to the total added value. The most important sector in Oostende is the services sector (letter N in graph). This sector realized an added value of 2.5 billion euro in 2007, which is 40% of

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<sup>22</sup> Stadsmonografie Oostende 2004; Project stedenbeleid, ministerie van de Vlaamse gemeenschap

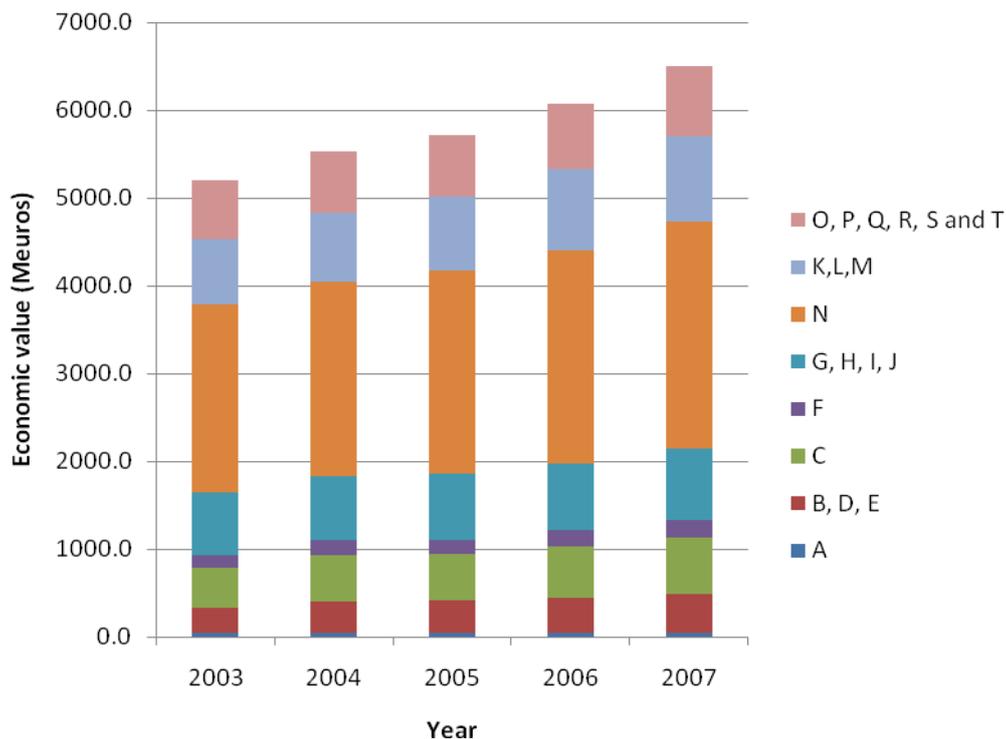
<sup>23</sup> De bedrijfseconomische slagkracht van Oostende en zijn Mida, professor Allaert, 2010 [The business economic power of Oostende and its Maritime industrial development area ]

<sup>24</sup> ECODATA

<sup>25</sup> De bedrijfseconomische slagkracht van Oostende en zijn Mida, professor Allaert, 2010 [The business economic power of Oostende and its Maritime industrial development area ]

the total gross added value for that year. The second, third and fourth largest sectors produced an added value within the same range, namely between 790 and 976 million euro in 2007. These sectors are (from highest to lowest gross added value respectively)<sup>26</sup>:

- “Financial intermediation; real estate, renting and business activities”(letter KLM in graph);
- “Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods; hotels and restaurants; transport, storage and communication” (letter GHIJ in graph);
- “Public administration and defense, compulsory social security; education; health and social work; other community, social and personal service activities; private households with employed persons”(letter OPQRST in graph).



**Figure 8. Gross Value Added for main economic sectors in Oostende (Source: Eurostat)**

**Legend: Main NACE codes were used:**

- **OPQRST: Public administration and defense, compulsory social security; education; health and social work; other community, social and personal service activities; private households with employed persons**
- **KLM: Financial intermediation; real estate, renting and business activities**
- **N: Services (excluding extra-territorial organizations and bodies)**
- **GHIJ: Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods; hotels and restaurants; transport, storage and communication**
- **F: Construction**
- **C: Industry**
- **BDE: Mining and quarrying; electricity, gas and water supply**
- **A: Agriculture, hunting, forestry and fishing**

<sup>26</sup> Eurostat

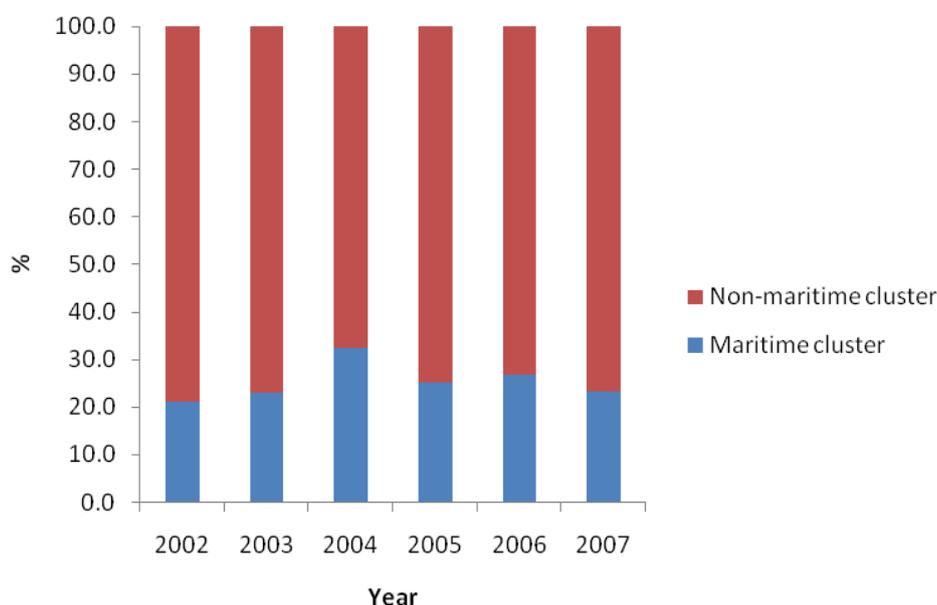
### *The fisheries sector*

Unfortunately, there are no estimates available of the contribution of the fishing and aquaculture industry to the local economy. Estimates for the ancillary activities are problematic as well, as there is no information of the breakdown of activities by sector.

The economic importance of the sea fisheries and aquaculture sector in Belgium are limited. The fisheries sector contributed 0.04% to the gross domestic product in 2006. Furthermore, it contributed 1.9% to the global primary sector<sup>27</sup>.

There are 260 fish processing institutes in Flanders. Of which, 5 are large companies (> 250 employees), 20 medium sized companies and 235 small and micro-companies (< 5 employees). These companies, however, are mainly active in the processing of imported fish<sup>28</sup>.

By looking at the figures on the port of Oostende, we can extrapolate to provide a general indication of the economic importance of the fisheries sector. The direct added value of the port of Oostende was about 871 million euro in 2007 (most recent figure). Compared to 2006, the added value increased with 8.3%. Looking at 2002-2007, the added value increased on average with 6.9% each year. The added value equals to 0.2% of the Flemish GDP (Gross Domestic Product), and 0.1% of the national GDP. Of course, this port incorporates more activities than simply the fisheries. When we consider the “Maritime cluster”, in 2007, the added value equalled 118 million euro in 2007. This was a decrease of 9.1% in comparison to 2006. When the period from 2002-2007 is considered, a yearly increase of 6.6% is recorded. Figure 9 gives an overview of the trend in the relative contribution to the added value for the “maritime cluster” versus the “non-maritime cluster” in the period 2002-2007.



**Figure 9. Relative contribution to the added value for the Maritime – and non-maritime cluster in the port of Oostende in the period 2002-2007 (Source: working paper No. 172 – July 2009)**

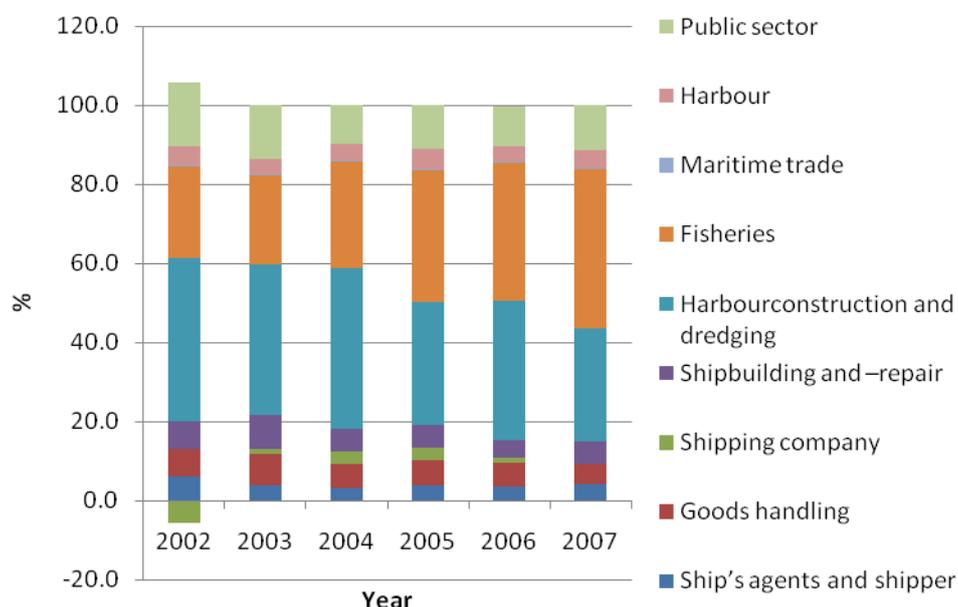
<sup>27</sup> Nationaal Strategisch Plan voor de Belgische visserijsector 2007-2013; Europees visserijfonds

<sup>28</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

Within this “Maritime cluster”, the following activities/sectors are considered:

- Ship’s agents and shipper
- Goods handling
- Shipping company
- Shipbuilding and –repair
- Harbour construction and dredging
- Fisheries
- Maritime trade
- Port
- Public sector

Figure 10 gives a more detailed overview of the relative contribution of the activities within the maritime cluster to the added value for the period 2002-2007. No definition for the activity “fisheries” is given, so the numbers given must be seen as an indication. Plausibly, “shipping companies” and “shipbuilders and repair” will also be closely related to the fisheries sector and might need to be included to provide accurate figure. However, the sectors might also include companies who are not active in the fisheries sector. On the other hand, food processing companies will not be included in the maritime cluster, although these might be a part of the fisheries sector as well. When the fisheries sector only is considered, the added value of the fisheries sector in Oostende was 43 million euro in 2007. This figure is estimated as 0.01% of the Flemish GDP and 0.05% of the national GDP (this is more or less within the same range is the 0.04% reported earlier). The relative importance of the fisheries industry in 2007 was 9.4% of all the industries in the port of Oostende and 40% of the maritime cluster. The added value was 7.9% higher than in 2006 and when the period 2002-2007 is considered, on average this value increased 21.6% yearly<sup>29</sup>.

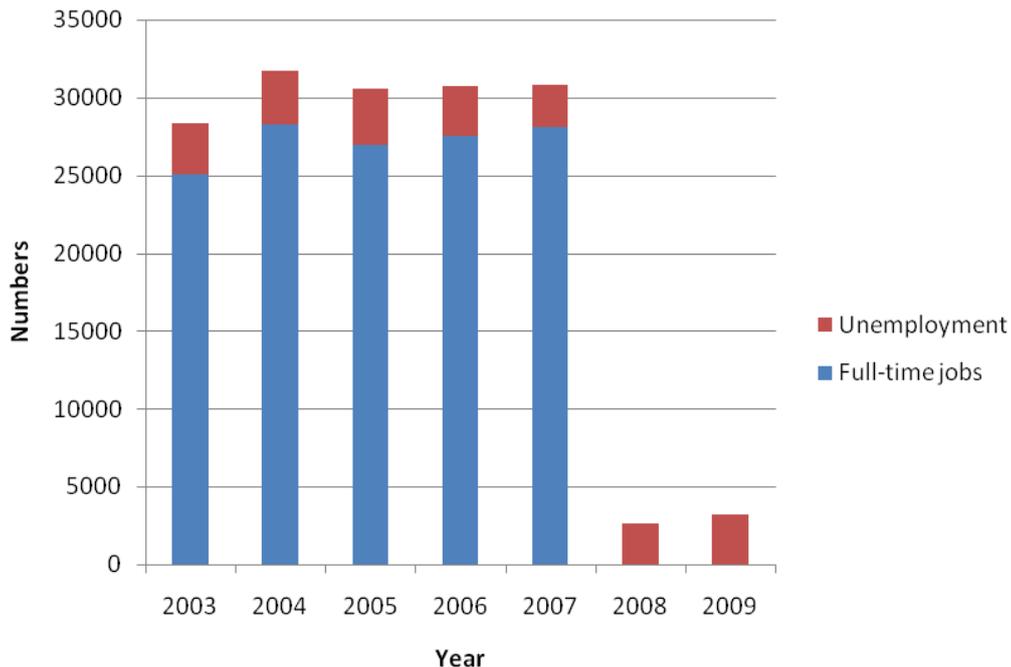


**Figure 10. Relative contribution of the different activities within the maritime cluster to the added value for the port of Oostende in the period 2002-2007 (Source: NBB working paper No. 172 – July 2009)**

<sup>29</sup> NBB working paper No. 172- July 2009

### 3.2 Employment and unemployment

Employment in the city of Oostende fluctuated during the period 2003-2007. A peak was registered in 2004, though it was much lower in 2005, and then gradually increased again until in 2007 when it almost again equaled employment numbers for 2004. The maximum and minimum employment numbers registered during this period are 28,270 (2004) and 25,095 in (2003)<sup>30</sup>. The unemployment rate increased from 2003 to 2005 decreased through 2008, and then in 2009, an increase in the unemployment number was noted again. The maximum and minimum unemployment numbers registered within the period from 2003 to 2009 are 3,602 (2005) and 2,638 in (2008)<sup>31</sup>. Figure 11 shows the full time employment and unemployment rates.



