

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

Finland



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 – Finland

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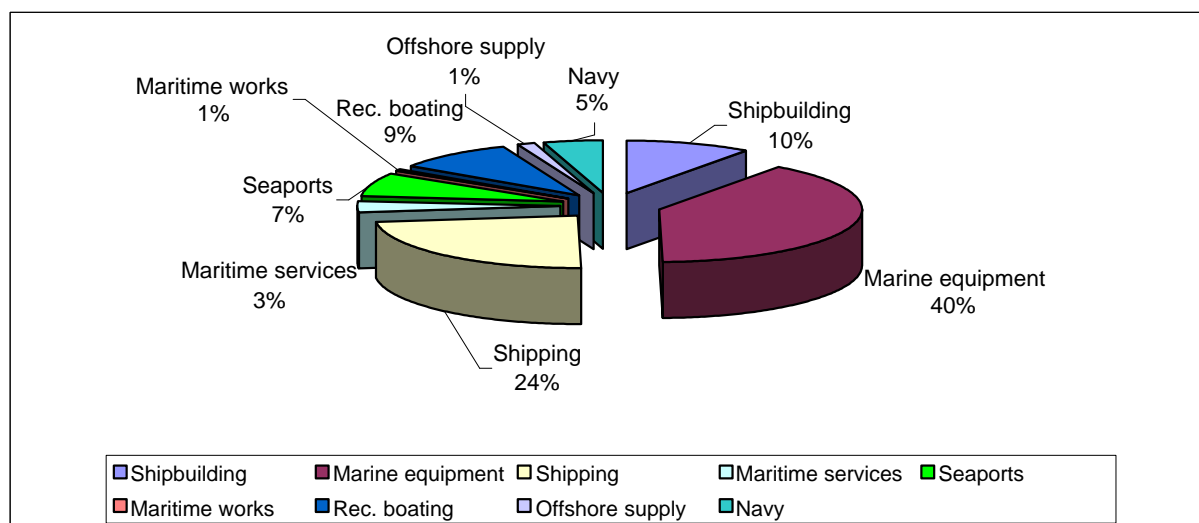
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1.0 Summary^I

The Finnish maritime sectors contributed to the creation of nearly 122,000 jobs in 2004/2005^{II}. The core maritime activities generated just over 48,000 jobs in 2004/2005 (excludes coastal tourism).

Coastal tourism is by far the largest sector providing nearly 73,000 jobs^{III}. From the more traditional maritime industries, marine equipment and shipping are largest sectors in terms of employment. Employment in the dredging and offshore supply sectors are reasonably marginal.

Figure 1.1 Share of employment of total employment in the core maritime sectors, 2004/2005



Employment trends from the past decade have been that of decline in most sectors, apart from coastal tourism, cargo handling, recreational boating and offshore supply. Employment in the port administration has declined but at the same time the number of permanent jobs in cargo handling duties has gone up. Employment in the recreational boating sector has seen an increase of approximately 5% over the past decade.

The shipping sector has witnessed a slight decline of nearly 1,000 employees, and the shipbuilding industry has lost 2,000 jobs – many of which have now been outsourced rather than lost as such. The future forecast for the shipbuilding sector is also fairly positive with some of the shipyards working to full capacity for the next few years.

^I This report excludes employment related to fishing.

^{II} This study excludes fishing, and the figure for coastal tourism is from 2002.

^{III} Please note that these figures refer to the wider travel and tourism economy, and includes all employees from this sector from NUTS II regions located on the coast – of which many stretch further than 50km from the sea.

Figure 1.2 Employment trends in the shipbuilding, shipping and seaport sectors, 1996-2004

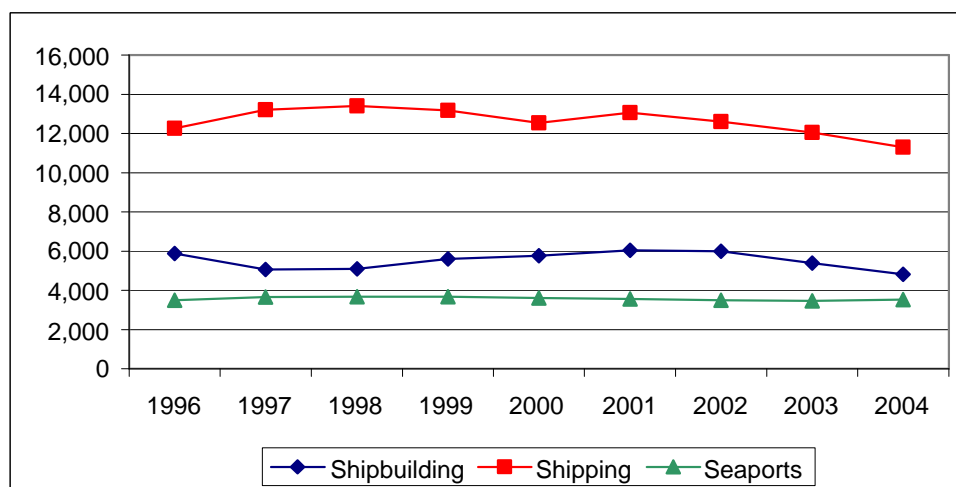


Table 1.1 Employment in the Finnish sea related sectors, 1995-2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Shipbuilding	6,932	5,882	5,066	5,100	5,600	5,769	6,041	5,998	5,380	4,823	-
Marine equipment ¹	-	-	-	-	-	-	-	-	-	19,000	-
Shipping	12,238	12,267	13,212	13,412	13,183	12,545	13,055	12,597	12,049	11,295	-
Maritime services	-	-	-	-	-	-	-	-	-	-	1,657
Seaports	-	3,498	3,650	3,666	3,674	3,616	3,554	3,486	3,466	3,529	3,559
- Cargo handling	-	2,491	2,511	2,573	2,582	2,561	2,511	2,491	2,494	2,587	2,640
- Port administration	1,025	1,007	1,139	1,093	1,092	1,055	1,043	995	972	942	919
Maritime works	-	-	-	-	-	322	304	274	282	249	-
Rec. boating	4,275	-	-	-	-	-	-	-	-	-	4,500
Offshore supply	-	-	-	-	-	572	644	775	695	661	-
Navy	-	-	-	-	-	-	-	-	-	-	2,300
Coastal tourism	-	-	-	-	-	-	-	73,770	-	-	-

Source: ECOTEC Research & Consulting, 2006

¹ This also includes some maritime services.

