



**Northern Maritime University**  
North Sea Region

**The Interreg IVB**  
**North Sea Region**  
**Programme**



# *Northern Maritime University* *(NMU)*

## **DELIVERABLE D6.1**

## **SME AND STAKEHOLDER STUDY**

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### EXECUTIVE SUMMARY

The SME and Stakeholder Study was an initial exercise to identify the education needs of the maritime industry<sup>1</sup> and maritime SMEs in particular. The study focused on five North Sea region countries: Denmark, Germany, Norway, Sweden and the UK, but did not look at these countries exclusively. The study was based on stakeholder views obtained from an internet-based questionnaire<sup>2</sup> and combined them with findings from literature. The key themes of the questionnaire were:

- The types of education used in the responding organisations
- The relevance of potential education offering types to SMEs and other stakeholders
- The respondent organisations' future education needs

The responses were divided into three main groups: NMU Core countries, other countries and responses with unspecified origin. The first group accounted for two thirds of all responses. The shipping and transport sector is equally presented in comparison to the seaport and seaport related activities sector.

While only a small proportion of the respondents worked in Human Resource (HR) posts, the received responses were of high quality and showed an in depth knowledge and vision on the challenges, needs and the current situation of education in the maritime and port industry.

The respondents expressed their clear preferences regarding relevant topics and knowledge areas, and the way of delivery and level of education.

Respondents were presented with the module topics and module elements of the NMU pilot courses: “**Applied Maritime Transport Management**”, “**Maritime Transport and the Environment**”, “**Logistics & Global Supply Chain Management**”, “**Intermodality**” and “**International Maritime Human Resource Management**”. On average, respondents judged these as either attractive or very attractive in over 50% of cases.

Management, economics, and module elements related to intermodal transport management were rated highest in terms of attractiveness. The module “**Ship Knowledge for Non-engineers**” was also rated as attractive by over 50% of respondents, and no further module elements were named.

Consequently, NMU's educational offerings should especially focus on shipping and multi-modal transport as well as the broad spectrum of commercial or facilitating activities related to seaports (e.g. port services, terminal service provision, and port terminal operations). The “human factor” in the maritime industry is also regarded as being of high importance.

The results show that slightly less than half of the respondents (48%) have a specific strategy for the education and training of their staff or a personnel development plan for them. An important finding is that only little more than 50% of all respondents are directly and continuously engaged with educational institutions or providers. However, in the cases where engagement does exist, the majority of respondents within the North Sea Region were satisfied with their current education provider.

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<sup>1</sup> This also includes other maritime stakeholders (e.g. public sector and public interest organisations)

<sup>2</sup> The full text of the Online Questionnaire used in the study can be found in Appendix 3. Appendix 5 contains a description of the methodology used, including a discussion of validity-related issues, and, finally, a justification for the chosen methodology. Moreover, Appendix 3 contains the five different language versions of the official press release which was sent to stakeholders in the five NMU core countries, as specified in Appendix 2.



This suggests that there is potential demand for the Northern Maritime University's education offerings. However, this will be studied in further detail.

While the transnational approach was welcomed by respondents, the array of responses also shows that a greatest common denominator approach will be needed in certain aspects when developing educational offerings due to country specific factors (e.g. when considering the time available for further education).

Respondents also expressed that they prefer blended learning offerings. The term "blended" also receives a further dimension as respondents expressed significant interest in courses that are a mix in terms of "location", this being the university/department/institute on the one hand and in-house locations on the other.

Moreover, pure e-learning courses should not be discounted completely, as a small minority indicated that this is their most preferred way of receiving education. Here, efforts should be made to ensure that these results are reviewed and discussed in the relation to the NMU service product portfolio.

Short term specialised courses received the highest level of interest from respondents. This was complemented by the expression that current university and vocational courses should provide more "practical examples and references" and should be delivered by specialists in a particular field. Initial evidence is also given that Master as well as Bachelor level courses are the preferred options.

Further, two thirds of respondents viewed Northern Maritime University e-courses or partial e-courses with short sessions at weekends as a competitive offer, and that locating face-to-face sections of such courses in major transportation hub cities of Northern Europe (e.g. London, Hamburg, Copenhagen, and Oslo) would further contribute to their attractiveness.

However, a majority still disagreed or strongly disagreed that those full time e-learning courses and study programmes from internationally renowned institutions could be equivalent to a full-time study semester abroad. This might hint towards different perceptions of degrees from companies depending on the way these degrees were obtained. This aspect requires further research based on, e.g., the experiences with e-learning in other projects and content and format analysis of face-to-face, blended and pure e-educational offerings of other universities and private sector providers, such as, e.g. Lloyd's Register.

Thinking about the current competencies and educational development policies of maritime firms and organisations, almost 50% of the surveyed companies and organisations motivated their employees to participate in part-time education offerings or university business courses. Respondents indicated that they were willing to give employees 1-3 weeks per year to pursue such activities. However, responses varied widely and secondary statistics indicate that working hours may also vary between (a) countries, (b) the sexes, and (c) management level personnel and ordinary staff.

Finally, and perhaps most crucially, respondents were not yet necessarily convinced that the NMU idea will have the potential to improve maritime transport education compared with the current educational offerings. While on the one hand this result might be considered discouraging, it also points towards the fact that potential users need to be convinced, and that quality and experience are important to them. At this early stage of the project, with the educational offers still under development, it is hard to judge if the project will make a difference and be a competitive offer. The received responses must be monitored, something that will also allow for controlling the effect and perception of the educational offerings, once this data is available. The conclusion and message received by the NMU consortium is that the project needs to ensure that every aspect of its educational offerings are well-planned and oriented towards its market, so that it achieves the service and outcome quality that will ensure a positive mark on this aspect for the future.





In order to gain further insight beyond the initial evidence from the questionnaire, NMU is developing Delphi and Foresight exercises at national level. These exercises are the consequent succession since the application of these methodologies allows for a more detailed exploration of the underlying conditions, motivations and visions for the development of education offerings in the maritime sector. The exercises will also allow to engage with key stakeholders in a more in depth, continued and proactive manner.

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## 1 INTRODUCTION

The SME and Stakeholder Study was an initial exercise to identify the education needs of the maritime industry<sup>3</sup> and maritime SMEs in particular. The study focused on five North Sea region countries: Denmark, Germany, Norway, Sweden and the UK, but did not look at these countries exclusively. The study was based on stakeholder views obtained from an internet-based questionnaire<sup>4</sup> and combined them with findings from literature. The key themes of the questionnaire were:

- The types of education used in the responding organisations
- The relevance of potential education offering types to SMEs and other stakeholders
- The respondent organisations' future education needs

Finally, a number of control questions were asked about the responding organisation to identify its size, geographical location, position within the sector(s) of maritime transport, etc.

The deliverable is structured as follows. Section 2 provides a brief description of the firms and organisations who responded to the study, in terms of, e.g., location of respondent, sectors of maritime activity, geographical areas served, size of firm/organisation, position of the respondent, interest in future contacts with the NMU project, etc. These aspects will be discussed in relation to statistics about the potential market and secondary literature on relevant market characteristics.

Section 3 contains information about the types of education used in the responding organisations. Section 4 focuses on the perceived relevance of potential education offering types as seen from the view of respondents. The section also addresses pricing and payment/financing issues, even though these were not covered in detail in the questionnaire. Section 4 elaborates critically on the perceptions of the respondent organisations' future education needs.

The concluding Section 5 provides an overall strategic assessment of the future educational needs and preferences of respondents and discusses the findings in relation to the Northern Maritime University project. Further, the section discusses the consideration and contribution of further work in the project, particularly the Delphi and Foresight exercises.

In Section 6, the references to secondary literature used in this report are listed. The Appendices include country specific analysis of topics and knowledge areas, examples of tuitions, costs and incentives in university education, a sample of the questionnaire, the NMU Service Product Portfolio and a note on the methodology.

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<sup>3</sup> This also includes other maritime stakeholders (e.g. public sector and public interest organisations)

<sup>4</sup> The full text of the Online Questionnaire used in the study can be found in Appendix 3. Appendix 5 contains a description of the methodology used, including a discussion of validity-related issues, and, finally, a justification for the chosen methodology. Moreover, Appendix 6 contains the five different language versions of the official press release which was sent to stakeholders in the five NMU core countries, as specified in Appendix 3.

## 2 OVERVIEW OF RESPONDENT FIRMS AND ORGANISATIONS' CHARACTERISTICS IN RELATION TO OUR RELEVANT MARKET

### 2.1 Introduction

In Subsections 2.2 and 2.3 an overview of responses to the internet questionnaire's general questions on characteristics of firms and organisations is presented.<sup>5</sup> In Subsection 2.2<sup>6</sup> this data is supplemented with secondary data<sup>7</sup>, as these questions deal with the national, sub-sectoral position and size of the respondent firms as well the geographical areas in which they do business. The supplementary information from secondary sources addresses e.g. the general current and future shore-based maritime labour market situation, the career paths of employees and specific features of the maritime clusters of the Northern Maritime University (NMU) core countries<sup>8</sup> in relation to broader global developments.

Subsection 2.3 discusses the survey respondents' specific characteristics<sup>9</sup>, e.g. their position in the firm, their perceived level of interest in educational issues and their potential commitment to the NMU project. The findings are enriched by insights from, e.g., organisational buying behaviour theory (Webster and Wind 1972) and management and organisation theories such as the NMU Consortium which seeks to provide professional services to business actors (Ojasalo 1999).

Finally, Subsection 2.4 raises a number of strategic questions reflecting on the findings in Subsections 2.2 and 2.3. These questions will be evaluated in the overall strategic assessment of the concluding Section 5.

### 2.2 The structure of maritime firms and organisations

#### **2.2.1 Countries, sectors and a global macro-economic market discourse**

A total of 87 maritime firms, public sector organisations and public interest organisations answered the NMU online survey which was available under the URL: [www.survey.nmuni.edu](http://www.survey.nmuni.edu) from 15<sup>th</sup> October 2008 to 15<sup>th</sup> March 2009 as further explained in Appendix 5.

The relatively small number of total responses does not allow the analysis to be representative. However, as it is part of a first scoping exercise, we can accept the outcome as a convenience sample.<sup>10</sup> Consequently no inferential statistics are made based on the sample.

The distribution of the respondents' country<sup>11</sup> is in total numbers and percentages are shown in Table 1.

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<sup>5</sup> The full questionnaire is available in Appendix 3.

<sup>6</sup> This specifically refers to questions 1, 3, 4, 27 and 32

<sup>7</sup> e.g. labour market and market size statistics as well as sector-related reports and academic contributions

<sup>8</sup> Denmark, Germany, Norway, Sweden and the UK

<sup>9</sup> This specifically refers to questions 24, 29, 31 and 33

<sup>10</sup> For details, see methodology explanation in Appendix 5.

<sup>11</sup> Question 27 of the questionnaire (see Appendix 3)

**Table 1: Number and distribution of respondents according to maritime countries covered**

Country category	Number	% distribution
Denmark	31	35,6%
Germany	3	3,4%
Norway	6	6,9%
Sweden	11	12,6%
UK	7	8,0%
Other Country	14	16,1%
Country Unspecified	15	17,2%
Total	87	100,0%

*Note: The category "other country" includes the European countries of Belgium, Italy, Netherlands, Portugal, Spain, and Switzerland, and the non-European countries of India, Kuwait, Malaysia, Nigeria and Peru.*

A comparison of the sample distribution for the five North Sea countries to the relative number of persons employed in the traditional maritime sector in these same five countries is presented Table 2.

**Table 2: Relative distribution of respondents and relative distribution of maritime employees for the five North Sea countries of the Northern Maritime University Project**

NMU Country	% distribution in response	Relative response weight among the 5 NMU countries	Employment in traditional maritime sectors (ECO 2008)	Relative distribution of employment	Relative survey over- or under-representation
Denmark	35,6%	53,4%	82.600	12%	347%
Germany	3,4%	5,2%	197.000	29%	-82%
Norway	6,9%	10,3%	110.000	16%	-35%
Sweden	12,6%	19,0%	48.000	7%	173%
UK	8,0%	12,1%	253.600	37%	-67%
NMU Total	66,7%	100,0%	691.200	100%	

**Source:** European Cluster Observatory (ECO 2008): Maritime Industry studies by Policy Research Corporation N.V., downloadable from: <http://www.clusterobservatory.eu/index.php?id=75>

From the above, it can be seen that Denmark and Sweden are grossly overrepresented in the sample, but that the other three countries are underrepresented in relation to the relative number of maritime employees. It should be noted that the overrepresented countries are those with the smallest maritime clusters among the five (see e.g. EU Commission, DG Fisheries and Maritime Affairs 2006; Jakobsen et al. 2004).

Table 3 depicts the respondents' main sectors of maritime activities.<sup>12</sup>

<sup>12</sup> Question 1 in the questionnaire (see Appendix 3). The question allowed for multiple answers and naming of additional sectors. Respondents added the following: "ambulance", "bunker supply", "container leasing", "financial owners", "insurance matters", "port", "port administration", "port authority", "sale and purchase of ships" and "shipbroker".

**Table 3: Number of responses concerning activities in various sectors of maritime transport**

Main activities in which sector/s	Number
Shipping company	22
Transport	14
Port services	14
Port or terminal service provider	13
Public sector organisation	11
Cargo handling	10
Other	10
Port terminal operator	9
Education / training organisation	8
Ship building etc.	7
Offshore sector	7
Logistics service provider	6
Transport operator	6
Inland terminal operator	2
Regulatory body	2
Manufacturing / Trade	1
Association	0
<b>Total no. Answers (multiple possible)</b>	<b>142</b>

Shipping and transport taken together accounted for a total of 36 responses (Table 3). Activities related to seaports (including port services, port or terminal service provider, and port terminal operator), accounted for a total of 36 responses.

The above conclusion is also based on the considerations that:

- The shipping sector is responsible for some 20.9% of traditional maritime employment in the EU, if fisheries are excluded from our considerations;
- Seaports comprise around 19.2% of traditional EU maritime employment excluding fisheries (EU Commission, DG Fisheries and Maritime Affairs 2006:8);
- The importance of the shipbuilding industry has declined greatly in Europe as a whole and thus it should probably not be chosen (see, e.g., Iversen & Sornn-Friese forthcoming, Johnman & Murphy 2002, Kuuse 1983, Stråth 1987); and
- Areas like manufacturing of maritime equipment may not merit special maritime courses/modules, as the involved manufacturing, economic, financial, organisational and marketing issues do not seem to be that different from those commonly found in business-to-business firms (Kuuse 1983).

The argument above is underlined in Table 4.

**Table 4: Employment figures for selected traditional maritime industries in the North Sea Region**

	Denmark		Germany		Norway		Sweden		UK		Cumulative Figures	
Shipbuilding	6.524	8%	22.982	16%	22.000	24%	2.635	10%	24.000	16%	78.141	16%
Marine equipment	20.626	25%	70.000	48%	23.000	25%	N.A.	N.A.	N.A.	N.A.	113.626	23%
Shipping	14.815	18%	10.801	7%	29.000	31%	14.000	52%	26.520	17%	95.136	19%
Maritime services, incl. ports	32.460	39%	21.220	14%	18.500	20%	8.901	33%	69.552	46%	150.633	30%
Offshore oil and gas	1.287	2%	N.A.	N.A.	Incl.above	Incl.above	N.A.	N.A.	30.000	20%	31.287	6%
Maritime works	N.A.	N.A.	22.160	15%	N.A.	N.A.	35	0%	2.500	2%	32.595	7%
Wind energy	6.600	8%	N.A.	N.A.	N.A.	N.A.	1.300	5%				
Totals	82.312	100%	147.163	100%	92.500	100%	26.871	100%	152.572	100%	501.418	100%
Year of data	2002		2004-2006		2005		2002 & 2005		2004 & 2005		2002, 2004-2006	

**Sources:** For Denmark, Germany, Sweden & UK: EU Commission, DG Fisheries and Maritime Affairs 2006, the respective country reports. For Norway: Maritim Forum (2007): *Maritim Verdiskapingsbok*, p. 5, in Norwegian, downloadable from: <http://menon.no/filestore/MaritimVerdiskapingsbok2007.pdf>

*Note: It must be noted that it was difficult to compile cumulative statistics as there are differences in the way such statistics are compiled from country to country (see, e.g., the methodological report published together with EU Commission, DG Fisheries and Maritime Affairs 2006).*

Table 4 suggests that the combined maritime ports and service sector in Northern Europe is comparatively larger than in the rest of Europe, yet employment in shipping is approximately at the same level as for Europe as a whole. However, it can be assumed that the level and types of shipping industry employment varies among European countries based on the widely varying patterns of employing nationals onboard ships in EU countries' domestic and international ship registers<sup>13</sup> (see Southampton Solent University 2005). These variations can be associated with cluster differences (see, e.g., Jakobsen et al. 2004).

**Table 5: Seafarer Employment Distribution in Western and Eastern European Countries**

Country of origin	Estim. no. Seafarers	Distribution by percentage			Country of origin	Estim. no. Seafarers	Distribution by percentage		
		Rating	Jun. officer	Sen. officer			Rating	Jun. officer	Sen. officer
Western European Countries					Eastern European Countries				
Belgium	590	15,6%	84,4%		Bulgaria	10.855	35,6%	31,9%	32,5%
Cyprus	3.800	57,9%	42,1%		Croatia	7.992	17,2%	30,7%	52,2%
Denmark	9.654	43,2%	56,8%		Estonia	9.937	62,9%	37,1%	
Finland	6.500	69,2%	30,8%		Hungary	2.025	61,4%	38,6%	
France	9.740	69,4%	30,6%		Latvia	17.542	57,2%	42,8%	
Germany	6.650	27,8%	72,2%		Lithuania	1.916	34,1%	65,9%	
Greece	32.000	46,9%	53,1%		Poland	13.183	35,9%	64,1%	
Ireland	3.541	58,99%	41,0%		Romania	11.456	17,7%	38,9%	43,4%
Italy	20.950	54,4%	45,6%		Russia	44.101	39,10%	31.7%	29.2%
Luxemb.	905	48,1%	51,9%		Slovakia	576	55,2%	44,8%	
Netherl.	4.860	20,6%	79,4%		Slovenia	644	15,5%	84,5%	
Norway	4.763	4,3%	21,4%	74,3%	Ukraine	45.607	48,80%	27.3%	23.9%
Portugal	2.221	81,1%	18,9%		Total EE	165.834	42,3%	57,7%	
Spain	10.000	60,0%	40,0%		Information about sources: Ellis & Sampson (2003), EU Commission DG Fisheries & Mari.(2006), from BIMCO/ ISF (2005), Wu and Morris 2006				
Sweden	13.819	64,6%	35,4%						
UK	18.725	24,4%	75,6%						
Total WE	148.718	47,7%	52,3%						

<sup>13</sup> The extent to which countries maintain separate domestic and international ship registers varies from European country to country. E.g. Netherlands has only one ship register, which is international, whereas the NMU project countries Denmark, Germany and Norway have two separate ship registers, a domestic one for inland shipping and ferries, and an international one for international shipping and ferry/cruise ship services. The UK's ship register can be regarded as international, but also, e.g., the separate UK Isle of Man register is commonly used as an international register. Finally, Sweden has some special employment quota arrangements in its ship register.

To illustrate the national diversity in employment patterns the variations in total employment and employment distribution of seafarers across ranks in Europe is shown in Table 5. In the five NMU countries, Denmark, Germany, the UK and, most radically, Norway, seafarer officers are in the majority. This is due to:

- outsourcing of rating labour (especially) to countries with lower wage costs for ships registered in international ship registers (Wagtmann 2009);
- technological changes in ships that have reduced the number of ratings necessary on board (see, e.g., Walton 1987);
- in the case of Norway, the special situation of full employment, in the economic sense of the term, that has existed for decades has reinforced tendency (a); and
- In contrast, Sweden operates its ship register with a unique quota system in which ships registered in the Swedish ship register may take a certain percentage of foreign ratings and the same percentage of foreign officers on board.

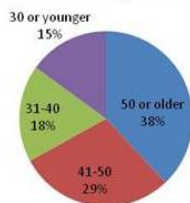
Education and employment patterns of seafarers are a strategically relevant issue to the NMU project, due to the following paradox:

On the one hand, land-based maritime industry positions have traditionally been filled by former seafarers who are believed to possess superior and/or unique skills in relation to these positions (see, e.g., Danish Maritime Authority 2003, Gardner et al. 2004, Lewarn 2009, McConville and Glenn 1997 and Pettit et al. 2005).

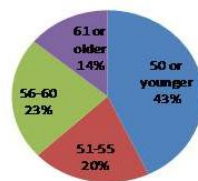
On the other hand, works such as Haralambides (1991), Lloyd's Ship Manager (September 2008), Ruhallah (2004) and Wu & Morris (2006) indicate that employment ashore is generally preferred to employment at sea and thus that land-based job market failure contributes to the propensity of young people to seek employment at sea.

**Figure 1: Age distribution of seafarers from selected European regions**

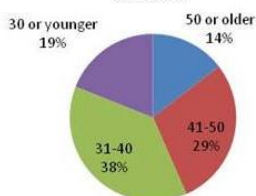
**OECD officer age distribution**  
Source: BIMCO/ICS 2005:5



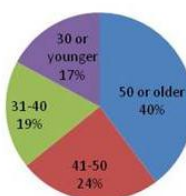
**German officer age distribution**  
Source: Lloyd's List, June 26, 2008



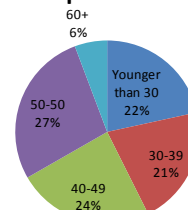
**Eastern Europe officer age distribution**  
Source: Glen 2008:854, based on UK MCA data



**UK Officer Age Distribution**  
Source: Department of Transport 2007:23



**Norwegian seafarer age distribution 2002, Source: Det kongelige nærings- og handelsdepartementet 2004:31**



Due to this paradox, especially developed countries have had extreme difficulties in attracting sufficient applicants to maritime education and training (Coleman 2007; Lloyd's Ship Manager November 2007, Ruhallah 2004) in recent years. This circumstance is considered of strategic importance in the development of the NMU's educational offerings.



In relation to the issues mentioned above, it is also relevant to examine the current seafaring officer age structure for European countries (see Figure 1), because such demographics also influence the demand patterns for part-time continuing education for mature students with sector-related work experience over time.

On average, Eastern European officers are younger than officers from the OECD countries, including Western European officers. Nevertheless, the lack of younger officers is clearly pronounced in the case of Germany even more than it is for the UK. Analysis of the age distribution in Norway shows a relatively egalitarian distribution for the age groups below 60.<sup>14</sup>

At a more fundamental level, it is relevant to examine various viewpoints on the viability of European maritime clusters, because their future overall health will influence future demand patterns for the types of maritime business education that the NMU project is currently developing. Three viewpoints are presented below:

For the first viewpoint, Selkou and Roe (2004) present a relatively favourable prognosis for European maritime clusters: based on the argument that, due to a mainly post-Fordist production system in the land-based maritime organisations of Europe as well as the current level of maritime competencies in Europe, they believe Europe should be able to maintain land-based maritime workplaces for the near and medium-term future.<sup>15</sup>

The second viewpoint is based on insights from factor-price theory or Ricardian trade theory, and possibly also marketing theory, other experts come to a less favourable conclusion, at least for the medium-term or long-term future. This is supported by the following arguments:

A large number of skilled and highly ambitious potential maritime employees are available in countries such as India and China. Their wage costs are competitive both from the viewpoint of the pure wage cost comparison of factor-price theory or the more advanced unit cost per labour productivity calculation of Ricardian trade theory. Further, maritime cluster research indicates that cost-related factors are more important in relation to maritime firms' location decisions than so-called "cluster factors" (Jakobsen et al. 2004).

