

**STUDY ON EU SEAFARERS EMPLOYMENT**

**FINAL REPORT**

**European Commission**  
**Directorate-General for mobility and transport**  
**Directorate C – Maritime transport**  
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## 1. FOREWORD

Even if direct interest in the employment of Nationals and European seafarers can differ between the actors of maritime industry in EU, the opinion on the need to maintain a good level of employment of European seafarers on European ships is largely shared by the flags States authorities, the shipowners and the unions. The large campaigns' promotion on jobs at sea and recruitment, launched these past years in most of the European countries, demonstrate that social partners and National Administrations are aware of the risk of losing European know-how in the maritime industry, both on board ships but also in the maritime clusters' activities ashore, where employment of past seafarers is an essential work-force.

As a **Task Force** on maritime employment and competitiveness has been set up by the DG-MOVE, it appeared that the lack of existing statistics in the field of maritime employment would cause a considerable difficulty to consider correctly the question of employment of seafarers in EU.

After general considerations on the number of seafarers in EU countries, and well recognised downward trends in favour of seafarers from third countries, it is clear that detailed data on maritime employment is scarce, sometimes outdated and often not reliable. Moreover, **the great differences from a country to another in data collect and presentation of results prevent all serious analysis on employment structure and evolution.**

In the light of the above consideration, the DG-MOVE wanted to clarify the information available on the employment of seafarers in EU with a specific study to provide a picture on the employment of European officers and ratings on-board EU and EU controlled ships.

The objective of the study was not to embark upon a long exercise, mobilizing important means, but in a rather short term, try to have a most comprehensive view of seafarers' employment in Europe, clearly organised in a consistent way. In this aim, three main axes have been defined:

- Make an inventory of existing data and fill the gaps by providing supplementary information when the latter is missing or poor, and by updating information when it is out of date.
- Provide a structure overview of the current employment of EU seafarers working on board EU, non EU ships and EU controlled ships.
- Provide reliable data helping to assess the scope of challenges impacting the shipping industry (shortages or surpluses of seafarers) in order to provide solid material for the Task Force to make recommendations for the future maritime social agenda.

It seems that such an approach has never been carried out before. It quickly appears that the challenge was high and despite enlarged researches in the field of data about seafarers' employment in Europe, **the result of the study can seem rather disappointing.** In particular, the original project of the study, which was to present the detailed employment of officers and ratings for each country (by ship's type and department for Intra-EU/Extra EU traffics, and foreign flag ships, age profile and women employment) under a **standardized table form**, appeared to be impossible to

achieve because of a **lack of available data in most countries, and for some of them of no existing data at all.**

At least, the study, as others before, highlights the need to set up a harmonised collecting data system in Europe in the field of seafarers' employment.

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Again, the purpose of the study was not to make an attempt to estimate, by any theoretical method, the supply and demand of seafarers, but to collect and compare objective and reliable data. This has been achieved through the methodology described hereafter.

## 2. METHODOLOGY

To fulfil the objective of the present study, the first step was to collect as much data as possible about seafarers' employment. This has been achieved through an extensive research and review of existing studies, statistics and documents.

Comments are developed in the next part 3, “**Supporting studies**” mainly on three international studies, including the ISF/BIMCO Manpower Study, 2010 updated, considered by the Industry as the most reliable existing worldwide material on seafarers' employment. Further comments are made on different European studies and other sources used for the present report.

**Websites of national administrations** of the 24 maritime countries of EU, plus Norway, were systematically consulted (landlocked countries except Luxembourg have not been included in this study), going through the Ministry of Transport's website, which exists in all countries. In some countries, a web-link exists toward a dedicated maritime administration or statistics authority.

Through these national websites, access to statistics, or annual reports, are sometimes possible. Most of the websites have an English version, in totality or in abstract. Unfortunately, some countries do not offer this facility.

Detailed national reports were found available on line for France, Denmark, France, Germany Greece and UK.

**ECSA and National shipowners' association** websites (no association or no website found for Ireland, Estonia, Latvia and Romania) were also visited, and annual reports extracted when on line. Very few of them give sufficient information regarding seafarers' employment. **ETF** was also approached and searches carrying out to organisations as **ILO, ITF, ISF, BIMCO, INTERTANKO, maritime universities** or other bodies with an interest in the maritime industry.

Information on national fleets was also collected, as it was imperative to have a view on number of ships registered in each country to be compared with number of seafarers. The main source of information regarding merchant fleet at international level is the **IHS-Fairplay** data, but for the scope of the study, the **ISL Bremen** data 2010 (issued from the precedent) has been used as being in a more readable form. National authorities and shipowners' associations have also figures on national fleets.

Regarding harbour fleets, the **European Tugs Association** has been consulted but has not been in a position to provide information on number of tugs in EU and related employment of seafarers.

As said above, the purpose of this study was not to engage in a new large survey on employment of seafarers in EU. However, because of the few positive results given by the existing material, a **questionnaire** was sent to every maritime administration in countries where data was insufficient or non-existent. This questionnaire is shown in **Annex E** with countries where it has been sent. The questionnaire has been voluntary limited in its form and in the number of data required in the hope to obtain answers. Direct telephone contacts with some administrations complemented the

information.

Figures have been extracted from these different sources to have a view on the situation of supply and demand of officers and ratings in Europe in the **Part 4** of the study. An attempt on very simple basis is also made to consider the need of additional seafarers for the next ten years in Europe.

Additional collated information is in the **Part 5**, regarding age structure of European seafarers, women employment, wages elements and employment in maritime clusters.

A standard form was established for each European maritime country (except Slovenia and Slovakia) showing the available information on national fleets, seafarers' employment and conditions for each country. The result constitutes the **Part 6** of the study.

### 3. SUPPORTING STUDIES

#### **A - The ISF/BIMCO Study Manpower 2010 Update**

The most comprehensive study about global supply of and demand for merchant seafarers is the **ISF/BIMCO Study**, produced for the first time in 1990 and regularly updated. The last update, 2010, has been made recently available and remains an excellent tool of evaluation of worldwide seafarers' employment. The study gives especially an extremely useful view on trends in the future of supply and demand of seafarers and has been certainly in these past years a motor in the decision to take actions at national level, including in Europe, to improve recruitment of cadets.

If the study gives precious information on current supply situation of officers and ratings by individual countries, trends on the demand and future situation are shown for five broad geographical groupings: OECD, Eastern & Central Europe, Africa/Latin America, Far East and Indian Sub-continent. EU is not considered as a specific area and therefore is included both in OECD and Eastern Europe. This is logic regarding the general aim of the study and this factual remark is in no manner a criticism. But it makes difficult to use the study to predict demand evolution for seafarers in EU.

If the supply of seafarers is based on a questionnaire sent to national administrations, the current and future demands are estimated through a rather sophisticated process provided by the Warwick Institute for Employment Research. It takes into account the types and size of national fleets by age-blocs, the average manning for each category of ship and back-up ratio specific to the region. The future demand includes the fleets evolution (scrapping and new building), the age profile of active seafarers, the predicted wastage and the number of new entrants. All these elements are processed globally for each of the five areas.

The 2010 update has been considerably improved, with data from more countries than in the past years and by including a broader range of vessels. On this last point however, looking at the number of vessels considered by country, and by comparison with other sources, the conclusion for Europe is that these numbers are generally underestimated. In particular, harbour tugs and small coastal vessels are probably not included while employment in these sectors is far to be neglected regarding national seafarers in some EU countries. But it is assumed that the study is worldwide oriented and can't be considered as a tool for individual country to determine its own future demand for seafarers.

Discussion with ISF and BIMCO about the possibility to extract data relating to EU countries highlighted the difficulty to isolate a group of specific countries from the global process to obtain reliable regional data at a rather small scale. Further investigation with Warwick Centre would be needed to advance on this way and obtain a cost estimation of such a project.

## **B - THE DREWRY Manning Report 2010**

The consultant **Drewry** produces every year well known and recognised surveys on the evolutions in the shipping industry. One report is dedicated to **Manning** and has been used for the present study. Drewry estimates the worldwide demand and supply of seafarers with a method developed by **Precious Associates Limited**. The study divides the seagoing workforce in four great geographical areas: West Europe, East Europe, Far East/India and Others. As the scope of each group is not necessary the same as the ISF/BIMCO groupings, cross comparisons have been made in the present report to obtain a view on the situation in Europe. The size of the world fleet estimated by in the two studies is broadly the same with 57 000 ships for ISF/BIMCO and 54 800 for Drewry.

Globally, Drewry estimates a bigger worldwide shortage of officers than ISF/BIMCO, in 2010, but projection on the supply/demand figures for 2014 shows less shortage than ISF/BIMCO 2015 predict. Both studies estimate worldwide availability of ratings in balance or exceeding the demand.

The Drewry study contains nine countries reports with detailed information on employment conditions, including wages, leave rate and voyage. These reports include four European countries: Latvia, Poland, Romania and UK.

## **C - THE JAPANESE INSTITUTE OF TRANSPORT STUDY 2010**

In May 2010, the **Japan International Transport Institute and The Nippon Foundation** produced a study on the “Future Global Supply and Demand for Seafarers and Possible Measures to Facilitate Stakeholders to Secure a Quantity of Quality Seafarers”.

Based on a 2010 worldwide number of ships of 35 623 (counting only ships of GT2000 and over) and using manning scales by type of ships, the study estimates a demand for officers and ratings in 2010 and projects the demand in 2020, taking into account a number of economic and manning factors. The study concludes that some 32 000 additional officers and 47 000 ratings would be needed to man the projected fleet in 2020. The study doesn't give indication on the current and future supply of seafarers.

## **D - EUROPEAN STUDIES, OTHER STUDIES AND DOCUMENTATION**

Several studies on seafarers' employment were carried out in the European Union in a more or less recent past:

- A first attempt to estimate the gap between the supply and the demand in OECD countries was made in a study for this organisation in 2003 by **Precious Associates Limited (UK)** (“Availability and training of seafarers”). The study contains useful information on seafarers' employment in OECD countries and projections includes a large part of technical evolution of the ships in the future. However, figures used date from ten years and the scope of the study remains too large to reflect the current situation in European Union's Member States.
- In 2005, in the scope of the 6<sup>th</sup> Framework Program of the Maritime Transport Coordination Platform, the **World Maritime University** produced a Study on the Supply & Demand of EU Officers/ Ratings and Manning, but without definitive conclusion, due to a limited time and mainly to “*a lack of uniform seafarer data maintained by the Member States*”.



- In 2006 the consultant **ECOTEC** (UK)\* produced for the DG Fisheries and Maritime Affairs an important study on employment in sea related sectors (“An exhaustive analysis of employment trends in all sectors related to sea or using sea resources”). The present study refers to this analysis for the employment in the Maritime clusters.
- In 2007 the consultant **ECORYS** (NL)\* produced for the DG-TREN a study on the impact assessment of the entry into force of the ILO MLC with some consideration on manning (“Impact Assessment on the entry into force of the ILO maritime labour standards consolidated Convention”).
- In 2009, the European Parliament produced a report (**Buck Consultant -B-** and others) on the shortage of qualified personnel in maritime and inland waterway transports. This study was itself a compilation of existing data and highlighted the great difficulty to obtain reliable information regarding seafarers' employment (“The lack of centralised and harmonised data collection poses problems. In fact, all data regarding current employment in the maritime industry and the additional number of seafarers required in the coming years are based on either incomplete or fragmented data” P. 28).
- In 2009, **ECORYS** produced for the DG Energy and Transport (Directorate G – Maritime transport) a comprehensive study on “The labour market and employment conditions in Intra-Community regular maritime transport services carried out by ships under Member States' or Third Countries' flags”. This study contains much information on employment in Intra-EU traffics, social security, crew costs and supply/demand of seafarers. The study has been used as a reference for the section on Intra-EU employment in the present report.
- More recently, **ETF** has undertaken statistical researches on seafarers for selected countries to be used in the scope of the ETF Workshop “Seafarers Recruitment and training in Europe” (Nathan Lillie, Groningen University, 2010). These countries are: Germany, Greece, Norway, Poland and UK. Information from these studies has also been used in this report.
- Mention is made when necessary of other consulted studies.

*\*ECOTEC and ECORYS joined in 2010 under the name ECORYS*

#### **4. NUMBERS OF SEAFARERS**

#### 4.1 NUMBERS OF OFFICERS AND RATINGS IN THE EU IN 2010

The estimated number of active seafarers in maritime EU Member States in 2010, plus Norway, (as extracted from ISF/BIMCO Manpower up-date study 2010) are **143 967** officers and **110 152** ratings, for a total of **254 119** seafarers.

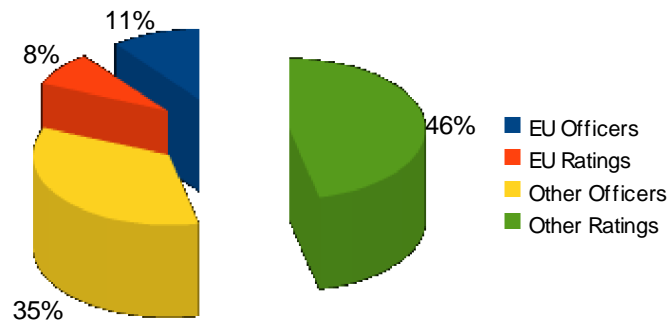
| N° | COUNTRY        | ISF/BIMCO 2010               |                |                | Number of ships |
|----|----------------|------------------------------|----------------|----------------|-----------------|
|    |                | <i>Estimated supply 2010</i> |                |                |                 |
|    |                | OFFICERS                     | RATINGS        | TOTAL          |                 |
| 1  | BELGIUM        | 498                          | 92             | 590            | 99              |
| 2  | BULGARIA       | 10 890                       | 22 379         | 33 269         | 67              |
| 3  | CYPRUS         | 2 907                        | 514            | 3 421          | 855             |
| 4  | DENMARK        | 2 762                        | 1 176          | 3 938          | 409             |
| 5  | ESTONIA        | 2 700                        | 6 300          | 9 000          | 35              |
| 6  | FINLAND        | 3 000                        | 1 200          | 4 200          | 176             |
| 7  | FRANCE         | 4 568                        | 9 128          | 13 696         | 299             |
| 8  | GERMANY        | 3 997                        | 6 256          | 10 253         | 663             |
| 9  | GREECE         | 9 993                        | 2 970          | 12 963         | 1305            |
| 10 | IRISH REPUBLIC | 1 510                        | 1 602          | 3 112          | 49              |
| 11 | ITALY          | 9 560                        | 11 390         | 20 950         | 990             |
| 12 | LATVIA         | 5 509                        | 2 383          | 7 892          | 33              |
| 13 | LITHUANIA      | 2 916                        | 2 479          | 5 395          | 58              |
| 14 | LUXEMBOURG     | 2 272                        | 2 164          | 4 436          | 106             |
| 15 | MALTA          | 274                          | 2 162          | 2 436          | 1552            |
| 16 | NETHERLANDS    | 3 014                        | 560            | 3 574          | 827             |
| 17 | NORWAY         | 16 082                       | 7 300          | 23 382         | 1381            |
| 18 | POLAND         | 17 923                       | 4 746          | 22 669         | 72              |
| 19 | PORTUGAL       | 419                          | 1 802          | 2 221          | 64              |
| 20 | ROMANIA        | 18 575                       | 5 768          | 24 343         | 34              |
| 21 | SLOVAKIA       | 258                          | 318            | 576            | 0               |
| 22 | SLOVENIA       | 544                          | 100            | 644            | 0               |
| 23 | SPAIN          | 3 181                        | 3 862          | 7 043          | 116             |
| 24 | SWEDEN         | 5 958                        | 4 965          | 10 923         | 356             |
| 25 | UK             | 14 657                       | 8 536          | 23 193         | 944             |
|    | <b>TOTAL</b>   | <b>143 967</b>               | <b>110 152</b> | <b>254 119</b> | <b>10 490</b>   |

Source: ISF/BIMCO 2010

On a global supply estimated worldwide at **1 371 000** seafarers,  
EU plus Norway represents about **18,50%** of the total workforce,  
**23%** of the **officers** and near **15%** of the **ratings**.

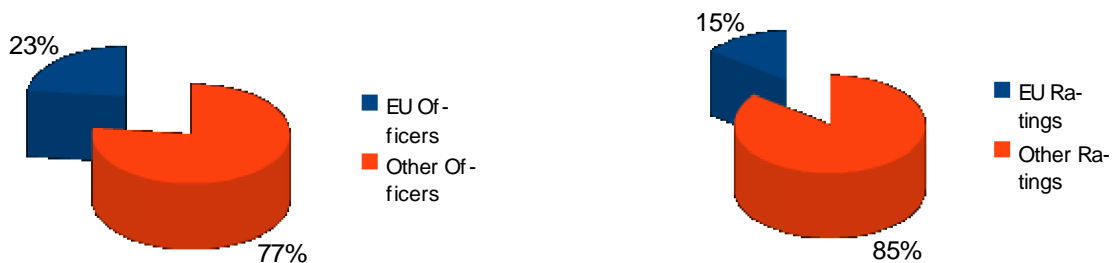
The **total worldwide workforce** is shared between EU and Norwegian seafarers and seafarers of the rest of the world as follows:

Source: ISF/BIMCO 2010



Source: ISF/BIMCO 2010

Numbers of **EU officers and EU Ratings** (plus Norway) on the **worldwide total** Of officers and ratings:



Source: ISF/BIMCO 2010

In 2010, European seafarers are supposed to man a total of about **10 490 ships** registered in EU Members States (plus Norway), as estimated by ISF/BIMCO, but up to **14 770** as shown in **ECSA** annual report 2010.

*Detailed Data on EU Fleets are shown in Annexes A to D*

*ISF/BIMCO notes that method to estimate the number of ships has been improved since 2005, in order to take a better account of smaller ships. However, when looking at figures on number of ships under European flags from other sources, as national authorities, shipowners' associations or ECSA, ISF/BIMCO figures seems underestimated.*

**Differences in estimated supply figures**

Depending on the source, **significant differences** are observed in the number of national seafarers. The table below gives a comparison between ISF/BIMCO 2010 figures and estimation in Drewry's Annual report on Manning 2010/2011, for 11 countries detailed by the latter.

|              | Estimated supply |               |                | Estimated supply |               |                |
|--------------|------------------|---------------|----------------|------------------|---------------|----------------|
|              | OFFICERS         | RATINGS       | TOTAL          | OFFICERS         | RATINGS       | TOTAL          |
| BULGARIA     | 10 890           | 22 379        | 33 269         | 3 000            | 3 500         | 6 500          |
| DENMARK      | 2 762            | 1 176         | 3 938          | 5 200            | 2 000         | 7 000          |
| GREECE       | 9 993            | 2 970         | 12 963         | 17 000           | 15 000        | 32 000         |
| GERMANY      | 3 997            | 6 356         | 10 353         | 6 700            | 3 000         | 9 700          |
| LATVIA       | 5 509            | 2 383         | 7 892          | 6 000            | 9 000         | 15 000         |
| NETHERLANDS  | 3 014            | 560           | 3 574          | 3 600            | 900           | 4 500          |
| POLAND       | 17 923           | 4 746         | 22 669         | 20 000           | 10 000        | 30 000         |
| ROMANIA      | 18 575           | 5 768         | 24 343         | 9 000            | 6 200         | 15 200         |
| SWEDEN       | 5 958            | 4 965         | 10 923         | 5 000            | 8 000         | 13 000         |
| SPAIN        | 3 181            | 3 862         | 7 043          | 4 600            | 5 500         | 10 100         |
| UK           | 14 657           | 8 536         | 23 193         | 15 400           | 5 000         | 20 400         |
|              |                  |               |                |                  |               |                |
| <b>TOTAL</b> | <b>96 459</b>    | <b>63 701</b> | <b>160 160</b> | <b>95 500</b>    | <b>68 100</b> | <b>163 400</b> |

Source : ISF/BIMCO 2010 & Drewry 2010

**Although totals are broadly the same in both studies,  
important differences appear by countries.**

Information collated **for the present study** are shown by individual countries in the next table, showing a comparison between ISF/BIMCO data and data from other sources when they exist. Higher figures from other sources have been systematically noted.

|                       | ISF/BIMCO      |                |                | Other sources |         |        |                                 |
|-----------------------|----------------|----------------|----------------|---------------|---------|--------|---------------------------------|
|                       | OFFICERS       | RATINGS        | TOTAL          | OFFICERS      | RATINGS | TOTAL  |                                 |
| <b>BELGIUM</b>        | 498            | 92             | 590            |               |         | 0      |                                 |
| <b>BULGARIA</b>       | 10 890         | 22 379         | 33 269         |               |         | 0      |                                 |
| <b>CYPRUS</b>         | 2 907          | 514            | 3 421          |               |         | 0      |                                 |
| <b>DENMARK</b>        | 2 762          | 1 176          | 3 938          | 2 896         | 1 882   | 4 778  | <i>DMA 2010</i>                 |
| <b>ESTONIA</b>        | 2 700          | 6 300          | 9 000          |               |         | 0      |                                 |
| <b>GERMANY</b>        | 3 997          | 6 356          | 10 353         | 4 066         | 2 701   | 6 767  | <i>FlottenKommando 2010</i>     |
| <b>GREECE</b>         | 9 993          | 2 970          | 12 963         | 6 821         | 8 028   | 14 849 | <i>Nat. stat. 2006</i>          |
| <b>FINLAND</b>        | 3 000          | 1 200          | 4 200          |               |         | 0      |                                 |
| <b>FRANCE</b>         | 4 568          | 9 128          | 13 696         | 3 642         | 6 234   | 9 876  | <i>Observ. 2009</i>             |
| <b>IRISH REPUBLIC</b> | 1 510          | 1 602          | 3 112          |               |         | 0      |                                 |
| <b>ITALY</b>          | 9 560          | 11 390         | 20 950         |               |         | 21 700 | <i>Confitarma 2010</i>          |
| <b>LATVIA</b>         | 5 509          | 2 383          | 7 892          | 5 509         | 6 273   | 11 782 | <i>SKEMA 2010</i>               |
| <b>LITHUANIA</b>      | 2 916          | 2 479          | 5 395          | 3 083         | 3 584   | 6 667  | <i>Lithuanian MSA 2011</i>      |
| <b>LUXEMBOURG</b>     | 2 272          | 2 164          | 4 436          |               |         | 0      |                                 |
| <b>MALTA</b>          | 274            | 2 162          | 2 436          |               |         | 0      |                                 |
| <b>NEIHERLANDS</b>    | 3 014          | 560            | 3 574          | 1 700         | 530     | 2 230  | <i>Nederlandse cluster 2010</i> |
| <b>NORWAY</b>         | 16 082         | 7 300          | 23 382         |               |         |        |                                 |
| <b>POLAND</b>         | 17 923         | 4 746          | 22 669         |               |         | 40 000 | <i>Minst. Transport 2011</i>    |
| <b>PORTUGAL</b>       | 419            | 1 802          | 2 221          |               |         | 0      |                                 |
| <b>ROMANIA</b>        | 18 575         | 5 768          | 24 343         | 21 391        | 9 291   | 30 682 | <i>Minst. Transport 2011</i>    |
| <b>SWEDEN</b>         | 5 958          | 4 965          | 10 923         | 3 324         | 4 340   | 7 664  | <i>Swed stat Bureau 2010</i>    |
| <b>SLOVENIA</b>       | 544            | 100            | 644            |               |         | 0      |                                 |
| <b>SLOVAKIA</b>       | 258            | 318            | 576            |               |         | 0      |                                 |
| <b>SPAIN</b>          | 3 181          | 3 862          | 7 043          |               |         | 0      |                                 |
| <b>UK</b>             | 14 657         | 8 536          | 23 193         | 14 620        | 11 340  | 25 960 | <i>UK dept Transport 2010</i>   |
| <b>TOTAL</b>          | <b>143 967</b> | <b>110 252</b> | <b>254 219</b> |               |         |        |                                 |

Source: ISF/BIMCO 2010 & Other

Some figures are rather consistent between the two sources, **other are questionable** (number of German ratings, number of Dutch officers, number of Latvian ratings, number of Swedish officers, number of British ratings and total number of Polish and Norwegian seafarers).

