Employment trends in all sectors related to the sea or using sea resources

Belgium

European Commission
DG Fisheries and Maritime Affairs

An exhaustive analysis of employment trends in all sectors related to sea or using sea resources

Country report – Belgium

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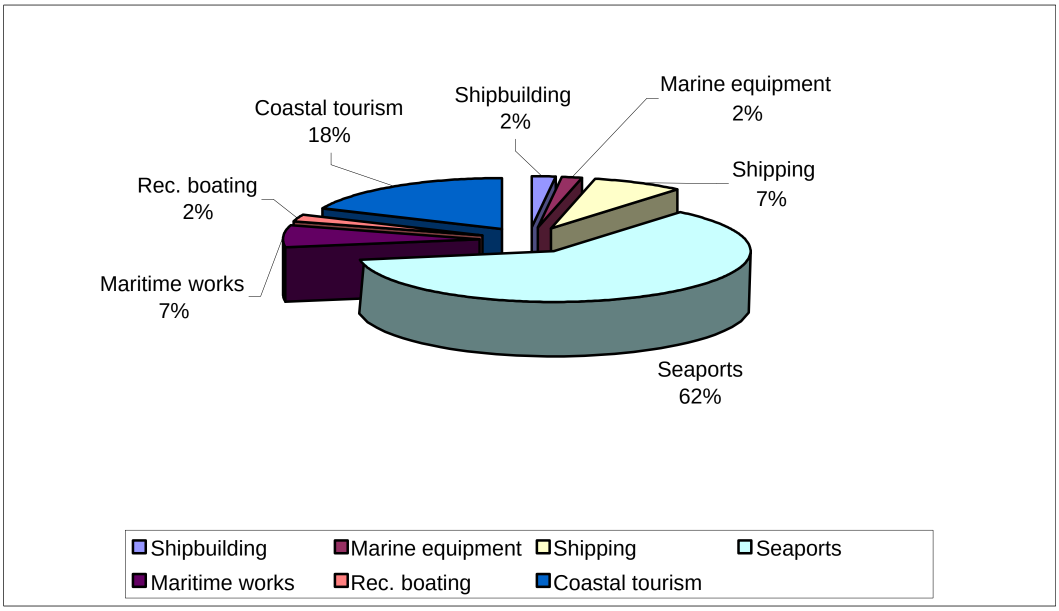
1.0 Summary[I]

This report begins by summarising employment in the sea related sectors and is followed by a more detailed analysis of employment in each individual sector[II]. The Belgian maritime activities currently create some 49,000 jobs directly and further 81,000 jobs indirectly. From the traditional maritime industries the Flemish ports are the most significant employers and generate direct employment for around 30,000 individuals. Coastal tourism provides direct employment for just under 9,000 persons. Shipping and dredging are other major maritime industries in Belgium directly employing around 3,500 people each. Belgian firms in the dredging industry are among the key players in the global dredging industry with markets expanding far beyond the European Union.

Figure 1.1 Employment by different maritime sub-sectors



When looking at employment trends over the past decade, seaports are the only sector which has seen a decline in direct employment. Nevertheless, indirect employment in the sector has at the same time gradually increased. Employment in the dredging industry has experienced a growth of nearly 10% between 2000 and 2004, but some of the key Belgium companies have reported a total growth of 20-30% in employment in the past decade. The coastal tourism sector has also witnessed a relatively significant increase in employment over the past decade, running at 8%. Government interventions in the shipping sector have played a crucial role in the positive developments relating to the additional number of Belgian seafarers and students in the maritime sector.

[I] This study excludes employment related to fishing.
[II] Please note that fishing and seafood processing sectors are excluded from this study.

Table 1.1 Employment in the Belgian maritime sectors, 1995 - 2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Change[I]
Direct employment											
Shipbuilding[II]	300	-	-	-	-	-	913	892	899	-	**-**
Marine equipment[III]	-	-	613	-	808	770	894	-	-	-	**+45.8 %**
Shipping	-	-	-	-	-	3,600	-	-	-	3,600	**0**
Seaports	-	-	30,499	30,017	29,710	29,115	29,225	29,121	29,954	-	**-1.8%**
Maritime works	-	-	-	-	-	3,150	-	-	-	3,460	**+9.8%**
Rec. boating	-	-	-	-	-	-	-	-	1,129	-	**-**
Coastal tourism[IV]	8,238	8,593	8,145	8,376	8,437	8,610	8,748	8,901	-	-	**+8.0%**
Indirect employment											
Shipping	-	-	-	-	-	1,150	-	-	-	1,160	**+0.9%**
Seaports	-	-	73,508	72,853	72,564	74,711	77,236	76,170	74,212	-	**+0.9%**
Rec. boating	-	-	-	-	-	-	-	-	1,871	-	-
Maritime works	-	-	-	-	-	3,570	-	-	-	3,920	**+9.8%**

[I] Refers to the years data is available for.
[II] Data refers to 4 largest ports only (2001-2003).
[III] Indirect employment of ship repair sector in four largest ports of Belgium.
[IV] Excludes self-employed in the tourism sector.

2.0 Shipbuilding

For a long time the shipbuilding sector in Belgium received state support. However, because of the lack of private investment in the industry, the Belgian state (more specifically the Flemish government) decided to cut back its financial support. This led to a considerable decline in employment in the sector, and eventually to the sector's 'downfall'[I].

According to CESA, the shipbuilding industry in Belgium employed 10,245 people in 1975, but by 1995 this figure had declined to 300. A significant event was the bankruptcy of Boelwerf in 1992, the country's largest shipbuilding company. In 1993, the company was restarted with the participation of a Flemish state holding "Gimvindus". But this company also went bankrupt in 1994 after completing its last orders[II].