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<sup>14</sup> Data for Norwegian seafarers in Oslo, Norway taken from the registry of Rikstrygdeverket, 2003, cited on p. 31 in Det kongelige nærings- og handelsdepartementet (2004): Vilje til vekst - for norsk skipsfart og de maritime næringer. Oslo, Norway: Official report to the Norwegian Parliament/Stortingsmelding nr. 31, <http://www.regjeringen.no/Rpub/STM/20032004/031/PDFS/STM200320040031000DDDPDFS.pdf>.

<sup>15</sup> Some regard the contribution of Selkou and Roe (2004) as seeking to reformulate and reinforce the "national maritime cluster" arguments for support of European maritime industries, arguments which have been put forth in European public debate since 1992.

In Norway, the Porterian "cluster" arguments were initially put to use in recommending national industry policy for the multiple Norwegian maritime sectors in Reve et al. (1992) and the maritime sector in particular in Bjørndalen and Reve (1995). After this, a number of other actors in other Western European maritime nations demanded similar national maritime cluster studies and subsequent national maritime cluster policies, which lead to their development; additionally, the EU Commission recommended the cluster approach in a 2006 white paper (EU Commission 2006). This approach to maritime industrial policy was not without its critics, especially from Denmark and Norway, from the left who suspected 'economic nationalism' (e.g., Fougner 2006) or from the neo-liberal paradigm challenged the economic reasoning behind the arguments for the associated special public sector tax relief to the maritime sector (e.g. Schjelderup 2006; Sørensen 2006).

The maritime cluster studies demonstrated linkages between sea-based employment on ship and shore-based employment. The result of maritime cluster policies were also catalysts concerning investments in European maritime education, because stakeholders in many of these countries also wished to see the positive employment effects of general cluster investments (see EU Commission, DG Fisheries and Maritime Affairs 2006). However, in many cases the employment effects did not surface to the extent wished, at least not in the initial years (see, e.g., Klickauer & Morris 2003: 550-1 for the case of Germany).

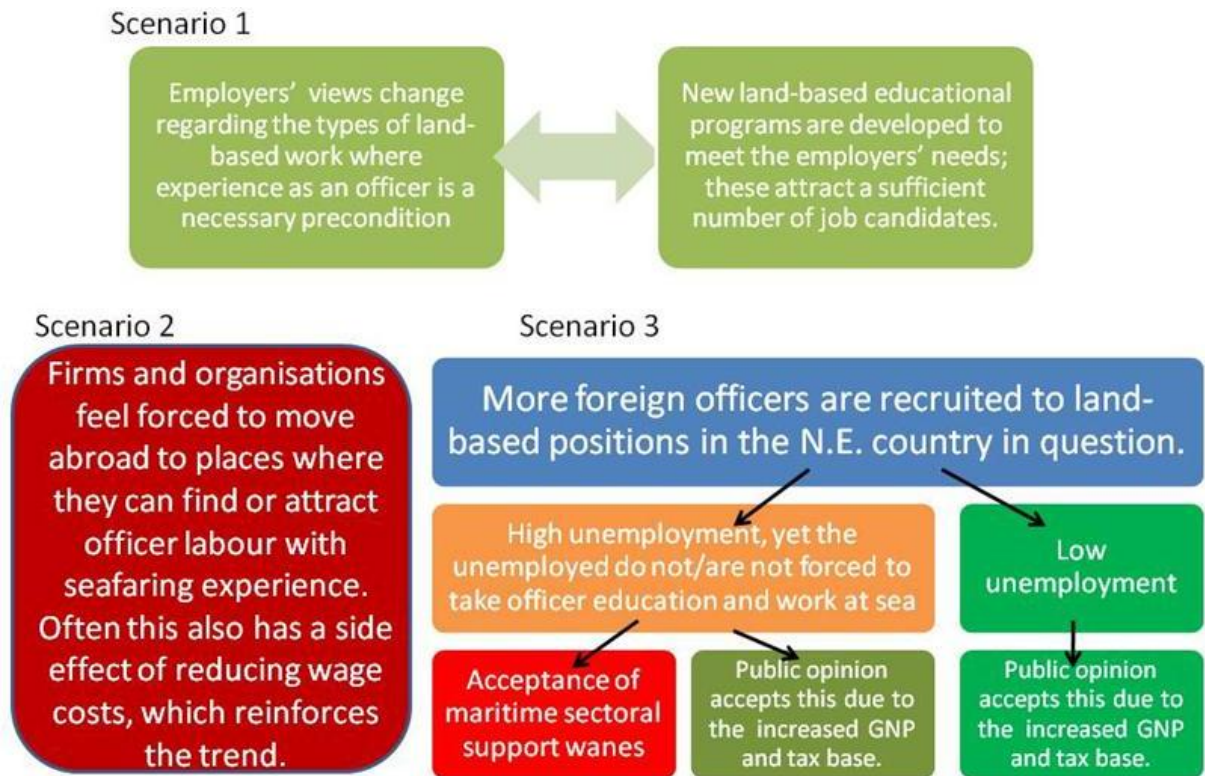
Based on the above developments and the general high gross national income level, currently, maritime education efforts in Western Europe enjoy rather fortunate circumstances in comparison with similar efforts in the transition economies and the developing world. However, this circumstance does not exclude the possibility that highly motivated, talented and extremely hard working individuals in developing maritime nations may develop similar or in some cases even superior competencies to those of the relatively well-educated Western maritime sector employees.

Moreover, the Asian markets are those that are expected to grow at the highest rate in the future. European employees do not necessarily have superior skills in dealing with these markets, as their knowledge of the major languages, the institutions and rules of cooperation of the Asian region is restricted. In contrast, e.g. Japanese and Indian shipping actors are seeking to optimise their public relations and services to other actors of the region including, through ASEAN cooperation and the newly established Asian Shipowners' Forum, in cooperation with their home governments.

The third viewpoint is that recruitment problems present a threat to Northern European maritime clusters in particular; this viewpoint has been especially predominant in the British debate (see e.g. Gardner et al. 2004, McConville et al. 1997 or Pettit et al. 2003), yet the arguments have been extended to a number of other developed countries (see e.g. Lewarn 2009) and also some countries in Eastern Europe (see, e.g., Glen 2008).

Figure 2 indicates three possible ways in which the domestic maritime industries and society at large in a traditional maritime nation may respond to this problem.

**Figure 2: Possible maritime industry and broader societal reactions to domestic officer shortages in Northern European countries**



Scenario 1 supposes that employers and/or the educational institutions in a country in question may choose to react to problems in land-based employment, caused by a lack of officers, by developing new, land-based study programmes that provide land-based staff with many of the qualifications that were traditionally acquired through former officer-staff members' work experience at sea. This scenario 1 approach has been followed by some maritime sector firms in Germany and Norway. It is marked with grey green as it would ensure maritime positions on land. In this scenario, the NMU project consortium would probably have large opportunities with regard to developing innovative offerings for the maritime labour markets of the core NMU countries.

Scenario 2 is the scenario feared especially by the UK maritime cluster (see, e.g., Gardner et al. 2004, McConville et al. 1997 or Pettit et al. 2003), for two reasons: (1)

because the chain of events of Scenario 2 to some extent has already happened in this cluster (see *ibid.*); and (2) the cluster also contains relatively many international institutions (such as the IMO) and organisations (e.g. the headquarters of ISF/ICS, Intertanko, Intercargo, ITF, etc.) as well as shipping classification, risk assessment companies, maritime insurers and financiers. This scenario calls for a more international approach beyond EU borders for NMU offerings.

The trend to increasingly recruit foreign officer labour to land-based positions (i.e. Scenario 3) has been mainly pursued in the UK<sup>16</sup> and Norway<sup>17</sup>. To some extent it has also been made more possible in Denmark and Germany through similar differentiated immigration policies that allow firms to employ well-educated persons from non-EU countries in leading positions. If this approach is pursued by maritime firms situated in the North Sea region in future, the implication for the Northern Maritime University project would be that its consortium should consider tailoring its part-time continuing education courses/modules and study programmes to both nationals working in the NMU countries and to newly arrived foreigners. It would also mean that two types of integration and knowledge supplement courses/modules could be offered: on the one hand, courses/modules that seek to rectify the knowledge deficits of NMU core country nationals in relation to the knowledge of foreigners; and on the other, courses/modules that seek to rectify the knowledge deficits that foreigners have vis á vis the NMU core country nationals.

However, scenarios two and three also imply an implicit societal threat to current maritime education financing and also to the cluster policy-related preferential tonnage tax regime.

These less positive scenarios for Northern European maritime industries and their home country educational institutions must be considered carefully in further research on the types of NMU offerings. This underlines the need for NMU offerings to be competitive at global level to mitigate potential negative effects.

### **2.2.2 Geographical coverage and activities**

Almost 74% of respondents indicated that their activities are not just national or local, but instead either regional, European or global in coverage (Table 10 below).<sup>18</sup> This suggests a need for knowledge and educational offerings that address relevant international maritime business operations and that are recognised in multiple countries.<sup>19</sup>

In relation to the responses to question three for two of the NMU countries, Norway and the UK, local and national firms represented 40% or more of the sample. Despite the small size of the sample, this result might be interpreted to mean that these countries are home to a significant number of firms with only domestic activities, who have less need for knowledge of global issues relating to the shipping industry. This would make sense to us, due to the UK's situation as an island country and to the importance of coastal shipping to the logistics system in Norway. These findings underline the importance of local contexts in NMU educational offerings.

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<sup>16</sup> Probably due to (a) the presence of international maritime institutions and organisations having headquarters in London, and (b) many years of domestic immigration policies allowing well-educated persons from other countries, including especially Commonwealth nations, access to work in Britain.

<sup>17</sup> Due to this country having been unique in Europe in that it has had very low unemployment or no unemployment for decades.

<sup>18</sup> Question 3 in the questionnaire (see Appendix 3)

<sup>19</sup> Details on internationalisation are discussed in Section 4's evaluation of questions 17, 22 and 23 (see Appendix 3 for the wording of these questions)

**Table 6: Geographical coverage/extent of operations of surveyed firms and organisations**

QUESTION 3	Distribution of responses for those who answered the question										Response rate
Country Category	Global		European		Regional		National		Local		
Denmark	12	44%	7	26%	3	11%	1	4%	4	15%	87%
Germany	2	100%	0	0%	0	0%	0	0%	0	0%	67%
Norway	3	60%	0	0%	0	0%	1	20%	1	20%	83%
Sweden	4	44%	1	11%	1	11%	1	11%	2	22%	82%
UK	3	43%	1	14%	0	0%	2	29%	1	14%	100%
<b>Total NMU countries</b>	<b>24</b>	<b>48%</b>	<b>9</b>	<b>18%</b>	<b>4</b>	<b>8%</b>	<b>5</b>	<b>10%</b>	<b>8</b>	<b>16%</b>	<b>86%</b>
Other Country	7	54%	0	0%	2	15%	4	31%	0	0%	93%
Country Unspecified	2	33%	3	50%	0	0%	1	17%	0	0%	40%
<b>Total all countries</b>	<b>33</b>	<b>48%</b>	<b>12</b>	<b>17%</b>	<b>6</b>	<b>9%</b>	<b>10</b>	<b>14%</b>	<b>8</b>	<b>12%</b>	<b>79%</b>

The geographical reach of the respondents' operation<sup>20</sup> is presented in Table 11.

**Table 7: Regions of Europe in which surveyed firms and organisations operate**

QUESTION 4	UK / Ireland	Benelux and France	Nordic Countries	Germany	Baltic States	Central Europe	Eastern Europe	SW Europe	SE Europe	All Regions	Other
Denmark	25,8%	22,6%	48,4%	25,8%	29,0%	6,5%	6,5%	16,1%	6,5%	29,0%	12,9%
Germany	0,0%	0,0%	0,0%	33,3%	33,3%	0,0%	33,3%	0,0%	0,0%	33,3%	0,0%
Norway	16,7%	16,7%	50,0%	16,7%	16,7%	0,0%	16,7%	16,7%	0,0%	33,3%	0,0%
Sweden	27,3%	18,2%	54,5%	18,2%	0,0%	9,1%	9,1%	9,1%	9,1%	18,2%	18,2%
UK	100,0%	28,6%	42,9%	42,9%	42,9%	28,6%	28,6%	14,3%	28,6%	14,3%	0,0%
<b>Total NMU</b>	<b>32,8%</b>	<b>20,7%</b>	<b>46,6%</b>	<b>25,9%</b>	<b>24,1%</b>	<b>8,6%</b>	<b>12,1%</b>	<b>13,8%</b>	<b>8,6%</b>	<b>25,9%</b>	<b>10,3%</b>
Other Country	14,3%	7,1%	7,1%	7,1%	7,1%	7,1%	14,3%	21,4%	14,3%	42,9%	42,9%
Country Unspecified	0,0%	0,0%	20,0%	6,7%	6,7%	0,0%	0,0%	0,0%	0,0%	20,0%	0,0%
<b>Total All Countries</b>	<b>24,1%</b>	<b>14,9%</b>	<b>35,6%</b>	<b>19,5%</b>	<b>18,4%</b>	<b>6,9%</b>	<b>10,3%</b>	<b>12,6%</b>	<b>8,0%</b>	<b>27,6%</b>	<b>13,8%</b>

The surveyed firms from the NMU region have significant activities within the North Sea Region (NSR) and the Baltic states. Less activities are spread to South-Western Europe and South-Eastern European regions; however, around 26% are active on all European regions. Respondents from outside the NSR have a wider geographic range in general and do not particularly focus on any of the NMU countries.

In order to identify some underlying relations between the sample and maritime activity, the distribution of port activities is briefly presented below.

Table 12 indicates that the amount of seaborne goods handled per inhabitant is by far the highest in Norway. We judge this to be due to the role of the offshore oil sector and of coastal shipping in Norway. Moreover, for both Norway and Sweden, their geographical placement on the Scandinavian Peninsula and the resulting road transport isolation from the main part of the continent of Europe contribute to the relatively high figures. Denmark's offshore industry may similarly contribute to the relatively high figure for this country, whereas the low UK figure is surprising if one takes into account that the UK is an oil-producing island country. In contrast, the result for Germany is not surprising, due to the relative importance of the country's ports as global shipping bridgeheads to non-Scandinavian Continental European ports. However, in 2007, the non-NMU project country Netherlands alone accounted for 30,791 kg of goods being moved per inhabitant. This figure is significantly higher than that of all NMU countries except Norway, yet here it is to be remembered that most of the Dutch goods handling is international in nature, as national coastal shipping is not a major factor in this country.

<sup>20</sup> Question 4 of the questionnaire (see Appendix 3). This question allowed for multiple answers.



**Table 8: Gross weight of goods in ports in tonnes and per inhabitant in the five core NMU countries**

Core NMU Project Country	Gross weight of seaborne goods handled in ports pr. 1000 tonnes					Inhabitants 2007	Weight of goods pr. inhabitant in kg, 2007
	2003	2004	2005	2006	2007		
Denmark	103.954	100.373	99.688	107.674	109.660	5.447.084	20,132
Germany	254.834	271.869	284.865	302.789	315.051	82.314.906	3,827
Norway	186.781	198.199	201.678	196.818	198.507	4.681.134	42,406
Sweden	161.454	167.350	178.122	180.487	185.057	9.113.257	20,306
UK	555.662	573.070	584.919	583.739	581.504	60.816.701	9,562

Source: Eurostat (accessed in May 2009)

Table 13 shows that the entire NMU region handles a substantial amount of European goods. In 2006, the five NMU countries alone handled 35.8% of the 2006 total amount of goods handled by ports in the current EU27.<sup>21</sup> In comparison, the Netherlands handled 12.4% of all goods in the EU27 countries in the same period.

**Table 9: Gross weight of goods in ports in tonnes per European/EU region**

European Region	Geographical explanation	Gross weight of seaborne goods handled in ports pr. 1000 tonnes				% of goods related to 2006 EU27 total
		2003	2004	2005	2006	
EU (27 countries)	Norway (N) is not EU	3.452.336	3.570.238	3.718.846	3.835.939	
EU (15 Countries)	Norway (N) is not EU	3.188.830	3.304.564	3.433.783	3.545.911	92,4%
NMU Core Countries	DK+D+N+S+UK	1.262.685	1.310.861	1.349.272	1.371.507	35,8%
Other Western EU	EU15-(DK+D+S+UK)	2.112.926	2.191.902	2.286.189	2.371.222	61,8%
Eastern Europe EU	EU27 - EU15	263.506	265.674	285.063	290.028	7,6%

Source: Eurostat (accessed in May 2009)

Comparing the results from the questionnaire on geographical distribution of activities in Europe (see Table 11) with the results from Tables 12 and 13, the following key issues can be seen:

- There is probably a great deal of local issues in the shipping industry of Norway contributing to the unique importance of coastal shipping to this country. However, at the same time, the EU is seeking to promote short sea shipping through the promotion of so-called "Motorways of the sea"<sup>22</sup>. Thus, teaching should address both local and international industry concerns. Development of courses/modules and study programmes must be very conscious of referring to both local and international short-sea shipping. Consequently, offerings are to include relevant examples from either context, explaining national or regional differences where this is relevant.
- As the main ports of the Netherlands are the main non-Scandinavian Continental European bridgehead ports for goods to Europe (see, e.g., Jakobsen et al. 2004), it is to be expected that people around the world seek educational information about them, as well as about similar leading ports in Asia or other world regions. It can be expected that education about the Netherlands' ports will be of relevance to a wide audience, especially of

<sup>21</sup> This calculation includes Norway as a NMU core country, as it received finance for the NMU project although it is not an EU member.

<sup>22</sup> see, e.g., [http://ec.europa.eu/transport/maritime/motorways\\_sea/motorways\\_sea\\_en.htm](http://ec.europa.eu/transport/maritime/motorways_sea/motorways_sea_en.htm)

students from the NSR. The inclusion of sample ports in the educational offerings requires further investigation and can be addressed in the context of the Delphi and Foresight studies.

## 2.2.3 SMEs

In the application for EU funding for the Northern Maritime University project, the goal of addressing the educational needs of small and medium sized firms was specifically mentioned. The questionnaire addressed the issue by asking for the number of employees in a respondent's firm.<sup>23</sup> In the online survey, questions about turnover and balance sheet totals were posed due to the following considerations:

- The online survey is a first scoping study;
- Four of the five core NMU countries, namely Denmark, Norway, Sweden and the United Kingdom, have not replaced their own national currency with the Euro. This means that respondents from firms in these countries could not be expected to know the value in Euro of their firm's annual turnover or balance sheet total; and
- The same would be the case for other firms and organisations from outside the Euro region which chose to answer the internet questionnaire.

Table 14 indicates the distribution of firms and organisations who answered the questionnaire by size.

**Table 10: Number of employees in the firms and organisations that responded to the questionnaire**

QUESTION 32	0-10 employees		11 - 50 employees		51 - 250 employees		250+ employees		Response Rate
Denmark	3	16%	4	21%	6	32%	6	32%	61%
Germany	2	67%	1	33%	0	0%	0	0%	100%
Norway	0	0%	2	40%	1	20%	2	40%	83%
Sweden	4	40%	1	10%	1	10%	4	40%	91%
UK	1	25%	1	25%	1	25%	1	25%	57%
<b>Total NMU</b>	<b>10</b>	<b>24%</b>	<b>9</b>	<b>22%</b>	<b>9</b>	<b>22%</b>	<b>13</b>	<b>32%</b>	<b>71%</b>
Other Country	2	18%	2	18%	2	18%	5	45%	79%
Country Unspecified	1	9%	4	36%	4	36%	2	18%	73%
<b>Total</b>	<b>13</b>	<b>21%</b>	<b>15</b>	<b>24%</b>	<b>15</b>	<b>24%</b>	<b>20</b>	<b>32%</b>	<b>72%</b>

Around 69% of respondents came from small and medium-sized enterprises, both in the NMU core country region and the overall sample. This is evidence that the goal to specifically address SMEs has been fulfilled.

<sup>23</sup> Question 32 in the questionnaire (see Appendix 3) asked firms and organisations to indicate the total number of employees according to EU statistical categories:

Microenterprise – “enterprise which employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million”;

A small enterprise - “an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million”

Small and medium enterprises (SME) - “enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million”

for reference see

([http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP\\_GLOSSARY\\_NOM\\_DTL\\_VIEW&trNom=CODED2&StrLanguageCode=EN&IntKey=17399050&RdoSearch=BEGIN&TxtSearch=small&CboTheme=16713670&IntCurrentPage=1](http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=DSP_GLOSSARY_NOM_DTL_VIEW&trNom=CODED2&StrLanguageCode=EN&IntKey=17399050&RdoSearch=BEGIN&TxtSearch=small&CboTheme=16713670&IntCurrentPage=1)).

## 2.3 The structure and characteristics of questionnaire respondents

### 2.3.1 Respondents' position and HR skills

This section analyses the individual characteristics of respondents. The questionnaire asked the respondent about his/her position and level of management within the organisation<sup>24</sup>, respectively. Table 15 below presents the results of question 31:

**Table 11: Respondents' level of management in the organisation**

QUESTION 31: Level of management in organisation	Executive / High Senior Management		Senior Management		Operational Management		Other		Re-sponse Rate
Denmark	7	27%	10	38%	5	19%	4	15%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	3	60%	1	20%	1	20%	0	0%	83%
Sweden	3	38%	2	25%	3	38%	0	0%	73%
UK	3	50%	1	17%	0	0%	2	33%	86%
<b>Total NMU</b>	<b>16</b>	<b>35%</b>	<b>15</b>	<b>33%</b>	<b>9</b>	<b>20%</b>	<b>6</b>	<b>13%</b>	<b>79%</b>
Other Country	2	17%	5	42%	3	25%	2	17%	86%
Country Unspecified	2	33%	1	17%	2	33%	1	17%	40%
<b>Total</b>	<b>20</b>	<b>31%</b>	<b>21</b>	<b>33%</b>	<b>14</b>	<b>22%</b>	<b>9</b>	<b>14%</b>	<b>74%</b>

A substantial number of respondents (i.e. 38% from the NMU countries and 64% from the total population) came from the highest levels of management.<sup>25</sup> Further research is necessary in order to be able to identify to what extent these individuals are involved in decisions concerning employee education and training plans, due to the following:

- The need to optimise NMU offerings based on the perceived education needs of the persons involved in the decision-making process;
- The need to optimise the marketing of NMU educational offerings, both in terms of how to transmit the message(s), and the media to be used in this marketing; and
- The need to manage expectations, e.g. by seeking to make tacit and inexplicit expectations explicit and seeking to transform unrealistic expectations into realistic ones.

The last need has been illustrated by Ojasalo (1997): his conceptualisation of the process is depicted in Figure 3. In order to be able to further investigate this matter, these needs will be addressed in the stakeholder panels in the coming Delphi and Foresight studies. This is important in order to be able to identify and effectively interact with the so-called "buying centre"<sup>26</sup> when marketing NMU courses/modules, study programmes and educational services.