*For France, figures are from the Seafarers' Observatory Survey 2008/9 and are supposed to cover about 80% of the total of French seafarers, which is coherent with ISF/BIMCO figures.*

In **2009**, in the study on the labour market and employment conditions in Intra-Community regular maritime transport services, **ECORYS** gives an estimation by country of the supply (and demand) of officers and ratings in Europe. The supply figures of this study are shown in the table next page, compared with the last ISF/BIMCO estimation (EU plus Norway).

| COUNTRY            | ISF BIMCO                    |         |        | ECORYS                       |         |        |
|--------------------|------------------------------|---------|--------|------------------------------|---------|--------|
|                    | <i>Estimated supply 2010</i> |         |        | <i>Estimated supply 2008</i> |         |        |
|                    | OFFICERS                     | RATINGS | TOTAL  | OFFICERS                     | RATINGS | TOTAL  |
| <b>BELGIUM</b>     | 498                          | 92      | 590    | 13879                        | 7118    | 20997  |
| <b>BULGARIA</b>    | 10890                        | 22379   | 33269  | 7812                         | 5363    | 13175  |
| <b>CYPRUS</b>      | 2907                         | 514     | 3421   | na                           | 701     | 59     |
| <b>DENMARK</b>     | 2762                         | 1176    | 3938   | 7432                         | 10812   | 18244  |
| <b>ESTONIA</b>     | 2700                         | 6300    | 9000   | 7167                         | 0       | 7167   |
| <b>FINLAND</b>     | 3000                         | 1200    | 4200   | 738                          | 458     | 1196   |
| <b>FRANCE</b>      | 4568                         | 9128    | 13696  | 15285                        | 13958   | 29243  |
| <b>GERMANY</b>     | 3997                         | 6256    | 10253  | 8552                         | 0       | 8552   |
| <b>GREECE</b>      | 9993                         | 2970    | 12963  | 14524                        | 4430    | 18954  |
| <b>IRELAND</b>     | 1510                         | 1602    | 3112   | na                           | na      | 0      |
| <b>ITALY</b>       | 9560                         | 11390   | 20950  | 13369                        | 3041    | 16410  |
| <b>LATVIA</b>      | 5509                         | 2383    | 7892   | 7065                         | 8695    | 15760  |
| <b>LITHUANIA</b>   | 2916                         | 2479    | 5395   | 2927                         | 2755    | 5682   |
| <b>LUXEMBOURG</b>  | 2272                         | 2164    | 4436   | 0                            | 0       | 0      |
| <b>MALTA</b>       | 274                          | 2162    | 2436   | 67                           | 64      | 131    |
| <b>NETHERLANDS</b> | 3014                         | 560     | 3574   | 17722                        | 5575    | 23297  |
| <b>NORWAY</b>      | 16082                        | 7300    | 23382  | na                           | na      | 0      |
| <b>POLAND</b>      | 17923                        | 4746    | 22669  | 13436                        | 6891    | 20327  |
| <b>PORTUGAL</b>    | 419                          | 1802    | 2221   | 1000                         | 4000    | 5000   |
| <b>ROMANIA</b>     | 18575                        | 5768    | 24343  | 12746                        | 12807   | 25553  |
| <b>SLOVAKIA</b>    | 258                          | 318     | 576    | na                           | na      | 0      |
| <b>SLOVENIA</b>    | 544                          | 100     | 644    | 623                          | 820     | 1443   |
| <b>SPAIN</b>       | 3181                         | 3862    | 7043   | 15842                        | 10840   | 26682  |
| <b>SWEDEN</b>      | 5958                         | 4965    | 10923  | 7498                         | 2378    | 9876   |
| <b>UK</b>          | 14657                        | 8536    | 23193  | 28439                        | na      | 28439  |
| <b>TOTAL</b>       | 143967                       | 110152  | 254119 | 196123                       | 100706  | 296187 |

ECORYS indicates that figures were provided by national authorities in most cases, or calculated by aggregating the number of certificates issued in the past five years (including renewals). This method probably explains the huge differences that can be noted for some countries between ISF/BIMCO and ECORYS figures and results of the latter are certainly over estimated regarding the real number of available seafarers.

## 4.2 COMPARATIVE SITUATION BETWEEN WEST AND EAST EUROPE

Although European Union is an entity for employment, there is a strong imbalance of situation for seafarers between Western and Eastern Member States. From ISF/BIMCO data, the total number of seafarers in Western Europe countries (EU plus Norway) is **146 231 (81 652 officers and 64 579 ratings)** and the number from East Europe **107 988 (62 315 officers and 45 673 ratings)**. These figures are to be compared to the total number of ships as determined by ISF/BIMCO: **9 025** registered in West Europe and only **388** in East Europe.

The following table shows the number of officers and ratings in EU (plus Norway) separated for West an East Europe, with an additional part including other OECD and Eastern Europe countries as selected by ISF/BIMCO. Size in number of national fleets as in the ISF/BIMCO study is reported for each country.

| WEST EUROPE                 | OFFICERS       | RATINGS        | TOTAL          | FLEET         | EAST EUROPE                        | OFFICERS       | RATINGS        | TO TAL         | FLEET       |
|-----------------------------|----------------|----------------|----------------|---------------|------------------------------------|----------------|----------------|----------------|-------------|
| BELGIUM                     | 498            | 92             | 590            | 99            |                                    |                |                | 0              |             |
|                             |                |                | 0              |               | BULGARIA                           | 10 890         | 22 379         | 33 269         | 67          |
| CYPRUS                      | 2 907          | 514            | 3 421          | 855           |                                    |                |                | 0              |             |
| DENMARK                     | 2 762          | 1 176          | 3 938          | 409           |                                    |                |                | 0              |             |
|                             |                |                | 0              |               | ESTONIA                            | 2 700          | 6 300          | 9 000          | 35          |
|                             |                |                | 0              |               | FINLAND                            | 3 000          | 1 200          | 4 200          | 176         |
| FRANCE                      | 4 568          | 9 128          | 13 696         | 299           |                                    |                |                | 0              |             |
| GERMANY                     | 3 997          | 6 356          | 10 353         | 663           |                                    |                |                | 0              |             |
| GREECE                      | 9 993          | 2 970          | 12 963         | 1 305         |                                    |                |                | 0              |             |
| IRSIH REP                   | 1 510          | 1 602          | 3 112          | 49            |                                    |                |                | 0              |             |
| ITALY                       | 9 560          | 11 390         | 20 950         | 990           |                                    |                |                | 0              |             |
|                             |                |                | 0              |               | LATVIA                             | 5 509          | 2 383          | 7 892          | 33          |
|                             |                |                | 0              |               | LITHUANIA                          | 2 916          | 2 479          | 5 395          | 58          |
| LUXEMBOURG                  | 2 272          | 2 164          | 4 436          | 106           |                                    |                |                | 0              |             |
| MALTA                       | 274            | 2 162          | 2 436          | 1 552         |                                    |                |                | 0              |             |
| NETHERLANDS                 | 3 014          | 560            | 3 574          | 827           |                                    |                |                | 0              |             |
| NORWAY                      | 16 082         | 7 300          | 23 382         | 1 181         |                                    |                |                | 0              |             |
|                             |                |                | 0              |               | POLAND                             | 17 923         | 4 746          | 22 669         | 72          |
| PORTUGAL                    | 419            | 1 802          | 2 221          | 64            |                                    |                |                | 0              |             |
|                             |                |                | 0              |               | ROMANIA                            | 18 575         | 5 768          | 24 343         | 34          |
|                             |                |                | 0              |               | SLOVAKIA                           | 258            | 318            | 576            | 0           |
|                             |                |                | 0              |               | SLOVENIA                           | 544            | 100            | 644            | 0           |
| SPAIN                       | 3 181          | 3 862          | 7 043          | 116           |                                    |                |                | 0              |             |
| SWEDEN                      | 5 958          | 4 965          | 10 923         | 356           |                                    |                |                | 0              |             |
| UK                          | 14 657         | 8 536          | 23 193         | 944           |                                    |                |                | 0              |             |
|                             |                |                |                |               |                                    |                |                |                |             |
| <b>TOTAL EU</b>             | <b>81 652</b>  | <b>64 579</b>  | <b>146 231</b> | <b>9 815</b>  |                                    | <b>62 315</b>  | <b>45 673</b>  | <b>107 988</b> | <b>475</b>  |
| <b>OTHER OECD Countries</b> |                |                |                |               | <b>OTHER EAST EUROPE COUNTRIES</b> |                |                |                |             |
| AUSTRALIA                   | 4 760          | 3 500          | 8 260          | 203           | UKRAINE                            | 27 172         | 11 000         | 38 172         | 297         |
| CANADA                      | 13 994         | 3 109          | 17 103         | 356           | CROATIA                            | 11 704         | 6 954          | 18 658         | 194         |
| JAPAN                       | 21 297         | 7 308          | 28 605         | 3 874         | RUSSIA                             | 25 000         | 40 000         | 65 000         | 1511        |
| NEW ZELAND                  | 600            | 900            | 1 500          | 53            |                                    |                |                |                |             |
| USA                         | 21 810         | 16 644         | 38 454         | 722           |                                    |                |                |                |             |
| TURKEY                      | 36 734         | 51 009         | 87 743         | 1 075         |                                    |                |                |                |             |
|                             |                |                |                |               |                                    |                |                |                |             |
| <b>TOTAL OTHER</b>          | <b>99 195</b>  | <b>82 470</b>  | <b>181 665</b> | <b>6 283</b>  |                                    | <b>63 876</b>  | <b>57 954</b>  | <b>121 830</b> | <b>2002</b> |
|                             |                |                |                |               |                                    |                |                |                |             |
| <b>GEN TOTAL</b>            | <b>180 847</b> | <b>147 049</b> | <b>327 896</b> | <b>16 098</b> |                                    | <b>126 191</b> | <b>103 627</b> | <b>229 818</b> | <b>2477</b> |

Source: ISF/BIMCO 2010

*It must be noted that the OECD countries grouping by ISF/BIMCO doesn't reflect the reality of this Organization, as some Member countries are included in the Eastern Europe group (Finland, Poland, Slovakia, Slovenia – and Estonia which became a Member at the end of 2010). To keep harmonised reference, ISF/BIMCO grouping has been used in this study.*



In OECD and Eastern Europe countries, the workforce sharing of officers and ratings citizens of EU Member States (plus Norway) and other countries of these two parts of the world is as follows:

| % Share OECD |       |       |      | % Share E Europe |       |       |       |
|--------------|-------|-------|------|------------------|-------|-------|-------|
| <b>EU</b>    | 45,15 | 43,92 | 44,6 | <b>EU</b>        | 49,38 | 44,07 | 46,99 |
| <b>OTHER</b> | 54,85 | 56,08 | 55,4 | <b>OTHER</b>     | 50,62 | 55,93 | 53,01 |
| <b>TOTAL</b> | 100   | 100   | 100  | <b>TOTAL</b>     | 100   | 100   | 100   |

Source: ISF/BIMCO 2010

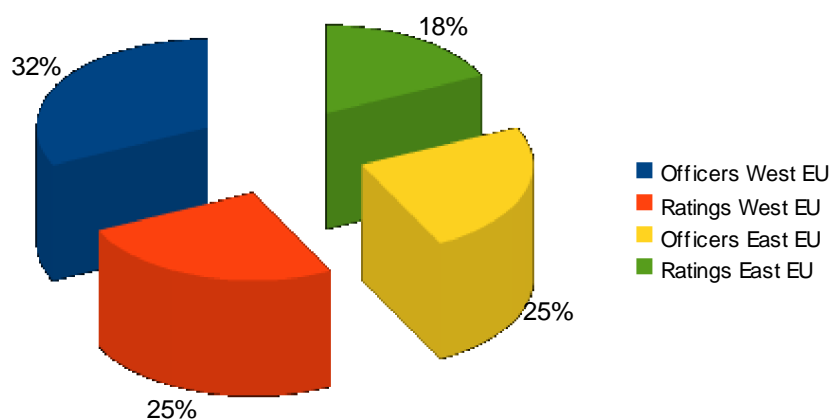
**44,6%** of the total of OECD seafarers are European Citizens (EU plus Norway), of which **45,15%** are officers and **43,92%** are ratings.

Inside European Union, the distribution between Western Europe (plus Norway) and Eastern Europe seafarers is as follows (in total and percentage):

|                   | OFFICERS       |            | RATINGS        |            | TOTAL          |              |
|-------------------|----------------|------------|----------------|------------|----------------|--------------|
| <b>TOTAL EU W</b> | <b>81 652</b>  | 56,72      | <b>64 579</b>  | 58,57      | <b>146 231</b> | <b>57,52</b> |
| <b>TOTAL EU E</b> | <b>62 315</b>  | 43,28      | <b>45 673</b>  | 41,43      | <b>107 988</b> | <b>42,48</b> |
| <b>TOTAL</b>      | <b>143 967</b> | <b>100</b> | <b>110 252</b> | <b>100</b> | <b>254 219</b> | <b>100</b>   |

Source: ISF/BIMCO 2010

Finally, the **general distribution** of officers and ratings **inside EU** (plus Norway) is as follows:



Source: ISF/BIMCO 2010

### 4.3 NUMBER AND PERCENTAGE OF OFFICERS AND RATINGS BY COUNTRY

The two tables below give the distribution by country of the total number of EU and Norwegian officers and ratings:

| COUNTRY      | OFFICERS       | %          |
|--------------|----------------|------------|
| ROMANIA      | 18 575         | 12,90      |
| POLAND       | 17 923         | 12,45      |
| NORWAY       | 16 082         | 11,17      |
| UK           | 14 657         | 10,18      |
| BULGARIA     | 10 890         | 7,56       |
| GREECE       | 9 993          | 6,94       |
| ITALY        | 9 560          | 6,64       |
| SWEDEN       | 5 958          | 4,14       |
| LATVIA       | 5 509          | 3,83       |
| FRANCE       | 4 568          | 3,17       |
| GERMANY      | 3 997          | 2,78       |
| SPAIN        | 3 181          | 2,21       |
| NETHERLANDS  | 3 014          | 2,09       |
| FINLAND      | 3 000          | 2,08       |
| LITHUANIA    | 2 916          | 2,03       |
| CYPRUS       | 2 907          | 2,02       |
| DENMARK      | 2 762          | 1,92       |
| ESTONIA      | 2 700          | 1,88       |
| LUXEMBOURG   | 2 272          | 1,58       |
| IRLAND       | 1 510          | 1,05       |
| SLOVENIA     | 544            | 0,38       |
| BELGIUM      | 498            | 0,35       |
| PORTUGAL     | 419            | 0,29       |
| MALTA        | 274            | 0,19       |
| SLOVAKIA     | 258            | 0,18       |
| <b>TOTAL</b> | <b>143 967</b> | <b>100</b> |

| COUNTRY      | RATINGS        | %          |
|--------------|----------------|------------|
| BULGARIA     | 22 379         | 20,32      |
| ITALY        | 11 390         | 10,34      |
| FRANCE       | 9 128          | 8,29       |
| UK           | 8 536          | 7,75       |
| NORWAY       | 7 300          | 6,63       |
| ESTONIA      | 6 300          | 5,72       |
| GERMANY      | 6 256          | 5,68       |
| ROMANIA      | 5 768          | 5,24       |
| SWEDEN       | 4 965          | 4,51       |
| POLAND       | 4 746          | 4,31       |
| SPAIN        | 3 862          | 3,51       |
| GREECE       | 2 970          | 2,70       |
| LITHUANIA    | 2 479          | 2,25       |
| LATVIA       | 2 383          | 2,16       |
| LUXEMBOURG   | 2 164          | 1,96       |
| MALTA        | 2 162          | 1,96       |
| PORTUGAL     | 1 802          | 1,64       |
| IRLAND       | 1 602          | 1,45       |
| FINLAND      | 1 200          | 1,09       |
| DENMARK      | 1 176          | 1,07       |
| NETHERLANDS  | 560            | 0,51       |
| CYPRUS       | 514            | 0,47       |
| SLOVAKIA     | 318            | 0,29       |
| SLOVENIA     | 100            | 0,09       |
| BELGIUM      | 92             | 0,08       |
| <b>TOTAL</b> | <b>110 152</b> | <b>100</b> |

Source: ISF/BIMCO 2010

**Western Europe countries**, as other OECD countries, remain in 2010 an important source of seafarers, when **East Europe** has significantly increased officers numbers during these past years.

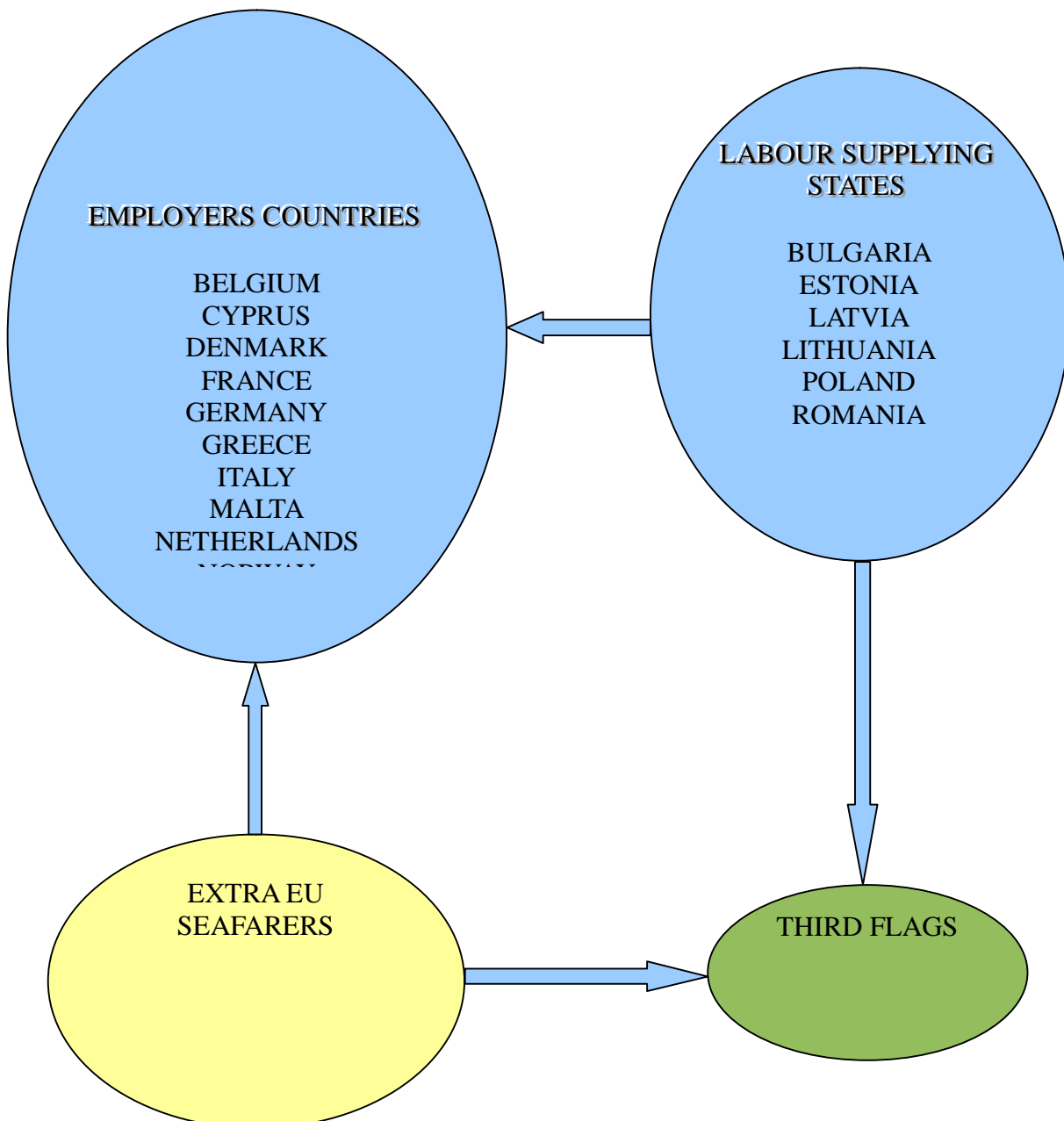
However, **information on cross employment** of European seafarers on EU ships registered under an other flag than national flag, is in practice non-existent, except in the ECORYS 2009 study for Intra-community traffics. Such situations are certainly limited in West Europe, but employment of Eastern seafarers, (mainly from Bulgaria, Poland and Romania for a near total of 50 000 officers and 33 000 ratings - probably underestimated figures), both on Western Europe ships and on ships under third flag, makes difficult to have a solid approach of global employment of EU seafarers in the Union. More details are given for Intra EU traffics.

#### 4.4 NUMBER OF EU SEAFARERS ON EU SHIPS

When crossing individual size of national fleets with number of seafarers in each European country, a general seafarers' manpower circulation scheme can be deducted as shown here after. It takes into account that European supplying countries may have also nationals seafarers employed under third flag and that European employers countries also use extra EU seafarers manning resources.

The scheme below is an attempt to have a better view of cross employment of European seafarers in EU, in the absence of detailed statistics provided by individual countries.

*Finland, Irish Republic, Spain are not considered as employers nor suppliers in this scheme.*



*This very simplified scheme doesn't reflect specific cases where EU seafarers can be employed on third flags ships, often at management level.*

The **ECORYS 2009** study on the labour market and employment conditions in Intra-community regular maritime transport services gives for each EEA country the **percentage of national officers and ratings employed on ships flying the national flag**, based on the total demand for that flag

The table below is extracted from this study for the EU countries, plus Norway. It confirms the situation of employment of foreign seafarers in most of Western countries.

*% of national officers and ratings on ships flying the national flag:*

| COUNTRY     | % OF NATIONALS |         |       |
|-------------|----------------|---------|-------|
|             | OFFICERS       | RATINGS | TOTAL |
| BULGARIA    | 100            | 100     | 100   |
| POLAND      | 99             | 100     | 100   |
| ROMANIA     | 100            | 100     | 100   |
| FINLAND     | 98             | 95      | 96    |
| SPAIN       | 98             | 81      | 87    |
| FRANCE      | 88             | 81      | 82    |
| LITHUANIA   | 96             | 69      | 80    |
| ITALY       | 99             | 66      | 79    |
| ESTONIA     | 35             | 87      | 78    |
| SWEDEN      | 88             | 72      | 77    |
| LATVIA      | 56             | 74      | 69    |
| GREECE      | 92             | 55      | 67    |
| UK          |                |         | 67    |
| GERMANY     | 74             | 55      | 63    |
| DENMARK     | 77             | 42      | 56    |
| NETHERLANDS | 53             | 7       | 27    |
| PORTUGAL    | 21             | 24      | 27    |
| BELGIUM     | 15             | 3       | 8     |
| LUXEMBOURG  | 0              | 0       | 0     |
| MALTA       | 0              | 0       | 0     |
| CYPRUS      |                |         | na    |
| IRELAND     |                |         | na    |
| NORWAY      |                |         | na    |

*Source: ECORYS 2009*

Because of employment policy by shipping companies, it is not clear if the resort to foreign seafarers is due to shortage of nationals or chosen for economic reasons. However, ECORYS notes that most of the companies consulted for the study in 2008 indicated **a shortage of nationals**, and that **overall surplus can co-exist with local shortage**.

The legal situation has also to be considered in the different countries regarding employment of non-EU seafarers under national flag, although second registers, where this option is always opened, are included as full national flag in the present study. The second part of the ECORYS 2009 study gives indications of legal regime regarding employment of non EU seafarers on national EU flags.

The next table shows for the countries of **West Europe** (EU Member States plus Norway), where the data is available, the number of national seafarers and the number of **EU and non EU** seafarers employed under national flag in 2010. It is supposed that the national seafarers are employed broadly under national flag (as far as these countries are not supplying countries and as the number of seafarers employed on controlled ships is considered as no significant).

Data on foreign seafarers was collected for the present study.

