

GENDER EQUALITY IN THE BLUE ECONOMY: BALTIC SEA BASIN REPORT

Sea Basin Report



Co-funded by
the European Union

Project no. 101111985

Project acronym: WIN-BIG

Project title: **Women in Blue Economy Intelligence Gathering and Capacity Boosting**

Call: EMFAF-2022-PIA-WBE

Start date of project: 01.05.2023

Duration: 36 months

Deliverable title: D2.2 (*Women in EU Blue Economy Reports*)

Due date of deliverable: 31.12.2025

Actual date of submission: 30.01.2026

Deliverable Lead Partner: **University of Galway**

Dissemination level: Public

Citation: WIN-BIG BALTIC SEA BASIN BLUE ECONOMY GENDER STATUS REPORT 2025, WIN-BIG D2.2, 84 pp. Available at: <https://winbigproject.eu/resources/publications>

Author list

Name	Organisation
Hasmik Grigoryan	University of Galway
Edel Doherty	University of Galway
Stephen Hynes	University of Galway
Jenny O'Leary	Marine Institute
Ingrid Mateo Mantecón	Universidad de Cantabria
Mariana Almeida	University of Aveiro
Liliana Silva	University of Aveiro
Helena Vieira	University of Aveiro
Gloria Bevilacqua	Geonardo
Ömer Ceylan	Geonardo

Document History			
Version	Date	Note	Revised by
01	08.10.2025	1st Draft of Report made available to coordinator	Hasmik Grigoryan, Edel Doherty, Ingrid Mateo Mantecón and Stephen Hynes
02	17.10.2025	Reviewed Draft by the Coordinator sent to UoG Team	Helena Vieira, Mariana Dias Almeida and Liliana Garrido Silva
03	09.12.2025	Revised Draft sent back to Coordinator by UoG Team	Hasmik Grigoryan, Edel Doherty, Ingrid Mateo Mantecón and Stephen Hynes
04	08.01.2026	Reviewed Draft2 by the Coordinator sent to UoG Team	Helena Vieira, Mariana Dias Almeida and Liliana Garrido Silva
05	13.01.2026	Final Version of Report sent to GEO	Helena Vieira, Mariana Dias Almeida Liliana Garrido Silva, Gloria Bevilacqua, Ömer Ceylan
06	30.01.2026	Final Version of Report	All
07	25.02.2026	Revised Final Version (V2)	Hasmik Grigoryan, Edel Doherty and Stephen Hynes, Helena Vieira, Mariana Dias Almeida, Gloria Bevilacqua, Ömer Ceylan
08	24/04/2026	Re-Revised Version (V3) after Project officer comments and suggestions	Hasmik Grigoryan, Edel Doherty and Stephen Hynes, Helena Vieira, Mariana Dias Almeida, Gloria Bevilacqua, Ömer Ceylan

Acknowledgement

This project has received funding from the European Union's EMFAF programme under grant agreement No 101111985.

Disclaimer

The content of the publication herein is the sole responsibility of the publishers and it does not necessarily represent the views expressed by the European Commission or its services.

Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Union or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

While the information contained in the document is believed to be accurate, the authors(s) or any other participant in the WIN-BIG consortium makes no warranty of any kind with regards to this material including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

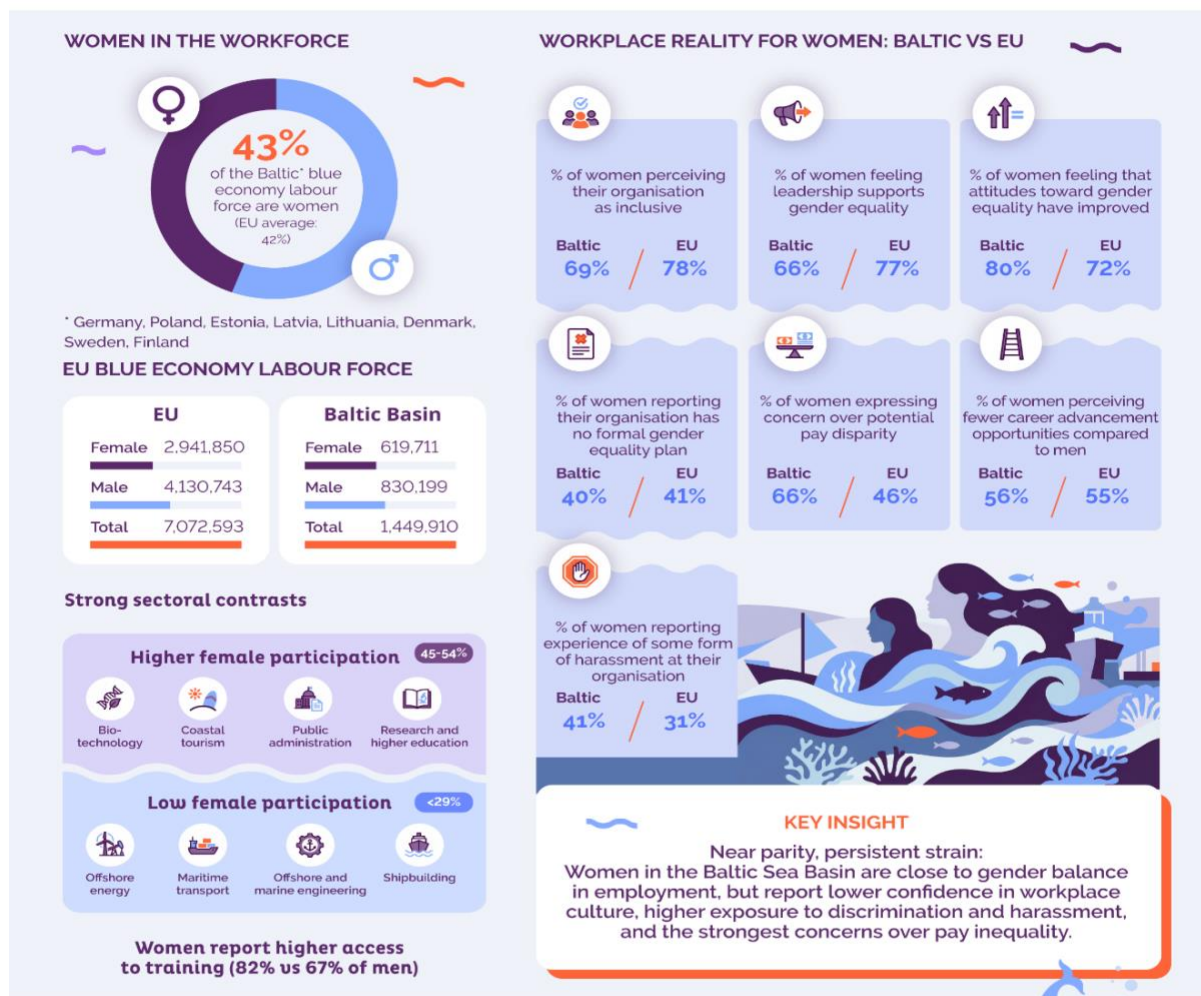
Without derogating from the generality of the foregoing neither the WIN-BIG Consortium nor any of its members, their officers, employees or agents shall be liable for any direct or indirect or consequential loss or damage caused by or arising from any information advice or inaccuracy or omission herein.

Copyright notice

© WIN-BIG Consortium, 2023-2026. This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation, or both. Reproduction is authorized provided the source is acknowledged.

Executive Summary

NAVIGATING THE TIDES OF INEQUALITY: Women in the Baltic Blue Economy



CHARTING THE COURSE: POLICY RECOMMENDATIONS FOR EQUALITY

- **Gender-disaggregated data:** Mandate harmonised EU-wide reporting on employment, pay, and career progression by gender across blue economy sectors. Use the data to track progress and inform targeted policy action.
- **Pay and promotion transparency:** Introduce mandatory transparency in pay structures and promotion criteria. Use audits and reporting to address gender pay gaps and unequal advancement.
- **Gender equality plans:** Require organisations to adopt formal gender equality plans with measurable targets, timelines, and accountability mechanisms. Link implementation to monitoring and compliance frameworks.
- **Training and mentorship in STEM and offshore sectors:** Invest in targeted training, upskilling, and mentorship for women in STEM-intensive and offshore industries. Prioritise pathways into technical and leadership roles in high-growth blue sectors.
- **Zero tolerance for harassment:** Enforce zero-tolerance standards through clear reporting channels, independent procedures, and protection for complainants. Make safe workplaces a non-negotiable condition for sector growth.
- **Inclusive education and awareness:** Strengthen education and awareness campaigns highlighting the economic and innovation benefits of gender parity.

Introduction



Co-funded by
the European Union

The goal of the WIN-BIG project is to advance our understanding of existing gender issues and capacity needs across the EU's blue economy, with a particular focus on emerging and high-tech related industries. Three major challenges have been identified by WIN-BIG: a lack of gender disaggregated statistics, the underrepresentation of women in certain blue economy sectors, and insufficient opportunities for women. Such challenges can act as barriers to female empowerment and limit their access to career advancement and leadership roles.

The WIN-BIG project strives to shed light on gender inequalities in the blue economy sectors within six different Sea Basins in Europe, using data collected from a bespoke survey designed for this project. The survey results are used to identify institutional and industry factors that impact female career advancement. The research also produces estimates of the labour force in the blue economy disaggregated by sex. The following report provides a first set of data on the current gender status for the Baltic Sea Basin -comprising Germany, Poland, Estonia, Latvia, Lithuania, Denmark, Sweden, Finland. The project has also produced separate reports for: the Atlantic, Arctic, the Black Sea, the Mediterranean and the North Sea Basins.

Methodology

The methodology of the WIN-BIG Survey combined both quantitative and qualitative research approaches to assess gender inequalities across the EU blue economy. A multilingual online survey was developed through an iterative process informed by desk research, focus groups, and stakeholder consultations, ensuring cultural and linguistic clarity across seven languages. The final questionnaire included seven sections covering respondents' industry characteristics, work arrangements, gender culture, career progression, gender policies, and personal demographics, with one section dedicated to female respondents only.

The survey was distributed between March 2024 and November 2025 via email, social media, and events, collecting 1,084 responses (140 from the Baltic Area). To ensure the survey captures issues that affect women differently compared to men, responses from both males and females were collected. Data were processed in compliance with GDPR, analysed using Excel and STATA, and weighted post-stratification techniques were applied to adjust for representativeness across industries, countries, and gender. Additionally, official EU data sources were used to estimate total employment and gender distribution across blue economy sectors, with proxy estimates applied when direct data were unavailable.

Results for the Baltic Sea Basin

In the Baltic Sea Basin:

- Females represent **43% of the total blue economy labour force** across Germany, Poland, Estonia, Latvia, Lithuania, Denmark, Sweden, Finland.

Notable sectoral disparities exist, with

- Female participation highest in **biotechnology, coastal tourism, public administration, and research and higher education** sectors where women comprise **45-54%** of the workforce.
- Female representation falling below **29%** in traditionally male-dominated fields such as **offshore energy, maritime transport, offshore/marine engineering, and shipbuilding**.

These patterns mirror global findings from the **World Economic Forum's 2025 Global Gender Gap Report**, which notes that gender parity remains uneven across STEM-intensive and leadership roles, with Europe still requiring nearly **eight decades to close the gap at current rates**.

Workplace Culture

The findings from the WIN-BIG survey present a mixed picture for the Baltic Sea Basin with:

- **69%** of female respondents perceiving their **organisations as inclusive** and **66%** believing **leadership supports gender equality**.
- **However, 26%** of female respondents report direct experiences of **gender discrimination** and
- **43%** have suffered some form of **harassment within their organisations**—more than double the rate of male respondents.
- Despite widespread access to flexible working arrangements reported, **8%** of female respondents find it **difficult to achieve work-life balance** and **24% neither agreed nor disagreed about this aspect**.
- Female respondents report **less access to available career opportunities** than males (57% female vs. 68% males) and perceive **fewer promotion opportunities** (56% of female respondents feel they have fewer promotion opportunities than males).
- At the same time **higher percentage of females reported access to training** (82% of female vs. 67% males) and **mentoring** (73% of female versus 65% males).

These findings align with global gender gap research showing that women's underrepresentation in leadership stems from systemic barriers in career progression and equal pay.

The perception gap between male and female respondents is also notable:

- while a higher percentage of females believe gender balance policies exist in hiring (44% female vs. 36% male), **40%** say their **organisations lack a formal gender plan**, compared to 13% of men.



- **66%** of female respondents **suspect or are unsure they are paid less than male colleagues** doing the same job. Despite **80%** of women **acknowledging that attitudes toward gender equality have improved**, slightly more than half believe it will take **more than 10 years to reach parity within their industries**.

These results echo global findings by the **OECD (2025)** and **UN Women (2024)**, which emphasize that while legislative progress and awareness have advanced gender equality frameworks, persistent structural and cultural barriers—particularly around pay transparency, career progression, and representation in STEM—continue to slow real parity in the workforce.

How the Baltic area compares with the total sample (including all sea-basins listed above).

In total, WIN-BIG estimates that 7,072,593 people are working in the EU blue economy sectors, out of which 42% are female. In the Baltic Sea Basin, a total of 1,449,910 people work in the blue economy, out of which 619,711 (43%) are women.

EU Blue Economy Labour Force				
	Female	Male	Total	% Female
Blue Economy EU Total	2,941,850	4,130,743	7,072,593	42%
Blue Economy Baltic Basin	619,711	830,199	1,449,910	43%

In the **Baltic Sea Basin women** are **less positive** than the **total female sample** regarding the **culture** and **inclusivity** at their **workplace**. Findings about the **availability of career advancement opportunities and gender policy in the Baltic Sea Basin** mirror the overall proportions of the **total sample**.

- **69%** of female respondents in the **Baltic region** report their **organizations** are **friendly** and **inclusive**, compared to **78%** in the **total sample**.
- In the **Baltic sample**, **66%** of female respondents believe leadership supports **gender equality**, compared to **77%** of females across the **total sample**.
- Approximately **15%** of the **total sample** and **25%** in the **Baltic sample** reported having experienced **gender discrimination** at work.
- In the **total sample**, **31%** of respondents **reported harassment**, while in the **Baltic**, **41%** of respondents reported experience of some form of **harassment at their organization**; 43% of females in the Baltic and almost **half of females** in the total samples have experienced **harassment**.



- Among **females**, **55%** of **total sample** perceive **fewer career advancement opportunities** compared to men. In the **Baltic Basin**, **56% of females** share this view.
- **41% of females** in the **total sample** and **40%** of **females** in the **Baltic Basin** noted their organisations **do not** have a formal **gender plan**.
- A significant percentage of women in the Blue Economy express concern over **potential pay disparity**: **46% of females** in the **total sample** compared to **66% females** in the **Baltic Basin**.

Across the **total sample**, **72% of female respondents** feel that **attitudes** toward gender equality have **improved**, this compares to **80%** in the **Baltic Sea Basin**.