<sup>24</sup> Questions 29 and 31 (see Appendix 3). The first question was an open question; the second question was a single choice with three levels to choose from and leaving a fourth, "other", category open for write-in answers.

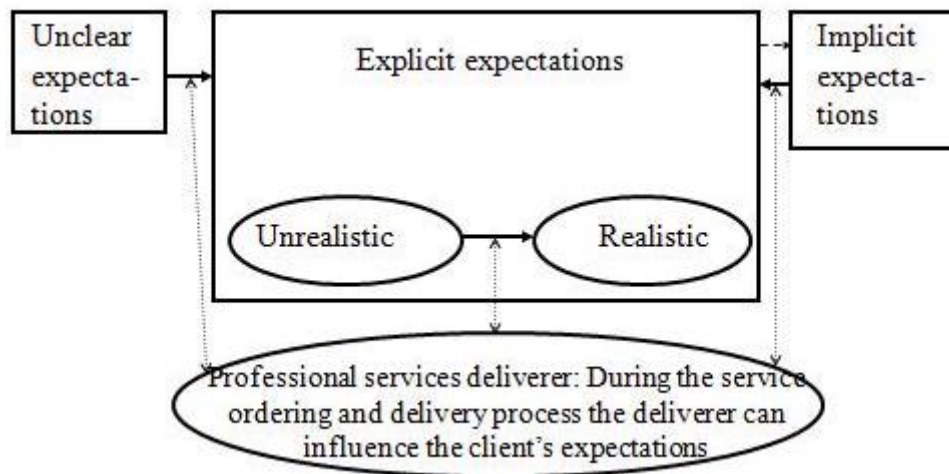
<sup>25</sup> In relation to the above, there may be some interpretation problems due to different typical corporate governance structures between (a) countries, (b) companies of various sizes, and (c) firms, public sector organisations and industry-related organisations.

<sup>26</sup> According to the organisational buying behaviour theory of Webster and Wind (1972), such a buying centre is potentially composed of persons who may take on the following roles:

- Deciders, i.e. those responsible for making the final decision
- Influencers, i.e. those whose opinions input into the decision process



Figure 3: The management of expectations in the provision of professional services such as educational offerings to firms and organisations (from Ojasalo 1999:97):



The buying centre may also vary from firm to firm, from country to country, between firms and public sector organisations, or between organisations of various sizes, meaning that it is also generally difficult to determine whether information on buying centres achieved from individual respondents can be generalised to larger populations.

In relation to this point, the diversity among the received “other” answers (Question 31) is depicted in Table 16.

Table 12: Respondents' specification of “other” levels of management to Question 31

Country category	"Other" answers, which were written in
Denmark	Head of small family company
Denmark	Accounts, administration, correspondence, wife of self-owner (only person in the shore-based office)
UK	Sole worker / Trainer
Other	Senior consultant
Other	Professor
Not specified	HR Consultant

Table 17 reports the specified positions from respondents<sup>27</sup> in descending order. The answers from Tables 16 and 17 indicate that a relatively small number of respondents work in HR specialist functions. However, judging from the general quality of received responses, it can be assumed that it is highly likely that other managerial groups as well as a few non-management employees (e.g. the shipping assistant, administrator, dynamic positioning specialist, the two engineers and the Master Mariner) have been engaged in educational issues in the various roles of the buying centre (Webster and Wind 1972).

o Users, i.e. those who will take part in the educational offers in question  
o Buyers, i.e. those who execute the buying process itself  
o Gatekeepers, i.e. those who filter and pass on information about what is to be bought to the other groups  
Persons may play more than one role. E.g. a middle manager who orders a course/module for herself may be both a user, a decider and a gatekeeper at once.

<sup>27</sup> Question 29 of the questionnaire (see Appendix 3).

**Table 13: Table of positions which were written in by respondents**

Number of answers	Position specified	Country categories
7	CEO, Director or Man. director	DK, NO, UK, other
5	HR Manager	DK, SE, UK
5	Harbour/Port manager or captain	DK, NO, UK
4	Manager	DK, NO, UK, other
3	Shipbroker	DK
3	Director, service operations	SE, Other
2	Director, techn. Department	DK, SE
2	Professor	UK, Other
2	Consultant or sen. Advisor	Other
1	Shipping assistant	DK
1	Administrator	DK
1	Fleet director	DK
1	Head of department	DK
1	Head of operations	DK
1	Fleet personnel manager	Germ.
1	Dynamic positioning specialist	SE
1	Group development director	UK
1	New busi. development director	Other
1	Master Mariner	Other
1	Head planning & mechanisation	Other
1	2nd Engineer on ship	Other
1	Marketing manager	Other
1	Chief Engineer	Other

*Note: Some translation from a Romance language and some language correction were undertaken; moreover, two answers were listed in two places, as two respondents specified two separate positions.*

## 2.3.2 Interest in NMU educational offerings

Answers to questions 24 and 33 indicate the extent to which the NMU was able to attract the interest of respondents through the questionnaire to participate in future NMU-related activities.<sup>28</sup> The distribution of responses to these questions is depicted in Table 18.

57% of respondents from the NMU core countries wished to receive further e-mail information, yet 100% of the respondents who indicated that they came from third countries and also Germany expressed the wish to receive further information by email. This suggests that some of the respondents from the other four NMU countries (Denmark, Norway, Sweden, and the UK) may prefer to receive this information via other sources, e.g. the maritime media or industry organisations.

62% of respondents wanted to participate in the prize draw. Here, for all NMU countries except the UK and Norway, the propensity among those who answered to want to participate

<sup>28</sup> In question 24 respondents were explicitly asked whether they wished to receive information about upcoming NMU developments by email. In question 33, they were given the option to participate in a drawing to win one of 2 free passes to the IAME 2009 Conference (see Appendix 3)

was larger; moreover, both the interest in participating and the response rate to this particular question were highest for Germany and Sweden. However, as the sample size is not large enough to be representative, care must be taken in interpreting these results.

**Table 14: Information about respondents' wishes to receive further information about NMU developments by e-mail and to participate in the draw for one of 2 free passes to the IAME 2009 Conference**

QUESTION 24 & 33	Question 24: Further info. about NMU by email					Question 33: Participation in IAME 2009 drawing				
	Yes		No		Response Rate	Yes		No		Response Rate
Denmark	13	50%	13	50%	84%	12	60%	8	40%	65%
Germany	1	100%	0	0%	33%	3	100%	0	0%	100%
Norway	3	60%	2	40%	83%	2	40%	3	60%	83%
Sweden	5	56%	4	44%	82%	9	90%	1	10%	91%
UK	5	83%	1	17%	86%	1	25%	3	75%	57%
<b>Total NMU</b>	<b>27</b>	<b>57%</b>	<b>20</b>	<b>43%</b>	<b>81%</b>	<b>27</b>	<b>64%</b>	<b>15</b>	<b>36%</b>	<b>72%</b>
Other Country	13	100%	0	0%	93%	6	55%	5	45%	79%
Country Unspecified	1	20%	4	80%	33%	7	58%	5	42%	80%
<b>Total</b>	<b>41</b>	<b>63%</b>	<b>24</b>	<b>37%</b>	<b>75%</b>	<b>40</b>	<b>62%</b>	<b>25</b>	<b>38%</b>	<b>75%</b>

## 2.3.3 Some general thoughts on factors contributing to the variance and answer patterns

A number of factors may contribute to general patterns of variance across the various countries that participated in the online survey:

Varying patterns of educational offerings across nations (see, e.g., Lewarn 2009, World Maritime University 2005).

Varying patterns of career paths across nations (see, e.g., Southampton Solent University 2005, EU Commission, DG Fisheries and Maritime Affairs 2006).

Variations between nations on the extent to which firms and organisations offer their employees (at various levels) the opportunity to take part in continuing education offerings and the extent to which such offerings are either supported directly or indirectly by the government (e.g. through tax policy or policies about educational trusts).

### More general cultural variations

Of course, sector-specific characteristics (and here either commonalities or differences, see Jakobsen et al. 2004) or a common culture within a multinational company may also negate some national differences. Moreover, while general descriptions of national or sector commonalities may be useful for creating educational offerings and marketing plans that appeal broadly to a target group, they do not account for all of the individual variation in preferences.

Concerning more general cultural variations, insights from studies of aggregate differences are sometimes taken as a point of departure when planning the adaptation of communication strategies and the like. These issues are being taken as a starting point or as initial hypothetical understanding of potential problem areas to be investigated further in the NMU's interactive dialogue with industry actors.<sup>29</sup>

Some of the above cultural issues are, however, of a non-strategic nature and may be dealt with at the individual course/module level. Despite this, there should also be a general effort to optimise the intercultural aspect of education such that the students are, on the one hand, introduced to national differences due to infrastructure, geography, levels of national wealth, business legislation, variations in education patterns and career paths and other cultural difference to a sufficient degree; and on the other hand, that this is done in a way

<sup>29</sup> Cultural dimensions postulated as relevant to work-related issues in, e.g., Hofstede (1980) will be considered in future work in the Delphi and Forecast studies as well as insights from so-called interpretive studies of culture.

that (a) is acceptable to a potentially very diverse body of students, and (b) is designed to meet as many varying needs as possible.

## *2.4 Discussion of raised strategic issues*

The questionnaire and macroeconomic data presented and interpreted in Subsections 2.2 and 2.3 gave rise to the following main strategic issues which may be further analysed in the planned Delphi and Foresight studies:

Educational offerings of the NMU consortium should especially focus on shipping and multi-modal transport as well as the broad spectrum of commercial or facilitating activities related to seaports (e.g. port services, terminal service provision, and port terminal operations).

Due to the current shortage of Western European seafaring officers, there may be a shortage of former officers from the NMU countries who are able to take the land-based maritime industry work that has traditionally been offered to them. The broad maritime business-related educational implications of this issue must be examined through scenario analysis based on, e.g.:

The possible development of new, land-based study programmes;

The possible import of skilled labour for these positions from, e.g., Eastern Europe or developing countries, and the implications of this on future NMU-region maritime education needs and offerings; and

The possible movement of maritime firms from the Northern European region to other regions, e.g. Asia, and the implications of this on future NMU-region maritime education.

Since the Asian regions are expected to be the maritime transportation regions that will experience the highest future growth, and Western maritime business actors and academics may not possess sufficient detailed knowledge about the unique features and culture of these regions in the same manner as their Asian counterparts do about the European region, it must be considered whether the NMU should improve its knowledge base with regard to Asia. This will also be addressed in the Delphi and Foresight studies.

In Europe, the ports of Norway, Sweden and the UK have a somewhat “captive market” due to their geographical settings, whereas ports in Denmark and Germany compete with the ports of the Netherlands. Courses should encompass knowledge on the whole spectrum of port types, meaning the perception of aspects relevant to this diversity in market types also will be addressed in the Delphi and Foresight rounds.

The majority of respondents to the survey were not employed in HR positions in their firms, yet demonstrated knowledge and engagement in educational issues. Based on this, further research on maritime actors’ decision-making processes and competence assessment cycles will be conducted as part of the Delphi and Foresight studies.

In Germany and participating countries outside the NMU group, it appears that respondents were especially receptive to being informed about NMU developments by direct e-mail. However, a relatively smaller percentage of questionnaire respondents from Denmark, Norway, Sweden, and UK seemed to prefer e-mail newsletters as the channel of information. Here alternative channels to distributing education-related information (e.g. through the maritime media or through national distribution channels) should be investigated further in the coming Delphi and Foresight studies.

### 3 EDUCATION IN MARITIME FIRMS AND ORGANISATIONS

#### 3.1 Maritime firms' strategies and approaches to maritime education

The table below depicts the distribution of whether the responding firm or organisation has a specific strategy for education and training or a personnel development plan.<sup>30</sup>

**Table 15: Responses to the question “Does your company/organisation have a specific strategy for the education and training or a personnel development plan for staffs”**

Question 5	Distribution of responses among those respondents who answered the question				Response
Country category	YES		NO		Rate
Denmark	11	41%	16	59%	87%
Germany	2	100%	0	0%	67%
Norway	1	20%	4	80%	83%
Sweden	5	56%	4	44%	82%
UK	5	71%	2	29%	100%
Total NMU Countries	24	48%	26	52%	86%
Other Country	5	38%	8	62%	93%
Country Unspecified	4	67%	2	33%	40%
Total All Countries	33	48%	36	52%	79%

Some country-specific differences appear. Due to the small sample size, results are interpreted in an indicative manner and taken for further exploration in the upcoming Delphi and Foresight studies.

Respondents also had the possibility of giving specific comments on their strategy. The principle comments are stated in the following:

Denmark:

- Strategies “mainly based on national regulations, for example hazardous cargo”;
- “Personal developing policy with interviews and yearly measuring for trainees - we follow the requirements from official law, plus our own programme which goes even further”;
- “development plans are agreed yearly and ad hoc”;
- “training of CM's first and hereafter second layer”;
- Firm wants “employees to always have the most up-to-date knowledge in their field of competence”;
- “two year training programme for trader trainees”;
- Firm “suggests individual courses where they find it needed or wanted by the employee”;
- Firm “offers education every year to their employees”;
- “it's a plan for every person”; and
- they shall “maintain their master certificate continued pedagogical training”.

<sup>30</sup> Question 5 in the questionnaire (see Appendix 3).

**Germany:**

- Firm has “own training and education department”; and
- they have “fleet wide computer based competence management system by [a third company deliverer, which we have anonymised here]”.

**Sweden:**

- “basic training for new employees, product training, career path, special training, and test by use of web based test survey programme”;
- “seagoing personnel with constant education and training to meet or exceed regulatory and customers and acute requirements, for shore staff we encourage education and training always.”;
- “personnel development is reviewed and there is development dialogue and yearly appraisals”; and
- Firm has a “competency plan which is followed by all staff.”

**UK:**

- all staff are “required to be trained to a minimum level of NVQ level 2,”;
- “using inputs from STCW and port marine safety code along with local authority requirements as we are a municipal port”;
- “each year the development goals are agreed with each employee and these are regularly assessed during the year, each of the employees is expected to take on at least one challenge educationally every year”; and
- “all the staff members are appraised and development needs identified, these are then centrally collated by the development manager and discussed with head of department and actioned”.

**Other countries:**

- “the National Port Authority has local agreements with universities to follow short courses”;
- “[Our country’s] ports have a strategy for education and training in the required field, the Government of [our country] is to have an exchange programme”, the next company said “they attend training conducted by UNCTAD”;
- “training courses and simulators for sea going staff”; and
- “for the companies in port area cooperation with lower and medium education to develop ports and logistics school.”

**Unspecified countries:**

- “education and training is planned with the specific employees in mind, and normally a development plan will be agreed upon during the yearly appraisals.”

In relation to the above, it is to be noted that some (but not all) of the companies from Denmark, Sweden and the UK indicated that staff on all levels are offered some sort of competence developing activities, whereas one Danish company indicated the opposite: That CM’s (here assumed to be some sort of managers) were trained first and then the second level.

Moreover, one respondent indicated having their own training and education department; this is of course something that only a larger firm can have. Ten respondents spoke of regular or annual appraisal. Of these responses, in two instances, trainees were the main focus, whereas in two other instances the seagoing personnel were the recipients, and in the other six instances there appeared to be very broad plans for most employee categories. In contrast, a smaller number of respondents indicated that they do things in a more ad hoc



way, and one respondent mentioned directly that safety codes are the main drivers of training, whereas another four respondents also made mention of the importance of safety codes in relation to training plans.

In question 6<sup>31</sup> the respondent firms and organisations were asked which levels of educational qualifications interested them most. The results of this question are listed in the Table below.

**Table 16: Responses to the question “What level of educational qualifications would most interest you/your employees”**

Question 6	Distribution of responses among those respondents who answered the question												Response Rate
Country Category	Post-Graduate		MBA		Bachelor		Vocational Training		Specific Topics		Other		
Denmark	3	11%	1	4%	5	19%	3	11%	13	48%	2	7%	87%
Germany	0	0%	0	0%	1	50%	0	0%	0	0%	1	50%	67%
Norway	0	0%	0	0%	2	40%	0	0%	3	60%	0	0%	83%
Sweden	1	11%	0	0%	1	11%	1	11%	5	56%	1	11%	82%
UK	2	29%	0	0%	0	0%	3	43%	2	29%	0	0%	100%
<b>Total NMU Countries</b>	<b>6</b>	<b>12%</b>	<b>1</b>	<b>2%</b>	<b>9</b>	<b>18%</b>	<b>7</b>	<b>14%</b>	<b>23</b>	<b>46%</b>	<b>4</b>	<b>8%</b>	<b>86%</b>
Other Country	1	8%	4	33%	1	8%	0	0%	4	33%	2	17%	86%
Country Unspecified	0	0%	1	17%	2	33%	0	0%	1	17%	2	33%	40%
<b>Total All Countries</b>	<b>7</b>	<b>10%</b>	<b>6</b>	<b>9%</b>	<b>12</b>	<b>18%</b>	<b>7</b>	<b>10%</b>	<b>28</b>	<b>41%</b>	<b>8</b>	<b>12%</b>	<b>78%</b>

Besides the differences between the samples, it is to be remembered that there are educational differences between the countries.

In the UK, ship officer education has recently been made available at both a (lower) vocational level and a bachelor level (Bonsall, Wall & Wang 2006; Fairplay 2008). This has long been the case in Denmark<sup>32</sup>, Germany<sup>33</sup> and Norway<sup>34</sup>, yet the distribution between the vocational and Bachelor training paths vary between these countries. This situation is in contrast to the officer training situation in Sweden, where officer training is at the Bachelor level<sup>35</sup>.

Moreover, it is likely that the term “post graduate” may have been interpreted differently by respondents in various countries. Denmark has two unique Post-graduate “senior officer” programmes for single and dual purpose officers<sup>36</sup>. The World Maritime University (2005:31-33) lists: the Copenhagen Business School’s Executive MBA in Shipping and Logistics as a Danish post-graduate programme; five MSc programmes and one maritime law programme as the post-graduate offerings in Norway; 17 maritime MSc programmes, two MA programmes and one MBA programme as post-graduate programmes in the United Kingdom; and two MSc programmes as post-graduate programmes in Sweden.

The relatively high Danish response rate for MBA education may be related to the high standing of the Copenhagen Business School’s Executive MBA in Shipping and Logistics,<sup>37</sup> especially in the Danish shipping industry. Other European institutions both inside and outside the NMU region are also developing part-time executive MBAs for the shipping industry such as:

<sup>31</sup> see Appendix 3

<sup>32</sup> Compare the descriptions for “skibsofficer” and “skibsfører” at: <http://www.worldcareers.dk/Karriere/Skib.aspx>

<sup>33</sup> see e.g. <http://www.fs-seefahrt.fh-flensburg.de/lehrgg.html> for a German-language example of a school offering officer training at the vocational level.

<sup>34</sup> see: <http://www.ikkeforalle.no/>

<sup>35</sup> see: [http://www.studentum.se/sjoefart\\_\\_174\\_\\_.html](http://www.studentum.se/sjoefart__174__.html) and [http://www.hik.se/pages/cgi-bin/PUB\\_Latest\\_Version.exe?allFrameset=1&pagelId=9661&templateEnd=\\_sjofart](http://www.hik.se/pages/cgi-bin/PUB_Latest_Version.exe?allFrameset=1&pagelId=9661&templateEnd=_sjofart)

<sup>36</sup> see: [http://www.simac.dk/side3.php?p\\_id=82](http://www.simac.dk/side3.php?p_id=82)

<sup>37</sup> see: [http://www.cbs.dk/uddannelser/executive\\_masters/executive\\_masters2/mba\\_uddannelser/executive\\_mba\\_in\\_shipping\\_logistics](http://www.cbs.dk/uddannelser/executive_masters/executive_masters2/mba_uddannelser/executive_mba_in_shipping_logistics)



- (1) In Norway, the Norwegian School of Management has, in cooperation with the Nanyang Business School (Singapore), recently launched an Executive MBA in Shipping, Offshore and Finance.<sup>38</sup>
- (2) In the UK, the University of Greenwich offers an MBA in Maritime Management which is also aimed at potential executives.<sup>39</sup>
- (3) In Greece, the Alba Business School, which is located in a suburb some 30 km from the centre of Athens, offers a part-time MBA in Shipping.<sup>40</sup>
- (4) The Pan-European University offers an MBA in Shipping Management.<sup>41</sup>

In relation to the above executive MBA programmes, the Copenhagen Business School's programmes and the other study programmes marked one and four arrange for the various courses/modules or module elements to be held in major maritime metropolises. Programme two takes advantage of the University of Greenwich being situated just outside of London, and programme three seeks to differentiate itself by attracting leading maritime experts from around the world to teach in Greece.

Question 7 deals more specifically with the extent to which firms and organisations "motivate employees to take part in part-time business degree programmes or specific university-level business courses that are relevant to [the surveyed firm or organisation's] business" (see Table below).

**Table 17: Responses to "Does your organisation motivate employees to take part in part-time business degree programmes or specific university-level business courses that are relevant to your business?"**

Question 7	Distribution of responses among those respondents who answered the question				Response rate
Country Category	Yes		No		
Denmark	11	41%	16	59%	87%
Germany	0	0%	2	100%	67%
Norway	3	60%	2	40%	83%
Sweden	3	33%	6	67%	82%
UK	4	57%	3	43%	100%
TOTAL NMU	21	42%	29	58%	86%
Other Country	6	46%	7	54%	93%
Country Unspecified	5	83%	1	17%	40%
TOTAL	32	46%	37	54%	79%

Respondents from Denmark mentioned "MBAs, CBAs and PhD"; another respondent mentioned "to a certain degree we do as we have a "PhD student"; another respondent said that they had "various shipping courses and programmes offered by Cambridge and Bimco"; and the last respondent said they had "HRD, leader courses".

From Sweden, respondents mentioned "MBA", and "we are positive that our sailors are studying for higher maritime degrees."

Respondents from the UK mentioned "Financial assistance and paid time off work can be agreed with each staff member", and "one employee is undertaking Management Diploma and one employee is undertaking director training", and "Shipment Diplomas Foundation Degrees CIPD qualifications."

<sup>38</sup> see: [http://www.bi.no/Content/Study\\_\\_\\_\\_68114.aspx](http://www.bi.no/Content/Study____68114.aspx)

<sup>39</sup> see: <http://www.gre.ac.uk/courses/pg/mar/marmba>

<sup>40</sup> see: <http://www.alba.edu.gr/academic/shipping/Pages/default.aspx>

<sup>41</sup> see: <http://www3.euruni.edu/scripts/index.aspx?idD=1415>

From other countries, respondents said that they were awarded a scholarship by the Organisation of American States (OAS) Human development programme to participate in the VIII Latin America Course of Technology and Operations and Environmental Management in Ports, carried out in Spanish; and others said they were considering certain programmes.

From unspecified countries, one respondent said “if it is of relevance for the job then we support the employee both financially and time wise.” The final respondent from an unspecified country said “many of their employees do MBAs and they also have their own part of a master degree programme and they also sponsor a professor.”