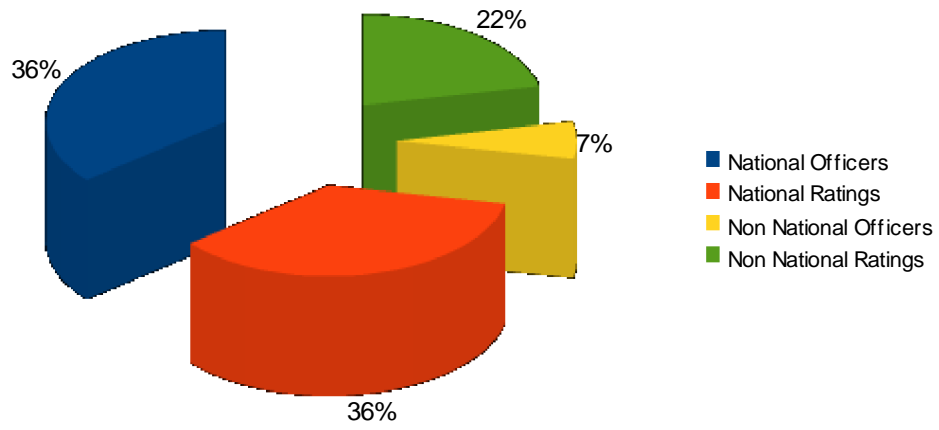
| COUNTRY            | Nationals |         |        | EU       |         |       | Non EU   |         |       | Total Non Nationals |         |       |
|--------------------|-----------|---------|--------|----------|---------|-------|----------|---------|-------|---------------------|---------|-------|
|                    | OFFICERS  | RATINGS | TOTAL  | OFFICERS | RATINGS | TOTAL | OFFICERS | RATINGS | TOTAL | OFFICERS            | RATINGS | TOTAL |
| <b>BELGIUM</b>     |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>CYPRUS</b>      |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>DENMARK</b>     | 2896      | 1882    | 4878   | 314      | 596     | 910   | 979      | 2844    | 3823  | 1293                | 3440    | 4733  |
| <b>FINLAND</b>     |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>FRANCE</b>      | 3642      | 6234    | 9876   | 665      | 1458    | 2123  | 261      | 1436    | 1697  | 926                 | 2894    | 3820  |
| <b>GERMANY</b>     | 4066      | 2701    | 6767   |          |         |       |          |         |       | 2512                | 5376    | 7528  |
| <b>GREECE</b>      | 6821      | 8028    | 14849  |          |         |       |          |         |       | 511                 | 6166    | 6677  |
| <b>IRLAND</b>      |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>ITALY</b>       | 9560      | 11300   | 20950  |          |         | 250   |          |         | 13690 |                     |         | 13940 |
| <b>LUXEMBOURG</b>  |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>MALTA</b>       |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>NEIHERLANDS</b> | 1700      | 530     | 2230   | 980      | 340     | 1320  | 1750     | 7850    | 9600  | 2730                | 8190    | 10920 |
| <b>NORWAY</b>      | 6922      | 10694   | 17616  |          |         |       |          |         |       | 2109                | 2277    | 4386  |
| <b>PORTUGAL</b>    |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>SPAIN</b>       |           |         |        |          |         |       |          |         |       |                     |         |       |
| <b>SWEDEN</b>      | 3324      | 4340    | 7764   |          |         |       |          |         |       | 638                 | 1818    | 2456  |
| <b>UK</b>          | 14620     | 11340   | 25960  |          |         | 5265  |          |         | 7298  |                     |         | 12563 |
| <b>TOTAL</b>       | 53551     | 57049   | 110890 | 1959     | 2394    | 9868  | 2990     | 12130   | 36108 | 10719               | 30161   | 67023 |

In these **9** countries, the total number of employed seafarers is about **178 000** of which **111 000 (62,3%) are nationals and 67 000 (37,7 %) non nationals (EU and non EU).**

For the five countries where distinction is made between foreign EU and non EU seafarers, the table shows a total of 109 800, of which

**63 900 (58%) are nationals, 9870 (9%) EU seafarers and 36 110 (33%) non EU**

On the total of **155 900** seafarers, the distribution between National and Non nationals is as shown below:



## 4.5 PAST EVOLUTION IN NUMBERS OF EU SEAFARERS

The next table shows the evolution in numbers of officers and ratings by country, based on a comparison between ISF/BIMCO 2000 and 2010 manpower studies (EU plus Norway).

| COUNTRY        |                |                |               |                |                |                |                |                |               |
|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|---------------|
|                | 2010           | 2000           | Diff          | 2010           | 2000           | Diff           | 2010           | 2000           | Diff          |
|                | OFFICERS       |                |               | RATINGS        |                |                | TOTAL          |                |               |
| BELGIUM        | 498            | 546            | -48           | 92             | 133            | -41            | 590            | 679            | -89           |
| BULGARIA       | 10 890         | 2 075          | 8 815         | 22 379         | 3 072          | 19 307         | 33 269         | 5 147          | 28 122        |
| CYPRUS         | 2 907          | 50             | 2 857         | 514            | 1 950          | -1 436         | 3 421          | 2 000          | 1 421         |
| DENMARK        | 2 762          | 5 353          | -2 591        | 1 176          | 4 522          | -3 346         | 3 938          | 9 875          | -5 937        |
| ESTONIA        | 2 700          | 2 152          | 548           | 6 300          | 7 000          | -700           | 9 000          | 9 152          | -152          |
| GERMANY        | 3 997          | 6 021          | -2 024        | 6 356          | 8 462          | -2 106         | 10 353         | 14 483         | -4 130        |
| GREECE         | 9 993          | 17 000         | -7 007        | 2 970          | 15 500         | -12 530        | 12 963         | 32 500         | -19 537       |
| FINLAND        | 3 000          | 4 000          | -1 000        | 1 200          | 6 000          | -4 800         | 4 200          | 10 000         | -5 800        |
| FRANCE         | 4 568          | 2 833          | 1 735         | 9 128          | 6 595          | 2 533          | 13 696         | 9 428          | 4 268         |
| IRISH REPUBLIC | 1 510          | 1 452          | 58            | 1 602          | 2 089          | -487           | 3 112          | 3 541          | -429          |
| ITALY          | 9 560          | 9 500          | 60            | 11 390         | 14 000         | -2 610         | 20 950         | 23 500         | -2 550        |
| LATVIA         | 5 509          | 6 170          | -661          | 2 383          | 8 135          | -5 752         | 7 892          | 14 305         | -6 413        |
| LUXEMBOURG     | 2 272          | 514            | 1 758         | 2 164          | 465            | 1 699          | 4 436          | 979            | 3 457         |
| NETHERLANDS    | 3 014          | 2 707          | 307           | 560            | 5 937          | -5 377         | 3 574          | 8 644          | -5 070        |
| NORWAY         | 16 082         | 12 000         | 4 082         | 7 300          | 10 200         | -2 900         | 23 382         | 22 200         | 1 182         |
| POLAND         | 17 923         | 5 944          | 11 979        | 4 746          | 6 162          | -1 416         | 22 669         | 12 106         | 10 563        |
| PORTUGAL       | 419            | 419            | 0             | 1 802          | 1 802          | 0              | 2 221          | 2 221          | 0             |
| ROMANIA        | 18 575         | 4 794          | 13 781        | 5 768          | 5 763          | 5              | 24 343         | 10 557         | 13 786        |
| SWEDEN         | 5 958          | 4 500          | 1 458         | 4 965          | 5 100          | -135           | 10 923         | 9 600          | 1 323         |
| SLOVENIA       | 544            | 140            | 404           | 100            | 185            | -85            | 644            | 325            | 319           |
| SLOVAKIA       | 258            | 37             | 221           | 318            | 68             | 250            | 576            | 105            | 471           |
| SPAIN          | 3 181          | 4 000          | -819          | 3 862          | 6 000          | -2 138         | 7 043          | 10 000         | -2 957        |
| UK             | 14 657         | 13 285         | 1 372         | 8 536          | 10 860         | -2 324         | 23 193         | 24 145         | -952          |
|                |                |                | 0             |                |                |                |                |                |               |
| <b>TOTAL</b>   | <b>140 777</b> | <b>105 492</b> | <b>35 285</b> | <b>105 611</b> | <b>130 000</b> | <b>-24 389</b> | <b>246 388</b> | <b>235 492</b> | <b>10 896</b> |

Source: ISF/BIMCO 2000/2010

*Note: Two countries (Malta and Lithuania) were not listed in 2000 and have been withdrawn from this table. Portugal shows the same figures in 2000 and 2010.*

*Direct comparisons of figures from ISF/BIMCO manpower study 2000 and 2010 must be considered with great caution, as changes in sources or counting methodology may have occurred for some countries during this period.*

Even considering that differences between 2000 and 2010 may not be fully reliable, the table gives a trend **in the manpower changing** in EU during this period.

The next table shows these changes in percentage (EU plus Norway):

| COUNTRY        | OFFICERS | RATINGS | TOTAL   |
|----------------|----------|---------|---------|
| BELGIUM        | -8,79%   | -30,83% | -13,11% |
| BULGARIA       | 424,82%  | 628,48% | 546,38% |
| CYPRUS         | 5714,00% | -73,64% | 71,05%  |
| DENMARK        | -48,40%  | -73,99% | -60,12% |
| ESTONIA        | 25,46%   | -10,00% | -1,66%  |
| GERMANY        | -33,62%  | -24,89% | -28,52% |
| GREECE         | -41,22%  | -80,84% | -60,11% |
| FINLAND        | -25,00%  | -80,00% | -58,00% |
| FRANCE         | 61,24%   | 38,41%  | 45,27%  |
| IRISH REPUBLIC | 3,99%    | -23,31% | -12,12% |
| ITALY          | 0,63%    | -18,64% | -10,85% |
| LATVIA         | -10,71%  | -70,71% | -44,83% |
| LUXEMBOURG     | 342,02%  | 365,38% | 353,12% |
| NEIHERLANDS    | 11,34%   | -90,57% | -58,65% |
| NORWAY         | 34,02%   | -28,43% | 5,32%   |
| POLAND         | 201,53%  | -22,98% | 87,25%  |
| PORTUGAL       | 0,00%    | 0,00%   | 0,00%   |
| ROMANIA        | 287,46%  | 0,09%   | 130,59% |
| SWEDEN         | 32,40%   | -2,65%  | 13,78%  |
| SLOVENIA       | 288,57%  | -45,95% | 98,15%  |
| SLOVAKIA       | 597,30%  | 367,65% | 448,57% |
| SPAIN          | -20,48%  | -35,63% | -29,57% |
| UK             | 10,33%   | -21,40% | -3,94%  |
| <b>TOTAL</b>   | 33,45%   | -18,76% | 4,63%   |

Source: ISF/BIMCO 2000/2010

*Note: The spectacular increase of Cypriots officers is probably due to a severe underestimated number in 2000 (50)*

If the total number of European seafarers remained more or less the same during these past ten years, showing a slight increasing of about 4,5%,  
**the number of officers increased of about one third,**  
**when ratings lost near 20% of jobs.**



Again, a **separate view** of respective situations in **Western and Eastern** parts of the Union is necessary to have a better assessment of these changes (*EU plus Norway; Finland incorporated in West Europe*):

| COUNTRY        | West Europe |         |         |
|----------------|-------------|---------|---------|
|                | OFFICERS    | RATINGS | TOTAL   |
| BELGIUM        | -8,79%      | -30,83% | -13,11% |
| CYPRUS         | 5714,00%    | -73,64% | 71,05%  |
| DENMARK        | -48,40%     | -73,99% | -60,12% |
| GERMANY        | -33,62%     | -24,89% | -28,52% |
| GREECE         | -41,22%     | -80,84% | -60,11% |
| FINLAND        | -25,00%     | -80,00% | -58,00% |
| FRANCE         | 61,24%      | 38,41%  | 45,27%  |
| IRISH REPUBLIC | 3,99%       | -23,31% | -12,12% |
| ITALY          | 0,63%       | -18,64% | -10,85% |
| LUXEMBOURG     | 342,02%     | 365,38% | 353,12% |
| NEIHERLANDS    | 11,34%      | -90,57% | -58,65% |
| NORWAY         | 34,02%      | -28,43% | 5,32%   |
| PORTUGAL       | 0,00%       | 0,00%   | 0,00%   |
| SWEDEN         | 32,40%      | -2,65%  | 13,78%  |
| SPAIN          | -20,48%     | -35,63% | -29,57% |
| UK             | 10,33%      | -21,40% | -3,94%  |
| <b>TOTAL</b>   | 0,24%       | -36,14% | -19,48% |

| COUNTRY      | East Europe    |               |               |
|--------------|----------------|---------------|---------------|
|              | OFFICERS       | RATINGS       | TOTAL         |
| BULGARIA     | 424,82%        | 628,48%       | 546,38%       |
| ESTONIA      | 25,46%         | -10,00%       | -1,66%        |
| LATVIA       | -10,71%        | -70,71%       | -44,83%       |
| POLAND       | 201,53%        | -22,98%       | 87,25%        |
| ROMANIA      | 287,46%        | 0,09%         | 130,59%       |
| SLOVENIA     | 288,57%        | -45,95%       | 98,15%        |
| SLOVAKIA     | 597,30%        | 367,65%       | 448,57%       |
| <b>TOTAL</b> | <b>164,63%</b> | <b>38,21%</b> | <b>90,33%</b> |

Source: ISF/BIMCO 2000/2010

If the total number of officers has broadly remained the same as ten years ago in **Western Europe**, some countries have **lost a significant number of officers** and **number of ratings has decreased** in most countries.

### Number of officers

During the same period, number of **Eastern European officers** increased, notably in Bulgaria, Poland and Romania, where a clear trend of decreasing of ratings may be seen. (*Slovenia and Slovakia show huge increase of officers and rating for the latter, but absolute numbers of seafarers for these two countries remain very low*)

In **Western countries**, the comparison makes sense only when looking at the fleet change under national flag on the same period.

As **ISF/BIMCO 2000** doesn't give the number of ships by country, the next table is based on the UNCTAD Fleets tables 2000 and 2010 (Ships of GT 1000 and over).

(*EU plus Norway; some countries are not mentioned in the UNCTAD tables 2000 and/or 2010*)

| COUNTRY        | 2000  |               | 2010  |               |
|----------------|-------|---------------|-------|---------------|
|                | Fleet | Number        | Fleet | Number        |
| BELGIUM        | 24    | 546           | 85    | 498           |
| CYPRUS         | na    | 50            | 129   | 2 907         |
| DENMARK        | 418   | 5 353         | 360   | 2 762         |
| GERMANY        | 498   | 6 021         | 458   | 3 997         |
| GREECE         | 752   | 17 000        | 741   | 9 993         |
| FINLAND        | na    | 4 000         | na    | 3 000         |
| FRANCE         | 177   | 2 833         | 180   | 4 568         |
| IRISH REPUBLIC | na    | 1 452         | na    | 1 510         |
| ITALY          | 489   | 9 500         | 608   | 9 560         |
| LUXEMBOURG     | na    | 514           | na    | 2 272         |
| NETHERLANDS    | 548   | 2 707         | 528   | 3 014         |
| NORWAY         | 905   | 12 000        | 820   | 16 082        |
| PORTUGAL       | na    | 419           | na    | 419           |
| SWEDEN         | 174   | 4 500         | 136   | 5 958         |
| SPAIN          | 33    | 4 000         | 173   | 3 181         |
| UK             | 405   | 13 285        | 357   | 14 657        |
|                |       |               |       |               |
| <b>TOTAL</b>   |       | <b>84 180</b> |       | <b>84 378</b> |

Source: UNCTAD 2000 & 2010

These figures must be considered with great caution, as high uncertainties remain on the adjustment between number of ships and number of officers. Notably, number of ships from UNCTAD tables (compiled on the basis of Lloyd's Maritime Information Services in 2000 and IHS-Fairplay in 2010) takes into account ships only of GT 1000 and over, when number of seafarers as determined by ISF/BIMCO and collated from national administrations are supposed to include all active officers in the country.

The next table shows the difficulty to conclude final trends about officers employment during these past years without a deeper knowledge of national fleets changes, notably to take into account national coastal navigation or growing maritime activities, as oil or wind offshore fields.

*In the six big maritime countries where merchant fleet has decreased during the ten past years, the number of officers has decreased in three of them and increased in the three others.*

| COUNTRY | Decreasing fleet | Diff Officers |
|---------|------------------|---------------|
| DENMARK | -58              | -2591         |
| GERMANY | -40              | -2024         |
| GREECE  | -11              | -7007         |
| NORWAY  | -85              | 4082          |
| SWEDEN  | -38              | 1458          |
| UK      | -48              | 1372          |

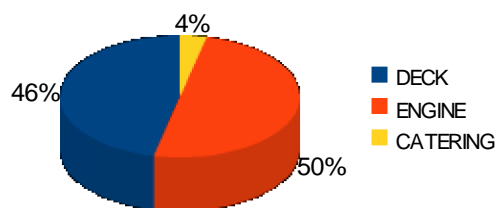
#### 4.6 NUMBER OF OFFICERS AND RATINGS BY DEPARTMENT

Few data are available about seafarers' number details by departments on board.

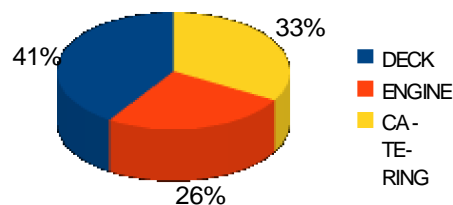
9 countries\* provide this information in the national statistics. The table and graphs below are the result of a compilation of the national data collated for this study and gives an idea of this distribution:

|                 | NATIONALS |        |          | TOTAL |
|-----------------|-----------|--------|----------|-------|
| %               | DECK      | ENGINE | CATERING |       |
| <b>OFFICERS</b> | 43,97     | 47,31  | 3,46     | 57,43 |
| <b>RATINGS</b>  | 40,56     | 25,92  | 33,16    | 42,57 |

*Officers*



*Ratings*



ISF/BIMCO study 2010 also shows the evolution of ranks' distribution between 1995 and 2010, for the five geographical areas of the survey. The two next tables give this sharing up for officers in OECD and East & Central Europe:

*(Percentage is of the world total workforce).*

*\*Bulgaria, Germany, Greece, Latvia, Lithuania, Romania, Sweden, UK, plus Norway.*

## OECD

| Level | Deck       |             | Engine     |             | Other |
|-------|------------|-------------|------------|-------------|-------|
|       | Management | Operational | Management | Operational |       |
|       | %          | %           | %          | %           | %     |
| 1995  | 54,40      | 32,40       | 51,40      | 33,00       | 35,60 |
| 2000  | 48,80      | 26,90       | 44,20      | 26,00       | 30,30 |
| 2005  | 27,50      | 15,30       | 25,60      | 15,20       | 35,30 |
| 2010  | 12,20      | 7,70        | 10,10      | 7,40        | 6,60  |

Source: ISF/BIMCO 2010

## East & Central Europe

| Level | Deck       |             | Engine     |             | Other |
|-------|------------|-------------|------------|-------------|-------|
|       | Management | Operational | Management | Operational |       |
|       | %          | %           | %          | %           | %     |
| 1995  | 14,70      | 14,20       | 14,50      | 16,00       | 20,70 |
| 2000  | 16,40      | 15,30       | 18,30      | 15,50       | 15,50 |
| 2005  | 36,60      | 25,20       | 38,00      | 25,80       | 14,70 |

Source: ISF/BIMCO 2010

These figures clearly confirm the **strong decline** of numbers of officers from **developed countries** during the past years in the total of active officers in the world. This decline has been compensated by an increasing number of officers from Eastern countries, partly European and largely from far East.

## 4.7 EMPLOYMENT OF EU AND NON EU SEAFARERS ON INTRA-EU TRAFFICS

### 4.7.1 Number of seafarers

The European Union, regarded as an entity for employment is certainly a unique situation in the world, where Intra-EU sea traffics creates a very specific situation about seafarers' employment. This situation has a strong impact on employment of national seafarers, when international studies are more oriented on worldwide exchanges, without consideration of regional and local traffics.

If numerous data are published about tonnage traffics and ports activities, information on seafarers working on ships engaged in Intra-EU voyages are rare at national levels. In this context, the **ECORYS (2009) study on the labour market and employment conditions in intra community regular maritime transport services (DG Energy and Transport)** is certainly the only reliable source to contemplate the employment of these seafarers.

From this study, the next table shows the number of ships per Member state (plus Norway) per ship type engaged in Intra-EU operation in 2008.

|                       | Container<br>Feeder | Passenger<br>Ferries | Ro-Ro      | Total       |
|-----------------------|---------------------|----------------------|------------|-------------|
| <b>BELGIUM</b>        | 15                  | 16                   | 30         | 61          |
| <b>BULGARIA</b>       | 4                   | 8                    | 0          | 12          |
| <b>CYPRUS</b>         | 1                   | 9                    | 5          | 15          |
| <b>DENMARK</b>        | 120                 | 84                   | 27         | 231         |
| <b>ESTONIA</b>        | 0                   | 32                   | 5          | 37          |
| <b>FINLAND</b>        | 10                  | 74                   | 45         | 129         |
| <b>FRANCE</b>         | 55                  | 105                  | 17         | 177         |
| <b>GERMANY</b>        | 93                  | 126                  | 33         | 252         |
| <b>GREECE</b>         | 7                   | 379                  | 50         | 436         |
| <b>IRISH REPUBLIC</b> | 11                  | 25                   | 7          | 43          |
| <b>ITALY</b>          | 11                  | 386                  | 61         | 458         |
| <b>LATVIA</b>         | 0                   | 3                    | 3          | 6           |
| <b>LITHUANIA</b>      | 3                   | 7                    | 0          | 10          |
| <b>LUXEMBOURG</b>     | 0                   | 0                    | 0          | 0           |
| <b>MALTA</b>          | 0                   | 15                   | 2          | 17          |
| <b>NETHERLANDS</b>    | 50                  | 31                   | 27         | 108         |
| <b>NORWAY</b>         | 5                   | 413                  | 136        | 554         |
| <b>POLAND</b>         | 6                   | 38                   | 6          | 50          |
| <b>PORTUGAL</b>       | 8                   | 37                   | 1          | 46          |
| <b>ROMANIA</b>        | 4                   | 4                    | 2          | 10          |
| <b>SLOVANIA</b>       | 0                   | 3                    | 0          | 3           |
| <b>SLOVAKIA</b>       | 0                   | 0                    | 0          | 0           |
| <b>SPAIN</b>          | 19                  | 83                   | 24         | 126         |
| <b>SWEDEN</b>         | 2                   | 132                  | 31         | 165         |
| <b>UK</b>             | 31                  | 187                  | 46         | 264         |
| <b>TOTAL</b>          | <b>455</b>          | <b>2197</b>          | <b>558</b> | <b>3210</b> |

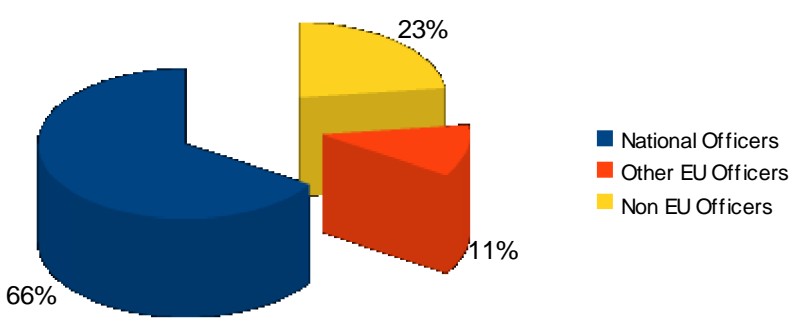
Source: ECORYS 2009

These **3 210** EU ships (including Norway) represent  
**28%** of the total EU Fleet as determined by ISF/BIMCO  
 or near **20%** according to ECSA 2010 report.  
 Ferries are for near **77%** of the total number of ships engaged in Intra-EU traffics.

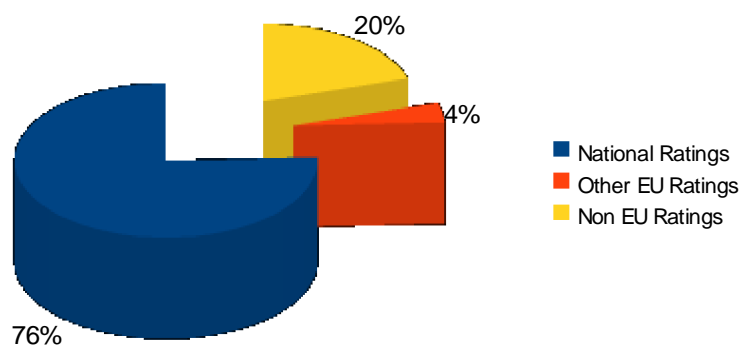
According to ECORYS, the nationalities distribution of seafarers working on these ships is as follows:

*Officers and ratings employed on regular Intra-EU ships flying an EU flag (plus Norway)  
By nationality*

**Officers**



**Ratings**



*Source: ECORYS 2009*

Intra-EU traffics offer about **18 500** jobs for officers (**13%** of the total number of EU and Norwegian officers) and **63 300** for ratings (**57, 5%** of the total number). This high percentage for the latter can be explained by employment on the **2 197** ferries, where the crew number is favourable to ratings, especially in hotel department. There is no indication about the continuity of these jobs all around the year, while employment of seasonal personnel is a major factor to estimate full time equivalent jobs.

According to ECORYS, main nationalities of **non-nationals** (EU and non EU) on board EU ships engaged in Intra-community traffics are:

*EU officers:* Polish, Bulgarian, Greek, Romanian, Swedish,  
*Non EU officers:* Ukrainian, Filipinos, Russian, Croatian, Moroccan,  
*Non EU ratings:* Filipinos, Russian, Ukrainian, Indonesian, Moroccan.

#### **4.7.2. Development of Intra-community regular maritime transports**

In the 2009 study, ECORYS has estimated an evolution of the number of ships engaged in Intra-Community traffics, based on the freight forecast and including estimation of the growing of ships size. This estimation shows for the year 2018 a strong increasing of containers ships, from 460 to more than 600, but a slight decreasing of passenger ship (less 87) and ro-ro ships (less 65).

**In term of employment, these forecast changes will probably have a negative impact for ratings.**

#### **4.8 EMPLOYMENT OF EU SEAFARERS ON THIRD FLAGS SHIPS**

According to ISL 2010, **7 392** ships are under control of companies based in EU (See Annex B) and registered in an other country than the country of the parent company. It is supposed that these ships are owned by the parent company or long term bare-boat chartered. No indications are given on flags and there is no distinction between EU flags and third countries flag.

No data were found on employment of EU seafarers on these ships except for France (2009) and Greece (2006). The number may be high, as for instance in the case of a ferry, or null in the case of a Liberian ship manned with a full Filipino crew. It is assumed that employment of Western EU seafarers on third countries foreign flag ships remains probably marginal, even when a link is maintained with the original European employer, with some exceptions as for British, German and Greek officers, especially at management level (For instance, in 2006, 588 Greek officers were employed on foreign flag ships on a total of 6 821 officers).

Finally, no data exist in any country about European seafarers employed under free-lance contracts by non European foreign companies.



## 4.9 SUPPLY/DEMAND OF SEAFARERS IN EU

### 4.9.1. Worldwide situation

When estimating worldwide supply/demand balance of seafarers in 2010, ISF/BIMCO notes the existence of a “modest shortage of officers” (of about **13 000**, **2,1%** of the total) and an approximate balance for ratings. Drewry estimates a more important shortage for the officers at near **30 000** (no estimation is given for ratings).

In **2014/15**, officers' gap estimation is reversed when looking at ISF/BIMCO and Drewry results. The first predicts a growing of the shortage up to **30 000** and the second a decreasing by the half. Then at the horizon of 2020, ISF/BIMCO figures show a slight shortage of officers, more pronounced for ratings but far from a worrying scenario.