2.0 Shipbuilding

Finnish shipyards have specialised in technically demanding vessels and today mainly luxury cruise liners and car/passenger vessels are built in Finland. The building of naval vessels is not of great importance to the sector; those activities only employ a maximum of 40-60 people^I. Finland's share of total direct European shipbuilding employment was approximately 3.6% in 2003^{II}. The relative weight of the building and repair of ships and boats sector in Finland is quite small compared to the whole economy: the share of GDP is only 0.1% and the share of total employment is only 0.3%^{III}. The maritime cluster study calculated the economic impact of 4 largest shipyards and one offshore company (Technip Offshore) to be €1.549 billion in 2001 (€1,548,996,093). Almost all the sales of the shipyards were exported in 2001 (99.8%).

In total there are 6 shipyards operating in Finland^{IV}. The four major shipyards belong to multinational companies: Shipyards situated in Helsinki, Turku and Rauma belong to the international Aker group and Technip Offshore in Pori is owned by a French group. Only Turku Repair Yard in Naantali and the UKI Workboat in Uusikaupunki are Finnish owned shipyards.

The strength of the Finnish shipbuilding industry has been said to be specialisation, however, this has been recognised to be the strength of the industry in Europe as a whole, thus does not display a particular strength for Finland. However, other strengths recognised by the Finnish stakeholders were said to be good reputation in terms of planning and delivering work on time as well as the fact that the industry is not specialised in naval ships because the value of cruise ships in the overall production chain can be double to that of naval ships.

Weaknesses for the industry have been said to be remote location. In terms of threats, a shortage of skilled labour and in the longer term future bridge developments between Denmark and Sweden could potentially influence the shipbuilding sector in Finland.

2.1 Employment trends

Different data sources provide somewhat different figures for employment in the shipbuilding sector in Finland. For this study data has been received from the national

^I Viitanen et al (2003) *The Finnish Maritime Cluster Study*. TEKES

^{II} Viitanen et al (2003) *The Finnish Maritime Cluster Study*. TEKES.

^{III} This refers to the statistics from the National Office of Statistics, NACE 35.11 and 35.12, thus includes building and repair of ships and boats – data is from Viitanen et al (2003) *The Finnish Maritime Cluster Study*. TEKES.

^{IV} Including newbuildings, ship repair and offshore supply

statistics office (1977 – 2003), maritime cluster study (2001), CESA (1995 – 2004) and from a study carried out by the Ministry of Labour and the Finnish Metal Workers' Union on employment in each individual shipyard in Finland (2000 – 2004). After discussions with the Finnish stakeholders, it was decided that the combination of the study carried out by the Ministry of Labour on each shipyard in Finland (regarded as the most reliable source of data) and CESA data for the years 1995 – 1999 would give the most realistic source of employment data for this study period. This is because the figures provided by the national statistics office are likely to include employment also in some companies belonging to the maritime equipment sector and other suppliers to the shipyards. However, in order to assess longer term trends in employment, this section starts off by analysing the data from the national statistics office.

According to national statistics, the shipbuilding sector provided employment for over 21,000 people in 1977, whilst the sector employed only 8,482 directly in 2003 (see table below). This constitutes a decline of 59.7%¹. However, the industry representatives have confirmed that a majority of the employment losses can be explained by outsourcing and by a growth in employment in the marine equipment sector. Employment fell most drastically in 1983, between 1986 and 1987 and between 1989 and 1990. One fifth of all employees in the sector lost their job in 1990.

When looking at trends from the past decade more closely, just over 9,300 people were employed in the shipyards in 1995 whilst 8,482 were employed in 2003. This represents a decline of 822 workers (-8.8%). However, the reality is that employment went up between 1999 and 2001 but declined more dramatically between 2002 and 2003.

Table 2.1 Direct employment in the Finnish shipbuilding industry, 1977 - 2003

Year	White collar workers	Blue collar workers	Total	Percentage change to previous year	Proportion (%) of white collar workers
1977	5,372	15,663	21,035	n.a	34.3
1978	5,391	14,738	20,129	-4.3	36.6
1979	5,620	14,917	20,537	2.0	37.7
1980	6,018	16,170	22,188	8.0	37.2
1981	6,153	16,664	22,817	2.8	36.9
1982	6,093	17,365	23,458	2.8	35.1
1983	5,662	15,181	20,843	-11.1	37.3
1984	5,664	14,071	19,735	-5.3	40.3

¹ Teollisuustilasto

Year	White collar workers	Blue collar workers	Total	Percentage change to previous year	Proportion (%) of white collar workers
1985	5,648	13,325	18,973	-3.9	42.4
1986	4,786	10,760	15,546	-18.1	44.5
1987	4,353	9,008	13,361	-14.1	48.3
1988	4,212	8,957	13,169	-1.4	47.0
1989	3,453	7,508	10,961	-16.8	46.0
1990	2,398	6,396	8,794	-19.8	37.5
1991	2,278	6,021	8,299	-5.6	37.8
1992	2,084	5,955	8,039	-3.1	35.0
1993	1,907	6,043	7,950	-1.1	31.6
1994	1,898	6,787	8,685	9.2	28.0
1995	1,979	7,325	9,304	7.1	27.0
1996	1,813	7,065	8,878	-4.6	25.7
1997	1,791	6,429	8,220	-7.4	27.9
1998	1,910	6,243	8,153	-0.8	30.6
1999	1,857	6,547	8,404	3.1	28.4
2000	1,965	7,329	9,294	10.6	26.8
2001	2,049	7,658	9,707	4.4	26.8
2002	2,050	7,310	9,360	-3.6	28.0
2003	1,918	6,564	8,482	-9.4	29.2

Source: Teollisuustilasto (2005), Metallilitto (2006)

According to the Finnish maritime cluster study employment levels of 4 largest shipyards and an offshore company was 6,657 (in 2001). Indirect employment was 10,848 persons. It has been calculated that every employee in the shipbuilding industry in Finland creates employment for 3 other people through supplier links (this has been calculated to be even higher in Turku where a job in the shipyards contributes to the creation of 3.2 jobs in the supply chain)¹.

As mentioned, the study carried out by the Ministry of Labour in 2005 assessed the level of employment by each shipyard between 2000 and 2004. This data, together with CESA data demonstrate a trend of overall decline in employment between 1995 and 2004. Employment fell from 6,932 to 4,823 displaying a decline of 30.4%. This trend is much more dramatic than the figure provided by the national statistics office, however, can be

¹ The Finnish Metalworkers' Union.

explained by the increasing levels of outsourcing and transfer of employment from shipyards to the companies operating in the maritime equipment sector.

