



# SEAFARERS' STATISTICS IN THE EU

**STATISTICAL REVIEW  
(2024 DATA FROM THE STCW-IS AS  
PROVIDED BY 31 DECEMBER 2025)**

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# Table of Contents

<b>Executive Summary</b> .....	<b>11</b>
<b>1. Introduction</b> .....	<b>13</b>
<b>2. Masters and officers holding valid certificates of competency in 2024</b> .....	<b>14</b>
2.1 Total.....	14
2.2 Distribution by EU Member State .....	14
2.3 Distribution by department .....	14
2.4 Distribution by capacity .....	15
2.4.1 Distribution by deck capacity.....	16
2.4.2 Distribution by engine capacity .....	16
2.5 Gender distribution .....	17
2.6 Distribution by nationality .....	18
2.7 Age distribution.....	19
<b>3. Masters and officers who in 2024 held valid endorsements attesting recognition</b> .....	<b>22</b>
3.1 Total.....	22
3.2 Distribution by EU Member State .....	23
3.3 Distribution by countries issuing the original CoCs .....	24
3.4 Distribution by department .....	25
3.5 Distribution by capacity .....	26
3.5.1 Distribution by deck capacity.....	26
3.5.2 Distribution by engine capacity .....	27
3.6 Gender distribution .....	28
3.7 Age distribution.....	29
3.8 Distribution by nationality .....	31
<b>4. Masters and officers available to serve on board EU Member State flagged vessels in 2024</b> .....	<b>32</b>
4.1 Total.....	32
4.2 Distribution by department .....	33
4.3 Distribution by capacity .....	33
4.3.1 Distribution by deck capacity.....	33
4.3.2 Distribution by engine capacity .....	34
4.4 Gender distribution .....	35
4.5 Distribution by nationality .....	36
4.6 Age distribution.....	37
<b>5. Ratings holding valid certificates of proficiency in 2024</b> .....	<b>38</b>
5.1 Total.....	38
5.2 Distribution by EU Member State .....	38
5.3 Distribution by department .....	38
5.4 Distribution by capacity .....	39
5.5 Gender distribution .....	39
5.6 Distribution by nationality .....	39
5.7 Age distribution.....	40
<b>6. Masters and officers - summary overview 2014-2024</b> .....	<b>41</b>
6.1 Countries issuing the original CoCs .....	41
6.2 Department - level of responsibility .....	42
6.3 Female officers .....	43
6.4 Nationality.....	44
6.5 Age .....	45
<b>7. Main conclusions</b> .....	<b>47</b>

<b>Appendix A</b>	<b>Framework and methodology .....</b>	<b>48</b>
A.1	Legal background.....	48
A.2	Data collection, analysis and beneficiaries .....	48
A.3	Accuracy.....	49
A.4	Coherence and comparability .....	49
A.5	Accessibility and clarity, dissemination format.....	50
A.6	Confidentiality.....	50
<b>Appendix B</b>	<b>Data on masters and officers holding valid CoCs in 2024 .....</b>	<b>51</b>
<b>Appendix C</b>	<b>Data on masters and officers holding valid EaRs in 2024 .....</b>	<b>55</b>
<b>Appendix D</b>	<b>Data on ratings holding valid CoPs in 2024 .....</b>	<b>63</b>
<b>Appendix E</b>	<b>Masters and officers summary overview – Forecast for 2025 and 2026 .....</b>	<b>64</b>

## List of Tables

Table B-1	Distribution of masters and officers by departments and EU Member States .....	51
Table B-2	Masters and deck officers registered by EU Member States .....	51
Table B-3	Engineer officers registered by EU Member States .....	52
Table B-4	Distribution of gender groups by EU Member States .....	52
Table B-5	Non-EU nationals holding CoCs issued by EU Member States .....	52
Table B-6	Age distribution by EU Member States .....	53
Table B-7	Age distribution by departments .....	53
Table B-8	Age distribution for masters and deck officers .....	54
Table B-9	Age distribution for engineer officers .....	54
Table B-10	Age distribution by gender group .....	54
Table C-11	EU and non-EU countries issuing the original CoCs per EU Member States issuing the EaRs .....	55
Table C-12	EU and non-EU countries issuing the original CoCs per departments .....	55
Table C-13	Engineer officers holding EaRs registered by EU Member States .....	55
Table C-14	Master and deck officers holding EaRs registered by EU Member States .....	56
Table C-15	EU Member States and EFTA countries issuing original CoCs endorsed by other EU Member States .....	56
Table C-16	Non-EU countries, recognised at EU level or under the process of recognition, issuing original CoCs endorsed by EU Member States .....	57
Table C-17	Age distribution of holders of EaRs by departments .....	61
Table C-18	Age distribution for engineer officers holding EaRs .....	61
Table C-19	Age distribution for masters and deck officers holding EaRs .....	61
Table C-20	Age distribution of officers holding EaRs by gender group .....	62
Table C-21	Age distribution by region of the country issuing the original CoC .....	62
Table D-22	Ratings holding CoPs registered by EU Member States .....	63
Table E-23	Forecast for the next two years of masters and officers holding CoCs issued by the top 5 EU and top 5 non-EU countries .....	64
Table E-24	Forecast for the next two years of officers at management and operational level available to serve on board EU Member State flagged vessels .....	64

Table E-25	Forecast for the next two years of female officers available to serve on board EU Member State flagged vessels.....	65
Table E-26	Forecast for the next two years of the top 10 nationalities of masters and officers available to serve on board EM Member State flagged vessels .....	65
Table E-27	Forecast for the next two years of the nationalities by region of origin of masters and officers available to serve on board EM Member State flagged vessels .....	66
Table E-28	Forecast for the next two years concerning the average age of masters and officers available to serve on board EU Member State flagged vessels.....	66
Table E-29	Forecast for the next two years concerning the average age of officers at management and operational level available to serve on board EU Member State flagged countries .....	67

## List of Figures

Figure 1-1	Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC .....	11
Figure 1-2	Masters and officers available at EU level over the years (EU and non-EU countries issuing the original certificate) .....	12
Figure 2-1	Masters and officers holding valid CoCs per EU Member State .....	14
Figure 2-2	Distribution of masters and officers holding valid CoCs by department .....	15
Figure 2-3	Distribution of masters and officers holding valid CoCs by department in each EU Member State ....	15
Figure 2-4	Distribution of masters and deck officers holding valid CoCs by deck capacity .....	16
Figure 2-5	Distribution of engineer officers holding valid CoCs by engine capacity .....	16
Figure 2-6	Gender distribution of masters and officers holding valid CoCs .....	17
Figure 2-7	Distribution of masters and officers holding valid CoCs by department and by gender .....	17
Figure 2-8	Distribution of the deck capacities of masters and deck officers holding valid CoCs by gender .....	18
Figure 2-9	Distribution of the engine capacities of engineer officers holding valid CoCs by gender .....	18
Figure 2-10	Nationality distribution of masters and officers holding valid CoCs .....	19
Figure 2-11	Nationality distribution of non-EU nationals holding valid CoCs issued by EU Member States by region of origin.....	19
Figure 2-12	Age distribution of masters and officers holding valid CoCs.....	20
Figure 2-13	Age profile of masters and officers holding valid CoCs per department.....	20
Figure 2-14	Distribution of masters and deck officers holding valid CoCs by age groups .....	20
Figure 2-15	Distribution of engineer officers holding valid CoCs by age groups .....	21
Figure 2-16	Age profile of masters and officers holding valid CoCs per gender .....	22
Figure 2-17	Average age of masters and deck officers holding valid CoCs per gender by deck capacity .....	22
Figure 2-18	Average age of engineer officers holding valid CoCs per gender by engine capacity .....	22
Figure 3-1	Distribution of masters and officers holding valid EaRs by countries issuing the original CoC .....	23
Figure 3-2	Masters and officers holding valid EaRs per EU Member State .....	23
Figure 3-3	Distribution of masters and officers holding valid EaRs recognising original CoCs issued by EU and non-EU countries .....	24
Figure 3-4	Distribution of masters and officers holding valid EaRs by region of the country issuing the original CoC .....	24

Figure 3-5	Countries issuing the original CoCs registering more than 0.75% of masters and officers holding valid EaRs .....	25
Figure 3-6	Distribution of masters and officers holding valid EaRs by department.....	25
Figure 3-7	Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by department .....	26
Figure 3-8	Distribution of masters and deck officers holding valid EaRs by deck capacity .....	26
Figure 3-9	Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by deck capacity .....	27
Figure 3-10	Distribution of the deck capacities of masters and deck officers holding valid EaRs by region of the country issuing the original CoC .....	27
Figure 3-11	Distribution of engineer officers holding valid EaRs by engine capacity.....	27
Figure 3-12	Distribution of engineer officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by engine capacity .....	28
Figure 3-13	Distribution of the engine capacities of engineer officers holding valid EaRs by region of the country issuing the original CoC .....	28
Figure 3-14	Gender distribution of masters and officers holding valid EaRs .....	28
Figure 3-15	Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by gender .....	29
Figure 3-16	Age distribution of masters and officers holding valid EaRs .....	29
Figure 3-17	Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by age group .....	30
Figure 3-18	Age profile of masters and officers holding valid EaRs per department .....	30
Figure 3-19	Average age of officers holding valid EaRs per EU and non-EU countries issuing the original CoC by capacity .....	30
Figure 4-1	Masters and officers holding valid CoCs or EaRs per EU Member State .....	32
Figure 4-2	Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC .....	32
Figure 4-3	Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by department .....	33
Figure 4-4	Distribution of masters and deck officers available to serve on board EU Member State flagged vessels by deck capacity.....	33
Figure 4-5	Distribution of masters and deck officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by deck capacity .....	34
Figure 4-6	Distribution of engineer officers available to serve on board EU Member State flagged vessels by engine capacity .....	34

Figure 4-7	Distribution of engineer officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by engine capacity .....	35
Figure 4-8	Gender distribution of masters and officers available to serve on board EU Member State flagged vessels .....	35
Figure 4-9	Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by gender .....	35
Figure 4-10	Nationality distribution of masters and officers available to serve on board EU Member State flagged vessels by geographical region according to nationality .....	36
Figure 4-11	Countries whose nationals represented more than 0.75% of the total number of masters and officers available to serve on board EU Member State flagged vessels.....	36
Figure 4-12	Age profile of masters and officers available to serve on board EU Member State flagged vessels per EU and non-EU countries issuing the original CoC .....	37
Figure 4-13	Average age of masters and officers available to serve on board EU Member State flagged vessels per deck and engine capacities.....	37
Figure 5-1	Ratings holding valid CoPs per EU Member State .....	38
Figure 5-2	Distribution of ratings holding valid CoPs by department .....	38
Figure 5-3	Distribution of ratings holding valid CoPs by capacity .....	39
Figure 5-4	Gender distribution of ratings holding valid CoPs .....	39
Figure 5-5	Age distribution of ratings holding valid CoPs.....	40
Figure 5-6	Age profile of ratings holding valid CoPs per gender.....	40
Figure 6-1	Top 5 EU and top 5 non-EU countries issuing the original CoCs .....	41
Figure 6-2	Overview with forecast for the next years of masters and officers holding CoCs issued by the top 3 EU and top 3 non-EU countries .....	42
Figure 6-3	Officers at management and operational level holding CoCs issued by non-EU countries .....	42
Figure 6-4	Overview with forecast for the next years of officers at management and operational level available to serve on board EU Member State flagged vessels .....	43
Figure 6-5	Female officers per department holding CoCs issued by EU and non-EU countries .....	43
Figure 6-6	Overview with forecast for the next years of female officers available to serve on board EU Member State flagged vessels .....	44
Figure 6-7	Top 10 nationalities of masters and officers available to serve on board EU member State flagged vessels .....	44
Figure 6-8	Overview with forecast for the next years of the nationalities of masters and officers available to serve on board EU Member State flagged vessels.....	45
Figure 6-9	Overview with forecast for the next years concerning the average age of masters and officers available to serve on board EU Member State flagged vessels .....	45

Figure 6-10 Overview with forecast for the next years concerning the average age of officers at management and operational level available to serve on board EU Member State flagged vessels .....46

Figure 7-1 Masters and officers available at EU level over the years (EU and non-EU countries issuing the original certificate) .....47

## List of Abbreviations

CoC	Certificate of Competency
CoP	Certificate of Proficiency
EaR	Endorsement attesting the recognition of a foreign certificate of competency
EC	European Commission
EFTA	European Free Trade Association
EMSA	European Maritime Safety Agency
ETO	Electro-technical Officer
ETS	Exponential Triple Smoothing
EU	European Union
GT	Gross Tonnage
ITF	International Transport Workers' Federation
kW	kilowatts
ML	Management level
NCV	Near Coastal Voyages
OEW	Officer in charge of an engineering watch
OL	Operational level
OOW	Officer in charge of a navigational watch
STCW Convention	The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended
STCW-IS	STCW Information System, hosted and managed by EMSA

## Executive Summary

The main objective for gathering information on certificates and endorsements issued to seafarers by the EU Member States is, similarly to previous years, to use it as a primary source of data for statistical analysis in support of the EU Member States, the Commission and the European Parliament in policy making and of other stakeholders in related activities as applicable.

This review continues to be the only statistical overview that results from the gathering of data directly from the maritime administrations that issue the certificates. It is based on data extracted from certificates and endorsements registered by EU Member States<sup>2</sup>, Iceland and Norway until 31 December 2024. This data, which was transferred and recorded in the STCW Information System (STCW-IS) by 31 December 2025, represents a snapshot of the European labour market in terms of the number of seafarers holding valid certificates and endorsements in 2024. It should be noted that the numbers presented cover masters and officers who are certified but not all necessarily actively serving on board ships.

This year the data included in the STCW-IS shows that by end-2024, 177,378 masters and officers held valid certificates of competency (CoC) issued by EU Member States<sup>1</sup> while another 136,660 masters and officers held original CoCs issued by non-EU countries with endorsements issued by EU Member States attesting their recognition (EaR), as presented in Figure 1-1. Overall, the end of 2024 saw almost a third of a million masters and officers as potential manpower to serve on board EU Member State flagged vessels.



Figure 1-1 Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC

The five EU Member States with the highest number of masters and officers holding CoCs issued by them in 2024 were, by order of magnitude, Norway, Poland, Croatia, Italy and Romania. The five EU Member States with most masters and officers holding EaRs issued by them, also by order of magnitude, were Malta, Cyprus, Portugal, Norway and Denmark. Finally, the five non-EU countries which had more masters and officers holding CoCs recognised by EU Member States were the Philippines, Ukraine, the Russian Federation, India and Türkiye.

From the overview for the period 2014-2024, it can be observed from Figure 1-2 that, between 2016 and 2019, the absolute number of masters and officers holding CoCs and EaRs and of ratings holding CoPs – and thereby of those available to serve on board EU Member State flagged vessels – increased. This trend was subsequently interrupted until 2022 influenced by Brexit and the COVID-19 pandemic. However, in both 2023 and 2024 a small increase can be observed. Nevertheless, the overall figures remained broadly stable in terms of distribution by country issuing the original CoC, by masters and officers by department, capacity, gender and age.

<sup>2</sup> Austria does not issue certificates and endorsements to seafarers and therefore is excluded from this report.

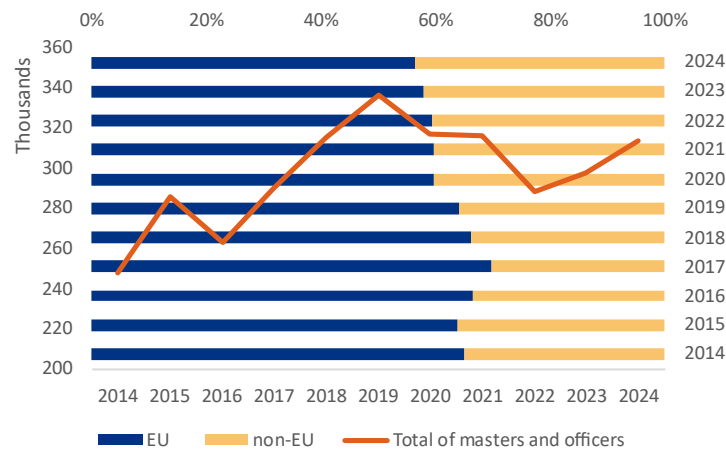


Figure 1-2 Masters and officers available at EU level over the years (EU and non-EU countries issuing the original certificate)

The review also indicates a stability in terms of age and the geographical region and countries from where seafarers originate. In terms of gender, the majority of female officers continues to be made up of those who hold CoCs issued by EU Member States entitling them to work in the deck department. Possibly influenced by societal changes and potentially by continuous seafaring career promotion campaigns, the percentage of female officers globally (EU and non-EU) is expected to continue increasing in the coming years. However, it remains unlikely that globally, females will reach the 2% of the total number of masters and officers already available to serve on board EU Member State flagged vessels in the foreseeable future.

# 1. Introduction

The statistical review presented in this report is based on data extracted from certificates and endorsements registered by EU Member States<sup>3</sup>, Norway and Iceland until 31 December 2024, and received in the STCW-IS by 31 December 2025. The data extracted was subject to a preliminary validation process to ensure consistency and to an encryption process by which all personal data was made anonymous at the EU Member State site.

For the last eleven years, EMSA has compiled the data received to allow the possibility of having a wide picture on the number of masters and officers available to serve on board EU Member State flagged vessels, including by department, age and gender (see section 4). These include those holding CoCs issued by EU Member States (see section 2) and those holding EaRs issued by EU Member States recognising non-EU CoCs (see section 3). A broader view on the number of masters and officers holding EaRs recognising CoCs issued by other EU Member States and on the number of ratings holding CoPs was also possible (see also section 3 and section 5, respectively). Given the more realistic view that emerges through the build-up of data collected over the years, increasingly reliable trend analysis and forecasting is possible and is included in this review in section 6.

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<sup>3</sup> Due to the inclusion of data from Norway and Iceland, where the wording EU or EU Member State(s) appears in respect of information from 2017 onwards, this is to be taken as including Norway and Iceland.

## 2. Masters and officers holding valid certificates of competency in 2024

### 2.1 Total

The total number of masters and officers holding valid CoCs at EU level was 177,378. Of these, 3.84% held CoCs entitling them to serve in both the Deck and Engine Departments. In addition, just a very limited number of them (0.06%) held CoCs issued by more than one EU Member State, which had already been identified in previous reports, showing that not many changes have occurred during the last decade.

### 2.2 Distribution by EU Member State

The data in Figure 2-1 shows the distribution of masters and officers as registered by EU Member State<sup>4</sup>:

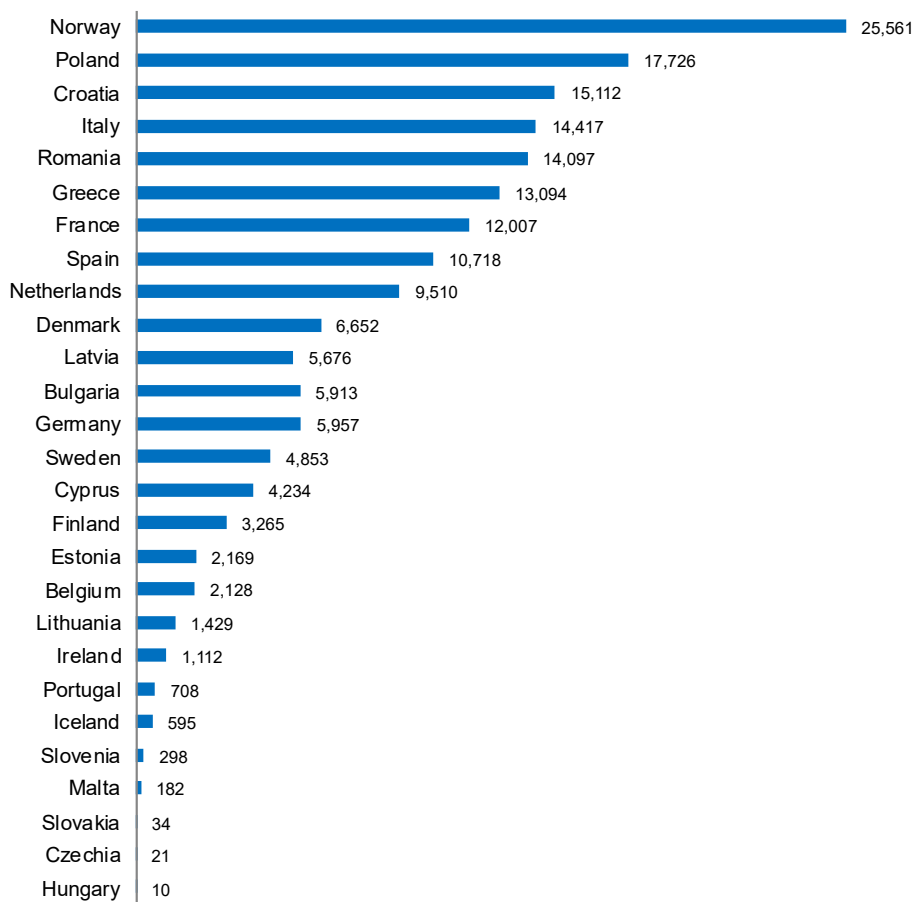


Figure 2-1 Masters and officers holding valid CoCs per EU Member State

### 2.3 Distribution by department

The number of masters and officers holding valid CoCs in each department is presented in Figure 2-2. It illustrates that the number of masters and officers entitled to serve in the Deck Department (Chapter II of the STCW Convention) was 56% higher than the number of officers entitled to serve in the Engine Department (Chapter III of the STCW Convention). The officers grouped under 'Alternative certification' (Chapter VII of the STCW Convention) were reported as holding a multipurpose capacity.

<sup>4</sup> Luxembourg does not issue CoCs; it only issues EaRs.

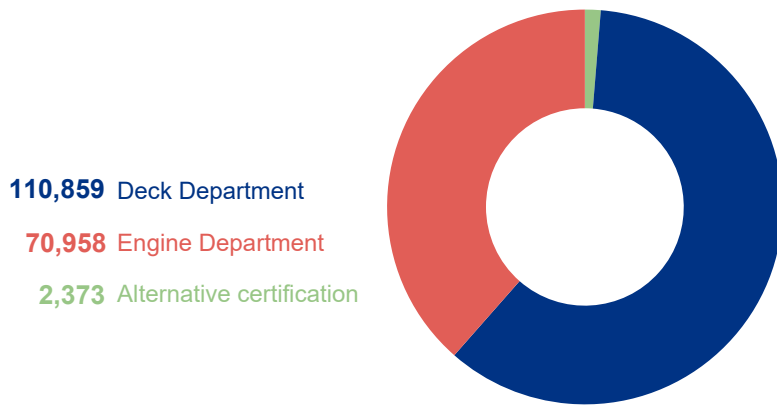


Figure 2-2 Distribution of masters and officers holding valid CoCs by department

The distribution by department within each EU Member State is presented in Figure 2-3.