In a study on the “Future global supply and demand for seafarers” dated May 2010, the **Japanese International Transport Institute** estimates the global demand of officers and seafarers at a lower level than ISF/BIMCO and Drewry. JITI doesn't calculate supply, estimating that, globally; the labour market permanently adapts the balance.

The next table shows the worldwide estimated situation as projected by the ISF/BIMCO, Drewry and the JITI up to 2020:

|                 | ISF/BIMCO |        |        | DREWRY  |        |        | JITI   |         |     |
|-----------------|-----------|--------|--------|---------|--------|--------|--------|---------|-----|
|                 | SUPPLY    | DEMAND | GAP    | SUPPLY  | DEMAND | GAP    | SUPPLY | DEMAND  | GAP |
|                 | 2010      |        |        | 2010    |        |        | 2010   |         |     |
| <b>OFFICERS</b> | 624062    | 636543 | -12481 | 532400  | 562200 | -29800 | na     | 445055  |     |
| <b>RATINGS</b>  | 747000    | 747000 | 0      | 758400  | na     |        | na     | 648914  |     |
|                 | 1371062   |        |        | 1290800 |        |        |        | 1093969 |     |
|                 | 2015      |        |        | 2014    |        |        |        |         |     |
| <b>OFFICERS</b> | 690199    | 720440 | -30241 | 606900  | 621200 | -14300 |        |         |     |
| <b>RATINGS</b>  | 764000    | 803000 | -39000 | na      | na     |        |        |         |     |
|                 |           |        |        |         |        |        |        |         |     |
|                 | 2020      |        |        |         |        |        | 2020   |         |     |
| <b>OFFICERS</b> | 764281    | 772198 | -7917  |         |        |        | na     | 477208  |     |

### 4.9.2. Situation in Europe

Looking firstly at the situation in OECD group by ISF/BIMCO, the shortage of officers is more notable, with a **gap** of **45 000** between supply and demand for officers, and of **145 000** for ratings. In East Europe group, **surplus** in 2010 are of **95 000** officers and **73 000** ratings.

*(These figures reflect the “Benchmark scenario” of the ISF/BIMCO study; for the years 2015 and 2020, the two other alternative demand scenarios “hot” and “cold” have not been considered in this study in order to remain in a rather simple context. The estimated growing of the world fleet is around 2,3% per year).*

| <b>Estimated Supply/Demand in OECD Countries</b> |        |        |         |
|--|--------|--------|---------|
|  | SUPPLY | DEMAND | DIFF    |
| <b>2010</b>                                      |        |        |         |
| OFFICERS   | 184000 | 229000 | -45000  |
| RATINGS  | 143000 | 288000 | -145000 |
|  |        |        |         |
| <b>2015</b>                                      |        |        |         |
| OFFICERS   | 194000 | 257000 | -63000  |
| RATINGS  | 117000 | 309000 | -192000 |
|  |        |        |         |
| <b>2020</b>                                      |        |        |         |

| <b>Estimated Supply/Demand in Eastern Europe</b> |        |        |        |
|--|--------|--------|--------|
|  | SUPPLY | DEMAND | DIFF   |
| <b>2010</b>                                      |        |        |        |
| OFFICERS   | 127000 | 32000  | 95000  |
| RATINGS  | 109000 | 36000  | 73000  |
|  |        |        |        |
| <b>2015</b>                                      |        |        |        |
| OFFICERS   | 140000 | 35000  | 105000 |
| RATINGS  | 108000 | 36000  | 72000  |
|  |        |        |        |
| <b>2020</b>                                      |        |        |        |

The **gap** will grow for OECD countries in the next ten years, up to **70 000** officers and **221 000** ratings, when the **surplus** of Eastern Europe seafarers will be **118 000** officers and **73 000** ratings. (*Drewry doesn't provide projected demand in 2014 by region*).

During the same period, the number of active officers is supposed to grow in both OECD and East Europe (respectively of 11,4% and 21,2 %), when the number of ratings will decrease in OECD (less 33,5%) and will stay broadly the same in East Europe.

The **ECORYS 2009** study established estimation on supply/demand of seafarers in Europe in order to assess a potential shortage of seafarers by countries. However, as reported in part 1, the supply numbers of seafarers in this study, reflecting the numbers of issued certificates by country, including renewals, appears too far from the numbers of seafarers really available for service in 2010 and therefore has not been considered for the purpose of the present study.

**It seems hazardous to precisely estimate the future demand for EU countries without a solid process, as developed by Warwick University or Precious Limited for the purpose of ISF/BIMCO or Drewry studies.**

Some assumption can nevertheless be deducted from existing studies regarding the situation in EU for both officers and ratings.

For the two categories, the gap will continue to be filled with Eastern workforce (inside European community, plus Ukrainian, Croatia, Russia) and Indian and South East Asia seafarers.

Considering that general conditions of the “OECD” grouping in the ISF/BIMCO study are globally applicable to Western EU countries and Norway (ageing workforce, number of new entrants, wastage ..) the number of officers in these countries will have to grow in the next 10 years of about **10%** to meet the supply estimation and remain more or less at the 2010 level. This must be counted on the need to keep EU officers at management level on board and to ensure sufficient availability for maritime clusters.

If the same hypothesis is kept for Eastern Europe grouping, the growing of officers will have to be of about **20%** in this part of EU.

According to the projection, the number of ratings is severely decreasing between 2010 and 2020 in OECD countries. This confirms again that the existing trend of workforce transfer from developed countries towards India subcontinent and East Asia will continue during the coming years.

Inside EU however, a particular attention regarding employment of ratings will be focused on all Intra-community or national traffics and activities at sea, in order to keep sufficient workforce to meet local needs.

In order to keep the 2010 equivalent situation regarding the weight of European officers in the worldwide workforce, number of officers will have to grow in the next 10 years of :  
**10% in Western EU countries**  
**20% in Eastern EU countries**

**5. OTHER ELEMENTS**

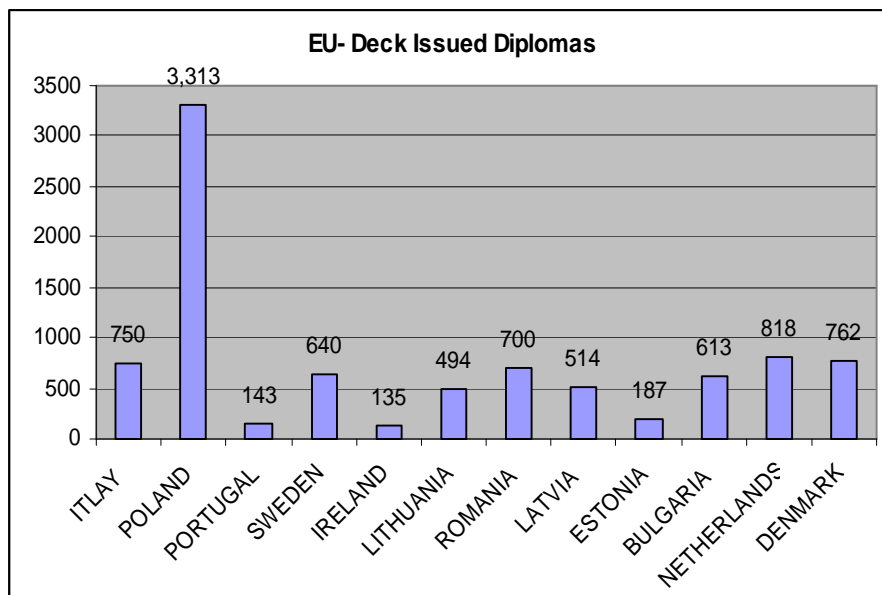
## 5.1 RECRUITMENT AND TRAINING

As for other data, information on number of students in EU maritime colleges or academy attending STCW certificates courses are not systematically available in individual countries. The number of trainees on board national ships is rarely indicated, although this information is of high importance to assess the future availability of officers and ratings.

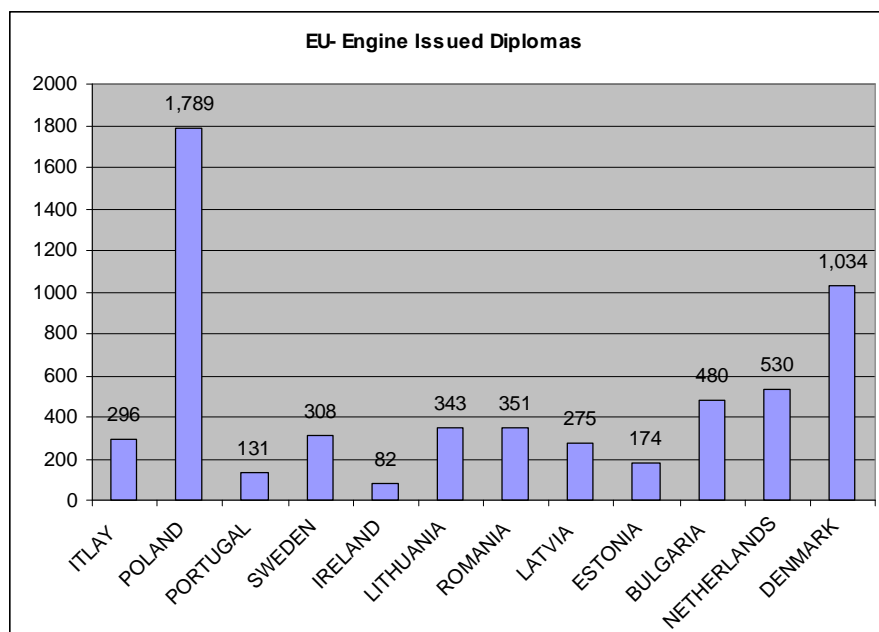
As **EMSA** is in the process of operating a data-basis to collect the certificates delivered each year by the Member States to national seafarers and equivalence to non nationals (STCW-Information System), the Agency has been asked by the consultant about current availability of data. The answer of the Agency indicates that the System will not fully operate before 2012.

However, some data from selected countries are already available, as shown here after. The numbers as reported in these two tables represent the total of deck and engine certificates issued from the given countries between years from 2005 to 2009.

Source: EMSA



Source: EMSA



These figures are not specific enough for a detailed analysis. The term Diploma is too vague and there is no distinction on STCW level of the certificates. They only give a general view on the capacities of these countries to train new seafarers.

Poland has been clearly a major provider of new seafarers during these past years, for the benefit of foreign flags. On these examples, the number of engine certificates issued (for a total of 5793 on the period) is much lower than deck certificates (8989). This must be questioned while most of the shipowners are claiming for engine officers.

For the present study, information about numbers of cadets or new entrants in maritime education for years 1009/2010 was collated from different sources. They are shown in the table below, though some of these figures are questionable as there is no clear indication of what they exactly represent.

| COUNTRY     | Source                     | NUMBER OF STUDENTS<br>IN MARITIME EDUCATION | Year | NUMBER OF CADETS<br>ON BOARD |        |       | Year | NUMBER OF<br>CERTIFICATES ISSUED |               | Year |
|-------------|----------------------------|---|------|------------------------------|--------|-------|------|----------------------------------|---------------|------|
|             |                            |   |      | Deck                         | Engine | TOTAL |      | Nationals                        | Non Nationals |      |
|             |                            | <i>Nationals</i>                            |      |                              |        |       |      |                                  |               |      |
| BELGIUM     |                            |   |      |                              |        |       |      |                                  |               |      |
| BULGARIA    |                            |   |      |                              |        |       |      |                                  |               |      |
| CYPRUS      |                            |   |      |                              |        |       |      |                                  |               |      |
| DENMARK     | DMA 2011                   | 1516  | 2009 |                              |        |       |      | 872                              |               | 2009 |
| ESTONIA     |                            |   |      |                              |        |       |      |                                  |               |      |
| FINLAND     |                            |   |      |                              |        |       |      |                                  |               |      |
| FRANCE      | Seafarers' Observatory     |   |      |                              |        | 714   | 2008 |                                  |               |      |
| GERMANY     | ETF                        | 755   | 2009 |                              |        |       |      |                                  |               |      |
| GREECE      | National Statistics Bureau | 3745  | 2003 | 756                          | 488    | 1244  | 2006 |                                  |               |      |
| IRELAND     |                            |   |      |                              |        |       |      |                                  |               |      |
| ITALY       |                            |   |      |                              |        |       |      |                                  |               |      |
| LATVIA      | Latvian Maritime Academy   | 922   | 2011 |                              |        |       |      | 426                              |               | 2010 |
| LITHUANIA   |                            |   |      |                              |        |       |      |                                  |               |      |
| LUXEMBOURG  |                            |   |      |                              |        |       |      |                                  |               |      |
| MALTA       |                            |   |      |                              |        |       |      |                                  |               |      |
| NETHERLANDS | Nederlandse Maritime Clust |   |      |                              |        |       |      | 540                              | 200           | 2009 |
| NORWAY      | ETF                        | 546   | 2006 |                              |        |       |      |                                  |               |      |
| POLAND      | ETF                        | 2115  | 2008 |                              |        | 760   | 2008 | 338                              |               | 2008 |
| PORTUGAL    |                            |   |      |                              |        |       |      |                                  |               |      |
| ROMANIA     |                            |   |      | 3427                         | 1858   | 5285  |      |                                  |               |      |
| SLOVAKIA    |                            |   |      |                              |        |       |      |                                  |               |      |
| SLOVENIA    |                            |   |      |                              |        |       |      |                                  |               |      |
| SPAIN       |                            |   |      |                              |        |       |      |                                  |               |      |
| SWEDEN      |                            |   |      |                              |        |       |      |                                  |               |      |
| UK          | UK Seafarers Statistics    | 754   | 2010 | 1830                         |        |       | 2010 |                                  |               |      |

**ECORYS** study 2009 mentions information on the total number of certificates issued in 2007 by each EU country, but the numbers include renewals (as STCW rules) and therefore can't give a clear view on the number of students or cadets.

The study gives also the number of "new entrants" for which it is understood that for some countries is the number of students and for other the number of graduates. The next table is extracted from ECORYS 2009 (figures given for year 2007, EU plus Norway).

| COUNTRY     | OFFICERS | RATINGS | TOTAL |
|-------------|----------|---------|-------|
| BELGIUM     | 56       | 131     | 187   |
| BULGARIA    | 440      | 452     | 892   |
| CYPRUS      | 488      | 59      | 547   |
| DENMARK     | 508      | 1839    | 2347  |
| ESTONIA     | 140      | 115     | 255   |
| FINLAND     | 392      | 464     | 856   |
| FRANCE      | 650      | 400     | 1050  |
| GERMANY     | 942      | 0       | 942   |
| GREECE      | 1930     | 742     | 2672  |
| IRELAND     | 35       | 0       | 35    |
| ITALY       | 1500     | na      | 1500  |
| LATVIA      | 1371     | 1757    | 3128  |
| LITHUANIA   | 297      | 294     | 591   |
| LUXEMBOURG  | 0        | 0       | 0     |
| MALTA       | 3        | 64      | 67    |
| NETHERLANDS | 621      | 0       | 621   |
| NORWAY      | na       | na      | 0     |
| POLAND      | 968      | na      | 968   |
| PORTUGAL    | 23       | 46      | 69    |
| ROMANIA     | 1355     | 1207    | 2562  |
| SLOVAKIA    | na       | na      | 0     |
| SLOVENIA    | na       | na      | 0     |
| SPAIN       | na       | na      | 0     |
| SWEDEN      | 819      | 466     | 1285  |
| UK          | 3012     | na      | 3012  |

Source: ECORYS 2009

ECORYS mentions national statistics and maritime educational institutes as sources for these figures. However, due to a lack of data, some figures are estimated or extrapolated. Grey cells indicate number of graduates.

A comparison with the previous table, where some figures are also coming from national statistics, and even with two years interval, makes difficult to estimate precisely the training potential of each country.

It is clear that these data is **insufficient** and not detailed enough to provide a good view of the number of EU new officers and ratings entering the labour market year by year.

This is particularly prejudicial in a context of ageing of the European seafarers. At least, the EMSA System will be a precious tool for a better knowledge of the maritime training and the future manning resources.

## 5.2 WOMEN EMPLOYMENT

Only **6** countries (*Bulgaria, Germany, Lithuania, Norway, Sweden, UK,*) provide detailed information in national statistics on women employment, from which the two below tables were drawn up:

The first one shows the percentage of women employment on the **total of seafarers**, by department:

|                 | TOTAL WOMEN EMPLOYMENT |        |          |
|-----------------|------------------------|--------|----------|
| %               | DECK                   | ENGINE | CATERING |
| <b>OFFICERS</b> | 26,85                  | 7,47   | 65,68    |
| <b>RATINGS</b>  | 5,98                   | 0,65   | 93,17    |

The second shows the repartition **by department** of the **total of women seafarers**:

|                 | % OF TOTAL SEAFARERS |        |          | TOTAL |
|-----------------|----------------------|--------|----------|-------|
| %               | DECK                 | ENGINE | CATERING |       |
| <b>OFFICERS</b> | 1,07                 | 0,28   | 33,26    | 1,75  |
| <b>RATINGS</b>  | 1,85                 | 0,32   | 35,28    | 14,91 |

The only comprehensive study on Women employment in the maritime industry seems to be an **ILO** survey carried on by the **Seafarers International Researcher Centre** (Cardiff, UK) in 2003 (Women seafarers, Global employment policies and practices). From this study, women in Scandinavian countries make up more than 10% of the seafaring workforce, 8, 3% in the UK, 4, 2% in Germany, when figures for other European countries are negligible. Individual results for the four above countries are broadly in line with these figures 8 years after.

The **ILO** survey highlighted that women seafarers were concentrated in **hotel personnel on passenger ships**.

Above figures certainly reflect employment in EU and Norway on passenger vessels, mostly ferries. Numbers of women officers or ratings **in other departments remains negligible**, although the number of women in the maritime schools has increased over these past years

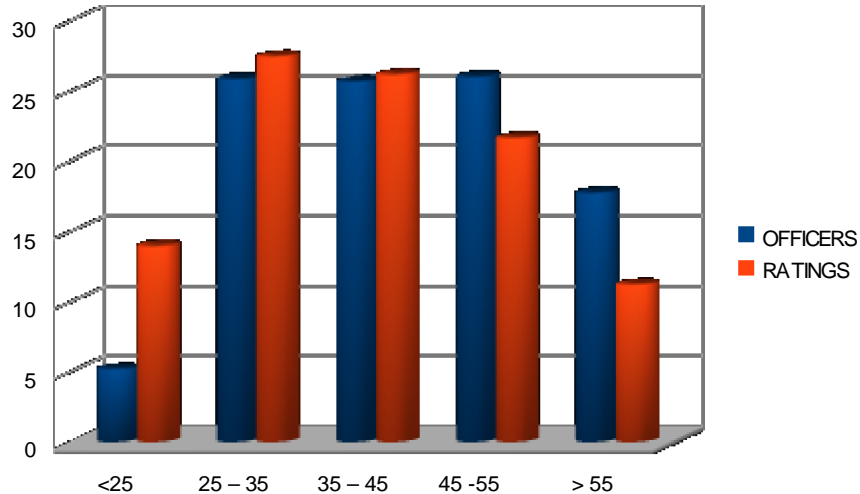
Compared with figures of 2003, the 2010 results remain disappointing although efforts have been made during these past years by both shipowners and unions to attract young women towards sea-careers.

No information was found on **employment conditions**. Regarding deck and engine department, it is assumed that there is no salary discrimination, as most of shipping companies use standardized ranks salary scales. This situation certainly also applies to leaves ashore and duration of voyage, subject to further researches. Situation can be of course quite different on passenger ships in hotel department, especially on cruise ships, where hotel staffs are recruited through crewing agencies.



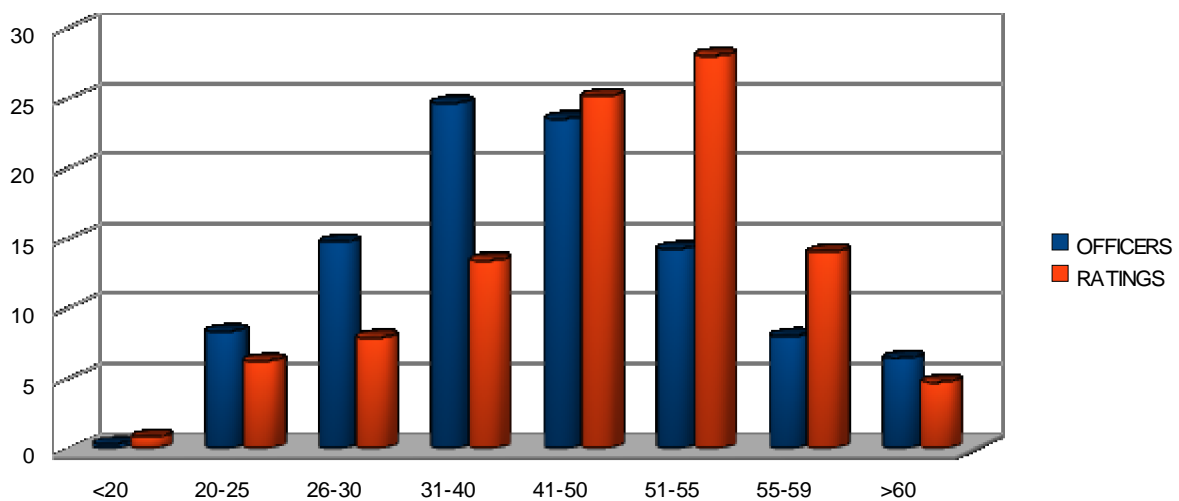
### 5.3 AGE PROFILE

Information on age profile was found in national statistics for only 5 countries (*Bulgaria, Lithuania, Norway, UK and Greece*). Therefore, the next table, reflecting ages of active officers and ratings in these countries must be regarded more as an exercise than an accurate basis for projections.



**ISF/BIMCO 2010** study shows detailed tables of age structure for each of the five regions. The tables are based on data from company questionnaire and certainly well reflect the situation in these companies. As for others data, it is not possible to isolate proper EU figures.

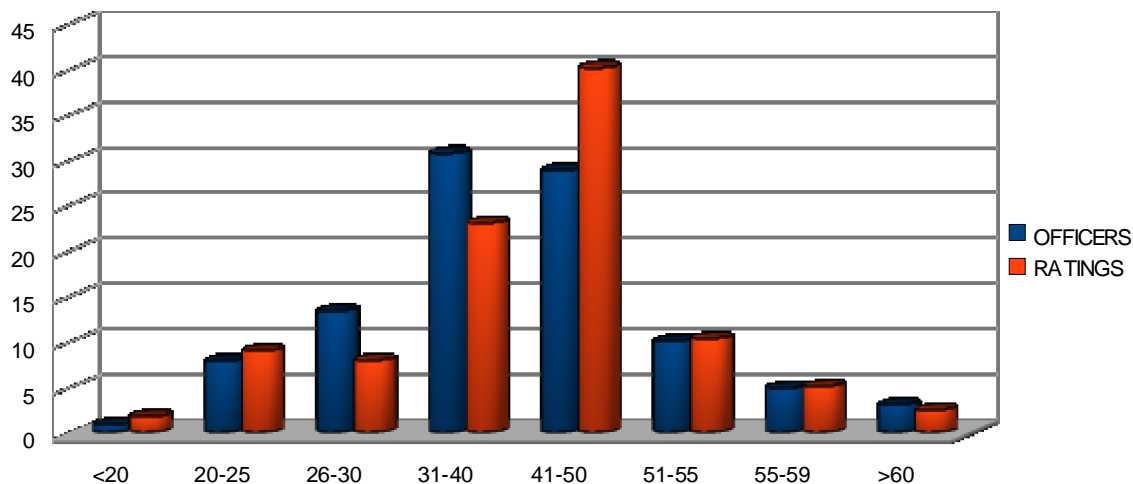
The age structure for OECD seafarers in ISF/BIMCO study is as follows:



More than 25% of officers are over 50 years old and the total older than 40 is more than 50%. However, the age structure seems more balanced than it was ten years ago. It can be assumed that most of seafarers over 50 will remain at sea up to retirement. The challenge for the industry is certainly to day to make sea-careers attractive enough to prevent young people to turn on jobs

ashore. Wastage remains a great uncertainty to adjust recruitment in order to meet future demand.

The age structure for Eastern Europe seafarers in ISF/BIMCO study is as follows:



Not surprisingly, the table shows that the youngest population of seafarers come from the Eastern and Central Europe.

Age structure is one of the main factor, with wastage, used by **ISF/BIMCO** to estimate future supply.

The 2010 study notes that seafarers from OECD countries “*tend to be rather older than average*” and that differences between OECD and Far East and Indian Sub-Continent are “*not as marked as a few years ago*”.

## 5.4 WAGES

The intention here was to have an idea about **seafarers wages compared with ashore workers' salaries** with the same educational level. This has been difficult to achieve in the scope of the present study, the question of wages of EU seafarers certainly requiring a dedicated study since the subject is large and cannot be considered without other elements of working conditions, as leave ashore and voyage length or for some countries, fiscal facilities granted to seafarers.

