

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

Methods



European Commission  
DG Fisheries and Maritime Affairs

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

Method report for the European Commission, DG  
Fisheries and Maritime Affairs

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# An overview of the study methodology

This research has been carried out between February and August 2006 and the main methodological steps for this research are elaborated in this section.

ECOTEC met the wider study steering committee for an inception meeting on 7 February 2006. The meeting helped to clarify objectives and the methodology for the study and the outcomes were later outlined in an inception report, which also included the proposed research tools. Comments on the research tools and study methodology were received from the steering committee by the end of February, which allowed the researchers to start the first phase of the research.

The research began by gathering data from European level sources that provide data comparable all across Europe, as well as information on trends and economic impact. The key European level data sources used are listed below.

## Key European level data sources

- Documents from the CIRCA system and other documents provided by national experts for the Maritime Task Force
- European Commission (e.g. Through Members of the Maritime Policy Task Force, representatives from DG TREN, EMPL and ENTR, Commission websites and Inter-service group on maritime affairs, notably working papers of sub-groups 1 and 2 once available)
- Eurostat
- Committee of the Regions
- Marine Industry Forum and their members (comprising 23 industry associations)
- European Trade/Industry Associations not covered by the MIF, but which belong in the Scope of the Study: Tourism, Engineering and construction, Biotechnologies industries
- Electronic and documents library of DG FISH
- Douglas-Westwood: World Marine Markets 2005.
- Douglas-Westwood: Marine Industries – Global market analysis 2005
- Maritime data working group of Eurostat
- Social partners (e.g. ETF, ISF, ECSA, EMF etc.)
- European network of maritime clusters (Mr Wijnolst, Chairman). They are currently working on a definition of the maritime cluster (closely mirroring the Dutch model). The association currently involves Finland, Denmark, Germany, the Netherlands, France, UK, Spain and Italy.
- Lloyd's List (Lloyd's Maritime Information Services)
- International Maritime Organisation (and IMO International Maritime Training Academy)
- World Maritime University (publications)
- Baltic and International Maritime Council
- ILO
- OECD
- Maritime Policy & Management – journal
- EIRO
- Waterborne Technology Platform

Sectoral data sources at European level have also been utilised for the research – the key sources are listed below.

Sector	Examples of key data sources
<b>Shipping</b>	<ul style="list-style-type: none"> <li>• BIMCO/ISF Manpower reports 1995, 2000 and 2005</li> <li>• Employment data for the past decade for OECD and CEE countries (aggregated data).</li> <li>• World Marine Markets (Douglas-Westwood) 2005 Background information for Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, UK. Comparison with global and Chinese markets.</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> <li>• The demand for sea transport 2000 to 2025 (Clarkson, 2004)</li> <li>• International Chamber of Shipping / International Shipping Federation (www.marisec.org)</li> <li>• Current International Shipping Market Trends. OECD Workshop on Maritime Transport.</li> <li>• Annual reports of OECD Maritime Transport Committee.</li> <li>• EC Shipowners' Association (ECSA)</li> <li>• European Transport Workers' Federation (ETF)</li> <li>• National data sources</li> <li>• The Marine Society (education and training of seafarers)</li> <li>• EIS - Research on European Shipping Industry (UK, Italy, Germany, the Netherlands and Belgium – only 1997 data)</li> <li>• Seafarers International Research Centre (SIRC)</li> </ul>
<b>Shipbuilding</b>	<ul style="list-style-type: none"> <li>• CESA annual reports (employment data 2001-2004 for Finland, Portugal, Poland, Italy, France, Denmark, Greece, United Kingdom, Spain, Netherlands, Germany (and Belgium, Ireland, Romania, Croatia and Norway)</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> <li>• World Marine Markets (Douglas-Westwood) 2005 Background information for Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, UK. Comparison with global and Chinese markets.</li> <li>• European Metalworkers' Federation (EMF)</li> <li>• National data sources</li> <li>• European Commission (2000) Eastern European Shipbuilding Industry Study.</li> <li>• The IG Metall annual survey on employment is also a useful source of information.</li> <li>• NOBE Independent Center for Economic Studies: Report on Shipbuilding and ship repair sectors in the candidate countries: Poland, Estonia, the Czech Republic, Hungary and Slovenia Provides employment statistics for the study countries in shipyards by type of activity.</li> </ul>
<b>Extraction of offshore oil and gas resources</b>	<ul style="list-style-type: none"> <li>• European Oil &amp; Gas Innovation Forum (EUROGIF)</li> <li>• International Association of Oil and Gas producers</li> <li>• World Marine Markets (Douglas-Westwood) 2005</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> <li>• National data sources</li> <li>• Eurostat</li> <li>• The World Offshore Oil &amp; Gas Forecast (Douglas-Westwood Ltd.)</li> </ul>
<b>Maritime Works</b>	<ul style="list-style-type: none"> <li>• National data sources</li> <li>• European Dredging Association (EuDA)</li> </ul>
<b>Seaports &amp; Related Services</b>	<ul style="list-style-type: none"> <li>• World Marine Markets (Douglas-Westwood) 2005 Background information for Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, UK. Comparison with global and Chinese markets.</li> <li>• European Seaports Association and member organisations in Belgium,</li> </ul>

