Evaluation of the quantitative survey on European shipbuilding
Total direct employment in European shipbuilding countries in 2004

EU-15: 97,808 employees  
EU-10: 29,681 employees  
EU-25: 127,489 employees

Acceding Countries: 17,435 employees
Candidate Countries: 6,929 employees
Associated Countries: 2,272 employees
Pre-candidate Countries: 747 employees

Total: 154,872 employees
In the following we will use only three categories of European regions:

- EU-15
- EU-10 (new members since May 1, 2004)
- Others:
  - Acceding countries (Bulgaria, Romania)
  - Candidate country (Croatia)
  - Associated country/EEA (Norway)
  - Pre-candidate country (Serbia&Montenegro)
National shares of the total direct European shipbuilding employment (in %, total = 154,872 in 238 yards)

- UK: 10.5%
- France: 9.8%
- Romania: 8.7%
- Italy: 7.8%
- Spain: 6.5%
- Greece: 2.0%
- Norway: 1.5%
- Portugal: 1.3%
- Latvia: 1.0%
- Sweden: 0.9%
- Croatia: 4.5%
- Finland: 3.6%
- Lithuania: 2.4%
- Bulgaria: 2.6%
- Denmark: 1.9%
- Estonia: 0.8%
- Serbia & Montenegro: 0.5%
- Poland: 14.9%
- Germany: 11.9%
- The Netherlands: 6.5%
- Norway: 1.5%
- Portugal: 1.3%
- Latvia: 1.0%
- Sweden: 0.9%
- Estonia: 0.8%
- Serbia & Montenegro: 0.5%
- Poland: 14.9%
- Germany: 11.9%
- The Netherlands: 6.5%
Structure of the total direct shipbuilding employment in European countries:

Shares of national shipyards’ employment (in %) by size of yards

<table>
<thead>
<tr>
<th>Country</th>
<th>1-199</th>
<th>200-499</th>
<th>500-1999</th>
<th>2000 and more</th>
</tr>
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<tbody>
<tr>
<td>Bulgaria</td>
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<tr>
<td>Croatia</td>
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<td>62</td>
<td>31,8</td>
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<tr>
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<td>20,7</td>
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<td>79,3</td>
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<tr>
<td>Estonia</td>
<td></td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finland</td>
<td>3,6</td>
<td>61,7</td>
<td>36,6</td>
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<tr>
<td>France</td>
<td>1,6</td>
<td>8,5</td>
<td>89,9</td>
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<tr>
<td>Germany</td>
<td>5,5</td>
<td>16,4</td>
<td>49,7</td>
<td>28,4</td>
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<tr>
<td>Greece</td>
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<td></td>
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<tr>
<td>Italy</td>
<td>13</td>
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<td>84,8</td>
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<tr>
<td>Latvia</td>
<td>19,8</td>
<td></td>
<td>80,2</td>
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<tr>
<td>Lithuania</td>
<td>2,9</td>
<td></td>
<td>97,1</td>
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<tr>
<td>Norway</td>
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<td>34,8</td>
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<tr>
<td>Poland</td>
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<tr>
<td>Romania</td>
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<td>17,6</td>
<td></td>
<td>82,4</td>
</tr>
<tr>
<td>Serbia&amp;Montenegro</td>
<td></td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>16,5</td>
<td>24,7</td>
<td>58,8</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>17,5</td>
<td></td>
<td>82,5</td>
<td></td>
</tr>
<tr>
<td>The Netherlands</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3,4</td>
<td>4,2</td>
<td>23,3</td>
<td>69</td>
</tr>
</tbody>
</table>
Major shipyard-groups and shipyards in Europe

These shipyards represent:
° 56 % (87,100 employees) of the total shipyard employment (154,872 employees)
° 34 % (80 yards) of the total number of shipyards (238 yards) in 20 European countries

14,000 employees in 13 yards in 5 European countries

6,400 employees in 1 yard in Poland

10,000 employees in 7 yards in 4 European countries

10,000 employees in 4 yards in France

6,300 employees in 3 yards in UK

5,500 employees in 4 yards in 4 European countries

5,500 employees in 5 yard in Spain

2,200 employees in 4 yards in Spain

9,200 employees in 8 yards in Italy

9,700 employees in 34 yards in 6 European countries and 4 countries outside Europe