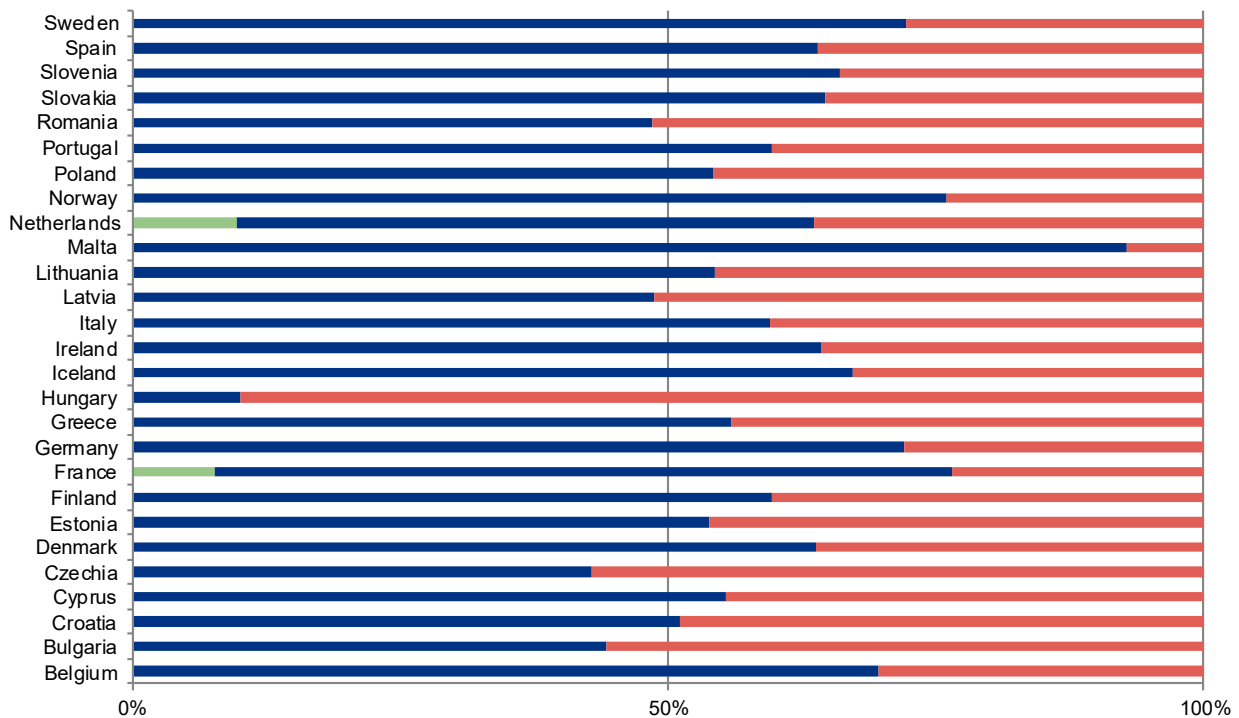


Figure 2-3 Distribution of masters and officers holding valid CoCs by department in each EU Member State

## 2.4 Distribution by capacity

Taking into account that EU Member States do not use the same terms to refer to capacities in their manning regulations, all capacities reported in the CoCs have been linked to the generic capacities established in Chapters II and III of the STCW Convention, in order to establish a common platform for data comparability. The review was conducted separately for the Deck and the Engine Departments. The total number of masters and officers was established by counting each person in his/her highest capacity.

### 2.4.1 Distribution by deck capacity

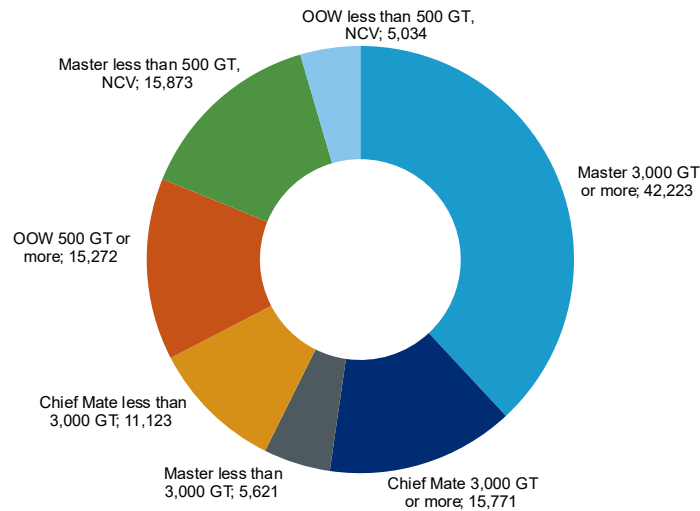


Figure 2-4 Distribution of masters and deck officers holding valid CoCs by deck capacity

The data in Figure 2-4 shows that 52.31% of the deck officers were entitled to serve at management level on ships of 3,000 GT or more.

When analysing the limitations included in the CoCs in terms of area of navigation and gross tonnage in addition to those already shown in Figure 2-4, the following could be stated:

- Only 3% of the deck officers entitled to serve on ships of 500 GT or more were restricted to service in a limited area of navigation. This percentage increased to 10.37% when analysing just those entitled to serve at management level on ships of less than 3,000 GT; and
- 9.83% of the deck officers were entitled to serve on ships with a limited gross tonnage different to that established in Chapter II of the STCW Convention (different than 500 or 3,000 GT).

### 2.4.2 Distribution by engine capacity

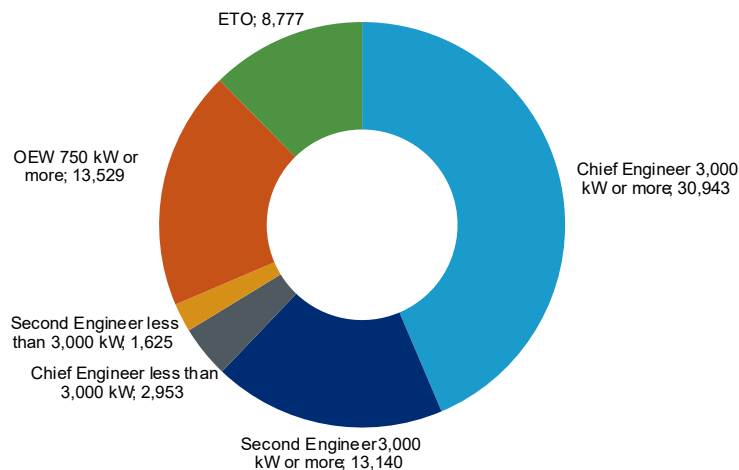


Figure 2-5 Distribution of engineer officers holding valid CoCs by engine capacity

The data in Figure 2-5 shows that 62.13% of the engineer officers were entitled to serve at management level on ships of 3,000 kW or more.

When analysing the limitations included in the CoCs in terms of area of navigation, type of engine and propulsion power in addition to those already shown in Figure 2-5, the following could be stated:

- Only 3.46% of the engineer officers were restricted to service in a limited area of navigation. This percentage increased to 11.73% when analysing just those entitled to serve at management level on ships of less than 3,000 kW;
- 27.93% of the engineer officers were restricted to operate a specified type of propulsion machinery installation; and
- 3.93% of the engineer officers were entitled to serve on ships with a limited propulsion power different than that established in Chapter III of the STCW Convention (different than 750 or 3,000 kW).

## 2.5 Gender distribution

The information on gender was available for 166,183 masters and officers, representing 93.69% of the total number of officers at EU level holding a CoC.

Considering the total number of masters and officers whose gender was known, it can be stated with a level of confidence of 99% that the percentage of female masters and officers was 2.83% ± 0.08% compared to 96.98% ± 0.08% of male masters and officers.

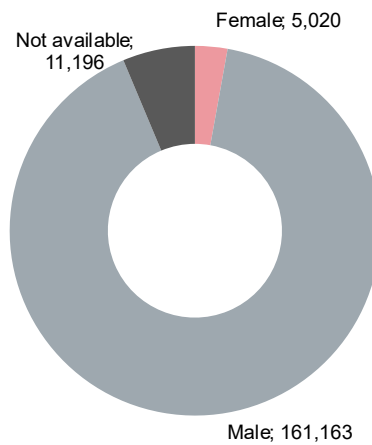


Figure 2-6 Gender distribution of masters and officers holding valid CoCs

The information presented in Figure 2-7 below shows that male masters and officers follow a general distribution by department (60% entitled to serve in the Deck Department and 40% entitled to serve in the Engine Department) while most female masters and officers (87.57%) were entitled to serve in the Deck Department.

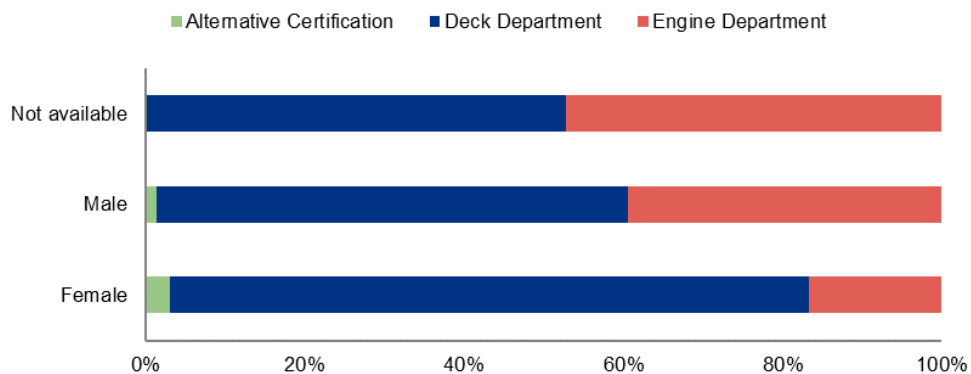


Figure 2-7 Distribution of masters and officers holding valid CoCs by department and by gender

The distribution of the capacities of masters and deck officers holding valid CoCs by gender is presented in Figure 2-8.

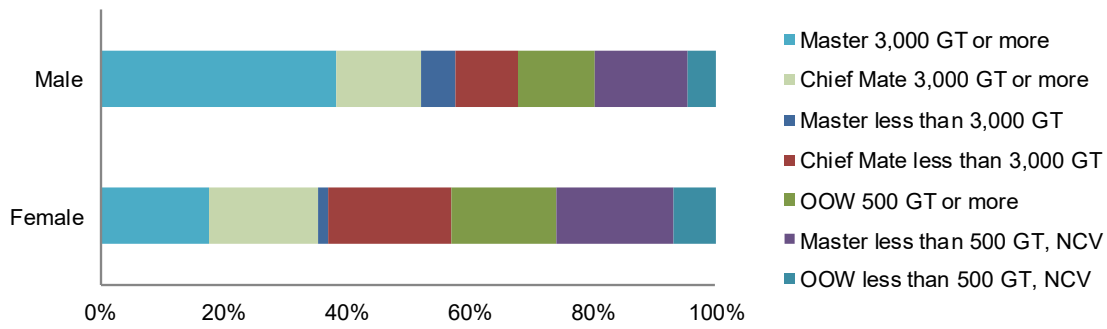


Figure 2-8 Distribution of the deck capacities of masters and deck officers holding valid CoCs by gender

As illustrated in Figure 2-8, the three main capacities in which female officers were entitled to serve were ‘Chief Mate less than 3,000 GT’ (19.86%), ‘Master less than 500 GT, NCV’ (18.90%) and ‘Chief Mate 3,000 GT or more’ (17.93%), capacities representing 56.69% of the total number of female masters and officers entitled to serve in the Deck Department. The three main capacities in which male masters and officers were entitled to serve were ‘Master 3,000 GT or more’ (38.52%), ‘Master less than 500 GT, NCV’ (14.96%) and ‘Chief Mate 3,000 GT or more’ (13.78%), capacities representing 67.26% of the total number of male masters and officers entitled to serve in the Deck Department.

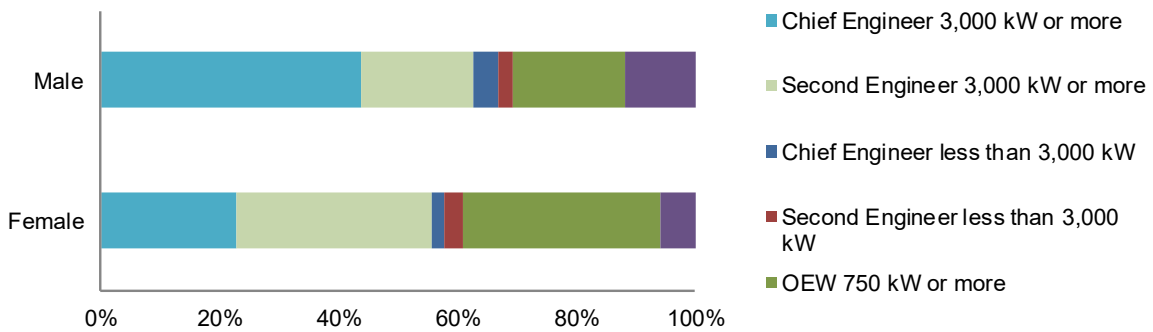


Figure 2-9 Distribution of the engine capacities of engineer officers holding valid CoCs by gender

As illustrated in Figure 2-9, the three main capacities in which female officers were entitled to serve in the Engine Department were ‘OEW 750 kW or more’ (33.21%), ‘Second Engineer 3,000 kW or more’ (33.09%) and ‘Chief Engineer 3,000 kW or more’ (22.70%). These capacities represented 89.01% of the total number of female officers entitled to serve in the Engine Department. The three main capacities in which male officers were entitled to serve in the Engine Department were ‘Chief Engineer 3,000 kW or more’ (43.91%), ‘OEW 750 kW or more’ (19.04%) and ‘Second Engineer 3,000 kW or more’ (18.60%). These capacities represented 81.55% of the total number of male officers entitled to serve in the Engine Department.

## 2.6 Distribution by nationality

The information on nationality was available for 171,813 masters and officers, representing 96.86% of the total number of officers at EU level holding a CoC.

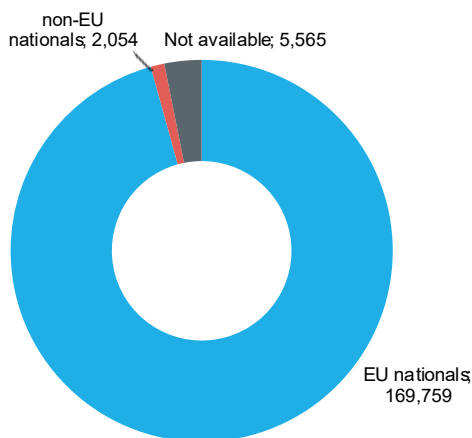


Figure 2-10 Nationality distribution of masters and officers holding valid CoCs

In addition to nationals of the EU Member States, 2,054 nationals of 89 non-EU countries held valid CoCs as masters or officers issued by EU Member States. When grouping these non-EU countries by region<sup>5</sup>, it results that 17 were located in Europe, 20 in Asia, 30 in Africa, 23 in the Americas and 4 in Oceania.

The distribution of the non-EU nationals holding valid CoCs issued by the EU Member States presented in Figure 2-11 shows that 66.80% of them were nationals of countries located in Europe.

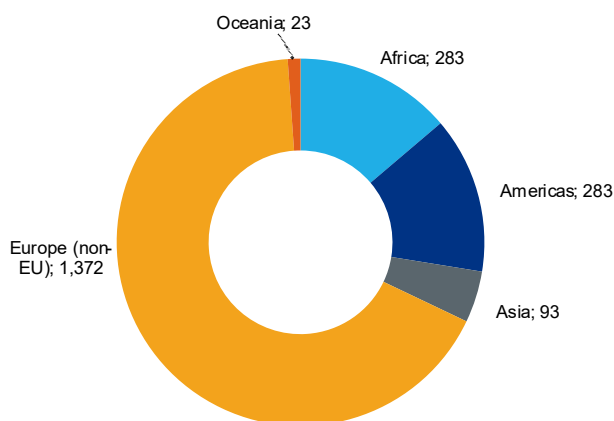


Figure 2-11 Nationality distribution of non-EU nationals holding valid CoCs issued by EU Member States by region of origin

## 2.7 Age distribution

The average age of masters and officers holding valid CoCs was 43.8 (years). Whereas the under-25 age group counted 6,292 masters and officers, all other age groups had a relatively uniform distribution, each counting between 16,275 and 26,512 masters and officers, which represented 9% to 14% of the total number.

<sup>5</sup> The grouping of countries per regions was based on the “Standard country or area codes for statistical use” established by the United Nations and the list of European countries established by the EU.

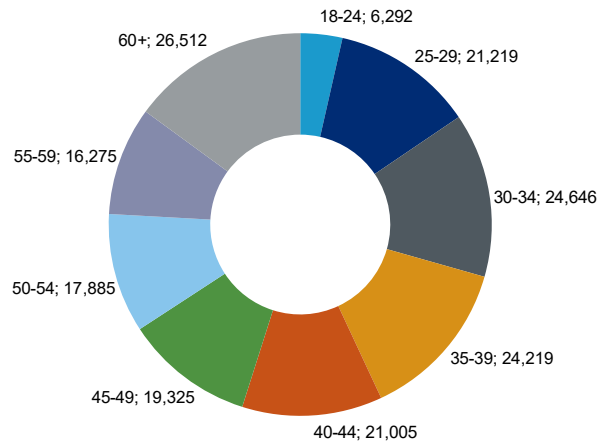


Figure 2-12 Age distribution of masters and officers holding valid CoCs

The age profile per department is presented in Figure 2-13.

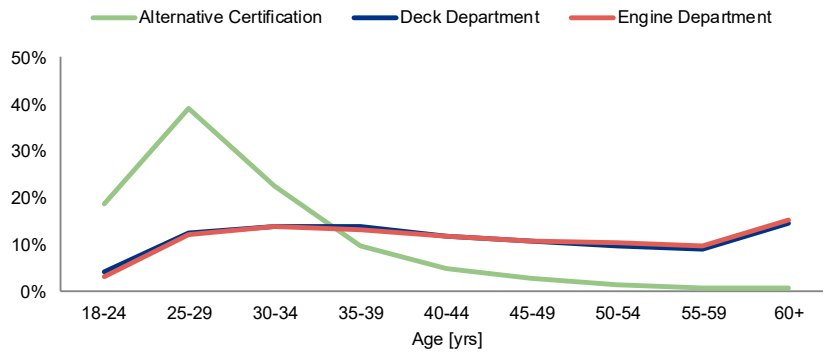


Figure 2-13 Age profile of masters and officers holding valid CoCs per department

Reviewing the data in Table B-7 of Appendix B, the following conclusions can be drawn:

- 80.03% of officers holding certificates issued under Chapter VII, 'Alternative certification' of the STCW Convention were younger than 35 years of age;
- The masters and officers certified under Chapter II (Deck Department) and Chapter III (Engine Department) of the STCW Convention were evenly distributed throughout the age groups other than the 18-24 year age group;
- 56.31% of masters and deck officers and 54.08% of the engineer officers were younger than 45 years of age.

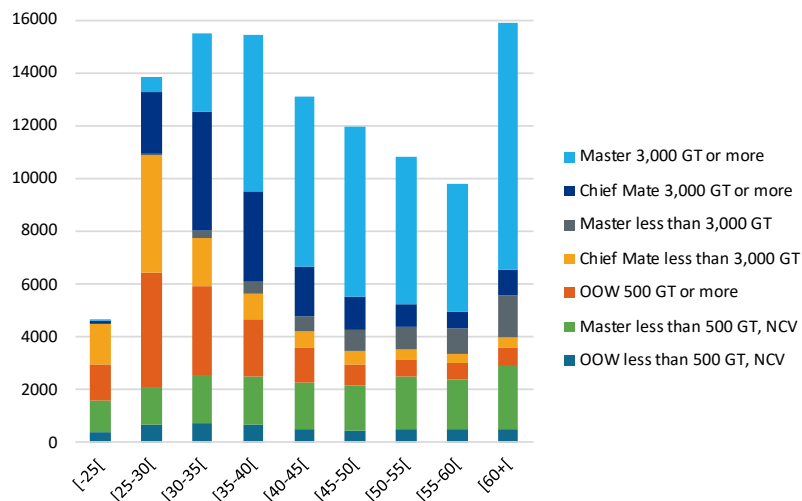


Figure 2-14 Distribution of masters and deck officers holding valid CoCs by age groups

Considering the highest capacity in which masters and deck officers were entitled to serve:

- 62.19% of those entitled to serve as ‘Master 3,000 GT or more’ were 45 years old or older;
- 65.10% of those entitled to serve as ‘Chief Mate 3,000 GT or more’ were younger than 40 years of age;
- 61.45% of those entitled to serve as ‘Master less than 3,000 GT’ were 50 years old or older;
- 54.46% of those entitled to serve as ‘Chief Mate less than 3,000 GT’ were younger than 30 years of age;
- 58.95% of those entitled to serve as ‘OOW’ 500 GT or more were younger than 35 years of age;
- 49.54% of those entitled to serve as ‘Master less than 500 GT, NCV’ were 45 years old or older; and
- 49.874% of those entitled to serve as ‘OOW less than 500 GT, NCV’ were younger than 40 years of age.

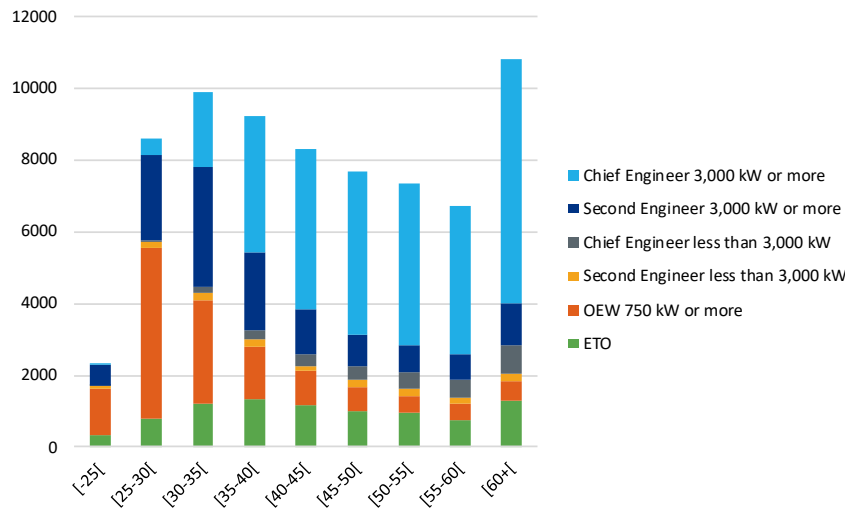


Figure 2-15 Distribution of engineer officers holding valid CoCs by age groups

Considering the highest capacity in which engineer officers were entitled to serve:

- 64.83% of those entitled to serve as ‘Chief Engineer 3,000 kW or more’ were 45 years old or older;
- 64.20% of those entitled to serve as ‘Second Engineer 3,000 kW or more’ were younger than 40 years of age;
- 60.92% of those entitled to serve as ‘Chief Engineer less than 3,000 kW’ were 50 years old or older;
- 56.55% of those entitled to serve as ‘Second Engineer less than 3,000 kW’ were 40 years old or older;
- 66.24% of those entitled to serve as ‘OEW 750 kW or more’ were younger than 35 years of age; and
- 58.49% of those entitled to serve as ‘ETO’ were 40 years old or older.

Figure 2-16 presents the age profile per gender, while Figure 2-17 and Figure 2-18 present the average age per capacity for each of the two gender groups. These figures indicate that:

- the average age for female masters and officers was 34.4 years, while that for male masters and officers was 43.8 years;
- 74.22% of female masters and officers were younger than 40 years of age, while the percentage of the male masters and officers in the same age group was only 42.94%;
- the average age of female masters and deck officers (34.5 years) was higher than the average age of the female engineer officers (33.4 years).