**Figure 11. Employment in Oostende between 2003 and 2009 (Source: RSZ and VDAB)**

When considering employment per economic activity, it should be noted that the employment in the primary sector decreased while employment in the secondary and tertiary sectors increased. Thus in Oostende, fewer people work within the industry, compared to other Flemish cities<sup>32</sup>.

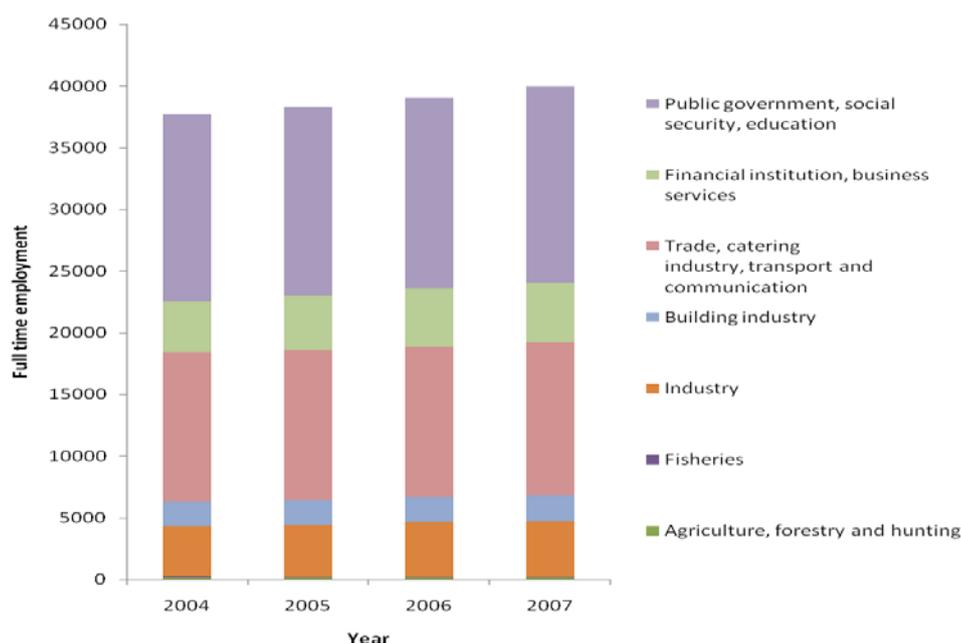
For employment per “key economic sector”, only data on the district level are available. The tertiary sector is the sector of importance for the local economy with the secondary sector being the second most important. The primary sector is of very small significance. On the whole, the relative importance of the different sectors has stayed equal; these accounted for 83%, 16,5% and 0,5% respectively<sup>33</sup>. Figure 12 gives an overview of the full-time employment per key economic sector in the period 2004-2007.

<sup>30</sup> Rijksdienst voor sociale zekerheid (RSZ)

<sup>31</sup> Vlaamse Dienst voor arbeidsbemiddeling en beroepsopleiding (VDAB)

<sup>32</sup> Stadsmonografie Oostende 2004; Project stedenbeleid, Ministerie van de Vlaamse gemeenschap

<sup>33</sup> Rijksdienst voor Sociale Zekerheid



**Figure 12. Employment per key economic sector in the period 2004-2007 in the district Oostende (Source: RSZ)**

### **The Fisheries sector**

Due to large variations in the numbers given in different sources and the variation in scale levels, it is difficult to obtain accurate employment numbers for the fisheries sector in Oostende. Nevertheless, some general comments about the sector can be made.

The employment in the fisheries sector is almost completely found in the coastal region (ca. 98%).<sup>34</sup> The employment in the primary sector, the smallest sector in Oostende, decreased slightly over the study period. On source states that in 200 of the 175 employed people in the primary sector, 152 worked in the fisheries sector<sup>35</sup>. However, this figure is much larger than what we found in the statistics of the RSZ (see previous paragraph).

According to one source, only 638 persons worked in the fisheries sector in Belgium (2002) and this number shows significant decline from earlier years. Between 1995 and 2002, 33% of the jobs in the fisheries sector were lost. This decrease in employment in the fisheries sector was the strongest in coastal communities. Despite this loss in jobs, the employment in the coastal region increased in this time by 7%. The decrease in employment was compensated by an increase in jobs in the tertiary and quaternary sectors<sup>36</sup>.

Furthermore, it was estimated that the employment directly related to the catching sector (crew and ship-owners) added up to 900 persons nationally in 2008. The total number of recognised fishermen was estimated around 720 (although another source reported much lower figures; about 576<sup>37</sup>). In 2007, there were 450 jobs on a full time basis in this sector<sup>38</sup>.

<sup>34</sup> Werkgelegenheid in de visserij en landbouw, Nancy Moyaert, [www.kustbeheer.be/indicatoren](http://www.kustbeheer.be/indicatoren)

<sup>35</sup> Stadsmonografie Oostende 2004; project stedenbeleid, ministerie van de Vlaamse gemeenschap

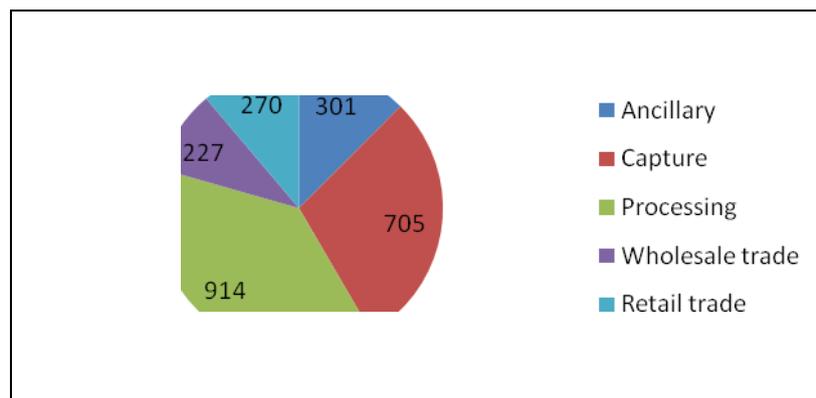
<sup>36</sup> Werkgelegenheid in de visserij en landbouw, Nancy Moyaert, [www.kustbeheer.be/indicatoren](http://www.kustbeheer.be/indicatoren)

<sup>37</sup> Stichting voor duurzame visserijontwikkeling (SDVO)

<sup>38</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

In 2006, the fish-processing sector employed 1,373 people nationally; 983 of these were wage labourer and 390 were salaried employees. Of these, 82% were employed in Flanders and 18% in Wallonia<sup>39</sup>. The employment in the ancillary sector is estimated to provide 5,000 jobs at the national level<sup>40</sup>.

Within the fisheries sector (including processing and ancillary sector), it is estimated that in the Oostende region in 1992, 1,081 persons were employed compared to only 676 in 2001. When the whole fisheries sector on the provincial level is considered, it is estimated that 29% of the people employed in this sector work in the primary sector. The industrial activity related to the fisheries sector, accounts for 50% of the employment in the fisheries sector. After the shipyards and repair facilities (12%), it is the fish processing sector (38%) which provides the most employment. Finally, tertiary business accounts for 21% of the employment. Within this sector, we can distinguish the wholesale business and the retail trade, who respectively represent 10 and 11% of the total employment in the fisheries sector (see figure 13). Of course, these data are only an indication, as they concern a larger region than the city of Oostende. As some of these industries are mainly located near the coast and not in the hinterland, these percentages will be slightly different. In terms of employment in the fisheries sector within the province, 28% is found within the region of Oostende. At this same geographical scale, the employment has decreased considerably between the period 1992-2001, mainly in the primary and ancillary sectors. However, it should be noted that employment within the wholesale trade in seafood has also increased considerably<sup>41</sup>.



**Figure 13. Subdivision of the employment of the fisheries sector per activity for the province "West Vlaanderen" in 2001 (Source: WES Onderzoek en advies; West-Vlaamse sector in de kijker: Visserij West Vlaanderen werkt, 2003, nr.2)**

### 3.3 Infrastructure

Oostende is easily accessible by rail, road, sea and air. The seaport provides the most prominent access point with its yacht, fishing and commercial ports. The commercial port serves both passenger traffic and carriage of goods (cruise, car-ferry, RORO, container and cargo). The passenger traffic has decreased significantly in Oostende in recent years. Historically (since 1846<sup>42</sup>) there was a ferry to Dover in the south of England and more recently, travel to Ramsgate was possible, as well. In 1992, 2,181,874 passengers took the ferry to/from Oostende. In 2002, however, after the closure of the Hoverspeed Dover line, only 397,132 passengers took the ferry. This is a reduction of 82%.

<sup>39</sup> Verslag over de conjunctuurontwikkeling in de visserij in 2006 en begin 2007; Centrale Raad voor het Bedrijfsleven (CBR)

<sup>40</sup> Nationaal Strategisch Plan voor de Belgische visserijsector 2007-2013; Europees visserijfonds

<sup>41</sup> WES Onderzoek en advies; West-Vlaamse sector in de kijker: Visserij West Vlaanderen werkt, 2003, nr. 2

<sup>42</sup> Stadsmonografie Oostende 2004, Project stedenbeleid, ministerie van de Vlaamse gemeenschap

The yacht-port is located at the border of the city centre. In 2001, 4,213 yachts visited the port. Of these visitors, 71% were Belgian while Dutch were the most common of the foreign boats.<sup>43</sup>

In addition to its seaport, Oostende also has an international airport which provides both passenger service and goods transport. The multi-accessibility of Oostende is further emphasized by the presence of a comprehensive railroad infrastructure. The train station of Oostende is the starting/endpoint of quite a few national and international connections. The railway line between Oostende and Brussels was opened in 1838.

Oostende also has a canal leading to the European inland waterway network. Furthermore, the centre of Oostende is the starting/endpoint of the motorway A10-E40, which links up with other motorways that span Europe. Finally, there is also a tramline along the Belgian coast. This tramline traverses Oostende, on its way between Knokke (near the Dutch border) and De Panne (near the French border).

Consequently, Oostende is well connected and centred in a favourably location for national and international transport.

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<sup>43</sup> Stadsmonografie Oostende 2004, Project stedenbeleid, ministerie van de Vlaamse gemeenschap

Kaart 6.1.1: Overzicht van de infrastructuurwerken in West-Vlaanderen, toestand 2008.