Table 2.2 Number of personnel in the Finnish shipyards between 2000-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Aker Finnyards										
- Aker Finnyards / Helsinki	n.a	n.a	n.a	n.a	n.a	1,869	1,993	1,872	1,543	1,048
- Aker Finnyards / Turku	n.a	n.a	n.a	n.a	n.a	2,194	2,248	2,236	2,042	1,980
- Aker Finnyards / Rauma	n.a	n.a	n.a	n.a	n.a	1,004	1,034	988	988	959
Technip Offshore / Pori	n.a	n.a	n.a	n.a	n.a	572	644	775	695	661
Turku Repair Yard / Naantali	n.a	n.a	n.a	n.a	n.a	130	122	127	112	85
UKI Workboat / Uusikaupunki	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	90
Total	6,932	5,882	5,066	5,100	5,600	5,769	6,041	5,998	5,380	4,823
Employees employed by subcontractors	n.a	n.a	n.a	n.a	n.a	3,717	3,455	1,808	1,165	749

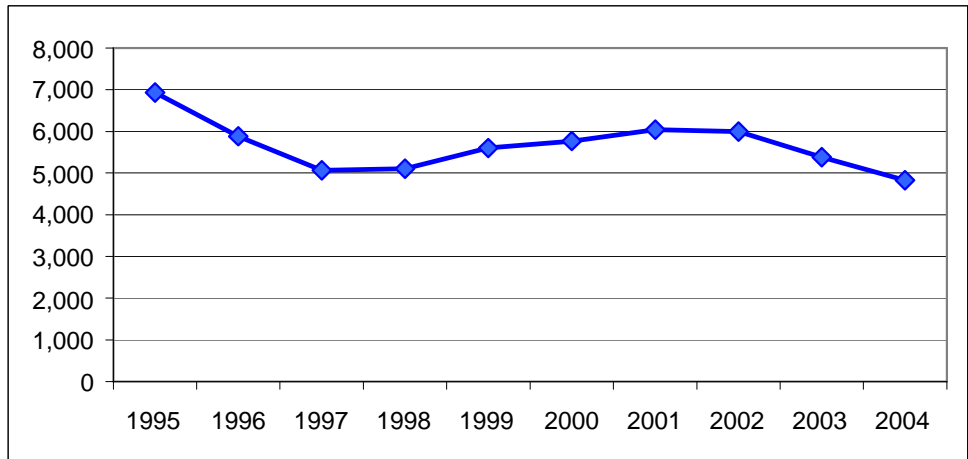
Source: Ministry of Labour and Metallilitto (2000-2004), CESA (1995 – 1999)

As it was possible to see from the graph below, employment in the sector has varied during the past 5 years. This is due to fluctuations in the number of ship orders. In global market terms, the year 2000 saw an exceptional number of new orders being placed. This was influenced by the low price of ships and perhaps more importantly the knowledge that it was possible to obtain direct production subsidies for vessels that were ordered before 2001 in the EU countries^I. How this featured in Finland was that in 2001 there was a decrease of 13% in the number of new orders compared to the year before, and in 2002, a decrease of 7%^{II}. The decrease in the amount of orders was influenced by slow global economic growth, removal of direct production subsidies in the EU countries and the terrorist attacks of 2001 that increased insecurity in the tourism trade. Obviously some business has also been lost to the Far East in recent years. However, the high number of orders in 1999 and 2000 boosted the employment figures for 2000 to 2002. It is also worth noting that employment in the company building offshore equipment has witnessed a gradual growth in the past 5 years.

^I Viitanen et al (2003) *The Finnish Maritime Cluster Study*. TEKES.

^{II} Viitanen et al (2003) *The Finnish Maritime Cluster Study*. TEKES.

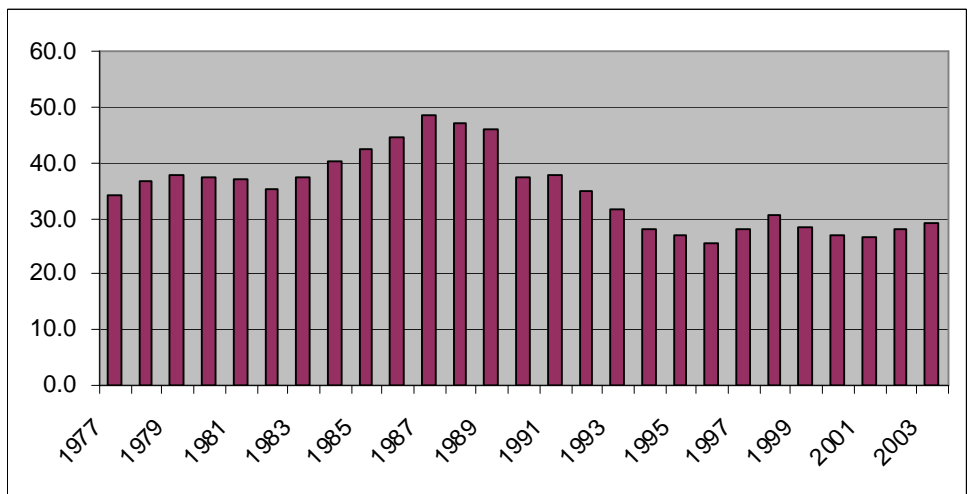
Figure 2.1 Employment trends in the shipbuilding sector



Source: Ministry of Labour and Metallilitto (2000-2004), CESA (1995 – 1999)

When analysing the characteristics of employment, the following table demonstrates how white collar employment has been affected more by the overall decline in employment than employment of blue collar workers. However, during the years of most severe job losses, the proportion of white collar workers was the highest.

Table 2.3 Proportion of white collar workers, 1977 - 2003



Source: Teollisuustilasto, 2005

The profile of the workforce has traditionally been fairly homogeneous with a great majority of workers coming from Finland. Recent years have however witnessed a trend of growing number of workers from Estonia, Lithuania and Russia.

2.2 Employment projections

2003 and 2004 were difficult years for Finnish shipyards. For example, in April 2003 over 900 employees of Aker Finnyards and Kvaerner Masa-Yards were laid off. However, the current situation is much better and new jobs have been created in the sector since then. All the shipyards are full with orders at least until 2008. Indeed, the Turkey shipyard is now full until 2009 and due to the ageing demographics of the workforce it is expected that the shipyard needs to find 1,000 new, qualified workers every year until then. The future of the shipyards in Rauma and Helsinki are more uncertain in the longer term because they are fairly small shipyards. The current trend of building bigger and bigger cruise vessels is reducing their overall level of competitiveness in the global market place.