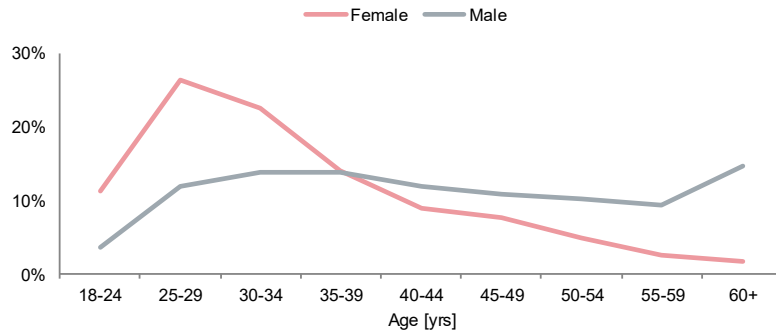


Figure 2-16 Age profile of masters and officers holding valid CoCs per gender

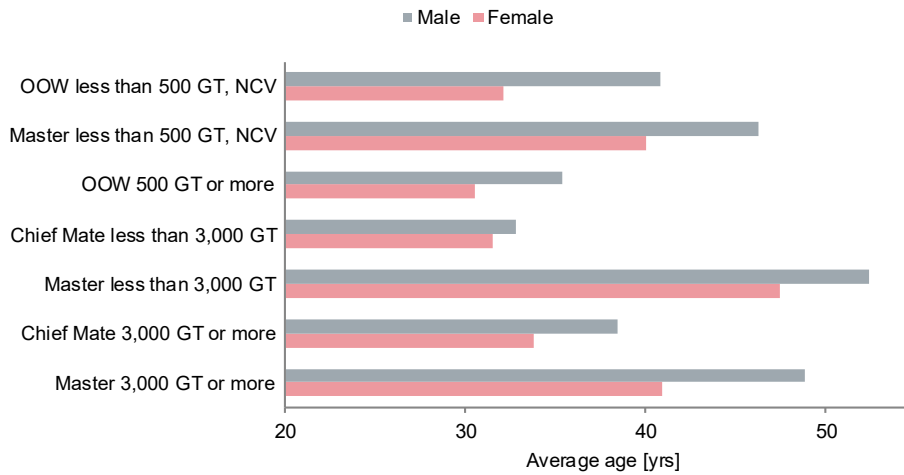


Figure 2-17 Average age of masters and deck officers holding valid CoCs per gender by deck capacity

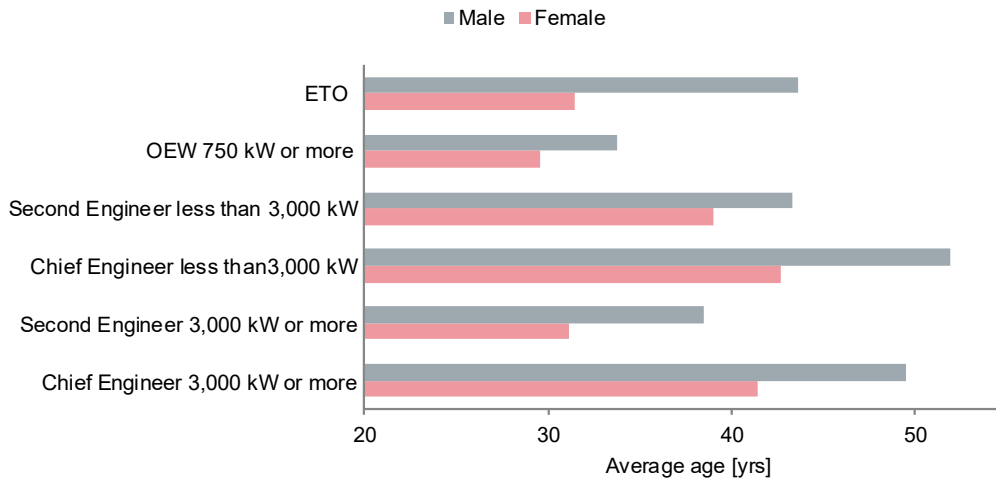


Figure 2-18 Average age of engineer officers holding valid CoCs per gender by engine capacity

### 3. Masters and officers who in 2024 held valid endorsements attesting recognition

#### 3.1 Total

The total number of masters and officers holding valid EaRs at EU level was 187,430, with 0.09% of them entitled to serve in both the Deck and Engine Departments. In addition, 10.71% of them held more than one EaR issued by different EU Member States.

A review of the distribution by group of countries issuing the original CoC, reveals that 50,946 masters and officers held original CoCs issued by EU Member States which were recognised through endorsement by other EU Member State (29.57% of the total number of masters and officers holding valid CoCs as per section 2.1). In addition, 136,660 held original CoCs issued by non-EU countries and 0.10% held original CoCs issued by both EU Member States and non-EU countries.

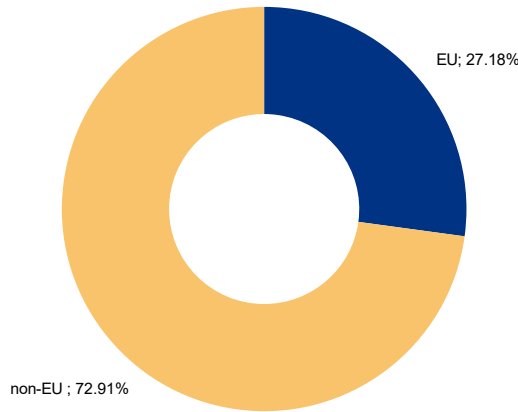


Figure 3-1 Distribution of masters and officers holding valid EeRs by countries issuing the original CoC

### 3.2 Distribution by EU Member State

The distribution of the number of masters and officers holding valid EeRs issued by EU Member State<sup>6</sup> is presented in Figure 3-2. In addition, the distribution of masters and officers holding valid EeRs endorsing original CoCs issued by EU and non-EU countries is presented in Figure 3-3.

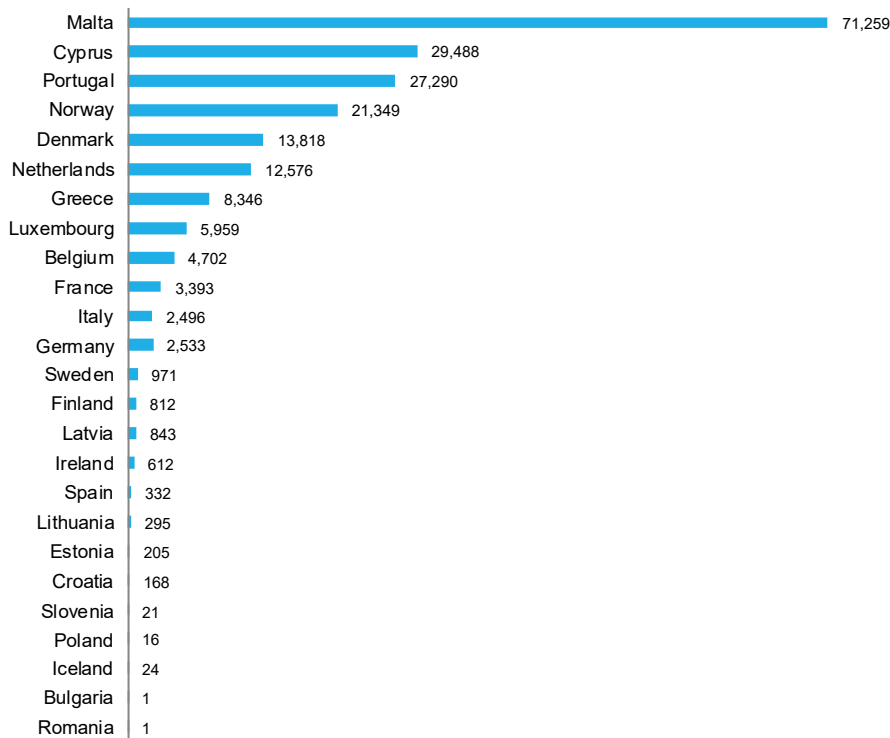


Figure 3-2 Masters and officers holding valid EeRs per EU Member State

<sup>6</sup> Czechia, Hungary and Slovakia did not issue EeRs.

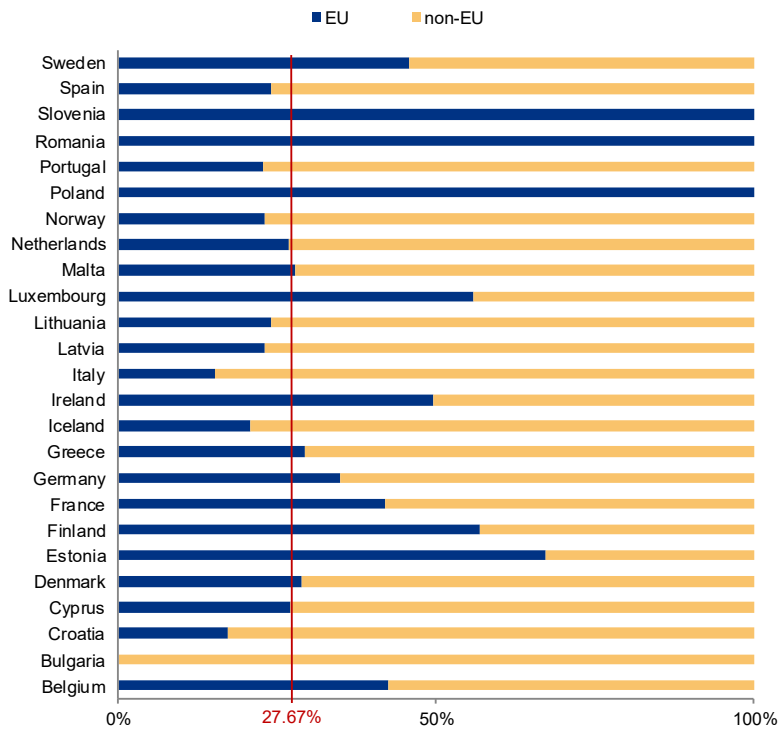


Figure 3-3 Distribution of masters and officers holding valid EaRs recognising original CoCs issued by EU and non-EU countries

### 3.3 Distribution by countries issuing the original CoCs

The name of the country that issued the original CoC was respectively available for 187,425 masters and officers. Figure 3-4 shows the distribution of masters and officers holding valid EaRs by region<sup>7</sup> where the respective countries issuing the original CoC are located.

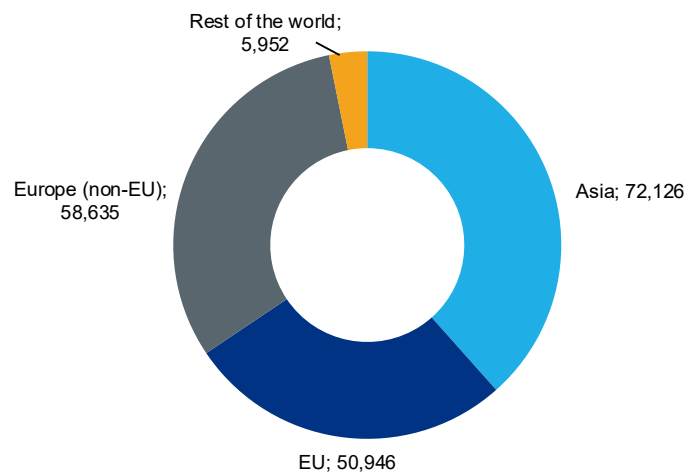


Figure 3-4 Distribution of masters and officers holding valid EaRs by region of the country issuing the original CoC

<sup>7</sup> The grouping of countries per regions was based on the “Standard country or area codes for statistical use” established by the United Nations and the list of European countries established by the EU

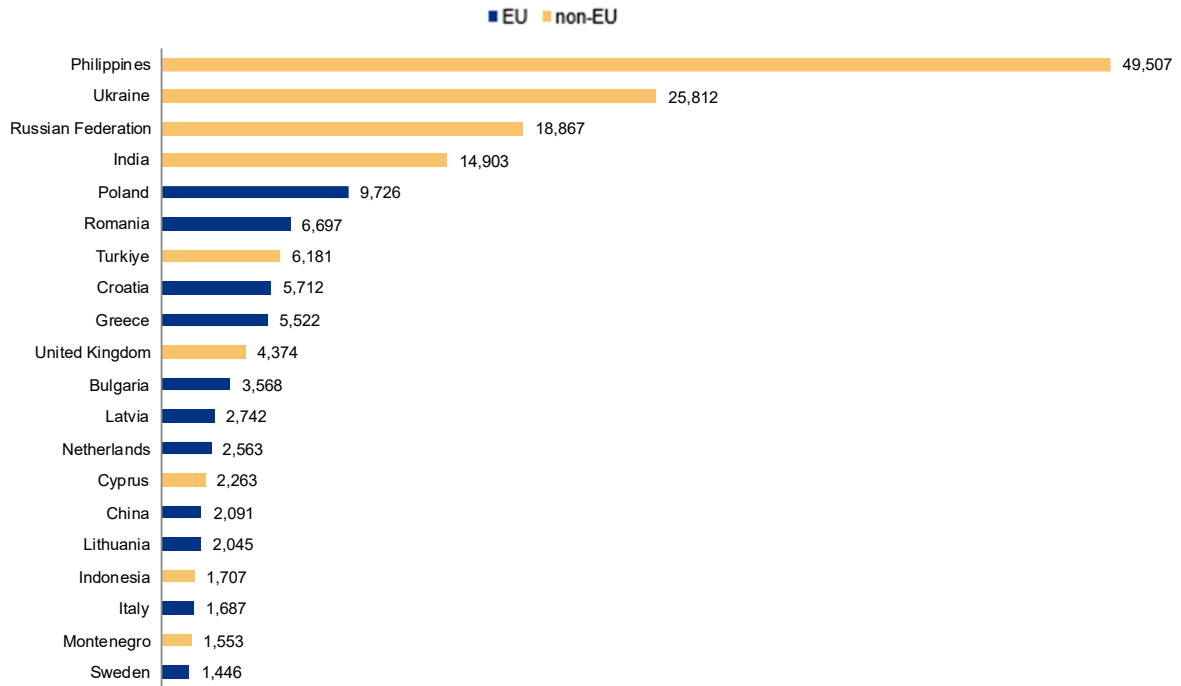


Figure 3-5 Countries issuing the original CoCs registering more than 0.75% of masters and officers holding valid EaRs

The masters and officers registered with valid EaRs in 2024 held original CoCs issued by 92 countries. Figure 3-5 identifies the 20 countries – eleven EU Member States and nine non-EU countries – which provided for 90.15% of the total number of masters and officers holding valid EaRs at EU level. Table and Table C-16 of Appendix C present a more detailed list of countries issuing the original CoCs.

### 3.4 Distribution by department

The departments in which the holders of EaRs were entitled to serve are presented in Figure 3-6.

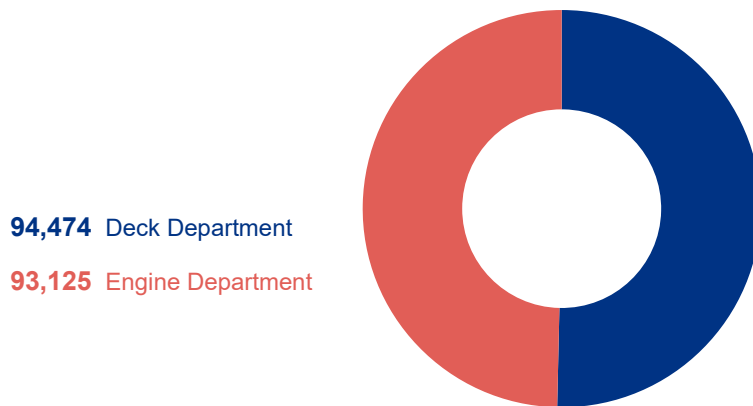


Figure 3-6 Distribution of masters and officers holding valid EaRs by department

The figure illustrates that the number of masters and officers entitled to serve in the Deck Department was only 1.45% higher than the number of officers entitled to serve in the Engine Department.

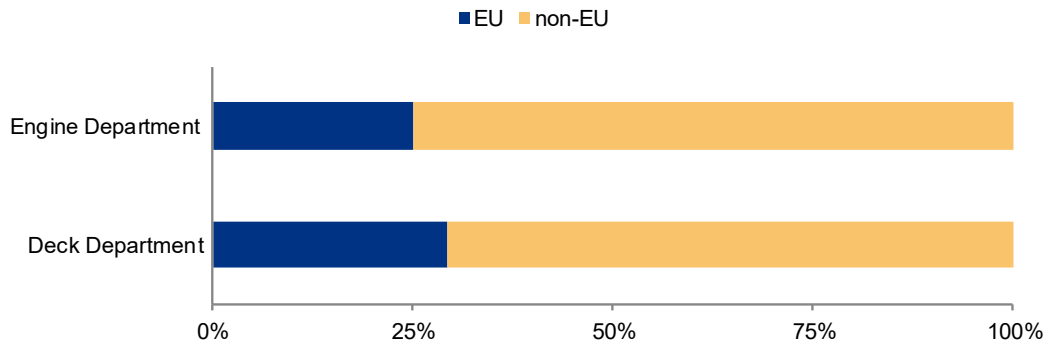


Figure 3-7 Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by department

The ratio between masters and officers holding original CoCs issued by EU Member States and those holding original CoCs issued by non-EU countries, shown in Figure 3-7 follows a pattern for both the Deck (29% to 71%) and the Engine (25% to 75%) Departments, which is similar to the general distribution presented in Figure 3-1.

### 3.5 Distribution by capacity

Taking into account that EU Member States do not use the same terms to refer to capacities in their manning regulations, all capacities reported in the original CoCs have been linked to the generic capacities established in Chapters II and III of the STCW Convention, in order to establish a common platform for data comparability. The review was conducted separately for the Deck and the Engine Departments. The total number of masters and officers was established by counting each person in his/her highest capacity.

#### 3.5.1 Distribution by deck capacity

The information in Figure 3-8 shows that, out of the total number of masters and deck officers holding valid EaRs in 2024, 99.34% were entitled to serve on ships of 3,000 GT or more. In addition, the data also indicated that 59.84% of them were entitled to serve at management level on ships of 3,000 GT or more, with less than 0.6% of their EaRs being limited in terms of tonnage and/or navigation area.

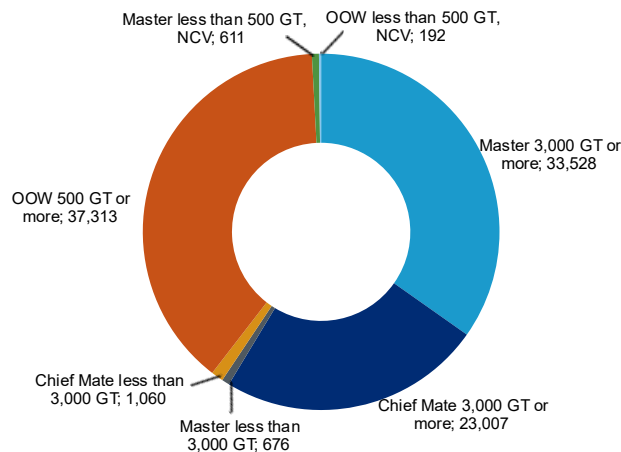


Figure 3-8 Distribution of masters and deck officers holding valid EaRs by deck capacity

The ratio between the masters and officers holding valid EaRs endorsing CoCs issued by EU Member States and those holding CoCs issued by non-EU countries was 29% to 71%. Nevertheless, the majority of masters and officers entitled to serve on board ships limited in tonnage or navigation area held CoCs issued mainly by EU Member States (see Figure 3-9).

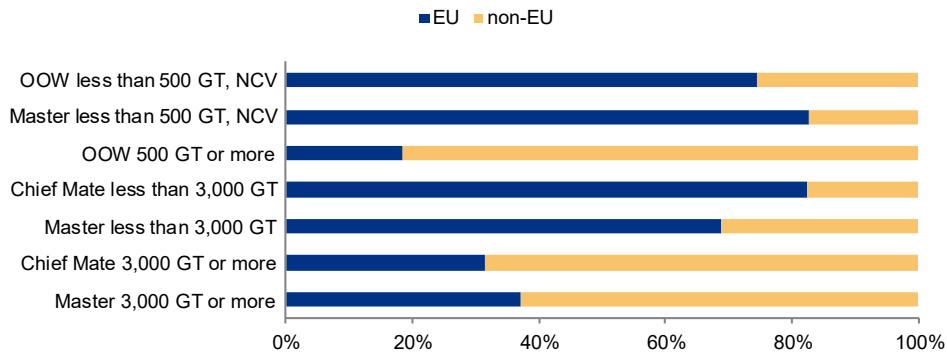


Figure 3-9 Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by deck capacity

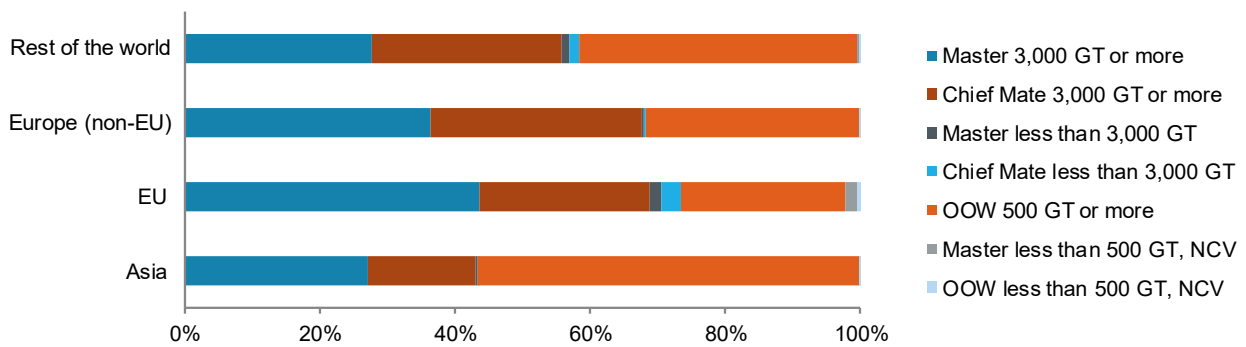


Figure 3-10 Distribution of the deck capacities of masters and deck officers holding valid EaRs by region of the country issuing the original CoC

The majority of deck officers having their original CoCs issued by Asian countries held EaRs entitling them to serve at operational level. Deck officers with original CoCs issued by countries in other parts of the world held, in their majority, EaRs entitling them to serve at management level (see Figure 3-10).

### 3.5.2 Distribution by engine capacity

The information in Figure 3-11 shows that, out of the total number of engineer officers holding valid EaRs, 99.15% were entitled to serve on ships powered by main propulsion machinery of 3,000 kW propulsion power or more. In addition, the data also indicated that 53.10% of the engineer officers were entitled to serve at management level on ships powered by main propulsion machinery of 3,000 kW propulsion power or more, with less than 4% of their EaRs being limited in terms of propulsion power or area of navigation and 39.64% being limited in terms of type of propulsion machinery.