4,000 employees in 2 yards in France

Szczecin New Shipyard: 5,000 employees in 1 yard in Poland

Shipbuilding in Europe
Jochen Tholen/Thorsten Ludwig
Brussels, 13.09.2005

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The Survey
Dispatch of the questionnaires

70 received questionnaires by management

60 received questionnaires by unions/work councils

University of Bremen

CESA

EMF

National shipyard association

Union

Shipyard

Management

Works council/Union

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Shipbuilding in Europe

Shipyards/employees represented in the survey

• The survey covers 20 European shipbuilding countries:
  – 11 EU-15 countries
  – 4 EU-10 countries
  – 1 candidate countries (Croatia)
  – 2 acceding countries (Bulgaria and Romania)
  – 1 associated country/EEA (Norway)
  – 1 pre-candidate country (Serbia&Montenegro)

• 109 of 241 shipyards (45%) are represented in the quantitative survey

• These 109 shipyards represent more than 68% of the total shipyards‘ employees (N=105,986 employees)
Structure of the sample by number of direct employees (105,986 employees in 109 yards)

- France: 13.6%
- Poland: 12.4%
- Italy: 9.8%
- UK: 8.3%
- Spain: 8.2%
- Greece: 2.4%
- Croatia: 4.4%
- Finland: 5.3%
- The Netherlands: 3.3%
- Denmark: 2.5%
- Bulgaria: 0.8%
- Sweden: 1.3%
- Lithuania: 1.3%
- Portugal: 1.8%
- Norway: 0.4%
- Germany: 15.5%
- Montenegro: 0.7%
- Lithuania: 1.3%
- Poland: 12.4%
- France: 13.6%
- Italy: 9.8%
- UK: 8.3%
- Spain: 8.2%
- Greece: 2.4%
- Croatia: 4.4%
- Finland: 5.3%
- The Netherlands: 3.3%
- Denmark: 2.5%
- Bulgaria: 0.8%
- Sweden: 1.3%
- Lithuania: 1.3%
- Portugal: 1.8%
- Norway: 0.4%
- Germany: 15.5%
- Montenegro: 0.7%
- Romania: 8.1%
Structure of the sample by type of shipyard

- Newbuilding of naval vessels: 38 yards
  - Submarines: 11 yards
  - Surface vessels: 33 yards
  - Auxiliary vessels: 27 yards
- Newbuilding of merchant ships: 65 yards
- Newbuilding of merchant and naval ships: 20 yards
- Repair: 68 yards
  - Repair of naval vessels: 10 yards
  - Repair of merchant ships: 24 yards
  - Repair of merchant and naval ships: 34 yards
- Newbuilding of merchant ships and repair of naval/merchant vessels: 36 yards
## Number of shipyards and shipyards’ direct employment in 20 European countries and representativity of the quantitative survey

<table>
<thead>
<tr>
<th>Country</th>
<th>Share of European New-building Orders in 2004 (in %)</th>
<th>Number of Shipyards/ total</th>
<th>Share of Employment (in %)</th>
<th>Number of Shipyards/ Response</th>
<th>Share of Employment (in %)</th>
<th>Number of Employees/ total</th>
<th>Number of Employees/ Response</th>
<th>Share of Employment (in %)</th>
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</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>-</td>
<td>6</td>
<td>16,7</td>
<td>4.034</td>
<td>874</td>
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<td>4.624</td>
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<td>31</td>
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<td>18.489</td>
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<td>2</td>
<td>66,7</td>
<td>3.111</td>
<td>2.511</td>
<td>80,7</td>
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<td>Italy</td>
<td>11,65</td>
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<td>12</td>
<td>52</td>
<td>12.033</td>
<td>10.343</td>
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<tr>
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<td>1.395</td>
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<tr>
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<td>5</td>
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<td>425</td>
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<td>13.116</td>
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<tr>
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<td>50</td>
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<td>1.857</td>
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<td>7</td>
<td>4</td>
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<td>8.601</td>
<td>64,2</td>
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<tr>
<td>Serbia &amp; Montenegro</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>100</td>
<td>747</td>
<td>747</td>
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<tr>
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<td>8.710</td>
<td>80,3</td>
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</tr>
<tr>
<td>Sweden</td>
<td>-</td>
<td>6</td>
<td>2</td>
<td>33,3</td>
<td>1.467</td>
<td>1.355</td>
<td>92,4</td>
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<tr>
<td>The Netherlands</td>
<td>3,71</td>
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<td>10</td>
<td>35,7</td>
<td>10.000</td>
<td>3.539</td>
<td>35,4</td>
<td></td>
</tr>
<tr>
<td>UK</td>
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<td>15</td>
<td>4</td>
<td>26,7</td>
<td>16.224</td>
<td>8.834</td>
<td>54,5</td>
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<tr>
<td><strong>Total</strong></td>
<td>94,59</td>
<td>241</td>
<td>109</td>
<td>45,2</td>
<td>154.872</td>
<td>105.986</td>
<td>68,4</td>
<td></td>
</tr>
</tbody>
</table>
Shares of employees represented in the survey by country (in %)