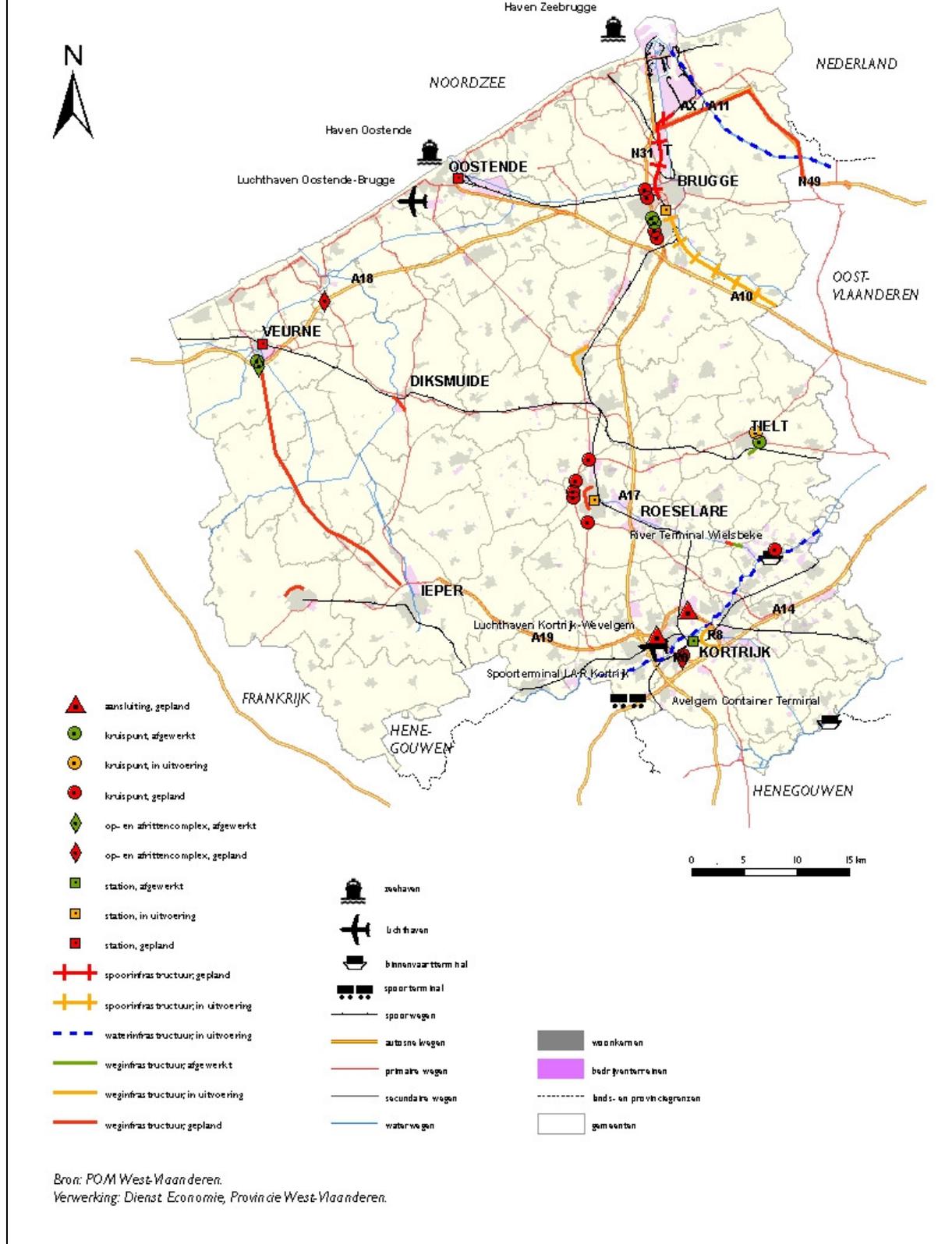


Figure 14. Map of the infrastructure of the province “West Vlaanderen” (Source: POM West-Vlaanderen)

Also the tourist, sports and recreation/leisure related infrastructure is comprehensive and well established within Oostende.

### **Business sector dynamics**

The number of active enterprises in the district of Oostende has seen a drop over the period 1999-2000 from 9,878 active enterprises (1999) to 9,726 (2002). Beginning in 2003 a recovery began with 10,147 active enterprises in 2004<sup>44</sup>.

### **Education**

Almost all levels of education are available in the city of Oostende. In total, Oostende has 25 primary schools and 17 secondary schools. At the age of 16, the number of school places is about 959. Oostende has one college, the "*Katholieke Hogeschool Brugge – Oostende – KHBO*". Loosely translated as the Brugge Catholic High School, the KHBO has campuses in both Bruges and Oostende; its study program includes industrial sciences and technologies<sup>45</sup>.

The "*Maritiem instituut Mercator*" (Mercator Maritime Institute) is a school which specializes in providing maritime education. For students from 12 to 14 years, a specialist education includes maritime deck skills, maritime engine skills, general maritime education and captancy. For 15 to 25 year olds, part-time education is also provided<sup>46</sup> in order for students to continue their education while working.

## **3.4 Local development plans**

Real estate is one of the most important sectors in Oostende. This sector provides a lot of employment and is often "crisis-proof", as many buyers in the coastal region are investors. The prices of homes have risen 43% over the period 2004-2009. In Oostende, a number of large development projects are in the pipeline and should come about in a few years. Some of the plans include: 1,100 flats, plus a new marina in Oosteroever; 30 shops and 500 flats in the Media Center; RMT-parking with 110 flats; 300 flats with the hotelier school; and 120 flats as a part of the Military Hospital.

In addition to these plans, Oostende is putting "renewable energy" as its new top development focus for the next 20 years (2010-2030). Current plans include, among others, the building of a wind park at sea and the creation of a park of solar panels. There are also a number of companies working on renewable energy based in Oostende such as Greenbridge, Power Link, The energy box, Electrawind (2 biofuel factories and a research lab), and Proviron (biofuel factory and the cultivation of algae).

There are also plans to privatize the Oostende airport in the near future. The hope is more flights will take place, including some by Ryan Air, with employment increasing as a direct result of these activities.

The hotel and catering sectors continue to grow each year with new eateries constantly being established. Part of the growth in the hotel sector includes investments in the health and wellness sector.

In relation to the maritime sector, the "Flanders Marine" project has been established recently. This project, working as a marine cluster, aims to improve the maritime business

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<sup>44</sup> RESOC

<sup>45</sup> Stad Oostende, Dienst jeugd en onderwijs

<sup>46</sup> Stad Oostende, Dienst jeugd en onderwijs

sector through using new ways of working, developing new technologies and looking for new markets through collaboration of researchers and industry.

#### 4 Fisheries and aquaculture sector

The Oostende fleet makes up 30% of all Belgian vessels. These same vessels accounted for 18% of the total engine power and tonnage. In Oostende, the average engine power per vessel was 474 kW. In 2009, almost 7,000 tons, equal to a value of 25.5 million euro, were landed in the port of Oostende by Belgian vessels. These landings represent 45% of the total fish landed in Belgium by Belgian vessels in weight and value. 1,821 vessels landed in Oostende in 2008. On average they landed 4,306 kg per trip for a value of 15,843 euro. Although beam trawling is the most important fishing method used in Belgium, vessels are increasingly making use of otter trawling and pots and traps for a part of the year. The target species for this fleet are plaice, sole, cod and shrimp.

Aquaculture is very limited in Oostende. One firm is breeding two species of oysters. The processing sector is not as closely connected with the catching sector as it was historically as most of the processed fish currently used are imported. The ancillary sector is present in Oostende such as several ship forges and shipyards. Furthermore, several chandlery and equipment stores are based in Oostende. In addition, a packaging firm and several firms involved in the refrigerated transport are located here.

##### 4.1 Details of the local fishing fleets

No clear categorisation of the fishing fleet exists within Belgium with the several subdivisions used interchangeably and confusing the picture. At the federal level, the ministry of mobility and transport uses a subdivision based on the gross tonnage of the vessels (-35 GT; 36-70 GT; 71-180 GT; 181-400 GT; +401 GT). Since 2003, the ministry of agriculture and fisheries, which operates at the Flemish level, applies a categorization which is based on the capacity (engine power) on the one side and the fisheries method involved on the other side. The Flemish categorization will be used in this report.

The first distinction is made between vessels having an engine power smaller or higher than 221 kW (this equals 300 hp). Those 2 groups, the “large” and the “small” fleet segment, are further subdivided based on the fishing method used:

- Groot vloot segment (**“large” fleet segment**; engine power > 221 kW)
  - *Bokken* (**large beam trawlers**; ≥662 kW, fishing method: beam trawling)
  - Other ( gillnetting, otter trawling and beam trawling of which the vessel has a capacity between 221 and 662 kW)
  
- Klein vloot segment (**“small” fleet segment**; engine power ≤ 221 kW)
  - *Kust visserssegment* (tonnage ≤70, days at sea < 1)
  - *Eurokotterssegment* ( **small beam trawlers**; ships built since 1981, fishing method: beam trawling, built to fish within the 12-miles zone)
  - Other (fishing method: beam trawling)

**Table 1. Breakdown of the Oostende fleet by segment in 2009**

Segment	Number of vessels	Main gear used	Average number of crew	Main species fished	Main fishing location	Trip length
<b>Groot vloot segment (large fleet segment)</b>						
Bokken (large beam trawlers)	7	beam trawling	6	European plaice, Common sole, Thornback ray	IVc, VIIg, VIId and VIIa	9
Other	6	otter trawling + trammel netting	6	Great Atlantic scallop, European plaice, Common sole	VIId and VIIg	7
<b>Klein vloot segment (small fleet segment)</b>						
Kustvisserssegment	1	shrimp fishing	2	Brown shrimps, Common dab, European flounder, Whiting	Ivc	1
Eurokotterssegment (small beam trawlers)	4	beam trawling	4	Common sole, European plaice, Brown shrimps, European flounder	VIId and Ivc	3
Other	8	beam trawling	4	Brown shrimp, European flounder, Common sole	Ivc	3

Source: Officiële lijst der belgische vaartuigen, FOD Mobiliteit en vervoer; Dienst zeevisserij and kb 1973 nummer 94

Table 1 gives an overview of the different fleet segments and their characteristics in 2009. In 2009, the fleet of Oostende had a total of 26 vessels. Half of the vessels are found within the “Large fleet segment” and the other half are found in the “Small fleet segment”. Within the large fleet segment, after beam trawling, otter trawling and trammel netting are the most common methods used. Beam trawling and shrimp fishing are the methods used in the small fleet segment. The average number of crew is six on the vessels of the large fleet segment and two or four on the boats in the small fleet. On the boats of the “*Kustvissers*” (coast fishers) which fish for less than one day, the average number of crew is only two, whereas the other fleet segments average four crewmembers per boat.

The main species fished are selected based on the landing in kilograms and not their actual value (euro). Within the large fleet segment the common sole and the European plaice are the two main species fished. The large beam trawlers also catch a lot of Thornback ray and the other fishing methods catch a lot of scallop. Within the small fleet segment, mainly brown shrimp and European flounder are caught. Furthermore, the *Kustvissers* target common dab and whiting. The small beam trawlers also catch the main fish species of the large fleet segment, common sole and European plaice. Also the “other from the small fleet segment” catch common sole. The large fleet segment mainly fishes in the ICES areas number VIId and VIIg. The large beam trawlers also regularly visit the areas number IVc and VIIa. Vessels from the small fleet segment mainly fish in the ICES area VIc, the small beam trawlers also regularly visit VIId (see figure 15 for the different fishing areas). The average trip length for vessels from the large fleet segment is nine days for the large beam trawlers, and seven days for the other vessels from the large fleet segment. Vessels from the small fleet segment spend on average three days at sea, except for vessels from the *Kustvisserssegment*, which fish for less than 24 hours on average<sup>47</sup>.

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<sup>47</sup> Departement Landbouw en Visserij; Dienst zeevisserij [Belgian Seafisheries office]

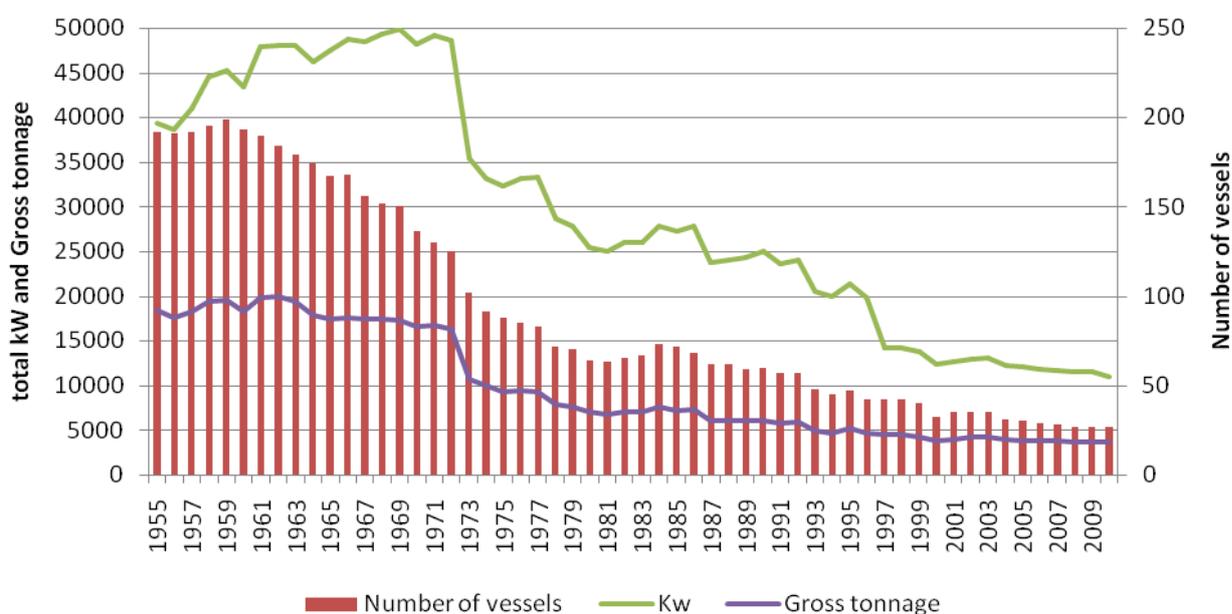


**Figure 15. ICES fishing areas (Source: [www.ices.dk](http://www.ices.dk))**

The number of vessels continues to decrease. In 2008, there were only 100 vessels still operating; by 2010, there were only 87 vessels remaining. Most of the vessels were taken out of operation by combinin engine power. Consequently, the average power per vessel in 2008 was 606 kW (compared to 474 kW in Oostende), while the average tonnage per vessel stabilized around 190 gross tonnes. Even though beam trawling is by far the most important fishing method within the Belgian fleet, there is a tendency towards an increase in the use of

otter trawling and gillnetting during a part of the season, most probably in an attempt to reduce fuel costs<sup>48</sup>.