Based on the above write-in responses, taking also the variations in the national educational systems of the five NMU countries into account, it is the authors’ impression that an organisations’ propensity to support such part-time business degree programmes varies from country to country. For example, in the first author’s experience as the former study coordinator of the University of Southern Denmark’s Danish language part-time Master in Transport and Maritime Management study programme, most Danish firms or organisations have paid all of the study fees for the programme’s students that are employed by a firm or organisation during their studies yet have given little reduction in work time, meaning that participants in essence have had to use their free time. Moreover, in Denmark the possibility exists for ambitious unemployed persons to receive financial support for part-time executive Master studies from both the public and the private sector.

UK respondents indicated that companies provided “financial assistance” and “paid time off work”, meaning that, in comparison with the typical Danish situation, not all fees are paid but only a portion of them, yet the employee in question does receive more time off from work.

Finally, the market for part-time Master programmes may be the least developed in the NMU country Germany (see e.g. Jakobsen et al. 2004, Southampton Solent University 2005 and World Maritime University 2005). This impression also corresponds with the results indicated in Tables 16 and 17.

The distribution of answers regarding the potentially available time for education per year is shown in the Table below.<sup>42</sup>

**Table 18: Distribution of answers for “How much work-time (in aggregate) could be made available for education of employees per year”**

Question 8	Distribution of responses among those respondents who answered the question												Response rate
Country Category	Up to 1 week		1-2 weeks		2-3 weeks		More than 4 weeks		Employees use their free time for further education		Other		
Denmark	4	15%	10	37%	5	19%	3	11%	2	7%	3	11%	87%
Germany	0	0%	0	0%	1	50%	0	0%	0	0%	1	50%	67%
Norway	1	20%	4	80%	0	0%	0	0%	0	0%	0	0%	83%
Sweden	2	22%	4	44%	1	11%	1	11%	1	11%	0	0%	82%
UK	1	14%	2	29%	2	29%	1	14%	1	14%	0	0%	100%
Total NMU Countries	8	16%	20	40%	9	18%	5	10%	4	8%	4	8%	86%
Other Country	1	8%	3	23%	4	31%	3	23%	2	15%	0	0%	93%
Country Unspecified	1	17%	0	0%	0	0%	2	33%	1	17%	2	33%	40%
Total All Countries	10	14%	23	33%	13	19%	10	14%	7	10%	6	9%	79%

The results suggest that the Norwegians may be the least generous among the NMU countries when it comes to granting work-time for education. However, here it is to be remembered that this must be regarded as a hypothesis, as the achieved total sum of responses does not allow for inferential statistics to be made. On the other hand, the

<sup>42</sup> Question 8 of the questionnaire (Appendix 3)

hypothesis seems to be a plausible one, especially if one remembers that Norway has for decades experienced an employment level around the so-called “full employment level”, in the neoclassical economic sense of this term.

Aside from Norway, the largest numbers of respondents indicated that either 1-2 or 2-3 working weeks may be made available annually for the education of employees. However, the responses should also be examined in relation to statistics about annual working hours, as these vary substantially from country to country (see table below).

**Table 19: Average working hours in the NMU countries in 2006 for persons in full-time work**

NMU Country					Hours distribution, full and part-time categories					
	Regarding full-time employees				Male dependent employees			Female dependent employees		
	Working hours per annum, dependent and independent employment, and rank		Average weekly working hours, dependent employment only, and rank		Work 19 hours or less pr week	Work 19 - 34 hours pr week	Work 34+ hours pr week	Work 19 hours or less pr week	Work 19 - 34 hours pr week	Work 34+ hours pr week
Denmark	1574	3	38,9	3	5	6	89	9	27	65
Germany	1433	4	39,8	2	6	4	92	18	25	59
Norway	1408	5	38,2	5	3	7	91	16	26	59
Sweden	1576	2	38,7	4	3	7	90	6	31	63
UK	1669	1	42,2	1	4	7	89	21	27	54

(OECD Labour Force Statistics, <http://stats.oecd.org/wbos/Index.aspx?DatasetCode=ANHRS>) and distribution between part- and full-time work for employed persons in the NMU countries (Bielenski et al 2002:53)

Full-time employees (see Table 19) in the UK have the highest number of annual working hours. This was expected, due to the fact that the UK has chosen not to fully implement the EU working time directive.<sup>43</sup> It is interesting to note that Germany and Sweden trade places, such that full-time working Swedes work more than their German counterparts if one includes both dependent and independent employees.<sup>44</sup>

As some responses indicate that all employees are considered in education, training and personnel development plans, we have also provided statistics comparing the number of hours worked from a gender perspective in all land-based dependent work. Here, the general trend is that female dependent employees more often work part-time than do male dependent employees.

The above differences suggest following a “greatest common denominator approach” for NMU education offerings to the business sector. This allows for encompassing company-related and demographic differences, and ensures that full- and part-time students of both sexes find NMU offerings attractive. Equal opportunities need to be prioritised in the design of education offerings, thus keeping in step with the high importance given to gender equality in the NMU countries (for reference, see gender equality ranking below).<sup>45</sup>

<sup>43</sup> Council Directive 93/104/EC of 23 November 1993 concerning certain aspects of the organization of working time, Official Journal L 307, 13/12/1993 pages 0018–0024; amended by Directive 2000/34/EC of the European Parliament and of the Council of 22 June 2000

<sup>44</sup> The latter category encompasses self-employed and business owners.

<sup>45</sup> Information on monitoring of gender equality in higher education and research can be taken from the Swedish “gender mainstreaming” policy ([http://www.europrofem.org/contri/2\\_11\\_sv/sv-gend/mainstreaming.pdf](http://www.europrofem.org/contri/2_11_sv/sv-gend/mainstreaming.pdf)).

**Table 20: Ranking of the NMU countries on two international gender equality scales**

NMU Country	UNDP 2008 Gender Development Measure, <a href="http://hdrstats.undp.org/indicators/279.html">http://hdrstats.undp.org/indicators/279.html</a>	World Economic Forum 2007 Global Gender Gap Rating, <a href="http://www.weforum.org/en/initiatives/gcp/Gender%20Gap/index.htm">http://www.weforum.org/en/initiatives/gcp/Gender%20Gap/index.htm</a>		
	Ranking, all incl. countries	Ranking, NMU countries	Ranking, all incl. countries	Ranking, NMU countries
Denmark	14	3	8	4
Germany	16	4	7	3
Norway	2	1	2	2
Sweden	6	2	1	1
UK	22	5	11	5

Turning now to issues totally unrelated to work time and the distribution of work among employees of various ranks and sexes, in Question 9 the respondents were asked about cooperation with educational institutions (see Table 21).

**Table 21: Responses to “Do you currently cooperate with educational institutions?”**

Question 9	Distribution of responses among those respondents who answered the question				Response Rate
Country Category	Yes		No		
Denmark	11	41%	16	59%	87%
Germany	1	100%	0	0%	33%
Norway	1	20%	4	80%	83%
Sweden	5	56%	4	44%	82%
UK	5	71%	2	29%	100%
Total NMU Countries	23	47%	26	53%	84%
Other Country	8	62%	5	38%	93%
Country Unspecified	6	100%	0	0%	40%
Total All Countries	37	54%	31	46%	78%

The respondents who provided “yes” answers were asked to name their cooperation partners. The following answers were received:

- Denmark: “Esbjerg Handelsskole, Falck Nutec and more”, DTU, St. Gallen, CFL, Oxford Business School, Iads, Køge Handelsskole, “Specific topics - short term courses given by Danske Havne”, VIA, DTU.
- Germany: “academies in Russia and Ukraine - so far cadet programmes only”.
- Sweden: Magsaysay in Manila; Chalmers, Goteborg; Handelshogskolan, Goteborg, Chalmers and Handels (Goteborg University); Southampton, Sjöfartsskolan and Chalmers University of Technology.
- From the UK the respondents said University of Teeside, South Shields Maritime College and numerous other universities.
- Other countries: Universidad del Pacifico, Nautical schools, Nigeria Maritime Authority, University of Amsterdam, College of Amsterdam, University of Plymouth and lastly one respondent said “it’s based on needs”.
- Unspecified countries: Norwegian Business School in Oslo, MARCO, BLS, Southern University and internal courses.”

Norwegian respondents did not supply any answers and also seemed the least involved in cooperation with educational institutions. Moreover, for three of the four NMU countries

that provided write-in answers, namely Denmark, Sweden, and Germany, domestic educational institutions did not receive exclusive mention; instead respondents from these countries also made mention of institutions in various foreign countries. This suggests that at least a part of our stakeholders take an international perspective in cooperating with educational institutions.

Question 10 dealt with satisfaction with current education strategies and suppliers.<sup>46</sup>

**Table 22: Responses to “How satisfied are you with your current education strategy/suppliers”**

Question 10	Distribution of responses among those respondents who answered the question						Response Rate
Country Category	Highly Satisfied		Satisfied		Not Satisfied		
Denmark	3	13%	17	71%	4	17%	77%
Germany	0	0%	0	0%	1	100%	33%
Norway	0	0%	4	80%	1	20%	83%
Sweden	2	22%	6	67%	1	11%	82%
UK	2	29%	4	57%	1	14%	100%
<b>Total NMU Countries</b>	<b>7</b>	<b>15%</b>	<b>31</b>	<b>67%</b>	<b>8</b>	<b>17%</b>	<b>79%</b>
Other Country	1	8%	4	33%	7	58%	86%
Country Unspecified	1	17%	5	83%	0	0%	40%
<b>Total All Countries</b>	<b>9</b>	<b>14%</b>	<b>40</b>	<b>63%</b>	<b>15</b>	<b>23%</b>	<b>74%</b>

For four of the five NMU countries, the broad majority of respondents were either “satisfied” (the most popular answer given) or “highly satisfied”. Only for Germany was the lone respondent “not satisfied”. Here, however, we can deduce that if this German respondent was not satisfied, this dissatisfaction concerned the “academies in Russia and Ukraine” (see discussion of results from previous question).

Question 11 referred to potential changes at university and vocational educational level.

**Table 23: Responses to “Thinking of your current education strategy/supplier. What changes would you like to see in the education in general? (University level)”**

Question 11	Distribution of responses among those respondents who answered the question										Response Rate
Country Category	Higher quality of courses		Specialised lecturers		More examples and reference to practice		Greater emphasis on theory		Other		
Denmark	1	4%	7	30%	12	52%	0	0%	3	13%	74%
Germany	0	0%	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	3	60%	2	40%	0	0%	0	0%	83%
Sweden	1	13%	4	50%	3	38%	0	0%	0	0%	73%
UK	1	14%	0	0%	5	71%	1	14%	0	0%	100%
Total NMU Countries	3	7%	14	32%	23	52%	1	2%	3	7%	76%
Other Country	5	38%	4	31%	3	23%	0	0%	1	8%	93%
Country Unspecified	1	20%	1	20%	3	60%	0	0%	0	0%	33%
Total All Countries	9	15%	19	31%	29	47%	1	2%	4	6%	71%

Additional received comments are listed in the following.

- Denmark: one respondent said, it needs to be 'more organised', another respondent said 'none', and the third respondent said that they mainly order

<sup>46</sup> The wording of the question was not equivocal, because no differentiation was made between the respondents' satisfaction with their own education strategy and the current education supplier(s); thus the interpretation of the responses is more difficult.

specialised tailor-made courses matching their specific requirements, so they do not need any changes.

- For Other Countries, one said that it needs to be 'need based in the field'.

Most respondents are looking for university education with “more examples and reference to practice”, yet for some countries, including the Denmark, Norway, and Sweden, a need for specialised lecturers was also perceived. Quality of courses was mentioned by a few respondents, but did not seem to be the main issue among the responses. Finally it appears that most respondents do not perceive that there is a need for greater emphasis on theory at the university level.

**Table 24: Responses to “Thinking of your current education strategy/supplier. What changes would you like to see in the education in general? (Vocational level)”**

Question 11	Distribution of responses among those respondents who answered the question										Response Rate
Country Category	Higher quality of courses		Specialised lecturers		More examples and reference to practice		Greater emphasis on theory		Other		
Denmark	5	21%	7	29%	10	42%	0	0%	2	8%	77%
Germany	0	0%	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	1	20%	4	80%	0	0%	0	0%	83%
Sweden	1	13%	2	25%	4	50%	1	13%	0	0%	73%
UK	0	0%	1	14%	5	71%	1	14%	0	0%	100%
Total NMU Countries	6	13%	11	24%	24	53%	2	4%	2	4%	78%
Other Country	1	8%	3	25%	7	58%	0	0%	1	8%	86%
Country Unspecified	1	20%	3	60%	1	20%	0	0%	0	0%	33%
Total All Countries	8	13%	17	27%	32	52%	2	3%	3	5%	71%

At the vocational level, even more examples and reference to practice were requested than was the case at university level. In contrast, comparatively fewer respondents requested specialised lecturers, yet the quality issues and greater emphasis on theory appeared to be slightly more important (see table above).

The responses clearly pointed towards the importance of practice to stakeholders. However, no specific examples were received. This is an issue that can be fruitfully taken up in the further educational studies, the Delphi and the Foresight studies.

The opinion of respondents about courses totally or partially based on e-learning<sup>47</sup> showed a solid majority of 65% of respondents from NMU countries and 67% of respondents from all countries seeing this type of offer as being competitive.

<sup>47</sup> Question 12 of the questionnaire. For details see Appendix 3.



**Table 25: Responses to “Please give your opinion: Northern Maritime University e-courses or partially e-based courses with short sessions at weekends as a competitive offer?”**

Question 12	Distribution of responses among those respondents who answered the question										Response Rate
Country Category	Strongly Agree		Agree		Disagree		Strongly Disagree		Other		
Denmark	1	4%	17	63%	5	19%	0	0%	4	15%	87%
Germany	0	0%	0	0%	0	0%	0	0%	1	100%	33%
Norway	0	0%	4	80%	0	0%	0	0%	1	20%	83%
Sweden	2	22%	4	44%	1	11%	1	11%	1	11%	82%
UK	1	14%	3	43%	0	0%	2	29%	1	14%	100%
Total NMU countries	4	8%	28	57%	6	12%	3	6%	8	16%	84%
Other Country	6	46%	6	46%	0	0%	0	0%	1	8%	93%
Country Unspecified	0	0%	1	20%	2	40%	0	0%	2	40%	33%
Total all countries	10	15%	35	52%	8	12%	3	4%	11	16%	77%

67% of respondents from NMU countries and 69% of the respondents from all countries viewed the location of courses in major transportation hub cities as attractive. Thus it appears that this avenue might be a very fruitful one to pursue.

**Table 26: Responses to “The location of such courses in major transportation hub cities of Northern Europe (e.g. London, Hamburg, Copenhagen, and Oslo) would be a competitive offer”**

Question 13	Distribution of responses among those respondents who answered the question										Response Rate
Country Category	Strongly Agree		Agree		Disagree		Strongly Disagree		Other		
Denmark	4	15%	18	67%	2	7%	1	4%	2	7%	87%
Germany	0	0%	0	0%	1	100%	0	0%	0	0%	33%
Norway	1	20%	1	20%	3	60%	0	0%	0	0%	83%
Sweden	0	0%	4	44%	2	22%	2	22%	1	11%	82%
UK	3	43%	2	29%	1	14%	1	14%	0	0%	100%
Total NMU Countries	8	16%	25	51%	9	18%	4	8%	3	6%	84%
Other Country	4	31%	6	46%	0	0%	1	8%	2	15%	93%
Country Unspecified	0	0%	3	60%	1	20%	0	0%	1	20%	33%
Total All Countries	12	18%	34	51%	10	15%	5	7%	6	9%	77%

### 3.2 Concluding discussion of strategic issues raised by the data of this section

Fundamentally, Questions 5-13 of the questionnaire focused on (a) the current competencies and educational development policies of maritime firms and organisations, and (b) the current match between firm and organisation competencies, development policies and external providers, including maritime universities that they use to fulfil their competencies development aims. Grewal & Haugstetter (2007:176) noted in this respect:

*“Leveraging these intellectual assets for the firm requires not only a good relationship with management education providers but also education and training audits of personnel, and subsequent investment in their education and training, aligned with the business’ medium to long-term growth strategy. Relationships with maritime transport universities can also, for example, provide firms with the opportunity to acquire learning based on university research information to enhance their competitive advantage.”*

The results show that slightly less than half of respondents (48%) had a specific strategy for the education and training of, or a personnel development plan for, their staff. This means that there is room for the Northern Maritime University consortium to educate some of its potential audience.



Concerning educational qualifications, results depict that 46% of the NMU country respondents and 41% of the total population of respondents were most interested in “specific topics – short term courses”, whereas university level qualifications at either the post-graduate, MBA or Bachelor level was only interesting to 32% of NMU country respondents and 37% of all respondents, with vocational training being perceived most interesting by 14% of respondents from NMU countries and 10% of the total population of respondents (Question 6). These results suggest that the NMU should prioritise the short courses in its NMU Service Product Portfolio (Figure 5).

At the same time, 46% of the answering firms and organisations (and of this 42% of the respondents from the NMU core countries) motivated their employees to “take part in part-time business degree programmes or specific university-level business courses” relevant to the area of business in the firm/organisation (Question 7). This confirms the demand for e.g. MBA courses/modules and degree programmes for maritime firms and organisations and their employees. At the Master or MBA level, competitors such as Copenhagen Business School (DK), the Norwegian School of Management (NO) and the University of Greenwich (UK) in the NMU core country region, as well as the Alba Business School (Greece) and the European University (campuses in 4 European countries, including Germany and UK as well as in 5 locations in the Middle and Far East), are active.

On average, firms were willing to allow approximately 1 – 3 weeks of annual working time to the education of employees (Question 8). However, responses varied widely and secondary statistics indicate that working hours also vary between (a) countries, (b) the sexes, and (c) management levels of personnel and ordinary staff. Concerning (b) and (c), there are also country-specific variations. On this basis, “a greatest common denominator” approach seems most reasonable when planning educational offerings to, amongst other things, ensure the meeting of any national or EU-level gender equality requirements. Egalitarian distributions are also discussed in Section 4.1’s treatment of Question 15.

47% from NMU country respondents and 53% from all received responses indicated that they were engaged in cooperation regarding education. Many respondents from NMU countries were cooperating with educational institutions in countries other than their own. These results point towards international competition in the maritime education industry (Question 9).

79% of surveyed firms and organisations (and of these 84% from the core NMU countries) were either satisfied (63% of all responses, 67% of NMU core country responses) or highly satisfied (14% of all responses, 15% of NMU core country responses) with their current education strategy and/or suppliers (Question 10). However, 47% of all respondent organisations did not yet cooperate with educational institutions.

The surveyed firms and organisations felt, in relation to the current portfolio of educational offerings at both the university and vocational level, that the most needed change was the provision of “more examples and reference to practice”, followed by “specialised lecturers” and “higher quality of courses”, respectively (Question 11). However, here it is relatively difficult to discern exactly which types of examples and references to practice the respondents are missing. Thus this is an issue that can be fruitfully taken up in the further educational studies, the Delphi and the Foresight studies.

Finally, the responses indicate that over two thirds of respondents viewed Northern Maritime University e-courses or partial e-courses with short session at weekends as a competitive offer and they also agreed that locating such courses in the major transportation hub cities of Northern Europe (e.g. London, Hamburg, Copenhagen, Oslo) would be competitive (Questions 12 and 13). In relation to this, it is to be noted firstly that locating such courses in transportation hubs is essentially the blended learning model already followed by, e.g., the Copenhagen Business School and the European University in their maritime MBA programmes as well as Lloyd’s Register in their educational courses. If NMU chose to pursue this same path, the programme might be perceived as direct competition from these actors.

## 4 INFORMATION ABOUT THE DEVELOPMENT OF EDUCATIONAL OFFERINGS

### 4.1 Presentation of questionnaire data with the views of respondents as well as secondary data, where relevant

“The relationships among the individuals, the industry and educational institutions are interrelated and the influence of one on others is interwoven in the tripartite system. Each party should contribute its own part to the total knowledge base of the industry. Besides, at government policy level, efforts should be made to pull the three parties together in order to collaborate with each other to create new knowledge, and to share existing knowledge through flexible career pathways for the benefits of all. The enrichment of the total knowledge base in the industry benefits all organizations within it, be they individuals, shipping companies or educational institutions, as well as contributing to the economic well-being of the nation.” Grewal & Haugstetter (2007:180)

This section analyses educational development preferences expressed in the scoping survey in relation to the following areas:<sup>48</sup>

- Applied Maritime Transport Management
- Logistics and Global SCM
- International Maritime Human Resource Management
- Intermodality
- Ship Knowledge for Non-Engineers<sup>49</sup>
- Maritime Transport and the Environment

The following table presents the overall distribution of responses.<sup>50</sup> We only compare the cumulative results for the five pilot courses with more than one knowledge area. The module elements in the topics “Applied Maritime Transport Management” and “Maritime Transport and the Environment” score the highest. For both courses, 59% of respondents rated the module elements as either “very attractive” or “attractive”. These two were followed by the pilot course “Logistics & Global Supply Chain Management”, with some 57% assessing the elements as being either “very attractive” or “attractive”. Finally, the courses “Intermodality” and “International Maritime Human Resource Management” were judged as “very attractive” or “attractive” by 55% and 53% of the respondents respectively.

<sup>48</sup> Question 14 of the questionnaire, concerning the six pilot courses/modules

<sup>49</sup> Note: here there were no module sub-questions to this topic.

<sup>50</sup> Concerning the pilot course module elements questions, one can take the mean of all ‘very attractive’ and ‘attractive’ responses to the posed module elements questions to get an idea of the interest in the whole course, and then compare the pilot courses to each other. However, one cannot directly rank the pilot course “Ship Knowledge for non-Engineers” in this way, as it was not divided into various knowledge areas, merely treated as a whole, which received a score of 60% of respondents indicating that it was either “very attractive” or “attractive”.

**Table 27: Responses to “Please rate the following knowledge areas concerning the attractiveness for your organisation”**

Q14 - Compiled	Very Attractive		Attractive		Not Interested		Sorry cannot judge		Re- sponse rate
	No.	%	No.	%	No.	%	No.	%	
Pilot course "Applied Maritime Transport Management" - submodule questions									
General management	15	22%	31	46%	15	22%	6	9%	77%
Application to specific shipping markets	13	20%	26	40%	19	29%	7	11%	75%
Applied Maritime Economics	8	12%	29	44%	21	32%	8	12%	76%
Shipping industry, maritime policy, freight markets	16	24%	22	33%	18	27%	10	15%	76%
Maritime economics	8	12%	35	53%	16	24%	7	11%	76%
Geography of maritime transport	9	14%	23	35%	26	40%	7	11%	75%
Pilot course "Logistics & Global Supply Chain Management" - submodule questions									
Intermodality	11	17%	25	39%	17	27%	11	17%	74%
International transport law and regulation of logistics	6	9%	31	48%	21	33%	6	9%	74%
Pilot course "International Maritime Human Resource Management" - submodule questions									
International HRM practices	7	10%	24	36%	24	36%	12	18%	77%
National HRM practices	11	17%	27	41%	17	26%	11	17%	76%
Career path and investment in education issues	6	9%	24	36%	24	36%	12	18%	76%
Intercultural management	6	9%	25	38%	23	35%	12	18%	76%
Legal and regulatory labour frameworks	6	9%	32	48%	17	26%	11	17%	76%
Workplace environment issues	4	6%	36	55%	15	23%	11	17%	76%
Organisational and management psychology	8	12%	30	45%	18	27%	10	15%	76%
Pilot course "Intermodality" - submodule questions									
Basics of intermodal logistics	8	12%	26	40%	21	32%	10	15%	75%
Legal framework	5	8%	31	48%	17	27%	11	17%	74%
Intermodal transport chains	7	11%	26	40%	22	34%	10	15%	75%
Political framework, EU policy	9	14%	24	37%	20	31%	12	18%	75%
Trade and markets	14	21%	25	38%	17	26%	10	15%	76%
Logistics and supply chain networks	10	16%	26	41%	17	27%	10	16%	72%
Advances in future technology	10	15%	28	43%	17	26%	10	15%	75%
Pilot Course "Ship Knowledge for non engineers"	14	23%	22	37%	15	25%	9	15%	69%
Pilot course "Maritime Transport and the Environment" - Submodule questions									
Dangerous goods and hazards	13	20%	25	38%	22	33%	6	9%	76%
Impacts of transport on society, the economy and the environme	12	18%	28	42%	20	30%	6	9%	76%
Modal shift and comparison of transport modes	14	22%	24	37%	19	29%	8	12%	75%
Sustainability development perspectives	12	18%	26	40%	17	26%	10	15%	75%

As a second step, a country specific analysis was prepared for each topic and the respective “knowledge areas” (The detailed tables are shown in Appendix 1).