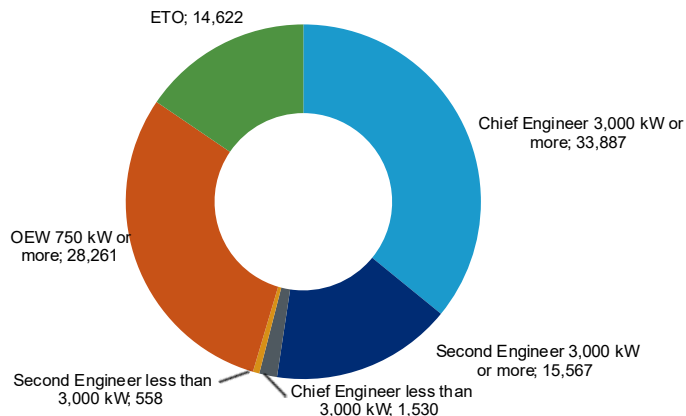


Figure 3-11 Distribution of engineer officers holding valid EaRs by engine capacity

The ratio between the engineer officers holding CoCs issued by EU Member States and those holding CoCs issued by non-EU countries was 25% to 75%. Nevertheless, this pattern was not clearly followed by those entitled to serve on board ships limited in propulsion power (see Figure 3-12).

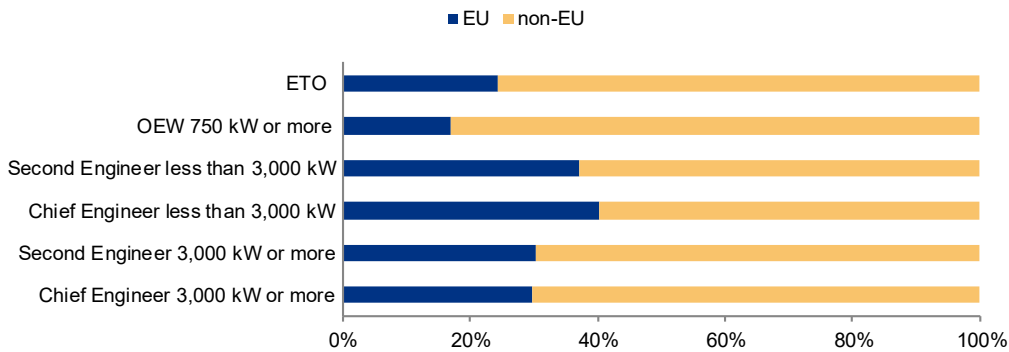


Figure 3-12 Distribution of engineer officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by engine capacity

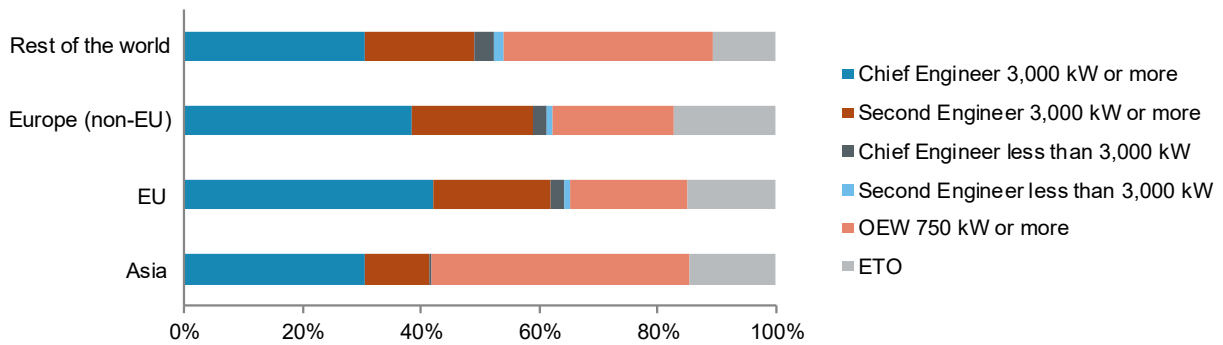


Figure 3-13 Distribution of the engine capacities of engineer officers holding valid EaRs by region of the country issuing the original CoC

The majority of the engineer officers having original CoCs issued by Asian countries held EaRs entitling them to serve at operational level. Engineer officers with CoCs issued by countries located in other parts of the world held, in their majority, EaRs entitling them to serve at management level (see Figure 3-13).

### 3.6 Gender distribution

The information on gender was available for 187,418 masters and officers that represented 99.99% of the total number of those holding valid EaRs in 2024 at EU level.

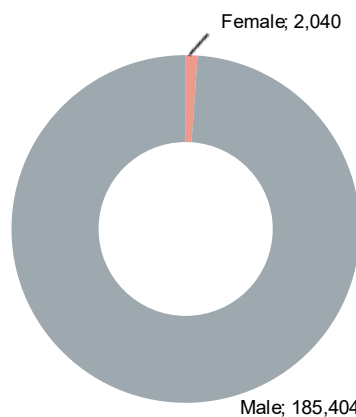


Figure 3-14 Gender distribution of masters and officers holding valid EaRs

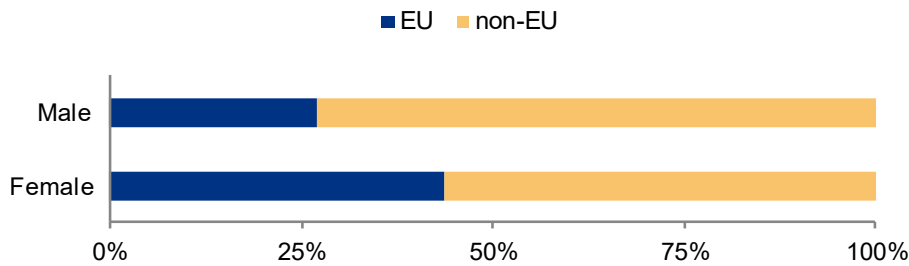


Figure 3-15 Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by gender

As regards the total number of female masters and officers holding valid EaRs, 43.72% of them held original CoCs issued by EU Member States, followed by 24.95% and 18.09% who had their original CoCs issued by countries located in Asia and in Europe, respectively.

### 3.7 Age distribution

The average age of masters and officers holding valid EaRs was 41.7 years. Consideration of the average age per country issuing the original CoCs reveals that the average age of masters and officers holding CoCs issued by the EU Member States was 43.4 years, while that of those holding original CoCs issued by non-EU countries was 41.0 years.

Considering the ratio between the masters and officers holding valid EaRs endorsing CoCs issued by the EU Member States and those holding valid EaRs endorsing CoCs issued by non-EU countries (27% to 73%), the distribution by age groups shows a deviation, especially for masters and officers older than 54, as presented in Figure 3-17.

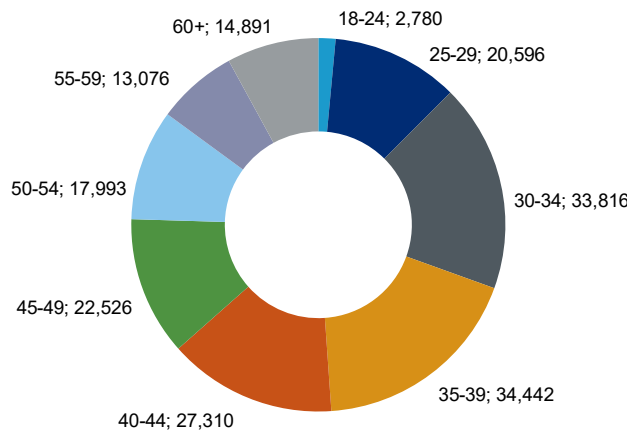


Figure 3-16 Age distribution of masters and officers holding valid EaRs

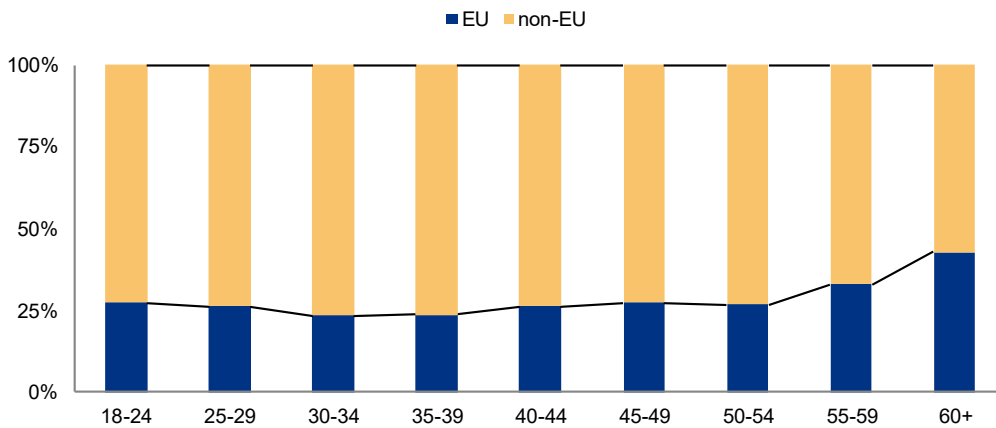


Figure 3-17 Distribution of masters and officers holding valid EaRs by EU and non-EU countries issuing the original CoC and by age group

The data presented in Table C-17 of Appendix C and in Figure 3-18 indicates that:

- in both departments there are few officers younger than 25 years of age;
- 51.60% of masters and officers holding valid EaRs for the Deck Department were younger than 40 years of age;
- the number of engineer officers was higher than the number of masters and deck officers for all age groups over 49 years of age.

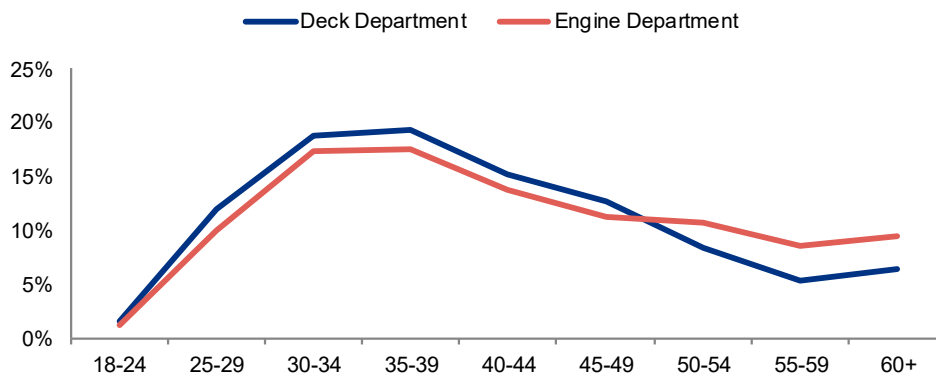


Figure 3-18 Age profile of masters and officers holding valid EaRs per department

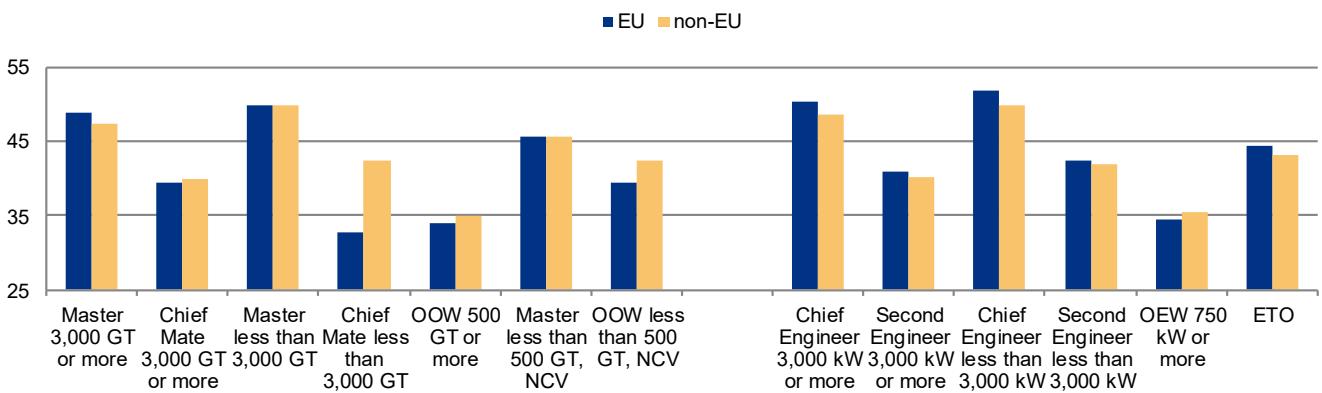


Figure 3-19 Average age of officers holding valid EaRs per EU and non-EU countries issuing the original CoC by capacity

The graphs in Figure 3-19 indicate that the average age of masters and officers was slightly higher for those holding original CoCs issued by EU Member States endorsed to serve as ‘Master on ships of 3,000 GT or more’ and for those endorsed to serve in all capacities as engineer officers, except as OEW.

### 3.8 Distribution by nationality

The information on nationality was available for 177,661 masters and officers, representing 94.79% of the total number of officers at EU level holding EaRs which were nationals of 140 countries. The distribution of these countries of origin by region<sup>8</sup> does not show a significant deviation from the review on countries issuing the original CoCs.

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<sup>8</sup> The grouping of countries per regions was based on the “Standard country or area codes for statistical use” established by the United Nations and the list of European countries established by the EU

## 4. Masters and officers available to serve on board EU Member State flagged vessels in 2024

Figure 4-1 aggregates the number of masters and officers holding valid CoCs and EaRs. This encompasses EaRs issued to holders of CoCs issued by both EU and non-EU countries analysed in sections 2 and 3.

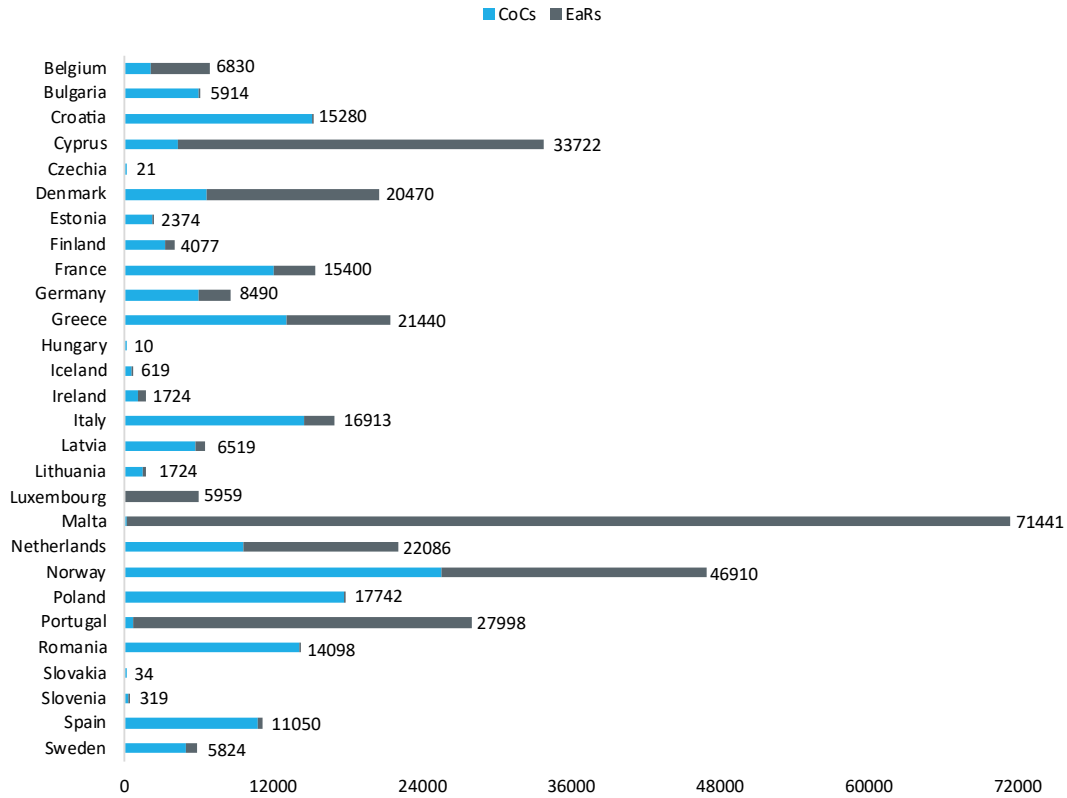


Figure 4-1 Masters and officers holding valid CoCs or EaRs per EU Member State

### 4.1 Total

The total number of masters and officers available to serve on board EU Member State flagged vessels was 313,956 distributed as presented in Figure 4-2. It included the masters and officers holding valid CoCs issued by EU Member States and the masters and officers holding valid EaRs issued by EU Member States recognising CoCs issued by non-EU countries.



Figure 4-2 Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC

## 4.2 Distribution by department

Figure 4-3 presents the distribution by department of masters and officers available to serve on board EU Member State flagged vessels. It excludes officers holding original CoCs issued by EU Member States under Chapter VII 'Alternative Certification' of the STCW Convention because no officers from non-EU countries held EaRs for such certification.

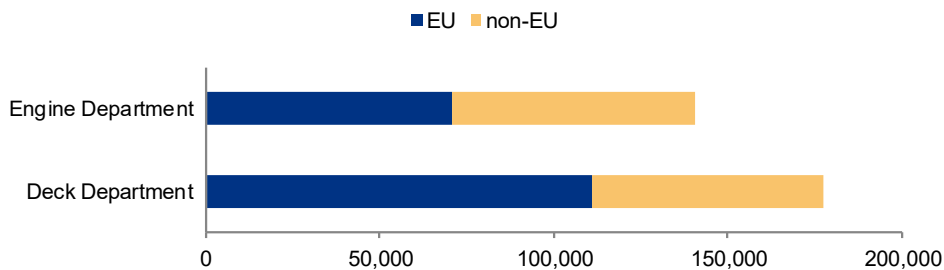


Figure 4-3 Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by department

The number of masters and officers available to serve in the Deck Department (177,791) was 26% higher than the number of officers available to serve in the Engine Department (140,668). This percentage changes depending on whether the CoCs were issued by EU Member States or non-EU countries. In the first case, the number of masters and officers available to serve in the Deck Department was 56% higher than the number of officers available to serve in the Engine Department. When CoCs were issued by non-EU countries the number of master and officers available to serve in the Engine Department was higher (4.2%) than the number of officers available to serve in the Deck Department.

In both Deck and Engine Departments, the number of officers holding valid CoCs issued by EU Member States and available to serve on board EU Member State flagged vessels was higher than those holding CoCs issued by non-EU countries (66% and 2% higher for Deck and Engine Departments, respectively).

## 4.3 Distribution by capacity

Considering that EU Member States do not use the same terms to refer to capacities in their manning regulations, all capacities reported in the CoCs have been linked to the generic capacities established in Chapters II and III of the STCW Convention, in order to establish a common platform for data comparability. The review was conducted separately for the Deck and the Engine Departments. The total number of masters and officers was established by counting each person in his/her highest capacity.

### 4.3.1 Distribution by deck capacity

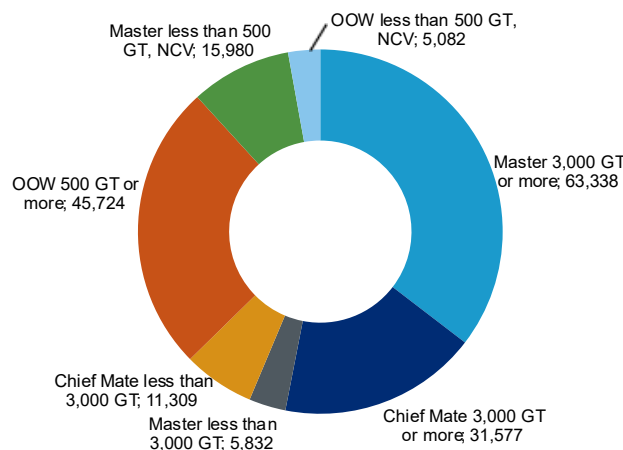


Figure 4-4 Distribution of masters and deck officers available to serve on board EU Member State flagged vessels by deck capacity

The information in Figure 4-4 shows that 53.39% (94,915) of the total number of available masters and deck officers were entitled to serve at management level on ships of 3,000 GT or more.

Although the ratio between masters and deck officers holding CoCs issued by EU Member States and those holding CoCs issued by non-EU countries was 62% to 38%, it changed significantly for masters and officers entitled to serve on board ships limited in gross tonnage or area of navigation where more than 96% were holders of CoCs issued by EU Member States. In the case of those officers entitled to serve as ‘OOW 500 GT or more’ the ratio was 33% to 67%. This is presented in Figure 4-5.

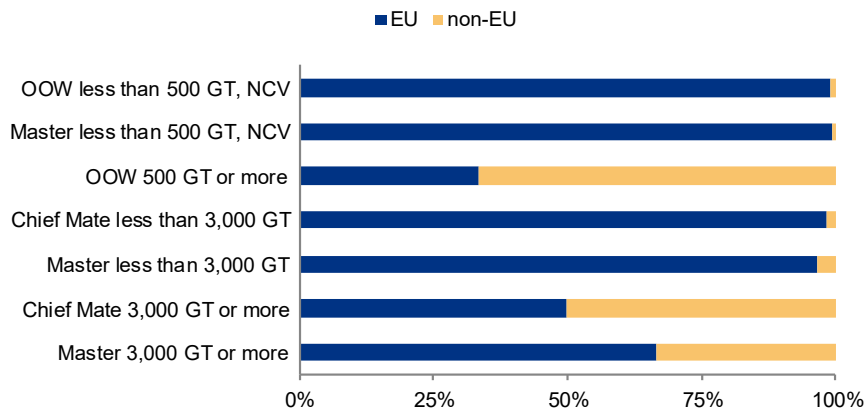


Figure 4-5 Distribution of masters and deck officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by deck capacity

### 4.3.2 Distribution by engine capacity

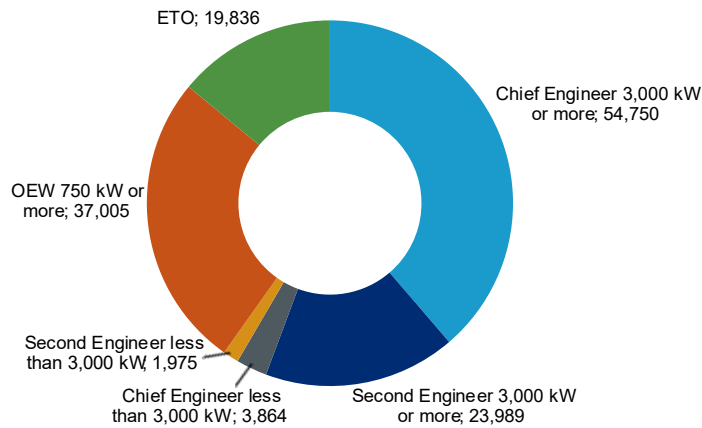


Figure 4-6 Distribution of engineer officers available to serve on board EU Member State flagged vessels by engine capacity

The information in Figure 4-6 shows that 55.97% (78,739) of the engineer officers were entitled to serve at management level on ships powered by main propulsion machinery of 3,000 kW propulsion power or more.

Although the ratio between engineer officers holding CoCs issued by EU Member States and those holding CoCs issued by non-EU countries was 50% to 50%, it changed significantly for officers entitled to serve on board ships limited in propulsion power where more than 76% were holders of CoCs issued by EU Member States. In the case of those officers entitled to serve as ‘OEW 750 kW or more’ the ratio was 37% to 63%. This is illustrated in Figure 4-7.