Belgian ports, however, still generate employment through repair focussed activities[III]. The following table 2.1 shows how direct employment in the shipbuilding and repair sectors has evolved in general and in each of the four largest Flemish ports. In 2003 the sector generated just under 900 jobs in Belgium. The port of Oostende has seen the largest increase in employment over the past few years, but Antwerp still remains as a focal point with 63% of all employees in the sector.

Table 2.1 Direct employment in shipbuilding and ship repair, 1975 - 2003

	1975	1995	2001	2002	2003	Change 1997-2003
Antwerp	n.a	n.a	530	543	563	-8.6%
Ghent	n.a	n.a	85	83	68	17.2%
Oostende	n.a	n.a	105	99	116	96.6%
Zeebrugge	n.a	n.a	193	167	152	12.6%
Total repair	6,586	150	n.a	n.a	n.a	n.a
New building	3,659	150	n.a	n.a	n.a	n.a
Total	**10,245**	**300**	**913**	**892**	**899**	**3.6%**

In full-time equivalents

Sources: CESA and F Lagneaux (May 2005) 'Economic importance of Flemish sea harbours, report 2003', Working Paper 69, National Bank of Belgium

[I] Minutes of public Flemish Council meetings of 1995-1996, 2003-2004

[II] The governing board of the company was charged with fraud over European education subsidies in October 2004.

[III] National Bank of Belgium

3.0 Marine equipment[I]

Employment generated by the marine equipment sector is fairly low, although no exact employment figures are known[II]. The closest estimate of employment is the indirect employment of activities related to ship repair. These figures however include employment generated by all shipyard suppliers, not only those manufacturing marine equipment. According to this data, as the table 3.1 below shows, that there has been an increase in employment over the period of 1997-2001 with the sector providing just under 900 jobs in 2001. This increase is particularly observable in the ports of Zeebrugge and Oostende where employment more than doubled between 1997 and 2001.

Table 3.1 Indirect employment in ship repair in major Flemish harbours

	1997	1999	2000	2001	Evolution 1997-2001
Antwerp	435	499	461	519	19%
Ghent	41	65	60	83	102%
Oostende	42	91	85	103	145%
Zeebrugge	95	153	164	189	159%
Total	**613**	**808**	**770**	**894**	**45%**

In full-time equivalents
Source: F Lagneaux (May 2005) 'Economic importance of Flemish sea harbours, report 2003', Working Paper 69, National Bank of Belgium

4.0 Shipping

Research in 2001 showed that ship ownership in Belgium was significantly less attractive than for example in the neighbouring countries of Luxemburg and the Netherlands, due to stringent fiscal policies. In order to encourage Belgian fleet to register under the Belgian flag, a range of measures have been undertaken by the government in recent years. For example, a tonnage tax was introduced and ship owners have been exempted from certain social costs and company taxes. As a result, in 2004, 80% of the Belgian-controlled fleet were registered with the new Belgian national register, and 85 ships carried the Belgian flag (both merchant and ocean towage)[III]. In the same year, Belgium ranked twenty-

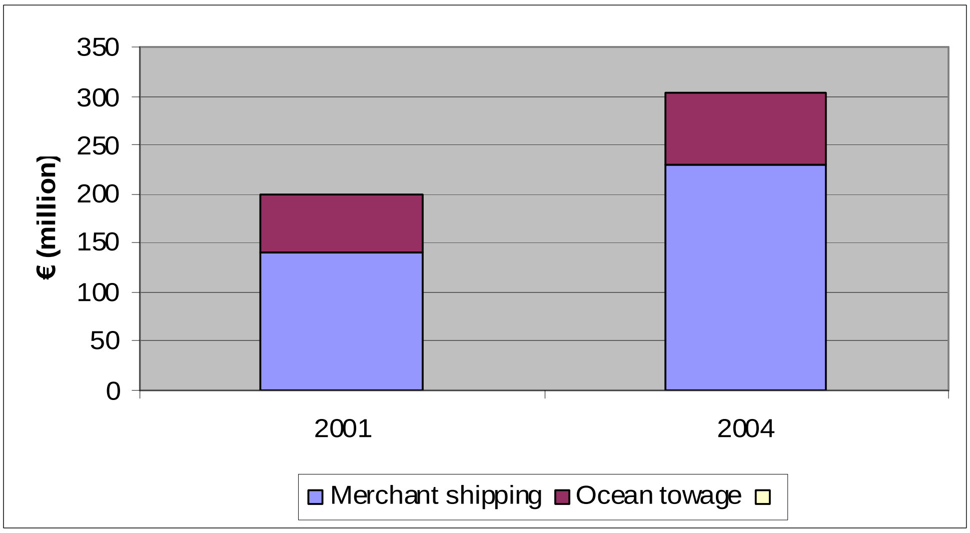
[I] This section is based on advice from the National Bank of Belgium
[II] This has been checked with the National Bank of Belgium.
[III] Source: Royal Belgian Ship Owners Association, Annual report 2004

second in the world of maritime nations, with a capacity of 5.8 million barrels. This was a rise of two places compared to 2003[I].

4.1 Economic impact

The direct added value of the Belgian shipping sector[II] accounted for €303 million in 2004[III]. This represented a growth of 51.5% compared with 2001 (€200 million). The economic activity of the merchant shipping sector increased by 65% over the same period (2001 to 2004, see Figure 4.1). The total added value of the merchant shipping sectors was €237 million in 2004 whilst the ocean towage sector accounted for €66 million in the same year. In 2004, more than 107 million tonnes of goods were shipped through short sea routes. This was an increase of 4% compared with 2003, and 21% compared with 1999[IV]. Short sea shipping is particularly important for the ports of Oostende and Brugge-Zeebrugge.