When looking at the Finnish shipyard industry as a whole, the longer term future is fairly positive due to the specialisation on cruise ships. The demand for cruise vessels has been in nearly constant increase (excluding a short period of market stagnation after 9/11); the cruise tourism sector is growing by 5-8 % per year, led mainly by the constantly growing demand in the US. Ageing demographics of Europe and North America further enhance this trend. Indeed, also the fact that the cruise ships for the American market are growing constantly in size has a positive influence on the Finnish shipbuilding industry because the largest cruise ships are too wide to sail through the Panama Canal meaning that the American cruise tourism sector have to have ships both east and west side of the Canal to cater the demand.

Some companies in the sector have started to diversify their business in order to remain competitive. Particularly common in recent years has been the plans to shift operations from the maritime sector to land, and plans to offer more auxiliary services (e.g. maintenance services, increase work for other sectors within the maritime sector, repair).

In order to develop competitiveness of shipyards and expand their business, the companies in the shipbuilding sector have identified areas of improvement¹:

- Customer services
- Quality
- Enhanced co-operation with clients
- Technological skills
- Efficiency of production
- Further specialisation
- Skill development of the workforce
- Enhanced co-operation with sub-contractors

¹ Viitanen et al (2003) The Finnish Maritime Cluster Study. TEKES.

- R&D and product development

2.3 Skills and training

The industry is facing a labour shortage. This is influenced by an ageing workforce and the reputation of the industry. The reputation of the industry suffered during 2003 and 2004 when large scale redundancies were made. Furthermore, young people do not see the sector as an attractive one although wages in the sector are higher than the national average.

With regards to skill shortages, for example, the shipyard in Turku needs to find 1,000 new, qualified workers every year until 2009 because of the high number of older workers leaving the sector to retire. According to the maritime cluster study, a quarter of businesses in the shipbuilding sector in Finland have recognised a need to increase professional skills of their employees¹. According to Tholen & Ludwig (2005), 33.3% of shipyards in Finland have faced difficulties in recruiting blue collar workers, whilst none of the companies reported difficulties in recruiting white collar workers.

3.0 Marine equipment

Over the past decade Finnish marine equipment sector related employment has grown at approximately the same pace as employment in the shipbuilding sector has declined. Rautaruukki Oyj, Wärtsilä Corporation, ABB and Rolls Royce are some of the key players in the Finnish marine equipment sector. A large majority of the companies operating in the industry are export-focussed. At the moment, the key competitive advantage of the marine equipment industry in Finland is high level, specialised engineering skills.

The Finnish Maritime cluster study (2003) researched 136 largest shipyard contractors and sub-contractors. The total turnover of these companies was about €8.92 billion in 2001; however, just under a third of their share (30.1%) was due to the maritime sector^{II} (€2.68 billion).

3.1 Employment trends

The Finnish Maritime cluster study found that companies (131) supplying parts to the shipbuilding sector employed 41,942 persons in 2001 – however, just over a quarter of

^I Viitanen et al (2003) The Finnish Maritime Cluster Study. TEKES.

^{II} Shipping, maritime industries, port operations etc.

these employees were linked to the maritime sector (25.9% - 10,848 people). According to a recent study carried out by the Finnish Association of Marine Industries, the Finnish marine equipment sector, together with shipyards and related consultancy, maintenance and training services, generated approximately 24,000 jobs directly. When considering that shipyards employ just under 5,000 persons directly, it can be assumed that the marine equipment sector together with related service industries provide approximately 19,000 jobs in Finland.

3.2 Skills and training

The future competitiveness of the industry is directly dependant on innovation and highly skilled employees. Thus education and training related policy decisions have to be based on exact needs of the industry with another important objective of ensuring employability of students. Education and training has to be flexible and easily adaptable to market trends, and companies from the industry and related educational establishments have to intensify their co-operation; planning of education and training has to be carried out together with companies. The main tools to achieve these objectives are to regularly re-train teaching staff, increase the number of student placements in companies and image and promotional campaigns. Furthermore, technical capabilities of students also have to be complemented with sound business and management skills, in addition to making sure that students and teachers are provided with opportunities to attend exchange programmes in foreign institutes.

From the educational policy perspective the main concern for the industry is the low number of applicants for college based technical and engineering courses. A shortage of qualified labour from this education level raises some concern for the future. Currently, it has been expected that the core maritime industries (maritime equipment, shipyards and related services) demand approximately 2,000 new skilled employees every year until 2010, and after that some 1,000 new employees annually.

The sector is already employing foreign workers (mainly from the Baltic States and Russia) but the demand for foreign workers is expected to continue to grow. The Association of Finnish Marine Industries thus points out the importance of ensuring education and training provision where foreign workers can update their skills.

4.0 Shipping

The Finnish merchant fleet amounts to 1,5 million GT but only about one fifth of the total tonnage is registered under the Finnish flag. As the following table shows, Finland's own

foreign trade shipments was 96 million tons in 2005 and the Finnish merchant fleet transported 30% of the exports and imports of the country. The number of passengers transported by sea between Finland and other countries was 16.6 million.

Table 4.1 Finnish maritime transport sector statistics, 1995-2005

Year	Transportation via sea (tons)	Share of transportation with Finnish fleet	Number of passengers
1995	71 158 173	40.6	13 910 350
1996	70 289 411	42.2	14 051 996
1997	75 182 151	42.8	15 190 764
1998	76 593 557	42.9	15 986 088
1999	77 503 100	43.7	16 144 573
2000	80 595 352	40.1	15 964 444
2001	84 541 424	37.4	15 591 901
2002	86 945 983	34.2	15 749 528
2003	93 399 175	35.4	15 629 605
2004	95 910 016	32.7	16 186 851
2005	89 640 014	29.9	16 580 541

Source: Finnish Maritime Authority, 2006

The law on tonnage tax has been in force for some years now, but only one small shipping company has chosen this option. A functioning tonnage tax system is one of the most important questions for the Finnish shipping. According to the shipping companies, the greatest threat to the shipping industry comes from a situation where the operating conditions of Finnish shipping companies are not harmonised with the conditions in the other EU countries and where the Finnish government does not implement a long-term maritime policy. The infrastructure, technological know-how, favourable location close to Russia and seafarers basic education are seen as strengths of the operating environment for the shipping industry in Finland. The European Motorways of the Sea – initiative has been warmly welcomed by the shipping industry stakeholders in Finland and seen as an opportunity for the industry to develop. The old age of the Finnish merchant fleet is seen as one of the weaknesses of the industry.

4.1 Employment trends

The Finnish merchant fleet is still almost totally manned by Finnish seafarers, partly due to strong campaigns from the Seamen’s Union. Currently there are just over 11,000 seafarers, approximately thousand less than a decade ago, representing an overall decline

of 7.7%. The number of female seafarers has declined more rapidly than the number of males, especially between 2002 and 2004.