- Estonia: 18.7
- Latvia: 21.7
- Norway: 35.4
- Bulgaria: 37.2
- The Netherlands: 56.8
- Lithuania: 62.1
- Poland: 64.2
- United Kingdom: 66.7
- Romania: 68.4
- Croatia: 72
- Total: 80.7
- Spain: 82.8
- Greece: 88.6
- Italy: 90.5
- Germany: 92.4
- Denmark: 94.9
- Sweden: 95.9
- France: 100
- Portugal: 100
- Finland: 100
- Serbia&Montenegro: 100

Shipbuilding in Europe
Jochen Tholen/Thorsten Ludwig
Brussels, 13.09.2005
Results
(on the basis of the questionnaires completed by the yards)
Regional socio-economic impact of the yards

- All types of yards in all European regions have a very important socio-economic impact.
- The yards are often located in structurally lagging regions (e.g. UK, Spain, Germany and France). In general in these regions there is a lack of job opportunities.
- Especially in The Netherlands and in Norway, where the yards' number of employees is about more or less 150 people, the yards' impact on the region is of normal importance.
Usage of CAD, CAM and CIM

CAD: Computer Aided Design
CAM: Computer Aided Manufacturing
CIM: Computer Integrated Manufacturing

Computer-aided instruments of production have been widely used by newbuilding yards.

The high level of usage of CAD in repair yards is partly explained by the different tasks of repair yards (conversion etc.).

The usage of CAD, CAM and CIM depends on the vertical range of manufacturing. Therefore the degree of utilization in repair yards is lesser than in the other types of shipyards.

Naval shipyards provide the biggest range of manufacturing.

The type of shipyard is the contributing factor for the usage of computer-aided instruments.
The highest degree of co-operation with scientific institutions will be found in naval shipyards. 43.2% of the naval shipyards are co-operating regularly with scientific partners.

There is a positive correlation between the degree of co-operations with scientists and the vertical range of manufacturing.

Co-operations do occur in propulsion, hydro-dynamics and work organization.

There are regional differences in this question.
Co-operations between yards and suppliers
How would you characterize the integrated co-operation between the yard and its suppliers? (vertical co-operation)

Integrated co-operation during the design process (by type of shipyard)

- **very intense/intense**
- **fairly**
- **poor/very poor**

<table>
<thead>
<tr>
<th>Type of Shipyard</th>
<th>Very Intense/Intense</th>
<th>Fairly</th>
<th>Poor/Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>NB Merchant</td>
<td>70.3</td>
<td>23.4</td>
<td>6.3</td>
</tr>
<tr>
<td>NB Naval</td>
<td>67.5</td>
<td>21.6</td>
<td>8.1</td>
</tr>
<tr>
<td>Repair</td>
<td>67.3</td>
<td>11.1</td>
<td>11.1</td>
</tr>
</tbody>
</table>

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How would you characterize the integrated co-operation between the yard and its suppliers? (vertical co-operation)

Interated co-operation during installation/ mounting/ putting into service (by type of shipyard)

- very intense/intense
- fairly
- poor/very poor

<table>
<thead>
<tr>
<th>Type of Shipyard</th>
<th>NB Merchant</th>
<th>NB Naval</th>
<th>Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>75.1</td>
<td>72.9</td>
<td>65.0</td>
</tr>
<tr>
<td>%</td>
<td>20.3</td>
<td>18.9</td>
<td>22.2</td>
</tr>
<tr>
<td>%</td>
<td>4.7</td>
<td>2.7</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Shipbuilding in Europe
Jochen Tholen/Thorsten Ludwig
Brussels, 13.09.2005
Joint working groups can be seen as an increased form of co-operation with suppliers.