Figure 4.1 Increase in the added value of the Belgian shipping sector 2001-2004



Source: Policy Research Corporation (2001 and update 2004) Economic impact study Belgian shipping cluster

4.2 Employment trends

Employment in the Belgian shipping sector has remained stable between 2001 and 2004 with 3,600 staff. Nevertheless, during this period both the merchant shipping and ocean

[I] Royal Belgian Ship Owners Association, *Annual report 2004*, and Policy Research Corporation (2001) *Economic impact study Belgian shipping cluster*

[II] Merchant shipping and ocean towage.

[III] In 2001 and 2004, the Policy Research Corporation undertook an economic impact study (EIS) to assess the impact of the Belgian shipping cluster, on behalf of the Royal Belgian Ship Owners Association.

[IV] Short Sea Shipping Flanders, http://www.shortsea.be/start.html, 2006 towage sectors experienced minor fluctuations in employment in the form of a slight growth for the former and a slight decline for the latter.

Table 4.1 Direct employment in the shipping cluster in 2000 and 2004

Sub-sector	Employment in numbers		% of employment in the cluster		Number of Belgian nationals		Working on shore/at sea	% change 2000-2004
	2000	2004	2000	2004	2000	2004	2000	
Merchant shipping	2,910	2,975	80.8%	82.6%	895	900	440/2470	+2.2%
Ocean towage	690	625	19.2%	13.4%	620	n.a.	150/540	-9.4%
Total	**3,600**	**3,600**	**100%**	**100%**	**1,515**	**n.a.**	**n.a.**	**0**

Source: Policy Research Corporation (2001 and update 2004) Economic impact study Belgian shipping cluster

In terms of indirect employment, employment trends are similar to those relating to direct employment. Employment in Belgian companies delivering services to merchant shipping companies has grown slightly more than direct employment in the sector; indirect employment in the ocean towage sector has declined at the same rate as direct employment. See table 4.2 for more details.

Table 4.2 Indirect employment in the shipping cluster in 2000 and 2004

Sub-sector	Employment (numbers)		% change 2000-2004
	2000	2004	
Merchant shipping	990	1,015	+2.5%
Ocean towage	160	145	-9.4%
Total	**1,150**	**1,160**	**+0.9%**

Source: Policy Research Corporation (2001 and update 2004) Economic impact study Belgian shipping cluster

In 2000, 42% of the workers were of Belgian nationality. Information for 2004 on workers' nationality is not as detailed as that for 2000, but overall it seems that the situation has remained largely the same. However, only 31% of seafarers (merchant shipping) were Belgian in 2000, while 9 out of 10 employees in the ocean towage sector were Belgian. Further data assessment in the three tables below show that foreign nationals are much more numerous at sea than on shore, and that employees of Belgian origin occupy more positions on shore.

Table 4.3 Employment by nationality in 2000

Nationality	Employment on shore	Employment at sea	Total

<table>
<tr><th>Nationality</th><th>Employment on shore</th><th>Employment at sea</th><th>Total</th></tr>
<tr><td colspan="4">Merchant shipping</td></tr>
<tr><td rowspan="2">Belgians and Belgian residents</td><td rowspan="2">400</td><td>40</td><td rowspan="2">895</td></tr>
<tr><td>455</td></tr>
<tr><td rowspan="2">Foreigners and non-Belgian residents</td><td rowspan="2">40</td><td>106</td><td rowspan="2">2,015</td></tr>
<tr><td>1,869</td></tr>
<tr><td>Total</td><td>440</td><td>2,470</td><td>2,910</td></tr>
<tr><td colspan="4">Ocean towage</td></tr>
<tr><td>Belgians and Belgian residents</td><td>140</td><td>480</td><td>620</td></tr>
<tr><td>Foreigners and non-Belgian residents</td><td>10</td><td>60</td><td>70</td></tr>
<tr><td>Total</td><td>150</td><td>540</td><td>690</td></tr>
</table>

Source: Policy Research Corporation (2001 and update 2004) Economic impact study Belgian shipping cluster

According to the Royal Belgian Ship Owners Association,[I] in the last quarter of 2004 there were 224 officers from other EU countries working on Belgian vessels; 144 on ships with a Belgian flag and 80 under a foreign flag. In the fourth quarter of 2004, 30 more jobs were held by EU-resident officers than in the fourth quarter of 2003. This represented an increase of 16%.

When assessing factors that have triggered changes in employment levels, it becomes clear that an increase in the number of Belgian ships registered under the Belgian flag has had a direct effect on the employment and added value of the Belgian shipping industry. Another factor relates to the image and reputation of employment in the shipping sector, which until recently tended to be fairly poor. This discouraged many young people from considering seafaring as a career. However, as a result of greater investment in marketing, the image and reputation of the sector are improving, and registrations for maritime studies are on the increase.

4.3 Employment projections

The study carried out by the Policy Research Corporation shows that without the introduction of the tonnage tax, employment and added value in the Belgian shipping sector would have dropped drastically. However, as the Belgian government has taken considerable action since 2001 (to 2004), employment is showing a clear positive trend. And if the policies are developed further, employment can be expected to continue to grow in the future. On the other hand it has also been stated that if the Belgian government

[I] Annual report 2004

does not take action to develop the current policies further, the number of Belgian seafarers may begin to decline again. It has been estimated that in 2020 there will be only 3,000 Belgian seafarers left if nothing is done[I].