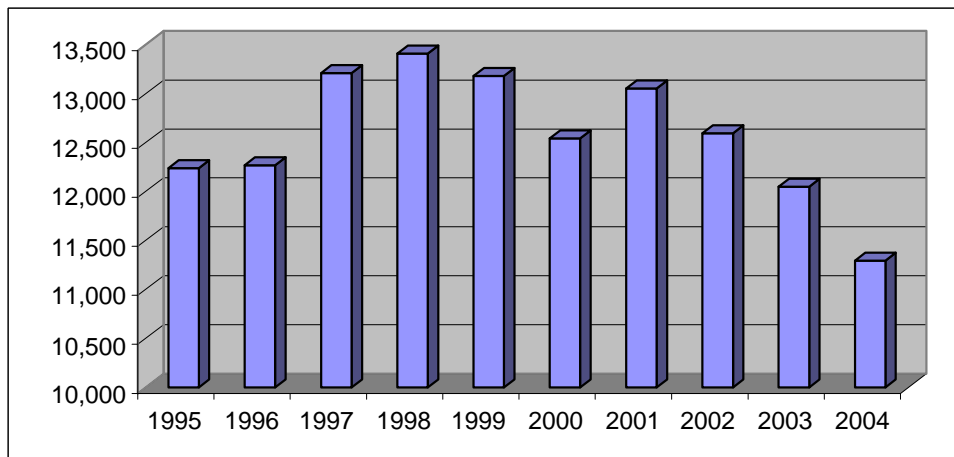
Table 4.2 The number of employees in the shipping sector, 1995 -2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Change ¹
Shipping	12,238	12,267	13,212	13,412	13,183	12,545	13,055	12,597	12,049	11,295	-7.7%
Of which women	3,968	3,977	4,016	4,093	3,969	3,754	3,903	3,686	3,524	3,237	-18%

Source: Finnish Maritime Authority, 2006

The number of seafarers has been on a longer term decline, although the number of seafarers peaked at the end of nineties.

Figure 4.1 Employment trends in the shipping sector



Source: Finnish Maritime Authority, 2006

The reputation of the industry has suffered in recent years and the sector is no longer seen as an attractive one compared to many other boom industries such as IT. Traditionally the availability and educational standard of deck officers have been seen as strength for the industry. But today more and more shipping companies are uncertain about the availability of labour in the future.

Employment generated by the shipping industry is of particular importance for the Åland Islands where the sector provides 1,700 jobs, constituting 12.6% of total employment in the region^{II}. In 2003, approximately 280 seafarers (of which 130 were Finnish) were working for ships registered under foreign flags.

^I Change between years data is available for.

^{II} Ahvenanmaan Merenkulkutyöryhmä, 2003

4.2 Employment projections

The overall employment trend of Finnish seafarers is that of decline. On the other hand, maritime transport is not expected to decline as both maritime cargo and passenger transport have shown a clear increase over the past decade. In freight transport, the future seems bright. Companies strongly believe that in the future increasing amounts of cargo will be transported by sea. Despite this forecast, some of the industry stakeholders view the future of employment in the industry fairly negatively – partly due to the unsuccessful implementation of the tonnage tax regime^I, and the fact that even if the sector is expected to grow, a fewer and fewer ships are expected to fly the Finnish flag. The developments in the Swedish shipping sector especially in relation to tonnage tax are of particular concern with Finnish vessels expected to register in Sweden if the tax is to be introduced in Sweden.

A survey carried out with shipping companies as a part of the cluster analysis^{II} found that an overwhelming majority of Finnish shipping company managers (85%) estimated that competition in the shipping industry will increase in the coming years. As a response to the challenges a quarter of the shipping companies in Finland that improving cost-effectiveness is important for the improvement of competitiveness by increasing and diversifying services and to strengthen core know-how. For example, the development of new routes is considered a development prospect of passenger traffic for the future. Another development prospect mentioned is the shifting of focus from traditional ro-ro traffic to container feeder traffic.

Shipping companies also value the creation of maritime networks in order to strengthen the competitiveness of the sector and ensure good employment prospects. The maritime cluster approach is seen as something important, as it could give more political impetus to important questions concerning the maritime industries.

In the opinion of all the directors of Finnish passenger shipping companies^{III}, the Finnish government should provide the shipping companies with similar operating conditions to those operated by other EU-countries and which Finnish freight shipping companies already enjoy. This would mean that the government would have to increase support for

^I The reason for this is that the Finnish shipowners have estimated that switching over to the Finnish tonnage taxation would be disadvantageous for them, thus it has had no impact on employment. Under the Finnish tonnage tax, if a car/passenger ferry adopt the tonnage tax system, they would have to pay more taxes than at the present because of profitable retail sales and not-profitable activities would be separated from each other in taxation. This would lead to more taxes being paid for the profitable sales and these profits could no longer be used to cover the costs of unprofitable activities.

^{II} Viitanen et al (2003) The Finnish Maritime Cluster Study. TEKES.

^{III} Viitanen et al (2003) The Finnish Maritime Cluster Study. TEKES.

shipping companies to the same level as in Sweden. In addition, the companies call for the net wage system in use in Sweden to be applied to Finland. Some also feel that shipping companies should be allowed to have mixed crews – that is strongly opposed by the unions. Indeed, the strong campaigns have ensured employment of Finnish seafarers. But this has been seen by the shipowners to reduce competitiveness of the industry.

4.3 Skills and training

The number of applicants who chose maritime studies as their first option has declined by a third¹. One of the consequences is that towards the end of this decade the Finnish shipping industry is expected to witness a shortage of higher level officers.

Maritime education and training is seen as competitive by the industry, the only problem has been said to be low demand. At the same time drop-out rates have increased in this industry.

5.0 Maritime services

Employment in the maritime services sector in Finland has not been officially calculated as in the case of most European countries, the sector has not been classified as its own maritime sector in its strict sense. Consequently, for the purpose of this study, some of the key organisation has been contacted to obtain their employment data. On the basis of these statistics the core Finnish maritime services sector provides close to 1,700 jobs.

Table 5.1 Employment in maritime services

Institute	Employment
Finnish Maritime Administration	800
Finnish Institute of Marine Research	145
Ministry of Transport and Communications ^{II}	6
Sydväst Maritime (education and training institute)	36
Centre for Maritime Studies / University of Turku	50
Helsinki University of Technology / Ship	36

^I National Board of Education: Koulutustoimikuntien katsaukset.