## 4.1.1 Applied Maritime Transport Management<sup>51</sup>

The “general management” and “maritime economics” elements of this course were perceived as being the most important. 69% and 65% of respondents, respectively, referred to these areas as either “very attractive” or “attractive”. In contrast, the least attractive areas were “Geography of maritime transport” and “Applied maritime economics” with 49% and 56% “very attractive” or “attractive” responses, respectively. However, it cannot be said with certainty that respondents understood the distinction between “maritime economics” and “applied maritime economics” as we do, because the results are somewhat contradictory to the need for more practical examples (see Question 11 in Subsection 3.1 of this paper).

<sup>51</sup> For details see Table 38 to Table 43 in Appendix 3.

The Swedish and geographically unidentified respondents appeared comparatively less positive about the inclusion of “General management – the underlying principles”. The country unspecified group was also less positive about “Application to specific shipping markets” and “Applied Maritime Economics”. The area “Shipping industry, maritime policy, freight markets” seems to have been perceived as less interesting by Norwegian respondents, perhaps due to the specific needs of the domestic coastal shipping industry in this country, which in many coastal regions has a “captive market”.

#### **4.1.2 Logistics and Global SCM<sup>52</sup>**

Of all respondents, 56% indicated that “Intermodality” was an ‘attractive’ or ‘very attractive’ knowledge area. This compares to a total of 58% for the course/module’s other knowledge area, namely “International Transport Law and Regulation of Logistics”.

The above Table 39 also shows that the Germans and British and possibly the Swedes seemed less interested in this knowledge area. For table 40, the Danes and the unspecified group seemed less interested in “International transport law and regulation of logistics”.

#### **4.1.3 International Human Resource Management<sup>53</sup>**

For the course “International Human Resource Management”, the areas that were perceived as least important were “Career paths and investment in education issues” (only 45% answered “attractive” or “very attractive”), “International HRM practices” (46% answered “attractive” or “very attractive”) and “Intercultural management” (47% answered “attractive” or “very attractive”).

In contrast, “Workplace environment issues” was clearly the most important area on the list, with 61% answering “very attractive” or “attractive”. The other three possibilities, “National HRM practices”, “Legal and regulatory labour framework” and “Organisational and management psychology”, were perceived as “very attractive” or “attractive” by 58%.

It can be expected that some firms would be interested in International HRM practices, as crews on global ships are multinational and labour regulation is mainly international, through ILO conventions, and mainly controlled by flag states.<sup>54</sup> Conversely, on certain national ship routes and in ports, HRM is primarily subject to national laws.

The following country-specific patterns were identified: The Swedish and unspecified country categories were more interested in the area “National HRM practices” than in the knowledge area “International HRM practices”. Here, the reasons for this may be difficult to hypothesise, but the unique legal framework of the Swedish ship register, previously mentioned, may play a role. The Danish respondents had least interest in “career path and investment in education issues” and “Intercultural management”.

“Workplace environment issues” received the greatest interest from Swedish and unspecified country respondents. Finally, “Organisational and Management Psychology”, received less interest from Norwegian, Swedish and unspecified country respondents.

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<sup>52</sup> For details see

Table 44 and Table 45 in Appendix 3.

<sup>53</sup> For details see Table 46 to Table 52 in Appendix 3.

<sup>54</sup> Here, however, when the ILO Maritime Labour Convention of 2006 is ratified, which is expected around 2012, also port states and labour supplying states will have increased responsibilities.

#### **4.1.4 Intermodality<sup>55</sup>**

“Intermodality” was also listed as a knowledge area under the Logistics and Global SCM topic. However, we cannot determine from the responses whether this “double” mention has caused any bias in the responses.

The respondents viewed the knowledge areas “Intermodal transport chains” and “Political framework, EU policy” in the comparatively least positive manner, with only 51% of respondents replying “very attractive” and “attractive” to these knowledge areas. “Basics of intermodal logistics” took the third least popular position at 52%. In contrast, “Trade and markets” received 59%, “Advances in future technology” received 58%, “Logistics and supply chain networks” received 57%, and “Legal framework” received 56%.

For the knowledge area “Intermodal transport chains”, the group of respondents that did not specify their country were slightly more prone to tick “Not interested”.

#### **4.1.5 Ship knowledge for non-engineers**

60% of all respondents viewed this knowledge area as either “attractive” or “very attractive”. The German respondents all equivocally agreed that the area is “attractive”, whereas the respondents from Norway and especially unspecified countries were more prone to tick the “not interested” category.

#### **4.1.6 Maritime Transport and the Environment**

Respondents were most attracted to the knowledge area “Impacts of transport on society, the economy and the environment”, which received a 61% in the “very attractive” or “attractive” categories. In contrast, the other three knowledge elements received scores of 58%.

However, here it is to be noted that the Norwegians and the Danes had relatively more “not interested” responses to the knowledge areas “Dangerous goods and hazards” and “Sustainability development perspectives”, whereas the unspecified country group and the Swedes had relatively more “not interested” replies to the knowledge area “impacts of transport on society, the economy and the environment”.

#### **4.1.7 Interpretation of results**

It is difficult to discern which patterns are relevant and which are not. Firstly, this is due to the fact of the small sample size. Moreover, we refer to the following statement:

“Can we assure that industry, especially SMEs, are wholly aware of new developments in think that will emerge in forthcoming years? Active academic researchers are often well ahead of industry on future developments. Especially, the maritime sector is now being rather reactive and in many ways traditional, rather than proactive and innovative in developing new practices and strategies. It is important to recognise that the NMU initiative should not be exclusively demand driven [...]. The implicit faith in following exactly what industry says it wants (as opposed to what it actually needs) is an approach that characterises training rather than education.” (NMU project head Kevin Cullinane and NMU project leader Gordon Wilmsmeier during email interchange with Maria Anne Wagtmann Summer 2008).

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<sup>55</sup> For details see

Table 53 to

Table 59 in Appendix 3.



The fundamental issue that academics often (but unfortunately not always) are proactive and innovative and can thus potentially lead firms and organisations “where they want to go but don’t know it yet” (Hamel and Prahalad 1994) is worth considering when planning courses/modules. Should a course/module instructor feel that he or she has justified new knowledge that needs to be communicated to an industry which does not yet realise its importance, he or she should have the freedom of also disseminating this knowledge in NMU courses, despite the fact that stakeholders have not yet rated this knowledge as being ‘important’ or ‘very important’.

## 4.1.8 Employees’ education needs

The results from Question 15 deal with the amount of time perceived necessary for employees’ education per year in weeks. The question is subdivided into three employee categories, (a) senior management, (b) operational middle management, and (c) other staff levels.<sup>56</sup>

We calculated dummy average variables that can be used as rough estimates of averages. For each country category, we calculated an aggregate score for each employee level category as follows:

Dummy average = ((% answering up to 1 week) x 0.5) + ((% answering 1-2 weeks) x 1.5) + ((% answering 2-3 weeks) x 2.5) + ((% answering more than 4 weeks x 4)

The results of these dummy averages give a rough estimate of the egalitarian distribution of educational time for each country category and for the total population of responses. The default theoretical assumption is commonly that more time is assumed necessary for the further education of employees at managerial levels; this assumption is also made by the maritime continuing education researchers Grewal & Haugstetter (2007). However, the results indicate (see table below) that this may not be the case in the maritime sector in the United Kingdom.

**Table 28: Calculation of the Degree of Rank-related Differences in Responses concerning Educational Needs to Question 15 with the use of dummy averages**

Aggregated weight table Question 15	Senior manag.	Middle manag.	Other staff	Difference and rank Senior-middle		Difference and rank Senior-other		Difference and Rank Middle-other		Difference and rank manager-other	
Denmark	2,13	1,75	1,52	0,38	1	0,61	3	0,23	4	0,42	4
Germany	1,50	1,50	0,50	0,00	5	1,00	1	1,00	1	1,00	1
Norway	1,30	1,10	1,10	0,20	3	0,20	5	0,00	6	0,10	6
Sweden	1,61	1,56	1,44	0,06	4	0,17	6	0,11	5	0,14	5
UK	1,92	2,08	2,33	-0,17	6	-0,42	7	-0,25	7	-0,33	7
Total NMU Countries	1,90	1,68	1,54	0,23		0,36		0,13		0,25	
Other Country	2,73	2,42	2,04	0,31	2	0,69	2	0,38	3	0,54	2
Country Unspecified	2,08	2,33	1,67	-0,25	7	0,42	4	0,67	2	0,54	2
Total All Countries	2,08	1,89	1,65	0,19		0,43		0,24		0,33	

Increases in perceived educational time need from the regular employee to the managerial employee level were also very low in Norway and Sweden. The table above suggests that the differences in the core NMU countries, taken as a whole, may be smaller than in the total populations of countries of the world; this result makes sense if one recalls the cultural theory of Hofstede (1980), as all five NMU core countries rank relatively low on the Hofstedian power distance scale. Norway and Sweden showed the most egalitarian educational investment distribution across the ranks in the surveyed maritime firms.

However, it is considered helpful to further investigate how much money is allotted by firms to employees of different ranks and how much is typically provided by the public sector or other third parties when planning course/module offerings for part-time continuing education (for insight see Southampton Solent University 2005 and World Maritime

<sup>56</sup> For details see Table 65 to Table 67 in Appendix 3.



University 2005 or in-depth statistics about this issue e.g., the national contribution Danish Maritime Authority 2003).

## 4.1.9 Form of delivery of educational content

The responses on the most suitable form of educational delivery are presented in the following,<sup>57</sup> the results are presented in the table below.

Respondents were also given the option to specify their answer. The combined “e-learning” and “mix of all” responses indicated that respondents were open to e-learning, but mainly in conjunction with other, more traditional face-to-face interaction situations. Moreover, more respondents preferred to mix “university or college courses” and “in-house courses”.

**Table 29: Distribution of responses to “What do you consider to be the most suitable form of educational delivery”**

Question 16	Distribution of responses among those respondents who answered the question										Response Rate
Country Category	In-house course		University or college course		E - learning		Mix of all		Other		
Denmark	6	22%	3	11%	2	7%	16	59%	0	0%	87%
Germany	0	0%	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	1	20%	0	0%	3	60%	0	0%	83%
Sweden	2	22%	1	11%	1	11%	5	56%	0	0%	82%
UK	2	33%	1	17%	0	0%	3	50%	0	0%	86%
TOTAL NMU	11	23%	6	13%	3	6%	28	58%	0	0%	83%
Other Country	1	8%	3	23%	2	15%	7	54%	0	0%	93%
Country Unspecified	2	33%	1	17%	0	0%	2	33%	1	17%	40%
TOTAL	14	21%	10	15%	5	7%	37	55%	1	1%	77%

## 4.1.10 Valuation of e-learning<sup>58</sup>

36% of all respondents said that they either “agree” or “strongly agree” that e-learning courses and study programmes from internationally renowned institutions were equivalent to a full time student’s study semester. However, the differences in the distribution are quite remarkable. A big majority of 62% in the “other country” category answered in agreement or strong agreement, whereas 50% of UK respondents were in agreement with this statement. Moreover, the “country unspecified” and the German respondents were 100% against the pure e-learning delivery option.

<sup>57</sup> Question 16 in the Questionnaire.

<sup>58</sup> Question 17 in the questionnaire for details see Appendix 3.

**Table 30: Distribution of responses to “Do you agree that full time e-learning courses and study programmes from international renowned institutions are equivalent to a full time students study semesters abroad”**

Question 17	Distribution of responses among those respondents who answered the question								Response
Country Category	Strongly Agree		Agree		Disagree		Strongly Disagree		Rate
Denmark	0	0%	8	30%	16	59%	3	11%	87%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	0	0%	4	80%	0	0%	83%
Sweden	1	13%	2	25%	3	38%	2	25%	73%
UK	0	0%	3	50%	1	17%	2	33%	86%
<b>Total NMU Countries</b>	<b>2</b>	<b>4%</b>	<b>13</b>	<b>28%</b>	<b>25</b>	<b>53%</b>	<b>7</b>	<b>15%</b>	<b>81%</b>
Other Country	1	8%	7	54%	5	38%	0	0%	93%
Country Unspecified	0	0%	0	0%	3	60%	2	40%	33%
<b>Total All Countries</b>	<b>3</b>	<b>5%</b>	<b>20</b>	<b>31%</b>	<b>33</b>	<b>51%</b>	<b>9</b>	<b>14%</b>	<b>75%</b>

**Table 31: Distribution of responses to Question 19 “Please give your opinion: Part-time business degree programmes with a substantial amount of e-learning activities are perceived at least as positively as similar programmes with a lesser amount of e-learning activities and more face-to-face interaction?”**

Question 19	Distribution of responses among those respondents who answered the question								Response
Country Category	Strongly Agree		Agree		Disagree		Strongly Disagree		Rate
Denmark	0	0%	15	58%	9	35%	2	8%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	1	20%	3	60%	1	20%	0	0%	83%
Sweden	0	0%	3	33%	6	67%	0	0%	82%
UK	2	33%	3	50%	0	0%	1	17%	86%
<b>Total NMU Countries</b>	<b>3</b>	<b>6%</b>	<b>25</b>	<b>53%</b>	<b>16</b>	<b>34%</b>	<b>3</b>	<b>6%</b>	<b>81%</b>
Other Country	2	15%	6	46%	5	38%	0	0%	93%
Country Unspecified	0	0%	1	20%	3	60%	1	20%	33%
<b>Total All Countries</b>	<b>5</b>	<b>8%</b>	<b>32</b>	<b>49%</b>	<b>24</b>	<b>37%</b>	<b>4</b>	<b>6%</b>	<b>75%</b>

From the results to the above question, it can be seen that in general, a solid majority of 57% respondents were willing to accept a substantial amount of e-learning activities in degree programmes. Here, 83% of UK and 80% of Norwegian respondents agreed, whereas the country unspecified group was most prone to disagree, with 80% of received responses from this group being in disagreement or strong disagreement.

The responses reflect the service product portfolio overview (Figure 5) if the current approach fully represents stakeholder wishes. The mix of learning approaches seems to have been of high relevance to the respondents in the scoping study and a potential flexibility in delivery might be required depending on the student/customer group.

Taking into account the insights concerning Question 12 and the fact that Lloyd's Register is able to run a number of successful exclusively e- or paper-based “distance learning courses”, it seems necessary to further investigate these preferences in the upcoming Delphi and Foresight studies. Further insight on distance e-learning might be obtained from the experiments at the Danish Aarhus School of Business and in the Norwegian “Maritime Industrial IT” research programme (Rensvik et al. 2003).

## Financing employee education<sup>59</sup>

In total, 78% of respondents said they were open to paying for the associated fees and costs of employee education. At country level, 100% of respondents from unspecified countries and Norway were in agreement or strong agreement, whereas the lone German respondent was in disagreement. The answers from Swedish respondents and those from other countries showed relatively weaker agreement.

**Table 32: Distribution of responses to Question 18 “Is your organisation open to paying the associated fees and costs, if employees take part in relevant part-time business degree programmes or specific university-level business courses?”**

Question 18	Distribution of responses among those respondents who answered the question								Response Rate
Country Category	Strongly Agree		Agree		Disagree		Strongly Disagree		
Denmark	0	0%	22	81%	4	15%	1	4%	87%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	0	0%	5	100%	0	0%	0	0%	83%
Sweden	2	25%	3	38%	3	38%	0	0%	73%
UK	0	0%	5	83%	0	0%	1	17%	86%
Total NMU Countries	2	4%	35	74%	8	17%	2	4%	81%
Other Country	3	25%	5	42%	4	33%	0	0%	80%
Country Unspecified	1	17%	5	83%	0	0%	0	0%	43%
Total All Countries	6	9%	45	69%	12	18%	2	3%	75%

Issues such as educational traditions and tax deduction rules may explain some of this variation, yet further investigation of this topic is required. It needs to be taken into account that maritime education in traditional developed maritime countries (in the citation “TDMC”) has to date primarily been organised as follows: “The government of TDMC administered the domestic shipping industry [...] through various policy tools [...] including the area of education and training of seafarers” (Yamamoto 2002).

In relation to this statement, it is a common characteristic that the public sector has sought, to varying extents, to promote and administer home country shipping firms in the NMU region. However, the extent of public support has varied from country to country, with:

- (i) full-time maritime educational programmes in some countries (e.g. UK) in recent years being financed partially by student fees, and in cases of needy students varying amounts of scholarship money from various sources;
- (ii) in other countries, by public sector universities traditionally providing free full-time education with either some needs-based living expense financing for students (e.g. Germany); or
- (iii) free full-time education with living expense financing for all students (e.g. Denmark, Norway and Sweden).

An overview is provided in the table below and further information on the situation in individual NMU countries is given in the Appendix 2.

<sup>59</sup> Question 18 of the questionnaire. For details see Appendix 3.

**Table 33: Summary table on fees and financial aids to students in NMU countries**

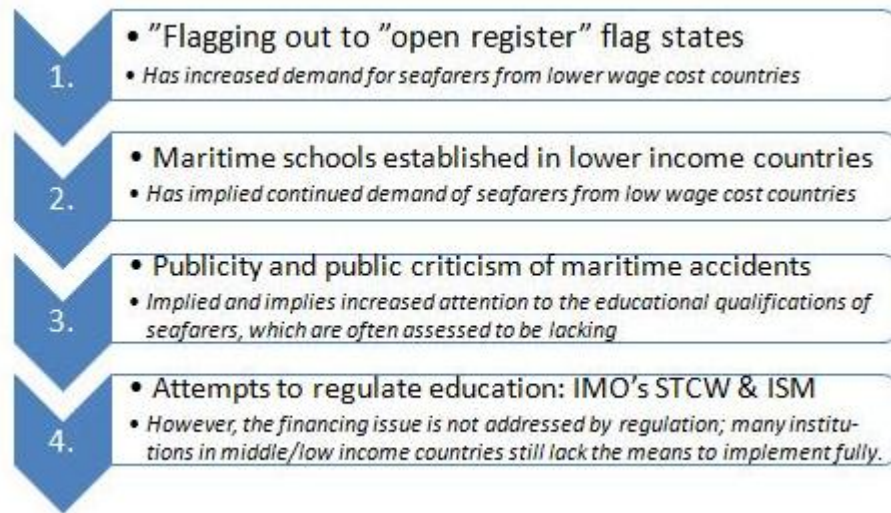
NMU project country	Type of university or college	Tuition fee for full time study programs allowed	Tuition fee for part-time study programs allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Private or public sector support available for part-time university education for persons in need
Denmark	Public sector	No	Yes	Yes, to all (grant + loan)	Yes, not all receive this	Yes, full cost deduction	Both, in some instances
Germany	Public sector	No	Yes	Yes, to needy students (loan + grant)	Yes, not all receive this		
Germany	Private sector	Yes	Yes		Yes, not all receive this		
Norway	Public sector	No	Yes	Yes, to all (loan + grant)	Yes, not all receive this		
Sweden	Public sector	No	No	Yes, to all (loan + grant)	Yes, not all receive this		
UK	Public sector	Yes	Yes	Yes, to needy students (loan + grant)	Yes, not all receive this		
UK	Private sector	Yes	Yes	Yes, to needy students (loan + grant)	Yes, not all receive this		

Concerning the global education market, which is relevant to the 'other countries' and possibly relevant to the 'country unspecified' answer, a number of scholars report a general problem of under-financing in nautical education at the officer and rating level in most developing and transition economies.<sup>60</sup> The recent need for maritime schools to invest in sophisticated and expensive training equipment such as simulators has worsened the effect of the financial crisis for maritime training institutions in middle and low income countries. Such investments have often been made to the detriment of equally necessary investments in staff qualifications (Sampson 2004a; Short 2004). However, the root cause is argued by all of these authors to be a one-sided attempt to regulate quality without ensuring sufficient financing either from government or private sector actors, as illustrated in Figure 4 below.

Some segments of the shipping industry have, however, responded to this crisis by increasing investment in training (see, e.g., Barzan 2007; Lloyd's Ship Management December 2007 & January 2008), a trend which some experts believe will continue (e.g. Sharma 2002), and which, in the opinion of the authors, will also be welcomed by developing and transitional countries, provided that the donors also act in an ethical manner, which they in do most cases.

<sup>60</sup> For details please refer to e.g., Amante 2007; Barzan 2007; Bonnin et al 2004; Cicek & Er 2007; i-maritime Consultancy Private Limited 2008; JICA 2000; Sampson 2004, Short 2004, South African Press Association 2008; Uy & Duong 2007; Wu 2004a; Wu 2004b; Yamamoto 2002; Zac et al 2000; Zhao & Amante 2003

Figure 4: An overview of events leading to the current quality and finance concerns regard nautical education in developing and transition economies (after Sampson 2004)



The shipping industries of the Nordic countries have increased such investments due to the strong focus on sophisticated and quality shipping in this region.<sup>61</sup> Moreover, members of the German Shipowners' Association participate in global collective bargaining and joint efforts to improve maritime education in some developing maritime labour supplying nations through the International Maritime Employers Committee. This is also done by some individual ship-owners in the other NMU countries who are members of this global employers' bargaining organisation.<sup>62</sup>

Evidence obtained from Northern European shipping firms suggests the existence of a separation of shored-based HR issues, including budgets, from ship-based HR issues. It is not known whether any increased pressure or propensity for ship-owners from Northern Europe to invest in nautical education will decrease their propensity or budgets for investing in courses/modules and/or entire study programmes to educate their shore-based employees. However, this aspect will be further investigated and monitored.