4.4 Skills and training

In terms of education, navigators can follow maritime studies at the Higher Navigation School (academic), Cenflumarin (technical secondary), PMI Heist/Oostende (technical secondary) and the Centre for Development of Sea Navigators (additional certificates).

As a result of an intensive campaign to enhance the image of maritime studies and professions in the shipping sector, the number of students shows an upward trend. For example, in comparison with the academic year 2003-2004, the number of students in the deck division increased by 8.6% in 2004-2005. However, the number of students in the mechanical division dropped slightly with 5%. As a result the Royal Belgian Ship Owners Association, together with the Higher Navigation School, wishes to develop a high-profile campaign to solve this problem and promote take-up of studies in the mechanical field.

Even if the total number of students went up by 5.9% between 2003 and 2004, the influx of new students and trainee sea navigators is not yet enough to satisfy current demand. There are a number of reasons for this labour shortage:[II]

- Seafarers spend on average three months a year at sea. This leads to difficulties in balancing social and family life, which discourages some people from entering the profession.
- The industry has a poor image, and there is uncertainty of employment because of the previously weak position of the fleet under Belgian flagging.

The growth in short sea shipping demands new skills; ship manoeuvres are becoming more complicated and need to be faster which requires in-depth knowledge of new computer and electronic systems. It is also expected that in some areas the future crews will consist of two instead of three people, and that legislation relating to security and the environment will increase. Therefore, for both sailors and quartermasters, tasks will become more administrative, will be linked more closely to the environment and security, and will demand more information and communications technology (ICT) skills[III].

[I] Policy Research Corporation (2001 and update 2004) *Economic impact study Belgian shipping cluster*

[II] Policy Research Corporation (2001) *Economic impact study Belgian shipping cluster*

[III] Social Economic Council of Flanders (2005) *Profession cluster sailor and quarter man coast and port towage, sector coast and port towage*, in cooperation with the fund for Rhine and Inland Shipping vzw and the Union of Rescue and Towage bv

Transferability of skills is very important in the shipping sector. It is crucial that former seafarers take up key positions on shore after a successful career at sea, to ensure the quality of Belgian maritime know-how.

5.0 Maritime works

Maritime works is one of the most important maritime sectors in Belgium, both in terms of economic impact and total employment. To demonstrate this, the added value of the Belgian maritime construction sector (equivalent to maritime works) amounted to €463 million in 2001, while the added value of the Belgian shipping sector amounted to €303 million. Indeed, some 30% of worldwide dredging is done by Belgian firms.

In 2004, water construction projects employed nearly 3,500 workers in Belgium. Employment in the sector witnessed a growth of 9.8% between 2000 and 2004, with 360 new employees finding a job in the sector. Four out of five employees in the sector were of Belgian origin in 2000, which is a substantially higher proportion than in, for example, the shipping sector. A substantially higher proportion of foreign employees are in sea-based employment than in shore-based employment[I]. This trend is similar to that in the shipping sector (see table 5.1).

Table 5.1 Direct employment in the maritime works sector in Belgium, 2000-2004

Year	Direct employment	Number of Belgian nationals	Working on shore/at sea	% change 2000-2004
2000	3,150	2,530	1,660 / 1,490	-
2004	3,460	na	na	+9.8%

Source: Policy Research Corporation (2001 and update 2004) Economic impact study Belgian shipping cluster

The table below gives an indication of indirect employment for 2000 and 2004 in the maritime works sector. It shows that the sector provides employment for more people indirectly than directly. The number of people employed indirectly in the sector has increased at the same rate as for direct employment.

Table 5.2 Indirect employment in the maritime works sector, 2000-2004

Year	Indirect employment	% change

[I] Policy Research Corporation (2001 and update 2004) *Economic impact study Belgian shipping cluster*

2000	3,570	-
2004	3,920	+9.8

Source: Policy Research Corporation (2001 and update 2004) Economic impact study Belgian shipping cluster

Consultations with major Belgian dredging companies found that the turnover of the sector has increased by around 40-50% in the past decade and it has led to a gradual increase of around 20-30% in employment. This has been mainly due to market developments in South East Asia and employment has been forecasted to increase by about 10-15% over the next ten years.

6.0 Seaports and related maritime services

Belgium has four Flemish seaports, of which Antwerp is the largest, followed by Ghent, Zeebrugge and Oostende. The port of Antwerp ranks third in Europe and eleventh in the world. The Flemish ports are of great economic importance to the country. The following table 6.1 shows the added value of the Flemish seaports. In 2003, the total added value was almost €11.5 billion. The direct impact was 21.5% (€2.5 billion) of the total added value[I]. In 2003, the port of Antwerp accounted for 65% of the total added value, Ghent 25.8%, Zeebrugge 6.2% and Oostende 3.0%. In absolute numbers, the added value of the direct maritime cluster increased between 1997 and 2003 for Antwerp, Ghent and Zeebrugge, but decreased for Oostende. In the period of 1997-2003, the importance of the ports of Zeebrugge and Oostende increased, from 5.4% to 6.2% and from 2.4% to 3% respectively. Antwerp's share has remained unchanged, and that of Ghent has decreased from 27.2% to 25.8%.

Table 6.1 Total added value of the Flemish ports in different activities

Total added value Flemish ports	1997 (billion €)	2003 (billion €)	Annual average growth (%)
Direct	**1,936.1**	**2,461.8**	**+ 4.1**
Indirect	**7,545.1**	**8,988.6**	**+ 3.0**
- Trade	1,040.2	1,546	+ 6.8
- Industry	5,789.5	6,376.7	+ 1.6

[13] Companies included in the maritime cluster are directly functionally related to the seaport: **(1) Companies situated within the port** (building and repair of pleasure boats, dredging work, other maritime work, other trade, other treatment of goods, storage in cool storage houses, customs agencies, intermediaries in transport; **(2) Companies situated in the broad definition of the port** (Royal Navy, transport and expedition agencies; **(3) Companies not situated in the port, but directly related to the seaports** (shipbuilding and repair, sea and coast shipping, inland shipping/navigation, supportive services for water transport: adaptation navigation ways, maritime transport equipment, ship agencies, rental of ships). All fisheries data have been excluded from this dataset.