There is a positive correlation between the existence of joint working groups and the complexity of ships built by the yard.

Joint working groups can be found in approximately 50% of the repair yards. In comparison, more than 62% of the naval yards dispose of such working groups.

In the field of merchant shipbuilding all yards (100%) involved in building passenger ships (ferries, cruisers) affirm the existence of joint working groups.

The level of the existence of joint working groups in Bulgaria and Romania (covered by „Others“) is rather high for the reason as major yards are belonging to Western European shipyard concerns.
Joint working groups (yards/suppliers) in different fields

The existence of joint working groups in different fields (by type of shipyard):

- Design & Construction
- Manufacturing / Installation
- Process logistic

- NB Merchant (n=65): 37.5%, 42.2%, 18.8%
- NB Naval (n=23): 69.6%, 60.9%, 17.4%
- Repair (n=66): 31.1%, 27.9%, 11.5%

The highest proportions in the fields of design/construction and manufacturing/installation are in the naval sector.

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Co-operations of yards in Western Europe with yards in CEE and Western Europe
Co-operations of yards in Western Europe with yards in other regions

- Only for yards in Western Europe the survey provides a sufficient number of cases.
- The partner yards in Central and Eastern Europe are located above all in Poland, Romania and Bulgaria.
- Concerning the type of shipbuilding (newbuilding or repair) there are no differences.
- There are different types of co-operations: subcontracting, Foreign Direct Investment, horizontal co-operations between equal partners. The following slides cannot distinguish between these different types.
Co-operations of yards in Western Europe with yards in Central and Eastern Europe – CEE (EU-10, Acceding Countries, Croatia, Serbia & Montenegro)
Nearly 50% of the yards building merchant ships in the EU-15 co-operate with yards Eastern Europe.

Only one third of the repair yards co-operate with Eastern European partner yards.

Compared with the group of NB Merchant, co-operation of Western European naval yards with Eastern Europe is underdeveloped.
Co-operation of EU-15 yards is dominated by the field of building hulls and sections.
EU-15: Which are the main problems with regard to the co-operations with yards in CEE?

- Time of delivery seems to be the greatest problem during the co-operation with Eastern European yards.
- Even the quality of products and the partners’ different mentalities are among the main problems.
Co-operations between yards within Western Europe
The highest degree of co-operation (100%) among Western European yards can be found in the naval sector.

In the sector of merchant ships only nearly 50% of the yards work together with partner yards in other Western European countries, in the repair sector even lesser.
Compared to the co-operations of EU-15 yards with Eastern Europe, all fields of the yards' activities are covered by the co-operations within Western Europe.

Above all design, R&D and construction are the main fields of co-operation.
Compared to the problems of co-operation between EU-15 yards and Eastern Europe, technical problems are of no importance related to the co-operation within Western Europe.

Only the existing different mentalities of the partners seems to be problematic.

The West-East difficulties primarily refers to hard facts.

The West-West difficulties primarily refers to soft facts (mentality).
Thesis

• If there is a strategic co-operation (horizontal co-operation) between equal partners, this kind of co-operation is the case between yards in Western Europe – this kind of co-operation is going far beyond the simple outsourcing.

• Co-operations between EU-15 and Eastern European yards are much more determined by outsourcing processes (steel work, hulls, sections).

• Co-operations between EU-15 and Eastern European yards are very often characterized by corporate-internal co-operations: These partner yards belong to one shipyard group (f.e. Damen, Aker Yards, AP Moeller).

• Significantly less co-operations (in their different shapings) do exist between legally and economically independent yards in Western and Eastern Europe.
The EU enlargement will have a positive effect on...
The EU enlargement will have a positive effect on...

- Co-operation with yards in different EU countries
  - EU-15: 25.3%
  - EU-10: 66.7%
  - Others: 70.6%

- Staff qualification
  - EU-15: 15.2%
  - EU-10: 47.1%
  - Others: 83.3%

- Wage level
  - EU-15: 7.6%
  - EU-10: 52.9%
  - Others: 83.3%

- Competitiveness
  - EU-15: 12.7%
  - EU-10: 83.3%

- Orderbook
  - EU-15: 5.1%
  - EU-10: 33.3%

Shipbuilding in Europe
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Brussels, 13.09.2005
The impact of the EU enlargement in different fields of the yards

- From the yards‘ point of view, the co-operation between the EU yards will improve after the EU-Enlargement.
- Divided by regions, especially Eastern European yards are expecting an increasing of the wage level and staff qualification.
- In the case of the wage level, above all Western European yards are expecting a decrease (management is defining this as a positive effect, workers´ representatives as a negative one).
The expectations of the yards concerning the EU’s involvement in different fields
EU's involvement is very important in the following fields...