In general, there is no published information on real seafarers' salaries at national level. Legal minimum salaries exist in some countries, or wages as from collective agreements, which both do not reflect necessary real wages. Moreover, collective agreements' wages tables include generally several ships' type, and refer to bonus or supplements not easy to understand when they are applicable or not.

International wages standards, as **ILO minimum** or **ITF TCC** agreements (applicable to ships under “flag of convenience” as specified by ITF) have not been considered as relevant for European seafarers (Though ITF agreements can exist for employment conditions of Eastern Europe seafarers on Western Europe ships).

**ECORYS** study 2009 provides indications on gross wages in intra EU shipping (from shipping companies), but on this point, the scope of the study is uncertain. **Drewry** annual reports give wages indications and trends for the selected countries of the study, but including per month served on board basic wage, vacation and guaranteed overtime or bonus. The great variation of these last elements makes difficult to estimate the basic monthly wage itself to be compared with salaries ashore (*e.g. : leave rate from 9 to 30 days by month at sea*).

Regarding salaries ashore in the EU, the only reliable harmonized source is **Eurostat**, which provides data on average earnings by job-types in selected sectors. However the last publication, (2009 published in March 2010), contains some data from 2006.

Some national statistics give examples of gross earnings in the industry or other activities, but in too many different sectors to set up a reliable reference table.

The first table on next page gives some indications, from these different sources, to be read with all reservations above. The average monthly salaries for manager, technician and worker are extracted from Eurostat 2010 (wages 2009). Comparison is made at equivalent level for a captain, an officer (3<sup>rd</sup> mate or engine officer) and an AB with figures coming from ECORYS (officer and AB only) and other sources (in Euros, converted from US Dollars for Drewry data). As significant differences exist between tankers and dry ships, the column *mini* refers in general to small dry cargo, when *maxi* reflects wages on larger tankers and gas ships.

The second table is also extracted from Drewry survey 2010 and gives total wages (*in Euros converted from US Dollars*) for Filipinos, Chinese and Indian seafarers, as a comparison with European seafarers

## AVERAGE MONTHLY SALARIES (Euros)

|                   | MANAGER     | CAPTAIN |       | TECHNICIAN  | OFFICER     |      |      | CRAFT WORKER | AB          |      |      | Source       |
|-------------------|-------------|---------|-------|-------------|-------------|------|------|--------------|-------------|------|------|--------------|
|                   |             | min     | max   |             | ECORYS      | min  | max  |              | ECORYS      | min  | max  |              |
| BELGIUM           | 5945        |         |       | 3177        | 3980        |      |      | 2414         | 2000        |      |      |              |
| BULGARIA          | 474         |         |       | 284         | 2170        |      |      | 201          | 1020        |      |      |              |
| CYPRUS            | 4327        |         |       | 2294        | 2650        |      |      |              | 1200        |      |      |              |
| DENMARK           | 6313        | 6500    | 11000 | 4338        | 3980        |      |      | 3325         | 2000        |      |      | Drewry 2008  |
| ESTONIA           | 1388        |         |       | 913         | 2650        |      |      |              | 800         |      |      |              |
| FINLAND           | 5402        |         |       | 2978        | 3920        |      |      | 2499         | 2600        |      |      |              |
| FRANCE            | 5323        | 5000    | 9000  | 2705        | 4510        | 3500 | 5500 | 1917         | 2450        | 2000 | 2500 | Companies    |
| GERMANY           | 6434        | 5750    | 6230  | 3651        | 4560        | 4100 | 4450 | 2519         | 1900        | 3370 | 4000 | ETF          |
| GREECE            | 3502        | 10073   | 11458 | 1911        | 6890        | 5283 | 6250 | 1755         | 2650        | 3000 | 3300 | Greek survey |
| IRELAND           | 5469        |         |       | 4102        | 3710        |      |      | 3430         | 1650        |      |      |              |
| ITALY             | 5895        |         |       | 2679        | 4530        |      |      | 1856         | 2750        |      |      |              |
| LATVIA            | 911         | 5780    | 8000  | 601         | 4240        | 2250 | 2550 | 413          | 1500        | 1230 | 1240 | Companies    |
| LITHUANIA         | 956         |         |       | 551         |             |      |      |              |             |      |      |              |
| LUXEMBOURG        | 7688        |         |       | 4304        | 3980        |      |      | 2499         | 2000        |      |      |              |
| MALTA             | 2278        |         |       | 1456        | 1300        |      |      |              | 330         |      |      |              |
| NEIHERLANDS       | 4365        |         |       | 3253        | 3980        |      |      | 2750         | 2000        |      |      |              |
| NORWAY            | 6385        |         |       | 4742        | 4190        |      |      | 3644         | 2100        |      |      |              |
| POLAND            | 1743        | 4900    | 14000 | 818         |             | 1960 | 5250 | 607          |             | 1260 | 1400 | Drewry 2010  |
| PORTUGAL          | 3471        |         |       | 1712        |             |      |      | 803          |             |      |      |              |
| ROMANIA           | 926         | 4200    | 12250 | 388         |             | 2100 | 4200 | 299          |             | 700  | 1400 | Drewry 2010  |
| SLOVAKIA          | 1418        |         |       | 705         |             |      |      | 493          |             |      |      |              |
| SLOVENIA          | 3074        |         |       | 1475        |             |      |      | 959          |             |      |      |              |
| SPAIN             | 4315        | 5400    | 11000 | 2271        | 2650        |      |      | 1569         | 1500        |      |      | Drewry 2008  |
| SWEDEN            | 5054        |         |       | 3351        | 3800        |      |      | 2595         | 2320        |      |      |              |
| UK                | 6013        | 10000   | 14000 | 3887        | 3710        | 3700 | 6300 | 3187         | 1650        | 3700 | 4550 | Drewry 2010  |
| <b>EU average</b> | <b>4876</b> |         |       | <b>2285</b> | <b>3748</b> |      |      | <b>1854</b>  | <b>1812</b> |      |      |              |

Source: Eurostat 2009 for wages ashore, ECORYS 2009, Drewry and others for seafarers.

|             |         | CAPTAIN |       | OFFICER |      | AB   |      |
|-------------|---------|---------|-------|---------|------|------|------|
|             |         | mini    | maxi  | mini    | maxi | mini | maxi |
| PHILIPPINES | Tankers | 5950    | 9800  | 2450    | 2800 | 840  | 1260 |
|             | Dry     | 4550    | 5950  | 2310    | 2660 | 700  | 840  |
| CHINA       | Tankers | 7000    | 8750  | 1750    | 2100 | 560  | 700  |
|             | Dry     | 4200    | 4900  | 1540    | 1960 | 420  | 700  |
| INDIA       | Tankers | 7700    | 11200 | 2450    | 3360 | 700  | 1050 |
|             | Dry     | 5600    | 7000  | 1750    | 2100 | 560  | 700  |

Source : Drewry 2010

Officers' wages in EU remain certainly **higher** than average salaries ashore, although **the difference is more marked for operational officers** than at management level.

It is clear that this difference becomes much more important in favour of seafarers from **Eastern Europe**.

## 5.5 EMPLOYMENT IN MARITIME CLUSTERS

Two main studies have been produced these past years on “Maritime clusters” in Europe and their economical weight in term of added value and employment.

In 2006, a study by **ECOTEC** Research & Consulting (UK) for DG Fisheries and Maritime Affairs “*An exhaustive analysis of employment trends in all sectors related to sea or using sea resources*” provided a general picture of European maritime clusters, with an attempt of a harmonised approach on clusters' composition. The study identified 13 sectors as being relevant of maritime clusters, generating approximately 5 Million jobs in 2004/2005. About 3 Million jobs being related to coastal tourism, with unreliability on data in this sector, the estimate number of jobs for the “traditional maritime industries” was at this time 1.9 Million.

*A graph and a table extrapolated from this study are reported in the next page, showing the number of jobs for the different sectors.*

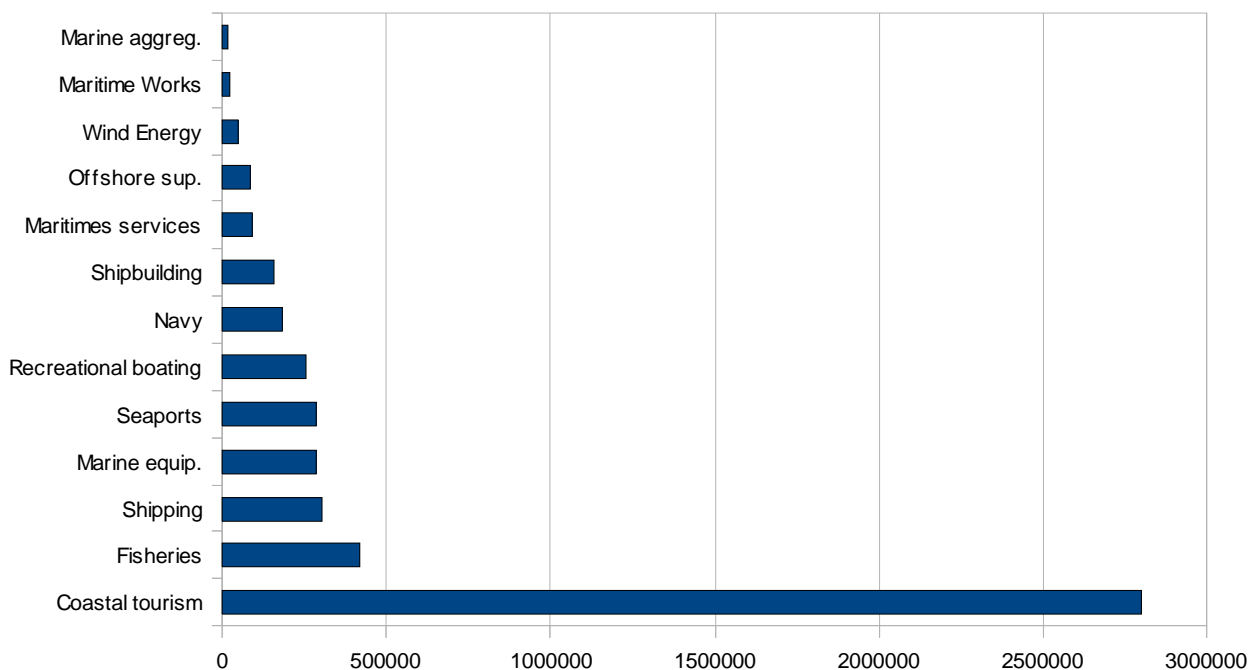
A second study (“*The role of maritime clusters to enhance the strength and development of European maritime sectors*”), executed by **Policy Research Corporation** (B) in 2008 for the same DG, gives the added value and number of employments in 11 sectors. Employment data found in this study are largely coming from ECOTEC with adjustment made by Policy Research. The study gives a view of added value and employment of maritime clusters in the European countries and estimates the total number of jobs at 4, 78 Million.

It will be noted that in the chapter “Seafaring expertise ashore”, ECORYS 2009 study also refers to ECOTEC 2006 figures. Little information was found from national clusters' website or annual reports regarding employment in different sectors.

Employment of **seafarers at sea** is included for the two studies in the data of the “shipping” sector, but it is not clear if employment figures in other sectors as offshore, maritime works (dredging or other) or maritime services and coastal tourism include or not seafarers. Moreover, no exploitable data are found on employment **ashore** of active or past-seafarers in the shipping sector and in other maritime related industries.

In the absence of detailed data on employment of **officers and ratings** in the different sectors of the maritime clusters, it seems difficult to evaluate the future need of **experienced seafarers** ashore in these sectors.

*Share of different maritime sectors (2004/2005)*



Source: ECOTEC 2006

*Number of employments generated in the different sectors (years 2004/2005)*

| Sectors              | Employment       | %     |
|----------------------|------------------|-------|
| Coastal Tourism      | 2 800 000        | 56,74 |
| Fisheries            | 420 000          | 8,51  |
| Shipping             | 303 000          | 6,14  |
| Marine Equipment     | 287 000          | 5,82  |
| Seaports             | 284 000          | 5,76  |
| Recreational Boating | 253 000          | 5,13  |
| Navy                 | 180 000          | 3,65  |
| Shipbuilding         | 153 000          | 3,10  |
| Maritimes Services   | 88 000           | 1,78  |
| Offshore Supply      | 81 000           | 1,64  |
| Wind Energy          | 48 000           | 0,97  |
| Maritime Works       | 20 000           | 0,41  |
| Marine Aggregates    | 17 800           | 0,36  |
| <b>Total</b>         | <b>4 934 800</b> |       |

Source: ECOTEC 2006

## **6. COUNTRIES DATA**

For each of 23 EU maritime countries (25 less Slovenia and Slovakia where sufficient information was not available), and Norway, an individual standard form shows:

**1 - Total number (officers and ratings) of national and non national seafarers** (when available) from different sources if any.

The figures proposed by ISF/BIMCO 2010 update have been systematically reported as they are the only harmonised data in this field.

Data from other sources, as national administrations or shipowners' association is shown when available. In very few cases, it is possible to make a distinction between EU and non EU seafarers and data are provided by function on board.

**- Training**

Number of students in Maritime schools, colleges or academies and number of cadets on board when available.

**- Number of seafarers (officers and ratings) by occupation on board** (Deck, engine, other) when available.

The data is not available for all EU countries. When they are, again the lack of coherence in the national statistics can make difficult a harmonised presentation. The distinction between officers and ratings is sometimes not clear. To avoid a too much detailed table without added value, the functions were grouped as follows:

**Officers :**

Deck : Captains and deck officers

Engine: Chief engineers, engineers, general purpose, technical or electrician officers

Other: Pursers, hotel officers, catering officers or other officers.

**Ratings:**

Deck: Deck seafarers and other deck occupation

Engine: Engine seafarers and other engine occupation

Other: hotel and catering staff, other occupation.

Most of the seafarers entering in the category "Other" are in fact catering and hotel personnel. In some countries, these personnels can be considered as "no seafarers" and therefore not reported in the statistics.

**2 - Size and ship-types of national fleet.**

Except data from national administrations and shipowners' association, the only source about fleets size and structure is IHS-Fairplay (which manages the IMO ship and company numbering scheme on behalf of the IMO). This firm regularly produces very detailed information regarding the fleet evolution in the world. But synthetic and more readable reports are produced from IHS-Fairplay publications by ISL Bremen (Institut für Seeverkehrswirtschaft und Logistik). Reports of the latter have been used for this study.

The ship-type table model uses the ISL classification: tankers, bulk carriers, containers,



general cargo and passengers ships.

**- Number of controlled ships under foreign flags (EU or non EU when available).**

This information was collected from different sources, with some question about the reliability of the data. The definition of a “controlled ship” can vary from a source to another, the most accurate is a ship owned or long-bare boat chartered by a national company but registered in an other country. In principle, other chartered ships without manning and technical control by the mother company are not included, but it is difficult to have a clear view on this question in the scope of this study and further investigation would be necessary to identify the impact of the number of controlled ships on the employment.

**3 - Women employment.**

Detailed data on women seafarers are available for some countries and are reported in this section.

**4 - Age profile (national seafarers).**

Very few information are available on age profile in countries' statistics. When available, these data are shown under the following distribution:

|     |         |         |         |      |
|-----|---------|---------|---------|------|
| <25 | 25 - 35 | 35 - 45 | 45 - 55 | > 55 |
|-----|---------|---------|---------|------|

**5 - Wages elements.**

Figures from ECORYS 2009 are reported, and from other sources when available. The reference used for wages ashore is the Eurostat publication “Labour market statistics” 2010, from where three average salaries were extracted: manager, technician and craft worker, to be compared with captain, officer and AB.

Some national statistics gives examples of gross earnings in the industry or other activities, but in too many different sectors to build up a reliable reference table.

**6. Employment in maritime clusters.**

The result of the ECOTEC study, 2006, “An exhaustive analysis of employment trends in all sectors related to sea or using sea resources” was systematically reported in this section, as being the only harmonized data source on employment in Maritime clusters. Mention is made of other sources when necessary.

## BELGIUM

### 1. NUMBER OF SEAFARERS – 0,005% of the Population (10 839 900)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO            | 498      | 92      | 590   |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register:

2.1.1 ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 38     | 3441     |
| Bulk carriers   | 20     | 2705     |
| Container ships | 4      | 122      |
| General Cargo   | 15     | 113      |
| Passenger ships | 2      | 1        |
| Total           | 79     | 6382     |

2.1.2 The Public Federal Service for mobility and transport publishes the exhaustive list of ships registered under Belgian flag (All sizes included):

| Type               | Number |
|--------------------|--------|
| Tankers            | 31     |
| Bulk carriers      | 18     |
| Container ships    | 6      |
| General Cargo      | 20     |
| Passenger ships    | 4      |
| Harbour & Offshore | 94     |
| Total              | 173    |

Source: Belgian Public Federal Service for Mobility and Transports

2.2 Number of controlled ships: **103** (dwt: 6 102 000)  
ISL SSMR 2010 (ships of 1000GT and over)

### **3. WOMEN EMPLOYMENT**

na

### **4. AGE PROFILE**

na

### **5. WAGES ELEMENTS**

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3980

AB: 2000

Average salaries ashore:

*Eurostat 2009*

Manager : 5945

Technician: 3177

Craft worker: 2414

*Institut National des Statistiques 2009*

Executive manager: 7 624

Middle manager: 5 416

Employee: 1 965

### **6. MARITIME CLUSTER**

na

## BULGARIA

### 1. NUMBER OF SEAFARERS – 0,14% of the Population (7 560 710)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO            | 10890    | 22379   | 33269 |
| MARAD*               | 11504    | 7292    | 18796 |
| <b>Non nationals</b> |          |         |       |
| MARAD*               | 3        | 7       | 10    |

\*Bulgarian Ministry of Transport - European Union, International Affairs and Projects Directorate

#### 1.2 Details by department on board

|                 | Nationals    | Non nationals | Total        |
|-----------------|--------------|---------------|--------------|
| <b>Officers</b> |              |               |              |
| Deck            | 3860         | 3             | 3863         |
| Engine          | 3575         |               | 3575         |
| Dual Purpose    | 4069         |               | 4069         |
| <b>Ratings</b>  |              |               |              |
| Deck            | 2669         | 7             | 2676         |
| Engine          | 4623         |               | 4623         |
| Other           |              |               |              |
| <b>Total</b>    | <b>18796</b> | <b>10</b>     | <b>18806</b> |

Source: MARAD

### 2. NATIONAL MERCHANT FLEET

#### 2.1 Number of ships registered in the country including second register:

ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number    | 1000 dwt   |
|-----------------|-----------|------------|
| Tankers         | 8         | 28         |
| Bulk carriers   | 16        | 464        |
| Container ships |           |            |
| General Cargo   | 14        | 130        |
| Passenger ships | 1         | 5          |
| <b>Total</b>    | <b>39</b> | <b>627</b> |

#### 2.2 Number of controlled ships: na

### 3. WOMEN EMPLOYMENT

|              | Deck | % of Total | Engine | % of Total | Total | % of Total |
|--------------|------|------------|--------|------------|-------|------------|
| Officers     | 19   | 0,5        | 13     | 0,36       | 32    | 0,28       |
| Ratings      | 5    | 0,18       | 1      | 0,02       | 6     | 0,08       |
| <i>Total</i> | 24   | 0,68       | 14     | 0,38       | 38    | 0,33       |

Source: MARAD

### 4. AGE PROFILE

|              | < 25 | 25 - 35 | 35 - 45 | 45 - 55 | > 55  | Total |
|--------------|------|---------|---------|---------|-------|-------|
| Officers     | 406  | 3142    | 3657    | 2830    | 2607  | 12642 |
| %            | 3,21 | 24,85   | 28,93   | 22,39   | 20,62 |       |
| Ratings      | 35   | 894     | 1944    | 2525    | 2134  | 7532  |
| %            | 3,21 | 24,85   | 28,93   | 22,39   | 20,62 |       |
| <i>Total</i> | 441  | 4036    | 5601    | 5355    | 4741  |       |
| %            | 3,21 | 24,85   | 28,93   | 22,39   | 20,62 |       |

Source: MARAD

### 5. WAGES ELEMENT

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 2170

AB: 1020

Average salaries ashore:

*Eurostat 2009*

Manager: 474

Technician: 284

Craft worker: 201

The average monthly salary ashore in 2009 was 302 Euros (Source: Vienna Institute for International Studies)

## CYPRUS

### 1. NUMBER OF SEAFARERS – 0, 36% of the Population (803 150)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO            | 2907     | 514     | 3421  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 154    | 10568    |
| Bulk carriers   | 262    | 14053    |
| Container ships | 190    | 4813     |
| General Cargo   | 195    | 1820     |
| Passenger ships | 27     | 103      |
| Total           | 828    | 31357    |

- Cyprus Shipowners' Association: 1026 ships in 2009 (third fleet in the EU).

2.2 Number of controlled ships under foreign flags: **134** (dwt: 3 897 000)

*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENT

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 2650

AB: 1200

Average salaries ashore:

*Eurostat 2009*

Manager: 4327

Technician: 2294

Craft worker: 1200

## **6. MARITIME CLUSTER**

na

## DENMARK

### 1. NUMBER OF SEAFARERS – 0, 09% of the Population (5 534 740)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO            | 2762     | 1176    | 3938  |
| DMA*                 | 2896     | 1882    | 4878  |
| <b>Non nationals</b> |          |         |       |
| EU & EAA*            | 314      | 596     | 910   |
| Other nationalities* | 979      | 2844    | 3823  |

**Total number of seafarers under Danish flag: 9611 (Officers: 4289 – Ratings: 5322)\***

\*Danish Maritime Authority 2011 (Figures 2009) Including second register DIS

**Important note:** According to the DMA, the number of seafarers as shown in the DMA report reflects the number of officers and ratings **signed on** per 30 September 2009. A back-up ratio of about 1, 5 to 1, and 6 has to be applied to obtain the total number of active Danish seafarers.

#### 1.2 Training

Source DMA 2011: Number of graduates in 2009: 872 (Merchant marine).

Intake of students in maritime training programmes in 2010: 1516.

It is not clear to determine the number of students attending classes for merchant navy and for fishing vessels.

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register:

ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 156    | 5993     |
| Bulk carriers   | 4      | 497      |
| Container ships | 89     | 6867     |
| General Cargo   | 81     | 327      |
| Passenger ships | 46     | 95       |
| Total           | 376    | 13779    |

- DMA 2011 (ships of 100GT and over): under Danish flag (DAS&DIS) **536**.
- Danish Shipowners' Association : **536**

2.2 Number of controlled ships under foreign flags:

- ISL SSMR 2010 (ships of 1000GT and over) : **573** (dwt : 20 907 000)
- DMA 2011 (ships of GT 100 and over) : **826**



### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3980

AB: 2000

*Drewry 2008 (Includes vacation, granted overtime and bonus)*

Captain: 6500 - 11000

Average salaries ashore:

*Eurostat 2009*

Manager:

Technician:

Craft worker:

### 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | na     | 0     |
| Marine equipment     | 20459  | 25.71 |
| Shipping             | 16243  | 20.41 |
| Seaports             | na     | 0     |
| Shipbuilding         | 3595   | 4.52  |
| Recreational boating | na     | 0     |
| Offshore supply*     | 1493   | 1.88  |
| Maritime services    | 34101  | 42.86 |
| Inland navigation    | na     | 0     |
| Maritime works       | na     | 0     |
| Coastal tourism      | na     | 0     |
| Fisheries            | 3681   | 4.63  |
| Total                | 79572  | 100   |

Source: DMA 2011 – Figures 2006

\*According to DMA, approximately 10% of the direct employed in the offshore sector have a background as maritime officers, of which most of them are marine engineers. 15% of ships in the Danish International Register are engaged in the offshore sector, including wind power industry. This amount to a total of more than 100 small vessels, of which 46 are registered as supply vessels.

## ESTONIA

### 1. NUMBER OF SEAFARERS – 0, 67% of the Population (1 340 130)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 2700     | 6300    | 9000  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register: **21**  
*ISL SSMR 2010 (ships of 1000GT and over) No detailed fleet available.*

2.2 Number of controlled ships under foreign flag: **77** (dwt: 305 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 2650  
 AB: 800

Average salaries ashore:

*Eurostat 2009*

Manager: 1388  
 Technician: 913  
 Craft worker: 800

### 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 300    | 1.53  |
| Marine equipment     | 1500   | 7.65  |
| Shipping             | 4500   | 22.94 |
| Seaports             | 10300  | 52.52 |
| Shipbuilding         | 2701   | 13.77 |
| Recreational boating |        | 0     |
| Offshore supply      |        | 0     |

|                   |       |      |
|-------------------|-------|------|
| Maritime services | 312   | 1.59 |
| Inland navigation |       | 0    |
| Maritime works    |       | 0    |
| Coastal tourism   |       | 0    |
| Cruise tourism    |       | 0    |
| Fisheries         |       | 0    |
| Total             | 19613 | 100  |

Source: ECOTEC 2006.