Conclusions

The findings indicate:

- **Progress in promoting gender equality** within the Baltic blue economy; however, **persistent significant structural and perceptual barriers** remaining that continue to impede parity.
- Women are prominently represented in service-oriented and academic sectors; however, they remain **underrepresented in STEM-intensive and offshore industries**, where **advancement opportunities are often limited**.
- Despite overall positive perceptions of inclusivity and leadership commitment to equality, **many women continue to experience discrimination, harassment, and unequal access** to opportunities and promotion pathways.

These findings suggest that gender equality strategies in the **blue economy must evolve beyond policy adoption** towards active **implementation, monitoring, and accountability** to ensure measurable progress in representation, pay, and leadership equity.

Policy Recommendations



This report also provides guidance on potential policy frameworks aimed at further narrowing the gender gap within the Baltic Sea Basin blue economy. Suggested policy recommendations at European level call for:

- the **systematic collection of gender-disaggregated data** across blue economy sectors, supported by a harmonised and mandatory EU-wide reporting framework, to track workforce composition and career outcomes more accurately.
- the introduction or strengthening of **formal gender equality plans** in organisations.
- enforcing **zero-tolerance policies toward harassment**.
- enhancing **transparency in pay and promotion criteria**.
- expanding **training initiatives and mentorship programmes for women**, particularly in STEM and **emerging blue sectors** like marine renewable energy and biotechnology, to improve women's access to technical and leadership roles.
- expanding **inclusive education and awareness campaigns** that target both men and women to highlight the economic and innovation benefits of gender parity.

Ultimately, accelerating equality in the blue economy will require sustained political commitment, evidence-based policy design, and coordinated action across EU institutions, member states, and industry partners to close the remaining gender gaps within a generation.



Table of Contents

Introduction	17
Methodology	24
Questionnaire Design	24
Data collection.....	26
Weighting and analysis	26
Survey Results	28
SUMMARY OF WIN-BIG SURVEY RESPONDENTS DEMOGRAPHIC STATISTICS.....	28
GEOGRAPHICAL DISTRIBUTION OF WIN-BIG SURVEYED INDUSTRIES AND FIRMS.....	32
WORKING ARRANGEMENTS AND CULTURE	38
GENDER CULTURE OF THE ORGANISATION	44
PERCEPTION OF OPPORTUNITIES	48
GENDER BIAS POLICIES AND FRAMEWORKS IN THE WORKFORCE	55
PERCEPTION OF BARRIERS	59
FEMALE PERCEPTIONS OF GENDER INEQUALITIES	66
Conclusions.....	76
Policy recommendations	78
References	80



List of Tables

Table 1 EU Sea Basins (according to the EU Baseline Studies for the Ocean and Waters Mission). 20

Table 2 Number of employees across the Blue Economy sectors, broken down by gender..... 22

Table 3 Survey sample per sector (unweighted) across the EU sea basins 29

Table 4 Personal demographic information of respondents the percentage for the total sample and the Baltic Sea Basin 30

Table 5 Country and Industry where the respondents’ work: Baltic Sea Basin..... 32

Table 6 Baltic Sea Basin responses to the WIN-BIG Survey question: “Experience of harassment at organisation and industry levels” 45

Table 7 Baltic Sea Basin responses to the WIN-BIG Survey question: “What are/were the biggest challenges to progression you have faced in pursuing your career?” 54

Table 8 Baltic Sea Basin responses to the WIN-BIG Survey question: “How long do you think it will be until gender diversity in your industry is equal? (comparison across countries)” 74



List of Figures

Figure 1 Current estimate of years needed to close the Gender Gap across the world (adapted from the World Gender Gap Report 2025).	17
Figure 2 Blue economy sectors and industries adopted in this study.	19
Figure 3 Distribution of the workforce across the Baltic Sea countries.....	23
Figure 4 Stepwise methodology followed in this study.	24
Figure 5 Distribution of gender of respondents across the sea basins (unweighted).....	28
Figure 6 Baltic Sea Basin Respondents Gender distribution across the Baltic Sea countries.....	33
Figure 7 Information on the organisation type (A) and size (B) among respondents (Baltic Sea Basin)	34
Figure 8 Baltic Sea Basin Respondents Gender breakdown by organisation type (Baltic Sea Basin)	35
Figure 9 Baltic Sea Basin Respondents Gender breakdown by size of organisation Baltic Sea Basin	36
Figure 10 Baltic Sea Basin responses to the WIN-BIG Survey question: “Approximately what percentage (0 – 100) of the persons employed are female?”	36
Figure 11 Employment characteristics of respondents (Baltic Sea Basin respondents)	38
Figure 12 Baltic Sea Basin Respondents Gender breakdown by sector	39
Figure 13 Baltic Sea Basin responses to the WIN-BIG Survey question: “It is possible to strike an appropriate balance between my work and home life”	40
Figure 14 Baltic Sea Basin responses to the WIN-BIG Survey question: “At my work, there are flexible working arrangements available that are suitable to my needs.”	41
Figure 15 Baltic Sea Basin responses to the WIN-BIG Survey question: “If you have taken carer’s leave do you believe it has had a negative impact on your career progression?”	42
Figure 16 Baltic Sea Basin responses to the WIN-BIG Survey question: “The prevailing culture and atmosphere in my organisation/firm is inclusive and friendly to all.”	43

Figure 17 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have experienced gender discrimination within my organisation/firm.”	44
Figure 18 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have witnessed gender discrimination within my organisation/firm.”	45
Figure 19 Baltic Sea Basin responses to the WIN-BIG Survey question: “Experience of harassment at organisation level” broken down by sector	46
Figure 20 Baltic Sea Basin responses to the WIN-BIG Survey question: “Leadership in my organisation/firm is committed to Gender Equality, Diversity and Inclusion”	47
Figure 21 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career’s aspirations.”	49
Figure 22 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career aspirations: broken down by sectors.”	50
Figure 23 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career aspirations: breakdown of responses across types of organisation.”	50
Figure 24 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career aspirations: breakdown of responses across organisations of different size.”	51
Figure 25 Baltic Sea Basin responses to the WIN-BIG Survey question: “The process of applying for an internal vacancy is fair and transparent?”	51
Figure 26 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the training I need to support my career aspirations.”	52
Figure 27 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the mentoring (formal or informal) I need to support my career aspirations.”	53
Figure 28 Baltic Sea Basin responses to the WIN-BIG Survey question: “My direct supervisor supports my career aspirations.”	53
Figure 29 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation has a strategy or formal policy related to gender balance in hiring processes?”	55

Figure 30 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation have a strategy or formal policy related to gender balance in hiring processes? (Broken down by sector)”	56
Figure 31 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation have a formal gender policy/plan?”	57
Figure 32 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation have a formal gender policy/plan? (broken down by sector)”	58
Figure 33 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation formally or informally support the promotion and advancement of women?” ..	58
Figure 34 Baltic Sea Basin responses to the WIN-BIG Survey question: “In your opinion, do barriers exist preventing women being promoted to senior positions in your firm/organisation?”	59
Figure 35 Baltic Sea Basin responses to the WIN-BIG Survey question: “In your opinion, do barriers exist preventing women being promoted to senior positions in your firm/organisation? (broken down by sector)”	60
Figure 36 Baltic Sea Basin responses to the WIN-BIG Survey question: “In your opinion, do barriers exist preventing women being promoted to senior positions in your firm/organisation?” (broken down by type of organisation (A) and firm size (B)).....	61
Figure 37 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you have any women managers in the firm/organisation?”	62
Figure 38 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you personally have any women role models in the firm/organisation?”	62
Figure 39 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you personally have any women role models in the firm/organisation? (broken down by sector)”	63
Figure 40 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you personally have any women role models in the firm/organisation? (broken down by organisation type and firm size)” ..	64
Figure 41 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does the social structures in the country where your firm is based (the norms/patterns of relations between family, religion, economic, political and education institutions of the society) impact on the achievement of gender equality in your industry?”	65

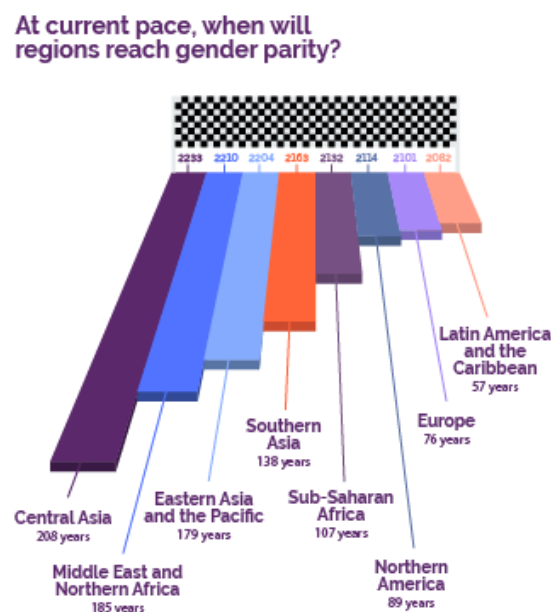
Figure 42 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel you are treated the same as men in your workplace?” Female responses only.	67
Figure 43 Baltic Sea Basin responses to the WIN-BIG Survey question: “If you are treated differently, how often does this happen?”. Female responses only.....	68
Figure 44 Baltic Sea Basin responses to the WIN-BIG Survey question: “ In comparison with your male counterparts do you feel that you have more, less, or equal promotion opportunities in your industry?”. Female responses only.....	68
Figure 45 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career?”. Female responses only.....	69
Figure 46 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career? (broken down by sector)”. Female responses only.....	70
Figure 47 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career? (broken down by age)”. Female responses only.	71
Figure 48 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career? (broken down by employment level)”. Female responses only.....	71
Figure 49 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you think you are currently being paid less than your male colleagues, doing the same job, in your industry?”. Female responses only.....	72
Figure 50 Baltic Sea Basin responses to the WIN-BIG Survey question: “If required for your work, are you provided with the right equipment (including the right size/fit) to carry out your role, including Personal Protective Equipment (PPE) (by sector)?”. Female responses only.	73
Figure 51 Baltic Sea Basin responses to the WIN-BIG Survey question: “How long do you think it will be until gender diversity in your industry is equal?” Female responses only	73
Figure 52 Baltic Sea Basin responses to the WIN-BIG Survey question: “How long do you think it will be until gender diversity in your industry is equal?: female responses only (broken down by sector)	75

Introduction

The WIN-BIG project addresses the lack of knowledge on the role women play in the EU Blue Economy sectors. It provides data on women's status and skill gaps that prevent women from entering or progressing up the career ladder. In addition to data gathering, the project provides capacity building, focusing on the EU three emergent sectors, blue bioeconomy, blue sports and coastal tourism and marine renewable energy and robotics. The WIN-BIG project also champions blue female role models using innovative media format. These objectives are in line with the EU goals.

Gender equality and advancing women's rights are normative values of the EU and have been recognized as economic and strategic investments. (European Commission, 2025; OECD, 2025). Various pieces of legislation have been adopted in recent years, such as the Directives on Work-Life Balance, Pay Transparency, and Gender Balance on Corporate Boards (European Commission, 2024). However, bridging existing gender disparities remains a slow process and data shows that in Europe alone another eight decades are needed at current speed to reach parity. Women are still overrepresented in low-paid jobs, carry a disproportionate share of household duties and care responsibilities, have less opportunities for training in such sectors as science, technology, engineering and mathematics (STEM) and face higher risks of violence (European Commission, 2025).

Figure 1 Current estimate of years needed to close the Gender Gap across the world (adapted from the World Gender Gap Report 2025).



Source: World Economic Forum (2025)



The EU Blue Economy and Gender Inequalities

The EU's blue economy is multisectoral, encompassing a wide range of traditional and emerging sectors - from maritime transport, fisheries to blue biotechnology and marine renewable energy. In 2023, the EU blue economy's gross value added (GVA) reached EUR 263 billion, and it employed 4.89 million people in the EU (European Commission, 2025). It is a segment of economy characterized by continued growth, energy and digital transition, and new job opportunities. The EU Blue Economy observatory estimates that a total of 1,172,689 people are employed in the Baltic Sea Basin¹.

Certain sectors of the EU blue economy face not only the challenge of underrepresentation of females, but also a gendered division of labour by occupation. In fisheries, research shows that women are more often in charge of selling or processing the catch, while men are involved in the fishing activities and the preparation of fishing gear (Salmi and Sonck-Rautio (2018)). The existing horizontal gender segregation (the concentration of women in certain fields) is paired with vertical gender segregation. Research in areas such as ocean science illustrates this dual gap, noting not only overall lower representation of women but also their significant underrepresentation in senior and decision-making roles (Katsanevakis et al., 2020 and Kamm, Schelten and Braker, 2020).

Gender inequalities also manifest in terms of access to opportunities. Studies note that limited access to training and mentorship opportunities hinders women's career advancement and ability to reach managerial positions (Croucher and Økland, 2021; Johannesen et al, 2023; Shellock et al., 2022; Zhao et al. 2013).

WIN-BIG Objectives

The WIN-BIG project, funded by the European Commission, aims to deepen understanding of gender issues in the Blue Economy and support women's career entry and advancement within the sector. Specifically, WIN-BIG is gathering comprehensive data on gender representation, the roles women play, and the barriers they face across all six EU Sea Basins.

The project's three core objectives are:

1. **Establish a comprehensive dataset** detailing the gender status and roles of women across all **six EU Sea Basins** (Atlantic, Mediterranean, Baltic, North, Arctic, and Black Sea) within the Blue Economy (BuE).
2. **Identify critical skill gaps** that hinder women's entry into or progression up the career ladder in BuE sectors.

¹ Note: The sectors of the EU Blue Economy Observatory are maritime transport, coastal tourism, living resources, non-living resources, port activities, renewable energy, shipbuilding and repair. The Observatory does not include the workforce in the research related sectors of the blue economy. The EU Blue economy observatory website is available at: https://blue-economy-observatory.ec.europa.eu/blue-economy-indicators_en

3. **Implement targeted capacity-building programs**, including female- and sea basin-specific learning labs, acceleration programs, and networking events.

For this report, academic and policy research was reviewed to define the EU blue economy industries. For instance, previous studies on blue economy concepts - such as the harvesting of living resources, extraction of non-living resources, and ecosystem protection and management - helped guide the classification adopted in this study (e.g. Smith Godfrey, 2016; Voyer et al, 2018).

Figure 2 presents the blue economy sectors and industries. Final sector and industry grouping were based on the EU Blue Economy sectors specifications with some minor differences².

Figure 2 Blue economy sectors and industries adopted in this study.