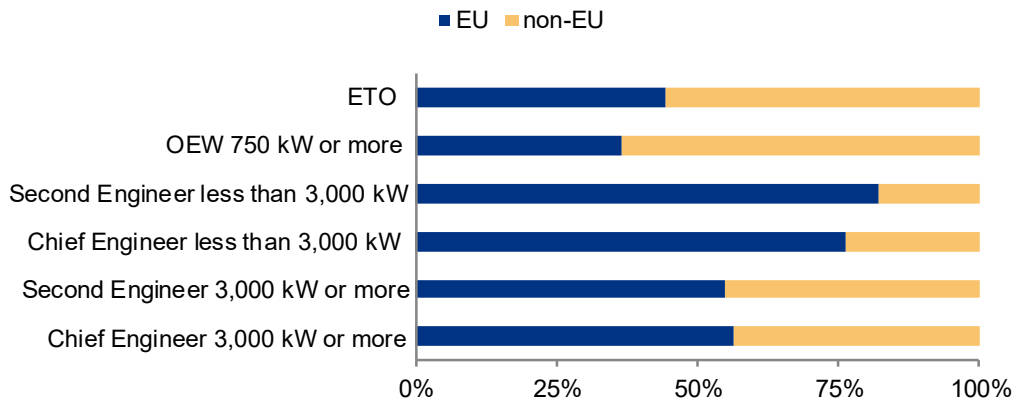


Figure 4-7 Distribution of engineer officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by engine capacity

### 4.4 Gender distribution

The information on gender was made available for 302,759 masters and officers representing 96.43% of the total number of those available to serve on board EU Member State flagged vessels.

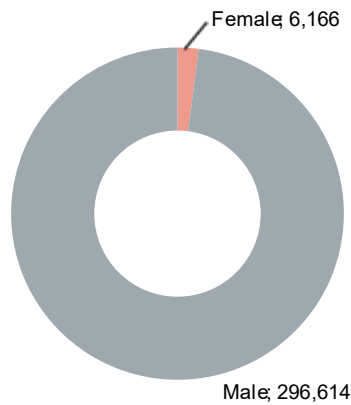


Figure 4-8 Gender distribution of masters and officers available to serve on board EU Member State flagged vessels

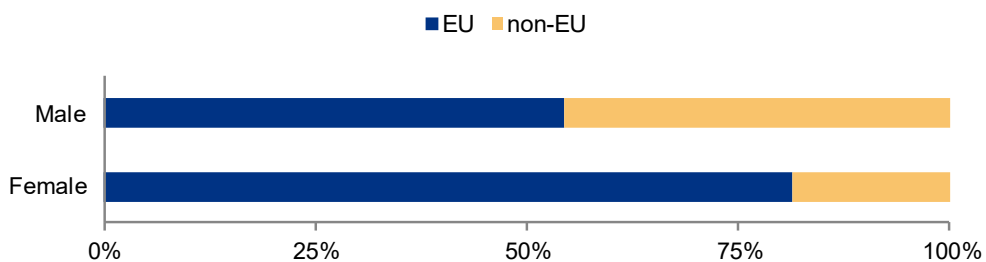


Figure 4-9 Distribution of masters and officers available to serve on board EU Member State flagged vessels by EU and non-EU countries issuing the original CoC and by gender

Masters and officers whose gender was known were predominantly males. Female masters and officers represented 2.04% of the total number of officers available, with 81.41% of them holding CoCs issued by EU Member States.

Within the total number of masters and officers holding valid CoCs issued by EU Member States and available to serve on board EU Member State flagged vessels, female masters and officers represented 3.02% of their total, while for CoCs issued by non-EU countries they represented 0.84% of their total.

### 4.5 Distribution by nationality

The information on nationality was made available for 300,727 masters and officers, representing 95.79% of the total number of officers available to serve on board EU Member State flagged vessels. It also showed that the masters and officers were nationals of 152 countries, with the distribution by region<sup>9</sup> as presented in Figure 4-10.

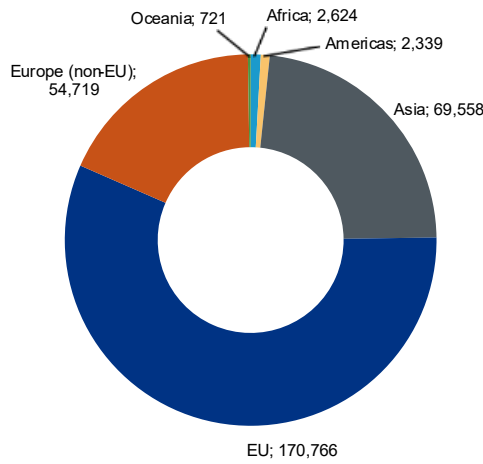


Figure 4-10 Nationality distribution of masters and officers available to serve on board EU Member State flagged vessels by geographical region according to nationality

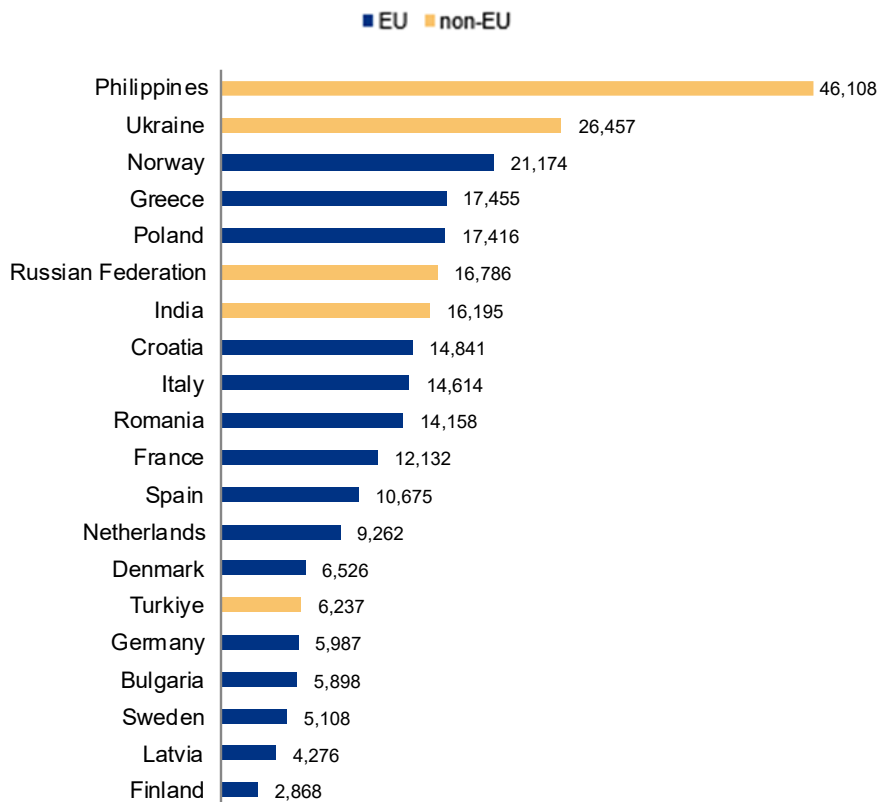


Figure 4-11 Countries whose nationals represented more than 0.75% of the total number of masters and officers available to serve on board EU Member State flagged vessels

The data in Figure 4-11 identifies the 20 countries whose nationals represented 87.33% of the total number of masters and officers available to serve on board EU Member State flagged vessels.

<sup>9</sup> The grouping of countries per region was based on the "Standard country or area codes for statistical use" established by the United Nations and the list of European countries established by the EU

### 4.6 Age distribution

The average age of all masters and officers available to serve on board EU Member State flagged vessels was 42.6 years. The average age of masters and officers holding CoCs issued by EU Member States was 43.8 years, while for those holding original CoCs issued by non-EU countries, it was 41.0 years.

The age profile, per country issuing the original CoC, grouped under EU or non-EU in Figure 4-12, shows that those holding EU CoCs were more evenly distributed throughout the age groups than those holding non-EU CoCs.

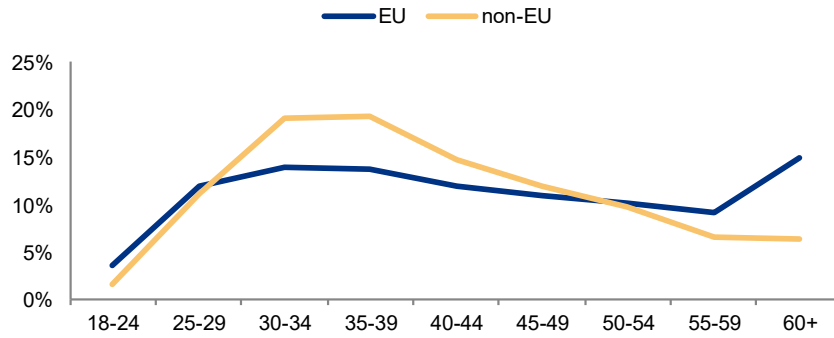


Figure 4-12 Age profile of masters and officers available to serve on board EU Member State flagged vessels per EU and non-EU countries issuing the original CoC

The highest average age was identified as it would have been expected for masters and for chief engineers, as presented in Figure 4-13.

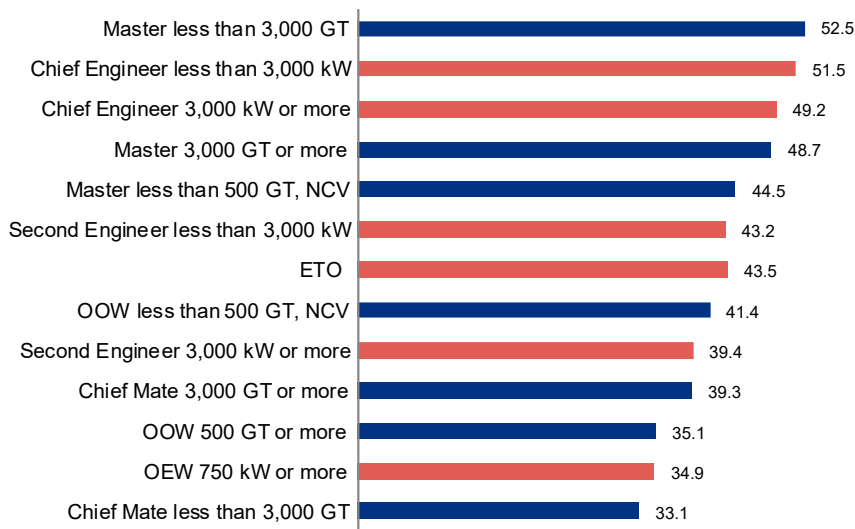


Figure 4-13 Average age of masters and officers available to serve on board EU Member State flagged vessels per deck and engine capacities

A variation ranging between 1.3 and 1.9 years in the average age was noticed for all those holding CoCs entitled to serve on ships of 3,000 GT/kW or more, either at management or operational level, issued by EU Member States and non-EU countries. In all of those, with exception of Chief Mates, OEWs and Second Engineers 3,000 kW or more, the highest average age was found in holders of CoCs issued by EU Member States.

## 5. Ratings holding valid certificates of proficiency in 2024

The data presented below is based on the information provided on certificates of proficiency (CoP) issued to ratings under regulations II/4, II/5, III/4, III/5, III/7 and VII/2 of the STCW Convention. The submission of this data is not mandatory under Directive (EU) 2022/993 but was voluntarily provided by 16<sup>10</sup> EU Member States.

### 5.1 Total

The total number of ratings holding valid CoPs in 2023 in the 16 EU Member States reporting such data was 79,608 with 5.44% of them entitled to serve in both the Deck and the Engine Departments.

### 5.2 Distribution by EU Member State

The distribution of the number of ratings holding valid CoPs by EU Member State is presented in Figure 5-1.

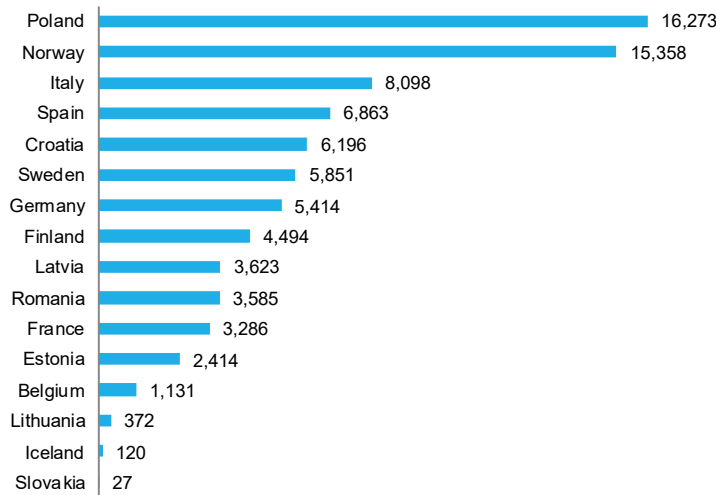


Figure 5-1 Ratings holding valid CoPs per EU Member State

### 5.3 Distribution by department

The distribution by department in which the ratings were entitled to serve is presented in Figure 5-2. It shows that the number of ratings entitled to serve in the Deck Department (Chapter II of the STCW Convention) was 103.53% higher than the number of ratings entitled to serve in the Engine Department (Chapter III of the STCW Convention). It also shows that 5.28% of them were qualified under Chapter VII - Alternative Certification, of the STCW Convention.



Figure 5-2 Distribution of ratings holding valid CoPs by department

<sup>10</sup> The 16 EU Member States that voluntarily provided data on ratings are listed in figure 5-1.

## 5.4 Distribution by capacity

The distribution of ratings by capacity is illustrated in Table D-22 of Appendix D. Taking into account that EU Member States do not use the same terms to refer to capacities in their manning regulations, all capacities reported in the CoPs have been linked to the generic capacities established in Chapters II and III of the STCW Convention, in order to establish a common platform for data comparability. The review was conducted separately for the Deck and the Engine Departments, even if compiled in Figure 5-3. The total number of deck and engineer ratings was established by counting each person by department.

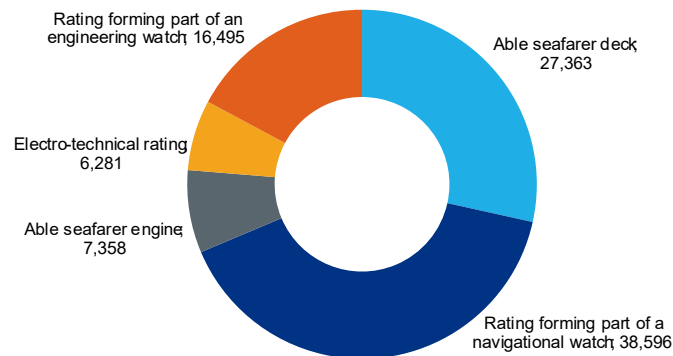


Figure 5-3 Distribution of ratings holding valid CoPs by capacity

The information shows that the majority of ratings either of deck or engine were entitled to serve as ratings forming part of a watch, being 69.22% for deck and 60.21% for engine.

## 5.5 Gender distribution

The information on gender was made available for 67,965 ratings representing 81.93% of the total number of the ratings reported as holding valid CoPs.

The information shows that the ratings holding valid CoPs were predominantly male. Considering the data provided as a sample of the total number of ratings at EU level, it can be stated with a level of confidence of 99% that the percentage of female ratings was 5.04% ± 0.21%.

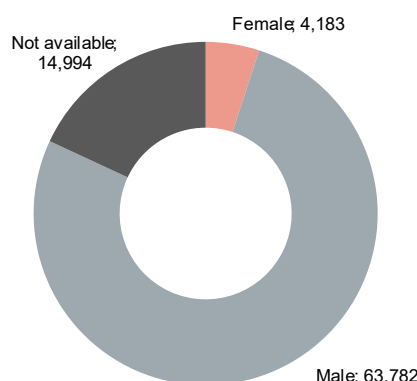


Figure 5-4 Gender distribution of ratings holding valid CoPs

## 5.6 Distribution by nationality

The review of the data showed that, except for 10.53% where nationality was not available, ratings holding valid CoPs were nationals from 111 countries (28 EU Member States and 83 non-EU countries). The review also showed that 87.13% of the ratings were nationals of the same EU Member State providing the data (see section 5.2).

### 5.7 Age distribution

The average age of ratings holding valid CoPs was 41.4 years. Except for the age groups 40-59, all other groups registered higher distributions between 10.89% and 15.70%. The average age for female ratings was 32.1 years, while that for male ratings was 41.8 years. 79.85% of all female ratings were younger than 40 years of age while the percentage of male ratings in the same age group was 49.98%.

The age profile of ratings per gender is presented in Figure 5-6.

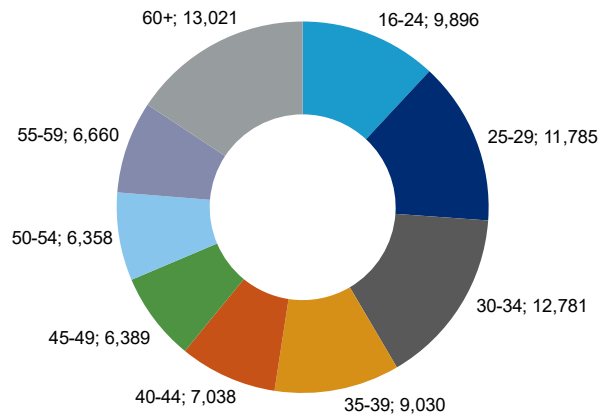


Figure 5-5 Age distribution of ratings holding valid CoPs

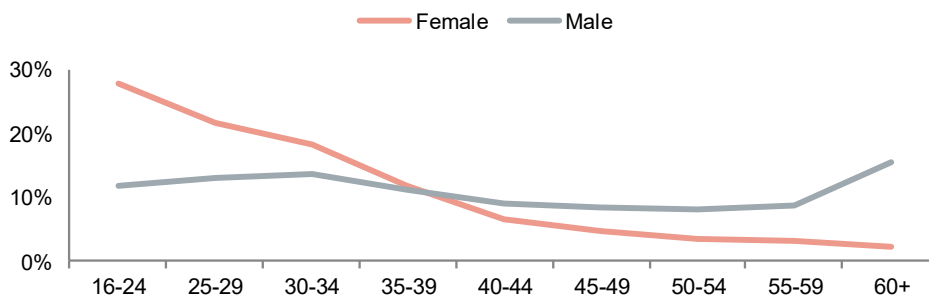


Figure 5-6 Age profile of ratings holding valid CoPs per gender

## 6. Masters and officers - summary overview 2014-2024

This section presents a compilation of the data received during the last eleven years, with the objective of providing a broader picture of the number of masters and officers available to serve on board EU Member State flagged vessels. As previously mentioned, some elements applied to treat and/or analyse the data were continuously improved or had to be adjusted to new realities, such as the inclusion of data received from EFTA countries since 2017 or the withdrawal of the United Kingdom from the EU in 2020. The analysis in this section takes into account such changes, in an effort to provide the most accurate view possible. Forecasts are made using linear regression and exponential triple smoothing (ETS) algorithm methods<sup>11</sup>. Related values calculated can be found in Appendix D.

In the following sub-sections, the clustered horizontal bar graphs include only five years' data for better clarity of the said graphs. All others will include all the years available.

### 6.1 Countries issuing the original CoCs

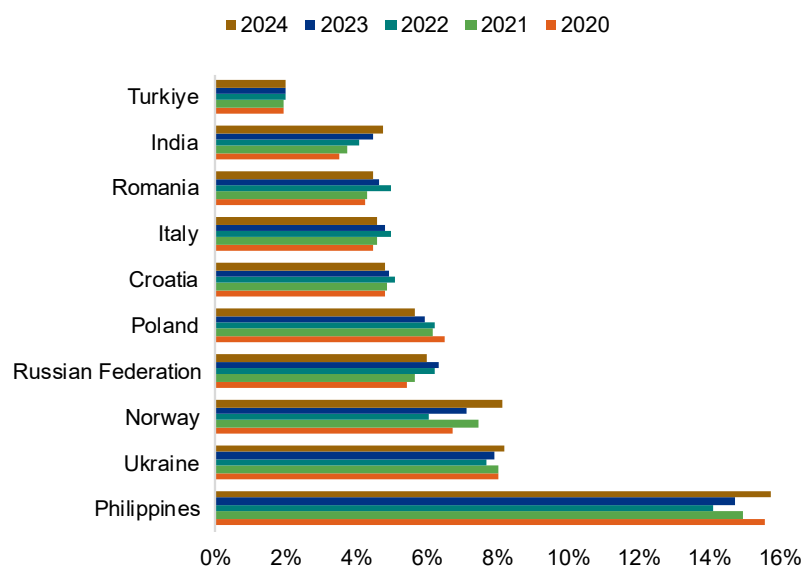


Figure 6-1 Top 5 EU and top 5 non-EU countries issuing the original CoCs

The five non-EU countries (India, the Russian Federation, the Philippines, Türkiye and Ukraine) which had more masters and officers having their CoCs recognised by EU Member States (see Figure 6-1 above) have retained the top spots throughout the last eleven years. The total percentage of these masters and officers among all those masters and officers available to serve on board EU Member State flagged vessels has varied, over the years, between 26% (in 2017) and 36% (in 2024).

At the level of EU Member States, the situation has been more fluid. However, only nine countries have achieved the top 5 since this data started being collected. Figure 6-1 features the five Member States that occupied the top ranking in 2024. It is to be noted that Poland has always been in this top 5 list and that, upon introduction of its data in 2017, Norway has always remained in the top 5.

Figure 6-2 below presents the forecast for the coming years in relation to the percentage of masters and officers holding CoCs issued by the top 3 EU and the top 3 non-EU countries. In terms of linear forecast – and similarly to what was previously estimated – a slight decrease regarding Poland and an increase for Norway continues to be suggested. Regarding the estimates for those holding CoCs issued by Croatia, significant changes are not foreseen in the coming years.

<sup>11</sup> The linear regression method is suited for small and simple data sets that do not have enough historical data. The Exponential Triple Smoothing (ETS) algorithm is best suited for non-linear data models by smoothing out minor deviations in past data trends, detecting seasonality patterns and establishing confidence intervals (in this case, a level of confidence of 95% was used).

As regards non-EU countries, the percentage of masters and officers holding CoCs issued by the Russian Federation and by Ukraine has remained broadly unchanged. Based on this trend, estimates for the coming years do not foresee any significant change.

Regarding those holding CoCs issued by the Philippines, the percentage of masters and officers available to serve on board EU Member State flagged vessels increased between 2017 and 2020. Nevertheless, as already foreseen, a slight growth could be expected in the coming years as it was noted in 2024.