Total added value Flemish ports	1997 (billion €)	2003 (billion €)	Annual average growth (%)
- Logistical services	460.4	705.1	+ 7.4
- Transport	255.0	360.1	+ 5.9
Total	**9,481.2**	**11,450.4**	**+ 3.2**

Source: Jean-Pierre Merckx and Dirk Neyts (2004) Study year overview Flemish ports 2004, Flemish Port Commission, SERV, p68[I]

According to a study that developed a "sustainability barometer" for the coast (an initiative by the Coordination Point for an Integrated Policy on Coastal Areas), the ports of Zeebrugge and Oostende generated a combined value of €1.055 million in 2003. This figure represents a 42% increase compared with 1997. Both ports are important for short sea shipping.[II] It is interesting to note that although the added value of the two ports increased by 42% from 1997 to 2003, employment increased by only 3.5%. This shows a clear increase in productivity (value per employee): 28.6% in the port area compared with 7.5% in the entire coastal zone.[III]

An important strength of the seaport sector in Belgium is the aforementioned very high productivity of the Flemish ports (measured in value per employee), which is much higher than, for example, in the Netherlands and Germany. The reasons for these differences are:

- a special social statute for employees in Flemish ports, which ensures a quality control in terms of skills and job security for workers;
- use of the latest technology in Flemish ports, especially with respect to fruit handling; and
- flexibility and self-fulfilment at work, enhanced by the social statute for port labour.

6.1 Employment trends[IV]

The latest study carried out by the National Bank of Belgium (NBB) concluded that approximately 57,200 people are directly employed in ports (port-related activities, industry and the public sector)[V]. This figure excludes the insurance industry, banking on behalf of the port, import/export firms, various service companies, industrial operations such as

[II] Sustainability barometer for the coast, initiative by the Coordination Point for an Integrated Policy on Coastal Areas
[III] Ibid.
[IV] The employment data used in this section is not yet published as it concerns the latest figures (March 2006) supplied by the National Bank of Belgium. Therefore, the data deviates from previous studies by both the National Bank of Belgium (2003) and the Flemish Port Commission (2004).
[V] Website of the port of Antwerp

sawmills, and industrial packing firms. If these services are taken into account, the figure increases to 75,000.

A study carried out by the Flemish Port Commission[I] has calculated direct and indirect port related employment since 1997. However, this study also includes shipping, ship repair and dredging related employment, thus is an over-estimation of direct port related employment as classified by this study. On the other hand, this study does not tell the whole story in a sense that this employment data is limited to the legal definition of the Flemish harbours. As a result of the social statute, workers within the juridical frontiers are expensive, as they come under the quality controlled social statute. Consequently, logistics firms in particular preferably establish themselves outside port boundaries in order to be able to pay lower wages. Hence their employment details are not included in this study and neither the National Bank of Belgium nor the Flemish Port Commission have found a way to take account of this effect[II].

According to this study the total number employed in the four Flemish ports remained stable between 1997 and 2003 but direct employment decreased slightly by 1.8% (see table 6.2). Indirect employment related to the logistics sector witnessed a major increase of 30%. In the port of Ghent employment increased over the period by 0.8%, and in Zeebrugge port employment increased by 5.2%. It dropped, however, in Antwerp (-0.6%) and in Oostende (-7.5%).

Table 6.2 Employment in the Flemish ports per year, 1997-2003

	1997	1998	1999	2000	2001	2002	2003	Change (%)
Direct	**30,499**	**30,017**	**29,710**	**29,115**	**29,225**	**29,121**	**29,954**	**-1.8%**
Indirect	**73,508**	**72,853**	**72,564**	**74,711**	**77,236**	**76,170**	**74,212**	**+0.9%**
- Trade	6,486	6,600	6,487	6,282	6,592	6,691	6,847	+5.6%
- Industry	54,701	54,088	53,273	54,370	55,871	54,644	52,683	-3.7 %
- Other logistical services	6,881	7,212	7,805	8,687	9,144	9,126	8,947	+30%
- Transport	5,440	4,953	4,999	5,372	5,629	5,710	5,736	+5.4%
Total	**104,898**	**103,679**	**103,134**	**104,697**	**107,353**	**106,038**	**104,899**	+0.1%

Source: Data compilation on the basis of Flemish Port Commission, SERV and NBB dataset, updated to March 2006

[I] Jean-Pierre Merckx and Dirk Neyts (2004) Study year overview Flemish ports 2004, Flemish Port Commission, SERV
[II] The study service of the Port of Antwerp might be able to supply these figures.

The port of Antwerp provided 59.5% of all employment in Flemish ports in 2003. The respective figure for Ghent was 26.6%, Zeebrugge 9.7% and Oostende 4.3% (see table 6.3).