SECTOR	INDUSTRY
 Living resources	Aquaculture Sea fisheries Seafood processing
 Blue biotechnology	Blue bioeconomy/biotechnology
 Coastal tourism	Blue sports Coastal tourism Cruise tourism
 Marine renewable energy and offshore exploration (oil and gas)	Marine renewable energy offshore exploration (gas and oil)
 Ports and shipping	Maritime transport Port activities Shipbuilding
 Public administration related to the marine	Public Administration related to the marine
 Engineering and technology	Marine engineering Marine robotics Desalination Maritime defence
 R&D related to the marine	Marine research and development
 Research and marine education (third level)	Marine Education/Training/Research (Third level) Marine Conservation and Advocacy
 Market services	Marine Environmental Consulting Services Marine Retail Services Business and finance

² European Commission, EU Blue Economy Observatory, EU Blue Economy Sectors: https://blue-economy-observatory.ec.europa.eu/eu-blue-economy-sectors_en

EU Sea Basin-Level Analysis

This report is one of six sea basin reports of the WIN-BIG project. The analysis includes EU member states and countries that are part of the European Economic Area, bordering an ocean or sea. The research also covers the United Kingdom, due to the UK-EU Trade and Cooperation Agreement. Table 1 lists the EU Sea Basins and its bordering countries. The EU Sea basin countries in each report are defined according to the geographic delineation as established in the EU Baseline studies for the implementation of the lighthouse for the Mission “Restore our Ocean and Waters by 2030” (Chanou Zoulfath et al., 2023; Goba et al., 2023)³.

Table 1 EU Sea Basins (according to the EU Baseline Studies for the Ocean and Waters Mission).

EU Sea Basins	
Arctic Basin	Iceland, Finland, Norway, Sweden
Atlantic Basin	Ireland, United Kingdom, France, Portugal, Spain
Baltic Sea	Germany, Poland, Estonia, Latvia, Lithuania, Denmark, Sweden, Finland
Black Sea	Bulgaria, Romania
Mediterranean Sea	Croatia, Cyprus, France, Greece, Italy, Malta, Slovenia, Spain
North Sea	United Kingdom, Belgium, France, Germany, Netherlands, Denmark, Sweden, Norway

Baltic Basin Industries

The blue economy industries of the Baltic Sea are of significant economic importance and contribute to the ongoing green transition.

In Denmark and Germany ports and shipping and oil and gas represent about two third of their Blue Economy (Marques, 2021). Poland’s largest container seaport, the Port of Gdansk, is one of the

³ Two reports were used to define the EU sea basin countries: Chanou Zoulfath et al. (2023). Baseline study for the implementation of lighthouses of the Mission ‘Restore our ocean and waters by 2030’: Atlantic, Arctic, Danube and Mediterranean lighthouses. Luxembourg: Publications Office of the European Union; and Goba, et al. (2023). Baseline study for the implementation of the lighthouse in the Baltic and North Sea basins for the Mission ‘Restore our Ocean and Waters by 2030’. Luxembourg: Publications Office of the European Union. Following this approach, countries not bordering an ocean and sea are excluded. In line with the lighthouse studies, where a country boards more than one sea basin they are duplicated in each relevant report. Germany and Denmark border the Baltic and North Sea so are included in both sea basin reports. Similarly, Sweden borders the Baltic, Arctic and North Sea, while Finland borders the Baltic and Arctic so they appear in those respective reports.

biggest in the Baltic Sea Basin and the 5th largest cargo port⁴. Maritime transport is an important industry for Finland, as about 90% of exports and imports come from the sea (Sofiar and Nugrahani, 2024).

Baltic Sea Basin countries also play a vital role in the emerging sectors. Germany is one of the top countries in terms of the development of blue biotechnology and in the production of algae (Araújo *et al.*, 2021).

Gender Breakdown

This report presents estimates of total employment in the Blue Economy in the Baltic Area by industry and gender. To establish a baseline estimate of total employment by Blue Economy industry and gender, WIN-BIG analysed officially published data and statistics.

The analysis estimates that a total of 1.4 million people are employed across the EU Blue Economy industries in the Baltic Sea Basin. **Overall, WIN-BIG estimate women account for approximately 43% of the total workforce in the blue economy in the Baltic Sea Basin.** Table 2 presents the gender breakdown of the workforce in each industry⁵.

Acknowledging the scale and importance of the traditional industries, and recognising the growth of emerging industries, this report also provides information about the organisational and industry wide factors impacting male and female employees in the Baltic Sea Basin using data from a survey developed as part of the WIN-BIG project (see chapter on the perception of opportunities and gender bias policies and frameworks in the workforce).

⁴ The EU Blue Economy Observatory, country profile, Poland: https://blue-economy-observatory.ec.europa.eu/country-profiles/poland_en

⁵ Data on the total workforce per sector was sourced from the EU Blue economy observatory. The breakdown of gender per sector was established using Eurostat, EU STECF reports, national statistics, national reports and news sources. For further discussion on how these estimates of total employment by industry and gender were derived see [Annex 1](#).

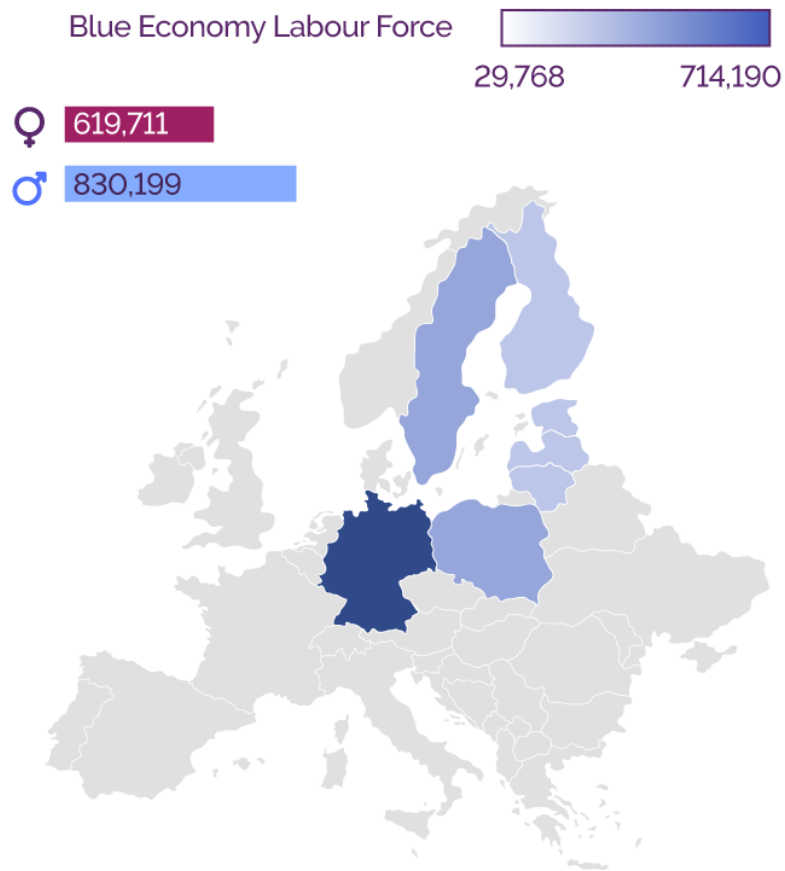


Table 2 Number of employees across the Blue Economy sectors, broken down by gender

Labour force of the Baltic Sea Basin			
Blue Economy Sector	Female	Male	% Female
Living resources	26,682	37,701	41%
Blue biotechnology	750	770	49%
Coastal tourism	247,807	199,667	55%
Marine renewable energy and offshore exploration (oil and gas)	6,410	16,759	28%
Engineering and technology	17,949	65,970	21%
Ports and shipping	109,924	308,271	26%
Research and marine education (third level)	6,431	7,738	45%
R&D related to the marine	12,959	27,064	32%
Public administration related to the marine	45,387	39,407	54%
Market & Services	145,412	126,852	53%
Total	619,711	830,199	43%

Figure 3 illustrates the employment number in the Baltic Sea Basin countries. Germany and Poland have the highest number of employees in the blue economy followed by Sweden and Denmark.

Figure 3 Distribution of the workforce across the Baltic Sea countries



	Total	Female	Male
Denmark	147,590	64,335	83,439
Germany	714,190	289,709	424,481
Estonia	33,879	18,343	15,536
Latvia	29,768	15,384	14,384
Lithuania	38,224	15,527	22,697
Poland	218,955	97,496	121,459
Finland	79,900	33,030	46,870
Sweden	187,404	86,071	101,333

Methodology

To capture both the quantitative and qualitative data required for WIN-BIG, a comprehensive survey was designed, tested and data was collected between June 2023 and November 2025. The survey was translated into seven languages to for inclusivity and accessibility for respondents across different countries.

The methodology involved a desk review stage to design the survey sections and its questions. Following the design and testing of the survey, the survey was launched, and data was collected from the employees of the blue economy sectors. Following the data collection, post stratification weights were generated to make the sample representative of the true marine workforce population.

Figure 4 Stepwise methodology followed in this study.



Questionnaire Design

Prior to designing the questionnaire, a focused desk review was undertaken to inform the design. Previous surveys on gender inequalities in the workplace were consulted. For example, surveys related to institutional culture used to inform *Athena Swan* accreditation in higher education were useful to design Likert Scale questionnaire questions on topics related to work culture, promotion and work-life balance⁶. A survey by *Equileap*⁷ on gender representation at the corporate level and its Gender Equality Scorecard were reviewed to understand concepts around equal compensation, gender equality policies and employee protection. Other surveys, such as *Women in Tech*, conducted in 2023⁸ were also utilised to inform relevant topics and questions.

Early versions of the questionnaire were tested using focus groups. Further discussions across the WIN-BIG consortium and at a special session of the conference *1st Mission Ocean Arena: Blue Mission BANOS - Supporting the EU Mission "Restore our Ocean and Waters* in the Baltic and North Sea in

⁶ The Athena Swan Charter is a framework which is used across the globe to support and transform gender equality within higher education (HE) and research, <https://www.advance-he.ac.uk/equality-charters/athena-swan-charter>

⁷ Equileap, Social Equality Data: <https://equileap.com/data/>

⁸ Women in Tech Survey 2023: <https://www.womenintech.co.uk/wp-content/uploads/2022/12/Women-in-Tech-Survey-2023.pdf>

November 2023 led to some further refinements of the survey instrument. The focus group discussions ensured that the questions were similarly interpreted and understandable across different countries and languages.

The final questionnaire was divided into seven sections described below:

1. Industry and firm: This section collected data on the respondent's blue economy sector, type of organisation, country of operation, number of employees, and the percentage of female employees within the organisation.

2. Working arrangements and culture: This section collected data on respondents' employment level, employment status, and years in their current role. It also included questions about whether respondents had taken any periods of carer's leave, as well as questions on workplace culture and work-life balance.

3. Gender culture and treatment within organisation/firm: This section aimed to assess respondents' perceptions of gender discrimination, whether they had encountered any forms of harassment, and whether the organisation's leadership was committed to gender equality, diversity, and inclusion.

4. Perception of opportunities for career progression: This section collected information on the transparency of internal vacancy applications, access to career growth opportunities, and the challenges respondents have faced in pursuing a career in the blue economy sector.

5. Women in the work force: This section collected data on whether the respondent's firm has gender equality policies, the presence of female managers and role models, and whether there are barriers preventing women from being promoted to senior positions. This section also includes a qualitative question asking why women might not have the opportunity to advance in their industry.

6. Female only section: This section collected information from female respondents only. It collected data on the gender pay gap, their perceptions of whether they are treated equally to men in the workplace, and whether they have the same promotion opportunities as their male counterparts. This section also includes qualitative questions to collect recommendations from females on how to achieve more gender equality.

7. Personal demographics: This section collected demographic data such as respondents' age, country of residence, ethnicity, marital status, caring responsibilities and level of education.

Data collection

The online WIN-BIG survey was launched on March 8th, 2024, and remained open until 17th of November 2025. It was conducted online via the Qualtrics surveying platform and was available in seven languages: English, Spanish, Portuguese, French, German, Italian, and Irish. A link to the survey was disseminated to various blue economy organisations via email, social media, paid advertising and during national and international events by the Consortium partners. A total of 1,244 responses were collected. Out of this number, 59 responses were from non-European countries and 7 were from European countries that do not have access to ocean or sea. The 59 non-European and 7 non-ocean responses were removed from the analysed sample reducing the number to 1,178 which covered the EU sea basins. Following further cleaning of the dataset, a further 94 responses were removed from the final analysis: 20 responses were completed by students, and 74 respondents completed only section one of the survey which covered basic information about their gender and the sector they belonged to, so they were removed from the main analysis. As a result, 1,084 responses are analysed. **The data sample for Baltic Sea area include 140 responses**, which is the data used for this report.

All data was handled in compliance with confidentiality requirements and the General Data Protection Regulation (GDPR). The data was analysed using Microsoft Excel and the statistical software package STATA.

Weighting and analysis

Given this was a voluntary opt-in survey it was important to generate post stratification weights to make the sample representative of the true marine workforce population. The estimated population totals by blue economy industry, country and gender facilitated the creation of a multidimensional weighting scheme. All results presented use the generated post stratification weights, unless otherwise stated.

There is a lack of gendered statistics in the EU blue economy. Furthermore, while the EU blue economy observatory provides information about total workforce in certain sectors (e.g. living resources, coastal tourism, ports and shipping) there is no data about the workforce in such industries as marine robotics, higher education and research related to marine, environment consulting, marine conservation and advocacy. For the blue economy sectors, where no data was available, the number of employees in a broader industry category was collected, followed by an estimate of the marine share. For example, there is not data about the total workforce in the *marine robotics*. To estimate its labour force, several indicators were used. Based on the number of employees in the *Equipment and machinery subcategory* published by the EU Blue Economy Observatory⁹ and the total number of employees in *Manufacturing of machinery and equipment* from

⁹ Note: there were some countries where no data was provided in the Blue Economy Observatory. Individual country reports or other sources were consulted to provide an estimate of the workforce.

Eurostat, the marine share was estimated in engineering. Next, this estimated marine share was applied to the total number of employees in *Science, technology and digital society* category from Eurostat, to estimate the number of employees in marine robotics. In terms of the gender breakdown, data was collected where sector-specific gender information was directly available. This was only available for the living resources and maritime defence. In cases where there was no gender breakdown at the blue economy industry level, gender distribution of the broader sector which the industry was contained in was used as a proxy. For example, while no gender specific information was publicly available for coastal tourism across countries, Eurostat does provide estimates for gender at the national level for NACE industries such as accommodation and restaurant activities. Similarly, *Public administration related to marine* used the parent sector *Public administration* to generate a proxy for gender shares. [Annex 1](#) provides detailed information about the data.