^{II} This figure includes only those working full time on maritime transport related matters and excludes those who have partial involvement in maritime transport matters.

Laboratory	
VTT Technical Research Centre ¹ / Department for ships, boats and offshore constructions	40
Satakunta polytechnic Maritime management	13
University of Applied Sciences / Kymenlaakso – Maritime dept	n.a
Meriturva / Merenkulun turvallisuuskoulutuskeskus	25
Finnish coast guard	500
Finnish Shipowners' Association	6
Total	1,657

6.0 Seaports

The majority of Finnish foreign trade (80%) is transported via sea. Thus development, efficiency and functionality of Finnish seaports is critical for the competitiveness of the export industry of the country. The evolution of traffic in Finnish ports is explained in the table below.

Table 6.1 Evolution of traffic in Finnish ports, 2000-2004

	2000	2001	2002	2003	2004	Change 2000- 2004
Cargo (million GT)	80.59	84.54	86.94	93.40	95.91	+19%
Passengers (million passengers)	15.96	15.59	15.75	15.63	16.19	+1.4%

Source: *Varustamoyhdistys, 2004*

In terms of economic impact of 'other' port services and sub-contractors^{II}, the Finnish maritime cluster study from 2001 found that the 17 leading port operators had a turnover of €446 million of which 91.8% was related to the maritime sector (€409 million). The total

^I This figures relates to those working full time on research, design and development of ships, boats and floating offshore constructions – the institute employs a total of 2,720 persons.

^{II} Includes contractors, stevedoring enterprises, port-related companies, transport companies, travel agents, maritime insurance companies and producers of other maritime services.

turnover of the 25 ports belonging to the Finnish Port Association was €181.8 million in 2001¹.

The strength of the Finnish ports in comparison to the global competition is a high level database and IT management and high tech cargo handling equipment. In terms of weaknesses, on the basis of price the Finnish maritime sector cannot compete for transportation to Russia with the Baltic States. Furthermore, the Finnish ports are situated in the periphery of Europe.

6.1 Employment trends

Finnish seaports currently employ 2,640 persons, whilst the sector provided employment for just under 2,500 persons a decade ago. This constitutes a growth of 6%.

Table 6.2 Employment in Finnish ports, 1995-2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cargo handling ^{II}	-	2,491	2,511	2,573	2,582	2,561	2,511	2,491	2,494	2,587	2,640
Port authorities	1,025	1,007	1,139	1,093	1,092	1,055	1,043	995	972	942	919
Total	-	3,498	3,650	3,666	3,674	3,616	3,554	3,486	3,466	3,529	3,559

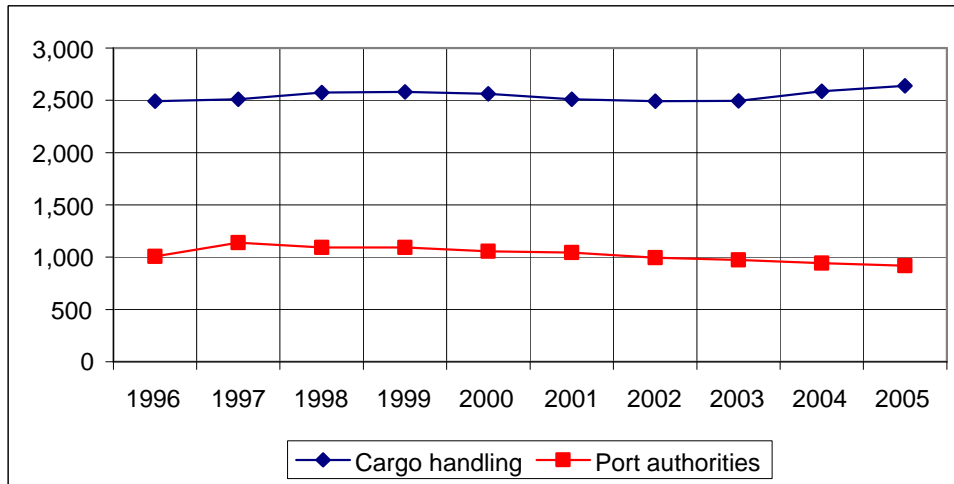
Source: Finnish port Association and Finnish Port Operators Association

Employment in port authorities has declined during this period, but the cargo handling sector has generated some new permanent posts. This can be explained by a shift in employment (particularly manual labour) through outsourcing from public port administrations to private port operators. The role of port administrations has shifted to focus on co-ordination and market facilitation.

¹ Viitanen et al (2003) The Finnish Maritime Cluster Study. TEKES.

^{II} Permanent employees only.

Figure 6.1 Employment trends, cargo handling and port authorities



Source: Finnish port Association and Finnish Port Operators Association

Cargo handling activities also employ further 300-400 'permanent' temporary workers. The level of increase in cargo traffic however has not led into similar increases in employment, mainly due to technological advancements.

When analysing employment in the port authorities in more detail in order to understand which areas have contributed to the decline in overall employment, the following table 6.3 below shows that employment in port operations and other activities are the only areas where employment declined between 1995 and 2005.

Table 6.3 Employment in Finnish port authorities located by the sea (municipal owned)¹

Year	Management and admin.	Traffic services	Port operations	Technical and construction	Other	Total
1995	156	159	420	211	79	1025
1996	157	148	380	228	94	1007
1997	178	199	437	283	42	1139
1998	208	220	358	283	24	1093
1999	212	221	362	271	26	1092
2000	212	184	378	251	30	1055
2001	213	201	368	246	15	1043
2002	208	217	332	221	17	995
2003	206	188	341	216	21	972
2004	199	193	314	219	17	942

¹ Please note that employment in all port authorities is higher, this figure refers only to ports situated by the sea and/or ports that are members of the Finnish Port Association.

Year	Management and admin.	Traffic services	Port operations	Technical and construction	Other	Total
2005	206	168	307	215	23	919
Change 1995-2005	32.1	5.7	-26.9	1.9	-70.9	-10.3

Source: Association of Finnish Port Administrations

Employment in the port sector is not characterised by high levels of foreign workers, like some other maritime sectors. Furthermore, the sector (either cargo handling or port administrations) is not experiencing labour shortages like many other maritime sectors in Finland. A part of the reason for this is a fairly good remuneration and low levels of staff turnover.

Finally it is worth mentioning that the Finnish maritime cluster study found that the main leading port operators and their sub-contractors employed a total of 3,930 persons in 2001 of which 3,875 (98.6%) were employed within the maritime sector.

6.2 Employment projections

Employment in the sector is expected to remain stable¹. But the possible introduction of the new Port Directive, which was recently rejected by the European Parliament, was expected to influence the sector drastically.