Sector	Examples of key data sources
	<p>Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Spain, Sweden, UK.</p> <ul style="list-style-type: none"> <li>• FEPORT and member organisations</li> <li>• Port authorities</li> <li>• National studies</li> <li>• European Co-operation in Maritime Research (ECMAR)</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> <li>• European Maritime Pilots' Association (EMPA)</li> </ul>
<b>Recreation boating industry</b>	<ul style="list-style-type: none"> <li>• ICOMIA/ European union recreational marine industry group (representative organisation for recreational boating industry) and their member organisations in Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden, United Kingdom.</li> <li>• British Marine Federation: European Overview 2004</li> <li>• World Marine Markets (Douglas-Westwood) 2005 Background information for Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, UK. Comparison with global and Chinese markets</li> <li>• International Boat Industry (information on marine, mainly boats, leisure industry)</li> <li>• National studies</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> </ul>
<b>Maritime Services</b>	<ul style="list-style-type: none"> <li>• World Marine Markets (Douglas-Westwood) 2005 Background information for Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, UK. Comparison with global and Chinese markets.</li> <li>• Association for Classification Societies (IACS/EURACS) [Bureau Veritas (France), Lloyd's Register (UK), Registro Italiano Navale (Italy)]</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> <li>• National sources</li> </ul>
<b>Marine equipment</b>	<ul style="list-style-type: none"> <li>• European Marine Equipment Council (EMEC) and members from Austria, Finland, France, Germany (two), Italy, Spain, The Netherlands, Poland and the United Kingdom.</li> <li>• Marine Industries – Global market analysis (Douglas-Westwood) 2005</li> <li>• Balance Technology Consulting (1999) Study of the marine equipment industry in EU (+Norway)</li> <li>• Study on EU Marine Supplies Industry</li> <li>• National sources</li> </ul>
<b>Offshore and coastal wind energy</b>	<ul style="list-style-type: none"> <li>• EWEA</li> <li>• National sources</li> </ul>
<b>Cruise tourism</b>	<ul style="list-style-type: none"> <li>• European Cruise Council</li> <li>• Annual reports of major cruise liners in Europe (e.g. AIDA Cruises, Classic International Cruises, Carnival Cruise Lines, Celebrity Cruises, Costa Crociere, Crystal Cruises, Cunard Cruise Line, Fred. Olsen Cruise Lines, Holland America Line, Island Cruises, Louis Cruise Lines, MSC Crociere, Ocean Village, P&amp;O Cruises, Princess Cruises, Radisson Seven Seas Cruises, Royal Caribbean International, SAGA Shipping, Seabourn Cruise Line, Silversea Cruises, Swan Hellenic, Thomson Cruises and Hansa Cruises)</li> <li>• Cruise Industry (Cruise Industry News, Cruise Lines International Association)</li> <li>• Passenger Shipping Association</li> </ul>
<b>Coastal tourism</b>	<ul style="list-style-type: none"> <li>• World Travel &amp; Tourism Council (WTTC) - Tourism Satellite Accounting (country-by-country and European wide calculations on direct and indirect</li> </ul>