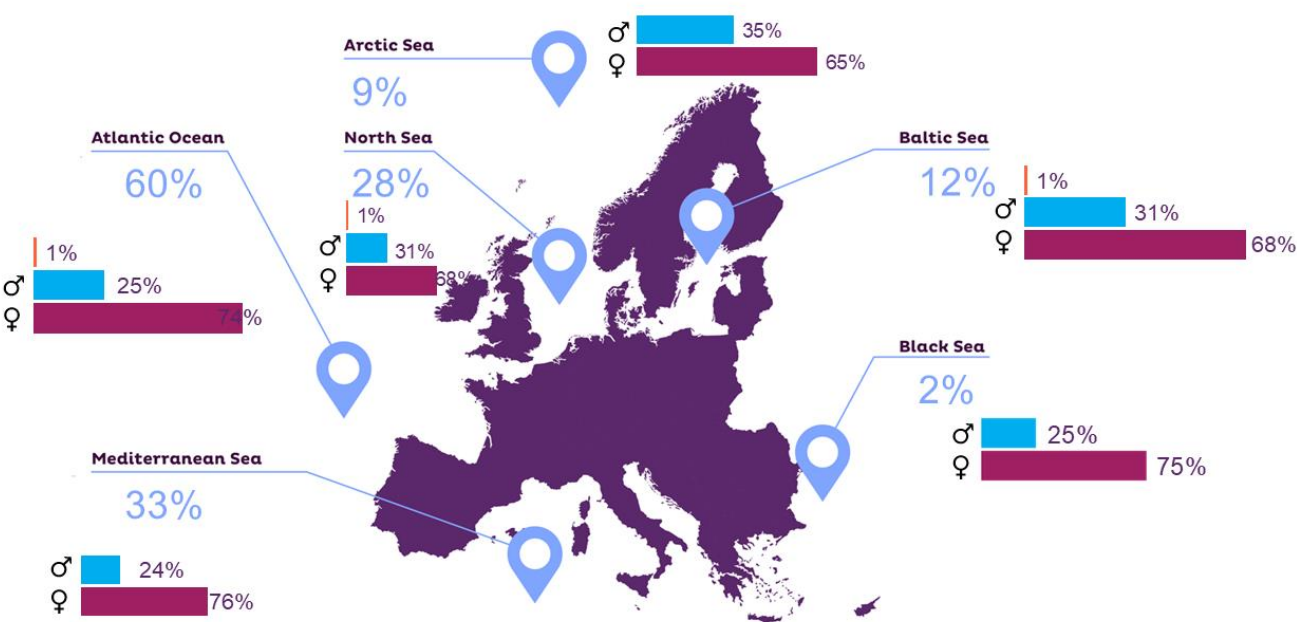
Survey Results

SUMMARY OF WIN-BIG SURVEY RESPONDENTS DEMOGRAPHIC STATISTICS

This next section describes in detail the obtained results and statistics derived from the WIN-BIG Survey data.

Figure 5 presents the gender distribution of respondents across the sea basins. The percentages shown are based on the unweighted survey sample.

Figure 5 Distribution of gender of respondents across the sea basins (unweighted)



Baltic Sea Basin

In the total sample, 12% of the respondents to the WIN-BIG survey were from the Baltic Sea Basin countries, with 68% female respondents and 31% male.

Table 3 presents the unweighted percentage of respondents by EU Blue Economy sector across the EU sea basins.



In the Baltic Sea Basin, the largest share of respondents is in ports and shipping (26%), marine-related R&D (23%), research and marine education (tertiary level) (16%), blue biotechnology (13%) and living resources (10%).

Table 3 Survey sample per sector (unweighted) across the EU sea basins

Survey sample per sector						
Blue Economy Sector	Arctic Basin	Atlantic Basin	Baltic Sea	Black Sea	Mediterranean Sea	North sea
Living resources	17%	12%	10%	8%	7%	12%
Blue biotechnology	11%	7%	13%	0%	6%	11%
Coastal tourism	0%	9%	1%	4%	6%	2%
Marine renewable energy and offshore exploration (oil and gas)	2%	5%	4%	0%	2%	6%
Engineering and technology	9%	7%	0%	13%	6%	7%
Ports and shipping	6%	7%	26%	8%	10%	15%
Research and marine education (third level)	21%	18%	16%	29%	21%	17%
R&D related to the marine	20%	15%	23%	17%	16%	15%
Public administration related to marine	6%	11%	4%	4%	13%	9%
Market & Services	0%	5%	1%	8%	8%	2%
Not specified	8%	4%	2%	8%	5%	4%

Table 4 presents the demographic information for the total sample and Baltic Sea Basin Respondents, with the post-stratification weights assigned. The percentage of female respondents (57%) is slightly higher compared to male respondents in the weighted Baltic Sea sample.

Table 4 Personal demographic information of respondents the percentage for the total sample and the Baltic Sea Basin

Background of Respondents		
Gender of respondents	Total Sample %	Baltic Sea %
Female	50%	57%
Male	50%	43%
Age	Percent	Percent
18-25	4%	20%
26-35	13%	23%
36-45	22%	22%
46-55	36%	13%
56-65	23%	21%
65 +	2%	<1%
Ethnicity	Percent	Percent
White (Caucasian)	95%	98%
Black	<1%	<1%
Asian	<1%	<1%
Mixed ethnicity	4%	<1%
Other	<1%	1%
Marital status	Percent	Percent
Married	51%	25%
Cohabiting	16%	26%
Single	25%	44%
Separated/Divorced/Widowed	8%	5%
Caring responsibilities (e.g. caregiver to children, child with disability, elderly parents, etc.)	Percent	Percent
Yes	40%	23%
No	59%	76%
Prefer not to say	1%	<1%

Education level	Percent	Percent
Primary level, or equivalent	<1%	<1%
Secondary level, or equivalent	6%	15%
Bachelor's, or equivalent third level	15%	19%
Master's, or equivalent third level	60%	49%
Doctoral or equivalent third level	18%	16%
Other industry specific qualification	1%	0%
Prefer not to say	<1%	0%

More than half (65%) of the Baltic Sea Basin sample consists of employees aged between 18–45. The majority of respondents were white Caucasian (99%). Half of the sample (51%) were married or cohabiting and approximately 23% of respondents have some type of caring responsibilities. A high proportion of respondents were also highly educated with 49% of respondents have a Master's degree, and 16% have a Doctoral degree.



GEOGRAPHICAL DISTRIBUTION OF WIN-BIG SURVEYED INDUSTRIES AND FIRMS

To contextualize the respondents' professional settings, this section reports findings on industry and firm characteristics, including the blue economy sector, organizational type, country of operation, firm size, and the share of female employees within organizations.

Table 5 displays the breakdown of the Baltic Sea Basin respondents' industry and the country they work. A large proportion of respondents work in Germany (66%) and Sweden (14%), followed by Poland (7%). The survey involves a smaller sample of organisations operating in Finland (6%), and Denmark (5%).

Table 5 Country and Industry where the respondents' work: Baltic Sea Basin

Respondents Country and Industry: Baltic Sea Basin	
Country where respondents' organisation is based	Percentage
Denmark	5%
Estonia	<1%
Finland	6%
Germany	66%
Latvia	1%
Lithuania	<1%
Poland	7%
Sweden	14%
BE sector ¹⁰	Percentage
Living resources	10%
Blue biotechnology	13%
Coastal tourism	1%
Marine renewable energy and offshore exploration (oil and gas)	4%
Engineering and technology	0%
Ports and shipping	26%
Research and marine education (third level)	16%
R&D related to the marine	23%

¹⁰ The percentages for the blue economy sectors are not weighted.



Public administration related to the marine	4%
Market & services	1%
Unspecified Blue Economy Industry	2%

The highest percentage of respondents work in ports and shipping (26%), marine-related R&D (23%), research and marine education (tertiary level) (16%), blue biotechnology (13%) and living resources (10%). The representation of the remaining sectors ranges from 1-7%.

Figure 6 illustrates gender distribution across the Baltic Sea countries: there is a higher percentage of female respondents in Poland (84%), Sweden (75%), Germany (53%) Lithuania (100%) and Latvia (100%) – albeit the latter two countries only make up approximately 1% of the sample each. The lowest percentage of female respondents is in Denmark¹¹.

Figure 6 Baltic Sea Basin Respondents Gender distribution across the Baltic Sea countries

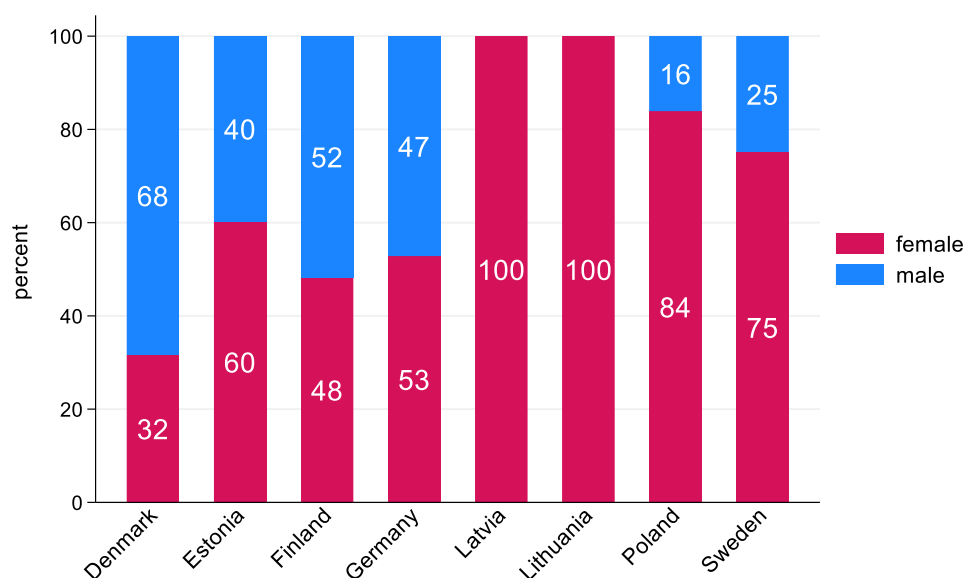
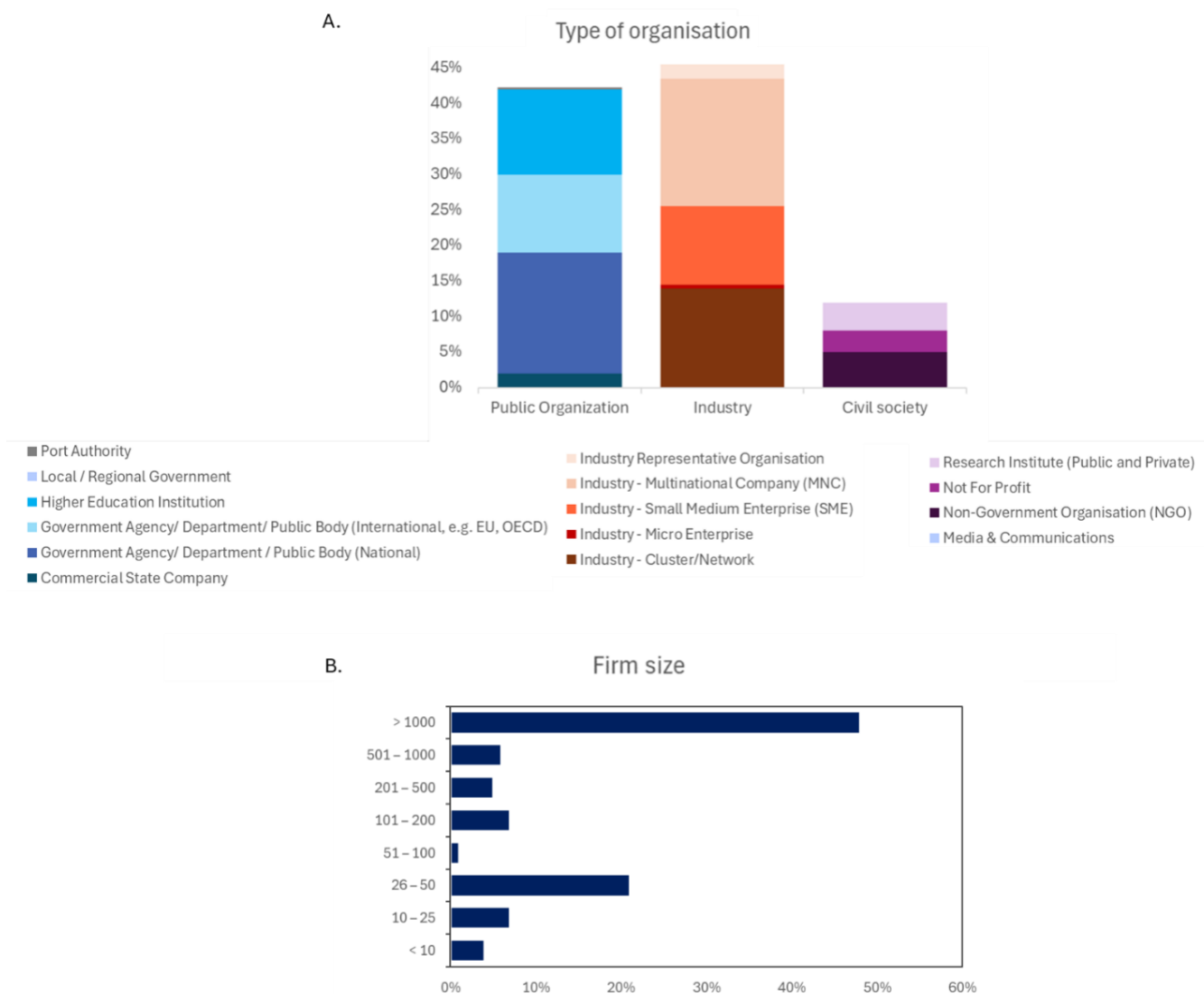


Figure 7 displays data about the type of organisation, whether Baltic Sea Basin respondents work in a public institution, industry or in a non-governmental entity. It also includes information about the size of the organisation given by the total number of employees.

¹¹ Note: The number of respondents in Latvia and Lithuania is 4 respectively. In Estonia, the sample comprises of 7 respondents.

Figure 7 Information on the organisation type (A) and size (B) among respondents (Baltic Sea Basin)



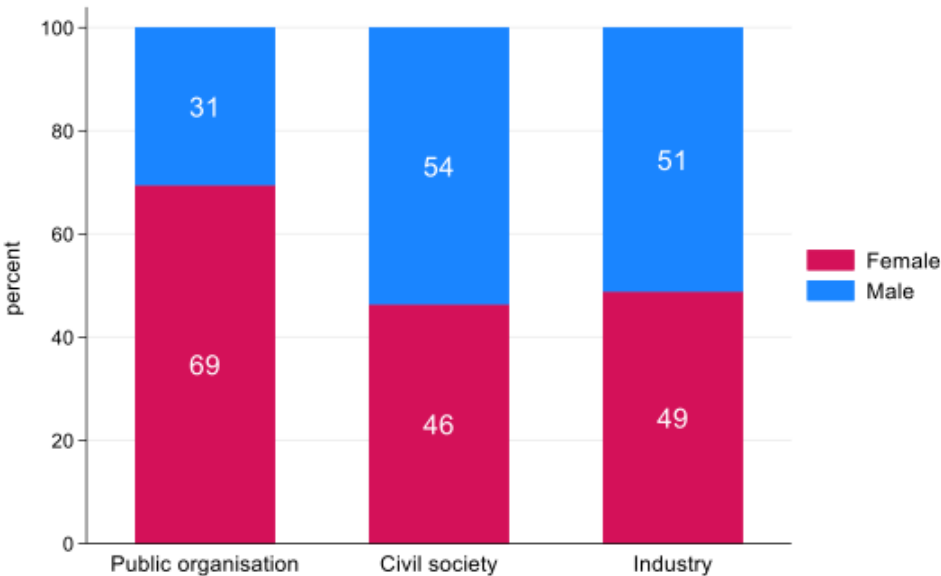
In terms of the type of organisation, the **largest portion of Baltic Sea Basin respondents work in Industry - Multinational Company (MNC) (18%)**, Government Agency/ Department / Public Body (National) (17%), Industry-cluster/network (14% and Higher Education Institution (12%). The remaining respondents work in NGO (5%), research institutes (public or private) (4%), the not-for-profit sector (3%), industry representative organisation (2%), and commercial state-owned companies (2%).