6.3 Skills and training

When analysing employment in the cargo handling sector in more detail, according to the industry representatives the sector is not facing particular skill shortages. The skills are not transferable across other maritime sectors either; traditionally the sector has not attracted workers from other maritime sectors, and workers from cargo handling duties do not move from the sector to other maritime sectors. A typical worker in the sector starts off employment in the sector by working on a temporary basis and moves on to a permanent position over time.

7.0 Maritime works

Terramare Oy is a leading contractor in the marine civil construction field in Finland. The core activities of the company are dredging and reclamation, underwater drilling and blasting, port and harbour construction, construction of breakwaters and coastal protection

¹ The Association of Finnish Port Operators and the Association of Finnish Port Administrations.

and other marine structures. Terramare is a working company within Royal Boskalis Westminster nv, the leading international dredging contractor from the Netherlands.

Over the past five years (2000-2004) the turnover of the company has increased from €40 million to nearly €54 million. Nevertheless, during the same period workforce has declined from 322 to just 249 employees.

Table 7.1 Employment in the marine construction sector, 2000-2004

2000	2001	2002	2003	2004
322	304	274	282	249

Source: Terramare Oy, 2006

8.0 Recreational boating

The Finnish recreational boating industry has experienced a strong growth over the past decade. While the value of boat exports was approximately €42 million in 1990, the corresponding figure for 2004 was €178.7 million. One of the strengths of the industry in Finland is that the export share of the industry's total production is high (74.6% in 2004). The main countries to which Finnish marine industry products are exported to are Sweden, Norway, Italy, Switzerland, UK, France, Gibraltar, Russia, Germany and the British Virgin Islands.

The Finnish boating industry competes on small innovative niche markets, such as super sailing boats, ABS plastic boats and GRP glass reinforced plastics. Finnish manufacturing companies in the sector can not compete in the global mass production market due to high labour costs.

Approximately 92-94% of the companies in the recreational boating industry in Finland are members of Finnboat, a representative organisation for the boating industry. The overall turnover of the members of Finnboat was approximately €444.3 million in 2004 and €499.4 million in 2005. The value grew by 11% between 2003 and 2004, whilst the growth from 2004 to 2005 was 12.4% (see the table below for a more detailed breakdown). These figures represent approximately 92-94% of the total industry turnover in Finland. Thus it has been estimated that the total industry turnover in Finland was approximately €471 million in 2004 and €529 million in 2005.

It has been estimated¹ that about half of the turnover is sea related, thus €235 million and €264 million for 2004 and 2005 respectively. This is because most of the Finnish boating

¹ Finnboat 2006

industry is concentrated on producing small boats^I that are used in Finland on lakes and rivers, rather than on sea. Indeed, some 90% of boats manufactured in Finland are so-called 'summerhouse boats' that are nearly universally speaking only used in lakes and rivers. Even if fewer larger boats are manufactured in Finland they have a significantly higher economic value than the smaller boats. Consequently, they constitute half of the market share.

Table 8.1 Economic impact (€ millions) of recreational boating industry, 2004 - 2005^{II} (growth in comparison to previous year in brackets, %)

	Domestic sales		Export	
	2004	2005	2004	2005
Boats	95.4 (+35%)	102.3 (+7.2%)	178.8 (+2.8%)	195.9 (+9.5%)
Engines	60.1 (+8.7%)	72.5 (+20.6%)	4.2 (-10.6%)	7.5 (+78%)
Boating equipment	68.6 (+6.6%)	80.7 (17.3%)	22.5 (+3.7%)	24.8 (+10.2%)
Services	14.7 (+54.7%)	15.7 (+6.8%)	n.a	n.a
Total	238.8 (+19.5%)	271.2 (+13.5%)	205.5 (2.5%)	228.2 (11%)

Source: Finnboats, 2004-2005

As mentioned, the industry witnessed an impressive growth between 2003 and 2004. When looking at more detailed breakdown of the industry by different sub-segments, the domestic boat sales went up by an impressive 35% and overall net sales increased by 11.1%. Net sales growth was recorded in almost all segments of the marine industry, in particular domestic sales of large motorboats and sailboats. Indeed, their 2004 sales increased by 34,9% to reach €95,4 million. The year also saw a 157.9% increase in the sales of larger boats (over 10 meters), the sales of sailboats went up by 56%.

8.1 Employment trends

Currently the recreational boating industry employs approximately 2,500 persons directly and another 1,000 people work for companies supplying parts and equipment for companies in the industry. Further 1,000 employees are employed indirectly by maintenance and insurance companies and other companies providing services (e.g. restaurants, service stations) in places like the Åland Island where most employment is related to boating. No employment data is available on employment concerning sea related boating industry employment only.

^I Kesämökkiveneet – 'summerhouse boats'

^{II} Before VAT

Table 8.2 Employment in recreational boating industry, 1995 - 2005

Table header	1995 ^I	2005
Manufacturing	2,375	2,500
Suppliers (equipment)	950	1,000
Maintenance, insurance, services on Åland Island	950	1,000
Total	4,275	4,500

Source: Finnboat, 2006

It has been estimated^{II} that employment in the sector has gradually, although only fairly marginally, increased over the past decade. It has been estimated that employment has increased by approximately 5%. Thus the total employment has gone up from 4,275 persons to 4,500, with manufacturing employment growing from 2,375 to 2,500. During this time employment in larger companies (e.g. Oy Nautor Ab) has declined, but the sector has seen a clear increase in the number of micro and small businesses entering the market. The reason for this is that with increasing global competition, countries like Finland with high labour costs, can almost only compete in small, niche markets – and small companies in the industry have been able adapt quickly to the new market requirements.

The largest employers in the Finnish recreational boating industry are companies manufacturing and repairing leisure boats:

- Oy Nautor Ab employs approximately 450 persons
- Bellaboats – 250 to 300 employees
- Siltala Yachts Oy – 100 employees
- Finnmarine – 100 employees
- Botnia Marine – 100 employees
- Baltic Yachts – 120 employees

Over half of the companies in the industry are micro-businesses. Overall employment in the sector is fairly stable in terms of staff turnover; the staff turnover is low in Finland compared to Southern and Eastern Europe.

^I Based on an estimation by Finnboat that employment has grown by approximately 5% between 1995 and 2005

^{II} Finnboat, 2006

8.2 Employment projections

Employment in the sector has been gradually increasing for the past decade and this trend is expected to continue, although only very slowly¹. The overall forecast for 2006 looked very good; however, the cold spring of 2006 is expected to slow down domestic sales.