Financing possibilities for offering maritime economics and business courses to actors in transitioning and developed countries will probably vary with the extent to which shore-based maritime positions increase or decrease in these countries. Especially in the case that scenario 2 (Figure 2) occurs, one would expect the financing possibilities for offering maritime economics and business courses to actors these countries to improve. Wagtmann (2009) assessed these countries' ability to develop their own shipping industries and thus increase shore-based employment:

*"Currently in many developing and transition economies, maritime officers, and here especially navigation officers, have to go abroad from their native country if they wish to seek shore-based employment for which their nautical training qualifies them to fulfil (see EU Commission, DG Fisheries and Maritime Affairs 2006, Country report of Poland). However, to the extent that transition economy and developing nations are able to establish maritime centres or flag state administration centres, more own shore-based jobs will also be created, in e.g. crewing and ship management companies. For developing and transition countries whose infrastructures are able to provide airport connections and reliable internet, electricity, telephone and cell phone*

<sup>61</sup> see, e.g. Bortal et al. 2004; Lloyd's Ship Manager Sept. 2007 and the English-language web pages of the Norwegian Shipowners' Association Norwegian Training Center at: [http://www.ntcm.com.ph/NTC-M\\_nonflash/index.html](http://www.ntcm.com.ph/NTC-M_nonflash/index.html)

<sup>62</sup> see the International Maritime Employers Committee webpage <http://www.imec.org.uk/introduction.php>



*services, there is also the possibility that some financial and “headquarter” functions will also be moved to these countries. Here, issues such as ownership preferences may decide this, as both family owners or national institutional investors may prefer not to move the “headquarter” functions abroad (see, e.g., Mitrossi 2004a and b). Moreover, issues related to general risk in foreign operations (levels of corruption, political stability, criminality) will also be determining factors in the potential decision to move such functions abroad as well as the overall cost level of doing business in the country in question (see Jacobsen et al. 2004).*

*In contrast, the potential shore-based labour market for former marine engineers is deemed to be larger in most transition economies and developing countries, as marine engineers can potentially work in the domestic factories or utilities industries (Southampton Solent University 2005) as well as in the petroleum industries of the many developing countries with oil, as is already occurring in Malaysia (Osnin 2001) and is being planned in Ghana (Amanlyie 2008). However, here, the wages offered to marine engineers in their home countries may not be competitive in relations to wages that could be earned abroad, so it may be that a substantial portion of marine engineers from transition economies and developing countries also will choose to work abroad, to the potential detriment of maximizing the building up of the domestic utilities and land-based industries.[...]*

*Although many developing and transition economy nations, such as the nations of the Africa Union (see African Union 2007) would like to build up own shipping companies, the prospects for this are not very positive in our opinion, due to the capital intensive nature of the industry and the lack of private sector donors for such projects. To the contrary, some of the transition economies’ shipping industries have experienced demise or diminished market share in recent decades (EU Commission, DG Fisheries and Maritime Affairs 2006, Country reports of Estonia, Latvia, Lithuania, Poland and Slovenia; Wu & Morris 2006), and even among those transition and developing countries that are able to maintain an own shipping industry, there are problems in that many of the officers prefer to work in foreign shipping companies able to offer higher wages and better conditions (see Osnin 2001 concerning Malaysia, Takarran 2005 for the case of India and Wu & Morris 2006 for Russia and China). Moreover, in some of the least developed countries, the infrastructure deficits are quite severe, meaning that there are substantial locational barriers to such establishment (see UNCTAD 2006:97-127).”*

#### **4.1.11 Need for part-time maritime business education<sup>63</sup>**

20% of all firms perceived no need for further part-time maritime business education. This tendency was more prominent in the NMU region (24%). Here, one third of UK firms indicated no such need. For those who perceived a need, for the countries Denmark, Sweden and the UK, and respondents from unspecified countries, all expressed a need both at the Bachelor and Master level. The German respondent’s answer was “Mainly at the Master level”. Finally, Norwegians and the other countries saw equal needs in the categories “Mainly at the Bachelor level” and “At both levels”.

This underlines the need for an overall service product portfolio that includes Bachelor and Master-level offerings. This especially applies to any blended learning courses that are offered as weekend courses supplemented by e-learning (see the previous discussion of the responses to questionnaire Question 13 at the end of Subsection 3.1).

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<sup>63</sup> Question 20 of the questionnaire. For detail see Appendix 3.



**Table 34: Distribution of responses to “In your opinion, is the need for part-time maritime business education for firms, including both entire study programmes and individual courses, to be found”**

Question 20	Distribution of responses among those respondents who answered the question								Response Rate
Country Category	Mainly at the Bachelor level in your country		Mainly at the Master level in your country		At both levels in your country		Firms have little or no need for further part-time maritime business education		
Denmark	6	24%	2	8%	11	44%	6	24%	81%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	2	40%	0	0%	2	40%	1	20%	83%
Sweden	1	11%	1	11%	5	56%	2	22%	82%
UK	1	17%	1	17%	2	33%	2	33%	86%
Total NMU Countries	10	22%	5	11%	20	43%	11	24%	79%
Other Country	0	0%	6	46%	6	46%	1	8%	93%
Country Unspecified	1	17%	1	17%	3	50%	1	17%	40%
Total All Countries	11	17%	12	18%	29	45%	13	20%	75%

Further, 68% of respondents from the NMU core countries and 64% of all respondents were either in “strong agreement” or “agreement” that maritime education in their home country is optimal. Only one respondent from another country was in strong disagreement. The Swedish respondents were the least satisfied group, as 44% disagreed with the statement, and in the category “country unspecified”, the responses were divided equally among “agree” and “disagree”. These results suggest that there is significant potential for the NMU consortium to address educational deficiencies in third countries, but that there is also a certain potential in NMU countries as well, especially in Sweden (see Table below).

**Table 35: Responses to “Please give your opinion: Generally, maritime education courses in my home country/location are optimal in relation to the needs of the maritime and port sector”**

Question 21	Distribution of responses among those respondents who answered the question								Response Rate
Country Category	Strongly Agree		Agree		Disagree		Strongly Disagree		
Denmark	2	8%	15	58%	9	35%	0	0%	81%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	4	80%	1	20%	0	0%	83%
Sweden	0	0%	5	56%	4	44%	0	0%	82%
UK	1	17%	4	67%	1	17%	0	0%	86%
Total NMU Countries	3	6%	29	62%	15	32%	0	0%	79%
Other Country	3	23%	4	31%	5	38%	1	8%	93%
Country Unspecified	0	0%	3	50%	3	50%	0	0%	40%
Total All Countries	6	9%	36	55%	23	35%	1	2%	75%

## *Relevance of international experience in employment decisions<sup>64</sup>*

Based on the calculated “dummy average”,<sup>65</sup> it appears that international experience is perceived as being most important in the future by respondents from other countries, followed by the respondent group “country unspecified”. For respondents from NMU countries, international experience appears about equally important in the NMU countries Denmark, Germany, Norway and Sweden, although the distributions are rather different, with the Swedish answers actually divided equally between the three possible response categories, whereas UK respondents viewed international experience as being slightly less important.

**Table 36: Responses to “How important will international experience be in the employment decision?”**

Question 22	Distribution of responses among those respondents who answered the question						Response Rate	Dummy Average
Country Category	Very Important		Important		Not Important			
Denmark	5	19%	16	62%	5	19%	84%	1,00
Germany	0	0%	1	100%	0	0%	33%	1,00
Norway	1	20%	3	60%	1	20%	83%	1,00
Sweden	3	33%	3	33%	3	33%	82%	1,00
UK	1	17%	3	50%	2	33%	86%	0,83
Total NMU Countries	10	21%	26	55%	11	23%	81%	0,98
Other Country	10	77%	3	23%	0	0%	93%	1,77
Country Unspecified	2	33%	3	50%	1	17%	40%	1,17
Total All Countries	22	33%	32	48%	12	18%	76%	1,15

Linguistically, it is difficult to determine what “international experience” means. Does it mean having lived and studied or lived and worked abroad? Does it mean having worked or been trained on board ships with multinational crews? Does it mean experience in serving some types of international stakeholders, which could be customers, co-workers, suppliers, foreign authorities or some combination of these types, or yet other stakeholders? And, beyond this, experience in which countries is of most relevance? A more qualified answer to these questions will be pursued through the coming Delphi and Foresight study rounds.

## *Relevance of transnational education approaches*

Using the “dummy average”<sup>66</sup> (besides the lone German “Yes” response which made Germany the most positive country category), the aggregate data indicates that the category “other country” was the most positive about the potential contribution of the Northern Maritime University. Swedish respondents were on average more hesitant than positive as were the respondents in the “country unspecified” category. However, it must be noted that 64% of respondents from NMU countries and 54% of all respondents chose the neutral response “Possibly”.

<sup>64</sup> Question 22 of the questionnaire. For details see Appendix 3.

<sup>65</sup> Calculated as follows: Dummy average = (% of very important \* 2) + % of important.

<sup>66</sup> Calculated using this formula: Dummy average = % Yes - % No

**Table 37: Responses to “Do you believe the transnational NMU approach offers the potential to improve maritime transport education compared with the current educational offerings for your business or organisation”**

Question 23	Distribution of responses among those respondents who answered the question						Response Rate	Dummy average
Country Category	Yes		Possibly		No			
Denmark	4	17%	16	67%	4	17%	77%	0,00
Germany	1	100%	0	0%	0	0%	33%	1,00
Norway	2	40%	3	60%	0	0%	83%	0,40
Sweden	0	0%	7	78%	2	22%	82%	-0,22
UK	3	50%	3	50%	0	0%	86%	0,50
Total NMU Countries	10	22%	29	64%	6	13%	78%	0,09
Other Country	10	77%	3	23%	0	0%	93%	0,77
Country Unspecified	1	20%	2	40%	2	40%	33%	-0,20
Total All Countries	21	33%	34	54%	8	13%	72%	0,21

In relation to the interpretation of these results, several authors of this deliverable have raised the point that the Northern Maritime University has not yet delivered educational offerings. Therefore the respondents have to make their decisions based on information such as our website, any press releases or news articles they may have seen, or experiences at the relatively few NMU events or presentations that have already been made. Seen in this light, these results are to be further monitored and the question should be asked again in future, either in quantitative surveys or in qualitative approaches such as the coming Delphi and Foresight studies.

## 4.2 Concluding discussion of strategic issues raised by the data of this section

Question 14 examined the importance of content for various proposed pilot study courses which are already well in the process of being planned. Thus the data here is generally not considered of strategic importance; rather, it is mainly important that those persons working on one or more of the pilot courses examine the results for the knowledge areas related to these courses. However, one aspect of the data may be important: the course “Ship Knowledge for Non-Engineers” caters to persons in shore-based positions who must deal with communications and management issues related to ships, yet who do not have a nautical or marine engineering background. Here, according to Figure 2 from Subsection 2.2., this type of course will have differing general relevance in traditional maritime nations such as the NMU core countries, depending on the paths that each of these maritime nations take to ensure that they have sufficient labour to work in their shore-based operations. Thus, macro-structural employment trends in the various target markets should influence whether the NMU decides to strategically target this area as a key area of investment in creating high quality courses.

The results to Question 15 indicate that the majority of surveyed firms and organisations plan 1 – 2 weeks for employees’ education per year, and that in most countries, some more time is given to senior management and/or middle/operational management than for non-managerial staff, as suggested by Grewal & Haugstetter (2007). However, the survey results show that for the UK, on average, more time may be used for non-managerial staff than for managers. Differences in favour of managers are also quite minimal in Sweden and Norway. Thus, it is believed that the NMU consortium should consider offerings made for all staff levels and also further investigate the “typical” educational qualifications and needs at each

level in the coming Delphi and Foresight rounds as well as through further secondary literature.

The largest group respondents would prefer a mix of in-house courses, university or college courses, and e-learning in the training of their staff (Question 16). Moreover, pure e-learning courses should not be discounted completely, as a small minority indicated that this was their most preferred way of receiving education. Here, efforts should be made to ensure that these results are reviewed and discussed in relation to the service product portfolio. (D3.1.2). However, a majority of 64% still disagreed or strongly disagreed that full time e-learning courses and study programmes from internationally renowned institutions can be equivalent to a full-time student's study semester abroad. This might hint towards different perceptions of degrees from companies depending on the way these were obtained. This aspect needs further research, based on, e.g., the experiences with e-learning in other projects and at Lloyd's Register. Finally, 57% of respondents agreed or strongly agreed that part-time business degree programmes with a substantial amount of e-learning activities are perceived as positively as programmes with a lesser amount of e-learning and more face-to-face interaction (Question 19). This means that there is relatively broad acceptance of the blended learning model with a relatively large amount of e-learning.

The majority of respondents (Question 18) were open to their organisation "paying the associated fees and costs, if employees take part in relevant part-time business degree programmes or specific university-level business courses". This is an encouraging answer for the NMU's prospects in this market; however, further research should be done as to the level of fees, tax deduction rules for individual employees and/or firms that wish to pay these fees, availability of scholarships in various countries, etc. such that we are able to arrive at a globally optimal pricing policy.

Concerning the need for part-time maritime business education for firms (Question 20), 45% of all respondents indicated that courses and study programmes should be offered on the Bachelor and Master level, whereas 20% perceived little or no need for this type of education. Among the country specific responses, the German and "other country" group of respondents seemed to have a preference for Master-level education, whereas respondents from Norway answered more favourably to this education being at the Bachelor level. Here, the conclusion must be that courses at both levels are expected from industry.

Indication was also found that success will depend on the quality and competitiveness of the offerings, as 64% of our total respondents (and 68% of the respondents from the core NMU countries) expressed that they generally considered the maritime education courses from their home country/location as optimum. Here, aside from the non-NMU countries being slightly less convinced of this, the Swedes were the least convinced of the NMU countries (44% of respondents were in disagreement or strong disagreement). This may mean that the NMU has the potential to make a large difference on the Swedish market.

The respondents indicated that "international experience" will, generally speaking, be "important" in the employment decision" (Question 22). Respondents from countries outside of the core NMU region indicated this more strongly than did respondents from NMU countries. Among the NMU countries, the UK responses were slightly less strong on this issue. A further detailed investigation into the type of "international experience" is, however, required and must be pursued further in the Delphi and Foresight studies.

Finally, and perhaps most crucially, respondents were not yet necessarily convinced that the NMU idea would have the potential to improve maritime transport education compared with the current educational offerings. While on the one hand this result might be considered discouraging, it also points towards the fact that potential users need to be convinced, and that quality and experience are important to them. At this early stage of the project and with the educational offers still under development, it is hard to judge if a project will make the difference and provide a competitive offer. It is necessary that the received responses are monitored and it is important to note that the current responses will provide a control group



for the continued monitoring of the effect and perception of educational offerings, once further data are available. This leads us to the obvious conclusion that we must work very hard to ensure that every aspect of the NMU's educational offerings are well-planned and oriented towards our market, so that we achieve the service and outcome quality that will ensure we receive a positive mark on this aspect in the future.

## **5 OVERALL STRATEGIC ASSESSMENT OF FUTURE EDUCATIONAL NEEDS AND PREFERENCES BASED ON SME AND STAKEHOLDER QUESTIONNAIRE STUDY RESULTS AND SECONDARY DATA**

The survey results discussed in this deliverable show many areas of convergence of opinion between respondents in different countries, as well as important areas where opinions differ based on organisation type or home country. This study functions as a type of exploratory research, furthering the investigation and development of defined target markets. Perhaps most importantly, the study provides an indication of areas of weakness that must be addressed in the future, as well as general information on the trends of customer demands:

- Competitiveness, i.e. one of the most important issues is the expressed lack of eagerness by respondents to change their current system of maritime education. A further noteworthy issue was the relatively low level of belief in the value of the NMU concept. Both of these points can be partly explained by the project still being in its development phase and the fact that it does not currently offer courses. That is, the issues are those of market penetration and brand equity. Despite the recognition of these facts, it is vital, as the questionnaire data has shown, that the NMU is “seen to be doing things”; that it increases the market perception of its quality and innovativeness; and that these matters are solidified as strategic objectives even during the development phase of the project;
- Time, i.e. the average of one to two weeks allotted for employee education purposes per year in the average organisation. However, apart from the UK, relatively more time is allotted for the education of managers. This points to a divergence of practice based on employee level, and also to a dividing element in terms of target markets;
- Course financing, i.e. that most organisations are willing to pay for employee education. As a strategic lesson, this demonstrates that corporate customers must be addressed in marketing campaigns. Combining this with appeals to individuals’ desires for further education may prove valuable for future NMU marketing efforts; and
- Course structuring, i.e. a general desire has been expressed for a mix of in-house courses, university/college courses, and e-learning modules. This gives significant freedom in the organising of educational material and educational interactions. This particular element requires further research to uncover more pronounced customer demands.

It is important to bear in mind the relatively small size of the sample and the preliminary nature of all findings discussed above. The results presented are not conclusive, but they do serve as guidance to the continuing development of the project. Through this study, the NMU is furthering its determination to accurately position itself in the educational marketplace and serve its target markets in the best way possible. Continuing research, such as the planned Foresight and Delphi studies, will strengthen the project’s awareness of current market movements and will further inform efforts in module/course design, as well as in marketing. It is through this type of tracking of the “market pulse” that the NMU will ensure its quality education offerings reach and benefit as wide an audience as possible.



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## APPENDIX 1: COUNTRY SPECIFIC ANALYSIS OF TOPICS AND KNOWLEDGE AREAS

**Table 38: Responses to Question 14 for the “Applied Maritime Transport Management” Knowledge Area “General management – the underlying principle”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section A	General management - the underlying principle								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		Response Rate
Denmark	6	22%	13	48%	6	22%	2	7%	
Germany	1	100%	0	0%	0	0%	0	0%	
Norway	0	0%	3	60%	1	20%	1	20%	
Sweden	0	0%	4	44%	4	44%	1	11%	
UK	2	33%	3	50%	0	0%	1	17%	
Total NMU Countries	9	19%	23	48%	11	23%	5	10%	
Other	5	38%	6	46%	2	15%	0	0%	
Unspecified	1	17%	2	33%	2	33%	1	17%	
Total All Countries	15	22%	31	46%	15	22%	6	9%	

**Table 39: Responses to Question 14 for the “Applied Maritime Transport Management” Knowledge Area “Application to specific shipping markets”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section A	Application to specific shipping markets								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	4	15%	8	31%	10	38%	4	15%	
Germany	1	100%	0	0%	0	0%	0	0%	
Norway	0	0%	3	60%	1	20%	1	20%	
Sweden	0	0%	6	67%	3	33%	0	0%	
UK	4	67%	1	17%	0	0%	1	17%	
Total NMU Countries	9	19%	18	38%	14	30%	6	13%	
Other	4	33%	6	50%	2	17%	0	0%	
Unspecified	0	0%	2	33%	3	50%	1	17%	
Total All Countries	13	20%	26	40%	19	29%	7	11%	

**Table 40: Responses to Question 14 for the “Applied Maritime Transport Management” Knowledge Area “Applied Maritime Economics”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section A	Applied Maritime Economics								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	2	8%	10	38%	9	35%	5	19%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	2	40%	2	40%	1	20%	83%
Sweden	1	11%	5	56%	3	33%	0	0%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	5	11%	19	40%	16	34%	7	15%	81%
Other	3	23%	9	69%	1	8%	0	0%	93%
Unspecified	0	0%	1	17%	4	67%	1	17%	40%
Total All Countries	8	12%	29	44%	21	32%	8	12%	76%

Table 41: Responses to Question 14 for the “Applied Maritime Transport Management” Knowledge Area “Shipping industry, maritime policy, freight markets”

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section A	Shipping industry, maritime policy, freight markets								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	8	31%	9	35%	6	23%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	1	20%	3	60%	1	20%	83%
Sweden	1	11%	4	44%	3	33%	1	11%	82%
UK	3	50%	1	17%	1	17%	1	17%	86%
Total NMU Countries	7	15%	15	32%	16	34%	9	19%	81%
Other	7	54%	6	46%	0	0%	0	0%	93%
Unspecified	2	33%	1	17%	2	33%	1	17%	40%
Total All Countries	16	24%	22	33%	18	27%	10	15%	76%

Table 42: Responses to Question 14 for the “Applied Maritime Transport Management” Knowledge Area “Maritime economics”

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section A	Maritime Economics								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	15	58%	6	23%	4	15%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	1	20%	3	60%	1	20%	83%
Sweden	0	0%	7	78%	2	22%	0	0%	82%
UK	1	17%	2	33%	2	33%	1	17%	86%
Total NMU Countries	2	4%	26	55%	13	28%	6	13%	81%
Other	4	31%	9	69%	0	0%	0	0%	93%
Unspecified	2	33%	0	0%	3	50%	1	17%	40%
Total All Countries	8	12%	35	53%	16	24%	7	11%	76%

Table 43: Responses to Question 14 for the “Applied Maritime Transport Management” Knowledge Area “Geography of Maritime Transport”

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section A	Geography of maritime transport								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	5	19%	10	38%	10	38%	1	4%	84%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	0	0%	2	40%	2	40%	1	20%	83%
Sweden	0	0%	4	44%	3	33%	2	22%	82%
UK	0	0%	2	33%	3	50%	1	17%	86%
Total NMU Countries	5	11%	18	38%	19	40%	5	11%	81%
Other	2	17%	5	42%	4	33%	1	8%	86%
Unspecified	2	33%	0	0%	3	50%	1	17%	40%
Total All Countries	9	14%	23	35%	26	40%	7	11%	75%

**Table 44: Responses to Question 14 for the “Logistics and Global SCM” Knowledge Area “Intermodality”**

Question 14	Distribution of responses among those respondents who answered the question								Response rate
Section B	Intermodality								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	11	44%	8	32%	3	12%	81%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	25%	2	50%	0	0%	1	25%	67%
Sweden	1	11%	1	11%	3	33%	4	44%	82%
UK	2	33%	0	0%	3	50%	1	17%	86%
Total NMU Countries	7	16%	14	31%	15	33%	9	20%	78%
Other	4	31%	8	62%	1	8%	0	0%	93%
Unspecified	0	0%	3	50%	1	17%	2	33%	40%
Total All Countries	11	17%	25	39%	17	27%	11	17%	74%

**Table 45: Responses to Question 14 for the “Logistics and Global SCM” Knowledge Area “International transport law and regulation of logistics”**

Question 14	Distribution of responses among those respondents who answered the question								Response rate
Section B	International transport law and regulation of logistics								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	12	48%	11	44%	1	4%	81%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	3	60%	1	20%	1	20%	83%
Sweden	0	0%	3	33%	3	33%	3	33%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	3	7%	20	43%	17	37%	6	13%	79%
Other	2	15%	10	77%	1	8%	0	0%	93%
Unspecified	1	20%	1	20%	3	60%	0	0%	33%
Total All Countries	6	9%	31	48%	21	33%	6	9%	74%

**Table 46: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “International HRM practices”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	International HRM practices								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	10	37%	10	37%	6	22%	87%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	1	20%	1	20%	2	40%	1	20%	83%
Sweden	0	0%	2	22%	6	67%	1	11%	82%
UK	2	33%	2	33%	1	17%	1	17%	86%
Total NMU Countries	4	8%	16	33%	19	40%	9	19%	83%
Other	3	23%	6	46%	2	15%	2	15%	93%
Unspecified	0	0%	2	33%	3	50%	1	17%	40%
Total All Countries	7	10%	24	36%	24	36%	12	18%	77%