Sector	Examples of key data sources
	<p>employment of tourism, future forecasts, factors affecting the sector, comparisons between countries and continents etc.)</p> <ul style="list-style-type: none"> <li>• Eurostat - Employment data for tourism sector in each of the study country and NUTS2 regions that are situated by the sea or within 50 KM from the sea.</li> <li>• European Cruise Council</li> <li>• The ECC Annual Review Book (economic impact of cruise tourism)</li> <li>• International Federation of Tour Operators (IFTO)</li> <li>• International Hotel &amp; Restaurant Association (IH&amp;RA)</li> <li>• World Tourism Organisation (WTO) - Tourism 2020 Vision - report</li> <li>• Membership Newsletters, cruise industry predictions, investments, training etc.</li> <li>• United Nations - Tourism: Industry as a partner for sustainable development 2002 (contains some European and global employment data)</li> </ul> <p><b>DG Enterprise</b></p> <ul style="list-style-type: none"> <li>• The European Tourism Industry: A multi-sector with dynamic markets (contains quantitative and qualitative employment data, factors affecting employment in the sector etc.)</li> <li>• Rising employment in hotels and restaurants</li> <li>• Stability of tourism flows in the European Union</li> <li>• Dynamic regional tourism (includes chapters on coastal and island tourism)</li> <li>• Hotels, restaurants and cafés - Micro-enterprises dominate the sector</li> <li>• EU remains world's top destination for tourists</li> <li>• Inbound tourism flows rising in Europe</li> <li>• DG ENTR 'Employment and Tourism: Guidelines for Actions'</li> <li>• DG ENTR European tourism: new partnerships for jobs</li> <li>• DG ENTR Enhancing tourism's potential for employment</li> <li>• Tourism in the Mediterranean partner countries</li> </ul> <p><b>Eurostat</b></p> <ul style="list-style-type: none"> <li>• Statistics in Focus: Industry, Trade and Services - Theme 4, 6/2003</li> <li>• Tourism trends in Mediterranean countries (MED)</li> <li>• Tourism - Europe, central European countries, Mediterranean countries</li> <li>• Commission Communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions - Working together for the future of European tourism</li> <li>• Working groups on "Working together for the future of European tourism"</li> <li>• Facilitating the exchange and dissemination of information, particularly through new technologies.</li> <li>• Improving training in order to upgrade skills in the tourism industry.</li> <li>• Improving the quality of tourist products.</li> <li>• Promoting environmental protection and sustainable development in tourism.</li> <li>• Managing the impact and use of information and communication technologies in the sector.</li> <li>• World Marine Markets (Douglas-Westwood) 2005 - Provides estimations on marine tourism in Europe and globally – based on WTO figures. Information for Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, UK. Comparison with global and Chinese markets.</li> </ul>
<b>Fisheries</b>	<p>As the fisheries sector has not come within the scope of this study, no data has been collected at national level for this sector. Instead, it has been covered by the European Commission with its own dedicated study during winter/spring 2006. Although various data sources exist for the fisheries sector, this study directly quotes some of the key findings of the study 'Employment in the fisheries sector: current situation' that was prepared by LEI BV and Framian BV.</p>



The next stage of the research involved carrying out data collection at national level through literature review and telephone interviews. This phase started off by designing research tools and briefing country correspondents. The task of each country correspondent was to produce a small country report for each of the study sectors (Shipping, Shipbuilding, Offshore Supply, Maritime Works, Seaports & Related Services, Recreation boating, Navy, Offshore wind energy, Marine aggregates, Maritime Services, Maritime Equipment, Coastal tourism and other sectors extracting or processing natural resources of the sea) following the outline provided below.