The survey captured data from respondents employed in a diverse range of organisational sizes. **A significant portion of the sample are employed in large organisations with over 1,000 employees (48%)** and in companies with 26-50 employees (21%).

Regarding gender breakdown by type of organization, a higher percentage of female respondents work in public organisations (69%), compared to the industry (49%) and civil society (46%)

organisations (Figure 8) The categorisation industry includes the respondents from the following types of organisations: Industry - Cluster/Network, Industry - micro Enterprise, Industry - Small Medium Enterprise (SME), Industry - Multinational Company (MNC), Industry Representative Organisation.

Figure 8 Baltic Sea Basin Respondents Gender breakdown by organisation type (Baltic Sea Basin)

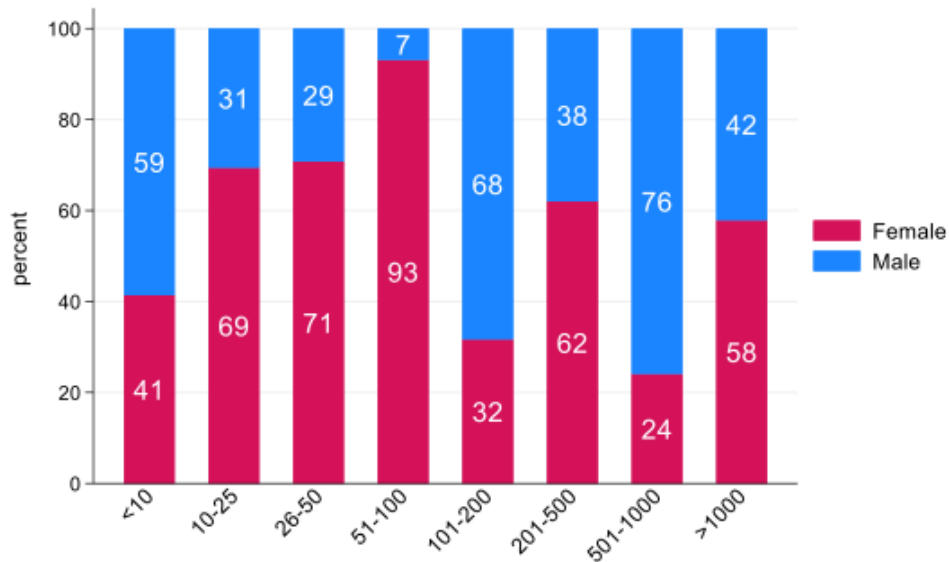


The category 'Civil society' includes: Media & Communications, Non-Government Organisation (NGO), Not For Profit and Research Institutes (Public and Private). The category public organisations includes the following types: Commercial State Company, Higher Education Institution, Government Agency/ Department / Public Body (National), Government Agency/ Department/ Public Body (International, e.g. EU, OECD), Local / Regional Government and Port Authority.

The percentage of female and male respondents across different organisational sizes is illustrated in Figure 9.

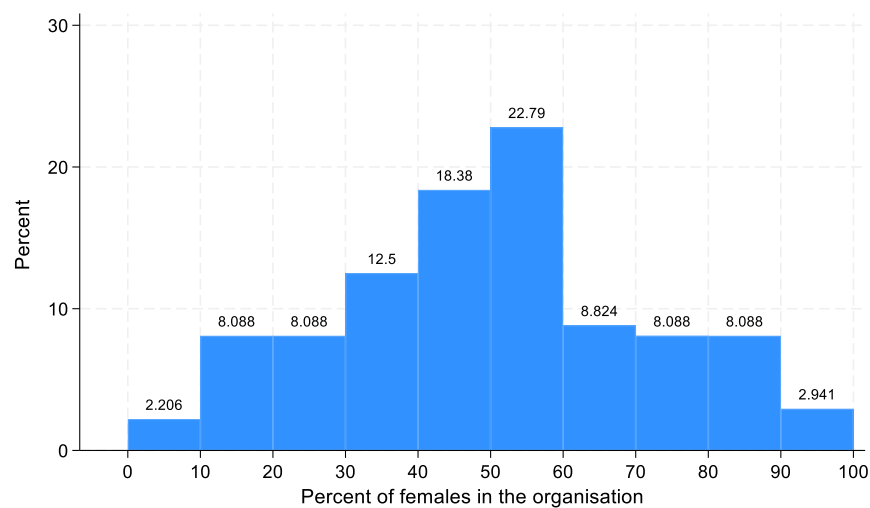


Figure 9 Baltic Sea Basin Respondents Gender breakdown by size of organisation Baltic Sea Basin



The results revealed, a higher number of female respondents work in firms with 10 to 100 employees. A lower number of female respondents work in companies with less than 10 employees or firms with 101-200 and 501-1000 employees. In addition, the respondents were also asked to indicate the approximate percentage of female employees in their organisation, and this result is illustrated in Figure 10.

Figure 10 Baltic Sea Basin responses to the WIN-BIG Survey question: "Approximately what percentage (0 – 100) of the persons employed are female?"¹²



¹² This histogram is based on the unweighted results.

About 53% of respondents indicated that between 30 to 60% of the employees in their firm are female. About 18% of respondents answered that female employees constitute from 0 to 30 % of the workforce in their company. Another 26% of respondents answered that about 60 to 100% of the employees in their organisation are female.



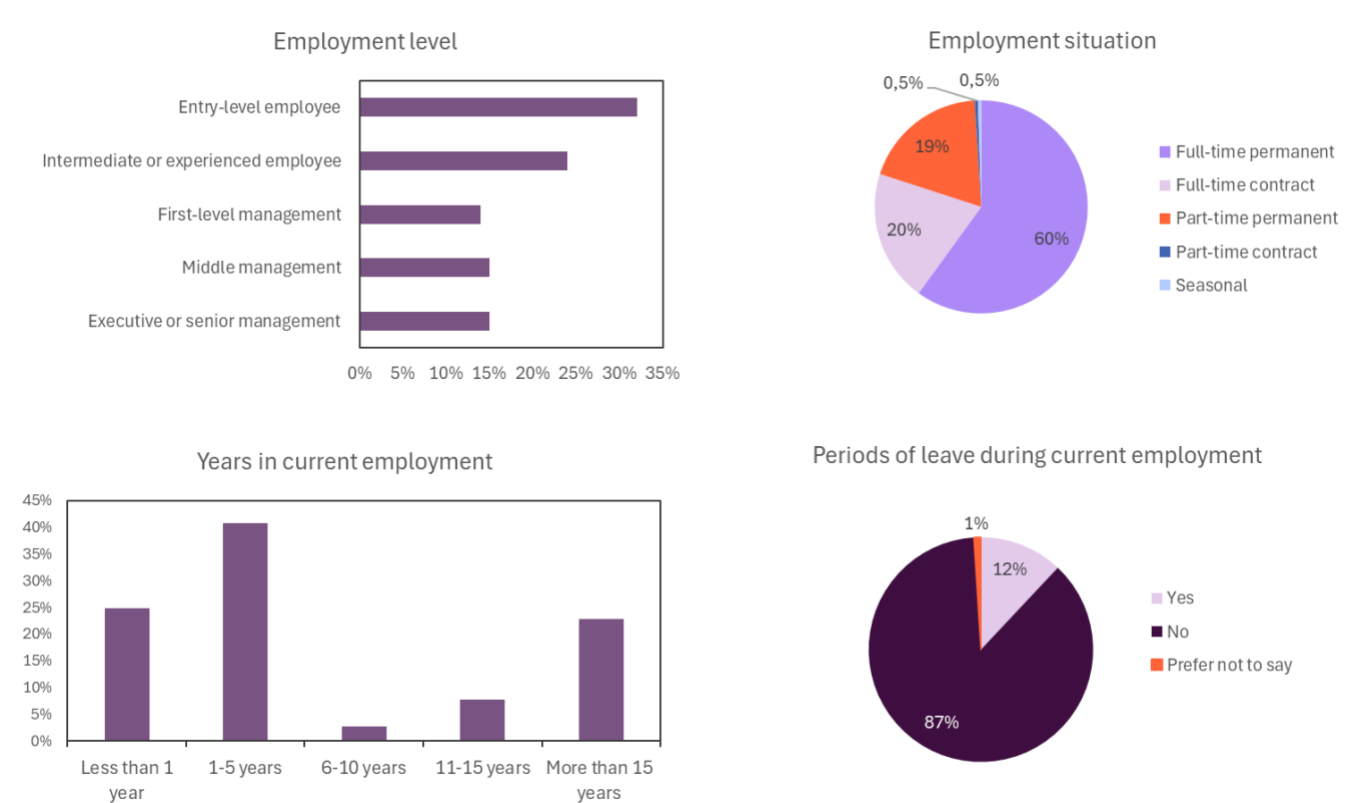
WORKING ARRANGEMENTS AND CULTURE

The wider literature on gender inequalities refers to the problem of underrepresentation of women in managerial and supervisory positions, especially in male-dominated sectors (Gallo and López, 2023; Macarie and Moldovan, 2012). Studies highlight that flexible work hours and work-life balance are important for females to be able to reach senior positions (Carrasco-Santos et al., 2020; Carvalho, 2018). Furthermore, studies note that gender inequalities can be exacerbated due to the effect of taking carer's leave on the promotion to senior positions and on subsequent wage increases (Evertsson, 2016; Matysiak and Cukrowska-Torzewska, 2021).

To investigate some of these issues, this section presents the Baltic Sea Basin survey responses related to the employment level of the respondents, working arrangements and organisational culture surrounding gender equality.

Figure 11 outlines data on respondents' employment characteristics related to the position, contract, and years of experience in current employment.

Figure 11 Employment characteristics of respondents (Baltic Sea Basin respondents)



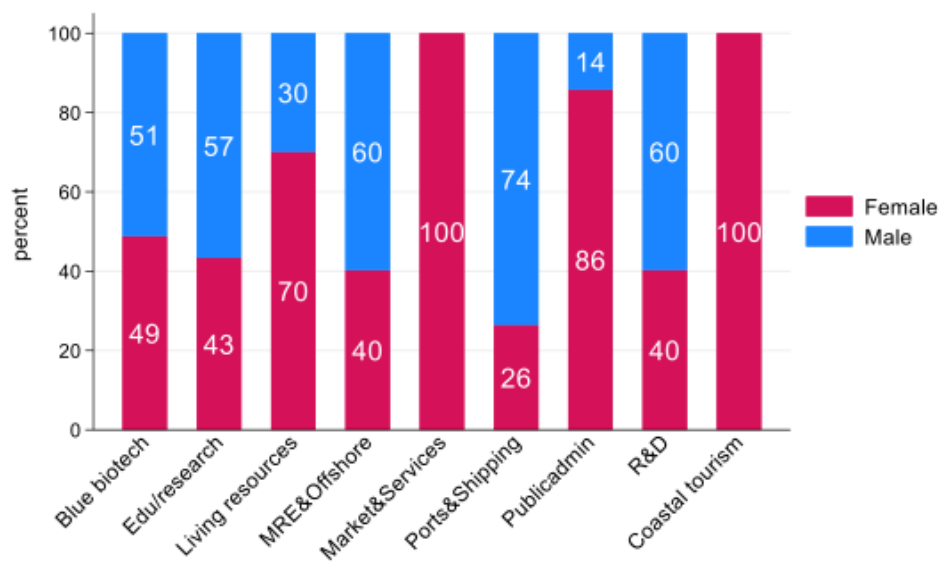
Generally, Baltic Sea Basin respondents are well represented from entry-level to executive levels. About 32% of respondents work in entry-level positions and approximately 30% of respondents

occupy executive or middle management positions. Another 14% of respondents work in first-level management and 24% work as intermediate employees (Figure 11).

In total, 80% of respondents work full-time, in either permanent (60%) or contract (20%) positions. Over 30% of respondents have worked at their current employers for more than 11 years and 41% of respondents have been employed from 1 to 5 years. About 25% of respondents worked for less than 1 year. In addition, the survey elicited replies regarding periods of extended leave (such as maternity, paternity or carer’s leave) and 12% of respondents had taken a period of extended leave at their current employment.

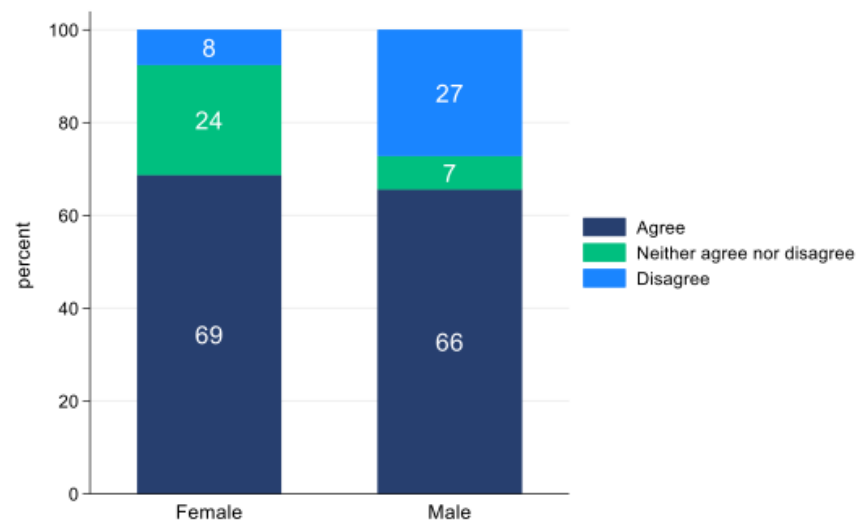
A higher percentage of male respondents have worked in their current company for 11-15 years (62%). On the other hand, 62% of respondents who worked more than 15 years are female. The percentage of females is also high among respondents who worked for less than a year in their company (64%) (see Figure 11).

Figure 12 Baltic Sea Basin Respondents Gender breakdown by sector



In relation to the gender breakdown across sectors, Figure 12 shows a higher percentage of female respondents are in living resources (70%), followed by blue biotechnology (49%) and research and education (43%). The lowest number of female respondents is in ports and shipping (26%). The sample of public administration related to the marine, Marine renewable energy, coastal tourism, markets and services is small in the Baltic to be considered relevant.