## FINLAND

### 1. NUMBER OF SEAFARERS – 0, 78% of the Population (5 351 430)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 3000     | 1200    | 4200  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. NATIONAL MERCHANT FLEET

Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 11     | 609      |
| Bulk carriers   | 1      | 4        |
| Container ships | 3      | 37       |
| General Cargo   | 58     | 383      |
| Passenger ships | 20     | 69       |
| Total           | 93     | 1102     |

- Finnish Shipowner's Association 2010 : **114**

2.2 Number of controlled ships under foreign flags: **51** (dwt: 1 112 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENT

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3920

AB: 2600

Average salaries ashore:

*Eurostat 2009*

Manager: 5402

Technician: 2978

Craft worker: 2499

## 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 2300   | 1.91  |
| Marine equipment     | 19000  | 15.82 |
| Shipping             | 11295  | 9.4   |
| Seaports             | 3529   | 2.94  |
| Shipbuilding         | 4823   | 4.01  |
| Recreational boating | 4500   | 3.75  |
| Offshore supply      | 661    | 0.55  |
| Maritime services    | na     | 0     |
| Inland navigation    | na     | 0     |
| Maritime works       | 249    | 0.21  |
| Coastal tourism      | 73770  | 61.41 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 120127 | 100   |

Source: ECOTEC 2006

## FRANCE

### 1. NUMBER OF SEAFARERS – 0,021% of the Population (64 714 080)

| ISF/BIMCO 2010   | Officers | Ratings | Total |
|------------------|----------|---------|-------|
| <b>Nationals</b> | 4568     | 9128    | 13696 |

| Observatory 2009*       | Officers | Ratings | Total |        |
|-------------------------|----------|---------|-------|--------|
| <b>Nationals</b>        | 3642     | 6234    | 9876  | 72.00% |
| <b>Non nationals EU</b> | 665      | 1458    | 2123  | 16.00% |
| <b>Non EU</b>           | 261      | 1436    | 1697  | 12.00% |
| <b>Total</b>            | 4568     | 9128    | 13696 |        |

\*National Observatory for seafarers' employment

### 2. NATIONAL MERCHANT FLEET

Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number     | 1000 dwt    |
|-----------------|------------|-------------|
| Tankers         | 65         | 5469        |
| Bulk carriers   | 2          | 345         |
| Container ships | 24         | 1741        |
| General Cargo   | 20         | 72          |
| Passenger ships | 55         | 175         |
| <b>Total</b>    | <b>166</b> | <b>7802</b> |

- Ministry of Transport 1st Jan 2011 – *Ships of GT 100 and over, tugs, dredgers not included.*

| Type            | Number     | 1000 dwt    |
|-----------------|------------|-------------|
| Tankers         | 70         |             |
| Bulk carriers   | 3          |             |
| Container ships | 25         |             |
| General Cargo   | 49         |             |
| Passenger ships | 75         |             |
| <b>Total</b>    | <b>222</b> | <b>6369</b> |

- French Shipowner's Association Armateurs de France: 600 ships, including offshore supply vessels.

2.2 Number of controlled ships under foreign flags: **144** (dwt: 5 379 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

na

### 4. AGE STRUCTURE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 4510

AB: 2450

*French Shipowner's Association*

Captain: 5000 - 9000

Officer: 3500 - 5500

AB: 2000 - 2500

Average salaries ashore:

*Eurostat 2009*

Manager: 5323

Technician: 2705

Craft worker: 1917

### 6. MARITIME CLUSTER:

| Sectors                         | Number | %     |
|---------------------------------|--------|-------|
| Navy                            | 50000  | 16.89 |
| Marine equipment                | na     | 0     |
| Shipping                        | 19500  | 6.59  |
| Seaports                        | 40000  | 13.51 |
| Shipbuilding & Marine Equipment | 40000  | 13.51 |
| Recreational boating            | 40500  | 13.68 |
| Offshore supply                 | 29000  | 9.8   |
| Maritime services               | 20100  | 6.79  |
| Inland navigation               | na     | 0     |
| Maritime works                  | na     | 0     |
| Coastal tourism                 | na     | 0     |
| Cruise tourism                  | na     | 0     |
| Fisheries                       | 56950  | 19.24 |
| Total                           | 296050 | 100   |

Source: *The French Maritime Cluster 2010*

## GERMANY

### 1. NUMBER OF SEAFARERS – 0,008% of the Population (81 802 260)

|                              | Officers | Ratings | Total |
|------------------------------|----------|---------|-------|
| <b>Nationals</b>             |          |         |       |
| ISF/BIMCO                    | 3997     | 6356    | 10353 |
| ETF*                         | 6600     | 2800    | 9400  |
| FLOTTEN<br>KOMANDO<br>2010** | 4066     | 2701    | 6767  |
| <b>Non nationals</b>         |          |         |       |
| ETF*                         | 1900     | 3000    | 4900  |
| FLOTTEN<br>KOMANDO<br>2010** | 2152     | 5376    | 7528  |

\*Based on German Social Assurance System & BAA 2009

\*\* *Fakten und Zahlen zur maritimen Abhängigkeit der Bundesrepublik Deutschland, Jahresbericht 2010. (FK)*  
The report specifies that there are no figures available on German seafarers signed on foreign vessels.

#### 1.2 Details by department on board

|                 | Nationals   | Non nationals | Total        |
|-----------------|-------------|---------------|--------------|
| <b>Officers</b> |             |               |              |
| Deck            | 2636        | 1189          | 3825         |
| Engine          | 1430        | 963           | 2393         |
| <b>Ratings</b>  |             |               |              |
| Deck            | 965         | 2530          | 3495         |
| Engine          | 791         | 1281          | 2072         |
| Other           | 945         | 1565          | 2510         |
| <b>Total</b>    | <b>6767</b> | <b>7528</b>   | <b>14295</b> |
| <i>Trainees</i> | <i>678</i>  | <i>10</i>     | <i>688</i>   |

*FlottenKomando 2010*

These figures are confirmed in the ETF report.

The ETF report notes a shortage of officers, particularly affecting technical officers.

#### 1.3 Training

ETF report gives some indication on German training system and number in different training programs.

In 2009, 400 young people were under the Training Alternative program and 355 attended classes in Vocational school or Polytechnic. It is not clear to determine how many students are trained in deck or engine department.



## 2. NATIONAL MERCHANT FLEET

### 2.1 National flag

Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over) :

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 30     | 704      |
| Bulk carriers   | 7      | 860      |
| Container ships | 294    | 15165    |
| General Cargo   | 58     | 407      |
| Passenger ships | 30     | 86       |
| Total           | 419    | 17222    |

- ETF report 2010 : 3371 ships over 100 tons (645 First register, 474 ISR, )
- FK 2010 : 1065 (624 First register, 441 ISR)

### 2.2. Number of controlled ships under foreign flags:

- ISL SSMR 2010 (ships of 1000GT and over) : 3 271 (dwt : 109 938 000)
- ETF report 2010: **99** under foreign flag, **2599** bare boat.
- FK 2010: **103** foreign flags, 2823 bare boat.

The German shipowners' Association reports at the end of 2009 that the German merchant fleet consisted of **3 548** vessels, without details on flags. 900 ships are under command, of which 243 are container ships.

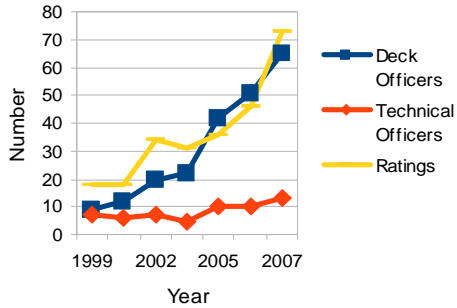
## 3. WOMEN EMPLOYMENT

|          | Nationals | Percentage of total | Non Nationals | Percentage of total |
|----------|-----------|---------------------|---------------|---------------------|
| Officers |           |                     |               |                     |
| Deck     | 82        | 3,10                | 16            | 1,34                |
| Engine   | 14        | 0,98                | 3             | 0,30                |
| Ratings  |           |                     |               |                     |
| Deck     | 24        | 2,48                | 12            | 0,47                |
| Engine   | 17        | 2,15                | 8             | 0,62                |
| Other    | 221       | 23,38               | 40            | 2,55                |
| Total    | 358       | 5,30                | 79            | 1,09                |
| Trainees | 49        | 7,23                | 0             | -                   |

Source: FlottenKomando 2010

The *ETF – Statistic on seafarer employment (Nathan Lillie 2010)* shows the following table:

## Number of Female Seafarers



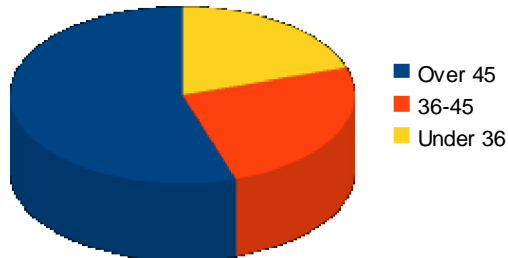
There is no information available on women's employment conditions and equality of treatment.

## 4. AGE PROFILE

No information in the FK report about age profile.

The only available information found regarding age profile of German seafarers is from *ETF – Statistic on seafarer employment (Nathan Lillie 2010)* and is given for deck officers only as follows (the scheme is adapted from Hoffman report (2004) and the figures are from 1995) :

### Age Profile for Deck Officer, 1995



## 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

### ECORYS 2009

Officer: 4960  
AB: 1900

### ETF

Average monthly wages in 2009 (no precision about gross or net earning):

Deck rating: 3372-3975  
Deck officer: 4100-4442  
Captain: 5755-6233  
Technical officer: 4100-4442 (from collective agreement)

Average salaries ashore:

### Eurostat 2009

Manager: 6434  
Technician: 3651

Craft worker: 2519

Other sources:

Mean Gross yearly earning in Euros:

Worker in the industry: 43940

*French Social Security report 2010*

Data Engineer: 48870

Mechanical Engineer: 40633

*Pay Scale 2010*

## 6. MARITIME CLUSTER:

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 24559  | 8.55  |
| Marine equipment     | 72000  | 25.06 |
| Shipping             | 11072  | 3.85  |
| Seaports             | 7500   | 2.61  |
| Shipbuilding         | 23600  | 8.22  |
| Recreational boating | 15602  | 5.43  |
| Offshore supply      | 17220  | 5.99  |
| Maritime services    | 13720  | 4.78  |
| Inland navigation    | 9075   | 3.16  |
| Maritime works       | 3150   | 1.1   |
| Coastal tourism      | 70385  | 24.5  |
| Cruise tourism       | 2963   | 1.03  |
| Fisheries            | 16409  | 5.71  |
| Total                | 287255 | 100   |

Source: *ETF – Statistic on seafarer employment (Nathan Lillie 2010)*  
*Policy Research Corporation.*

*The report notes: "The numbers issued by PRC are of dubious reliability. Some are clearly drawn from older sources such as ECOTEC (2006), which makes them at least 4 years old. They do not appear to include employment in the shipping company offices, for example (maritime services in the ECOTEC report cover the public sector, but the PRC report claims to include also private sector firms). However, the figures are sufficient to give a rough sense of the economic importance of the maritime cluster."*

## GREECE

### 1. NUMBER OF SEAFARERS – 0, 13% of the Population (11 305 120)

|                           | Officers | Ratings | Total |
|---------------------------|----------|---------|-------|
| <b>Nationals</b>          |          |         |       |
| ISF/BIMCO 2010            | 9993     | 2970    | 12963 |
| National Stat Bureau 2006 | 6821     | 8028    | 14849 |
| <b>Non nationals</b>      |          |         |       |
| National Stat Bureau 2006 | 511      | 6166    | 6677  |

|                 | Nationals | Non nationals | Total |
|-----------------|-----------|---------------|-------|
| Officers        |           |               |       |
| Deck            | 3316      | 289           | 3605  |
| Engine          | 3055      | 220           | 3275  |
| Catering        | 450       | 2             | 452   |
| Ratings         |           |               |       |
| Deck            | 3375      | 2868          | 6243  |
| Engine          | 1347      | 1999          | 3346  |
| Catering        | 3306      | 1299          | 4605  |
| Total           | 14849     | 6677          | 21526 |
| <i>Trainees</i> | 1139      | 120           | 1259  |

Source: National Statistics Bureau 2006

### Training

According to the national Greek Statistics Bureau, the number of cadets in 2006 was:

*Under Greek flag:*

Deck: 700 nationals, 56 foreigners

Engine: 439 nationals, 64 foreigners

*Under foreign flags:*

Deck: 49 nationals, 7 foreigners

Engine: 19 nationals, 7 foreigners

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type | Number | 1000 dwt |
|------|--------|----------|
|      |        |          |

|                 |     |       |
|-----------------|-----|-------|
| Tankers         | 403 | 45333 |
| Bulk carriers   | 262 | 22415 |
| Container ships | 34  | 2456  |
| General Cargo   | 67  | 275   |
| Passenger ships | 123 | 308   |
| Total           | 889 | 70787 |

- Greek National Statistics Services (ships of GT 100), May 2009 : 2106, of which:  
620 Dry cargo ships  
547 Tankers  
939 Passenger ships

2.2 Number of controlled ships under foreign flags: 2376 (dwt: 131 855 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

According to the Review of Maritime Transport (2009), Greece has the **second greatest number of controlled fleet in the world** (15, 33%) of the world total. 69% of Greek controlled ships are registered under foreign flags (mainly Liberia, Malta and Panama).

According to Greek Shipowner's Association, Greek owned tonnage held the second position internationally, amounted to 2974 vessels. 748 new ships were on order at the end of 2009.

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 6890

AB: 2650

*Greek survey*

Captain: 10073 - 11458

Officer: 5283 - 6250

AB: 3000 - 3300

Average salaries ashore:

*Eurostat 2009*

Manager: 3502

Technician: 1911

Craft worker: 1755

## 6. MARITIME CLUSTER:

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | na     | 0     |
| Marine equipment     | 3281   | 1.19  |
| Shipping             | 41961  | 15.23 |
| Seaports             | na     | 0     |
| Shipbuilding         | 3174   | 1.15  |
| Recreational boating | 4270   | 1.55  |
| Offshore supply      | na     | 0     |
| Maritime services    | 9961   | 3.62  |
| Inland navigation    | na     | 0     |
| Maritime works       | na     | 0     |
| Coastal tourism      | 212878 | 77.26 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 275525 | 100   |

Source: ECOTEC 2006

## IRELAND

### 1. NUMBER OF SEAFARERS – 0, 07% of the Population (4 467 850)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 1510     | 1602    | 3112  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register: 16

No details available

*ISL SSMR 2010 (ships of 1000GT and over)*

2.2 Number of controlled ships under foreign flags: **21** (dwt: 88 000)

*ISL SSMR 2010 (ships of 1000GT and over)*

The Irish Shipowner's Association estimates in 2010 the number of owned managed and operated ships by Irish shipping companies at **232** vessels.

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3710

AB: 1650

Average salaries ashore:

*Eurostat 2009*

Manager: 5469

Technician: 4102

Craft worker: 3430

### 6. MARITIME CLUSTER:

| Sectors          | Number | %     |
|------------------|--------|-------|
| Navy             | na     | 0     |
| Marine equipment | na     | 0     |
| Shipping         | 700    | 9.31  |
| Seaports         | 1958   | 26.05 |

|                      |      |       |
|----------------------|------|-------|
| Shipbuilding         | na   | 0     |
| Recreational boating | 800  | 10.64 |
| Offshore supply      | na   | 0     |
| Maritime services    | 210  | 2.79  |
| Inland navigation    | na   | 0     |
| Maritime works       | 12   | 0.16  |
| Coastal tourism      | 3836 | 51.04 |
| Cruise tourism       | na   | 0     |
| Fisheries            | na   | 0     |
| Total                | 7516 | 100   |

Source ECOTECH 2006



## ITALY

### 1. NUMBER OF SEAFARERS – 0,035% of the Population (60 340 330)

|                      | Officers | Ratings | Total  |
|----------------------|----------|---------|--------|
| <b>Nationals</b>     |          |         |        |
| ISF/BIMCO 2010       | 9560     | 11390   | 20950  |
| Confitarma 2010      |          |         | 21700* |
| <b>Non nationals</b> |          |         |        |
| Confitarma 2010      |          |         | 13690  |

\*Including EU seafarers other than Italian.

Shipowners' Association **Confitarma** reports for the year 2009 a total of **49500** seafarers employed under Italian flag, covering **35390** on board positions.

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 263    | 9091     |
| Bulk carriers   | 80     | 5952     |
| Container ships | 22     | 1086     |
| General Cargo   | 119    | 1607     |
| Passenger ships | 183    | 765      |
| Total           | 667    | 18501    |

- According to Confitarma report 2010 (figures 2009), the total number of ships under Italian flag was **1570**, of which 768 of a GT over 1000 and 802 under.

2.2 Number of controlled ships under foreign flags: 20 (dwt: 6 271 000)

*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

## 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 4530

AB: 2750

Average salaries ashore:

*Eurostat 2009*

Manager: 5985

Technician: 2679

Craft worker: 1856

## 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | na     | 0     |
| Marine equipment     | na     | 0     |
| Shipping             | 26300  | 21.49 |
| Seaports             | 26048  | 21.28 |
| Shipbuilding         | 12033  | 9.83  |
| Recreational boating | 11719  | 9.58  |
| Offshore supply      | na     | 0     |
| Maritime services    | na     | 0     |
| Inland navigation    | na     | 0     |
| Maritime works       | na     | 0     |
| Coastal tourism      | na     | 0     |
| Cruise tourism       | na     | 0     |
| Fisheries            | 46286  | 37.82 |
| Total                | 122386 | 100   |

*Source: Italian Maritime Cluster – Federazione del mare report 2004 (last report available on the website)*

*The report gives an additional total number of 211224 jobs linked upstream and downstream with the sectors in the table above.*

## LATVIA

### 1. NUMBER OF SEAFARERS – 0, 5% of the Population (2 348 370)

|                              | Officers | Ratings | Total |
|------------------------------|----------|---------|-------|
| <b>Nationals</b>             |          |         |       |
| ISF/BIMCO 2010               | 5509     | 2383    | 7892  |
| Latvian Seamen Registry 2010 | 5509     | 6273    | 11782 |
| <b>Non nationals</b>         |          |         |       |
|                              |          |         | na    |

Nationals:

|          |       |
|----------|-------|
| Officers | 5509  |
| Deck     | 2437  |
| Engine   | 3072  |
| Catering |       |
| Ratings  | 6273  |
| Deck     | na    |
| Engine   | na    |
| Catering | na    |
| Total    | 11782 |

Source: Latvian Seamen Registry 2010

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register: 5  
*ISL SSMR 2010 (ships of 1000GT and over)*

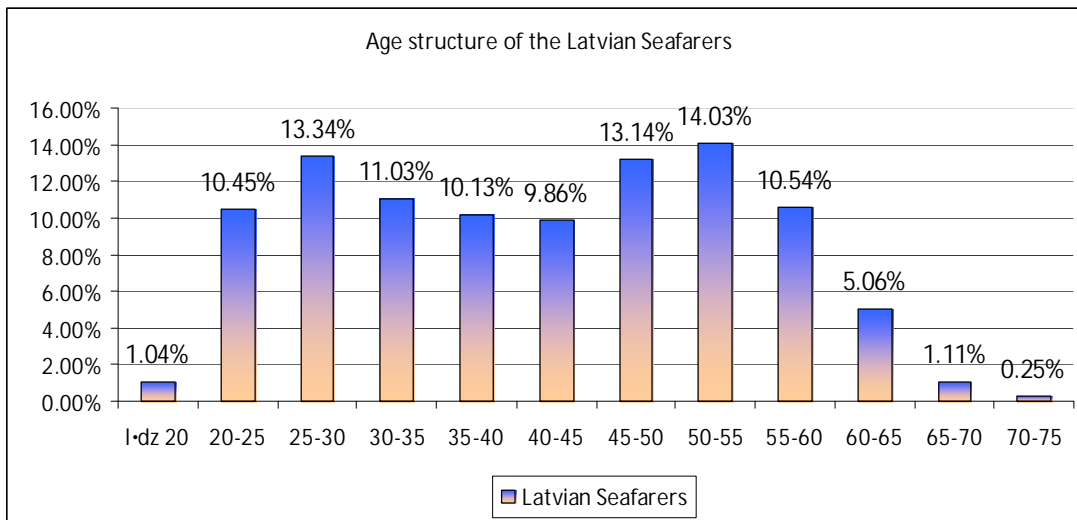
2.2 Number of controlled ships under foreign flags: 82 (dwt: 1 329 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

Table next page on the age structure of Latvian seafarers.



Source: SKEMA - 7<sup>th</sup> Frame Programme 2011

## 5. WAGES ELEMENT

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 4240  
AB: 1500

*Companies survey*

Captain: 5780 - 8000  
Officer: 2250 - 2550  
AB: 1230 - 1240

*Other elements*

|                             | Tankers     | General cargo ships | Difference in salaries on tankers/cargo ships | Average salary |
|-----------------------------|-------------|---------------------|---|----------------|
| <b>Masters</b>              | \$11,360.00 | \$8,250.00          | 38%   | \$9,805.00     |
| <b>Chief Officers</b>       | \$8,870.00  | \$5,855.00          | 51%   | \$7,362.50     |
| <b>2nd Officers</b>         | \$4,300.00  | \$4,085.00          | 5%  | \$4,192.50     |
| <b>3rd Officers</b>         | \$3,650.00  | \$3,220.00          | 13%   | \$3,435.00     |
| <b>Chief Engineers</b>      | \$10,850.00 | \$7,800.00          | 39%   | \$9,325.00     |
| <b>2nd Engineers</b>        | \$8,875.00  | \$5,810.00          | 53%   | \$7,342.50     |
| <b>3rd Engineers</b>        | \$4,300.00  | \$4,085.00          | 5%  | \$4,192.50     |
| <b>4th Engineers</b>        | \$3,650.00  | \$3,200.00          | 14%   | \$3,425.00     |
| <b>Reef. Engineers</b>      | -           | \$3,200.00          |   | \$3,200.00     |
| <b>Gas Engineers</b>        | \$6,000.00  | -                   |   | \$6,000.00     |
| <b>Electrical engineers</b> | \$5,700.00  | \$4,900.00          | 16%   | \$5,300.00     |
| <b>Ratings</b>              | \$1,762.50  | \$1,768.00          | 0%  | \$1,765.25     |

Source: SKEMA – 7<sup>th</sup> Frame Programme 2011.

Average salaries ashore:

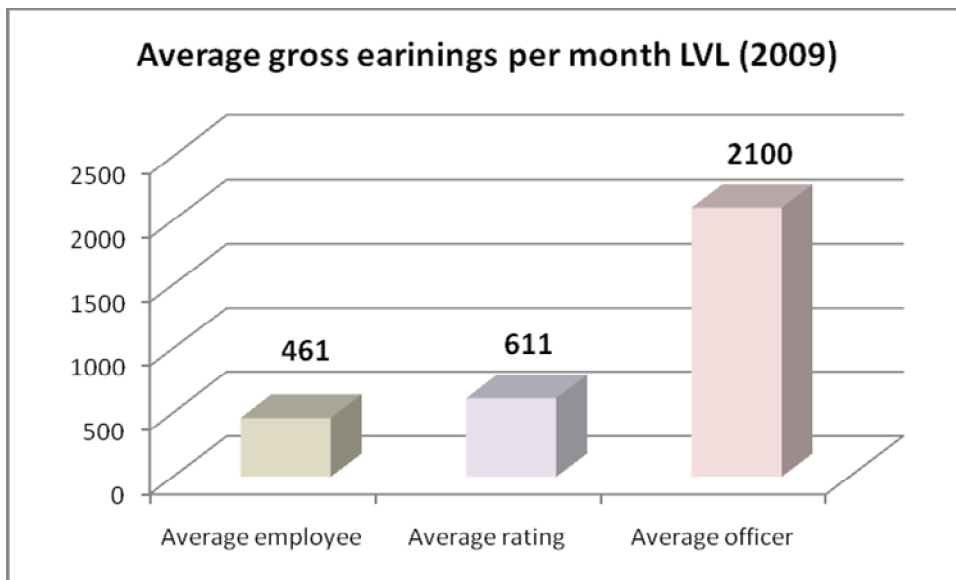
Eurostat 2009

Manager: 911

Technician: 601

Craft worker: 413

Comparison elements between shore worker salary in Latvian and seafarers:



Source: SKEMA - 7<sup>th</sup> Frame Programme 2011

## 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | na     | 0     |
| Marine equipment     | 1435   | 2.37  |
| Shipping             | 18842  | 31.07 |
| Seaports             | 11046  | 18.22 |
| Shipbuilding         | 2542   | 4.19  |
| Recreational boating | 491    | 0.81  |
| Offshore supply      | na     | 0     |
| Maritime services    | 3243   | 5.35  |
| Inland navigation    | na     | 0     |
| Maritime works       | 1700   | 2.8   |
| Coastal tourism      | 21336  | 35.19 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 60635  | 100   |

Source: ECOTEC 2006

## LITHUANIA

### 1. NUMBER OF SEAFARERS – 0, 20% of the Population (3 329 040)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 2916     | 2479    | 5395  |
| Lithuanian MSA 2011  | 3083     | 3584    | 6667  |
| <b>Non nationals</b> |          |         |       |
| Lithuanian MSA 2011  | 49       | 50      | 99    |

*Lithuanian Maritime Shipping Administration (2011):*

|          | Nationals | Non nationals | Total |
|----------|-----------|---------------|-------|
| Officers |           |               |       |
| Deck     | 1579      | 20            | 1599  |
| Engine   | 1504      | 29            | 1533  |
| Total    | 3083      | 49            | 3132  |
| Ratings  |           |               |       |
| Deck     | 2018      | 35            | 2053  |
| Engine   | 554       | 15            | 569   |
| Other    | 1012      |               | 1012  |
| Total    | 3584      | 50            | 6766  |

*Lithuanian Maritime Shipping Administration (2011)*

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register: 33  
*No details available*

2.2 Number of controlled ships under foreign flags: 27 (dwt: 108 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

### 3. WOMEN EMPLOYMENT

|              | Deck | Engine | Catering & Other | Total |
|--------------|------|--------|------------------|-------|
| Officers     | 2    |        |                  | 2     |
| Ratings      | 5    |        |                  | 5     |
| <i>Total</i> | 7    | 0      | 0                | 7     |

*Lithuanian Maritime Shipping Administration (2011)*

#### 4. AGE PROFILE

|              | < 25  | 25 - 35 | 35 - 45 | 45 - 55 | > 55  | Total |
|--------------|-------|---------|---------|---------|-------|-------|
| Officers     | 98    | 715     | 684     | 989     | 597   | 3083  |
| %            | 3.18  | 23.19   | 22.19   | 32.08   | 19.36 |       |
| Ratings      | 412   | 589     | 359     | 647     | 565   | 2572  |
| %            | 16.02 | 22.9    | 13.96   | 25.16   | 21.97 |       |
| <i>Total</i> | 510   | 1304    | 1043    | 1636    | 1162  |       |

*Lithuanian Maritime Shipping Administration (2011)*

#### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: na

AB: na

Average salaries ashore:

*Eurostat 2009*

Manager: 956

Technician: 551

Craft worker: na

#### 6. MARITIME CLUSTER:

| Sectors              | Number       | %          |
|----------------------|--------------|------------|
| Navy                 | 644          | 2.08       |
| Marine equipment     | na           |            |
| Shipping             | 11832        | 38.14      |
| Seaports             | 2730         | 8.8        |
| Shipbuilding         | 4902         | 15.8       |
| Recreational boating | 130          | 0.42       |
| Offshore supply      | 3514         | 11.33      |
| Maritime services    | 1738         | 5.6        |
| Inland navigation    | na           |            |
| Maritime works       | 1426         | 4.6        |
| Coastal tourism      | 4105         | 13.23      |
| Cruise tourism       | na           |            |
| Fisheries            | na           |            |
| <b>Total</b>         | <b>31021</b> | <b>100</b> |

*Source: ECOTEC 2006*

## LUXEMBOURG

### 1. NUMBER OF SEAFARERS – 0, 88% of the Population (502 500)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 2272     | 2164    | 4436  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 20     | 261      |
| Bulk carriers   | 4      | 192      |
| Container ships | 10     | 237      |
| General Cargo   | 13     | 125      |
| Passenger ships | 3      | 2        |
| Total           | 50     | 817      |

- According to Maritime Cluster Website, **210** ships were registered under Luxembourg flag as at 1st January 2010.