### Template for each sector

#### Brief background

- Background information on the sector in the country
- Economic impact of the sector and relevant importance in the Member State
- Brief SWOT analysis of the sector

#### Employment

- How many people were employed in the sector (indirect and direct employment if possible) in the past year (the latest year possible)? Please provide a table or fill in the attached excel sheet appropriately. Please also provide data for the past decade wherever possible and/or provide a trend indicator.
- What are the reasons behind possible fluctuations in the employment rate? What has triggered increases/decreases in employment? Has the growth/decline been strong, moderate or weak or has the rate remained the same? If yes, why?
- What are the labour market skills demands and how well are they matched by available labour and training supply? Are companies in the sector facing skills or labour shortages? If yes, why (unskilled workforce, salary, working conditions, attractiveness of the sector, mobility issues, tight labour market etc.)? Are the skills transferable across other maritime sectors? Does employment in the sector provide possibilities for career development in the sector, or other maritime sectors?
- What is the employment forecast for the sector for the coming decade in the country (please provide figures if possible)? What are the reasons for such forecasts? What factors have a possibility to trigger increases/decreases in employment in the sector? Are there indicators/parameters for the employment intensity of the sector and its future development, taking into account productivity developments?
- Are there gaps in employment data for this sector? If yes, what are the areas of activity where further data collection and analysis is required?

#### Examples of good practice

- Can you provide examples of interventions that have successfully contributed to sustainable job creation in the sector or succeeded to offset threats which could have negatively effect sustainable job creation? (These can be local, regional, national or European policy approaches, or successful collective bargaining outcomes).

Each country correspondent was provided with details for numerous relevant organisations in their study countries and also background and employment information from international data sources (e.g. the CIRCA database, international journals, international economic studies on the sector etc.), which they were able use as a starting point for their research. Each correspondent was also asked to collect information on smaller maritime sectors that are based on extracting or processing natural resources from the sea.

To obtain employment data, researchers have made use of academic literature in these countries, statistics and studies from national and regional ministries and administrations, research organisations, trade bodies, relevant social partner organisations, sectoral organisations, regional development agencies, national tourist boards and other national agencies (e.g. national tourist boards), sector skills councils etc. Research methods therefore included desk based research and interviews with key stakeholders. Maritime cluster studies were the main sources of literature in countries in which they were already available (e.g. the Netherlands, Germany, Finland and Italy).

Many situations were encountered where employment data varied significantly from one data source to another. On these occasions the researchers made a particular attempt to consult national stakeholders to identify the most appropriate data source that would give the most realistic picture of the state of play. Employment data in this study refers to direct employment, unless stated otherwise.

After the phase of data collection at national level, ECOTEC started to carry out interviews with European level sectoral experts. Altogether 21 experts were consulted. Findings from these interviews were used as a basis for the sectoral level analysis in which information from the country chapters and European and sectoral level studies has been integrated and analysed.

Interim findings of the study were presented in a conference in Brussels on 12 June 2006, which provided a platform for the Commission representatives from different Directorates as well as representatives from sectoral bodies and trade unions to comment on the study findings and provide further information.

The final phase of the research has included a European level analysis and production of a summary report that crystallises the key findings.

For verification purposes, the interim study, draft final report and the country chapters were circulated to a wider range of stakeholders (industry bodies both at European and national levels, trade unions, national ministries, national and sectoral experts) by the Commission representatives and the study researchers during June, August and September 2006. The draft country chapters were also circulated twice to the Member State representatives of the European new maritime policy expert group; once by the researchers during the summer 2006 and through the CIRCA system in September 2006 – in order to seek their verification for the figures. The comments that derived from these exercises were handled between June – October 2006.