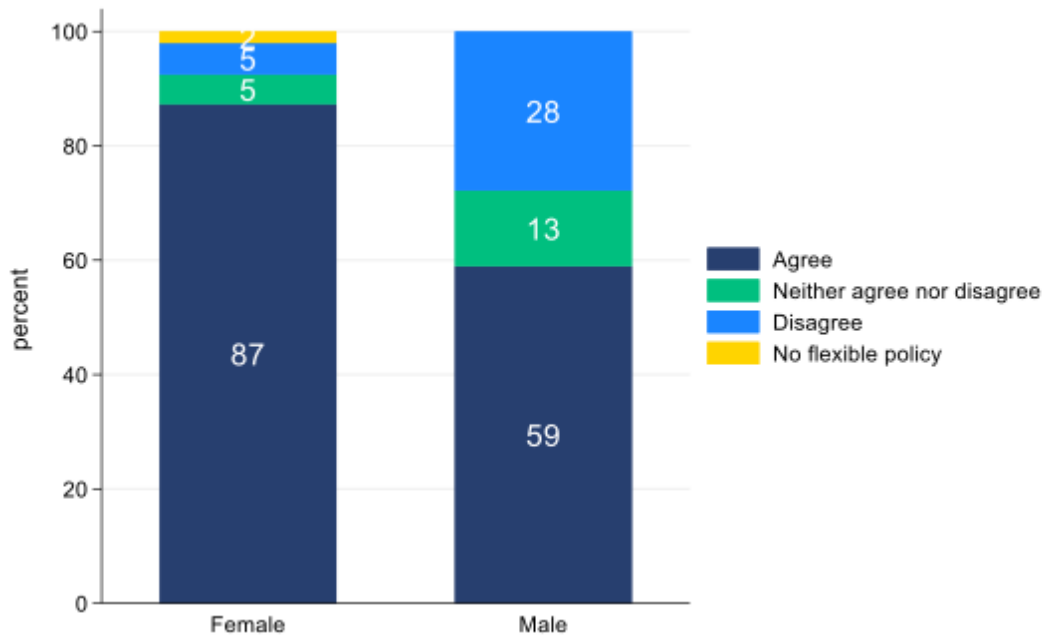
Figure 13 Baltic Sea Basin responses to the WIN-BIG Survey question: “It is possible to strike an appropriate balance between my work and home life”



As illustrated in Figure 13, overall, 67% of respondents indicate that they can strike an appropriate work-life balance, with slightly higher percentage of females (69% vs 66%) agreeing with the statement. A higher percentage of male respondents disagreed with this statement (27% male versus 8% female), while a higher percentage of women chose neither agree nor disagree (24% of female vs 7% of male).

Flexible working arrangements with fully remote or hybrid work options have become more common since the Covid-19 pandemic, to support work-life balance and operational flexibility. Figure 14 depicts responses regarding the accessibility to these flexible working arrangements.

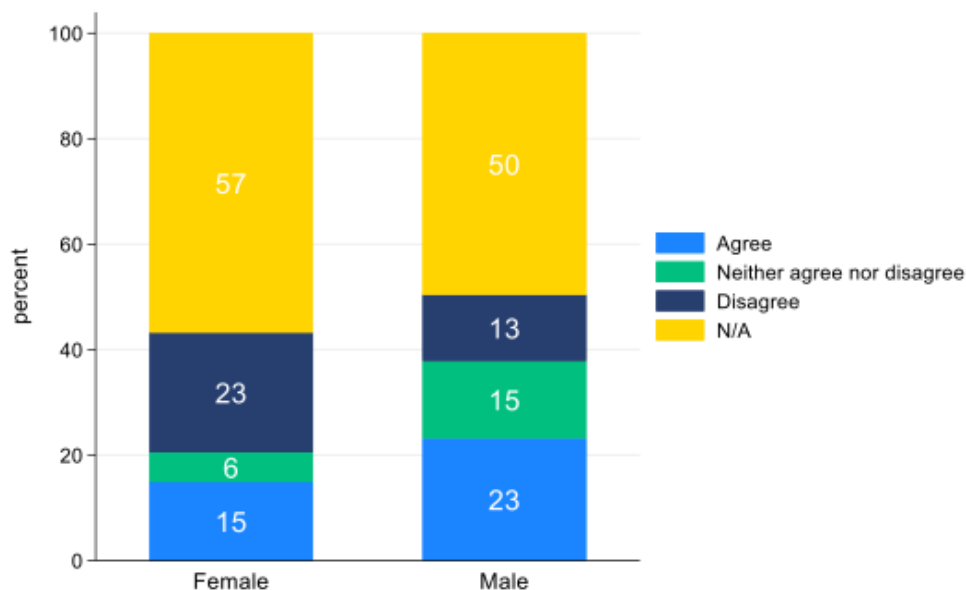
Figure 14 Baltic Sea Basin responses to the WIN-BIG Survey question: “At my work, there are flexible working arrangements available that are suitable to my needs.”



A much higher percentage of female employees in the Baltic Sea (87% female versus 59% male) confirmed that there are flexible working arrangements available at their workplace. Among male respondents, 28% disagreed regarding the availability of flexible work hours. This picture indicates that lack of flexible hours may be gendered bias and a broad issue of organizational culture/operation.

WIN-BIG also investigated the perceived impact of carer's leave periods on career progression. Figure 15 highlights these results, illustrating clear differences between female and male responses.

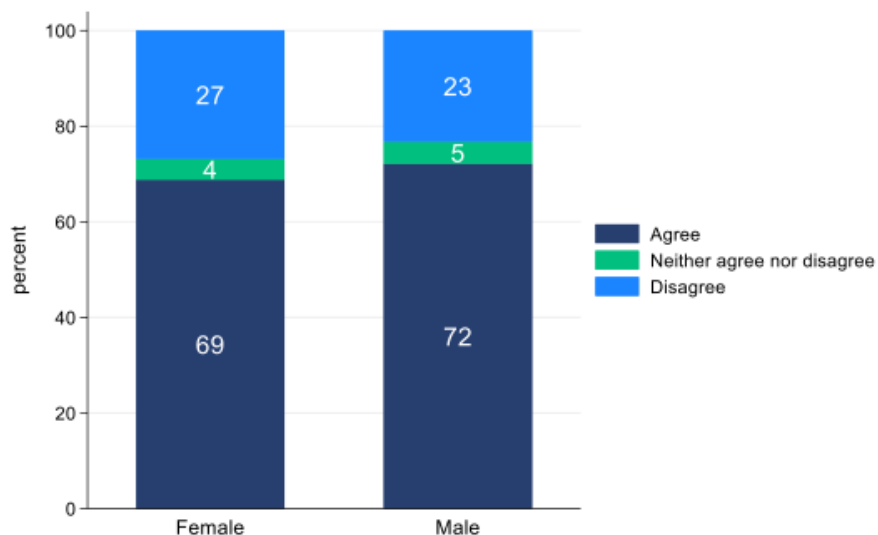
Figure 15 Baltic Sea Basin responses to the WIN-BIG Survey question: “If you have taken carer’s leave do you believe it has had a negative impact on your career progression?”



More than half of male and female respondents have not taken carer’s leave. This percentage is higher among female respondents. Of those respondents who have taken a care leave, 23% of male and 15% of female respondents believe it has negatively impacted their career progression, which is positive. A larger proportion of men (15% male versus 6% female) chose neither agree nor disagree to this statement, which suggests that they may not know the impacts of the carer’s leave on their career progression. 23% of female respondents (23% female vs. 13% male) disagreed that taking leave had a negative impact on their careers. The negative impact of taking leave on men illustrates that the conflict between work and life can have negative impacts on the careers of both men and women, as perceived in the Baltic area.

When investigating the prevailing Blue Economy organisational culture within the Baltic Sea Basin the respondents report mainly positive views on the inclusivity of their organisations, although about one quarter of respondents disagreed on the inclusive culture at their workplace (shown in Figure 16).

Figure 16 Baltic Sea Basin responses to the WIN-BIG Survey question: “The prevailing culture and atmosphere in my organisation/firm is inclusive and friendly to all.”



Of note, female respondents report slightly lower levels of agreement (69% female versus 72% male) and lower levels of neutral response (4% versus 5% male) regarding the inclusivity of their workplace. A higher percentage of women provided a negative response (27% female and 23% male), disagreeing that the prevailing culture is friendly and inclusive at their workplace. This denotes space for improvement of gender dedicated measures to improve inclusiveness and workplace culture for females in the Baltic region.

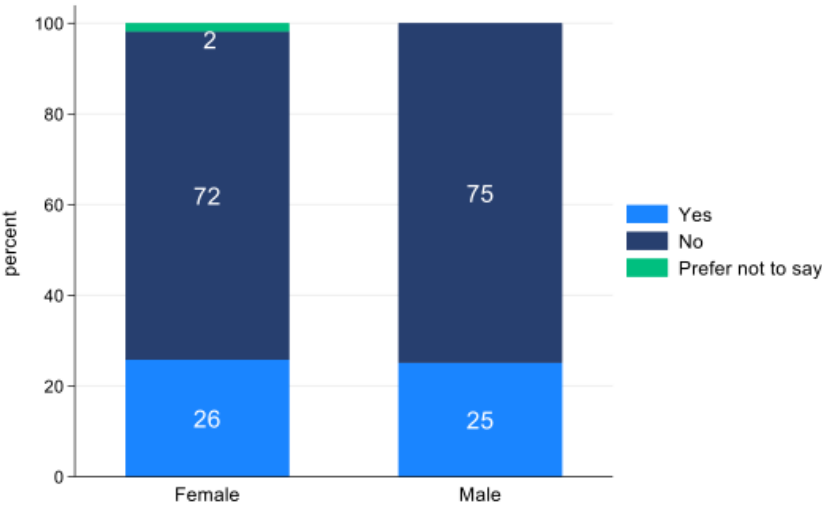
GENDER CULTURE OF THE ORGANISATION

The WIN-BIG survey also assessed the respondents' perceived experiences of gender discrimination and harassment in the industry and sector. The perception of gender discrimination at the workplace is described as a perception of being deprived of opportunities at an employee's workplace and is distinct from sexual harassment (del Carmen Triana et al., 2019). Discrimination refers to any systematic unfair treatment of an individual or group based on personal or social circumstances and characteristics (Ramos Martín, 2014). In addition, studies refer to mobbing, bullying and harassment that need to be tackled at the societal and institutional level as these can negatively affect individual's work performance, and may result in women quitting their jobs (Dogg et al., 2022; Lorient et al., 2020).

Gender-based harassment in maritime transport and seagoing oceanography has also been acknowledged as an issue that acts as a barrier to women's participation in these industries (Dragomir, 2019; European Parliament, 2023; Boström and Österman, 2022; Legg et al., 2023). Studies note that through understanding the value and meaning of diversity, equity and inclusion, leaders of organisations can create an environment where all people feel recognized, have access to resources and opportunities and can create new innovations and solutions (Ashikali and Groeneveld, 2015; Coleman and Taylor, 2023).

The results obtained about the perception of gender discrimination, experience of harassment and leadership commitment to diversity, equity and inclusion are depicted in the next figures.

Figure 17 Baltic Sea Basin responses to the WIN-BIG Survey question: "I have experienced gender discrimination within my organisation/firm."



As illustrated in Figure 17, both men and women reported (26% female and 25% male) having experienced gender discrimination within their organisation, suggesting that gender inequality is still an issue in EU Blue Economy organisational culture and practices.

Figure 18 also shows that one-third of respondents (33% female and 30% male) having witnessed gender discrimination in their organisations.

Figure 18 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have witnessed gender discrimination within my organisation/firm.”

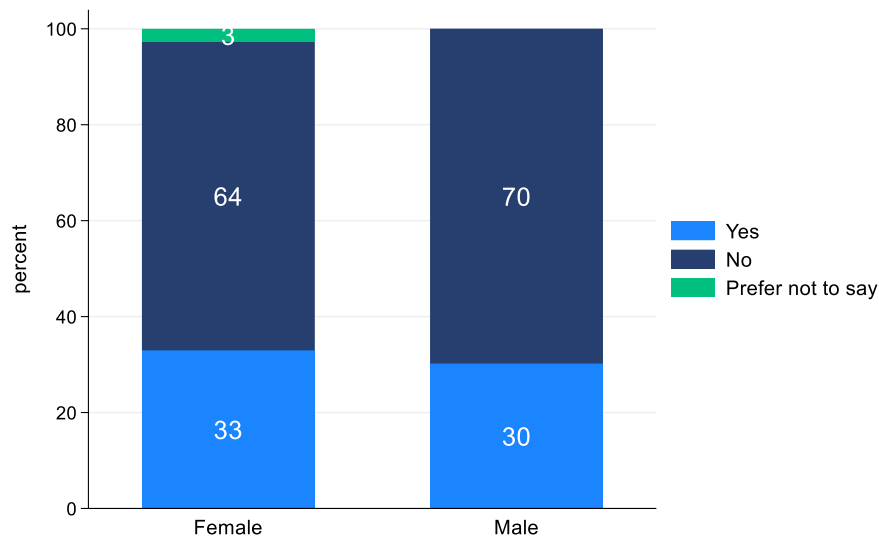


Table 6 presents a summary of the proportion of respondents who have suffered some form of harassment either in their organisation or in their industry in general.

Table 6 Baltic Sea Basin responses to the WIN-BIG Survey question: “Experience of harassment at organisation and industry levels”

Experience of Harassment			
	Yes ¹³	% Female	% Male
Have you suffered any of the following forms of harassment in your firm/organisation?	41%	43%	38%
Have you suffered any of the following forms of harassment in your industry more generally? ¹⁴	52%	45%	70%

¹³ Respondents could choose the following forms of harassment (tick all that are relevant): Offensive jokes or slurs, Physical assaults or threats, sexual assaults or threats, intimidation, insults or put-downs, stalking, other (please state).

¹⁴ the question on forms of harassment in industry more generally was introduced in the survey 3 months later from the launch. Therefore, the sample for this question is smaller and equals to 31.

About 50% of Baltic Sea Basin respondents have suffered some form of harassment. At organisation level slightly less than half of respondents (41%) experienced harassment. A higher percentage of female respondents (43% female versus 38% male) have reported to having suffered some form of harassment within their firms/organisation. Regarding the sector more generally, 52% of respondents reported harassment incidents. The gender breakdown indicates a much higher percentage of male respondents (70%) reporting it at industry level. However, it should be noted that this sample is small and comprises of 8 male respondents in total. Still, this result is quite unique to the Baltic Region.

Figure 19 presents the breakdown of the proportion of the respondents who answered that they have experienced harassment at organisation level. The highest proportion can be observed in ports and shipping (51%), R&D related to the marine (49%) and in blue biotechnology (28%). Coastal tourism, market & services and MRE are a small sample and therefore the observations shall be handled with caution.