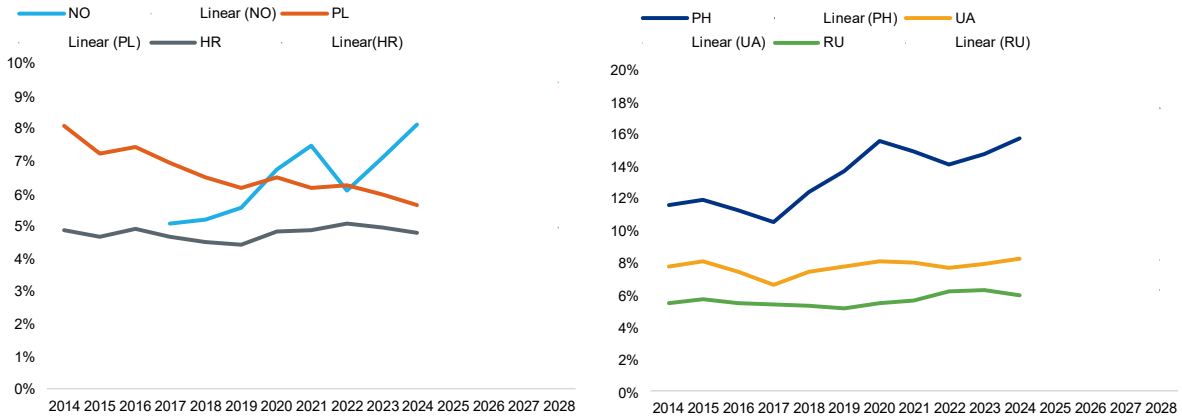


Figure 6-2 Overview with forecast for the next years of masters and officers holding CoCs issued by the top 3 EU and top 3 non-EU countries

## 6.2 Department - level of responsibility

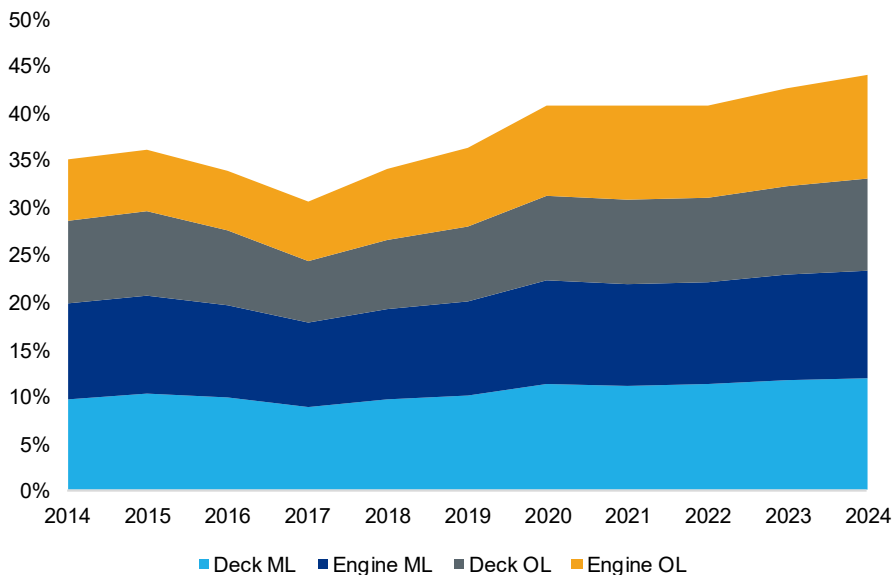


Figure 6-3 Officers at management and operational level holding CoCs issued by non-EU countries

As already noted in the previous reports and confirmed by this update, the total percentage of masters and officers holding CoCs issued by non-EU countries recognised by EU Member States has been on the increase since 2017. Moreover, an analysis of these figures per department and level of responsibility indicates that this increase continued to be verified in both departments and levels of responsibility. Although, this is more evident in the engine department at operational level.

As regards the percentage of masters and officers available to serve on board EU Member State flagged vessels, Figure 6-4 below shows that, similarly to what has been estimated in the last five years, a slight increase continues to be expected for officers entitled to serve in the engine department at operational level.

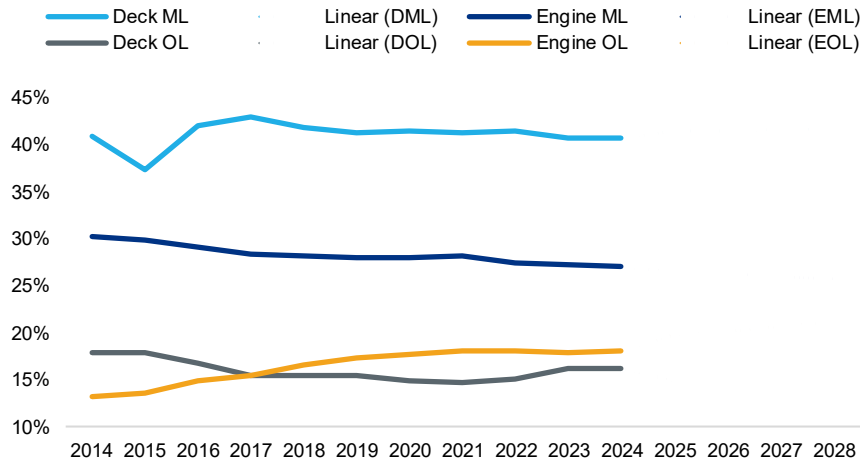


Figure 6-4 Overview with forecast for the next years of officers at management and operational level available to serve on board EU Member State flagged vessels

### 6.3 Female officers

As presented in Figure 6-5 below, the majority of female officers continues to be made up of those who hold CoCs issued by EU Member States entitling them to work in the deck department.

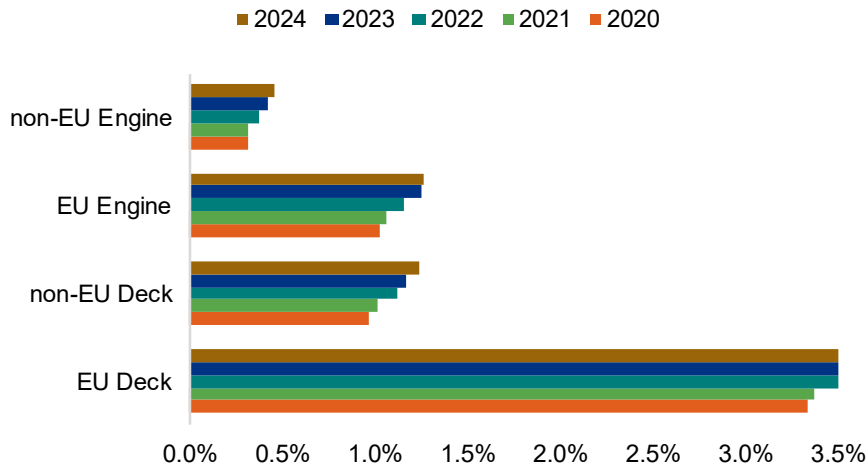


Figure 6-5 Female officers per department holding CoCs issued by EU and non-EU countries

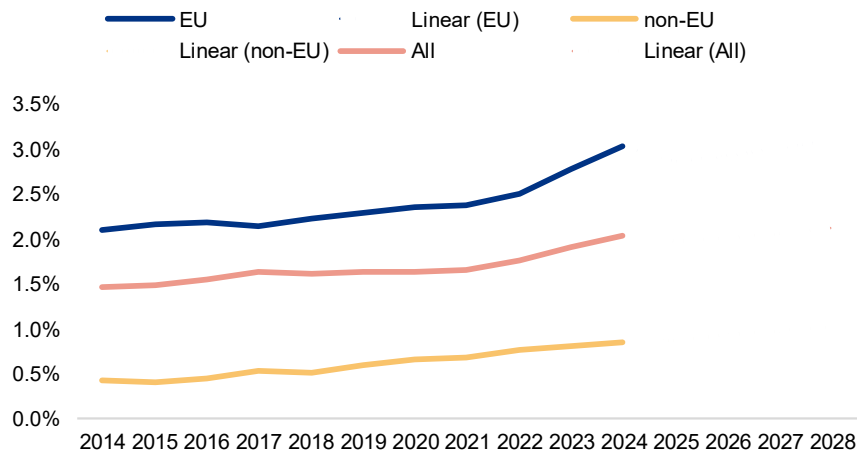


Figure 6-6 Overview with forecast for the next years of female officers available to serve on board EU Member State flagged vessels

As illustrated in Figure 6-6, the percentage of female officers globally (EU and non-EU) is expected to continue increasing in the coming years. However, it remains unlikely that globally females will reach the 2% of the total number of masters and officers already available to serve on board EU Member State flagged vessels; this percentage denotes the proportion of female participation currently achieved in the EU as indicated in the said Figure.

### 6.4 Nationality

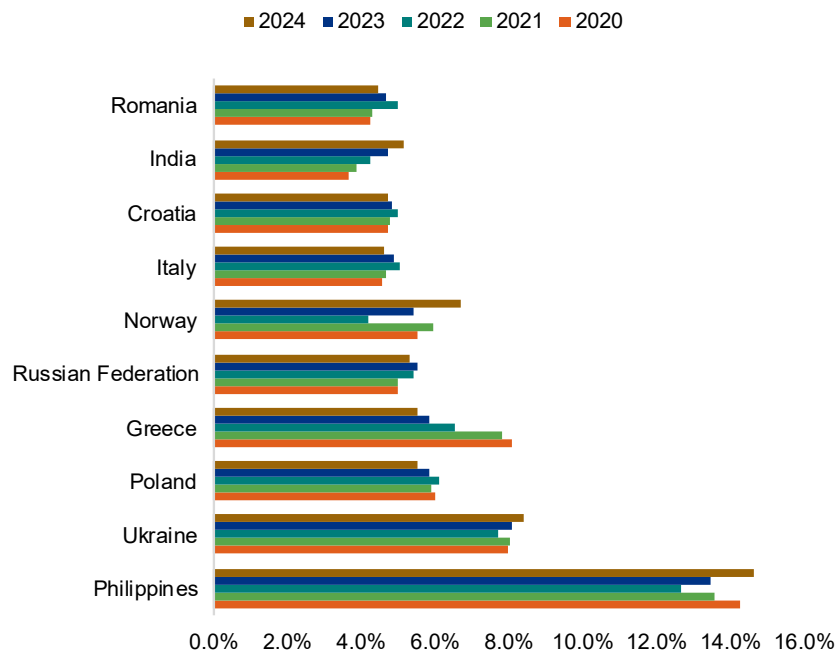


Figure 6-7 Top 10 nationalities of masters and officers available to serve on board EU member State flagged vessels

The 10 nationalities which had more masters and officers available to serve on board EU Member State flagged vessels have remained broadly the same for the past years. With the exception of nationals from India and Romania, the nationals from the other eight countries have been in this top 10 list at least for the last six years.

Figure 6-8 below continues to indicate that, in the coming years, and in accordance with the nationality of masters and officers, an expected stability per geographical region will persist. It also indicates that the Philippines will continue to be the country from where there will be more nationals among the masters and officers available to serve on board EU Member State flagged vessels.

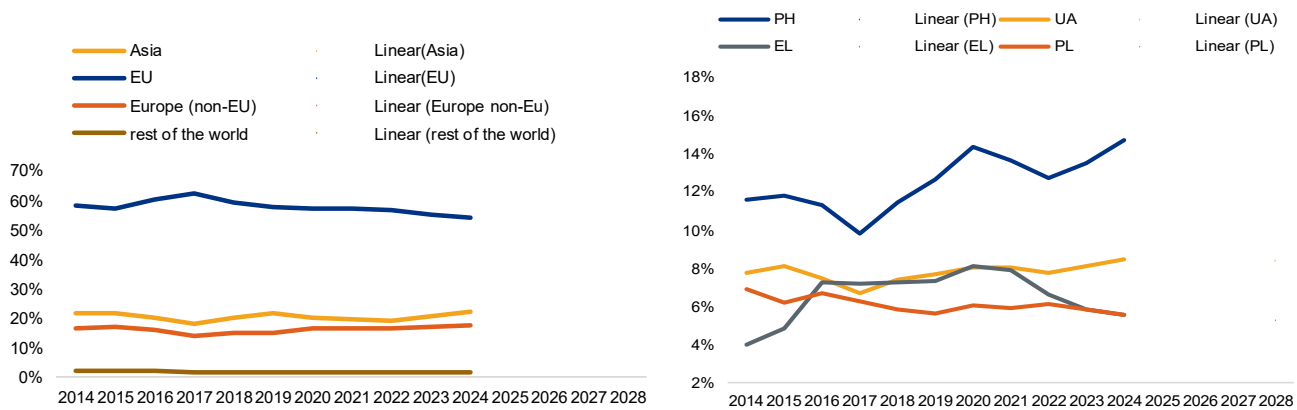


Figure 6-8 Overview with forecast for the next years of the nationalities of masters and officers available to serve on board EU Member State flagged vessels

### 6.5 Age

The average age of masters and officers available to serve on board EU Member State flagged vessels has remained stable with a slight increase in the last year and this scenario is forecasted to continue.

Figure 6-10 suggests, as already foreseen in the last five years, that there is no indication that the average age of masters and officers holding CoCs at management level, either issued by EU or non-EU countries will increase. This may continue to suggest that younger officers of a lower rank are progressing in their seafaring career.

However, for officers holding CoCs at operational level, indications persist that the average age will continue to increase, albeit slightly.

The reasons for the continuous indication of an increase in the average age of officers holding CoCs at operational level, as already mentioned in the four previous years' reports, might not be fully ascertained without further research. Nevertheless, this might indicate that the candidates for the issue of their first CoC take longer to fulfil the requirements for certification or, if already certified, follow a longer path to a management level CoC. This is a topic that suggests the need for further research on career paths.

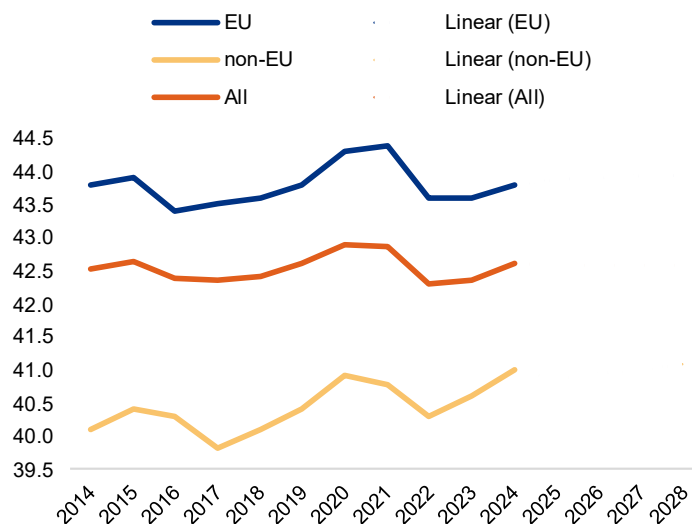


Figure 6-9 Overview with forecast for the next years concerning the average age of masters and officers available to serve on board EU Member State flagged vessels

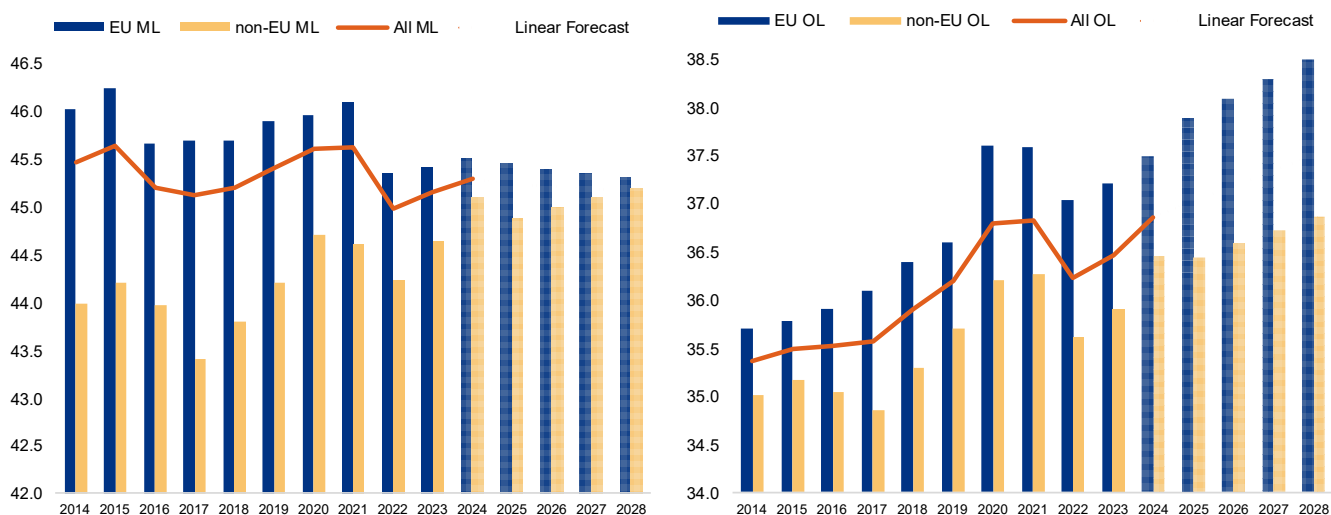


Figure 6-10 Overview with forecast for the next years concerning the average age of officers at management and operational level available to serve on board EU Member State flagged vessels

## 7. Main conclusions

Between 2016 and 2019, the absolute number of masters and officers holding CoCs and EaRs and of ratings holding CoPs – and thereby of those available to serve on board EU Member State flagged vessels – had been on the increase. However, due to Brexit, in 2020 (see further explanation in section A.2 of Appendix A), this trend was interrupted and a decrease in these numbers in absolute terms was noted. In parallel, a decrease in the cumulative number of vessels under the flags of EU Member States (EU fleet) was also observed. This decrease persisted until 2022, still in the wake of the COVID-19 pandemic. In the last two years an increase in the number of those available to serve in the EU fleet was observed.

Figure 7-1 below shows that, between 2016 and 2019 there was an increase of more than 70,000 masters and officers nominally available to serve on board EU Member State flagged vessels. This was followed by a decrease of 48,000 masters and officers between 2019 and 2022. In 2023 and 2024 the increase was of about 25,000 masters and officers.

However, it should be noted that between 2017 and 2020 the percentage of masters and officers holding CoCs issued by non-EU countries had increased by 10% and remained roughly unchanged since then. Half of this increase may be attributed to the inclusion of the United Kingdom in the non-EU countries category. Notwithstanding this, the overall figures in terms of distribution by country issuing the original CoC remained broadly stable.

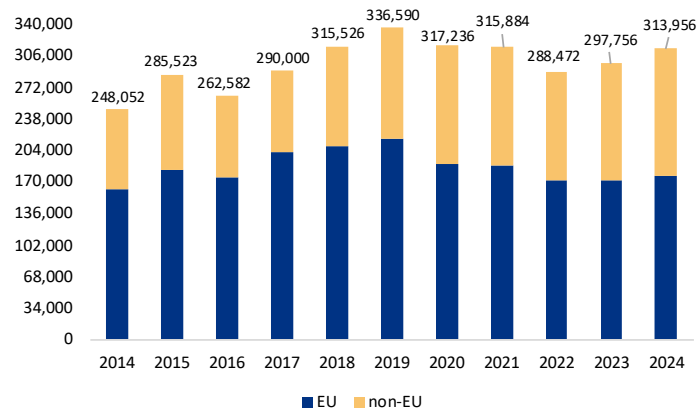


Figure 7-1 Masters and officers available at EU level over the years (EU and non-EU countries issuing the original certificate)

Apart from that, when reviewing the numbers of masters, officers and ratings by type of certificate held, the figures remained stable in terms of distribution by department, capacity, gender and age. In general terms and over the last eleven years, a certain stability in the European maritime labour market prevails, suggesting a continued ability of such market to attract new entrants who have replaced those leaving the seafaring career. In the past eleven years the overall average age of the masters and officers varied between 43 and 44 years. This indicates that new entrants with a younger age were replacing holder masters and officers that were leaving the seafaring career.

## Appendix A Framework and methodology

### A.1 Legal background

The EMSA Regulation<sup>12</sup> establishes in its Article 4 that “The Agency shall analyse statistics on seafarers”, provided and used in accordance with Directive (EU) 2022/993 of the European Parliament and of the Council of 8 June 2022 on the minimum level of training of seafarers<sup>13</sup>.

Article 27 of Directive (EU) 2022/993, establishes that “the Member States shall communicate the information referred to in Annex III” and that “information shall be made available by Member States to the Commission on a yearly basis and in electronic format and shall include information registered until 31 December of the previous year”. Norway and Iceland (Members of the European Free Trade Association States) are similarly bound by this obligation. This data is recorded in the STCW Information System (STCW-IS), developed and hosted in EMSA.

### A.2 Data collection, analysis and beneficiaries

The data subject to this review was extracted from the national registries on certificates and endorsements issued to seafarers and maintained by the EU Member States. Taking into account the diversity of technologies used to register such data, each EU Member State developed a data extractor module to retrieve the information established in Annex III to Directive (EU) 2022/993 in a structured format defined by the technical specifications made available by EMSA.

Only documents with a valid status were considered (in principle, an EU Member State may provide information on all documents registered, including those suspended, cancelled, declared lost or destroyed).

This tenth review presents a snapshot of the number of seafarers holding valid certificates and endorsements in 2024. It should be noted that since the available data – as extracted from the national registers held by EU Member States – did not include any information on whether the certificate holders were active or not, it was not possible to determine how many of them were working on board vessels during 2024.

Since 2020, the actions taken worldwide as a result of the Coronavirus outbreak posed a serious challenge for Administrations to allow the continued training and certification of seafarers in accordance with the STCW Convention. Within this context, IMO provided guidance relating to the certification of seafarers through Circular Letter No.4204/Add.5/Rev.1, of 2 April 2020. According to it, Administrations were “encouraged to take a pragmatic and practical approach with regard to the extension of certificates, including medical certificates and endorsements, as strictly necessary”. One of the approaches adopted (between 2020 and 2022, inclusive) was for the issuing Administrations to use their prerogative of extension of validity of the certificates and endorsements to seafarers that needed such certification to continue being on board or to embark. This may have affected to some extent the data (of on certificates included in the national registers held by EU Member States and received in the STCW-IS by not fully mirroring their real status and validity until the end of 2022).

It is also to be noted that, having ceased to be an EU Member State following Brexit, since 2020 the United Kingdom had no more the obligation to provide information on its certificates and endorsements issued and consequently, the last data received concerned 2019. Therefore, for the purpose of this report, like in the previous years, the United Kingdom is treated as a third country from 2020 onwards and any information regarding seafarers holding certificates of competency issued by the UK will only be available within the context of related endorsements issued by the EU Member States attesting the recognition of said certificates.

The main beneficiaries of this statistical review are the EU Member States, the Commission and the European Parliament for policy-making purposes. Ship owners and ship operators may continue to derive added value in terms of knowing the magnitude of manpower available in the EU to crew their vessels. The information provided in this review is also intended to be useful to maritime education and training institutions in the EU and could facilitate the estimation of market demand for their services. Researchers may also be interested in some of the statistical outputs, as well as seafarers and the organisations that represent them.

<sup>12</sup> [Regulation - EU - 2025/2434 - EN - EUR-Lex](#)

<sup>13</sup> <http://data.europa.eu/eli/dir/2022/993/oj>

### A.3 Accuracy

The information in this review must be qualified by the limitation in EMSA's ability to gauge the margin of error in the data extraction processes undertaken at EU Member States' level. Some inconsistencies were in fact identified during the validation phase at EMSA, demonstrating that in some cases seafarers' names and/or document numbers might have been registered as different strings by different EU Member States. Upon request, EMSA also proceeded to the replacement of previous years' data in cases where inconsistencies were detected by the EU Member States themselves. As with previous reviews, corrections were also made in the 2024 reported data on seafarers' gender when different genders were attributed to the same seafarer within the same country. In the case of seafarers reported as having different genders among different countries, a query was developed to identify and correct these inconsistencies.