Table 6.3 Employment (full-time equivalent) in each Flemish port in 2003

Ports	Indirect				Total indirect	Direct	Total
	Other logistical services	Transport	Trade	Industry			
Antwerp	5,704	3,348	2,852	27,135	39,039	23,324	**62,378**
Ghent	1,449	984	2,692	20,856	26,031	1,823	**27,862**
Zeebrugge	915	1,093	965	2,881	5,854	3,882	**10,148**
Oostende	830	310	337	1,810	3,287	925	**4,511**
Total	**6,881**	**5,440**	**6,486**	**54,705**	**73,508**	**30,499**	**104,899**

Source: Data compilation on the basis of Flemish Port Commission, SERV and NBB dataset, updated to March 2006

6.2 Employment projections

Some of the factors affecting employment in different Flemish ports relate to capacity issues. For this reason, for example, employment in the port of Ghent has been stable over the period 1997-2003. The port needs a new lock (Terneuzen lock) with sufficient depth for larger boats. However, the process of building the new lock is seriously delayed because it requires co-operation with the Netherlands. The two sides are currently negotiating and examining possibilities for such co-operation, but the process is slow and difficult as the new lock will threaten the competitive advantage of the Netherlands with respect to larger boats.

The port of Oostende is dealing with a similar problem and is currently not accessible for very large freight ships. Sea access needs to be improved to enable larger ships to reach the port. At the moment, newly constructed ships cannot access the port of Oostende; only older, less efficient ships can.

The other two Flemish seaports are overcoming capacity problems through major infrastructural investments, which are expected to have a significant impact on employment. For example, the port of Zeebrugge is boosting its capacity by building new terminals (Maers-Sealand and others), which will soon open up new job opportunities. The first new terminal opens in May 2006, increasing demand for port workers by approximately 500 people (300 white-collar workers and around 200 blue-collar workers). Next year, another 250 employees will be needed for the staffing of a second new terminal. Furthermore, it is expected that in 2007-08 another new terminal will be build, which is expected to demand an additional 500 new employees. This increase in capacity will triple the size of the port of Zeebrugge with respect to container handling.

The opening of the Durganck dock in Antwerp (in 2005) significantly increased the port's capacity and thus now offers new opportunities for development and employment. But the port still faces some challenges that need to be overcome, including:

- Deepening the navigational channel of the Schelde. The port depends on the river Schelde for its link with the maritime foreland and intensive dredging has systematically improved navigability of the tidal river[I]. There are also plans to further deepen the river, which have the potential to make the ports of Antwerp and Ghent more accessible for larger sea-going ships. But this work depends on ongoing negotiations and co-operation with the Dutch authorities[II].
- Building a second railway line to the harbour;
- Further development of the Ijzeren Rijn; and
- Increasing the opportunities for inland shipping and inland terminals.

6.3 Skills and training

A factor seriously affecting employment in the Flemish seaport sector is a mismatch between skill demand and supply. This is particularly apparent in the port of Antwerp, which on the one hand is dealing with high unemployment, while on the other the port authority and companies based at the port are faced with a shortage of skilled personnel. In particular, there is a shortage of employees:

- with broad knowledge of port-related services;
- who are skilled in two to four languages; and
- who have a technological and ICT background.

In addition, it has become increasingly normal for white-collar workers in the port to take up 24-hour service jobs that include shift working. However, many white-collar workers are not willing to do this, as it is historically linked to blue-collar work.

7.0 Recreational boating

In Belgium, water recreation has become an increasingly important sector since the 1960s, as the overall purchasing power of the Belgian population has increased and working time

[I] Country descriptions and the Port Antwerp website

[II] Co-operation with the Netherlands is necessary as the river Schelde divides the Netherlands from Belgium. The situation is complicated by the fact that further dredging of the river will strengthen Antwerp's position to compete with Rotterdam in the Netherlands.

decreased[I]. However, boat ownership remains fairly low in Belgium compared to many other European countries. On average around 1 in 324 people owns a boat[II].

In 2003, it was estimated that around 35,000 vessels were registered in Belgium, of which 10% were owned by foreign nationals. In total, 8,163 recreational motor boat owners and 21,594 other members (sailors, surfers, etc) were members of clubs and other water sport associations.[III]

7.1 Economic impact of the sector

Research on the economic impact of the sector is not very recent and it is important to bear in mind that estimates deviate from reality, as yacht registration systems are not fully developed in Belgium compared with other European countries[IV]. An outdated study by Verdoolaege[V] shows that in 1988 the total turnover (direct and indirect) of the water recreation sector was €876.55 million.[VI] The added value accounted for approximately €347 million euro[VII]. A study by Nautibel (2004) estimated that in 2003 the water sport sector created an economic impact of €877 million, including direct (production) and indirect related activities (tourism).

7.2 Employment trends

The following table provides an overview of employment in the water recreation sector in Belgium for 1988, 1995-1996 and 2003. It was estimated that in 1988, 3,091 paid employment posts were created in the Belgian water recreation sector. It is interesting to note that according to Nautibel, in 1995-96 water recreation was estimated to have contributed to the creation of 2,500 jobs and in 2003 to 3,000 jobs (indirect and direct

[I] D Eliaerts, P van den Keybus, P Moors and J Dackaers (1998) *Water sport in Flanders* www.viwc.be/water/pdf/waterbeheer/8.pdf

[II] Nautibel (2004) *Study on the economics of water sport in Belgium*. Note: EVD International Entrepreneurship and Cooperation comes to a different conclusion, with an average of 1 in 1,000 people in Belgium owning a boat. The numbers for the other countries (Finland, Germany and the Netherlands) are comparable in both studies ((*Sweden: fact sheet on pleasure boats*, June 2005) http://www.evd.nl/info/zoeken/ShowBouwsteen.asp?bstnum=74442&location=/info/landen/land.asp?land=Zweden

[III] WES, CIBE, CDR (2003) *Development of a policy plan for water recreation and tourism on the waterways and coast of Flanders, final report, resource analysis*, study for the Ministry of the Flemish Community, Policy Division for Harbours, Waterways and Sea

[IV] Maya project I and II on marinas and yachting in the lower North Sea, the Channel area and the Irish Sea, http://www.maya-net.org/index.php?url=/maya1/

[V] In WES, CIBE, CDR (2003) *Development of a policy plan for water recreation and tourism on the waterways and coast of Flanders, final report, resource analysis*, study for the Ministry of the Flemish Community, Policy Division for Harbours, Waterways and Sea

[VI] This estimate was originally calculated in Belgian francs and in a later study was translated to the euro price of 2002.