Figure 19 Baltic Sea Basin responses to the WIN-BIG Survey question: "Experience of harassment at organisation level" broken down by sector

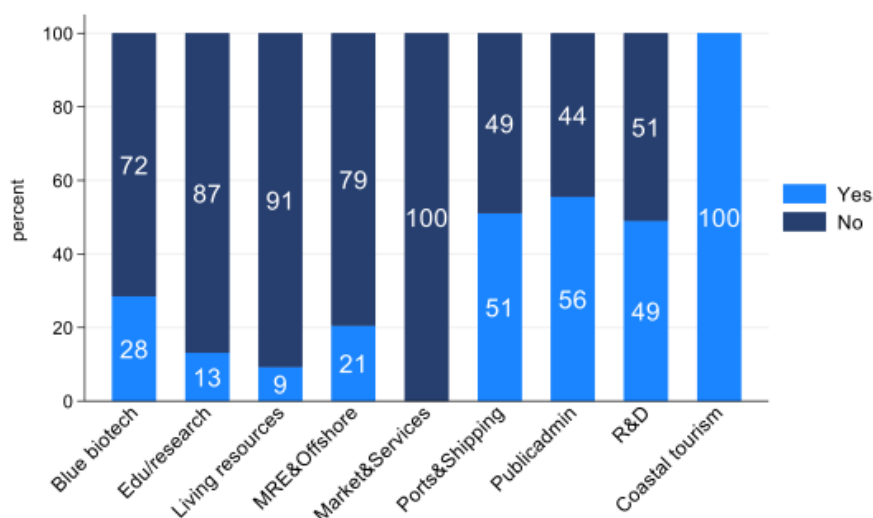
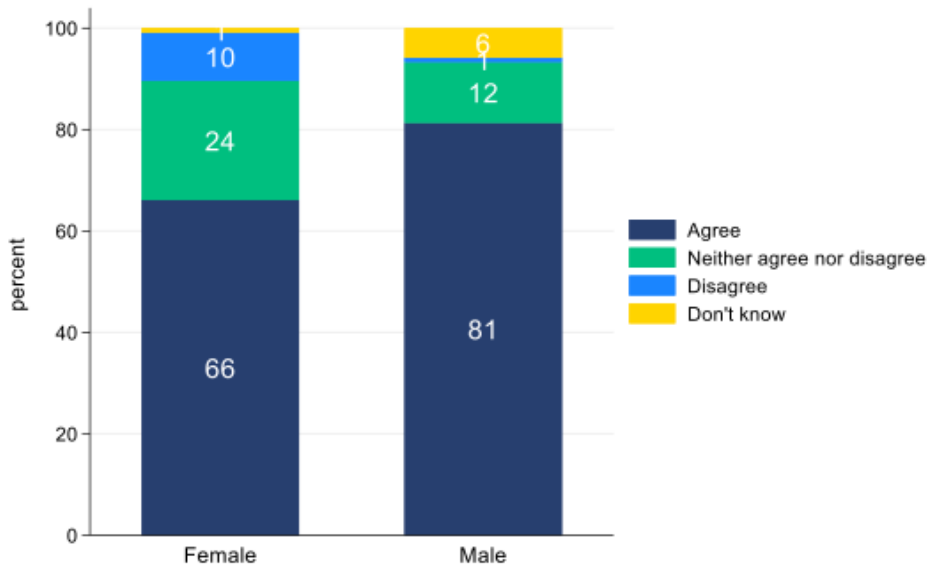


Figure 20 displays Baltic Sea Basin respondents' views on internal leadership commitments to gender equality, diversity and inclusion (EDI), within their organisation. A gender biased perception seems to be present as a higher percentage of male respondents report that leadership within their organisation is committed to gender equality (81% male versus 66% female). It should be noted that 12% of men provided a neutral response, while among females 24% chose the neutral response. At the same time, 10% of females disagreed with the statement that their leadership is committed to EDI, while only 1% of men shared this view.

Figure 20 Baltic Sea Basin responses to the WIN-BIG Survey question: “Leadership in my organisation/firm is committed to Gender Equality, Diversity and Inclusion”



PERCEPTION OF OPPORTUNITIES

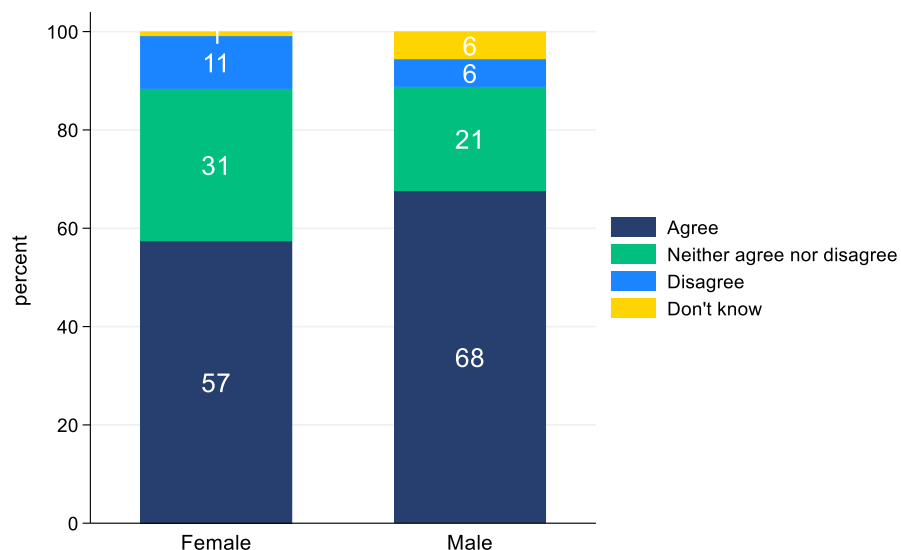
In this section the results about the perception of available opportunities at respondents' workplace are presented. The survey included questions on the availability of career growth opportunities, such as access to training and mentorship.

Previous studies note that training and mentorship programmes fill the gap between knowledge and action and play a positive role on career outcomes (Martini and Cavenago, 2016; Wikström et al., 2023). Workplace training is also acknowledged as a lifelong learning process that realises the potential for skills development, especially in light of the need of new skills due to technology change and digitalisation (Lucas, Pinnington, Cabeza, 2018; Tikkanen, Hovdhaugen and Støren, 2018). The existing literature also refers to the importance of training and mentorship to ensure gender equality. First, studies note that women face multiple obstacles such as lack of networks, support from colleagues, non-transparent rules of promotion and recruitment and work-family conflicts, and thus training and mentoring programs are important to close the skills gap between men and women (Górska and Burlakova, 2025; Holzinger et al., 2019; Roosmaa and Saar, 2023). Second, the literature argues that in certain sectors of economy, such as for example in STEM, women face stereotypes and, thus mentorship programs are important as they empower women and create an environment where women are given equal opportunity to men to develop as leaders (Barabino *et al.*, 2020). Shellock *et al.* (2022) find that encouragement and support from superiors, mentorship, training and coaching are important enablers to overcome gendered barriers, such as lack of trust, leading to the acceptance of women leaders. Mentoring programs are important, especially in masculine fields, as such programs can guide and train all the across—gender workforce to accept women to senior positions or on corporate boards (Varriale, Buonocore and Ferrara, 2016).

Finally, the literature from the EU blue economy argues that to bridge the gender gap in sectors such as marine renewable energy and maritime transport that is in its transition towards technological advancements and automation, training is necessary in energy-related areas and technical skills (Clancy, and Feenstra, 2019; Di Vaio, 2023; Kim et al, 2019).

Given these factors, this section of the report documents respondents' views related to training, mentorship and career opportunities. Figure 21 shows the survey results for the broad question on access to the opportunities.

Figure 21 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career’s aspirations.”



More than half of respondents (61%) provided a positive answer. However, the percentage of positive responses is lower among female respondents (57%), compared with male respondents (68%). A higher percentage of females (11% versus 6%) also disagreed with the availability of opportunities for their career aspirations.

When analysing the same question but across the blue economy sectors (see Figure 22), we can observe a higher percentage of negative responses in living resources (24%), followed by R&D (17%), ports and shipping (11%) and blue biotechnology (5%). A high percentage of respondents chose the “neither agree nor disagree” option in research and education (52%), living resources (31%) and R&D (23%). The sample in Marine renewable energy, coastal tourism and public administration is small for the data to be considered solid and shall be analysed with caution.

Figure 22 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career aspirations: broken down by sectors.”

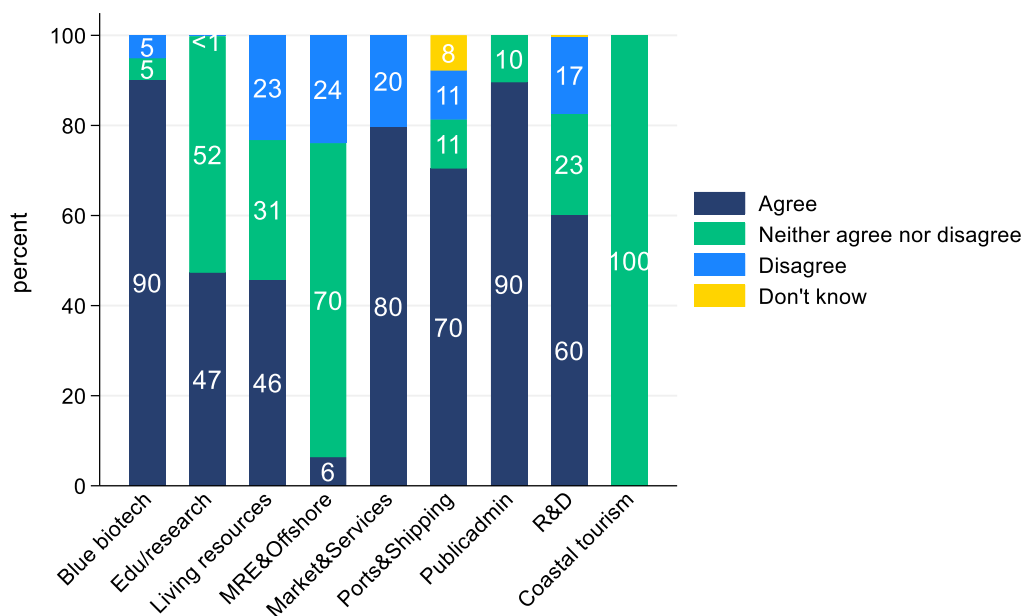


Figure 23 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career aspirations: breakdown of responses across types of organisation.”

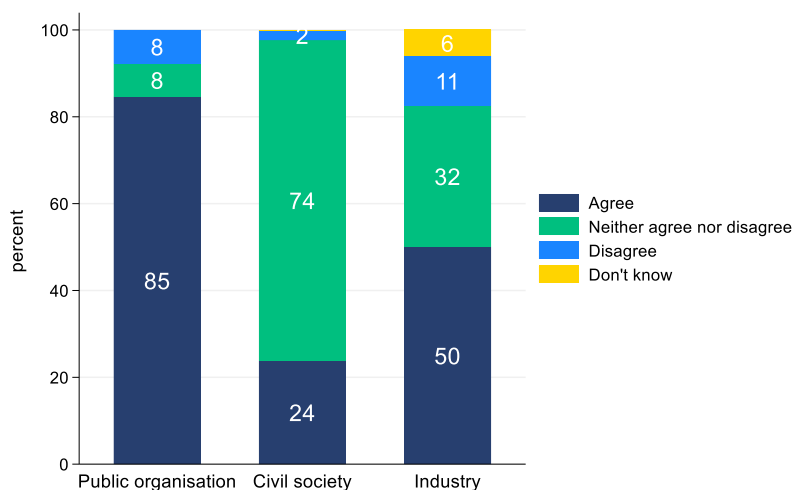
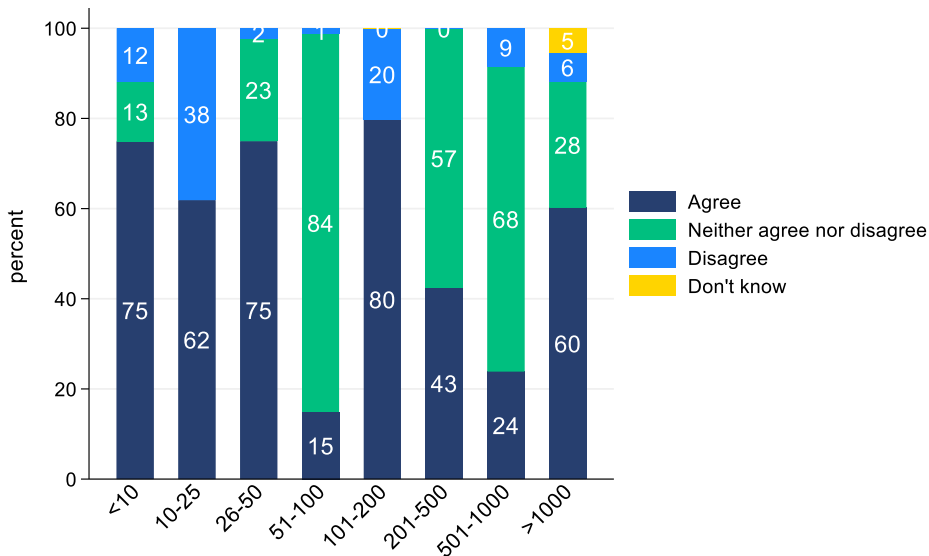


Figure 23 illustrates the availability of access to opportunities across the types of organisations. The highest percentage of positive responses regarding the access to opportunities for career growth is observed among respondents working in public organisations (85%). At the same time, a high percentage of respondents who work in civil society organisations chose neutral response (74%), depicting some loss of enchantment or belief in career progress possibilities.

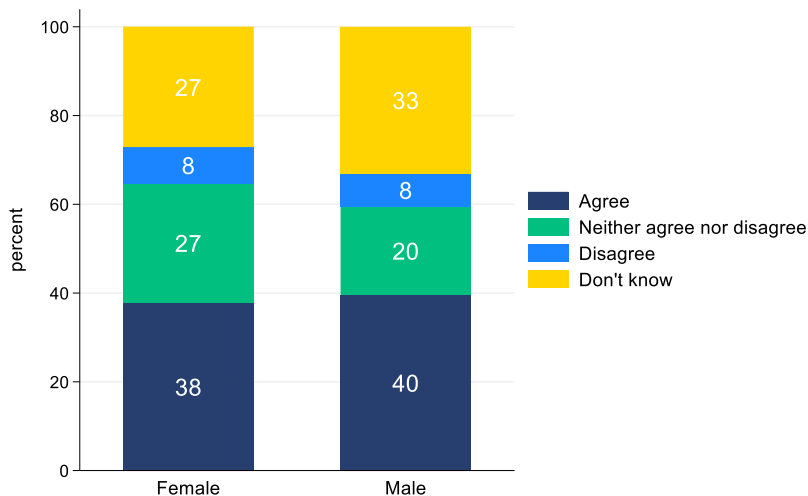
Analysis across different organisation sizes (see Figure 24) indicates, again, a significant tendency toward neutral responses among employees in large firms. A majority of respondents in firms with 201-500 employees (57%) and those with 501-1000 employees (68%) chose “neither agree nor disagree” option when asked about opportunity availability. This neutral view was also substantial, though lower, in largest firms (over 1000 employees), where 28% of respondents shared this perspective.

Figure 24 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the opportunities I need to support my career aspirations: breakdown of responses across organisations of different size.”