The original data received from the EU Member States included fields such as gender, nationality and capacity together with its associated limitations. The information in these fields was made available as free text and consequently had to be encoded to ensure the harmonisation and comparability of data. In order to estimate the human error introduced through this process, an automatic sample was selected from the data made available by each EU Member State and was validated by a different operator at EMSA, thus maximising the widest possible number of errors to be identified during the verification process. The dimension of the sample was established by the formula:

$$n = \frac{z^2 * 0.25 * N}{(N - 1) * E^2 + 0.25 * z^2}$$

where,

$n$  – is the dimension of the sample (number of documents to be randomly selected);

$N$  – is the total number of documents belonging to the selected country;

$z$  – is the level of confidence;

$E$  – is the maximum amplitude of the error.

A level of confidence of 90% ( $z = 1.645$ ) and an amplitude of error ( $E$ ) of 1% were established for the evaluation of the errors introduced by human intervention during the coding process. This ensured a negligible level of error when coding the free text received into STCW-IS internal values, especially when considering that every identified error is consequently corrected not only within the sampled data but also in the whole data set.

### A.4 Coherence and comparability

The information considered in this review comprised data from 26 EU Member States (Austria does not issue certificates and endorsements to seafarers) and two EFTA countries (Norway and Iceland).

It is to be noted that while measures have been taken to safeguard information subject to data protection (please see 'Confidentiality' below), said measures still maintained intact the possibility for data in its encrypted form to be analysed and compared.

In order to ensure comparability of the data received from various sources, all data was subject to a coding process, which ensured that all fields received as free text were linked to predefined internal values.

Taking into account the diversity of the capacities established by the national manning regulations, the information received on capacities in which the seafarers were entitled to serve, together with their associated limitations, was converted during the data coding at EMSA into generic capacities as defined by the STCW Convention. In order to keep the data coherent and comparable, criteria were established and followed throughout all statistical reviews when converting the data during the coding process.

It is to be noted that in the case of masters and officers, their total does not tally with the sum of the total number of masters and deck officers plus the total number of engineer officers. The reason for this is that some masters and

officers may hold certificates for both the Deck and the Engine Departments. Furthermore, because a person may hold certificates/endorsements issued by different EU Member States, the sum of the number of masters and officers registered by individual EU Member States may not be equal to the total number of masters and officers at EU level.

## A.5 Accessibility and clarity, dissemination format

User access to information featured in this report is restricted to the content of this written report. EU Member States retain all property rights to the information in its raw data format and could amend their data at any time before its processing began. Detailed statistics may be compiled by EMSA upon request from the European Commission and the EU Member States, based on agreed terms of reference.

This report is published on the STCW-IS webpage (<https://portal.emsa.europa.eu/web/stcw/documents>) and in the EMSA website (<https://emsa.europa.eu/visits-to-member-states/standards-for-seafarers.html>). Access in a customised way to the data included in this report is also provided through an interactive reporting module available likewise on the STCW-IS webpage (<https://portal.emsa.europa.eu/web/stcw/seafarers-stats>).

## A.6 Confidentiality

All publicly available statistics fully comply with the obligations established in Article 34 of the EMSA Regulation<sup>14</sup>, as amended and Regulation (EU) 2018/1725<sup>15</sup> of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data. In order to ensure the safeguarding of personal information subject to data protection, EMSA developed and made available to the EU Member States, Norway and Iceland an anonymisation software module which converts all personal data – such as seafarer's name, seafarer's unique identifier and certificate/ endorsement number – extracted in its raw format from the national registries, into anonymous strings of characters by using a powerful encryption algorithm. The data anonymised at source is received, compiled and analysed by EMSA in its encrypted format.

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<sup>14</sup> [Regulation - EU - 2025/2434 - EN - EUR-Lex](#)

<sup>15</sup> <http://data.europa.eu/eli/reg/2018/1725/oj>

## Appendix B Data on masters and officers holding valid CoCs in 2024

Table B-1 Distribution of masters and officers by departments and EU Member States

Department	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
Alternative certification	0	0	0	0	0	0	0	0	0	0	1118	0	0	0	0	0	0	0	0	1255	0	0	0	0	0	0	0
Deck	1482	2613	2342	9	4333	4364	1167	7322	7155	1960	9928	7721	1	717	406	8637	778	2765	169	6904	19484	9605	423	6847	3588	197	22
Engine	648	3302	1892	12	1679	2480	1002	5775	4017	1322	3394	7397	9	399	198	5886	653	2912	13	4674	6153	8125	285	7251	1382	101	12
<b>Total<sup>16</sup></b>	<b>2128</b>	<b>5913</b>	<b>4234</b>	<b>21</b>	<b>5957</b>	<b>6652</b>	<b>2169</b>	<b>13094</b>	<b>10718</b>	<b>3265</b>	<b>12007</b>	<b>15112</b>	<b>10</b>	<b>1112</b>	<b>595</b>	<b>14417</b>	<b>1429</b>	<b>5676</b>	<b>182</b>	<b>9510</b>	<b>25561</b>	<b>17726</b>	<b>708</b>	<b>14097</b>	<b>4853</b>	<b>298</b>	<b>34</b>

Table B-2 Masters and deck officers registered by EU Member States

Capacity	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
Master 3,000 GT or more	602	2025	1466	8	2537	1837	544	1796	1579	978	1343	3364	0	307	169	3830	183	1102	54	2675	6782	4701	158	2573	1526	85	5
Chief Mate 3,000 GT or more	218	549	653	1	465	361	221	1718	650	272	572	1008	0	154	12	1237	195	660	56	976	1132	2074	85	1869	616	16	1
Master less than 3,000 GT	20	31	12	0	8	377	32	131	2008	13	232	610	1	4	96	543	1	92	1	506	569	139	20	20	126	30	0
Chief Mate less than 3,000 GT	17	3	4	0	2	498	18	3394	1833	3	176	214	0	12	2	76	16	36	0	1951	2123	125	10	26	585	4	0
OOW 500 GT or more	384	4	207	0	531	26	301	230	1077	644	716	1765	0	134	38	2625	360	801	57	26	296	2512	140	2322	0	62	16
Master less than 500 GT, NCV	207	1	0	0	730	620	47	53	8	42	6732	587	0	105	89	283	21	65	0	515	5068	0	4	37	667	0	0
OOW less than 500 GT, NCV	34	0	0	0	60	645	4	0	0	8	157	173	0	1	0	43	2	9	1	255	3514	54	6	0	68	0	0
<b>Total</b>	<b>1482</b>	<b>2613</b>	<b>2342</b>	<b>9</b>	<b>4333</b>	<b>4364</b>	<b>1167</b>	<b>7322</b>	<b>7155</b>	<b>1960</b>	<b>9928</b>	<b>7721</b>	<b>1</b>	<b>717</b>	<b>406</b>	<b>8637</b>	<b>778</b>	<b>2765</b>	<b>169</b>	<b>6904</b>	<b>19484</b>	<b>9605</b>	<b>423</b>	<b>6847</b>	<b>3588</b>	<b>197</b>	<b>22</b>

<sup>16</sup> The sum of the rows may not be equal to the total because some officers held CoCs for both Deck and Engine Departments

Table B-3 Engineer officers registered by EU Member States

Capacity	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
Chief Engineer 3,000 kW or more	241	1510	1148	4	1191	1102	571	1585	1770	545	1371	2374	5	143	160	2769	142	1149	0	1888	4051	3853	97	2369	858	48	1
Second Engineer 3,000 kW or more	52	649	537	0	247	365	166	1219	389	81	561	994	0	71	11	753	194	664	0	2171	774	1385	34	1566	243	13	1
Chief Engineer less than 3,000 kW	118	42	1	0	6	209	55	110	843	45	257	526	1	6	10	298	1	98	0	78	102	111	8	7	11	10	0
Second Engineer less than 3,000 kW	15	11	2	0	0	30	7	151	364	5	73	224	0	17	0	39	11	46	0	516	0	76	4	7	23	4	0
OEW 750 kW or more	222	229	202	0	165	624	120	2607	605	505	1051	1306	0	90	14	1765	218	679	13	21	0	1202	113	1514	247	11	7
Electro-technical Officer	0	861	2	8	70	150	83	103	46	141	81	1973	3	72	3	262	87	276	0	0	1226	1498	29	1788	0	15	3
<b>Total</b>	<b>648</b>	<b>3302</b>	<b>1892</b>	<b>12</b>	<b>1679</b>	<b>2480</b>	<b>1002</b>	<b>5775</b>	<b>4017</b>	<b>1322</b>	<b>3394</b>	<b>7397</b>	<b>9</b>	<b>399</b>	<b>198</b>	<b>5886</b>	<b>653</b>	<b>2912</b>	<b>13</b>	<b>4674</b>	<b>6153</b>	<b>8125</b>	<b>285</b>	<b>7251</b>	<b>1382</b>	<b>101</b>	<b>12</b>

Table B-4 Distribution of gender groups by EU Member States

Gender	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
Female	105	13	97	0	285	243	31	364	739	172	670	74	0	47	9	293	13	38	12	236	1085	81	36	142	233	1	2
Male	2023	5900	4137	21	5672	6409	2138	12730	9979	3093	11337	15038	10	1064	586	14124	1416	5638	170	9267	24476	6459	670	13955	4620	297	32
Not available	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	0	11186	2	0	0	0	0

Table B-5 Non-EU nationals holding CoCs issued by EU Member States

Region <sup>17</sup> of Origin	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK	Total
Africa	40	0	3	0	6	8	0	0	25	13	48	30	0	31	0	0	3	0	1	2	3	66	4	0	0	0	0	<b>283</b>
Americas	170	0	1	0	2	3	1	0	30	3	10	12	0	4	0	1	0	1	1	13	16	0	15	0	0	0	0	<b>283</b>
Asia	2	0	1	0	1	13	0	0	1	9	2	10	0	20	0	0	0	0	2	7	19	4	1	0	1	0	0	<b>93</b>
Europe (non-EU)	6	30	4	0	33	74	383	0	13	8	14	51	0	45	1	0	240	222	13	6	40	152	1	31	1	4	0	<b>1372</b>
Oceania	1	0	1	0	1	1	0	0	0	1	0	0	0	7	0	0	0	1	3	2	5	0	0	0	0	0	0	<b>23</b>
<b>Total</b>	<b>219</b>	<b>30</b>	<b>10</b>	<b>0</b>	<b>43</b>	<b>99</b>	<b>384</b>	<b>0</b>	<b>69</b>	<b>34</b>	<b>74</b>	<b>103</b>	<b>0</b>	<b>107</b>	<b>1</b>	<b>1</b>	<b>243</b>	<b>224</b>	<b>20</b>	<b>30</b>	<b>83</b>	<b>222</b>	<b>21</b>	<b>31</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>2054</b>

<sup>17</sup> The grouping of countries per regions was based on the “Standard country or area codes for statistical use” established by the United Nations and the list of European countries established by the EU

Table B-6 Age distribution by EU Member States

Age	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IS	IT	LT	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK
age<25	39	5	50	0	65	84	25	1069	136	186	577	178	0	48	7	819	266	136	17	690	1654	80	29	85	42	5	0
25≤age<30	300	164	385	0	462	702	148	4012	1002	357	1355	1275	0	170	14	2132	315	436	36	1518	3790	1061	129	1155	285	22	0
30≤age<35	435	503	807	0	739	860	172	2902	1324	432	1650	2020	0	148	30	2313	281	662	34	1247	3623	1890	95	1954	503	34	5
35≤age<40	289	838	652	0	953	660	289	2463	1205	395	1758	2071	0	175	52	1959	257	777	38	1014	2691	2132	81	2875	570	31	10
40≤age<45	241	893	315	1	778	529	309	1343	1297	380	1691	2132	0	125	49	1398	178	883	22	838	2426	2585	77	1980	512	33	6
45≤age<50	178	973	128	3	588	624	218	532	1739	394	1479	2217	0	126	50	1445	54	725	12	860	2280	2322	74	1706	570	37	2
50≤age<55	195	930	101	1	575	711	241	257	1531	330	1525	1624	0	138	67	1258	29	641	9	971	2726	1873	62	1482	585	28	1
55≤age<60	195	735	331	2	598	862	253	202	1280	318	1126	1399	3	79	88	1235	17	486	2	1004	2449	1501	42	1433	612	35	2
age≥60	256	872	1465	14	1199	1620	514	314	1204	473	846	2196	7	103	238	1858	32	930	12	1368	3922	4282	119	1427	1174	73	8
<b>Total</b>	<b>2128</b>	<b>5913</b>	<b>4234</b>	<b>21</b>	<b>5957</b>	<b>6652</b>	<b>2169</b>	<b>13094</b>	<b>10718</b>	<b>3265</b>	<b>12007</b>	<b>15112</b>	<b>10</b>	<b>1112</b>	<b>595</b>	<b>14417</b>	<b>1429</b>	<b>5676</b>	<b>182</b>	<b>9510</b>	<b>25561</b>	<b>17726</b>	<b>708</b>	<b>14097</b>	<b>4853</b>	<b>298</b>	<b>34</b>

Table B-7 Age distribution by departments

Department	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Alternative certification	443	926	530	230	113	68	32	19	12	<b>2373</b>
Deck	4603	13839	15474	15435	13077	11958	10803	9773	15897	<b>110859</b>
Engine	2282	8620	9906	9252	8313	7687	7342	6732	10824	<b>70958</b>
<b>Total<sup>18</sup></b>	<b>6292</b>	<b>21219</b>	<b>24646</b>	<b>24219</b>	<b>21005</b>	<b>19325</b>	<b>17885</b>	<b>16275</b>	<b>26512</b>	<b>177378</b>

<sup>18</sup> The sum of the rows may not be equal to the total because some officers held CoCs for both Deck and Engine Departments

Table B-8 Age distribution for masters and deck officers

Capacity	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Master 3,000 GT or more	8	589	2971	5957	6438	6453	5596	4852	9359	<b>42223</b>
Chief Mate 3,000 GT or more	88	2326	4480	3373	1895	1221	806	634	948	<b>15771</b>
Master less than 3,000 GT	0	39	277	485	557	809	897	959	1598	<b>5621</b>
Chief Mate less than 3,000 GT	1580	4478	1866	940	606	504	390	328	431	<b>11123</b>
OOW 500 GT or more	1346	4294	3363	2190	1293	840	634	617	695	<b>15272</b>
Master less than 500 GT, NCV	1174	1430	1780	1837	1772	1662	1955	1868	2395	<b>15873</b>
OOW less than 500 GT, NCV	407	686	751	660	526	473	530	524	477	<b>5034</b>
<b>Total</b>	<b>4603</b>	<b>13839</b>	<b>15474</b>	<b>15435</b>	<b>13077</b>	<b>11958</b>	<b>10803</b>	<b>9773</b>	<b>15897</b>	<b>110859</b>

Table B-9 Age distribution for engineer officers

Capacity	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Chief Engineer 3,000 kW or more	6	473	2087	3843	4473	4570	4523	4164	6804	<b>30943</b>
Second Engineer 3,000 kW or more	553	2373	3353	2157	1257	855	731	679	1182	<b>13140</b>
Chief Engineer less than 3,000 kW	3	40	160	229	316	406	482	519	798	<b>2953</b>
Second Engineer less than 3,000 kW	81	179	222	224	161	181	186	185	206	<b>1625</b>
OEW 750 kW or more	1310	4785	2866	1474	953	682	465	433	561	<b>13529</b>
Electro-technical Officer	329	770	1219	1325	1154	996	956	755	1273	<b>8777</b>
<b>Total</b>	<b>2282</b>	<b>8620</b>	<b>9906</b>	<b>9252</b>	<b>8313</b>	<b>7687</b>	<b>7342</b>	<b>6732</b>	<b>10824</b>	<b>70958</b>

Table B-10 Age distribution by gender group

Gender	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Female	567	1321	1135	703	449	386	247	125	87	<b>5020</b>
Male	5659	19059	22190	22294	19057	17522	16435	15210	23737	<b>161163</b>
Not available	66	839	1321	1223	1499	1417	1203	940	2688	<b>11196</b>
<b>Total</b>	<b>6292</b>	<b>21219</b>	<b>24646</b>	<b>24219</b>	<b>21005</b>	<b>19325</b>	<b>17885</b>	<b>16275</b>	<b>26512</b>	<b>177378</b>

## Appendix C Data on masters and officers holding valid EaRs in 2024

Table C-11 EU and non-EU countries issuing the original CoCs per EU Member States issuing the EaRs

Country issuing the original CoC	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI
EU Member State	1995	0	8015	886	3988	138	2457	80	462	1425	29	303	5	379	71	3333	194	19851	3375	4934	16	6253	1	445	21
non-EU country	2714	1	21487	1650	9834	67	5897	253	350	1968	139	310	19	2124	224	2629	650	51419	9209	16414	#N/A	21087	0	527	0
Not available	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
<b>Total<sup>19</sup></b>	<b>4702</b>	<b>1</b>	<b>29488</b>	<b>2533</b>	<b>13818</b>	<b>205</b>	<b>8346</b>	<b>332</b>	<b>812</b>	<b>3393</b>	<b>168</b>	<b>612</b>	<b>24</b>	<b>2496</b>	<b>295</b>	<b>5959</b>	<b>843</b>	<b>71259</b>	<b>12576</b>	<b>21349</b>	<b>16</b>	<b>27290</b>	<b>1</b>	<b>971</b>	<b>21</b>

Table C-12 EU and non-EU countries issuing the original CoCs per departments

Country issuing the original CoC	Deck Department		Engine Department		Total <sup>20</sup> Number
	Number	Percentage	Number	Percentage	
EU Member State	27600	54.18%	23431	45.99%	<b>50946</b>
non-EU country	66969	49.00%	69771	51.05%	<b>136660</b>
<b>Total<sup>21</sup></b>	<b>94474</b>	<b>50.40%</b>	<b>93125</b>	<b>49.69%</b>	<b>187430</b>

Table C-13 Engineer officers holding EaRs registered by EU Member States

Capacity	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI
Chief Engineer 3,000 kW or more	801	0	6173	439	2018	45	1175	35	184	414	33	121	1	593	45	1075	118	12203	2366	3898	4	5481	0	179	5
Second Engineer 3,000 kW or more	438	0	2325	162	1014	9	784	10	71	249	17	56	0	182	38	533	56	6459	1008	1501	0	2198	0	43	2
Chief Engineer less than 3,000 kW	78	0	0	23	36	9	1	3	7	32	0	9	1	13	11	57	56	484	342	447	0	0	0	0	
Second Engineer less than 3,000 kW	33	0	2	8	27	0	1	0	1	3	0	2	1	11	2	24	11	335	57	51	0	0	0	0	2
OEW 750 kW or more	676	0	3677	360	3068	21	1390	87	98	659	37	26	6	568	34	685	41	10977	1324	3118	1	3211	0	135	0
Electro-technical Officer	447	0	2593	290	183	7	1507	16	23	445	16	9	0	358	29	527	11	5775	350	1673	0	2115	0	54	0
<b>Total</b>	<b>2470</b>	<b>0</b>	<b>14762</b>	<b>1282</b>	<b>6340</b>	<b>91</b>	<b>4856</b>	<b>151</b>	<b>384</b>	<b>1801</b>	<b>103</b>	<b>223</b>	<b>9</b>	<b>1725</b>	<b>159</b>	<b>2897</b>	<b>293</b>	<b>36178</b>	<b>5447</b>	<b>10676</b>	<b>5</b>	<b>12999</b>	<b>0</b>	<b>411</b>	<b>9</b>

<sup>19</sup> The sum of the rows may not be equal to the total because some officers held EaRs recognising original CoCs issued by EU Member States and non-EU countries

<sup>20</sup> The sum of the columns may not be equal to the total because some officers held EaRs for both Deck and Engine Departments

<sup>21</sup> The sum of the rows may not be equal to the total because some officers held EaRs recognising original CoCs issued by EU Member States and non-EU countries

Table C-14 Master and deck officers holding EaRs registered by EU Member States

Capacity	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI
Master 3,000 GT or more	881	0	6502	129	1591	38	983	148	118	326	25	145	1	199	37	1321	209	13185	1745	2403	7	5949	0	274	6
Chief Mate 3,000 GT or more	489	0	3138	349	1563	21	926	5	46	386	10	118	3	95	49	687	136	7065	2941	3963	4	3188	1	51	2
Master less than 3,000 GT	74	0	11	38	47	6	0	4	8	35	0	12	1	7	5	85	50	314	0	0	0	0	0	0	2
Chief Mate less than 3,000 GT	47	0	28	34	41	5	2	1	3	15	0	5	3	7	2	55	16	730	0	73	0	0	0	0	3
OOW 500 GT or more	718	1	5064	695	4109	17	1585	79	230	827	28	110	5	390	43	900	134	13564	2359	4169	0	5185	0	234	0
Master less than 500 GT, NCV	32	0	1	8	107	27	0	2	20	5	2	1	2	57	0	15	5	263	77	0	0	3	0	2	1
OOW less than 500 GT, NCV	2	0	0	2	30	0	0	1	3	0	0	0	0	18	0	7	0	26	16	87	0	1	0	0	0
<b>Total</b>	<b>2242</b>	<b>1</b>	<b>14734</b>	<b>1255</b>	<b>7480</b>	<b>114</b>	<b>3493</b>	<b>240</b>	<b>428</b>	<b>1593</b>	<b>65</b>	<b>391</b>	<b>15</b>	<b>772</b>	<b>136</b>	<b>3068</b>	<b>550</b>	<b>35101</b>	<b>7137</b>	<b>10680</b>	<b>11</b>	<b>14306</b>	<b>1</b>	<b>561</b>	<b>14</b>

Table C-15 EU Member States and EFTA countries issuing original CoCs endorsed by other EU Member States

Country issuing the original CoC	EU Member State issuing the EaR																								Total <sup>22</sup>	
	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE		SI
<b>Belgium</b>	0	0	92	7	4	0	80	3	0	229	0	0	0	28	0	606	1	70	226	4	0	50	0	1	0	<b>1260</b>
<b>Bulgaria</b>	245	0	559	33	50	0	88	1	0	79	1	2	0	130	0	92	1	2082	176	146	0	428	0	0	0	<b>3568</b>
<b>Croatia</b>	590	0	518	159	331	0	78	17	1	171	0	1	0	0	12	1079	9	2218	559	831	0	422	0	3	1	<b>5712</b>
<b>Cyprus</b>	0	0	0	1	2	0	1498	0	0	4	1	0	0	0	0	2	0	998	1	2	0	44	0	1	0	<b>2263</b>
<b>Czechia</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	6	0	0	0	<b>10</b>
<b>Denmark*</b>	8	0	30	10	0	2	0	3	2	1	0	0	3	0	2	4	0	66	141	661	0	2	0	65	0	<b>981</b>
<b>Estonia</b>	18	0	185	18	41	0	7	1	324	3	0	4	0	5	18	16	109	97	170	134	0	211	0	9	0	<b>1170</b>
<b>Finland</b>	0	0	42	1	20	66	72	0	0	1	0	0	0	0	0	1	15	74	22	163	0	20	1	210	0	<b>659</b>
<b>France</b>	32	0	50	6	0	0	0	10	0	0	0	1	1	0	0	171	0	214	62	22	0	10	0	3	0	<b>568</b>
<b>Germany</b>	14	0	144	0	119	27	0	2	1	2	0	0	0	174	0	30	0	313	165	24	0	261	0	23	1	<b>1188</b>
<b>Greece</b>	2	0	900	4	3	0	0	0	1	11	0	2	0	5	0	9	0	4628	12	2	0	68	0	2	0	<b>5522</b>
<b>Hungary</b>	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	3	0	0	0	<b>7</b>
<b>Iceland</b>	0	0	1	1	17	11	0	1	0	2	0	0	0	0	6	0	0	9	9	61	4	0	0	5	0	<b>118</b>