**Table 47: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “National HRM practices”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	National HRM practices								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	2	8%	12	46%	7	27%	5	19%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	1	20%	1	20%	2	40%	1	20%	83%
Sweden	1	11%	3	33%	4	44%	1	11%	82%
UK	4	67%	0	0%	1	17%	1	17%	86%
Total NMU Countries	8	17%	17	36%	14	30%	8	17%	81%
Other	2	15%	8	62%	1	8%	2	15%	93%
Unspecified	1	17%	2	33%	2	33%	1	17%	40%
Total All Countries	11	17%	27	41%	17	26%	11	17%	76%

**Table 48: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “Career path and investment in education issues”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	Career path and investment in education issues								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	2	8%	6	23%	13	50%	5	19%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	1	20%	2	40%	1	20%	1	20%	83%
Sweden	0	0%	4	44%	4	44%	1	11%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	5	11%	14	30%	20	43%	8	17%	81%
Other	1	8%	8	62%	2	15%	2	15%	93%
Unspecified	0	0%	2	33%	2	33%	2	33%	40%
Total All Countries	6	9%	24	36%	24	36%	12	18%	76%

**Table 49: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “Intercultural Management”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	Intercultural management								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	6	23%	10	38%	7	27%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	3	60%	1	20%	1	20%	83%
Sweden	0	0%	3	33%	5	56%	1	11%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	5	11%	14	30%	18	38%	10	21%	81%
Other	1	8%	10	77%	1	8%	1	8%	93%
Unspecified	0	0%	1	17%	4	67%	1	17%	40%
Total All Countries	6	9%	25	38%	23	35%	12	18%	76%

**Table 50: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “Legal and regulatory labour frameworks”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	Legal and regulatory labour frameworks								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	9	35%	11	42%	5	19%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	2	40%	2	40%	1	20%	83%
Sweden	0	0%	6	67%	2	22%	1	11%	82%
UK	3	50%	2	33%	0	0%	1	17%	86%
Total NMU Countries	4	9%	20	43%	15	32%	8	17%	81%
Other	1	8%	10	77%	1	8%	1	8%	93%
Unspecified	1	17%	2	33%	1	17%	2	33%	40%
Total All Countries	6	9%	32	48%	17	26%	11	17%	76%

**Table 51: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “Workplace environmental issues”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	Workplace environment issues								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	13	50%	7	27%	5	19%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	3	60%	1	20%	1	20%	83%
Sweden	1	11%	4	44%	3	33%	1	11%	82%
UK	1	17%	4	67%	0	0%	1	17%	86%
Total NMU Countries	3	6%	25	53%	11	23%	8	17%	81%
Other	1	8%	9	69%	1	8%	2	15%	93%
Unspecified	0	0%	2	33%	3	50%	1	17%	40%
Total All Countries	4	6%	36	55%	15	23%	11	17%	76%

**Table 52: Responses to Question 14 for the “International Maritime Human Resource Management” Knowledge Area “Organisational and Management Psychology”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section C	Organisational and Management Psychology								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	13	50%	6	23%	4	15%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	2	40%	2	40%	1	20%	83%
Sweden	0	0%	3	33%	5	56%	1	11%	82%
UK	2	33%	2	33%	1	17%	1	17%	86%
Total NMU Countries	5	11%	21	45%	14	30%	7	15%	81%
Other	2	15%	8	62%	1	8%	2	15%	93%
Unspecified	1	17%	1	17%	3	50%	1	17%	40%
Total All Countries	8	12%	30	45%	18	27%	10	15%	76%



**Table 53: Responses to Question 14 for the “Intermodality” Knowledge Area “Basic of Intermodal Logistics”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Basics of intermodal logistics								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	12	46%	10	38%	3	12%	84%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	25%	1	25%	1	25%	1	25%	67%
Sweden	0	0%	3	33%	3	33%	3	33%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	4	9%	17	37%	17	37%	8	17%	79%
Other	4	31%	6	46%	2	15%	1	8%	93%
Unspecified	0	0%	3	50%	2	33%	1	17%	40%
Total All Countries	8	12%	26	40%	21	32%	10	15%	75%

**Table 54: Responses to Question 14 for the “Intermodality” Knowledge Area “Legal Framework”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Legal framework								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	0	0%	11	44%	10	40%	4	16%	81%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	3	60%	0	0%	1	20%	83%
Sweden	0	0%	4	44%	2	22%	3	33%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	3	7%	19	41%	15	33%	9	20%	79%
Other	2	17%	8	67%	1	8%	1	8%	86%
Unspecified	0	0%	4	67%	1	17%	1	17%	40%
Total All Countries	5	8%	31	48%	17	27%	11	17%	74%

**Table 55: Responses to Question 14 for the “Intermodality” Knowledge Area “Intermodal transport chains”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Intermodal transport chains								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	0	0%	13	52%	9	36%	3	12%	81%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	2	40%	1	20%	1	20%	83%
Sweden	0	0%	3	33%	3	33%	3	33%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	3	7%	19	41%	16	35%	8	17%	79%
Other	4	31%	5	38%	3	23%	1	8%	93%
Unspecified	0	0%	2	33%	3	50%	1	17%	40%
Total All Countries	7	11%	26	40%	22	34%	10	15%	75%

**Table 56: Responses to Question 14 for the “Intermodality” Knowledge Area “Political framework, EU policy”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Political framework, EU policy								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	2	8%	10	40%	8	32%	5	20%	81%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	0	0%	3	60%	1	20%	1	20%	83%
Sweden	0	0%	3	33%	3	33%	3	33%	82%
UK	1	17%	2	33%	2	33%	1	17%	86%
Total NMU Countries	3	7%	18	39%	15	33%	10	22%	79%
Other	4	31%	5	38%	3	23%	1	8%	93%
Unspecified	2	33%	1	17%	2	33%	1	17%	40%
Total All Countries	9	100%		0%		0%		0%	75%

**Table 57: Responses to Question 14 for the “Intermodality” Knowledge Area “Trade and markets”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Trade and markets								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	4	15%	12	46%	7	27%	3	12%	84%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	0	0%	2	40%	2	40%	1	20%	83%
Sweden	0	0%	3	33%	3	33%	3	33%	82%
UK	1	17%	3	50%	1	17%	1	17%	86%
Total NMU Countries	5	11%	20	43%	14	30%	8	17%	81%
Other	7	54%	4	31%	1	8%	1	8%	93%
Unspecified	2	33%	1	17%	2	33%	1	17%	40%
Total All Countries	14	21%	25	38%	17	26%	10	15%	76%

**Table 58: Responses to Question 14 for the “Intermodality” Knowledge Area “Logistics and supply chain networks”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Logistics and supply chain networks								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	1	4%	13	54%	8	33%	2	8%	77%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	2	40%	1	20%	1	20%	83%
Sweden	1	11%	2	22%	3	33%	3	33%	82%
UK	3	50%	1	17%	1	17%	1	17%	86%
Total NMU Countries	6	13%	18	40%	14	31%	7	16%	78%
Other	3	25%	6	50%	2	17%	1	8%	86%
Unspecified	1	17%	2	33%	1	17%	2	33%	40%
Total All Countries	10	16%	26	41%	17	27%	10	16%	72%

**Table 59: Responses to Question 14 for the “Intermodality” Knowledge Area “Advances in future technology”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section D	Advances in future technology								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	12	48%	8	32%	2	8%	81%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	2	40%	1	20%	1	20%	83%
Sweden	0	0%	4	44%	2	22%	3	33%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	6	13%	19	41%	14	30%	7	15%	79%
Other	3	23%	7	54%	2	15%	1	8%	93%
Unspecified	1	17%	2	33%	1	17%	2	33%	40%
Total All Countries	10	15%	28	43%	17	26%	10	15%	75%

**Table 60: Question 14 for the “Ship Knowledge for Non-Engineers” Knowledge Area**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section E	Ship Knowledge for non engineers								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	5	21%	8	33%	7	29%	4	17%	77%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	2	40%	2	40%	1	20%	83%
Sweden	2	22%	4	44%	2	22%	1	11%	82%
UK	3	50%	1	17%	1	17%	1	17%	86%
Total NMU Countries	10	22%	16	36%	12	27%	7	16%	78%
Other	3	30%	6	60%	0	0%	1	10%	71%
Unspecified	1	20%	0	0%	3	60%	1	20%	33%
Total All Countries	14	23%	22	37%	15	25%	9	15%	69%

**Table 61: Responses to Question 14 for the “Maritime Transport and the Environment” Knowledge Area “Dangerous goods and hazards”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section F	Dangerous goods and hazards								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	7	27%	14	54%	2	8%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	1	20%	1	20%	3	60%	0	0%	83%
Sweden	0	0%	6	67%	2	22%	1	11%	82%
UK	1	17%	4	67%	0	0%	1	17%	86%
Total NMU Countries	5	11%	19	40%	19	40%	4	9%	81%
Other	7	54%	4	31%	1	8%	1	8%	93%
Unspecified	1	17%	2	33%	2	33%	1	17%	40%
Total All Countries	13	20%	25	38%	22	33%	6	9%	76%

**Table 62: Responses to Question 14 for the “Maritime Transport and the Environment” Knowledge Area  
“Impacts of transport on society, the economy and the environment”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section F	Impacts of transport on society, the economy and the environment								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	2	8%	12	46%	10	38%	2	8%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	3	60%	2	40%	0	0%	83%
Sweden	0	0%	5	56%	4	44%	0	0%	82%
UK	2	33%	3	50%	0	0%	1	17%	86%
Total NMU Countries	4	9%	24	51%	16	34%	3	6%	81%
Other	6	46%	4	31%	1	8%	2	15%	93%
Unspecified	2	33%	0	0%	3	50%	1	17%	40%
Total All Countries	12	18%	28	42%	20	30%	6	9%	76%

**Table 63: Responses to Question 14 for the “Maritime Transport and the Environment” Knowledge Area  
“Modal shift and comparison of transport modes”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section F	Modal shift and comparison of transport modes								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	3	12%	9	35%	11	42%	3	12%	84%
Germany	0	0%	0	0%	1	100%	0	0%	33%
Norway	1	20%	3	60%	1	20%	0	0%	83%
Sweden	0	0%	4	50%	3	38%	1	13%	73%
UK	3	50%	1	17%	1	17%	1	17%	86%
Total NMU Countries	7	15%	17	37%	17	37%	5	11%	79%
Other	5	38%	6	46%	1	8%	1	8%	93%
Unspecified	2	33%	1	17%	1	17%	2	33%	40%
Total All Countries	14	22%	24	37%	19	29%	8	12%	75%

**Table 64: Responses to Question 14 for the “Maritime Transport and the Environment” Knowledge Area  
“Sustainability development and perspectives”**

Question 14	Distribution of responses among those respondents who answered the question								Response Rate
Section F	Sustainability development perspectives								
Country Category	Very Attractive		Attractive		Not Interested		Sorry cannot judge		
Denmark	2	8%	8	32%	10	40%	5	20%	81%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	0	0%	3	60%	2	40%	0	0%	83%
Sweden	1	11%	5	56%	2	22%	1	11%	82%
UK	2	33%	2	33%	1	17%	1	17%	86%
Total NMU Countries	5	11%	19	41%	15	33%	7	15%	79%
Other	5	38%	6	46%	1	8%	1	8%	93%
Unspecified	2	33%	1	17%	1	17%	2	33%	40%
Total All Countries	12	18%	26	40%	17	26%	10	15%	75%

**Table 65: Responses to Question 15 for the “How much time do you consider necessary for your employees education per year (in weeks)?” Senior management-related results**

Question 15	Distribution of responses among those respondents who answered the question								Response Rate
	Senior Management								
Country Category	Up to 1 week		1-2 weeks		2-3 weeks		More than 4 weeks		
Denmark	6	23%	5	19%	10	38%	5	19%	84%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	2	40%	2	40%	1	20%	0	0%	83%
Sweden	4	44%	3	33%	0	0%	2	22%	82%
UK	2	33%	1	17%	2	33%	1	17%	86%
Total NMU Countries	14	30%	12	26%	13	28%	8	17%	81%
Other Country	1	8%	4	31%	2	15%	6	46%	93%
Country Unspecified	1	17%	2	33%	2	33%	1	17%	40%
Total All Countries	16	24%	18	27%	17	26%	15	23%	76%

**Table 66: Responses to Question 15 for the “How much time do you consider necessary for your employees education per year (in weeks)?” Operational/ middle management-related results**

Question 15	Distribution of responses among those respondents who answered the question								Response Rate
	Operational Management								
Country Category	Up to 1 week		1-2 weeks		2-3 weeks		More than 4 weeks		
Denmark	6	25%	12	50%	2	8%	4	17%	77%
Germany	0	0%	1	100%	0	0%	0	0%	33%
Norway	3	60%	1	20%	1	20%	0	0%	83%
Sweden	3	33%	4	44%	1	11%	1	11%	82%
UK	1	17%	2	33%	2	33%	1	17%	86%
Total NMU Countries	13	29%	20	44%	6	13%	6	13%	78%
Other Country	0	0%	4	31%	7	54%	2	15%	93%
Country Unspecified	1	17%	2	33%	1	17%	2	33%	40%
Total All Countries	14	22%	26	41%	14	22%	10	16%	74%

**Table 67: Responses to Question 15 for the “How much time do you consider necessary for your employees education per year (in weeks)?” Other staff levels results**

Question 15	Distribution of responses among those respondents who answered the question								Response Rate
	Other Staff Levels								
Country Category	Up to 1 week		1-2 weeks		2-3 weeks		More than 4 weeks		
Denmark	9	36%	11	44%	2	8%	3	12%	81%
Germany	1	100%	0	0%	0	0%	0	0%	33%
Norway	2	40%	3	60%	0	0%	0	0%	83%
Sweden	4	44%	3	33%	1	11%	1	11%	82%
UK	1	17%	2	33%	1	17%	2	33%	86%
Total NMU Countries	17	37%	19	41%	4	9%	6	13%	79%
Other Country	2	15%	5	38%	4	31%	2	15%	93%
Country Unspecified	1	17%	3	50%	2	33%	0	0%	40%
Total All Countries	20	31%	27	42%	10	15%	8	12%	75%

## APPENDIX 2: TUTIONS, COSTS AND INCENTIVES IN UNIVERSITY EDUCATION

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarship s for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
Denmark	Public sector		No			Yes	Yes, to all (grant + loan)	Yes, not all receive this	Yes, full cost deduction	No	Both, in some instances
Germany	Public sector	Baden-Württemberg	Yes	500,- € (tuition fees starting with the beginning of university education)	40,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Auszubildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		Bavaria	Yes	approx. 500,- € (amount depends on the university; tuition fees starting with the beginning of university education)	50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Auszubildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances



NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
		Berlin	No (at the moment)	plans to implement a tuition fee of approx. 500,- € (implementation depends on a decision of the state parliament [next election: 2011]; surcharge only for students studying for more than 5-7 years - according to the field of study chosen. All terms count including even former fields of studies)	103,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Auszubildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		Brandenburg	No (at the moment)	plans to implement a tuition fee of approx. 500,- € (implementation depends on a decision of the state parliament [next election: end of 2009]; tuition fees starting with the beginning of university education or surcharge only for students studying	51,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Auszubildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
				for more than 5-7 years - according to the field of study chosen. All terms count including even former fields of studies)							
		Bremen	Yes	500,- € (fees for students who aren't inhabitants of the city / region where the university is situated and surcharge for students studying for more than 5-7 years - according to the field of study chosen. All terms count including even former fields of studies)	50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungsgesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
		Hamburg	Yes	500,- € (tuition fees starting with the beginning of university education)	50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		Hesse	No	discussions about an implementation of a tuition fee of approx. 500,- € (implementation not before 2014)	50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		Mecklenburg-Western Pomerania	No	-	approx. 50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
							für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students				
		Lower Saxony	Yes	600-800 € (depends on the university; tuition fees starting with the beginning of university education)	75,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		North Rhine-Westphalia	Yes	500,- € (tuition fees starting with the beginning of university education)	-	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
		Rhineland-Palatinate	Yes	650,- € (tuition fees for post-graduates starting a new and different subject and fees for seniors (people older than 60 have to pay))	-	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		Saarland	Yes	500,- € (300,- € for the first and second term; tuition fees starting with the beginning of university education)	-	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		Saxony	Yes	approx. 300,- € (tuition fees for post-graduates starting a new and different subject)	25,- € to 150,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
							für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students				
		<b>Saxony-Anhalt</b>	Yes	500,- € (surcharge for students studying for more than 5-7 years - according to the field of study chosen. All terms count including even former fields of studies)	administration costs: approx. 50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
		<b>Schleswig-Holstein</b>	No (at the moment)	plans to implement a tuition fee of approx. 500,- € (implementation depends on a decision of the state parliament [next election: 2011]; tuition fees starting with the beginning of university education)	50,- € to 150,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungs Gesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances



NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
		Thuringia	Yes	500,- € (surcharge for students studying for more than 5-7 years - according to the field of study chosen. All terms count including even former fields of studies)	50,- €	Yes (it is allowed to raise a tuition fee for part-time study programmes, but it depends on the individual university to take a fee or leave it)	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungsgesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
Germany	Private sector	all 16 German Federal States	Yes	amount depends on the university itself	depends on the university itself	Yes	Yes, to needy students (loan + grant); for example BAföG (Bundes Ausbildungsförderungsgesetz) or grants offered by the government together with the "Kreditanstalt für Wiederaufbau Bankengruppe" (KfW Förderbank) for all students	Yes, not all receive this	Yes, cost deduction is possible	Yes, full cost deduction (since an amendment of the German Income Tax Act in 2004) [first degree]	Both, in some instances
Norway	Public sector		No			Yes	Yes, to all (loan + grant)	Yes, not all receive this			
Sweden	Public sector		No			No	Yes, to all (loan + grant)	Yes, not all receive this			
UK	Public sector		Yes			Yes	Yes, to needy students (loan + grant)	Yes, not all receive this			

NMU project country	Type of university or college	Federal states	Tuition fee for full time study programmes allowed	Comments to the listed information regarding the tuition fees	Mandatory costs, which all students have to pay (for public transport fees, fees for services offered by the students' union executive committee etc.)	Tuition fee for part-time study programmes allowed	Financial aid system to full-time students concerning tuition (if applicable) & living costs	Private sector scholarships for full time students in cases of, e.g., foreign exchange or special needs	Financial incentives for companies to finance part-time university education of employees	Tax system incentives for individuals to finance own part-time university education	Private or public sector support available for part-time university education for persons in need
UK	Private sector		Yes			Yes	Yes, to needy students (loan + grant)	Yes, not all receive this			

## Example Denmark:

The University of Southern Denmark offers the Part-time partially Danish-, partially English-language Master programme Master of Transport and Maritime Management, which is a total of 60 ECTS spread over 4 semesters.<sup>67</sup> The cost for the entire instruction programme is: DKK 104,000 kr., i.e. approximately € 13,900 (and in addition there are costs for books and teaching materials, travelling, etc.), yet students may register for individual courses/modules of the study programme as well. Almost all students are sponsored by employers or private and public monies.

The Copenhagen Business School offers a fully English-language international Executive MBA in Shipping and Logistics.<sup>68</sup> Participants come from many different countries; about 85% of all the participants in the Executive MBA Shipping and Logistics Programme are sponsored by their employers. The tuition fee of the programme is DKK 225,000 – approx. € 30.000.”

<sup>67</sup> see: [http://www.sdu.dk/Uddannelse/Efter\\_videreuddannelse/Master/Master\\_Transport\\_Maritim.aspx](http://www.sdu.dk/Uddannelse/Efter_videreuddannelse/Master/Master_Transport_Maritim.aspx) (site is in Danish)

<sup>68</sup> see: [http://uk.cbs.dk/degree\\_programmemes/executive\\_masters/executive\\_masters2/mba\\_uddannelser/executive\\_mba\\_in\\_shipping\\_logistics](http://uk.cbs.dk/degree_programmemes/executive_masters/executive_masters2/mba_uddannelser/executive_mba_in_shipping_logistics)

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## APPENDIX 3: ONLINE QUESTIONNAIRE

### A1.1 Invitation to complete the online survey

The "Northern Maritime University" (NMU) project is building up a transnational network of universities in the North Sea Region (NSR) that will supply modern qualification offerings for the maritime business sector.

This online survey is part of our stakeholder study on qualification needs in the maritime business sector in the NSR and beyond. Therefore persons who work in maritime companies of all sizes or other maritime organisations are invited to fill out the survey.

Completing our survey will take about 5 minutes and will help us develop a common NMU product and service portfolio based upon a flexible and modular offering framework.

Further, your information will help to enhance the content according to the needs of stakeholders and to create a range of a maritime business related modules and degrees, applying teaching approaches such as e-learning that enable lifelong learning of recipients.

To show how valid your contribution is to us, we will raffle 2 free passes to the International Association of Maritime Economists' 2009 Conference ([www.iame2009.org](http://www.iame2009.org)) in Copenhagen in June 2009 among the participants of the survey.

For further information about our use and protection of the survey data, please click [here](#) to see our Data Privacy Statement.

### A1.2 Part A: Introduction

**1. In which sector/sectors of maritime transport do your organisation's main activities lie?**

*(Multiple choice)*

Cargo handling / Transport / Port services (e.g. towage, pilotage, line handling, survey, agency, etc) / Ship building, ship repair or ship equipment / Logistics service provider / Manufacturing/Trade (e.g. shipyard, refinery etc) / Transport operator / Inland terminal operator / Port or terminal services provider / Port terminal operator / Association / Regulatory body / Education/training organisation / Public sector organisation / Offshore sector / Shipping company /

Other, please specify:

**2. How would you describe your knowledge with respect to qualifications and education offerings regarding your sector?**

*(Single choice)*

None / Basic Understanding / Good Understanding / Expert

**3. What is the geographical coverage/extent of your operations?**

*(Single choice)*

Global / European / Regional / National / Local

**4. In which regions of Europe does your organisation operate? (Select all that apply)**

*(Multiple choice)*

UK, Ireland / Benelux and France / Nordic countries / Germany / Baltic States / Central Europe (excluding Germany) / Eastern Europe / South-Western Europe / South-Eastern Europe / All regions /

Other, please specify:

### A1.3 Part B: Education in your organisation

- 5. Does your company/organisation have a specific strategy for the education and training or a personnel development plan for staffs?**

*(Single choice)*

Yes / No

*If yes, please describe briefly: /*

- 6. What level of educational qualification would most interest you/your employees?**

*(Single choice)*

*Post-graduate (e.g. MSc) / MBA / Bachelor / Vocational training / Specific topics - short term courses / Other*

*If other, please describe briefly: /*

- 7. Does your organisation motivate employees to take part in part-time business degree programmes or specific university-level business courses that are relevant to your business?**

*(Single choice)*

Yes / No

*If yes, please give examples: /*

- 8. How much work-time (in aggregate) could be made available for education of employees per year?**

*(Single choice)*

*up to 1 week / 1-2 weeks / 2-3 weeks / more than 4 weeks / employees use their free time for further education / Other*

*If other, please describe briefly: /*

- 9. Do you currently cooperate with educational institutions?**

*(Single choice)*

Yes / No / *If yes, please name them:*

- 10. How satisfied are you with your current education strategy/supplier-s?**

*(Single choice)*

*Highly satisfied / Satisfied / Not satisfied*

## 11. Thinking of your current education strategy / supplier. What changes would you like to see in the education in general?