Figure 16 illustrates the evolution of the Oostende fishing fleet since 1955. In 1955 Oostende had 192 vessels; in 2010, only 27 remained. The maximum number of vessels within this period was observed in 1959 with 199 vessels registered in Oostende. Between 1955 and 1975 the fleet was halved with only 88 vessels remaining. Between 1975 and 1995 the same trend was observed, again with the number of vessels halved. In 1995, only 47 vessels were left. In the last few decades, the decline seems to have leveled out, with the number of boats in the fleet stabilizing. Even though the number of vessels between 1955 and today has declined drastically, it did not involve a proportional decrease in the total capacity. The gross tonnage is 80% lower in 2010 compared to 1955. The engine power of the fleet decreased with 72% over this period. There is a trend towards a lower number of vessels, but a higher individual capacity and tonnage. In 1955 the average capacity per vessel was 150 kW compared to 406 kW today; the average gross tonnage per vessel in 1955 was 96 tons compared to 135 tons today. The average power and tonnage of the vessels from Oostende are lower compared to the national average (see earlier)<sup>49</sup>. The capacity of the local fleet contained 21% of the total driving force of the national fleet<sup>50</sup>.



**Figure 16. Evolution of the Oostende fishing fleet, 1955-2010 (Source: Officiële lijst van de Belgische vissersvaartuigen 2010; FOD Mobiliteit en vervoer)**

In addition to the vessels discussed in this section, there is one extra ship registered in Oostende. Given that this ship is used for educational purposes, and is not relevant for the catching sector, it is not included in these figures or calculations.

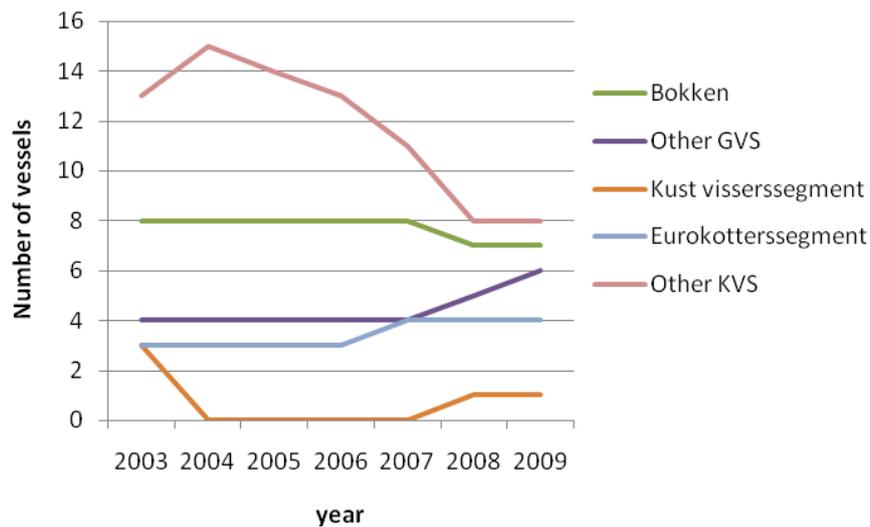
Figure 17 shows the evolution of the number of vessels registered in Oostende for the period 2003-2009 per fleet segment. The number of vessels in the “large fleet segment (*bokken* and other GVS)” stayed fairly stable the last five years. One vessel shifted from the “large beam trawlers (*bokken*)” to the other group (GVS) within the large fleet segment. The number of

<sup>48</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Department landbouw en visserij [The Belgian fisheries: Supply and returns 2008]

<sup>49</sup> Officiële lijst van de Belgische vissersvaartuigen, FOD Mobiliteit en vervoer, 2010

<sup>50</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Department landbouw en visserij [The Belgian fisheries: Supply and returns 2008]

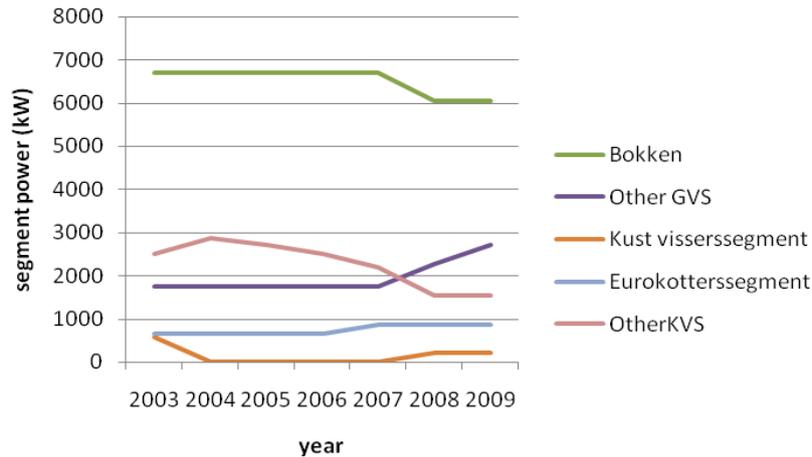
vessels within the “small fleet segment (*kustvissersegment*, *eurokottesegment* and other KVS)” were less stable in the last five years. For some years, no ships were found within the *kustvissersegment*. In the most recent two years, however, one ship became active in this segment. The segment of the small beam trawlers (*eurokotters*) increased by one vessel. In the segment with the remaining vessels of the small fleet segment (other KVS), a significant number of vessels dropped out. Whereas in 2005, 15 vessels were registered within this segment, by 2009 only eight were left.



**Figure 17. Oostende fleet segment changes in number of vessels (Source: Officiële lijst van de Belgische vissersvaartuigen, FOD Mobiliteit en vervoer).**

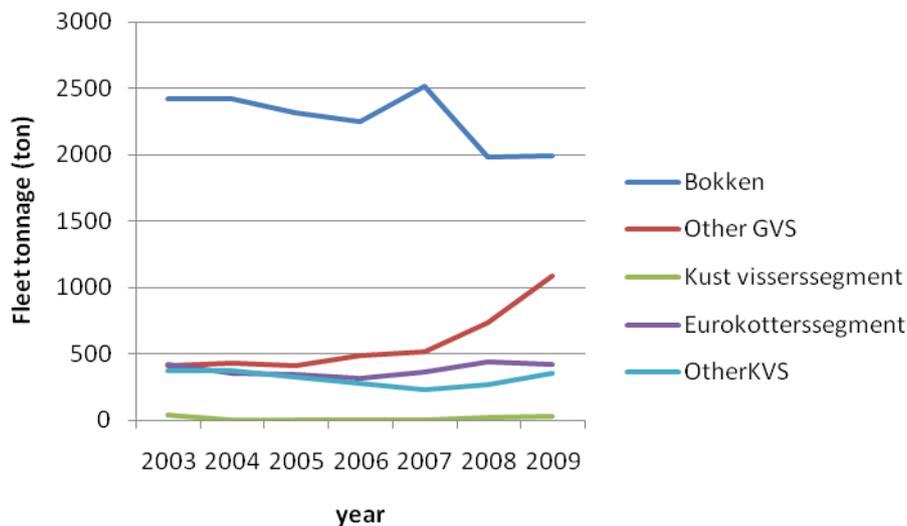
Figure 18 provides an overview of the evolution in the engine power per segment for the last 5 years. The total power of the large beam trawlers (*bokken*) is the highest, while the smallest total power is noted in the *kustvissersegment*. The fleet segment power follows the same trends as seen in the number of vessels. Within the large fleet segment (*bokken* and other GVS), a reduction in the total power of the large beam trawlers was seen in 2007, as the number of vessels was reduced with one ship at that time. The total power decreased from 6,708 to 6,406 kW. Yet, the total power of the remaining vessels of the large fleet segment increased from 1,753 to 2,715 kW after 2007, as the number of vessels increased after this date.

The total power in the *kustvissersegment* also follows the same trend as the numbers of vessels in this segment. In 2003 this number is relatively high, as several ships were active in this segment that year. Then, for several years the total power equals zero, as no ships are active in that period. For the last two years, the total power equaled 213 kW, as one vessel became active. For the small beam trawlers (*eurokotters*), the total power equaled 660 kW over the period 2003-2006. As in 2007, one new vessel joined this segment and the total power increased to 881 kW. The total power of the remaining vessels of the small fleet segment (other KVS) did increase in one year (2003 to 2004), but decreased afterwards. The maximum total power (in 2004) was 2,872 kW whereas in 2009, only 1,557 kW remained.



**Figure 18. Oostende fleet segment changes in total engine power (kW) in the period 2003-2009.**  
**Source: Officiële lijst van de Belgische vissersvaartuigen, FOD Mobiliteit en vervoer.**

Figure 19 gives an overview of the evolution in the total gross tonnage for the vessels of the different fleet segments. The total tonnage of the *bokken* is the highest by far. Nevertheless, a decrease in total tonnage of the large beam trawlers was observed over the period 2003-2009. The total tonnage varied from between 1,984 to 2,250 tons, with it peaking in 2007. The lower total tonnage in 2008 and 2009 is due to the lower number of vessels in this segment. The total tonnage of the other vessels in the large fleet segment (other GVS) increased over the period 2003-2009. Up until 2007, a slight increase was noted, while in 2008 and 2009 a considerable increase was noted; in 2003, tonnage equaled 416 tons and it increased to 1084 in 2009. The total tonnage of the *eurokotters* and the other vessels of the small fleet segment (other KVS) were fairly stable. For the *eurokotters*, it varied between 311 and 437 tons. The total tonnage of the other vessels of the small fleet segment, varied from 229 to 372 tons. The total tonnage of the vessels from the *kustvisserssegment* was 44 in 2003, 26 in 2008 and 31 tons in 2009.

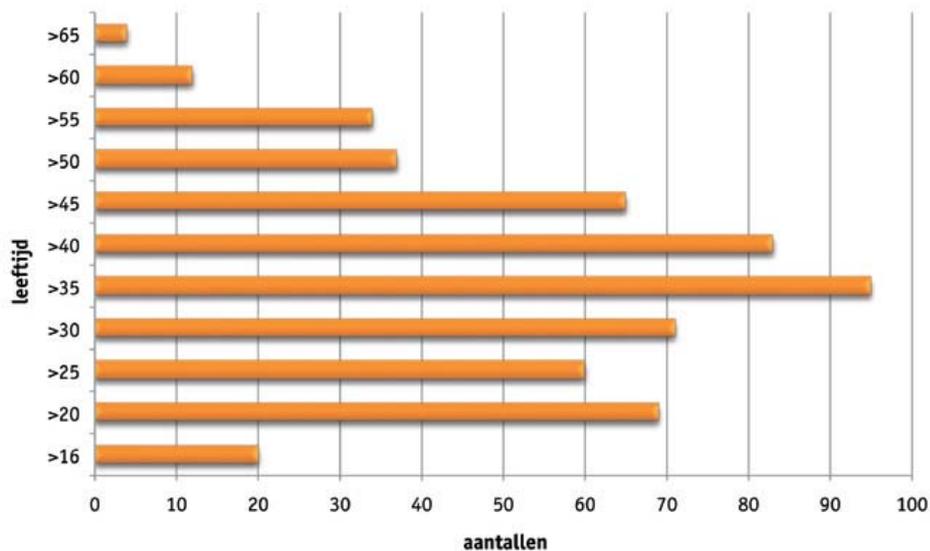


**Figure 19. Oostende fleet segment changes in gross tonnage (GT) in the period 2003-2009.**  
**Source: Officiële lijst van de Belgische vissersvaartuigen, FOD Mobiliteit en vervoer.**

As the trend in total power and tonnage is influenced by the number of vessels active in the segment, and this number changed over the study period, it would be more informative to look at the average power and tonnage per vessel.

### Trends in the crews

Not much information is available on trends in crews. In Figure 20, the fishermen are classified according to age groups. This is a national figure, as no local data are available. The largest group of fishermen are found in the 36-40 age range with 90 fishermen found in this group.