<sup>22</sup> The sum of the columns may not be equal to the total because some officers held EaRs issued by different EU Member States

Country issuing the original CoC	EU Member State issuing the EaR																								Total <sup>22</sup>	
	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE		SI
Ireland	4	0	53	0	8	0	0	0	0	0	0	0	0	0	0	1	0	36	20	15	1	8	0	5	0	134
Italy	9	0	155	2	6	0	0	9	2	11	1	0	0	0	0	46	0	1198	27	24	0	246	0	0	0	1687
Latvia	87	0	458	33	407	17	17	13	6	100	6	5	0	10	19	75	0	692	345	595	2	387	0	28	0	2742
Lithuania	84	0	630	58	291	7	2	4	4	19	0	36	2	3	0	166	43	231	434	215	1	465	0	10	0	2045
Malta	1	0	5	0	2	0	30	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	42
Netherlands	684	0	545	83	78	0	2	2	25	11	6	0	1	0	9	602	1	603	0	44	8	177	0	12	15	2563
Norway	1	0	127	1	22	1	0	0	13	3	0	0	0	0	1	5	0	75	18	0	0	10	0	21	0	283
Poland	144	0	2602	397	1412	2	29	1	22	86	2	249	0	0	2	215	14	2323	505	1380	0	2129	0	36	4	9726
Portugal	2	0	8	3	13	4	0	3	0	0	0	0	0	0	0	2	0	24	17	46	0	0	0	0	0	114
Romania	49	0	559	45	718	1	558	3	6	590	8	0	0	0	2	209	0	3540	368	178	0	1028	0	9	0	6697
Slovakia	0	0	4	0	5	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	7	0	0	0	17
Slovenia	4	0	28	1	1	0	1	7	0	0	4	0	0	18	0	4	0	23	12	5	0	14	0	0	0	100
Spain	17	0	257	13	21	2	0	0	1	101	0	1	0	6	0	9	0	370	59	24	0	290	0	3	0	1085
Sweden	0	0	67	9	423	0	0	1	54	0	0	1	0	0	0	1	0	89	46	794	0	10	0	0	0	1446

\*Includes Faroe Islands

Table C-16 Non-EU countries, recognised at EU level or under the process of recognition, issuing original CoCs endorsed by EU Member States

Country issuing the original CoC	EU Member State issuing the EaR																								Total <sup>23</sup>		
	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE		SI	
Algeria	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Argentina	80	0	4	0	3	0	0	25	0	0	0	0	0	0	0	66	0	47	0	87	0	2	0	0	0	301	
Australia	17	0	61	5	91	0	0	0	0	4	0	0	0	0	0	9	0	110	51	536	0	50	0	0	0	846	
Azerbaijan	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	233	0	0	0	12	0	0	250	

<sup>23</sup> The sum of the columns may not be equal to the total because some officers held EaRs issued by different EU Member States

Country issuing the original CoC	EU Member State issuing the EaR																							Total <sup>23</sup>		
	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO		SE	SI
<b>Bangladesh</b>	24	0	7	1	22	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	40	0	0	0	<b>95</b>
<b>Brazil</b>	0	0	35	0	175	0	42	0	0	0	0	0	0	0	0	12	0	3	0	383	0	20	0	0	0	<b>652</b>
<b>Cabo Verde</b>	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	5	0	0	42	0	0	0	<b>53</b>
<b>Cameroon</b>	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>3</b>
<b>Canada</b>	1	0	17	0	8	0	1	0	0	4	0	0	0	0	0	1	0	20	5	41	0	25	0	0	0	<b>122</b>
<b>Chile</b>	0	0	3	0	0	0	0	8	0	0	0	0	0	0	2	0	0	0	1	10	0	1	0	0	0	<b>25</b>
<b>China</b>	0	0	183	15	138	0	22	0	13	0	0	0	0	0	0	12	0	1021	65	484	0	192	0	0	0	<b>2091</b>
<b>Cote D Ivoire</b>	0	0	0	0	0	0	0	0	0	71	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	<b>92</b>
<b>Cuba</b>	0	0	28	0	36	0	0	50	0	0	0	0	0	0	0	0	0	80	0	0	0	60	0	0	0	<b>216</b>
<b>Ecuador</b>	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>1</b>
<b>Egypt</b>	1	0	431	8	12	0	0	0	0	42	0	0	0	0	0	142	2	580	0	0	0	169	0	0	0	<b>1359</b>
<b>Ethiopia</b>	0	0	38	1	6	0	2	0	0	0	0	0	0	0	0	4	1	67	0	0	0	150	0	0	0	<b>249</b>
<b>Fiji</b>	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>1</b>
<b>Georgia</b>	7	0	222	1	20	0	85	0	0	8	0	0	0	5	0	0	3	797	8	0	0	152	0	0	0	<b>1205</b>
<b>Ghana</b>	0	0	52	4	23	0	0	0	0	23	0	0	0	0	0	34	0	72	2	3	0	27	0	0	0	<b>225</b>
<b>Honduras</b>	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>3</b>
<b>Hong Kong</b>	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	<b>4</b>
<b>India</b>	387	0	786	26	3600	0	55	0	0	53	0	0	0	307	0	330	0	5417	30	2340	0	2198	0	0	0	<b>14903</b>
<b>Indonesia</b>	32	0	339	0	30	0	3	0	0	28	4	0	0	0	1	117	0	499	502	75	0	181	0	0	0	<b>1707</b>
<b>Iran, Islamic Republic Of</b>	1	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	30	0	0	0	<b>75</b>
<b>Israel</b>	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>32</b>
<b>Jamaica</b>	66	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	22	0	2	0	0	0	<b>93</b>
<b>Japan</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	<b>1</b>
<b>Jordan</b>	5	0	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	118	0	1	0	7	0	0	0	<b>136</b>
<b>Kazakhstan</b>	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>2</b>

Country issuing the original CoC	EU Member State issuing the EaR																								Total <sup>23</sup>	
	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE		SI
<b>Korea, Republic Of</b>	0	0	3	1	2	0	3	0	0	0	0	0	0	0	0	0	0	96	0	4	0	1	0	0	0	<b>109</b>
<b>Lebanon</b>	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	0	0	0	0	0	0	0	<b>99</b>
<b>Liberia</b>	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>3</b>
<b>Madagascar</b>	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	<b>59</b>
<b>Malaysia</b>	6	0	34	1	0	0	0	0	0	1	0	1	0	0	0	1	0	9	1	33	0	8	0	0	0	<b>95</b>
<b>Mexico</b>	4	0	58	5	33	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0	6	0	0	0	<b>105</b>
<b>Montenegro</b>	0	0	285	6	32	0	27	0	0	0	0	0	0	0	0	20	0	937	50	85	0	322	0	0	0	<b>1553</b>
<b>Morocco</b>	0	0	125	1	0	0	0	0	0	14	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	<b>144</b>
<b>Myanmar</b>	0	0	59	3	89	0	0	0	0	11	0	0	0	0	0	1	0	408	0	361	0	125	0	0	0	<b>1014</b>
<b>New Zealand</b>	6	0	30	0	41	0	0	0	0	4	0	0	0	0	0	2	0	99	40	117	0	26	0	0	0	<b>336</b>
<b>Nigeria</b>	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>8</b>
<b>Oman</b>	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	<b>3</b>
<b>Pakistan</b>	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240	0	0	0	43	0	0	0	<b>294</b>
<b>Panama</b>	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>3</b>
<b>Peru</b>	1	0	77	0	0	0	0	27	0	0	0	0	1	0	0	2	0	235	75	7	0	348	0	0	0	<b>669</b>
<b>Philippines, The</b>	494	0	8243	825	3219	0	3662	118	285	988	86	7	8	1686	13	494	0	16749	2434	7267	0	4528	0	523	0	<b>49507</b>
<b>Russian Federation</b>	225	0	4352	270	394	44	412	0	28	122	0	197	1	25	140	323	389	5827	2864	2106	0	4019	0	1	0	<b>18867</b>
<b>Senegal</b>	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>5</b>
<b>Serbia</b>	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>5</b>
<b>Singapore</b>	6	0	39	0	182	0	0	0	2	1	0	0	0	0	0	9	0	293	3	85	0	94	0	0	0	<b>691</b>
<b>South Africa</b>	1	0	4	2	108	0	0	0	0	0	0	0	0	0	0	43	0	0	31	7	0	31	0	0	0	<b>219</b>
<b>Sri Lanka</b>	3	0	89	1	64	0	0	0	0	0	0	0	0	0	0	0	0	576	0	14	0	288	0	0	0	<b>921</b>
<b>Switzerland</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	<b>1</b>
<b>Thailand</b>	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>1</b>

Country issuing the original CoC	EU Member State issuing the EaR																								Total <sup>23</sup>	
	BE	BG	CY	DE	DK	EE	EL	ES	FI	FR	HR	IE	IS	IT	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE		SI
<b>Trinidad And Tobago</b>	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>1</b>
<b>Tunisia</b>	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	<b>28</b>
<b>Turkiye</b>	0	0	19	7	15	0	0	1	1	0	0	0	0	0	39	0	5665	11	25	0	571	0	0	0	<b>6181</b>	
<b>Ukraine</b>	1235	1	5019	444	765	19	1569	12	16	483	49	47	6	54	70	737	244	9363	2677	1313	0	6825	0	0	0	<b>25812</b>
<b>United Arab Emirates, The</b>	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>2</b>
<b>United Kingdom</b>	105	0	658	18	725	2	19	1	4	53	0	58	1	47	0	126	8	1575	247	548	0	428	0	2	0	<b>4374</b>
<b>United States Of America</b>	6	0	15	4	9	0	0	0	0	0	0	0	0	0	0	0	0	54	1	8	0	0	0	0	0	<b>96</b>
<b>Uruguay</b>	0	0	3	0	0	0	1	11	0	3	0	0	0	0	0	2	0	2	0	4	0	1	0	0	0	<b>26</b>
<b>Venezuela, Bolivarian Republic Of</b>	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	<b>1</b>
<b>Viet Nam</b>	0	0	57	0	6	0	0	0	0	0	0	0	0	0	0	6	0	119	93	18	0	79	0	0	0	<b>368</b>

Table C-17 Age distribution of holders of EaRs by departments

Department	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Deck	1584	11288	17689	18184	14446	12051	8030	5090	6112	<b>94474</b>
Engine	1202	9333	16166	16289	12884	10495	9977	7992	8787	<b>93125</b>
<b>Total<sup>24</sup></b>	<b>2780</b>	<b>20596</b>	<b>33816</b>	<b>34442</b>	<b>27310</b>	<b>22526</b>	<b>17993</b>	<b>13076</b>	<b>14891</b>	<b>187430</b>

Table C-18 Age distribution for engineer officers holding EaRs

Capacity	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Chief Engineer 3,000 kW or more	2	109	1607	4577	5839	5697	5741	4620	5695	<b>33887</b>
Second Engineer 3,000 kW or more	37	928	3701	4331	2351	1396	1189	848	786	<b>15567</b>
Chief Engineer less than 3,000 kW	0	20	88	174	186	209	240	268	345	<b>1530</b>
Second Engineer less than 3,000 kW	12	46	98	119	79	61	52	39	52	<b>558</b>
OEW 750 kW or more	904	7199	8726	4816	2350	1531	1303	824	608	<b>28261</b>
Electro-technical Officer	252	1146	2226	2560	2290	1722	1570	1469	1387	<b>14622</b>
<b>Total</b>	<b>1202</b>	<b>9333</b>	<b>16166</b>	<b>16289</b>	<b>12884</b>	<b>10495</b>	<b>9977</b>	<b>7992</b>	<b>8787</b>	<b>93125</b>

Table C-19 Age distribution for masters and deck officers holding EaRs

Capacity	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Master 3,000 GT or more	5	165	1548	5025	6485	6764	5184	3579	4773	<b>33528</b>
Chief Mate 3,000 GT or more	80	1362	5337	6555	3937	2624	1524	845	743	<b>23007</b>
Master less than 3,000 GT	0	4	48	79	109	97	97	99	143	<b>676</b>
Chief Mate less than 3,000 GT	54	382	256	131	70	53	44	33	37	<b>1060</b>
OOW 500 GT or more	1445	9461	10794	6719	4074	2625	1247	534	414	<b>37313</b>
Master less than 500 GT, NCV	2	20	88	95	107	83	70	68	78	<b>611</b>
OOW less than 500 GT, NCV	2	35	42	33	15	21	13	17	14	<b>192</b>
<b>Total</b>	<b>1584</b>	<b>11288</b>	<b>17689</b>	<b>18184</b>	<b>14446</b>	<b>12051</b>	<b>8030</b>	<b>5090</b>	<b>6112</b>	<b>94474</b>

<sup>24</sup> The sum of the rows may not be equal to the total because some officers held EaRs for both Deck and Engine Departments

Table C-20 Age distribution of officers holding EaRs by gender group

Gender	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Female	91	750	616	278	147	77	40	24	17	<b>2040</b>
Male	2689	19854	33204	34165	27163	22448	17952	13055	14874	<b>185404</b>
Not available	0	0	2	1	3	2	1	1	2	<b>12</b>
<b>Total</b>	<b>2780</b>	<b>20596</b>	<b>33816</b>	<b>34442</b>	<b>27310</b>	<b>22526</b>	<b>17993</b>	<b>13076</b>	<b>14891</b>	<b>187430</b>

Table C-21 Age distribution by region of the country issuing the original CoC

Region <sup>25</sup> of the country issuing the original CoC	age<25	25≤age<30	30≤age<35	35≤age<40	40≤age<45	45≤age<50	50≤age<55	55≤age<60	age≥60	Total
Asia	304	8139	15400	13914	10795	9306	7178	3998	3092	<b>72126</b>
EU	760	5380	7848	8172	7153	6149	4803	4310	6371	<b>50946</b>
Europe (non-EU)	1651	6378	9253	11203	8639	6552	5598	4406	4955	<b>58635</b>
Rest of the World	71	728	1361	1209	763	539	431	373	477	<b>5952</b>
<b>Total</b>	<b>2780</b>	<b>20595</b>	<b>33815</b>	<b>34442</b>	<b>27310</b>	<b>22526</b>	<b>17992</b>	<b>13076</b>	<b>14889</b>	<b>187425</b>

<sup>25</sup> The grouping of countries per regions was based on the “Standard country or area codes for statistical use” established by the United Nations and the list of European countries established by the EU

## Appendix D Data on ratings holding valid CoPs in 2024

Table D-22 Ratings holding CoPs registered by EU Member States

Capacity	BE	DE	EE	ES	FI	FR	HR	IS	IT	LT	LV	NO	PL	RO	SE	SK
Able seafarer deck	0	39	945	415	883	446	637	15	3670	86	1917	8189	6131	1115	2889	3
Rating forming part of a navigational watch	911	2357	930	4587	1245	1874	3201	86	3021	206	759	5265	11130	734	2282	11
Able seafarer engine	0	17	977	137	507	206	164	3	1319	8	664	1572	612	485	689	1
Rating forming part of an engineering watch	234	530	0	2518	944	1183	1393	41	1335	71	441	1187	4902	1073	634	11
Electro-technical rating	0	137	83	156	465	241	1659	0	741	24	28	1341	455	721	231	1
Dual-purpose rating (VII)	1	2457	0	0	1919	0	0	0	0	0	0	0	0	0	0	0
<b>Total<sup>26</sup></b>	<b>1131</b>	<b>5414</b>	<b>2414</b>	<b>6863</b>	<b>4494</b>	<b>3286</b>	<b>6196</b>	<b>120</b>	<b>8098</b>	<b>372</b>	<b>3623</b>	<b>15358</b>	<b>16273</b>	<b>3585</b>	<b>5851</b>	<b>27</b>

<sup>26</sup> The sum of the rows may not be equal to the total because some ratings held CoPs for both Deck and Engine Departments

## Appendix E Masters and officers summary overview – Forecast for 2025 and 2026

Table E-23 Forecast for the next two years of masters and officers holding CoCs issued by the top 5 EU and top 5 non-EU countries

Forecast -Year <sup>27</sup>	HR	IN	IT	NO	PH	PL	RO	RU	TR	UA
<b>2025</b>										
Linear Forecast	4.90%	4.77%	4.81%	8.22%	16.22%	5.41%	4.90%	6.09%	1.91%	8.04%
ETS Forecast	4.85%	4.99%	4.78%	8.25%	16.36%	5.48%	4.80%	6.08%	1.98%	8.14%
ETS Confidence bound (±)	0.39%	0.51%	0.96%	1.03%	2.04%	0.58%	0.55%	0.59%	0.43%	0.89%
<b>2026</b>										
Linear Forecast	4.92%	5.01%	4.84%	8.62%	16.70%	5.21%	5.01%	6.16%	1.92%	8.09%
ETS Forecast	4.86%	5.23%	4.81%	8.65%	16.83%	5.27%	4.92%	6.15%	1.99%	8.19%
ETS Confidence bound (±)	0.52%	0.68%	0.99%	1.03%	2.06%	0.72%	0.61%	0.80%	0.58%	1.00%

Table E-24 Forecast for the next two years of officers at management and operational level available to serve on board EU Member State flagged vessels

Forecast -Year <sup>28</sup>	Deck ML	Engine ML	Deck OL	Engine OL
<b>2025</b>				
Linear Forecast	41.45%	26.53%	14.79%	19.63%
ETS Forecast	41.62%	26.66%	15.84%	18.64%
ETS Confidence bound (±)	2.62%	0.60%	1.36%	0.73%
<b>2026</b>				
Linear Forecast	41.51%	26.23%	14.60%	20.17%
ETS Forecast	41.67%	26.39%	15.65%	19.17%
ETS Confidence bound (±)	2.62%	0.97%	1.70%	0.98%

<sup>27</sup> The values presented are the % of master and officers holding CoCs issued by the specific country among the total number of masters and officers available to serve on board EU Member State flagged vessels for the year forecasted

<sup>28</sup> The values presented are the % of officers by department and level of responsibility among the total number of masters and officers available to serve on board EU Member State flagged vessels for the year forecasted

Table E-25 Forecast for the next two years of female officers available to serve on board EU Member State flagged vessels

Forecast -Year <sup>29</sup>	EU	Non-EU	All
<b>2025</b>			
Linear Forecast	2.85%	0.87%	1.96%
ETS Forecast	3.08%	0.87%	1.98%
ETS Confidence bound (±)	0.18%	0.05%	0.14%
<b>2026</b>			
Linear Forecast	2.93%	0.92%	2.01%
ETS Forecast	3.16%	0.94%	2.03%
ETS Confidence bound (±)	0.25%	0.05%	0.14%

Table E-26 Forecast for the next two years of the top 10 nationalities of masters and officers available to serve on board EM Member State flagged vessels

Forecast -Year <sup>30</sup>	EL	HR	IN	IT	NO	PH	PL	RO	RU	UA
<b>2025</b>										
Linear Forecast	7.20%	4.80%	3.99%	4.91%	7.71%	14.52%	5.54%	4.92%	5.18%	8.17%
ETS Forecast	6.27%	4.76%	4.09%	4.88%	7.56%	14.59%	5.57%	4.82%	5.33%	8.47%
ETS Confidence bound (±)	2.34%	0.38%	1.34%	0.95%	2.60%	2.06%	0.60%	0.54%	0.52%	0.87%
<b>2026</b>										
Linear Forecast	7.31%	4.81%	3.77%	4.95%	8.37%	14.86%	5.45%	5.03%	5.16%	8.24%
ETS Forecast	6.38%	4.77%	3.87%	4.92%	8.22%	14.92%	5.48%	4.94%	5.31%	8.54%
ETS Confidence bound (±)	2.62%	0.52%	1.34%	0.98%	2.61%	2.13%	0.62%	0.61%	0.70%	1.18%

<sup>29</sup> The values presented are the % of female officers among the total number of masters and officers holding CoCs issued by EU or non-EU countries or available to serve on board EU Member State flagged vessels for the year forecasted

<sup>30</sup> The values presented are the % of master and officers nationals of the specific country among the total number of masters and officers available to serve on board EU Member State flagged vessels for the year forecasted

Table E-27 Forecast for the next two years of the nationalities by region of origin of masters and officers available to serve on board EM Member State flagged vessels

Forecast -Year <sup>31</sup>	Asia	EU	Europe (non-EU)	rest of the world
<b>2025</b>				
Linear Forecast	20.11%	55.09%	16.96%	1.43%
ETS Forecast	20.93%	54.00%	17.56%	1.49%
ETS Confidence bound (±)	2.73%	3.25%	1.73%	0.39%
<b>2026</b>				
Linear Forecast	20.05%	54.64%	17.09%	1.38%
ETS Forecast	20.87%	53.55%	17.69%	1.44%
ETS Confidence bound (±)	3.05%	4.37%	2.33%	0.40%

Table E-28 Forecast for the next two years concerning the average age of masters and officers available to serve on board EU Member State flagged vessels

Forecast -Year <sup>32</sup>	EU	Non-EU	All
<b>2025</b>			
Linear Forecast	43.9	40.9	42.6
ETS Forecast	44.0	40.9	42.6
ETS Confidence bound (±)	0.6	0.5	0.4
<b>2026</b>			
Linear Forecast	43.9	40.9	42.6
ETS Forecast	44.0	41.0	42.6
ETS Confidence bound (±)	0.6	0.5	0.4

<sup>31</sup> The values presented are the % of master and officers nationals of countries included in the specific region of origin among the total number of masters and officers available to serve on board EU Member State flagged vessels for the year forecasted

<sup>32</sup> The values presented are the average age of masters and officers among the total number of masters and officers holding CoCs issued by EU or non-EU countries or available to serve on board EU Member State flagged vessels for the year forecasted

Table E-29 Forecast for the next two years concerning the average age of officers at management and operational level available to serve on board EU Member State flagged countries

Forecast -Year <sup>33</sup>	EU ML	non-EU ML	All ML	EU OL	non-EU OL	All OL
<b>2025</b>						
Linear Forecast	45.5	44.9	45.2	37.9	36.5	37.0
ETS Forecast	45.4	45.0	45.3	37.9	36.5	37.1
ETS Confidence bound (±)	0.4	0.7	0.4	0.6	0.6	0.5
<b>2026</b>						
Linear Forecast	45.4	45.0	45.2	38.1	36.6	37.2
ETS Forecast	45.4	45.1	45.2	38.1	36.6	37.2
ETS Confidence bound (±)	0.4	0.8	0.4	0.6	0.6	0.5

<sup>33</sup> The values presented are the average age of officers by department and level of responsibility among the total number of masters and officers holding CoCs issued by EU or non-EU countries or available to serve on board EU Member State flagged vessels for the year forecasted

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