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## Diversification of Seafarers' Employability Paths

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#### Abstract

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Romania's admission following the extension of the EU and the globalisation of the maritime industry exposed Romanian employees to the maritime labour market. This market is characterised by increased competition determined by technological advancement and the emerging new Asian maritime nations. These conditions were exacerbated by the increased wage expectations of the European maritime manpower. On the demand side, the maritime industry has historically been characterised by lack of marine officers, in particular of senior rank, but the current slow global economic recovery and the weak commodity demand tend to level the scorecard. These changes affected the marine global labour market and led to structural unemployment among Romanian seafarers. Considering the traditional purpose of marine universities – to prepare marine officers, and the labour market needs – marine officers highly qualified in specific fields, this paper aims at identifying the skills required by marine industry and analysing the possibility to extend them to other positions/qualifications from the marine industry.

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Keywords: Marine qualifications; employability paths; marine labour market; seafarers.



## 1. Introduction

The labour market depends on competent and well-trained employees. The marine sector with its international component is regulated by a global maritime system to ensure safety of life at sea, protection of marine environment and efficiency of navigation. The four pillars that foster achieving the above mentioned are:

- 1. The International Convention for the Safety of Life at Sea (SOLAS),
- 2. The International Convention for the Prevention of Pollution from Ships,
- 3. The Maritime Labour Convention (MLC), of the International Labour Organization and
- 4. The International Convention on Training, Certification and Watchkeeping for Seafarers and its associated Code (STCW).

The STCW Convention from 1978, amended in 1995 and again in 2010 with Manila amendments, set the standards for maintaining a safe shipping environment. This Convention specifies the standards of professional competencies of the seafarers as well as establishes provisions for ship-owners, national maritime administrations and training establishments (International Maritime Organization, 2010).

## 2. International concern

During the maritime skills roundtable discussions organised by the international professional body and learned society for all marine professionals, IMarEST and the specialist global recruitment company MatchTech (IMarEST, 2013) for the purpose of "Mitigating the skills gap in the maritime and offshore oil and gas market", the participants discussed "any competences that you [sic] feel graduates are lacking". The results showed that 71% of respondents considered that graduates were not leaving university with all the expected competences. These were evenly distributed between lack of industry experience and soft skills. The labour market noticed the needs of skills improvement and recommended to "formulate a transfer of skills programme to attract engineers from other industries".

According to the "Rethinking Education" initiative (European Commission, 2012), aiming at building "skills for the 21st century", efforts are needed to develop soft skills to enhance employability. This has to be achieved through continuous professional development of trainers and exchanging good practices applicable to improve and assess the trainees' soft skills. The seafarers' lack of soft skills is largely determined by the extended periods of job seeking alternating with short term employment contracts, often ranging from 3 to 4 months.

The European Commission Progress report towards Lisbon Objectives in Education and Training (Country Report on National Provisions for a Lifelong Learning Strategy Romania, 2008) sets out that there are huge gaps regarding the adults' participation to lifelong education and training in EU: Scandinavian countries and Great Britain have the highest participation rates, over 20%, while in Bulgaria, Greece and Romania this is only 2%. Given these circumstances and the Country Specific Recommendations formulated by the EC 2014 for the EU member States (European Commission, 2014), the Romanian Government (2015) has included a directive for the education development in the National Reform Programme. This directive addresses CSR 5, aimed at increasing the quality of, and

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access to, vocational education and training, apprenticeships, tertiary education and lifelong learning, and adapting these to labour market needs.

## 3. Marine officers' skill set

According to the most comprehensive report elaborated by the International Shipping Federation (ISF) and the Baltic and International Maritime Council (BIMCO) in 2010, "Manpower up-date study", the estimated number of supply of seafarers in 2010 based on the number holding STCW certificates, is summarized in the Table 1.