**Figure 20. Age structure of the Belgian fishermen. Vertical axis represents the different age groups and the horizontal axis the number of fishermen situated in each age class. Source: Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie.**

Most of the people working in the catching sector are local labourers. There is however, a significant group of fishermen with Dutch nationality. 78% of the crew are Belgian, while 21% have Dutch nationality<sup>51</sup>. In 2008, 27 Belgian vessels were owned by people with the Dutch nationality. Before 1999, Belgian-flagged Dutch vessels only landed in Belgian ports to comply with local regulations and their catches were marketed completely in the Netherlands. However, as of 1999, there are new regulations which ensure vessels must have an economic link with the coastal region<sup>52</sup>. Consequently, in 2008, only 40% of these catches were marketed in the Netherlands.

The catching sector is currently experiencing difficulties in attracting crew. With its unsafe and unsustainable image, most fishermen trainees, as confirmed by the Mercator institute, tend to end up with dredging-companies rather than in the fishing industry.

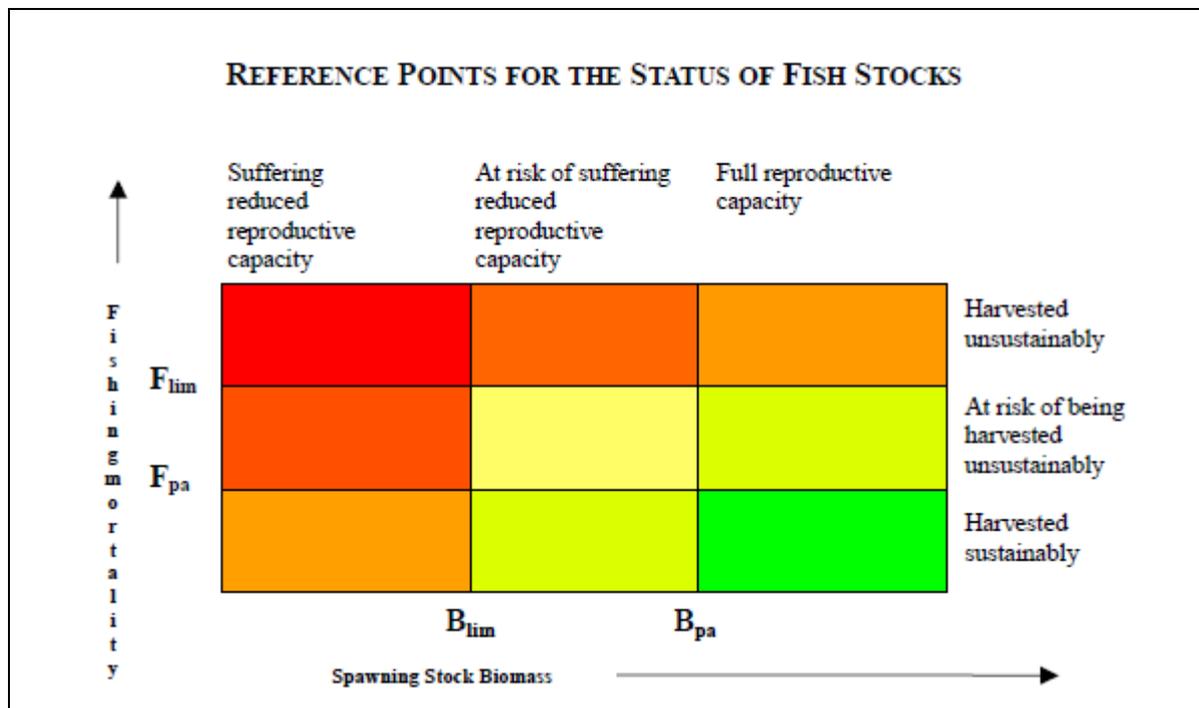
## 2.2 Fish stock status

In order to give an approximation of the stock status relative to MSY (maximum sustainable yield), the amount of fish in the stock (biomass) and fishing mortality data were used. Several reference points were used. The minimum spawning stock biomass benchmark,  $B_{lim}$  (biomass limit reference point) and  $B_{pa}$ , the biomass precautionary approach reference point.

<sup>51</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

<sup>52</sup> BVR van 16/12/2005, art.12

For fishing mortality, similarly,  $F_{lim}$  and  $F_{pa}$  were used. The figure below was used to make a statement about the stock status. Three different categories were used. In case the spawning stock biomass (SSB) is higher than  $B_{pa}$  and fish mortality is lower than  $F_{pa}$  (bright green area in figure), a “+” was given to the stock. In the stock was located in the light green area of the figure, “+/-” was given. If the stock is located in the red areas a “-“ was given.



**Figure 21. Reference points for the status of fish stocks. Source: ICES, The form of ICES Advice**

The main stocks on which the fleet depends were estimated based on the data of 2003 and 2008. For those 2 years, the species and fishing grounds were plotted based on tons landed. The main species selected were European plaice, common sole, Atlantic cod and brown shrimp. The European plaice are mainly fished in the ICES areas number IVb, IVc and VIId. The common sole are mainly fished in areas IVc, VIIa and VIId. Atlantic cod and brown shrimp are mainly fished in area IVc (see table 2 and 3).

Details about the stocks status of the relevant species is given in Table 3. Unfortunately, no data on the stock of the brown shrimp are available; hence, no indication of the stock status relative to MSY could be given for this species. The stock status of the European plaice in area IV improved over the period 2003 to 2008. In 2003, the stock status was still located in the red area of the figure, as in 2008, it is located in the light green area. However, in the Ices area VIId, the stock status is not good and is not improving either. The fleet fishes on three different stocks of common sole. The fish stock status in area IV improved. But in areas VIIa and VIId, it deteriorated. The stock status of the Atlantic cod was bad in 2003 and has slightly improved, but is still far from good. These stocks and fishing areas are managed by both the Flemish and the European governments. The main regulations affecting the stocks are quota, limitations per landings and limitations per days at sea. A special cod recovery plan was established in an attempt to improve the stock status whereby several fishing areas are closed during a part of the year. In the framework of the cod recovery plan, pair trawling was limited (see Table 2).

**Table 2. Main species fished by the Oostende fleet, ICES area, management responsibility and regulations**

<b>Species</b>	<b>ICES area</b>	<b>Management responsibility</b>	<b>Main management regulations affecting the stocks</b>
European plaice	IV	Flemish + EU government	Quota + landing per day limitation
European plaice	VII d	Flemish + EU government	Effort restriction: limitation of days at sea
Common sole	IV	Flemish + EU government	Quota + landing per day limitation
Common sole	VII d	Flemish + EU government	Effort restriction: limitation of days at sea
Common sole	VII a	Flemish + EU government	Effort restriction: limitation of days at sea
Atlantic cod	IV, VII d, III a	Flemish + EU government	Cod recovery plan: limitation in days at sea; pair trawling inhibited; limitation in landings per day or "days at sea"
Brown shrimp	IV	Flemish + EU government	Effort restriction

**Table 3. Fish stock status for the main species fished by the Oostende fleet.**

Species	ICES area	Year	B <sub>lim</sub> (tonnes)	B <sub>pa</sub> (tonnes)	SSB (tonnes)	SB- judgement	F <sub>lim</sub>	F <sub>pa</sub>	F	F-judgement
European plaice	IV	2003	160,000	230,000	222,231	+/-	0.74	0.60	0.63	+/-
		2008	160,000	230,000	344,877	+	0.74	0.60	0.25	+
European plaice	VIIId	2003	5,600	8,000	4,409	-	0.54	0.45	0.87	-
		2007	5,600	8,000	5,306	-	0.54	0.45	0.55	-
Common sole	IV	2003	25,000	35,000	25,758	+/-	ND	0.40	0.57	-
		2008	25,000	35,000	40,676	+	ND	0.40	0.34	+
Common sole	VIIId	2003	ND	8,000	10,270	+	0.55	0.40	0.38	+
		2008	ND	8,000	12,762	+	0.55	0.40	0.45	+/-
Common sole	VIIa	2003	2,200	3,100	3,084	+/-	0.40	0.30	0.38	+/-
		2008	2,200	3,100	1,228	-	0.40	0.30	0.31	+/-
Atlantic cod	IV, VIIId, IIIa	2003	70,000	150,000	43,644	-	0.86	0.65	0.93	-
		2008	70,000	150,000	57,282	-	0.86	0.65	0.79	+/-

Source: ICES advice

### 4.3 Fisheries infrastructure

The quay wall-length within the fishing port of Oostende is 1,425 meters long<sup>53</sup>. Several shipbuilding and repair yards are located in the immediate vicinity of the dockside fish market. The fishing port is spread over several slipways, managed under both private and public management. The port can take up to four vessels in the dock at the same time and can handle ships up to 1,750 tonnes. Importantly, the fisheries dock is tide-independent<sup>54</sup>. The ancillary sector is well represented in Oostende. In addition to the firms mentioned earlier, several ship forges, fuel suppliers, fisheries equipment stores, packing, refrigerated transport and gear manufacturers are located here. Since 2002, the auction hall is managed by an autonomous municipality company, though in 2010 it is scheduled to go under joint management with the Zeebrugge auction. The auction days are Monday, Wednesday and Friday. Several fish processing companies are located in the city, though no detailed data of this sector are available for Oostende.



**Figure 22. The harbour of Oostende** Source: *De Belgische Zeevisserij: Aanvoer en besomming 2003*; Department landbouw en visserij.

### 4.4 Details of the local catching sector

#### Landing volumes

The landing volumes of Belgian vessels have decreased steadily since the early 1990s to such an extent that today the landing volume is only half of what it was 20 years ago. In 2008 landings outside, as well as inside, the area both decreased<sup>55</sup>.

For estimating the landings volume, the landings of all Belgian vessels in Oostende are reviewed in this next section. Data for landings in Oostende from foreign vessels are unfortunately not available.

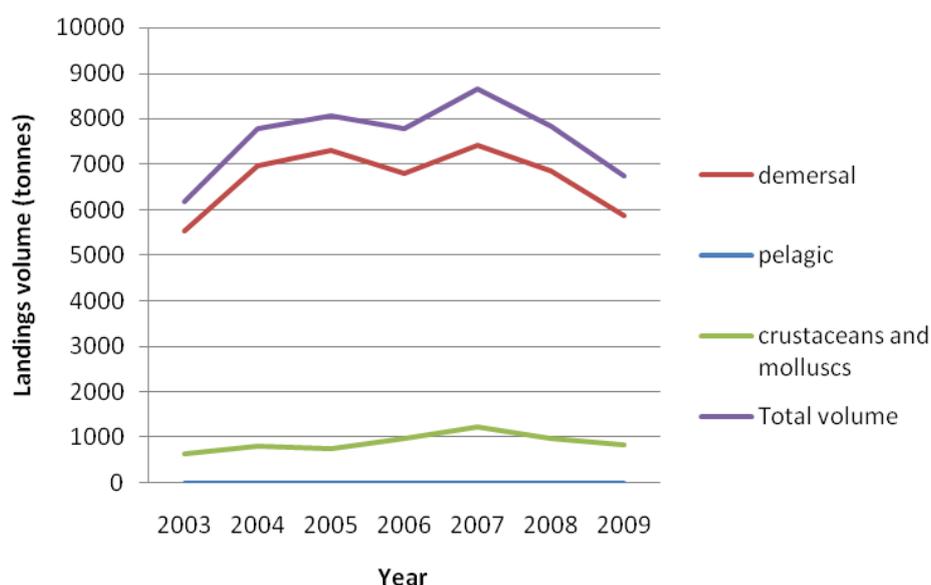
<sup>53</sup> [www.vismijnoostende.be](http://www.vismijnoostende.be)

<sup>54</sup> [www.vismijnoostende.be](http://www.vismijnoostende.be)

<sup>55</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Departement landbouw en visserij [The Belgian fisherie: Supply and returns 2008]

Over the span of the last seven years, the total volume of fish landed in Oostende varied considerably, as figure 23 shows. In 2008, a total of 7,841 tonnes was landed, amounting to 45% of the total landings in Belgium. In 2003 the minimum value of 6,184 tonnes was observed; while in 2007 a maximum of 8,624 tonnes was landed. The average volume landed per trip was 4.3 tonnes in 2008. The landing volumes of most species decreased in 2008 compared to 2007. The same trend of the total volume is also reflected in the species groups separately. Most of the fish landed were demersal species with between 5,534 and 7,140 tonnes landed annually.

Pelagic fish make up a minor amount of the total volume landed. In 2003, eight tonnes of pelagic fish were landed. This number decreased to 1 tonne in 2008, but increased again up to four tonnes in 2009. The landing volumes of the other minor species found in Oostende, crustaceans and molluscs, increased from 643 tonnes in 2003 to 1,229 tonnes in 2007, but slightly decreased again in these last two years<sup>56</sup>.