2.2 Number of controlled ships under foreign flags: 16 (dwt: 1 098 000)  
ISL SSMR 2010 (ships of 1000GT and over)

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3980

AB: 2000

Average salaries ashore:

*Eurostat 2009*

Manager: 7688

Technician: 4304

Craft worker: 2499



## **6. MARITIME CLUSTER**

*Information about maritime cluster in Luxembourg are from year 2000 in the ECOTEC report and gives only 130 jobs in maritime services and 1700 for shipping. The Luxembourg Maritime Cluster has no employment figures available.*

**MALTA**

**1. NUMBER OF SEAFARERS – 0, 58% of the Population (412 970)**

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 274      | 2162    | 2436  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

**2. National Merchant Fleet**

2.1 Number of ships registered in the country including second register:

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 447    | 22263    |
| Bulk carriers   | 521    | 29596    |
| Container ships | 91     | 3343     |
| General Cargo   | 440    | 3675     |
| Passenger ships | 66     | 235      |
| Total           | 1565   | 59112    |

*ISL SSMR 2010 (ships of 1000GT and over)*

2.2 Number of controlled ships under foreign flags: na

**3. WOMEN EMPLOYMENT**

na

**4. AGE PROFILE**

na

**5. WAGES ELEMENT**

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 1300

AB: 330

Average salaries ashore:

*Eurostat 2009*

Manager: 2278

Technician: 1456

Craft worker: na

**6. MARITIME CLUSTER**

na

## NETHERLANDS

### 1. NUMBER OF SEAFARERS – 0,013% of the Population (16 574 990)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 3014     | 560     | 3574  |
| NMC*                 | 1700     | 530     | 2230  |
| <b>Non nationals</b> |          |         |       |
| EU*                  | 980      | 340     | 1320  |
| Non EU*              | 1750     | 7850    | 9600  |

\*Nederlandse Maritime Cluster 2009 – In addition, the NMC takes into account a total of 8610 “non maritime personnel” on board Dutch ships.

#### 1.2 Training

According to the NMC, 540 Dutch, 20 EU and 180 non EU cadets were on board Dutch ships in 2009.

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register: 830

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 94     | 1008     |
| Bulk carriers   | 3      | 195      |
| Container ships | 73     | 1632     |
| General Cargo   | 627    | 4969     |
| Passenger ships | 33     | 201      |
| Total           | 830    | 8005     |

ISL SSMR 2010 (ships of 1000GT and over)

2.2 Number of controlled ships under foreign flag: 190 (dwt: 2 757 000)

ISL SSMR 2010 (ships of 1000GT and over)

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

## 5. WAGES ELEMENT

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3980

AB: 2000

Average salaries ashore:

*Eurostat 2009*

Manager: 4365

Technician: 3253

Craft worker: 2499

## 6. MARITIME CLUSTER:

Most recent figures in ECOTEC 2006 study are from 2002.

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 16110  | 7.41  |
| Marine equipment     | 13500  | 6.21  |
| Shipping             | 19850  | 9.13  |
| Seaports             | 26750  | 12.3  |
| Shipbuilding         | 10270  | 4.72  |
| Recreational boating | 15130  | 6.96  |
| Offshore supply      | 19080  | 8.78  |
| Maritime services    | 9560   | 4.4   |
| Inland navigation    | na     | 0     |
| Maritime works       | 5170   | 2.38  |
| Coastal tourism      | 81990  | 37.71 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 217410 | 100   |

Source: ECOTEC 2006 – Figures from 2002 except for Marine equipment and Coastal tourism 2005.

## NORWAY

### 1.1 NUMBER OF SEAFARERS – 0, 48% of the Population (4 858 200)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 16082    | 7300    | 23382 |
| NIA*                 | 6922     | 10694   | 17616 |
| <b>Non nationals</b> |          |         |       |
| NIA*                 | 2109     | 2277    | 4386  |

\*National Insurance Administration

*Note from the Norwegian administration (Seafarers working and living conditions Unit): Figures for non nationals are given only for foreign seafarers domiciled in the EEA. Therefore, seafarers employed under NIS registry living outside this area is not included (mostly from Asia, South America and East Europe).*

### 1.2 Details by department on board

|              | Nationals | Non nationals | Total |
|--------------|-----------|---------------|-------|
| Officers     |           |               |       |
| Deck         | 4588      | 1122          | 5710  |
| Engine       | 2334      | 987           | 3321  |
| Total        | 6922      | 2109          | 9031  |
| Ratings      |           |               |       |
| Deck         | 4588      | 676           | 2564  |
| Engine       | 1167      | 546           | 1713  |
| Dual purpose | 210       | 28            | 238   |
| Catering     | 4710      | 1027          | 5737  |
| Total        | 10694     | 2277          | 12971 |

Source: National Insurance Administration

## 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 255    | 11707    |
| Bulk carriers   | 56     | 4124     |
| Container ships | 1      | 7        |
| General Cargo   | 226    | 3367     |
| Passenger ships | 119    | 116      |
| Total           | 657    | 19321    |

- According to the Norwegian Shipowners' Association, as at 1st January 2010, 844 ships were registered under Norwegian first register, 584 under NIS and 408 under a foreign flag.

2.2 Number of controlled ships under foreign flags: 926 (dwt: 26 612 000)  
 ISL SSMR 2010 (ships of 1000GT and over)

### 3. WOMEN EMPLOYMENT

In percentage

|          | Deck  | Engine | Dual purpose | Catering & Other |
|----------|-------|--------|--------------|------------------|
| Officers | 1,53% | 0,69   |              |                  |
| Ratings  | 4,34  | 1,29   | 3,37         | 42,1             |

Source: National Insurance Administration

### 4. AGE PROFILE

|          | < 25 | 25 - 39 | 40 - 49 | 50 - 59 | > 60  | Total |
|----------|------|---------|---------|---------|-------|-------|
| Officers | 207  | 2211    | 1634    | 1793    | 1085  | 6930  |
| %        | 2,99 | 31,9    | 23,58   | 25,87   | 15,66 |       |
| Ratings  | 2231 | 3211    | 2296    | 2283    | 665   | 10686 |
| %        | 2,99 | 31,9    | 23,58   | 25,87   | 15,66 |       |
| Total    | 2438 | 5422    | 3930    | 4076    | 1750  |       |
| %        | 2,99 | 31,9    | 23,58   | 25,87   | 15,66 |       |

Source: National Insurance Administration

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

ECORYS 2009

Officer: 4190

AB: 2100

Average salaries ashore:

Eurostat 2009

Manager: 6385

Technician: 4742

Craft worker: 3644

### 6. MARITIME CLUSTER

| Sectors          | Number | %  |
|------------------|--------|----|
| Navy             | na     | 0  |
| Marine equipment | 25220  | 26 |
| Shipping         | 28130  | 29 |
| Seaports         | na     | 0  |
| Shipbuilding     | 20370  | 21 |

|                      |       |     |
|----------------------|-------|-----|
| Recreational boating | na    | 0   |
| Offshore supply      | na    | 0   |
| Maritime services    | 23280 | 24  |
| Inland navigation    | na    | 0   |
| Maritime works       | na    | 0   |
| Coastal tourism      | na    | 0   |
| Cruise tourism       | na    | 0   |
| Fisheries            | na    | 0   |
| Total                | 97000 | 100 |

*SOURCE: Maritime Forum (The Norwegian Maritime Cluster) 2007*

## POLAND

### 1. NUMBER OF SEAFARERS – 0, 10% of the Population (38 167 330)

|                         | Officers | Ratings | Total |
|-------------------------|----------|---------|-------|
| <b>Nationals</b>        |          |         |       |
| ISF/BIMCO 2010          | 17923    | 4746    | 22669 |
| Ministry of Transports* |          |         | 40000 |
| DREWRY PAL 2009         | 20000    | 10000   | 30000 |
| <b>Non nationals</b>    |          |         |       |
|                         |          |         | na    |

\*The Polish Ministry of Transports estimates that 40000 Polish seafarers are employed around the world (information from Polish crewing agencies). Only 31 (Thirty one) Polish seafarers are employed under Polish flag in April 2011. Polish Shipowners' Association gives a number of approximately 4900 seafarers employed by Polish ship-owners.

#### 1.2 Training

According to the report for Poland of ETF project "Seafarer recruitment and training in Europe" (Nathan Lillie 2010), 2115 students in navigation were in the Polish maritime academies (Gdynia and Szczecin) in 2008. The total number of graduates for the same year is of 338.

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register: 9  
*ISL SSMR 2010 (ships of 1000GT and over)*  
 No details available

2.2 Number of controlled ships under foreign flag: 103 (dwt: 2 681 000)  
*ISL SSMR 2010 (ships of 1000GT and over)*

According to Polish Shipowners' Association, **146** ships were controlled by Polish companies as of 1<sup>st</sup> January 2010, of which 18 were under Polish flag.

### 3. WOMEN EMPLOYMENT

The report for Poland of ETF project "Seafarer recruitment and training in Europe" (Nathan Lillie 2010) quotes a study (Belcher) dating 2003 finding that of the 12165 Polish seafaring union members, 96 were women (less than 0, 8%).

### 4. AGE PROFILE

na



## 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*Dreary 2010 (Includes vacation, granted overtime and bonus)*

Captain: 4900 - 14000  
Officer: 1960 - 5250  
AB: 1260 - 1400

Average salaries ashore:

*Eurostat 2009*

Manager: 1743  
Technician: 818  
Craft worker: 607

## 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 16000  | 8     |
| Marine equipment     | 80000  | 40.02 |
| Shipping             | 35000  | 17.51 |
| Seaports             | 9727   | 4.87  |
| Shipbuilding         | 18700  | 9.36  |
| Recreational boating | 3000   | 1.5   |
| Offshore supply      | 475    | 0.24  |
| Maritime services    | 3185   | 1.59  |
| Inland navigation    | na     | 0     |
| Maritime works       | 303    | 0.15  |
| Coastal tourism      | 33500  | 16.76 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 199890 | 100   |

*Source: ECOTEC 2006 – Some figures from 2003*

Policy Research Corporation estimates that Polish maritime cluster employed **147 000** persons in 2008.

## PORTUGAL

### 1. NUMBER OF SEAFARERS - 0, 02% of the Population (10 737 710)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 419      | 1802    | 2221  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register:

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 33     | 682      |
| Bulk carriers   | 8      | 120      |
| Container ships | 8      | 81       |
| General Cargo   | 48     | 258      |
| Passenger ships | 18     | 45       |
| Total           | 115    | 1186     |

*ISL SSMR 2010 (ships of 1000GT and over)*

2.2 Number of controlled ships under foreign flag: 14 (dwt: 779 000)

*ISL SSMR 2010 (ships of 1000GT and over)*

According to the Portuguese Shipowners' Association, **36** ships were flying the Portuguese flag at the beginning of 2010 (13 under first register, 23 under second register, Madeira International Register) and **16** ships were controlled under third flag.

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENT

Monthly gross wages (in Euros)

No information available on seafarers' wages

Average salaries ashore:

*Eurostat 2009*

Manager: 3471

Technician: 1712

Craft worker: 803

## 6. MARITIME CLUSTER

There is no identified maritime cluster in Portugal.

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 14745  | 22.28 |
| Marine equipment     | na     | 0     |
| Shipping             | 3206   | 4.84  |
| Seaports             | na     | 0     |
| Shipbuilding         | 4336   | 6.55  |
| Recreational boating | 2480   | 3.75  |
| Offshore supply      | na     | 0     |
| Maritime services    | 2002   | 3.03  |
| Inland navigation    | na     | 0     |
| Maritime works       | 509    | 0.77  |
| Coastal tourism      | 38894  | 58.78 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 66172  | 100   |

Source: ECOTECH 2006 – Most of figures from 2003

**ROMANIA**

**1. NUMBER OF SEAFARERS – 0, 14% of the Population (21 462 200)**

|                       | Officers | Ratings | Total |
|-----------------------|----------|---------|-------|
| <b>Nationals</b>      |          |         |       |
| ISF/BIMCO 2010        | 18575    | 5768    | 24343 |
| Ministry of Transport | 21391    | 9291    | 30682 |
| <b>Non nationals</b>  |          |         |       |
|                       |          |         | na    |

Romanian Ministry of Transport and Infrastructure (04/2011):

|                                  |       |       |      |
|----------------------------------|-------|-------|------|
| TOTAL Seaman's books             | 27415 | 19859 | 7556 |
| MASTER                           | 1643  | 1512  | 131  |
| CHIEF MATE                       | 2082  | 1545  | 537  |
| CHIEF ENGINEER                   | 1619  | 1480  | 139  |
| SECOND MARITIME ENGINEER OFFICER | 1826  | 1273  | 553  |
| CHIEF ELECTRICIAN                | 289   | 225   | 64   |
| MANAGERIAL                       | 7459  | 6035  | 1424 |
| DECK OFFICER                     | 3981  | 2196  | 1785 |
| ENGINEER OFFICER                 | 9003  | 5200  | 3803 |
| ELECTRICIAN OFFICER              | 948   | 774   | 174  |
| OPERATIONAL                      | 13932 | 8170  | 5762 |
| DECK CADET OFFICER               | 3427  | 2461  | 966  |
| ENGINEER CADET OFFICER           | 1447  | 936   | 511  |
| ELECTRICIAN CADET OFFICER        | 411   | 293   | 118  |
| CADETS                           | 5285  | 3690  | 1595 |
| OFFICERS                         | 26676 | 17895 | 8781 |
| RATINGS+MARITIME PORTS OFF.      | 9291  | 7090  | 2201 |

|                       |       |       |       |
|-----------------------|-------|-------|-------|
| TOTAL<br>CERTIFICATES | 35967 | 24985 | 10982 |
| AUXILIARYS            | 5027  | 2435  | 2592  |

## 2. National Merchant Fleet

2.1 Number of ships registered in the country including second register: 9  
ISL SSMR 2010 (ships of 1000GT and over)

*No details available*

2.2 Number of controlled ships under foreign flag: 34 (dwt: 640 000)  
ISL SSMR 2010 (ships of 1000GT and over)

## 3. WOMEN EMPLOYMENT

na

## 4. AGE PROFILE

na

## 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*Drewry 2010 (Includes vacation, granted overtime and bonus)*

Captain: 4200 - 12250

Officer: 2100 - 4200

AB: 700 - 1400

Average salaries ashore:

*Eurostat 2009*

Manager: 926

Technician: 388

Craft worker: 299

## 6. MARITIME CLUSTER:

No identified maritime cluster.

Romania was no covered by ECOTEC 2006

## SPAIN

### 1. NUMBER OF SEAFARERS – 0,015% of the Population (45 989 020)

|                      | Officers | Ratings | Total |
|----------------------|----------|---------|-------|
| <b>Nationals</b>     |          |         |       |
| ISF/BIMCO 2010       | 3181     | 3862    | 7043  |
| <b>Non nationals</b> |          |         |       |
|                      |          |         | na    |

### 2. NATIONAL MERCHANT FLEET

2.1 Number of ships registered in the country including second register:

- ISL SSMR 2010 (ships of 1000GT and over)

| Type               | Number     | 1000 dwt    |
|--------------------|------------|-------------|
| Tankers            | 42         | 1856        |
| Bulk carriers      | 7          | 35          |
| Container ships    | 9          | 85          |
| General Cargo      | 40         | 202         |
| Passenger ships    | 42         | 107         |
| Harbour & Offshore |            |             |
| Others             |            |             |
| <b>Total</b>       | <b>140</b> | <b>2285</b> |

- Spanish shipowners' Association ANAVE 2010: 149 (GT 23 09 000).

2.2 Number of controlled ships under foreign flag:

- ISL SSMR 2010 (ships of 1000GT and over) : 138 (dwt : 3 344 000)
- ANAVE : **247**

| Type            | Number     |
|-----------------|------------|
| Tankers         | 39         |
| Bulk carriers   | 10         |
| Container ships | 13         |
| General Cargo   | 70         |
| Passenger ships | 69         |
| <b>Total</b>    | <b>247</b> |

### 3. WOMEN EMPLOYMENT

na

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 2650

AB: 1500

*Drewry 2008 (Includes vacation, granted overtime and bonus)*

Captain: 5400 - 11000

Average salaries ashore:

*Eurostat 2009*

Manager: 4315

Technician: 2271

Craft worker: 1569

### 6. MARITIME CLUSTER

| Sectors              | Number  | %     |
|----------------------|---------|-------|
| Navy                 | na      | 0     |
| Marine equipment     | 14523   | 0.83  |
| Shipping             | 8000    | 0.46  |
| Seaports             | 35000   | 1.99  |
| Shipbuilding         | 5419    | 0.31  |
| Recreational boating | 25240   | 1.44  |
| Offshore supply      | na      | 0     |
| Maritime services    | 1562    | 0.09  |
| Inland navigation    | na      | 0     |
| Maritime works       | 742     | 0.04  |
| Coastal tourism      | 1665234 | 94.85 |
| Cruise tourism       | na      | 0     |
| Fisheries            | na      | 0     |
| Total                | 1755720 | 100   |

Source: ECOTEC 2006.

Some figures older than 2006. Number of employment in the coastal tourism sector is a broad estimation as no studies have been carried out regarding this sector.

## SWEDEN

### 1. NUMBER OF SEAFARERS – 0, 08% of the Population (9 340 680)

|                                    | Officers | Ratings | Total |
|------------------------------------|----------|---------|-------|
| <b>Nationals</b>                   |          |         |       |
| ISF/BIMCO 2010                     | 5958     | 4965    | 10923 |
| Swedish official statistics Bureau | 3324     | 4340    | 7664  |
| <b>Non nationals</b>               |          |         |       |
| Swedish official statistics Bureau | 638      | 1817    | 2455  |

#### *Swedish Official Statistics Bureau:*

|                 | Nationals | Non nationals | Total |
|-----------------|-----------|---------------|-------|
| <b>Officers</b> |           |               |       |
| Deck            | 1818      | 240           | 2058  |
| Engine          | 1176      | 255           | 1431  |
| Hotel           | 330       | 143           | 473   |
| Total           | 3324      | 638           | 3962  |
| <b>Ratings</b>  |           |               |       |
| Deck            | 1724      | 585           | 2309  |
| Engine          | 714       | 227           | 941   |
| Hotel           | 1902      | 1005          | 2907  |
| Total           | 4340      | 1817          | 6157  |

### 2. National Merchant Fleet

#### 2.1 Number of ships registered in the country including second register:

| Type            | Number     | 1000 dwt    |
|-----------------|------------|-------------|
| Tankers         | 43         | 590         |
| Bulk carriers   | 4          | 19          |
| Container ships |            |             |
| General Cargo   | 74         | 1218        |
| Passenger ships | 42         | 199         |
| <b>Total</b>    | <b>163</b> | <b>2026</b> |

*ISL SSMR 2010 (ships of 1000GT and over)*

#### 2.2 Number of controlled ships under foreign flags: 376 *Swedish Transports Agency*



The Swedish Transport Agency indicates on January 1<sup>st</sup> 2010 a number of **242** ships over GT 300 under Swedish flag, and **376** controlled ships flying foreign flags (in decreasing order: Bermuda, NIS, UK and Denmark)

### 3. WOMEN EMPLOYMENT

|               | Number | % of total seafarers |
|---------------|--------|----------------------|
| Nationals     | 1438   | 18,80                |
| Non nationals | 583    | 23,75                |

*Swedish Official Statistics Bureau – Nationals and non nationals.*

|        | Officers | % of total seafarers* | Ratings | % of total seafarers* |
|--------|----------|-----------------------|---------|-----------------------|
| Deck   | 58       | 2,80                  | 161     | 7,00                  |
| Engine | 18       | 1,25                  | 14      | 1,50                  |
| Hotel  | 197      | 41,65                 | 1573    | 54,10                 |
| Total  | 273      | 6,90                  | 1748    | 28,40                 |

*Swedish Official Statistics Bureau – Nationals and non nationals.*

*\*Nationals and non nationals*

### 4. AGE PROFILE

na

### 5. WAGES ELEMENTS

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3800

AB: 2320

Average salaries ashore:

*Eurostat 2009*

Manager: 5054

Technician: 3351

Craft worker: 2595

### 6. MARITIME CLUSTER

| Sectors              | Number | %    |
|----------------------|--------|------|
| Navy                 | 5670   | 5.22 |
| Marine equipment     | na     | 0    |
| Shipping             | 14000  | 12.9 |
| Seaports             | 6500   | 5.99 |
| Shipbuilding         | 2635   | 2.43 |
| Recreational boating | 5000   | 4.61 |
| Offshore supply      | 1300   | 1.2  |
| Maritime services    | 2401   | 2.21 |
| Inland navigation    | na     | 0    |

|                 |        |       |
|-----------------|--------|-------|
| Maritime works  | 35     | 0.03  |
| Coastal tourism | 71023  | 65.42 |
| Cruise tourism  | na     | 0     |
| Fisheries       | na     | 0     |
| Total           | 108564 | 100   |

Source: ECOTECH 2006 – Figures from 2002 to 2005

UK

**1. NUMBER OF SEAFARERS – 0, 04% of the Population (62 008 050)**

|                      | Officers | Ratings | Total  |
|----------------------|----------|---------|--------|
| <i>Nationals</i>     |          |         |        |
| ISF/BIMCO            | 14657    | 8536    | 23193  |
| UK Statistics*       | 14620    | 11340   | 25960  |
| <i>Non Nationals</i> |          |         |        |
| EU*                  |          |         | 5265** |
| Non EU*              |          |         | 7298** |

\*UK Statistics Department 2010

\*\*Number of seafarers holding a British Certificate equivalent of competency. Therefore, these figures doesn't reflect necessary the number of active non nationals seafarers on UK ships.