| Nr    | Country        | ISF/BIMCO 2010        |         |        |                 |  |
|-------|----------------|-----------------------|---------|--------|-----------------|--|
|       |                | Estimated supply 2010 |         |        |                 |  |
|       |                | Officers              | Ratings | Total  | Number of ships |  |
| 1     | Belgium        | 498                   | 92      | 590    | 99              |  |
| 2     | Bulgaria       | 10890                 | 22379   | 33269  | 67              |  |
| 3     | Cyprus         | 2907                  | 514     | 3421   | 855             |  |
| 4     | Denmark        | 2762                  | 1176    | 3938   | 409             |  |
| 5     | Estonia        | 2700                  | 6300    | 9000   | 35              |  |
| 6     | Finland        | 3000                  | 1200    | 4200   | 176             |  |
| 7     | France         | 4568                  | 9128    | 13696  | 299             |  |
| 8     | Germany        | 3997                  | 6256    | 10253  | 663             |  |
| 9     | Greece         | 9993                  | 2970    | 12963  | 1305            |  |
| 10    | Irish Republic | 1510                  | 1602    | 3112   | 49              |  |
| 11    | Italy          | 9560                  | 11390   | 20950  | 990             |  |
| 12    | Latvian        | 5509                  | 2383    | 7892   | 33              |  |
| 13    | Lithuania      | 2916                  | 2479    | 5395   | 58              |  |
| 14    | Luxemburg      | 2272                  | 2164    | 4436   | 106             |  |
| 15    | Malta          | 274                   | 2162    | 2436   | 1552            |  |
| 16    | Netherlands    | 3014                  | 560     | 3574   | 827             |  |
| 17    | Norway         | 16082                 | 7300    | 23382  | 1381            |  |
| 18    | Poland         | 17923                 | 4746    | 22669  | 72              |  |
| 19    | Portugal       | 419                   | 1802    | 2221   | 64              |  |
| 20    | Romania        | 18575                 | 5768    | 24343  | 34              |  |
| 21    | Slovakia       | 258                   | 318     | 576    | 0               |  |
| 22    | Slovenia       | 544                   | 100     | 644    | 0               |  |
| 23    | Spain          | 3181                  | 3862    | 7043   | 116             |  |
| 24    | Sweden         | 5958                  | 4965    | 10923  | 356             |  |
| 25    | UK             | 14657                 | 8536    | 23193  | 944             |  |
| Total |                | 143967                | 110152  | 254119 | 10490           |  |

Table 1. Estimated supply of seafarers [7]

Based on the above statistics, the total worldwide workforce is shared between EU plus Norway, and seafarers of the rest of the world as illustrated in figure 1:

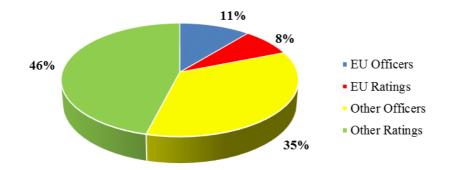


Fig. 1. Worldwide seafarers workforce distribution (BIMCO, 2010)

Due to the decline in the seafarers demand, the tables below present the skills and competencies that marine professionals have to continuously improve for increasing the employability opportunities. These comprise several categories of skills: professional competencies, work competencies and transversal skills.

## 3.1. Professional competencies

The assessment of the professional skills of marine officers, as well as on bridge management and attitudes, could be carried out through combined observations, assessments and training focused on (Schager, 1997):

- ability to manage the bridge/engine operation, to follow up and to monitor the work and capacity to stay in control;
- effectiveness in work and communication on bridge/engine;
- ship safety and carry out watch duties;
- excellent maths and IT skills;
- excellent technical knowledge;
- a commitment to keeping up to date with new developments;
- an awareness of health and safety procedures;
- assess the clarity of various situations, e.g. who is in command and what different duties people have on the bridge/engine room.

## 3.2. Skills and work competencies

- monitoring various routines and being able to see that the checklists and other written or verbal instructions are correct and complied with;
- using and developing personal knowledge;
- researching, investigating and problem-solving;
- communicating abilities: face-to-face, phone, email;
- listening and interpretation, establishing rapports, understanding needs;
- finding solutions;
- financial understanding and budget management skills;
- helping, coaching, teaching or training others;
- using information and communications technology;
- technical appreciation and use of equipment, tools and machinery for own area and related areas;
- competitor/industry awareness and consideration of these factors in planning, decision-making, etc.;
- taking initiative and responsibility, e.g., decision-making, project management, running meetings;
- visioning, creating, and inspiring others;
- managing time, planning, being effective, productive and reliable,

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• appreciating / applying social responsibilities, sustainability, humanity and ethical considerations.