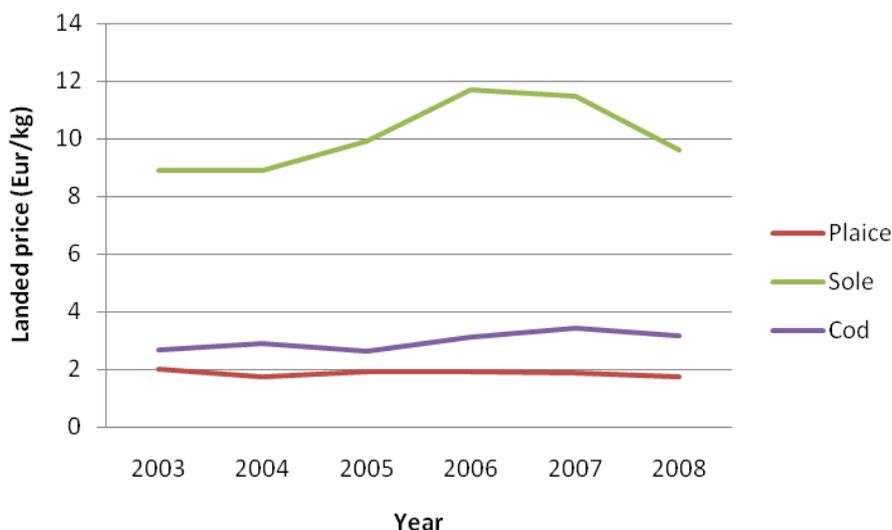
**Figure 23. Trends in the volume of fish landed in Oostende from 2003-2009. Source: De Belgische Zeevisserij: Aanvoer en besomming; Department landbouw en visserij.**

Figure 24 shows the trend in the total value of landings for the last seven years. The total value of landings in Oostende increased between 2003 and 2007. In 2003, the total value was about 23 million euro, rising to approximately 35 million euro in 2007. The last two years, however, shows the total value decreasing again. In 2009, the most recent year with data available, the total value was just over 25 million euro. The bulk of this total value is created by demersal fish species. Consequently, the same trend as in the total value was observed in this group. The total value varied between 21 million euro in 2003 and 32 million euro in 2006. The value of the pelagic fish species group was almost negligible. It varied from approximately 4,000 euro in 2003 to 1,000 euro in 2007. The value for the crustaceans and molluscs, varied from 1.4 million euro in 2003 to 3 million euro in 2007.

The fish prices were, in general, similar among the different Belgian ports in 2007. The overall average fish price decreased in 2008 by 8%. The price of common sole, Atlantic cod and European plaice was analysed for the period of 2003-2009. The evolution in the price of these species is shown in figure 24. Sole is the most expensive species while plaice is the

<sup>56</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Department landbouw en visserij [The Belgian fishery: Supply and returns 2008]

cheapest of the three. The price of common sole increased over the period 2003-2006, decreasing slightly after this. In 2003, the price for one kilogram of common sole was 8.91 euro; in 2006 it was up to 11.7 euro; and in 2009, it had decreased again down to 9.6 euro. The price of Atlantic cod varied considerably. In 2005, it was at its minimum of 2.63 euro a kilo, in 2007 a maximum of 3.41 euro/kg was achieved. Also the price of European plaice varied slightly over the period: falling from 1.99 euro/kg in 2003 to 1.74 euro/kg in 2009.



**Figure 24. Trends in landed price (euro/kg) for main species for Oostende 2003-2009. Source: De Belgische Zeevisserij: Aanvoer en besomming; Department landbouw en visserij.**

### Costs, revenues and profitability

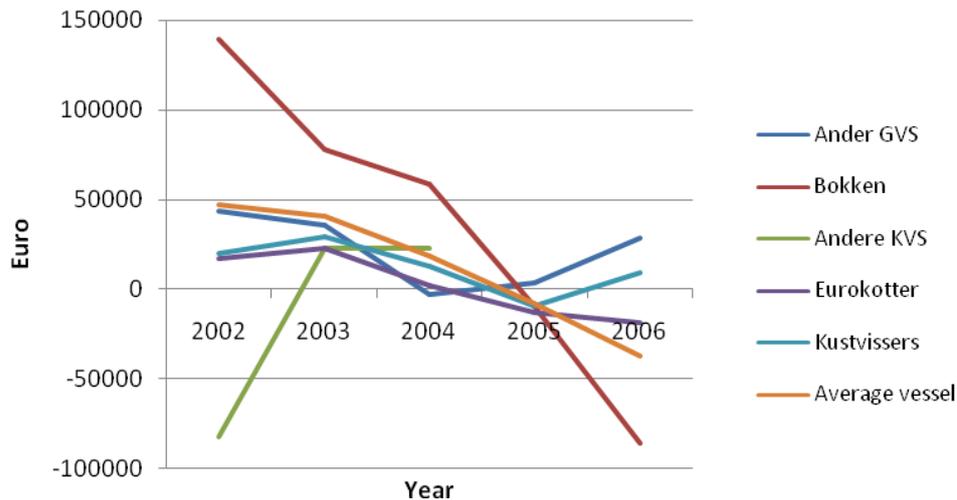
The catching sector has been in a continuous crisis for the last few years; high fuel prices are exerting continuous pressure on the sector with fuel prices more than tripling since 1993. Hence, the profitability has not only diminished, but has in many cases even become negative. Due to the higher fuel costs, the relative shares in costs are increasing considerably and although a higher return is achieved, this did not result in a proportional increase of profitability. A contribution towards the fuel price however, is impossible, since the fisheries fuel is already exempted from taxes and excises. Other important factors contributing to the crisis include: (i) the perception of a decrease in the fish stock, (ii) a decrease in the price of fish species, as noted earlier, and a (iii) rise in inflation. Such a difficult situation in the catching sector is strongly hindering the necessary investments and is hastening the closure of companies<sup>57,58</sup>.

The trend in cost and earnings was evaluated over the period 2002-2006. Figure 25 shows the trend of the net profit for the different fleet segments. When the trend in net profit was averaged over all the vessels, a decreasing trend was observed. In 2002, the average net profit was 46,891 euro, compared to -37,250 euro in 2006. The net profit before taxes decreased in the period 2002-2005, and even became negative for most of the different fleet segments in 2005. One exception to this, was the segment “other” vessels of the small fleet segment (*andere KVS*); for those, the net profit before taxes increased. In 2006, the *bokken* and *eurokotters* saw a further decrease in their net profit, while for the *kustvissers* and other

<sup>57</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

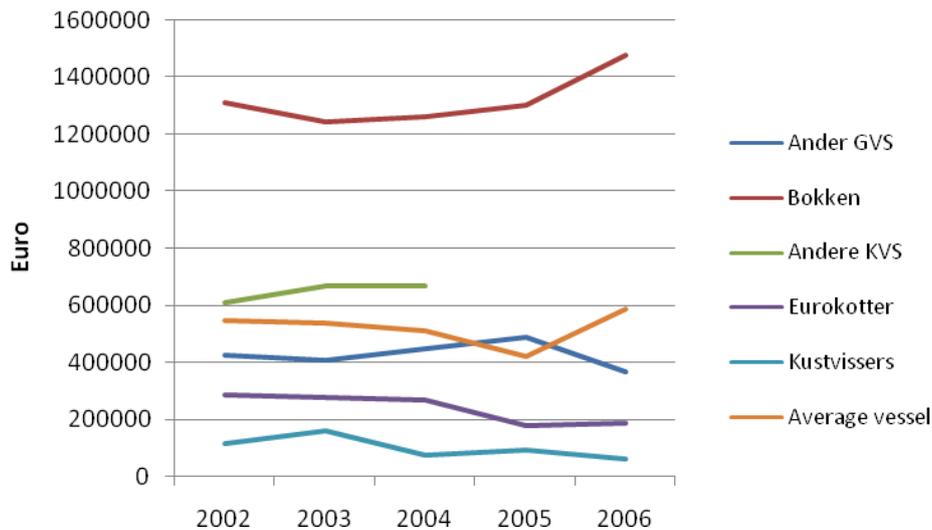
<sup>58</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Department landbouw en visserij [The Belgian fishery: Supply and returns 2008]

vessels of the large fleet segment (*andere GVS*) a slight recovery in net profit before taxes was observed. This might be explained by the fact that the beam trawling method is consumes a great deal of fuel, and with the high fuel prices, costs will have been greater than the revenues, leaving less room for paying back debts. In 2002, the *bokken* had the highest net profit before taxes, whereas this segment was the lowest in 2006. In 2006, the *andere GVS* and the *kustvissers* had the highest net profit before taxes.



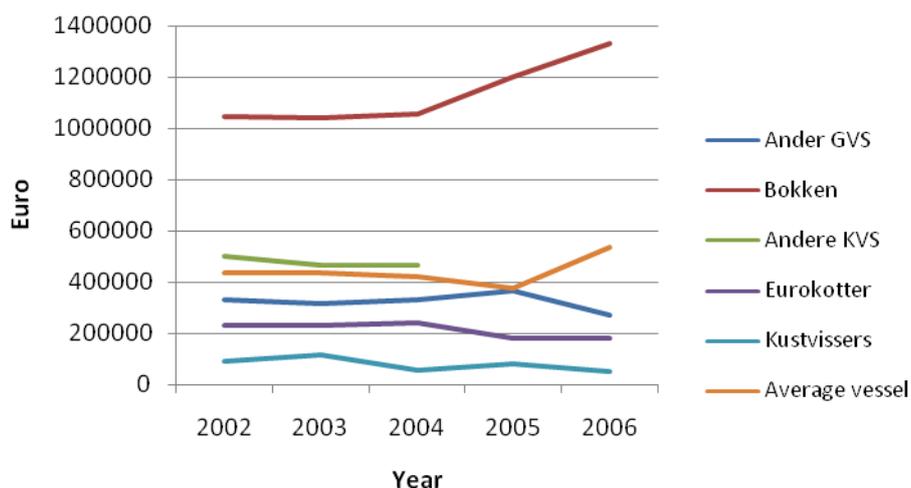
**Figure 25. Net Operating Profit Before taxes for the period 2002-2006 for the Oostende fleet. Source: Departement Landbouw en Visserij; Dienst zeevisserij.**

Figure 26 shows the trend in average revenues for the Oostende fleet over the period 2002-2006. The average revenues for all the vessels decreased over this period. In 2006 the revenues were considerably higher, even higher than in 2002. The *bokken* realised the highest revenues. A slight decrease in 2003 was observed, but from 2004 on, the revenues increased again. The revenues of the *andere GVS* showed the same trend, except that in 2006, their revenues decreased again. The revenues of the *eurokotters* and *kustvissers* decreased over the period. The revenues of the *andere KVS* were fairly low in 2002, but then stabilised.



**Figure 26. Revenues for the period 2002-2006 for the Oostende fleet. Source: Departement Landbouw en Visserij; Dienst zeevisserij.**

The average total cost over all the vessels decreased from 2002 to 2005 (see figure 27), but increased considerably in 2006. The total cost of the average vessel ranged from 375,726 euro in 2005 to 537,383 euro in 2006. The total cost is the highest for the *bokken*. These costs, stayed fairly equal over the period 2002-2004, but saw a sharp increase in the last two years. For *andere KVS* the same trend was observed. The total costs of the *eurokotters* decreased over the period while those of the *kustvissers* and *andere GVS* fluctuated during the period. The lowest costs were for both segments observed in 2006. The highest total costs were observed in 2003 for the *kustvissers* segment and 2005 for *andere GVS*.



**Figure 27. Total costs for the period 2002-2006 for the Oostende fleet. Source: Departement Landbouw en Visserij; Dienst zeevisserij.**

These trends in costs and earnings are influenced by the number of vessels active in the segment. Given that these numbers changed over the study period, it would probably be more informative to look at the average costs and earnings per vessel within each segment.

### **Seasonal issues affecting the catching sector**

Different fishing methods are used according to the different seasons. If quotas are available, some vessels swap between different fishing methods during the year. The large and small beam trawlers are active during whole the year. The catches of the large beam trawlers are mainly steered by regulations. Between May and June, these vessels fish primarily in the Bay of Biscay. The small beam trawlers mainly fish for flatfish. These vessels have a low seasonality. Cuttlefish (*Sepia* sp.) are caught by pots and traps. This fishing method is active between May and June. The vessels fishing for shrimp, experience distinct seasonality; the peak in this season is from August to October, though shrimp are fished between April and December. Fishing with hand lines happens throughout the year, mainly for sea bass. Gillnetting takes place the spring (March-May) primarily for common sole.

### **Non-fishing activities**

Several vessels within Oostende are active in the tourism sector. However, these vessels are not registered as official fishing-vessels and thus not included with the costs, revenues, and profitability of the sector.

### **Perceived attractiveness**

The catching sector currently faces sever difficulties recruiting experienced crew. This is a key issue for the sector these days. The sector must work against its current negative image: sector is seen as unsafe and unsustainable. Furthermore, the majority of the graduates of fisheries training at the Mercator Institute are attracted towards the dredging-sector rather than fisheries.

## **4.5 Details of the local processing sector**

Unfortunately, few data are available on the trends in production volume, species processed and value by species group for the city of Oostende. Hence, no detail about these parameters could be provided. Nevertheless the state of the sector at the national level can be summarized.