*UK Statistics Department 2010:*

|                 |       |
|-----------------|-------|
| Officers        |       |
| Deck            | 6020  |
| Engine          | 5250  |
| Technical       | 1460  |
| Hotel           | 1890  |
| Total           | 14620 |
| Ratings         |       |
| Deck            | 3220  |
| Engine          | 1000  |
| Other           | 7110  |
| Total           | 11340 |
| <i>Trainees</i> | 1830  |

**1.2 Training**

During the year 2010, 1830 cadets were embarked on UK ships; the number of new entrants in Maritime Academies was 754

**2. National Merchant Fleet**

2.1 Number of ships registered in the country including second register:

| Type            | Number | 1000 dwt |
|-----------------|--------|----------|
| Tankers         | 278    | 14665    |
| Bulk carriers   | 72     | 7559     |
| Container ships | 198    | 9476     |
| General Cargo   | 192    | 1784     |
| Passenger ships | 79     | 335      |
| Total           | 819    | 33819    |

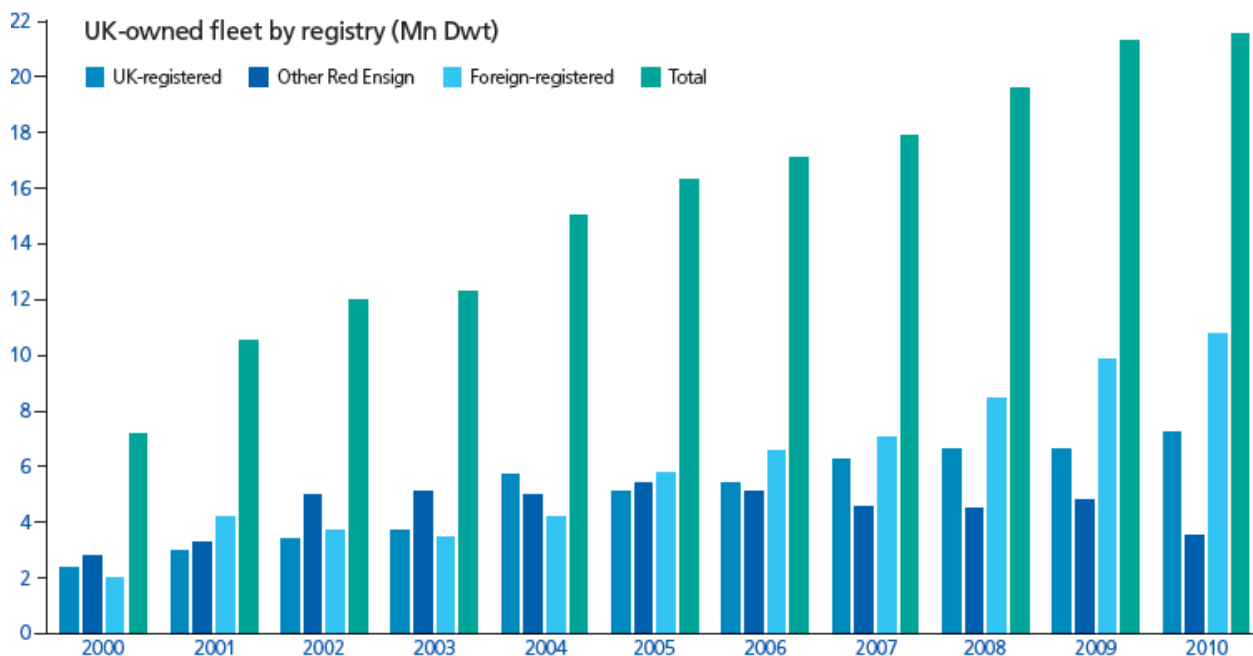
Source: ISL 2010

## 2.2 Number of controlled ships under foreign flags: 374 (dwt: 22 452 000)

Source: ISL 2010

- According to the UK Chamber of Shipping report 2010, 912 ships were registered under UK flag in 2010. This figure probably includes ships under all Red Ensign registries.

The table below is extracted from the UK CoS report 2010.



Source: UK CoS report 2010

### 3. WOMEN EMPLOYMENT

In percentage of total national seafarers: 31, 5%

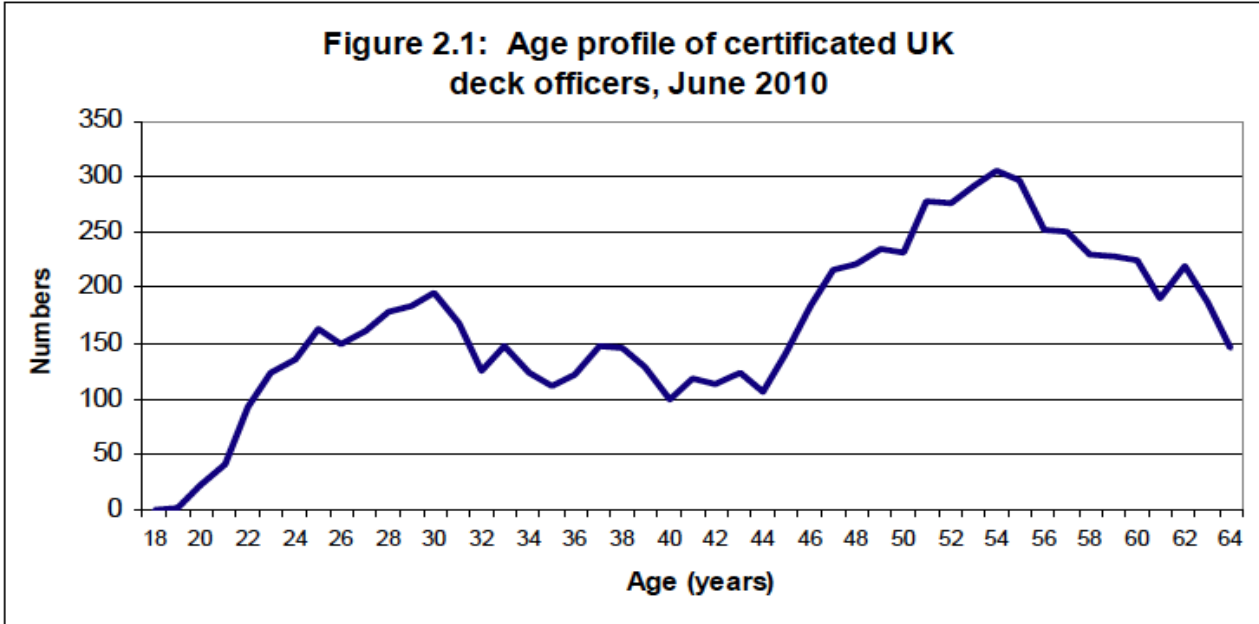
|          | Deck | Engine | Hotel |
|----------|------|--------|-------|
| Officers | 2,2  | 0,6    | 36,6  |
| Ratings  | 1,1  | 0      | 41,1  |

UK Statistics Department 2010

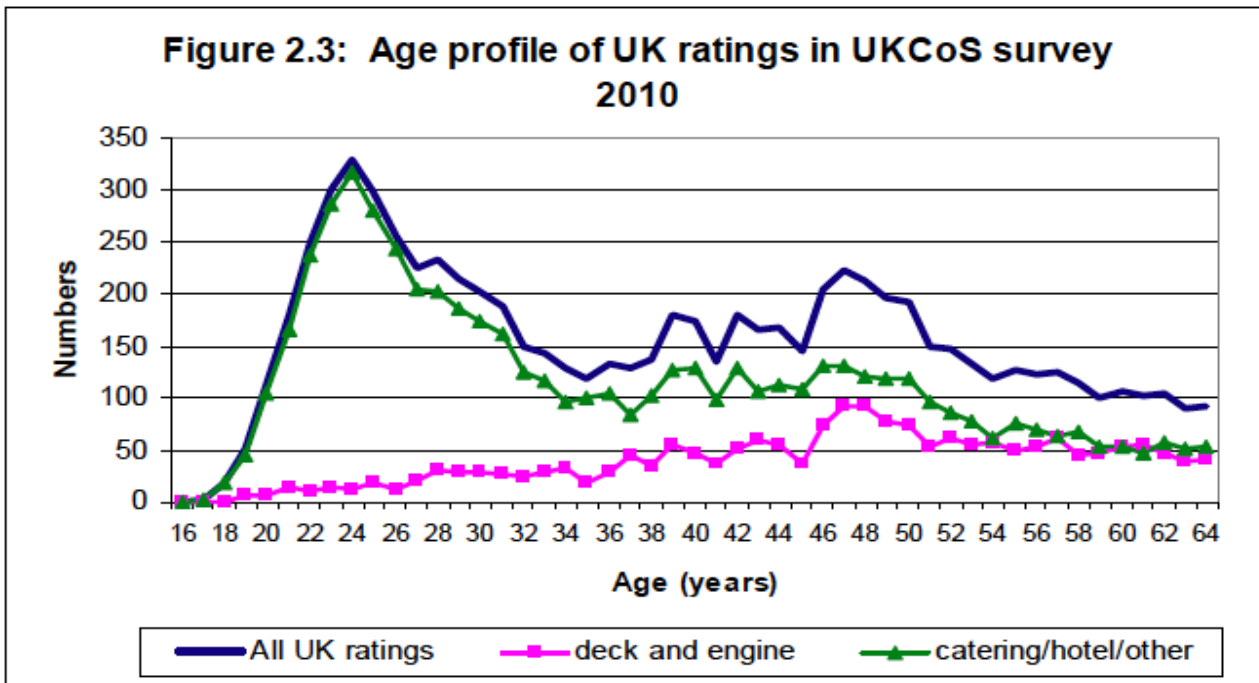
### 4. AGE PROFILE

| Officers   | <25  | 25-35 | 35-45 | 45-55 | >55   |
|------------|------|-------|-------|-------|-------|
| Deck       | 219  | 849   | 517   | 816   | 642   |
| Engine     | 184  | 638   | 390   | 793   | 686   |
| Hotel      | 80   | 459   | 370   | 299   | 137   |
| Technical  | 20   | 240   | 354   | 448   | 270   |
| Total      | 503  | 2186  | 1631  | 2356  | 1735  |
| % of Total | 6,00 | 26,00 | 19,40 | 28,00 | 20,60 |

| Ratings    | <25   | 25-35 | 35-45 | 45-55 | >55   |
|------------|-------|-------|-------|-------|-------|
| Deck       | 54    | 207   | 348   | 543   | 296   |
| Engine     | 13    | 35    | 68    | 102   | 57    |
| Hotel      | 1173  | 1708  | 970   | 894   | 374   |
| Other      | 7     | 93    | 136   | 185   | 71    |
| Total      | 1247  | 2043  | 1522  | 1724  | 798   |
| % of total | 17,00 | 27,85 | 20,75 | 23,50 | 10,90 |



Source: UK seafarers statistics 2010



## 5. WAGES ELEMENT

Monthly gross wages (in Euros)

*ECORYS 2009*

Officer: 3710

AB: 1650

*Drewry 2010 (Includes vacation, granted overtime and bonus)*

Captain: 10000 - 14000

Officer: 3700 - 6300

AB: 3700 - 4450

Average salaries ashore:

*Eurostat 2009*

Manager: 6013

Technician: 3887

Craft worker: 3187

## 6. MARITIME CLUSTER

| Sectors              | Number | %     |
|----------------------|--------|-------|
| Navy                 | 61500  | 10.99 |
| Marine equipment     | na     | 0     |
| Shipping             | 26250  | 4.69  |
| Seaports             | 42150  | 7.53  |
| Shipbuilding         | 24000  | 4.29  |
| Recreational boating | 28605  | 5.11  |
| Offshore supply      | 30000  | 5.36  |
| Maritime services    | 27402  | 4.9   |
| Inland navigation    | na     | 0     |
| Maritime works       | na     | 0     |
| Coastal tourism      | 319859 | 57.14 |
| Cruise tourism       | na     | 0     |
| Fisheries            | na     | 0     |
| Total                | 559766 | 100   |

Source: ECOTECH 2006

The English Maritime Cluster “**Maritime UK**” gives a number of around **500 000** jobs in the maritime sectors.

A study carried out in 2009 by **Oxford Economics** “*Economic contribution of the UK shipping industry*” estimated the number of jobs related to shipping industry at **212 000**.

**7. ANNEXES**

## ANNEX A

### EUROPEAN FLEETS (plus Norway)

| <b>EUROPEAN FLEETS (Total number of ships by flag)</b> |              |                  |                    |             |              |
|--|--------------|------------------|--------------------|-------------|--------------|
| Number of ships at 1 <sup>st</sup> January 2010        |              |                  |                    |             |              |
| National flags including second registers              |              |                  |                    |             |              |
|  | ISF/BIMCO*   | ECSA**<br>GT>100 | ISL ***<br>GT>1000 | UNCTAD****  |              |
|  |              |                  |                    | GT>1000     | GT>100       |
| BELGIUM  | 99           | 182              | 79                 | 85          | 246          |
| BULGARIA   | 67           | 116              | 39                 | na          | na           |
| CYPRUS   | 855          | 1058             | 828                | 129         | 1026         |
| DENMARK  | 409          | 639              | 376                | 360         | 490          |
| ESTONIA  | 35           | 89               | na                 | na          | na           |
| FINLAND  | 176          | 270              | 93                 | na          | na           |
| FRANCE   | 299          | 591              | 166                | 180         | 165          |
| GERMANY  | 663          | 854              | 419                | 458         | 948          |
| GREECE   | 1305         | 1552             | 889                | 741         | 1517         |
| IRISH REPUBLIC   | 49           | 86               | na                 | na          | na           |
| ITALY  | 990          | 1522             | 667                | 608         | 1635         |
| LATVIA   | 33           | 67               | na                 | na          | na           |
| LITHUANIA  | 58           | 78               | na                 | na          | na           |
| LUXEMBOURG   | 106          | 125              | 50                 | na          | na           |
| MALTA  | 1552         | 1674             | 1565               | na          | 1613         |
| NETHERLANDS  | 827          | 1192             | 830                | na          | 1332         |
| NORWAY   | 1181         | 1656             | 657                | 820         | 560          |
| POLAND   | 72           | 173              | na                 | na          | na           |
| PORTUGAL   | 64           | 244              | 115                | na          | na           |
| ROMANIA  | 34           | 138              | na                 | na          | na           |
| SLOVANIA   | na           |                  | na                 | na          | na           |
| SLOVAKIA   | na           | 37               | na                 | na          | na           |
| SPAIN  | 229          | 552              | 140                | 173         |              |
| SWEDEN   | 356          | 463              | 163                | 136         |              |
| UK   | 944          | 1409             | 819                | 357         | 1697         |
| <b>TOTAL</b>   | <b>10403</b> | <b>14767</b>     | <b>7895</b>        | <b>4047</b> | <b>11229</b> |

*Sources*

\*ISF/BIMCO 2010 : based on IHS-Fairplay

\*\*ECSA : Clarkson

\*\*\*ISL 2010 : based on IHS-Fairplay

\*\*\*\*UNCTAD report 2010 : based on IHS-Fairplay for the 35 first flags of registration with the largest dwt



## ANNEX B

### CONTROLLED FLEET

*(Attributable to parent companies indicating country of controlling interest)*

*Ships of 1000gt and over*

| COUNTRY        | TANKERS     | BULK        | CONTAINER   | GENERAL     | PASSENGER | TOTAL       |
|----------------|-------------|-------------|-------------|-------------|-----------|-------------|
| BELGIUM        | 26          | 8           | 10          | 42          |           | 103         |
| BULGARIA       |             |             |             |             |           | na          |
| CYPRUS         |             |             |             |             |           | 134         |
| DENMARK        | 189         | 76          | 135         | 106         |           | 573         |
| ESTONIA        |             |             |             |             |           | 77          |
| FINLAND        | 8           |             |             | 19          |           | 51          |
| FRANCE         |             | 22          | 72          | 16          |           | 144         |
| GERMANY        | 412         | 294         | 1476        | 1040        | 31        | 3271        |
| GREECE         | 749         | 1056        | 160         | 252         | 6         | 2376        |
| IRISH REPUBLIC |             |             |             |             |           | na          |
| ITALY          | 71          | 8           |             | 49          |           | 209         |
| LATVIA         |             |             |             |             |           | 82          |
| LITHUANIA      |             |             |             |             |           | 27          |
| LUXEMBOURG     |             |             |             |             |           | 16          |
| MALTA          |             |             |             |             |           | na          |
| NETHERLANDS    |             | 8           |             |             |           | 190         |
| NORWAY         | 220         | 103         | 23          | 434         |           | 926         |
| POLAND         |             |             |             |             |           | 103         |
| PORTUGAL       |             | 3           |             |             |           | 14          |
| ROMANIA        |             |             |             |             |           | 34          |
| SLOVANIA       |             |             |             |             |           | 25          |
| SLOVAKIA       |             |             |             |             |           | na          |
| SPAIN          | 37          | 12          | 7           | 35          | 13        | 138         |
| SWEDEN         | 76          |             |             | 57          | 3         | 191         |
| UK             |             | 28          |             |             |           | 374         |
| <b>TOTAL</b>   | <b>1788</b> | <b>1618</b> | <b>1883</b> | <b>2050</b> | <b>53</b> | <b>7392</b> |

Source: ISL 2010

## ANNEX C

### NEWBUILDINGS ON ORDER

| NEWBUILDINGS ON ORDER AS AT MAY 2010 – ECSA |            |            |            |            |            |           |             |
|---|------------|------------|------------|------------|------------|-----------|-------------|
|   | DRY CARGO  | CONTAINER  | TANKER     | BULK       | RO-RO      | PASSENGER | TOTAL       |
| BELGIUM                                     | 4          |            | 15         | 33         | 3          |           | 55          |
| BULGARIA                                    |            |            |            | 7          |            |           | 7           |
| CYPRUS                                      | 34         | 25         | 18         | 29         |            |           | 106         |
| DENMARK                                     | 44         | 55         | 67         | 100        | 1          | 1         | 268         |
| ESTONIA                                     |            |            |            |            |            | 2         | 2           |
| FINLAND                                     |            |            |            | 1          |            |           | 1           |
| FRANCE                                      |            | 50         | 5          | 37         |            | 6         | 98          |
| GERMANY                                     | 293        | 184        | 92         | 219        | 13         | 6         | 807         |
| GREECE                                      | 1          | 13         | 198        | 340        | 32         | 4         | 588         |
| IRISH REPUBLIC                              | 8          |            |            |            |            |           | 8           |
| ITALY                                       | 11         |            | 65         | 68         | 20         | 15        | 179         |
| LATVIA                                      | 1          |            | 5          |            |            |           | 6           |
| LITHUANIA                                   |            |            |            |            |            |           | 0           |
| LUXEMBOURG                                  |            |            |            |            |            |           | 0           |
| MALTA                                       |            |            |            |            |            |           | 0           |
| NETHERLANDS                                 | 177        | 22         | 44         | 23         | 1          |           | 267         |
| NORWAY                                      | 26         |            | 66         | 16         | 32         | 10        | 150         |
| POLAND                                      |            |            |            | 19         |            |           | 19          |
| PORTUGAL                                    | 1          |            | 3          | 3          |            |           | 7           |
| ROMANIA                                     |            |            |            |            |            |           | 0           |
| SLOVANIA                                    |            |            |            |            |            |           | 0           |
| SLOVAKIA                                    |            |            |            |            |            |           | 0           |
| SPAIN                                       | 1          |            | 1          | 1          |            |           | 3           |
| SWEDEN                                      | 1          |            | 16         |            |            | 4         | 21          |
| UK  | 18         | 2          | 27         | 40         | 9          | 6         | 102         |
| <b>TOTAL</b>                                | <b>620</b> | <b>351</b> | <b>622</b> | <b>936</b> | <b>111</b> | <b>54</b> | <b>2694</b> |

| NEWBUILDINGS ON ORDER AS AT JUNE 2010 – ISL |     |     |     |      |  |    |      |
|---|-----|-----|-----|------|--|----|------|
| TOTAL EU + Norway                           | 668 | 387 | 605 | 1030 |  | 43 | 2733 |

Source: ECSA & ISL 2010

*The number of new buildings on order by shipping companies doesn't reflect the number of ships which will be registered under EU flags when delivered.*

## ANNEX D

### EU FLEET DEVELOPMENT

| EU Fleet development from 2006 up to mid 2010 – Ships of GT 300 and over |       |       |        |         |      |        |      |      |        |           |      |        |               |      |        |           |      |        |
|--|-------|-------|--------|---------|------|--------|------|------|--------|-----------|------|--------|---------------|------|--------|-----------|------|--------|
|  | TOTAL |       |        | TANKERS |      |        | BULK |      |        | CONTAINER |      |        | GENERAL CARGO |      |        | PASSENGER |      |        |
|  | 2006  | 2010  | growth | 2006    | 2010 | growth | 2006 | 2010 | growth | 2006      | 2010 | growth | 2006          | 2010 | growth | 2006      | 2010 | growth |
| <b>REGISTRED FLEET</b>   | 7669  | 8370  | 2,2    | 1825    | 2263 | 5,5    | 1163 | 1247 | 1,8    | 932       | 1103 | 4,3    | 2469          | 2461 | -0,1   | 1280      | 1296 | 0,3    |
| <i>% SHARE WORLD TOTAL</i>   |       | 17,7  |        |         | 18,2 |        |      | 16,2 |        |           | 22,2 |        |               | 13,7 |        |           | 30,9 |        |
| <b>CONTROLLED FLEET</b>  | 9824  | 11614 | 4,3    | 2293    | 3061 | 7,5    | 1845 | 2080 | 3,0    | 1709      | 2460 | 9,5    | 3271          | 3285 | 0,1    | 706       | 728  | 0,8    |
| <i>% SHARE WORLD TOTAL</i>   |       | 31,1  |        |         | 30,5 |        |      | 28,4 |        |           | 52,8 |        |               | 24,9 |        |           | 32,7 |        |

*Source: ISL 2010*

## ANNEXE E

### QUESTIONNAIRE

The questionnaire (next page) was sent to the national administrations of the following countries:

|           |   |  |
|-----------|---|--|
| Belgium   | : | <a href="mailto:info@mobilit.fgov.be">info@mobilit.fgov.be</a>                     |
| Bulgaria  | : | <a href="mailto:bma@marad.bg">bma@marad.bg</a>                                     |
| Cyprus    | : | <a href="mailto:seafarers@dms.mcw.gov.cy">seafarers@dms.mcw.gov.cy</a>             |
| Denmark   | : | <a href="mailto:kfs@dma.dk">kfs@dma.dk</a>   |
| Estonia   | : | <a href="mailto:eva@vta.ee">eva@vta.ee</a>   |
| Finland   | : | <a href="mailto:merimiesksikko@trafi.fi">merimiesksikko@trafi.fi</a>               |
| Ireland   | : | <a href="mailto:maritimetransport@transport.ie">maritimetransport@transport.ie</a> |
| Italia    | : | <a href="mailto:segreteria.dsis@mit.gov.it">segreteria.dsis@mit.gov.it</a>         |
| Latvia    | : | <a href="mailto:laima.rituma@sam.gov.lv">laima.rituma@sam.gov.lv</a>               |
| Lithuania | : | <a href="mailto:msa@msa.lt">msa@msa.lt</a>   |
| Malta     | : | <a href="mailto:info.tm@transport.gov.mt">info.tm@transport.gov.mt</a>             |
| Norway    | : | <a href="mailto:post@sjofartsidr.no">post@sjofartsidr.no</a>                       |
| Poland    | : | <a href="mailto:dsieminska@mi.gov.pl">dsieminska@mi.gov.pl</a>                     |
| Romania   | : | <a href="mailto:relpub@mt.ro">relpub@mt.ro</a>                                     |
| Sweden    | : | <a href="mailto:jan.ostlund@sika-institute.se">jan.ostlund@sika-institute.se</a>   |

Returns from (May 18th, 2011):

Bulgaria – completed with available information  
Lithuania – completed with available information  
Romania – completed with available information  
Norway – completed with available information  
Poland – by telephone  
Sweden – by telephone

## COUNTRY:

Data collected for Year: .....

### 1.1 NUMBER OF SEAFARERS:

Total number of active seafarers (including back up for Nationals)

|                      | National flag ships* |        |              |                   |       | Foreign flags controlled ships** |              |
|----------------------|----------------------|--------|--------------|-------------------|-------|----------------------------------|--------------|
|                      | Deck                 | Engine | Dual Purpose | Catering & Others | Total | EU flags                         | Non EU flags |
| <b>Nationals</b>     |                      |        |              |                   |       |                                  |              |
| Officers             |                      |        |              |                   |       |                                  |              |
| Ratings              |                      |        |              |                   |       |                                  |              |
| <i>Total</i>         |                      |        |              |                   |       |                                  |              |
| <b>Non Nationals</b> |                      |        |              |                   |       |                                  |              |
| Officers             |                      |        |              |                   |       |                                  |              |
| Ratings              |                      |        |              |                   |       |                                  |              |
| <i>Total</i>         |                      |        |              |                   |       |                                  |              |

\*Including second register if any

\*\*Number of national seafarers employed on foreign flags ships controlled by national companies

### 1.2 Estimated numbers or percentage of **national** seafarers employed on Intra EU Traffics only:

Officers: .....

Ratings:

## 2. WOMEN EMPLOYMENT

National seafarers only; In figures or percentage

|              | Deck | Engine | Dual Purpose | Catering & Others |
|--------------|------|--------|--------------|-------------------|
| Officers     |      |        |              |                   |
| Ratings      |      |        |              |                   |
| <i>Total</i> |      |        |              |                   |

## 3. AGE PROFILE

National seafarers only; In figures or percentage

|          | <25 | 25-35 | 35-45 | 45-55 | >55 |
|----------|-----|-------|-------|-------|-----|
| Officers |     |       |       |       |     |
| Ratings  |     |       |       |       |     |

### Note:

Please note that rough figures are acceptable for the purpose of the study.

If some data are not available, thank you to note down "na" in the corresponding box.

If there is in your country a website where this information is in all or partly available in English Language, please indicate the address hereafter:

WWW. ....

Your name and position: .....

Your telephone and email address: .....

Thank you for completing this questionnaire.