[VII] WES, CIBE, CDR (2003) *Development of a policy plan for water recreation and tourism on the waterways and coast of Flanders, final report, resource analysis*, study for the Ministry of the Flemish Community, Policy Division for Harbours, Waterways and Sea employment). Obviously, these data are not comparable, and it should be borne in mind that volunteer (unpaid) workers were not included.

Table 7.1 Direct and indirect employment in water recreation

	1988[I]	1995-96*	2003**	2003***
Direct employment full-time	-	-	999	940
Direct employment part-time	-	-	130	-
Indirect employment	-	-	1871	-
Total	**3,091**	**2,500**	**3,000**	**-**

*Source: * Nautibel; ** Nautibel study, 2004, *** British Marine Federation*

7.3 Employment projections

Even if employment in the recreational boating industry has increased over the past decade, the future growth potential of the sector is somewhat obscured by infrastructural shortcomings; most Flemish coastal marinas can not fulfil demand as there is a shortage of berths. Consequently, many Belgian pleasure-boat owners keep their boats in marinas in neighbouring countries such as the Netherlands and France. Besides there is a demand for deeper waterways, higher bridges and larger piers and marinas due to the trend towards larger and more luxurious boats.

On the other hand, the growth potential of the sector is demonstrated by the fact that in recent years the Flemish waterways have gradually became more attractive for Dutch, French and UK citizens[II]. But obviously, more investments are needed to cope with the current capacity problem. Finally, the rental of recreational vessels has been on increase which offers economic and employment opportunities in the business of renting out recreational boats.

Another growth opportunity for the sector is that tourists want more diverse activities, which increases the demand for a more diverse set of activities and combo-packages of recreation and tourism. One such example is offering a combination of bike-boat excursions or a boat trip together with a museum visit.

[I] Verdoolaege, 1988: study includes indirect and direct employment data. In the indirect employment sector, sub-sectors like the related food sector, insurance and yacht distributors are included.
[II] WES, CIBE, CDR (2003) *Development of a policy plan for water recreation and tourism on the waterways and coast of Flanders, final report, resource analysis*, study for the Ministry of the Flemish Community, Policy Division for Harbours, Waterways and Sea

7.4 Skills and training

An interesting phenomenon in the water recreation sector in Belgium is that it employs many volunteers, thus performs a socially inclusive role in keeping unemployed people and older people active and involved. In addition, volunteering enables the continued existence of craftsmanship in repair and navigational skills, against low costs[I].

The Nautibel study (2004) indicates that there is a shortage of staff with specific technical, administrative and management knowledge in the water recreation sector. Administrative expertise is essential since the administrative requirements are quite substantial and complicated in the Belgian water recreation sector. Consequently Nautibel recommends first of all a simplification of administration concerning the purchase and navigation of boats. Secondly, it recommends streamlining and stimulation of education and certificates in the fields of expertise required for water recreation.

8.0 Coastal tourism

The Flemish Coastal zone is divided into[II]:

- coastal communities – Blankenberge, Bredene, de Haan, de Panne, Knokke-Heist, Koksijde, Middelkerke, Nieuwpoort and Oostende;
- non-coastal polder communities – Damme, Zuienkerke, Jabbeke, Oudenburg, Gistel, Diksmuide, Veurne, Alveringem, Lo-Reninge; and
- Zeebrugge (also called Brugge).

[I] WES, CIBE, CDR (2003) *Development of a policy plan for water recreation and tourism on the waterways and coast of Flanders, final report, resource analysis*, study for the Ministry of the Flemish Community, Policy Division for Harbours, Waterways and Sea

[II] *Sustainability barometer for the coast*, initiative by the Coordination Point for an Integrated Policy on Coastal Areas, http://www.vliz.be/projects/indicatoren/db.php

Figure 8.1 Map Flemish coastal zone

The tourist-recreation sector is important for the Flemish employment structure: the sector ranks in seventh place. In the Flemish coastal area, employment generated by the coastal tourism sector is even more important. Indeed, the coast of Flanders has always been a top tourist destination in Belgium. Consequently, the coastal tourism sector has never really had to put a great deal of effort into developing a coherent tourist policy or plan. This has caused fragmentation in the supply of services, and environmental aspects and architectural heritage have been somewhat ignored. The situation, however, has changed dramatically in the last few years. Competition has increased and tourists are demanding more professionalism and better quality from service providers. In addition, the number of tourists spending longer holidays on the Flemish coast has dropped; visitors increasingly prefer to stay for a short duration. Consequently, there is a demand for a more pro-active approach to take these developments into account.

Between 1996 and 2003, the number of overnight stays in the coastal area fell by 12.6% (see table 8.1). This reduction was caused by the shortening of the average length of stay, which fell from 6.2 nights to 5.1 nights per person[I]. However, at the same time tourism is becoming more evenly spread throughout the year in the coastal area. This is beneficial for the sustainability of jobs.

[I] The numbers of area-specific overnight stays are collected by the NIS, which receives data from home rental offices (immobilien) and commercial lodging owners. However, many holiday homes are rented without the involvement of an office. Westttoer (West-Flemish provincial company for tourism and recreation) took this into account through a correction.