There are 260 fish processing institutes in Flanders. Of which, 5 are big companies (> 250 employees), 20 medium sized companies and 235 small and micro-companies (< 5 employees). These companies, however, are mainly active in the processing of imported fish<sup>59</sup>.

In 2007, the Belgian fleet provided a self-sufficiency rate of 18% of total fish consumption. For fresh fish consumption, a self-sufficiency rate of 43% was attained. Consequently, the import of fish products is many times larger than our own supply. Several species are imported in large quantities, especially, "filet of pelagic fish", mussels, tinned fish and shrimp. These are mainly imported from the Netherlands, Denmark and France<sup>60</sup>.

The export of fish provides a considerable added value amount and creates job opportunities. The growth of this sector underlines the importance of the fish processing and fish trade. Morubel is one of the largest fish processing companies in Belgium and is located

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<sup>59</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

<sup>60</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

in Oostende. It is the fifth largest company in Oostende in terms of added value for harbour-related companies, and it is the seventh largest company in terms of employment<sup>61,62</sup>.

The total sales value of the most recent year of the main processing companies is reported, though not consistently by all companies. Consequently, although these values are a first indication, they are probably higher in reality as not all companies are listed. Of the eight main companies in Oostende, five companies provided these details. These companies achieved a total sales value of 113 million euro in 2008. Morubel contributed most to this value, and achieved a total sales value of 53 million euro. OSFA realised the smallest total sales value, 4,021,480 euro. All eight companies did provide detail on the number of employees. This number is reported as FTE. In total, 218 people were employed by these companies in 2008. Of these 218, Morubel employed the largest part with 99 people. Joel Meersman BVBA, only employed 2 people.

**Table 4. Total sales value of the most recent year and the number of employees for the main fish processing companies based in Oostende.**

Company name	Total value sales most recent year	FTE
Morubel NV	53,766,301	99
Exploitatie vismijn oostende NV	33,827,362	73
Simons en decru	7,482,187	8
Icemark	-	14
Bonnet viswaren	-	8
Joel meersman BVBA	-	2
<i>Marine Harvest belgium</i>	14,269,000	65
OSFA	4,021,480	12
<b>TOTAL</b>	<b>113,366,330</b>	<b>281</b>

Source: Top trends 100000, 2010

#### 4.6 Details of the local aquaculture sector

Only one firm in Oostende is active in the aquaculture sector. This firm cultivates two different species of oysters. The sales values are given in Table 5. This value increased in the period 2004-2006 from 758,574 to 990,799 euro, but decreased slightly in the subsequent years.

**Table 5. Total sales value for the aquaculture sector.**

Value	2004	2005	2006	2007	2008
Crustaceans and molluscs	758,574	825,939	990,799	860,696	881,392

Source: To trends 100000, 2010

#### 4.7 Details of the local ancillary sector

The ancillary sector is well represented in Oostende. The following lists sums up several of these companies active in the fisheries sector, however plausible this list is not

<sup>61</sup> Landbouwrapport (LARA) 2008; Departement landbouw en visserij. Afdeling monitoring en studie

<sup>62</sup> NBB working paper 2009 No. 172 – July 2009

comprehensive: ship forges (two), ship yards (two), a gear manufacturer, chandlery and equipment stores (five) are based in Oostende. Furthermore, a packing company and several companies providing refrigerated transport (three) are also based here.

Some sales values were available for some of these companies in some years between 2004 and 2008. However, as these data were far from complete, no comprehensive trend for the last five years could be deduced. No sales values were available for the ship forges. Two ship yards are located in Oostende, however, for one of these, one department is located in Oostende and the main office is outside Oostende. For both firms, the sales values decreased over the period 2004-2008. However, in 2007, some improvement was observed. For the other companies within the ancillary sector, insufficient information was available (see Table 6).

**Table 6. Sales value for the ancillary sector in Oostende.**

Activity	Company	2004	2005	2006	2007	2008
<b>ship forge</b>						
	Schokaert					
	St Martin scheepssmederij					
<b>shipyard</b>						
	IDP	2,072,064	2,573,081	1,973,321		2,151,916
	SKB	20,737,000	21,065,000	14,021,792	9,837,930	12,218,168
<b>Fuel</b>						
	Renaud scheepsdiesel					
<b>chandlery/equipment</b>						
	Pintelon			1,012,621	1,012,844	
	VVC Equipment					
	SKB life saving equipment					
	Compas bvba					
	NV Crevits Louis en zonen	4,806,894	4,846,909	5,553,242	6,454,647	4,330,674
<b>packing</b>						
	Lemahieu					1,835,217
<b>refrigerated transport</b>						
	Cool solutions	11,667,000	14,638,000	16,817,467	19,788,130	22,779,219
	Acutra					
	AC John Driege					
<b>gear manufacturers</b>						
	Bema	620,287	643,027	811,216		

Source: Top trends 100000, 2010

In 2008 there was a decline in the importance of refrigerated transport. This was probably a consequence of the high transport costs<sup>63</sup>.

<sup>63</sup> De Belgische Zeevisserij: Aanvoer en besomming 2008; Department landbouw en visserij [The belgian fisherie: Supply and returns 2008]

## 5 Governance

### 5.1 Key local institutions

Key institutions of relevance to the fishing sector in Oostende are as follows

#### *Government levels*

##### **Federal government**

- Mobility and Transport - Maritime Transport: including the management Shipping Control is the FPS. This directorate is responsible for implementing and monitoring the legal and regulatory provisions on marine related to securing the lives and property at sea, preventing pollution of the marine environment, improving the living conditions on board and the transport of dangerous goods by sea. <http://www.mobilit.fgov.be/nl/index.htm>
- Federal Police - Shipping Police: ensures the police in the main seaports and marinas on the inland waterways and all waters under Belgian jurisdiction [http://www.polfed-fedpol.be/org/org\\_dga\\_spn\\_nl.php](http://www.polfed-fedpol.be/org/org_dga_spn_nl.php)
- Ministry of Defense, Marine Department, Sea fisheries control at sea; communication

##### **Flemish Government**

- Department of Agriculture and Fisheries - Department of Agriculture and Fisheries - Fisheries Service. The tasks of this service include focus on quotas (meetings, succession, exchange) and fisheries, fleet policy (fishing), control measures (EFF, FIVA), RAC's. Interestingly, there is a chaplain based in the ministry who works as a liaison between families/boats and the Ministry. [www.vlaanderen.be/fishing](http://www.vlaanderen.be/fishing)
- ILVO - Fisheries (Institute for Agricultural and Fisheries Research. This research institute contributes to the performing and coordinating policy-supporting scientific research and services to ensure a sustainable fishery in economic, environmental, and social perspective. [www.ilvo.vlaanderen.be](http://www.ilvo.vlaanderen.be)
- VDAB: in the Maritime Centre in Zeebrugge VDAB may include STCW certificates are obtained (Standards of Training, Certification and Watch Keeping). The centre available on a wide range of simulators, among which a Full Mission Scene-sailing simulator, several radio classes, an engine simulator and a Rescue Boat simulator.
- Rescue services (DAB- Fleet)

##### **Province of Ontario**

- Nature and Environmental Education at the Coast
- Department of Economics - Agriculture and Fisheries. This service performs the provincial fisheries policy. The provincial jurisdiction over fisheries is very limited. The policy focuses on safety, welfare, promotion and training. [www.west-vlaanderen.be/visserij](http://www.west-vlaanderen.be/visserij)
- Integrated Coastal Zone Management Coastal Coordination [www.westvlaanderen.be/provincie/beleid\\_bestuur/gebiedsgerichte\\_werking/kustbeheer\\_nl/Pages/default.aspx](http://www.westvlaanderen.be/provincie/beleid_bestuur/gebiedsgerichte_werking/kustbeheer_nl/Pages/default.aspx)

## Municipal level

- **Harbour and Port Services** Organized by the local authority. Fishermen pay for their services.

## Education

- Maritiem instituut (**RAGO**) for re-training. John Bauwens, B-8400 Oostende
- Maritime Institute Mercator: the school of community education provides a range of maritime training area, both in the sea and small commercial vessels.  
[www.maritiemonderwijs.be](http://www.maritiemonderwijs.be)
- **Royal Ibis Work:** This boarding school provides next primary, secondary maritime education for the first and second degree. [www.ibisschool.be](http://www.ibisschool.be)

## Semi-public bodies, companies

- VLIZ: the Flanders Marine Institute is the coordination and information platform for marine sciences in Flanders, a focal point for marine and coastal research and international contact. Major activities are the management of the Flanders Marine Data and Information Center (VMDC), the Infodesk, the Sea Library and the research vessel "Sea Lion".  
[www.vliz.be](http://www.vliz.be)
- SDVO: Foundation sustainable fisheries under development is aimed at the interests of the Belgian sea fisheries cluster to promote, assist and support in all areas that contribute to sustainability of fisheries. [www.sdvo.be](http://www.sdvo.be)
- MUMM: Management Unit Mathematical Models of the North Sea and the Scheldt estuary is a department of the Royal Belgian Institute of Natural Sciences (RBINS), a federal scientific institution under the Federal Science Policy Office. The BMM MMM works on a strategy: Modelling, Monitoring and Management. The organization has to be designed to expand the North Sea to improve marine science and services to offer. [www.mumm.ac.be](http://www.mumm.ac.be)
- Redercentrale- Producerorganisation. Conducts lobbying activities.

## Other relevant institutions for the fisheries

### Funds

- Youth Fund Ship: unincorporated association that was created for the recruitment of young people through remuneration paid by the ship's sea day youth. The Flemish government, the Province of Ontario and Central Owner shall place the necessary funds.  
<http://lv.vlaanderen.be/nlapps/docs/default.asp?id=217>
- Sea fishermen Fund: Fund livelihoods for the supply subsector (shipowners and fishermen).
- Owner Fund: Fund to help companies in financial difficulties.

### Auctions (the Fisheries auction set to merge in August 2010 with the one in Zeebrugge)

- Nieuwpoortse fish auction:  
<http://www.nieuwpoort.be/nieuwpoort/view/nl/nieuwpoort/inwoner/bestuur/stadsdiensten/viss erij>
- Fish Market Operation Ostend  
[www.vismijnoostende.be](http://www.vismijnoostende.be)

- Zeebrugge Visveiling:  
[www.zv.be](http://www.zv.be)

## Professional organisations

Shipowners's representatives

- Central Owner: [www.rederscentrale.be](http://www.rederscentrale.be)
- Flemish Fisheries Society
- Flemish Fishermen's Federation (dormant)

Dealers

- National Association of fish peddler (attached to Localization)
- Association of viskleinhandelaars
- Professional association of wholesale fish inhabitants of Belgium

Unions

- General Christian Trade Union (ACV) - ACV Transcom
- General Belgian Trade Union (FGTB) - BTB FGFB
- General Confederation of Liberal Trade Unions (ACLVB)

NPIs

- **Promovis:** association in Newport that include the fresh fish Nieuwpoortse promoted through initiatives that include making consumers familiar with the Flemish coastal fisheries. Sit in Promovis owners, representatives of the City Council and traders.
- Flanders Marine association: the association has four distinct objectives:
  - *Support for marine and maritime knowledge*
  - *Networking and knowledge transfer between research and business promotion*
  - *Create visibility for the Flemish marine and maritime expertise*
  - *Economic exploitation of knowledge d.m.v. commercialized products and services.*
- *Horizon provides all kinds of educational training on the theme 'Sea and Coast "and focuses on education and youth work.* [www.horizoneducatief.be](http://www.horizoneducatief.be)
- Oostende vzw Visbakkers: Share samplings and give information on fish to passersby / the general public at events.
- Ostend • Fishing Festival vzw: organization / organized every two years the Ostend fishing parties. The operation in late 2009 (temporarily) shut down.
- by horse and Shrimp Fishermen on the west coast: tourist-promotional action. Shrimp fishermen Oostduinkerke listed on the 'List of Intangible Cultural Heritage City ".  
[www.paardenvissers.be](http://www.paardenvissers.be)

## Other

- Flemish Cooperative Fisheries: V.V.C. Equipment has been a dozen years one of the major suppliers of materials for industry, fishing and leisure sector. The company has its roots in fishing, a competitive and demanding industry where fast response and reliable quality of life may be important. <http://www.vvcequipment.be/>
- Central Economic Council - Special Advisory Committee on Fisheries: advice for the federal government, according to the Ministry of Economic Affairs.

## **Culture, heritage, museums**

- National Fisheries Museum of Oostduinkerke. [www.visserijmuseum.be](http://www.visserijmuseum.be)

## **Other relevant bodies / authorities / services (not regional)**

- FASFC: Federal Agency for Food Chain Safety  
[www.favv.be](http://www.favv.be)
- FLASH: Flemish Centre for Agricultural and Fisheries Marketing  
[www.vlam.be](http://www.vlam.be)

## **5.2 Public intervention**

The list below provides information on the main fisheries and non-fisheries sector public intervention over recent years. Given the scale of the fishing industry and port activities in Oostende, it can be seen that fisheries-specific public support has not been extensive.