8.3 Skills and training

The manufacturing companies (factories) in the sector are experiencing a shortage of skilled labour. This mainly refers to lamination, electricians and carpenters. The problem is that the skills demanded by companies in the boating industry are so specialised that such education or training does not exist at national level. Thus companies themselves have to take the responsibility for training their manual workers.

This labour / skill shortage has been prevalent since the mid-nineties. Finland underwent the biggest economic recession in the early nineties which also affected the recreational boating sector. Many companies had to rely on redundancies forcing many employees to leave the sector and find employment elsewhere. After the market and the economy started to pick up again closer to the mid-nineties, companies needing to expand found it difficult to employ skilled workers. This trend has been predominant ever since.

Companies in the sector have also felt the need to improve the commercial skills of their employees. Consequently, Finnboat, the representative organisation of the Finnish recreational boating industry, has in collaboration with education authorities and MJK training institute, developed an official management programme for boating industry workers, which leads to a nationally recognised qualification (Venealalle räätälöity Liiketalouden perustutkinto, merkonomi). The course is based on competence-based examination system and intensive short training courses

The course was developed to improve commercial management, sales and marketing skills of employees and managers in the industry. Training is aimed to improve:

- Business planning and expansion
- Development of action plans, marketing programmes and feasibility studies
- Development of sales and customer services skills
- Improvement of language skills related to customer service

The education includes 1 to 2 day blocks of training, which is tailored to the particular needs of each participant on the programme. Each student is also provided with an

¹ Finnboat, 2006

individual development programme with tasks that can be carried out in the workplace, and that supports both personal and organisational development needs.

9.0 Offshore supply

Technip Offshore Finland Oy is the only major supplier of offshore products and equipment in Finland. The company has seen a clear increase in activity and employment between 2000 and 2004, as demonstrated by their employment data in the table below.

Table 9.1 Employment in the Finnish offshore sector, 2000 - 2004

2000	2001	2002	2003	2004
572	644	775	695	661

Source: Ministry of Labour and Metalliliitto

10.0 Coastal Tourism

Tourism is a regionally important sector in Finland. What is meant by this that the contributions of tourism to the income level and employment, as well as the registered overnight stays, are strongly focused in regions where the population and production are also accumulated in general (for example South-West Finland, Pirkanmaa and North Ostrobothnia). The region around Helsinki, Uusimaa, accounted for 45.7% of the economic impact of the tourism industry in the whole country. Tourism also plays economically important role in Lapland.

The Åland Islands, an island group in the south-west of Finland, however was found to be the region most dependent on tourism. This is mainly because of the strong presence of cruise tourism sector. In the Islands, the share of the tourism value added of a basic-priced gross domestic product exceeded the country's average, being over 2.4%. Foreign registered tourists visit are most prevalent in Uusimaa, Lapland and the Åland Islands.

The traditional coastal tourism product is not of major importance to the economy and very seasonal due to the climate. On the other hand, it must be kept in mind that most of the largest cities of the country are located on the coast (e.g. Helsinki, Turku and Oulu).

In 2002, approximately 64% of total national tourism revenue came from regions located by the sea¹. The large share is mainly explained by the importance of Uusimaa (region around Helsinki) that concentrates approximately 39% of the total tourism revenue in the country.

¹ NUTS III regions by the sea: Åland Islands, Uusimaa, South-West Finland, Itä-uusimaa, Satakunta, Ostrobothnia Pohjanmaa, Central Ostrobothnia, Northern Ostrobothnia

Table 10.1 Economic impact of tourism in coastal regions in 2002 (€million)¹

Region	International	Domestic	Total
Åland Islands	151	279	430
Uusimaa	1,331	1,247	2,578
South-West Finland	124	349	473
Itä-uusimaa	12	45	57
Satakunta	17	115	132
Ostrobotnia	32	76	108
Central Ostrobotnia	5	49	54
Northern Ostrobotnia	88	253	341
Total coastal regions	1,760	2,413	4,173
Total country	2,370	4,180	6,550
Share of coastal regions	74%	58%	64%

Source: Ministry of Trade and Industry, 2005

10.1 Employment trends

The economic impact of coastal tourism has not been calculated. But tourism employment data has been gathered for the country level (NUTS 3) for a study by the Department of Trade and Industry¹. This was done for the first time in 2005 and it provides a breakdown of employment by coastal and inland counties for the year 2002. This employment data gathers employment from relevant sectors such as accommodation facilities, passenger railway traffic, passenger water transport, support services for passenger transport sectors, travel agencies and tour operators, sports and recreational services, restaurants and pubs/bars. It must however be noted that the figures from this study are likely to be an over-estimation of total coastal tourism related employment as some of these counties do stretch further than 50km from the sea.

The Finnish tourism industry generates employment for about 120,000 people of which nearly 74,000 persons are employed in the coastal counties. Nearly 40% of total tourism employment is in Uusimaa region and 63% of all coastal related tourism employment. Tourism provides more employment per person in Åland than anywhere else in the country, indeed 8.5% of total employment on the island.

¹ Åland Islands, Uusimaa, South-West Finland, Itä-uusimaa, Satakunta, Ostrobotnia Pohjanmaa, Central Ostrobotnia, Northern Ostrobotnia

² Teollisuusministeriö (2005) Matkailun satelliittitilinpito ja aluetaloudelliset vaikutukset.

Table 10.2 Coastal tourism related employment, 2002

Region	Number of employees	Share (%) of tourism employment of total employment
Åland Islands	2,210	8.5%
Uusimaa	46,190	3.7%
South-West Finland	10,070	2.3%
Itä-uusimaa	1,650	1.9%
Satakunta	3,750	1.7%
Ostrobotnia	2,510	1.5%
Central Ostrobotnia	980	1.5%
Northern Ostrobotnia	6,410	1.8%
Total coastal regions	73,770	-
Total country	120,010	2.3%

Source: Ministry of Trade and Industry, 2005

When assessing trends from the past decade, the Finnish tourism industry has seen a clear increase in tourism, both in terms of economic impact and the number of foreign tourists.

10.2 Employment projections

According to the European Tourism Satellite Accounting, employment in the Finnish travel and tourism industry stands at around 78,000 in 2006, but this has been forecast to increase to 82,000 jobs by 2016. In terms of the wider travel and tourism economy, employment currently stands at 234,000 jobs, but this is expected to increase to 256,000 in the upcoming ten years. As a majority of the tourism related employment is located by the coastal regions of the country, employment in the coastal tourism sector can also be expected to grow – although this does not necessarily refer to traditional sea related tourism activities only.

11.0 Navy

The Finnish navy currently employs 2,300 people.