University level: (Single choice)

Higher quality of courses / Specialised lecturers / More examples and reference to practice / Greater emphasis on theory /

Other, please name:

Vocational level: (Single choice)

Higher quality of courses / Specialised lecturers / More examples and reference to practice / Greater emphasis on theory /

Other, please name:

## 12. Please give your opinion: Northern Maritime University e-courses or partially e-based courses with short sessions at weekends as a competitive offer?

(Single choice)

Strongly agree / Agree / Disagree / Strongly disagree / Other

## 13. The location of such courses in major transportation hub cities of Northern Europe (e.g. London, Hamburg, Copenhagen, Oslo) would be a competitive offer.

(Single choice)

Strongly agree / Agree / Disagree / Strongly disagree / Other

### A1.4 Part C: Education Development

## 14. Please rate the following knowledge areas concerning the attractiveness for your staff/organisation?

	Very attractive	Attractive	Not interested	Sorry, cannot judge this topic
Applied Maritime Transport Management				
General management - the underlying principle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application to specific shipping markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Applied Maritime Economics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shipping industry, maritime policy, freight markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maritime economics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geography of maritime transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Logistics and Global SCM				
Intermodality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International transport law and regulation of logistics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International Maritime Human Resource Management				
International HRM practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
National HRM practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career path and investment in education issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Very attractive	Attractive	Not interested	Sorry, cannot judge this topic
<i>Intercultural management</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Legal and regulatory labour frameworks</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Workplace environment issues</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Organisational and Management Psychology</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Intermodality</i>				
<i>Basics of intermodal logistics</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Legal framework</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Intermodal transport chains</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Political framework, EU policy</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Trade and markets</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Logistics and supply chain networks</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Advances in future technology</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Ship knowledge for Non-Engineers</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Maritime transport and the environment</i>				
<i>Dangerous goods and hazards</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Impacts of transport on society, the economy and the environment</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Modal shift and comparison of transport modes</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Sustainability development perspectives</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**15. How much time do you consider necessary for your employees education per year (in weeks)?**

Senior management: (Single choice)

up to 1 week / 1-2 / 2-3 / > 4

Operational/middle management: : (Single choice)

up to 1 week / 1-2 / 2-3 / > 4

Other staff levels: : (Single choice)

up to 1 week / 1-2 / 2-3 / > 4

**16. What do you consider to be the most suitable form of educational delivery?**

(Single choice)

In-house course (face-to-face) / University or college course (face-to-face) / e-learning / Mix of the three above options /

Other, please specify:

**17. Do you agree that that full time E-learning courses and study programmemes from international renowned institutions are equivalent to a full time student's study semesters abroad?**



*(Single choice)*

*Strongly agree / Agree / Disagree / Strongly disagree / Other*

- 18. Is your organisation open to paying the associated fees and costs, if employees take part in relevant part-time business degree programmes or specific university-level business courses?**

*(Single choice)*

*Strongly agree / Agree / Disagree / Strongly disagree / Other*

- 19. Please give your opinion: Part-time business degree programmes with a substantial amount of e-learning activities are perceived at least as positively as similar programmes with a lesser amount of e-learning activities and more face-to-face interaction?**

*(Single choice)*

*Strongly agree / Agree / Disagree / Strongly disagree / Other*

- 20. In your opinion, is the need for part-time maritime business education for firms, including both entire study programmes and individual courses, to be found:**

*(Single choice)*

Mainly at the Bachelor level in your country / Mainly at the Master level in your country / At both levels in your country / Firms have little or no need for further part-time maritime business education

- 21. Please give your opinion: Generally, maritime education courses in my home country/location are optimal in relation to the needs of the maritime and port sector.**

*(Single choice)*

*Strongly agree / Agree / Disagree / Strongly disagree / Other*

### **A1.5 Part D: Future education needs & organisation details**

- 22. How important will international experience be in the employment decision?**

*(Single choice)*

*Very important / Important / Not important /*

*Please give examples:*

- 23. Do you believe the transnational NMU approach offers the potential to improve maritime transport education compared with the current educational offerings for your business or organisation?**

*(Single choice)*

*Yes / Possibly / No*

- 24. Would you like to receive further information about NMU developments by email?**

*(Single choice)*

*Yes / No*

- 25. Organisation:**

- 26. Organisation address:**

- 27. Country:**



28. Your name:

29. Your position:

30. Email:

31. Your level of management in the organisation

*(Single choice)*

*Executive / High senior management (e.g. Board level) / Senior management (e.g. Division head) / Operational management (e.g. Section head) /*

*Other, please specify:*

32. Please indicate the number of employees in your organisation:

*(Single choice)*

*0-10 / 11-50 / 51-250 / over 250*

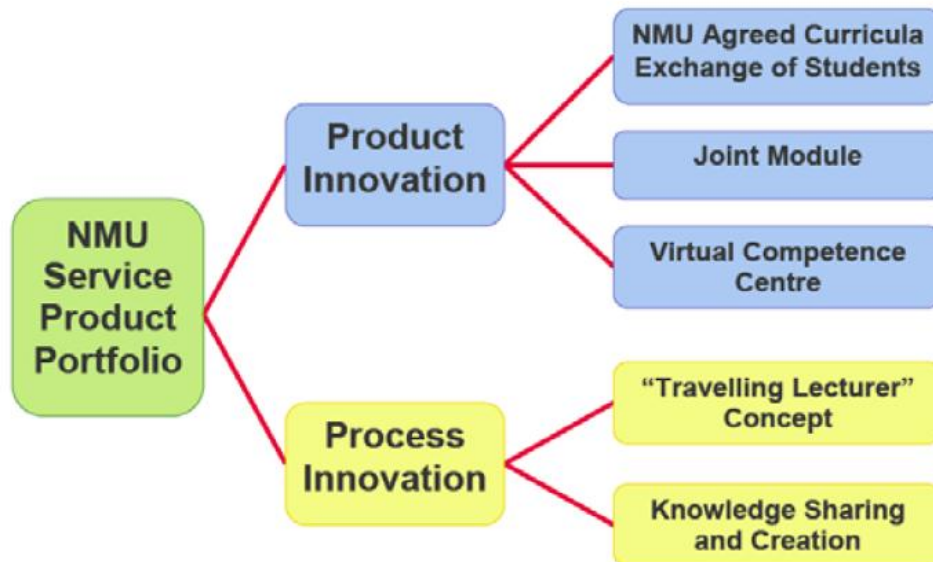
33. Would you like to participate in the drawing to win one of 2 free passes to the International Association of Maritime Economists' 2009 Conference ([www.iame2009.org](http://www.iame2009.org)) in Copenhagen, Denmark, in June 2009? / By participating in the drawing you agree to the terms and conditions.

*(Single choice)*

*Yes / No*

## APPENDIX 4: NMU SERVICE PRODUCT PORTFOLIO

**Figure 5:** Overview over NMU Service Product Portfolio from NMU WP3 D3.1.2



## *APPENDIX 5: NOTE ON THE SURVEY METHODOLOGY*

It is absolutely essential that we write utterly honestly and also self-critically about the strengths and weaknesses of our methodology.

Please write the main draft here, as it was a representative of Napier University, WP Co-leader Alf Baird who suggested the methodology. I cannot write it as the questions I posed to Professor Alf Baird, which were as follows, remained unanswered:

1. Could the respondents tick one or more than one answer for questions 3, 11, 20?
2. What happened if respondents tried to tick more than one box where they should not have?
  - Was there an error message?
  - Did the cursor stay in the first box?
  - Did the cursor move to the next box?
3. Exact description of linguistic checks of questionnaire and justification of the chosen types of scale for questions with scales, namely symmetric and assymetric Likert scales
4. Exact description of sampling techniques used in UK and Germany

I will of course supplement with the description of the ssampling technique used for Denmark, Norway and Sweden.

## *APPENDIX 6: SAMPLING STRATEGIES*

The online questionnaire was published for free access as part of the website. As an overall strategy the invitation to participate in the questionnaire was published in the NMU website news. Additionally, a link and invitation (side banner) to the questionnaire was published on the Lloyd'slist ([www.lloydslist.com](http://www.lloydslist.com)) website for the time of the questionnaire. The sampling strategy.

Further, one partner from each NMU country took responsibility to develop their own sampling strategy. The details of the approach were left open in order to allow each partner to develop a strategy that would fit best with the country's business culture and the way of communication between research institutions and the industry.

Denmark, Sweden and Norway: After consulting with the Norwegian and Swedish NMU consortium members, the University of Southern Denmark bore the responsibility for the stakeholder sampling in all three countries. In all three countries, the sampling strategy was as follows: First, interest organisations (e.g. shipowners' associations, ports associations, etc.) were contacted as were relevant maritime media. In cases where the interest organisations send e- or paper newsletters to their membership, the interest organisations were asked to announce the survey to their membership. As for media contacted, in Norway, the following were contacted: TradeWinds ([www.tradewinds.no](http://www.tradewinds.no)), Knutepunkt ([www.knutepunkt.no](http://www.knutepunkt.no)), and Logistik og ledelse. In Denmark, articles about the NMU project appeared in, e.g., Søfart, Danmarks Transport Tidende, Maritime Danmark, Erhvervsbladet and the newspaper of the German-speaking minority in Southern Denmark, Der Nordschleswiger.

After this, individual maritime firms whose membership in such interest organisations is public information available on the internet were contacted individually in all three countries, by e-mail and by phone calls, as were some maritime interest organisations and public sector maritime organisations. Danish was used in addressing potential Danish respondents, whereas English was used in phone calls with the potential Norwegian and Swedish respondents, who however also could receive the press releases which are found in Appendix 6 in their respective language. The use of English in the phone calls as well as less familiarity with the University of Southern Denmark may explain why the response rate was lower in Norway and Sweden than in Denmark."

UK, and other countries: In the case of UK a mail-drop strategy was used informing a wide range of stakeholders in the UK and beyond through emails. The mailinglist was derived from the existing institute's maritime research mailing list and the mailing list derived from Sea-web.com for UK.

Germany: a similar mail-drop approach was used, which was paired with an announcement in an industry newsletter. In the case of Germany the start of sampling activities was delayed, so that the possibility to respond to the questionnaire was shorter.

## APPENDIX 6: PRESS RELEASES

## English Version



Northern Maritime University  
North Sea Region

Press Release: 10.2008-001

Edinburgh, United Kingdom, October 07th, 2008

**NMU calls for Participation to the e-Questionnaire Study - IAME 2009 Tickets to win**

The „Northern Maritime University“ (NMU) project is building up a transnational network of universities and colleges in the North Sea Region (NSR), i.e. Sweden, Denmark, Germany, Norway and UK. The NMU is working on developing maritime business education qualification offerings which will reflect the underlying needs of the maritime industries of the region. In connection with this, a questionnaire study of maritime firms' and organisations' needs is currently being conducted.

We therefore invite all firms or organisations from the maritime industries of Sweden, Denmark, Germany, Norway and UK to fill out the short e-questionnaire in English about business-related maritime educational needs found at: [www.survey.nm-uni.eu](http://www.survey.nm-uni.eu). Members of the "Northern Maritime University" consortium view inputs from maritime industry stakeholders as especially valuable in relation to developing courses and educational programmes to meet future needs for maritime education in the region. To show how valid maritime stakeholders' contribution is to us, we will raffle 2 free passes to the International Association of Maritime Economists' 2009 Conference ([www.iame2009.org](http://www.iame2009.org)) in Copenhagen in June 2009 among the participants who fill out the short e-questionnaire. Further questions about the questionnaire study may be addressed to Associate Professor Maria Anne Wagtmann, Ph.D. (University of Southern Denmark, +45 65 50 15 36 or [maw@sam.sdu.dk](mailto:maw@sam.sdu.dk)) or Professor Alf Baird, Ph.D. (Napier University, +44 131 455 2951 or [a.baird@napier.ac.uk](mailto:a.baird@napier.ac.uk)).

The NMU Consortium believes that NMU's multidisciplinary qualification offerings for the maritime transport industry will benefit greatly from exploiting the diversity, complementarity and synergies that exist between maritime expertise and content across the five countries and beyond. The broad range of knowledge and expertise needs are currently being harnessed, connected and gathered within a common and lasting network of universities which specifically and directly addresses the needs of the maritime industry.

Thus, the NMU is working towards establishing a European Area of Research and Innovation for the maritime industry, contributing towards the Lisbon strategy to make Europe "the most competitive and dynamic knowledge-based economy in the world".

Should you wish further information about the "Northern Maritime University" project, you are welcome to contact Project Leader, Gordon Wilmsmeier, Dipl. Geogr. of Napier University's (Scotland) Transport Research Institute at: +44 131 455 2951 or [g.wilmsmeier@napier.ac.uk](mailto:g.wilmsmeier@napier.ac.uk) or visit our website: [www.nsr.nm-uni.eu](http://www.nsr.nm-uni.eu).



Project Office:  
Transport Research Institute (TRI),  
Napier University, Merchiston Campus, Edinburgh EH10 5DT, UK  
Phone +44 (0) 131 455-29 51 Fax -29 53 [www.nsr.nm-uni.eu](http://www.nsr.nm-uni.eu)

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## Danish Version



Northern Maritime University  
North Sea Region

Press Release: 10.2008-003

Esbjerg, Danmark, 7.oktober 2008

**Northern Maritime University kortlægger uddannelsesbehov i det maritime erhvervsliv**

„Northern Maritime University“ (NMU)-projektet er ved at opbygge et transnationalt netværk af højere læreanstalter i Nordseområdet, dvs. Danmark, Norge, Sverige, Tyskland og UK. NMU arbejder p.t. ved at udvikle tilpassede erhvervsrelaterede uddannelses- og efteruddannelses tilbud, der vil reflektere de behov herfor i de maritime industrier i regionen. I den forbindelse er et e-spørgeskemastudium af maritime virksomheders og organisationers uddannelsesbehov netop blevet iværksat.

Vi opfordrer derfor alle virksomheder eller organisationer fra de maritime industrier i Danmark, Norge, Sverige, Tyskland og UK til at udfylde det korte e-spørgeskema om deres erhvervsorienterede uddannelsesmæssige behov, som forefindes på: [www.survey.nm-uni.eu](http://www.survey.nm-uni.eu). Medlemmer af „Northern Maritime University“-konsortiet mener, at inputs fra maritime interessenter er særdeles værdifulde med henblik på at udvikle kurser og uddannelsesprogrammer målrettet mod de fremtidige behov i regionens maritime erhvervsliv. For at understrege denne betydning vil vi trække lod om 2 adgangskort til International Association of Maritime Economists' 2009 konference ([www.iam2009.org](http://www.iam2009.org)) i København i juni 2009 blandt de respondenter, der udfylder det korte e-spørgeskema. Hvis der er spørgsmål til spørgeskemastudiet, kan disse rettes til lektor Maria Anne Wagtmann, ph.d. (Syddansk Universitet, +45 65 50 15 36 or [maw@sam.sdu.dk](mailto:maw@sam.sdu.dk)) eller til professor Alf Baird, ph.d. (Napier University, UK, +44 131 455 2951 or [a.baird@napier.ac.uk](mailto:a.baird@napier.ac.uk)).

Alle højere læreanstalter i NMU-konsortiet er sikre på, at NMUs tværdisciplinære uddannelses tilbud til den maritime transportindustri vil drage kvalitetsfordele fra den diversitet og komplementaritet samt de synergier, som forefindes mht. maritim ekspert- og specialviden i de fem deltagende lande samt den bredere omverden. Det store spektrum af viden og behov for viden granskes, konsolideres og udbygges i NMU-netværket, der således arbejder langsigtet med at imødekomme de maritime industriers nutidige og fremtidige behov. Derved arbejder NMU også med at etablere et europæisk område for forskning og innovation inden for det maritime. Dette arbejde kan også betragtes som et bidrag til Lisbon-strategien om at gøre Europa til "den mest konkurrencedygtige og dynamiske vidensbaserede økonomi i verden".

Ønskes yderligere oplysninger om "Northern Maritime University"-projektet, kan projektlederen, Gordon Wilmsmeier, Dipl. Geogr., fra Napier Universitys (Skotland) Transport Research Institute kontaktes på: +44 131 455 2951 eller [g.wilmsmeier@napier.ac.uk](mailto:g.wilmsmeier@napier.ac.uk). Projektets webside er: [www.nsr.nm-uni.eu](http://www.nsr.nm-uni.eu).

Den danske partner er Institut for Maritim Forskning og Innovation ved Syddansk Universitet, og den danske kontaktperson er institutdirektør Kristen D. Nedergaard, ph.d., 6550 1530 eller [kdn@sam.sdu.dk](mailto:kdn@sam.sdu.dk).




Project Office:  
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Phone +44 (0) 131 455-29 51 Fax -29 53 [www.nsr.nm-uni.eu](http://www.nsr.nm-uni.eu)

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## Norwegian Version

Press Release: 10.2008-002



**Northern Maritime University**  
North Sea Region

Esberg, Danmark, 7.oktober 2008

**Northern Maritime University kartlegger utdanningsbehovet i maritime næringer**

„Northern Maritime University“ (NMU) prosjektet bygger opp et flernasjonalt nettverk av universiteter og høyskoler i Nordsjøregionen med partnere fra Norge, Danmark, Tyskland, Sverige og Storbritannia. NMU bygger opp et maritimt økonomisk administrativt utdanningstilbud som skal reflektere behovene for de maritime næringer i regionen. I den forbindelse gjennomføres det nå en spørreundersøkelse blant maritime bedrifter og organisasjoner om deres kompetansebehov.

De maritime næringene i Norge, Danmark, Tyskland, Sverige og Storbritannia inviteres derfor til å fylle ut et elektronisk spørreskjema (på engelsk) om deres behov for økonomisk-administrativ kompetanse knyttet til næringen. Skjemaet finnes på [www.survey.nm-uni.eu](http://www.survey.nm-uni.eu).

Medlemmene i NMU-konsortiet anser det som veldig viktig å få denne typen informasjon fra næringen for at man skal kunne utvikle utdanningsprogram som møter framtidens behov for slik kompetanse i Nordsjøregionen. De som besvarer skjemaet vil være med i en trekning av gratis deltakelse på IAME-konferansen i København i juni 2009 (IAME: International Association of Maritime Economists – [www.iame2009.org](http://www.iame2009.org)).

Spørsmål om spørreundersøkelsen kan rettes til

• Associate Professor Maria Anne Wagtmann, Ph.D. University of Southern Denmark,

Tel +45 65 50 15 36 eller e-post: [maw@sam.sdu.dk](mailto:maw@sam.sdu.dk), eller til


• Professor Alf Baird, Ph.D. Napier University


Tel +44 131 455 2951 eller e-post: [a.baird@napier.ac.uk](mailto:a.baird@napier.ac.uk)

NMU-konsortiets flerfaglige tilnærming til et undervisningstilbud for de maritime næringer vil dra stor nytte av den mangfoldighet og komplementaritet som ligger i partner-institusjonenes fagportefølje. Ved å trekke på kompetansen til universiteter og høyskoler i disse fem Nordsjø-landene vil en kunne tilby et unikt utdanningstilbud for de maritime næringer. Med utgangspunkt i EUs Lisboa-strategi for gjøre Europa mer konkurransedyktig, arbeider NMU også med å etablere et europeisk miljø for forskning og innovasjon knyttet til maritim økonomisk-administrativ kompetanse.

Mer informasjon om NMU-prosjektet generelt kan fås via prosjektleder Gordon Wilmsmeier, Dipl. Geogr., Napier University (Skottland), Transport Research Institute, telefon +44 131 455 2951, eller via e-post: [g.wilmsmeier@napier.ac.uk](mailto:g.wilmsmeier@napier.ac.uk). Prosjektets hjemmeside er: [nsr.nm-uni.eu](http://nsr.nm-uni.eu).

Norsk partner i NMU-prosjektet er Høgskolen i Molde. Kontaktperson avdelingsleder Roar Lervik, telefon 71 21 42 40 eller e-post: [roar.lervik@himolde.no](mailto:roar.lervik@himolde.no).





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## Swedish Version



Northern Maritime University  
North Sea Region

Press Release: 10.2008-004

Esbjerg, Danmark, 21.oktober 2008

NMU inbjuder till deltagande i enkätstudie på nätet  
inträdesbiljetter till IAME 2009 lottas ut

Northern Maritime University (NMU) bygger upp ett transnationellt nätverk av universitet och högskolor i Nordsjöregionen (NSR), det vill säga Sverige, Danmark, Tyskland, Norge och Storbritannien. NMU kommer att erbjuda utbildning för företag på sjöfartsområdet som avspeglar de behov som sådana företag i regionen har. I samband härmed görs en enkätstudie av sjöfartsföretags och -organisationers utbildningsbehov.

Därför inbjuder vi företag och organisationer inom sjöfartsnäringen i Sverige, Danmark, Tyskland, Norge och Storbritannien att besvara en kort nätenkät (se [www.survey.nm-uni.eu](http://www.survey.nm-uni.eu)) på engelska om behov av affärsutbildning på sjöfartsområdet. Medlemmarna i Northern Maritime University-konsortiet betraktar input från intressenter inom sjöfartsindustrin som särskilt värdefull när det gäller att utveckla kurser och utbildningsprogram för att svara mot framtida behov av utbildning på området i regionen. För att visa hur tungt intressenternas insatser väger, kommer vi att lottas ut 2 biljetter till International Association of Maritime Economists konferens ([www.iame2009.org](http://www.iame2009.org)) i Köpenhamn i juni 2009 bland deltagare som svarar på den korta nätenkäten. Frågor om enkätstudien besvaras av associate professor Maria Anne Wagtmann, Syddansk Universitet, tel. +45 65 50 15 36 ([maw@sam.sdu.dk](mailto:maw@sam.sdu.dk)) och professor Alf Baird, Napier University, +44 131 455 2951 ([a.baird@napier.ac.uk](mailto:a.baird@napier.ac.uk)).

NMU-konsortiet anser att NMU:s tvärvetenskapliga utbud av utbildning för sjötransportnäringen kommer att i hög grad gagnas av att man utnyttjar mångfalden och synergierna som finns hos sjöfartsexperts i de fem deltagande länderna och utanför dem. Kunskapsbredden och sakkunskapen tas i anspråk, länkas samman och läggs ihop i ett gemensamt och bestående nätverk av universitet som explicit och direkt svarar mot sjöfartsnäringens behov.

NMU verkar alltså för att etablera ett europeiskt forsknings- och innovationsfält för sjöfartsnäringen som bidrar till Lissabon-strategin att göra Europa till "den mest konkurrenskraftiga och dynamiska kunskapsbaserade ekonomin i världen".

För mer information om Northern Maritime University-projektet, vänligen kontakta projektledaren Gordon Wilmsmeier vid Napier University (Scotland) Transport Research Institute, tel. +44 131 455 2951 ([g.wilmsmeier@napier.ac.uk](mailto:g.wilmsmeier@napier.ac.uk)) eller besök vår hemsida [www.nsr.nm-uni.eu](http://www.nsr.nm-uni.eu).

Göteborgs universitet, Företagsekonomiska institutionen, och Svenska Miljöinstitutet är våra svenska samarbetspartners; svensk kontaktperson vid Göteborgs universitet: professor Arne Jensen, tel. 031 - 780 1484 ([arne.jensen@handels.gu.se](mailto:arne.jensen@handels.gu.se)).



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