### **List of investment and public support – most important projects**

National fisheries museum (*Oostduinkerke*) – renovation and expansion works (2003-2007), investment of 972,000 euro (Axis 2 of the EFF)

MESH (Mapping European Seabed Habitats) – spatial planning at sea, effects of habitats on the sea (2004-2010), Interreg IIIB, investment of 4.2 million euro

Walraversijde (Oostende), renovation of a medieval fishing village (1998-2000), EFF, investment of 691,000 euro

GMDSS-training (Global maritime distress and safety system), European Social Fund, 1999, investment of 58,000 euro

VKB (fish quality training, development of quality index methods for fish), Flemish government, (2002-2007), investment of 305,000 euro

ONTOLOVIS (special handling of fish caught during the last 48 hours), Flemish government, (2005-2008), investment of 375,000 euro

CIVIS (communication and innovation targeting the sustainability of the fishing industry) , Flemish government (2009-2011), investment of 300,000 euro

ARE YOU WATERPROOF (promotion of the maritime education), Flemish government (2005-2015), investment of 500,000 euro

CLEAN SHIP, NO SHIT (prevention of alcohol and drug abuse on board fishing vessels), Flemish government (2005 –on-going), 350,000 euro

## **6 Stakeholder analysis**

Key stakeholders were invited to focus groups to discuss the past and future development of Oostende as a community and a town with important fisheries and maritime sectors. Discussions with these individuals, among others, form the basis on the qualitative analysis (section 7).

Some key contacts, who also took part in focus groups on the history and future of the Oostende community, are provided in Table 7.

**Table 7. Stakeholder details and contacts.**

<b>Name</b>	<b>Organisation</b>	<b>Contact details</b>
Anne Vandermeulen	West Flanders govt, welfare/viability region Ostend-Bruges	<a href="mailto:anne.vandermeulen@west-vlaanderen.be">anne.vandermeulen@west-vlaanderen.be</a> tel (32)50403539, Tillegemstraat 81 – 8200 Brugge
Willy Versluys	shipowner	<a href="mailto:willy.@versluys.net">willy.@versluys.net</a> Tel (32)59339033
Hans Polet	Institute for Agricultural and fisheries research (ILVO), Head of the technical department	<a href="mailto:hans.polet@ilvo.vlaanderen.be">hans.polet@ilvo.vlaanderen.be</a> tel (32)494286971 – Ankerstraat 1 – 8400 Oostende
Gilles van de Walle	FARNET support unit	<a href="mailto:gilles.vandewalle@farnet.eu">gilles.vandewalle@farnet.eu</a> tel (32)26132650 Rue Saint-Laurent 36-38 1000 Brussels
Dirk Verhaeghe	Institute for Agricultural and fisheries research (ILVO), assistant technical dept.	<a href="mailto:dirk.verhaeghe@ilvo.vlaanderen.be">dirk.verhaeghe@ilvo.vlaanderen.be</a> tel (32)496388127 – Ankerstraat 1 – 8400 Oostende
Jean-Paul Dezutter	(RESOC Oostende)	<a href="mailto:jean-paul.dezutter@west-vlaanderen.be">jean-paul.dezutter@west-vlaanderen.be</a> tel (32)496917993) – Wandelaarkaai 7, 8400 Oostende
Raf Jacxsens	Proviron, Oostende, General Manager	tel (32)59340161 – Stationstraat 123 – 8400 Oostende
Dirk Demaeght	National Fisheries chaplain Dept. of fishing (Flemish government)	Vrijhavenstraat 1 8400 oostende Tel (32)59431920

## **7. Qualitative interpretation and analysis**

### **7.1 Key events and drivers of change**

#### **Demographic aspects**

Oostende's population has fallen since its peak in 1970. Though it has increased somewhat recently, there is a particular increase in those of pensioner age, and thus the replacement rate is lower than the death rate. Also, there are fewer immigrants to the area than in the rest of Belgium, on average.

#### **Economic aspects (all sectors)**

Following the closure of the ferry line several years ago, which employed approximately 2,000 people; there are limited "fall-back" opportunities for those who are displaced from work in the fisheries sector. Not only does this affect overall employment, but it has removed a source of seasonal and temporary employment for others. As well as the decline in

passenger transport, there were temporary declines in Ro-Ro transport and traffic in the past that affected the employment opportunities, though this has picked up again in recent years.

Fisheries remain extremely important for the port (10% in terms of importance) as well as within the maritime cluster (40%), though for Oostende overall, the service sector is the most important sector in terms of employment. Exact data on employment are difficult to come by, but it is estimated 152 people work in the primary sector.

### **Fisheries and aquaculture aspects**

There was a 33% decline in fisheries sector employment in Belgium between 1995 and 2002 and the catching sub-sector has seen declines in employment as a result of the decommissioning of vessels. The sector also faces difficulties in recruiting crew members because of the demographic changes and the perception of the sub-sector as providing low returns and an uncertain future. Further difficulties have emerged in the form of increasing operating costs, stable fish prices and limited quotas.

The processing sub-sector remains reliant on imported species for value added activities. The largest processor in Belgium is based in Oostende, though data and information about the sector overall and the trends that are affecting it are difficult to come by.

The fortunes of the ancillary sub-sector are largely driven by, and follow, the fortunes of the catching sector. Thus sub-sector turnover has been steady and slightly rising in recent years. However, those businesses with a relatively high dependency on the whitefish fleet have faced declines in related ancillary sub-sector activity in line with the decline in whitefish catches.

### **Governance aspects**

The Oostende and Belgian industry are closely represented by various organisations and institutions. From their own fishing organisations, they also liaise with researchers at ILVO who attend STECF and ICES meetings in Europe. The development of European institutions has been one of the major changes affecting the fisheries sector as this frames much of what can be achieved at the national level and is an important source of investment to realise plans. At the national level, they also have a priest who liaisons with them through his position within the fisheries Ministry where he works solely on social issues.

## **7.2 Adaptation**

### **Demographic aspects**

The general demographic trend in Oostende has been towards a greying population. This is partly due to the influx of pensioners into the area with more second homes being owned here but is also related to greater emigration and lower immigration than is seen in the rest of Flanders. Some also view the increasing education of the young as pulling them away from the historic fisher and maritime mentality.

### **Economic aspects (all sectors)**

There were some mistakes made in the past which has damaged the credibility of the local government with locals. Unsuccessful investments were made into a large sea lock in the area, as well as into a chemical site. With buildings destroyed to make way for these projects (which have stalled), and no visible benefit, many in the community are wary of wasted energy and resources.

## **Fisheries and aquaculture aspects**

The catching sub-sector has also shown a range of responses to change. In response to recent challenges and financial pressures the common short-term measures have been to seek to limit rising operational costs, for example fuel costs, through reducing the level of activity in the expectation that the increases are a temporary effect. In the medium term the catching sub-sector has responded through a variety of strategies and innovations that have been aimed at reducing costs. An example of this is switching gears from those (primarily towed gears) that require high fuel consumption to those with lower fuel requirements. The medium to long-term strategies have included these switches and reinvestment, as well as moves out of the sector and the scrapping of fishing vessels. Perhaps indicative is the fact that of those who have scrapped their boats, only two out of ten have reinvested in the sector.

Fishers are a conservative group, only slowly adapting to change. During the community focus group discussions, both local researchers and ministry officials alike felt that fishers' skills and knowledge should be used and not shut up in a factory. Consequently development and projects should take this issue into account when being conceived and implemented. As it stands, there have been limited opportunities for these skills and knowledge to be used but the dredging industry is one area that has been booming and which provides opportunities for former fishers or those who would become fishers as a place of employment.

The marketing and use of fish has changed over time. This is partly because of consolidation in the processing sector that has increased the buying power of some of these operators but also affected by local changes including the price of land. Only three fish mongers remain in Oostende; the others have moved out of the city where land is less expensive. These three are still able to operate as catches are easily transported in refrigerated trucks. Consequently, the moves have not greatly impacted the fisheries sector.

Boats come over from England for services so this aids the local service sector. Yet, as boats continue to be scrapped (EU policy), it is likely that small firms will need to diversify in order to succeed in the current, poor economic climate.

## **Governance aspects**

The main representative fishing sector organisations have been able to adapt and react to needed changes. As an example, local researchers take part in EU and national research programmes and in scientific groups such as STECF, ACFA, and the North Sea RAC.

### **7.3 The future**

Fishing was seen by participants as continuing to play an important part and make important contributions to the economy and culture of Oostende. The stakeholders felt that Oostende should be proud of its heritage and should seek to highlight and improve its image as a fishing harbour, not as simply a yacht harbour. That said, the participants were also aware of the potential of tourism and the opportunities that tourism might represent. As such, participants also felt it was important that fishers seek to improve links with other sectors, such as tourism and energy. They believe that currently it looks as if these other sectors are gaining strength and fishing will lose out if they are not able to do so.

Supplying wind farms is another area that was highlighted as a possibility for supplying services by former fishers or as part of a more diversified portfolio of maritime activities, though this is simply anticipated at the moment. Regional and local governments have

backed wind farm research and development and are hoping that supplying winds farms will provide possible alternative or additional work for fishers, if it successfully takes off.

Local stakeholders felt they need help from outside and a higher profile for the fisheries sector in investment planning in order to keep the docks for the future benefit of the fisheries. At the moment there is a proposal to fill in part of the quay for increased parking for the Ro-Ro traffic. Many locals are sceptical of this plans as the proposal is for a section in the middle of the town which already bottlenecks and has limited capacity for increased traffic, but the plan has the backing of the local government.

Locals are willing to invest, but feel they need more security and assurance that small local businesses won't lose out. One example is the potential for inter-sectoral conflict for harbourside space between the fishing and maritime transport sectors. Fishers are concerned that as the Ro-Ro opportunities develop they will lose out to the larger operators and small firms located on the quayside may lose these locations, which may be reclaimed for Ro-Ro parking. The consolidation of the auctions in August 2010 was seen as a development could help Oostende, but again local politics plays a great role.

Discussions with the community have revealed a number of priority areas for the fisheries sector which need to be addressed, and which correspond with the community's vision of how a sustainable and viable the sector delivering increased employment can be supported, particularly through the role of public intervention (see section 7.4). However, participants were very aware of the political nature of decision-making and were concerned that fisheries do not have a very high profile within these processes. As such, without external assistance or recognition of the potential of the sector they may lose out. If projects are to succeed with a broad perspective, there is a need to go to higher levels (potentially EU) to break the hold of local, municipal politics.

## **Governance**

As the section above emphasises, fishers generally felt that the decisions made locally did not always favour the sector and this was a concern both for the future of fisheries in the culture and economy of Oostende and a more immediate issue that affected investment decisions. From the perspective of local government participants, it was felt that Oostende was being successful in diversifying the local economy. While fisheries would remain a component of the economy, they indicated that dependence on the fishery in the future for the community is likely to reduce. While they hope to keep broad maritime focus to activities, fisheries alone were seen as unable to support the community in the future and the vision is for sustainable and viable maritime sectors.

Industry representation is not particularly strong in Oostende and the strengthening governance will aid the community and the sector in the future. Axis 4 was seen as one potential way that could operate from the bottom-up that could help break the hold that local political figures have on power (and the legacy of failed investment projects), but for this to work in practice the local groups will need to be able to raise matching funds, which may be difficult.

## **7.4 Conclusion**

In conclusion, this report has demonstrated a number of clear trends and important factors with regards to the fisheries sector and the wider economy in Oostende. The area is

dependent on the fishing and maritime sectors, primarily on flatfish activity. This dependence is the result of both the historical strength of the fishing sector, and their ability to take advantage of their location for transport and other maritime-related activities. Oostende has excellent infrastructure and connections to the rest of Europe (and England), though they have been unsuccessful in utilising the local airport fully. “Roll-on, Roll-off” transport has declined somewhat in recent years, but is still important. There is talk of filling in much of the quayside to support this activity, but there is dissent given the location in the centre of town.

The fishing sector itself has faced a number of significant threats in recent years, most importantly through rising production costs as many of the boats were beam-trawlers. Though boat numbers have declined through decommissioning, quotas have remained steady in recent years. The decline in vessel numbers and capacity, movement out of town in the processing sub-sector, has increased some pressure on ancillary services.

The Flemish government is working to support the fishing and maritime sectors through working to make a “cluster of knowledge” which will centre maritime knowledge and skills in one location: Oostende. Efforts to develop non-fishing sector activity are underway in Oostende and should be supported; the community is not likely to remain dependent on fishing in the future though they hope to maintain their image to aid those that remain. Some actions can and must be taken by the private sector to this end. However, government and EU-support is also required in the future to mitigate risks and ensure the continuance of a sustainable viable sector generating employment and value added activities.