## 3.3. Transversal skills

The transversal skills refer to personal behaviours and attitudes gained through formal, non-formal and informal learning (CIMA, 2009):

- the ability to prioritise workloads and plan effectively;
- striving for personal development;
- taking personal responsibility to solve problems;
- developing positive relationships;
- keeping focused and productive;
- managing stress and conflict;
- the ability to manage a team;
- using integrity and ethics in judgements about work and organisational issues.

## 4. Transferring skills for diversification of career paths

The Task Force on Maritime Employment and Competitiveness (TFMEC) has analysed the maritime regulations framework and formulated several recommendations related to seafarers' competencies intended to diversify the employability paths. The components identified by the TFMEC as necessary for retaining and maintaining maritime employment are (TFMEC, 2011):

- access to initial training programmes leading to qualifications that are recognised as ensuring the competences needed;
- availability of opportunities for acquiring practical experience at sea as part of or immediately following initial training programmes;
- assurances that initial employment will be available after graduation;
- the availability of programmes for continuous professional development permitting seafarers, including ratings, to improve their initial skills and qualifications giving them the possibility to advance in their careers;
- existence of prospective jobs on land after they have been at sea for several years, in various marine economy sectors.

On average, the world trade growth in marine employment was on the range of 6% per year in the period 1988 – 2008 (BIMCO, 2015). The world trade declined in 2009, on average 5.2% per year and in 2014 to 3.1%. This conducted to thorough marine labour market prospects to find job opportunities for deck officer. The marine training establishments through their career advisors provide guidance for the qualified officers such as:

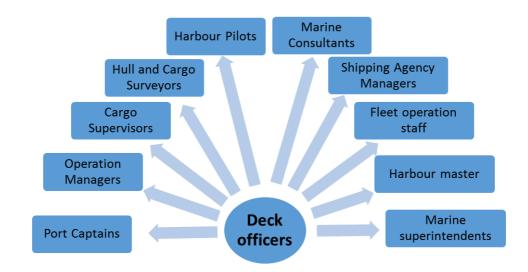


Fig. 2. Job Opportunities for deck officers



Fig. 3. Job Opportunities for engine officers

The seafarers' skill sets and competencies required for positions on board were included in a performance assessment chart, Table 2. This chart was developed to assess if the level of knowledge and expertise meets the expected level of performance according to the desired position.

| On-board Position       |                       | Skills and Competencies                            |                                       |  |  |  |
|-------------------------|-----------------------|--|---------------------------------------|--|--|--|
|                         |                       | Apply theoretical knowledge<br>for problem solving | Organizing jobs and<br>handling risks | Effective planning and<br>Managerial abilities |  |  |
| Level of<br>Performance | Exceeds expectations  | OOW  | Chief Mate/ Second<br>Engineer        | Captain (Master)/ Chief<br>Engineer            |  |  |
|                         | Exceeds in some areas | OOW  | OOW                                   | Chief Mate/ Second<br>Engineer                 |  |  |
|                         | Meets expectation     | Junior Officer                                     | OOW                                   | Chief Mate/ Second<br>Engineer                 |  |  |
|                         | Needs improvement     | Cadet  | Junior Officer                        | OOW  |  |  |

Table 2. Performance assessment chart. Source: Adapted from Safety4Sea (2014)

### 5. Discussions

Considering the seafarers' qualifications and their subsequent competencies, together with the identified opportunities for career progress emphasised in figure nos. 2 and 3, the authors proposed placing the marine jobs in performance assessment charts. The chart presented in table 2 was elaborated as an instrument for performance level self-assessment, allowing marine professionals to be acquainted of the following steps for a successful career in the marine sector. The proposed instrument is expected to impact the marine engineers' careers, offering directions for upskilling the professional and transversal abilities. The improved abilities will increases the chances of diversification of careers pathways for accessing different jobs in the blue economy.

#### 6. Conclusions

The diversification of the marine sector, extending from well-known seagoing ships to offshore platforms, vessel inspection, quality control, marine environment protection or marine casualty investigations, requires targeted policies such as job retraining and acquiring of transversal skills. Including the above mentioned skills in a performance assessment chart provides a profile design instrument for seafarers. The profile allows recognition of the level of competencies and estimation of the areas of improvement to enhance diversification of career paths.

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