Table 8.1 Evolution of overnight stays in Flemish coastal regions

COMMUNITIES	1995	1996	1997	1998	1999	2000	2001	2002	2003	% change
TOTAL polder	66,731	77,931	88,176	109,956	102,667	114,555	118,871	141,462	152,528	48.9
TOTAL coastal	7,184,716	7,267,839	6,756,512	6,505,408	6,300,339	6,200,870	5,929,560	6,055,900	5,950,929	-22.1
ZEEBRUGGE	903,940	1,004,237	1,117,604	1,186,638	1,246,612	1,268,695	1,295,530	1,441,725	1,309,096	23.3
TOTAL	**8,155,387**	**8,350,007**	**7,962,292**	**7,802,002**	**7,649,618**	**7,584,120**	**7,343,961**	**7,639,087**	**7,412,553**	**-12.6**

Source: Verblijfstoerisme in Vlaanderen, 2000-2004, statistisch overzicht

8.1 Employment trends

Studies carried out by Toerisme Vlaanderen show a growth of 14% in paid employment in the tourism sector in the whole of Flanders between 1999 and 2002. In 1999 the tourist sector generated employment for 89,379 persons and in 2002 for 102,120 persons[I]. When assessing the level of employment generated by the coastal communities only, the following table 8.2 gives an overview of employment by different sub-sectors of coastal tourism and recreation[II]. The table shows that employment has increased by 8% between 1995 and 2002 - from 8,200 to 8,900 employees.

Table 8.2 Changes in employment in coastal tourism and recreation, 1995-2002

YEAR	Lodging	Food sector	Tourist services	Property services	Recreation[III]	Total
1995	2,850	3,389	51	1,079	869	**8,238**
1996	2,810	3,670	54	1,070	989	**8,593**
1997	2,694	3,531	59	1,094	767	**8,145**
1998	2,592	3,699	69	1,104	912	**8,376**
1999	2,583	3,764	73	1,117	900	**8,437**
2000	2,562	3,923	88	1,102	935	**8,610**
2001	2,643	3,979	90	1,093	943	**8,748**
2002	2,649	4,294	97	1,082	779	**8,901**
Change (%) 1995-2002	**-7.1%**	**26.7%**	**90.2%**	**0.3%**	**-10.4%**	**8.0%**

Source: RSZ-statistics provided by Westtoer

It becomes clear from the table that the food sector employs the largest number of people, followed closely by lodging (hotels, holiday parks and camping). Employment in the tourist service sector remains fairly low but has nearly doubled over the period of 1995 to 2002.

[I] Vivat holiday newsletter - source: press announcement by the cabinet of the Flemish Ministry of Employment and Tourism, 9 April 2004, http://www.vivat.be/00-00.asp?articleID=801
[II] Excluding self-employed in the tourism sector.
[III] Including water sport

Employment related to accommodation and recreational facilities have seen a decline (-7.1% and -10.4% respectively).

The following table 8.3 provides employment figures (coastal tourism) for some of the individual coastal communities as collected by the RSZ (National service of Social Insurance) and the RSVZ (National insurance of self-employed). These statistics have defined the coastal communities differently than the previous study and the statistics also include self-employed. According to these statistics employment grew in these coastal communities by a total of 503 jobs (+4%). Niewpoort saw the most substantial increase in employment whilst the employment declined in Middelkerke and Oostende.

Table 8.3 Employment in tourism in the coastal communities of Belgium (number of people employed)

COMMUNITIES	1995	1996	1997	1998	1999	2000	2001	2002	% change
BLANKENBERGE	1,254	1,372	1,339	1,325	1,250	1,288	1,326	1,365	8
BREDENE	234	224	223	266	256	275	247	240	3
DE HAAN	890	844	807	802	842	788	865	907	2
DE PANNE	820	891	821	820	848	907	908	906	9
KNOKKE-HEIST	2,316	2,261	2,252	2,296	2,384	2,375	2,455	2,461	6
KOKSIJDE	1,163	1,216	1,115	1,100	1,101	1,154	1,198	1,263	8
MIDDELKERKE	907	902	926	944	923	913	872	875	-4
NIEUWPOORT	643	743	667	728	760	825	806	748	14
OOSTENDE	2,928	2,885	2,897	2919	2,864	2,975	2,948	2,893	-1
TOTAL	**11,155**	**11,338**	**11,047**	**11,200**	**11,228**	**11,500**	**11,625**	**11,658**	**4**

Source: ECOTEC compilation on the basis of Sustainability barometer for the coast, initiative by the Coordination Point for an Integrated Policy on Coastal Areas, http://www.vliz.be/projects/indicatoren/db.php

8.2 Employment projections

The expectation is that employment growth will stay in line with the current growth trend. Although the number of tourists from within the EU has decreased in recent years, the number of visitors from outside the EU has increased, with particularly large growth in numbers of tourists from Canada (+39.9%), Japan (+23.4%) and Israel (+53%)[i]. An important factor that will determine future employment growth is how the Flemish authorities and the coastal communities take into account the recent trend for shorter stays and the booming business in second homes. Employment is expected to remain fairly seasonal and therefore is expected to continue to contribute to the creation of seasonal jobs. A possible threat for employment is the increase in second-home tourism, which

[i] *Verblijfstoerisme in Vlaanderen, 2000-2004, statistisch overzicht*

leads to the buy-up of hotels and camping grounds for the commercial development of second homes. Second homes generally generate less added value and employment.

8.3 Skills and training

The *Strategic policy plan for coastal tourism and recreation* (Westtoer and Toerisme Vlaanderen) indicates that the tourist sector, especially restaurant businesses, has problems in attracting professional labour, particularly during summer periods.