<table>
<thead>
<tr>
<th>Field</th>
<th>EU-15 (n=79)</th>
<th>EU-10 (n=6)</th>
<th>Others (n=17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language training</td>
<td>43.5</td>
<td>37.2</td>
<td>66.7</td>
</tr>
<tr>
<td>European Defense Identity</td>
<td>47.0</td>
<td>50.0</td>
<td>66.7</td>
</tr>
<tr>
<td>Industry structure</td>
<td>53.0</td>
<td>57.7</td>
<td>66.6</td>
</tr>
<tr>
<td>Intellectual property protection</td>
<td>58.8</td>
<td>69.2</td>
<td>83.3</td>
</tr>
<tr>
<td>Innovation</td>
<td>59.2</td>
<td>75.7</td>
<td>83.4</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>70.5</td>
<td>74.3</td>
<td>83.4</td>
</tr>
<tr>
<td>Ship financing</td>
<td>70.6</td>
<td>74.3</td>
<td>83.4</td>
</tr>
<tr>
<td>Legislation/Transport policy</td>
<td>64.7</td>
<td>66.7</td>
<td>78.2</td>
</tr>
<tr>
<td>Level Playing Field</td>
<td>79.5</td>
<td>82.4</td>
<td>80.0</td>
</tr>
</tbody>
</table>

Shipbuilding in Europe
Jochen Tholen/Thorsten Ludwig
Brussels, 13.09.2005
The expectations of the yards concerning the EU‘s involvement in different fields

• From the yards‘ point of view EU‘s involvement is most important to establish a level playing field.

• Obviously EU‘s involvement in language training is more often expected by yards in Eastern Europe. Within EU-15 only 38% of the yards see involvement in this field as important (lingua franca=English).

• Even in the cases of 'shipfinancing‘ and 'rethinking the industry structure‘, Eastern European yards consider EU‘s involvement more important than Western European yards.

• Only 60% of the naval shipyards are expecting the EU‘s involvement for the creation of an „European Defense Identity“. 
Working conditions
Did you experience difficulties in recruiting white/blue collar workers?
(percentage of yards that answered with “Yes”)

- Difficulties in recruiting qualified blue and white collar workers could be found in all types and regions of European shipbuilding.
- Above all the problems seems to be higher in the merchant ships sector.
- Especially in the countries where the shipbuilding industry has a bad image, the problems in recruiting are comparatively higher.
Average rate of absence (health, accident) in 2003

Shipbuilding in Europe
Jochen Tholen/Thorsten Ludwig
Brussels, 13.09.2005
Working times
Comparison: Contractual and real working times (all types of yards) in 2003

- Montenegro (1)
- Lithuania (1)
- Poland (4)
- Italy (12)
- Croatia (7)
- UK (4)
- Portugal (2)
- Greece (2)
- Germany (18)
- Bulgaria (1)
- Romania (4)
- Sweden (2)
- Norway (4)
- Spain (16)
- Denmark (3)
- The Netherlands (9)
- France (3)
- Finland (7)

- Real working times
- Contractual working times

Countries and their respective working times are shown in the chart. The chart compares contractual working times and real working times for various yards across different countries. The data points are visualized with red for real working times and blue for contractual working times, with the values given for each country.
Comparison: contractual/real working times in 2003 by country (all types of yards)

<table>
<thead>
<tr>
<th>Country</th>
<th>Contractual working times</th>
<th>Real working times</th>
<th>Real minus contractual working times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland (7)</td>
<td>1.505</td>
<td>1.568</td>
<td>63</td>
</tr>
<tr>
<td>France (3)</td>
<td>1.567</td>
<td>1.606</td>
<td>39</td>
</tr>
<tr>
<td>The Netherlands (9)</td>
<td>1.585</td>
<td>1.460</td>
<td>-126</td>
</tr>
<tr>
<td>Denmark (3)</td>
<td>1.657</td>
<td>1.558</td>
<td>-99</td>
</tr>
<tr>
<td>Spain (16)</td>
<td>1.723</td>
<td>1.752</td>
<td>29</td>
</tr>
<tr>
<td>Norway (4)</td>
<td>1.754</td>
<td>1.853</td>
<td>99</td>
</tr>
<tr>
<td>Sweden (2)</td>
<td>1.775</td>
<td>1.843</td>
<td>68</td>
</tr>
<tr>
<td>Romania (4)</td>
<td>1.776</td>
<td>1.662</td>
<td>-114</td>
</tr>
<tr>
<td>Bulgaria (1)</td>
<td>1.778</td>
<td>1.322</td>
<td>-456</td>
</tr>
<tr>
<td>Germany (18)</td>
<td>1.786</td>
<td>1.744</td>
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</tr>
<tr>
<td>Greece (2)</td>
<td>1.788</td>
<td>1.886</td>
<td>98</td>
</tr>
<tr>
<td>Portugal (2)</td>
<td>1.816</td>
<td>1.585</td>
<td>-232</td>
</tr>
<tr>
<td>UK (4)</td>
<td>1.838</td>
<td>2.018</td>
<td>180</td>
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<tr>
<td>Croatia (7)</td>
<td>1.922</td>
<td>1.879</td>
<td>-43</td>
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<tr>
<td>Italy (12)</td>
<td>1.979</td>
<td>1.736</td>
<td>-242</td>
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<tr>
<td>Poland (4)</td>
<td>2.012</td>
<td>1.649</td>
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<tr>
<td>Lithuania (1)</td>
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<td>1.649</td>
<td>-378</td>
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<tr>
<td>Montenegro (1)</td>
<td>2.184</td>
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</table>
Income and costs
Comparison: Average income and costs of a skilled blue collar worker in 2003 (in EURO)

<table>
<thead>
<tr>
<th>Country</th>
<th>Average income</th>
<th>Average costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany (17)</td>
<td>8.730</td>
<td>17.089</td>
</tr>
<tr>
<td>Sweden (1)</td>
<td>14.591</td>
<td>27.800</td>
</tr>
<tr>
<td>Finland (7)</td>
<td>17.089</td>
<td>27.056</td>
</tr>
<tr>
<td>France (3)</td>
<td>15.609</td>
<td>26.307</td>
</tr>
<tr>
<td>Greece (2)</td>
<td>14.519</td>
<td>22.734</td>
</tr>
<tr>
<td>Italy (11)</td>
<td>21.435</td>
<td>22.106</td>
</tr>
<tr>
<td>Spain (15)</td>
<td>29.244</td>
<td>34.007</td>
</tr>
<tr>
<td>Portugal (2)</td>
<td>29.244</td>
<td>39.700</td>
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<tr>
<td>Croatia (6)</td>
<td>14.519</td>
<td>22.734</td>
</tr>
<tr>
<td>Poland (5)</td>
<td>3.984</td>
<td>25.000</td>
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<tr>
<td>Lithuania (1)</td>
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<td>15.609</td>
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<td>Bulgaria (1)</td>
<td>3.173</td>
<td>17.089</td>
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<td>Romania (4)</td>
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<td>Montenegro (1)</td>
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<tr>
<td>The Netherlands (9)</td>
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<td>Norway (3)</td>
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<td>Denmark (3)</td>
<td>38.243</td>
<td>40.540</td>
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<tr>
<td>Poland (5)</td>
<td>3.984</td>
<td>25.000</td>
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<td>Spain (15)</td>
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<tr>
<td>Denmark (3)</td>
<td>40.540</td>
<td>38.243</td>
</tr>
</tbody>
</table>

Average costs vs. Average income
Comparison of income and costs of a blue collar worker in 2003

• The systems of financing the health system, unemployment insurance etc. are very different in the different countries (from tax-financed systems to non-wage-labour-costs systems).

• F.e.: The labour costs in The Netherlands and Denmark are nearly equal, but the share of (gross) income in Denmark (94,3%) is much more higher than in The Netherlands (71,2%).

• The comparison of income and costs stays incomplete, because there are no information on productivity of the single yards.
Existence of European Works Councils
Is a European Works Council covering your yard? 
(N=109; in % of the number of yards)

In nine out of 109 yards an EWC is existing,
covering three European conglomerates: 
Damen, Aker, Thyssen Krupp Marine Systems