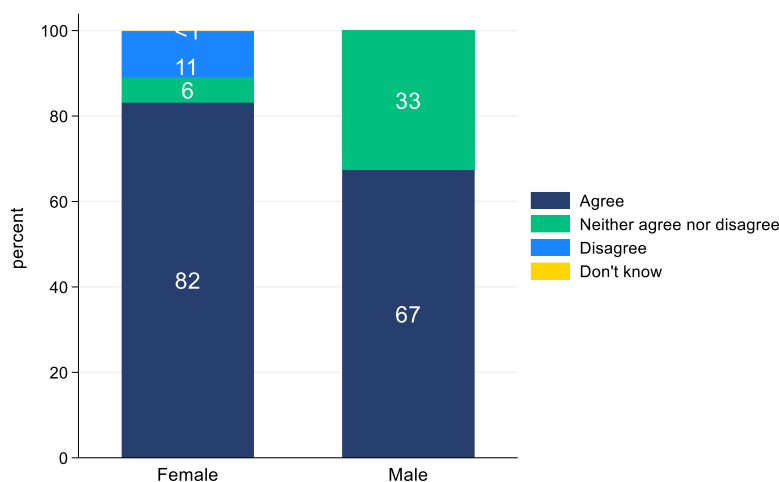
As shown in Figure 25, about 38% of respondents agreed to the statement “The process of applying for an internal vacancy is fair and transparent”.

Figure 25 Baltic Sea Basin responses to the WIN-BIG Survey question: “The process of applying for an internal vacancy is fair and transparent?”



There is a small difference among female and male respondents, as 38% of women and 40% of men provided a positive response. Slightly higher percent of women chose a neutral response (27% female versus 20% male). At the same time, it is noteworthy, that a high percentage of respondents answered that they do not know whether the process of applying for an internal vacancy is fair and transparent (27% female and 33% male). This result indicates that the process of vacancy applications is not transparent or the employees are not well informed about it, leaving space for improvements within organizations towards openness and transparency of recruitment processes.

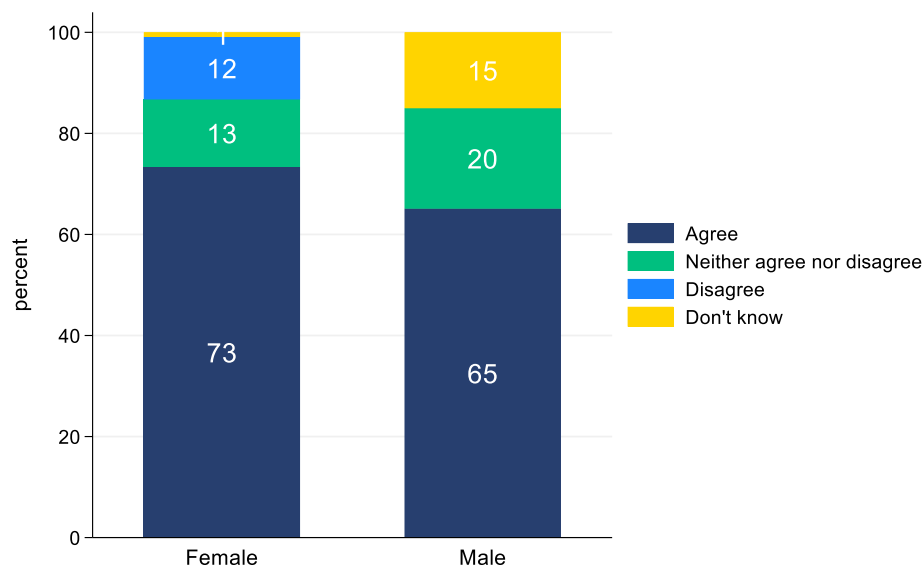
Figure 26 Baltic Sea Basin responses to the WIN-BIG Survey question: “I have access to the training I need to support my career aspirations.”



In total, 77% of respondents agree with the statement “I have access to the training I need to support my career aspirations” (Figure 26). A much higher percentage of female respondents confirmed that they have access to the training they need (82% female vs. 67% male). Still, among female respondents 11% disagreed that they have access to training. Among male respondents, while no negative responses were provided, 33% of men neither agreed nor disagree with the statement about training availability, demonstrating again some lack of empathy or knowledge of these issues.

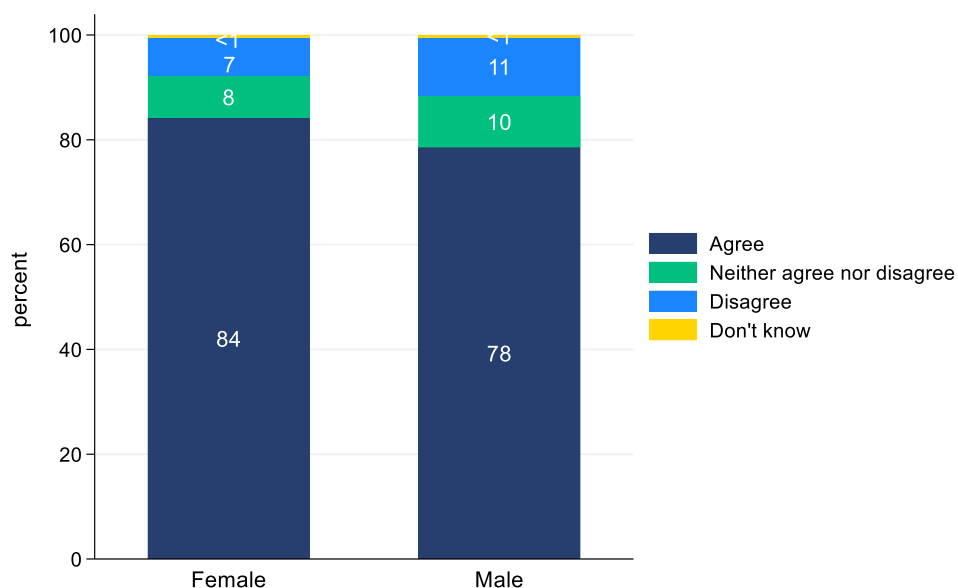
On the other hand, regarding the assertion, “I have access to the mentoring (formal or informal) I need to support my career aspiration”, the majority of respondents (70%) affirmed this view. Similarly, to the statement on training availability, a higher percentage of women (73%) agreed that they have access to the mentoring they need for their career aspirations, compared to 65% of male employees. Again, males also show more neutrality (20%) than females (13%) and uncertainty (15% of men chose “don’t know” option) indicating slightly more uncertainty about mentoring availability or effectiveness, or a lack of empathy towards these mechanisms and relevance of these questions (Figure 27). Among females, while a high portion of respondents provided positive response, 12% still noted that they do not have access to mentoring.

Figure 27 Baltic Sea Basin responses to the WIN-BIG Survey question: "I have access to the mentoring (formal or informal) I need to support my career aspirations."



When asked about the existence of direct supervision support mechanisms the results showed again slightly different gender perceptions.

Figure 28 Baltic Sea Basin responses to the WIN-BIG Survey question: "My direct supervisor supports my career aspirations."



As shown in Figure 28, the majority of respondents (82%) reported agreement with the statement "My direct supervisor supports my career aspirations". Slightly a higher percentage of female respondents (84%) feel more supported than male respondents (78%). On the other hand, a bit higher percentage of males (11%) chose strongly disagree/disagree option, compared to 7% of

female employees. There is almost no difference in the neutral response option among the genders, as 8% of female and 10% of male respondents selected “Neither agree nor disagree”. The higher disagreement among males shows more dissatisfaction about the communication with their supervisors regarding their career aspiration.

Table 7 summarizes the biggest challenges to progression respondents have faced in pursuing a career in their industry. Respondents ranked top four where 1 is/was the biggest challenge and 4 is/was the fourth biggest¹⁵.

Table 7 Baltic Sea Basin responses to the WIN-BIG Survey question: “What are/were the biggest challenges to progression you have faced in pursuing your career?”

Challenges	Percentage
Ranked 1 st : Lack of promotion opportunities	60%
Ranked 2 nd : Lack of experience	44%
Ranked 3 rd : Gender discrimination	41%
Ranked 4 th : Market forces & competition followed	32%

In the Baltic Sea Basin, 60% of respondents ranked lack of promotion opportunities as the primary barrier to their career progression. Lack of experience was the second highest ranked challenge (44%). Gender discrimination was selected as the 3rd biggest challenge (41%). Market forces & competition followed as the 4th key concern (32%).

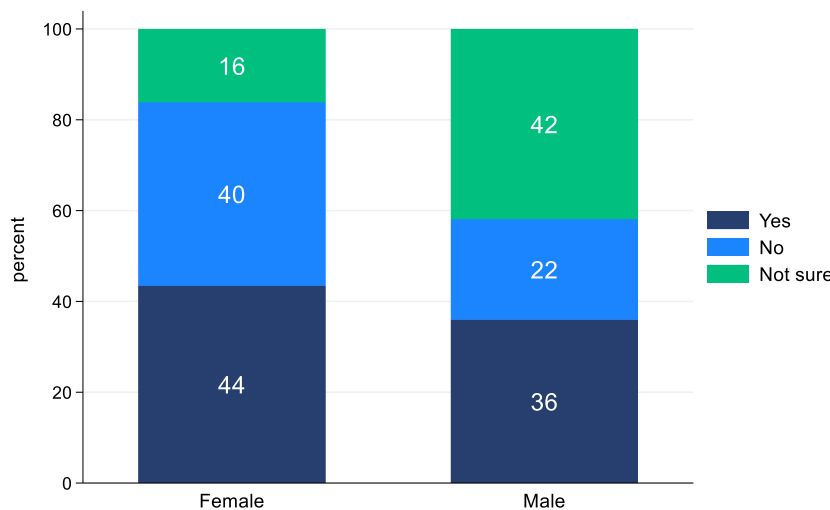
¹⁵ Following choices were available in the survey: lack of education/training, lack of support, lack of promotion opportunities, position requires travel, gender discrimination, family commitment, lack of relevant experience, work-life balance, market forces & competition, other reason (please state).

GENDER BIAS POLICIES AND FRAMEWORKS IN THE WORKFORCE

To identify the prevalence and use of policies that might support gender equality, the survey also asked respondents about the existence of formal organization/firm policies and rules for gender balance in hiring and career promotion, or the existence of internal gender plans at their workplaces. Gender parity laws on Boards of Directors, incorporation of gender mainstreaming into policies, policies on work-life balance are recognized factors that can promote gender equality (Alonso Gallo and Gutiérrez López, 2023; Casey, Skibnes and Pringle, 2011).

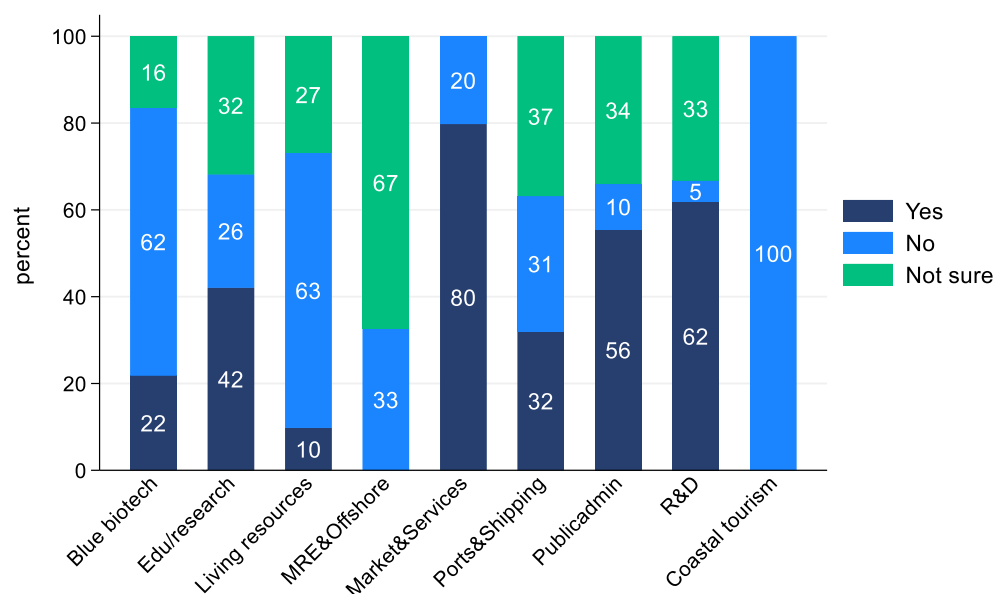
Figure 29 shows that regarding formal strategies or policies related to gender balance in hiring, 41% of the total respondents answered positively, while 59% negatively or were not sure.

Figure 29 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation has a strategy or formal policy related to gender balance in hiring processes?”



There is, however, a difference in the responses among female and male respondents (see Figure 29). Although a higher percentage of females (44% female versus 36% male) confirmed that their firm has a gender policy related to hiring processes, slightly less than half of the female respondents (40%) answered that their organisation does not have a policy/strategy related to gender balance in hiring processes in contrast to 22% of male respondents. A high percentage of negative responses by female respondents indicates that the hiring process remains less transparent and equitable. Noteworthy, much higher percentage of male respondents (42%), compared to 16% of females were not sure whether their organisation has a strategy/policy on gender balance in hiring, again demonstrating some sort of absence or lack of interest in these types of rules and mechanisms.

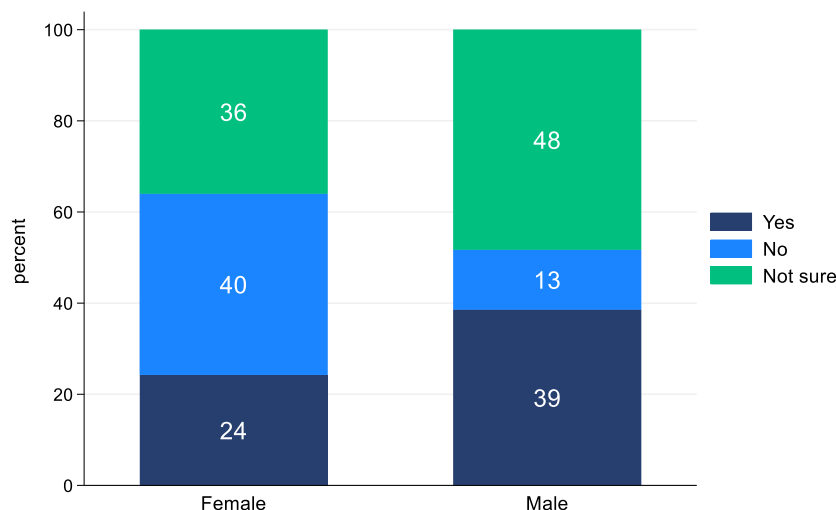
Figure 30 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation have a strategy or formal policy related to gender balance in hiring processes? (Broken down by sector)”



Across the blue economy sectors, as shown in Figure 30, a high percentage of employees working in living resources (63%), blue biotechnology (62%), ports and shipping (31%), and research and education (third level) (26%) answered that their organisation does not have a policy related to gender balance in hiring. The percentage of respondents who chose “not sure” option is higher in ports and shipping (37%), R&D (33%), education and research (third level) (32%) and living resources (27%). The sample of marine renewable energy, coastal tourism and market & services is small to be considered relevant and shall be taken with caution. These results reinforce some lack of communication or transparency, or lack of knowledge from respondents, about these norms.

Figure 31 displays the results on whether respondents’ organisations had a formal gender policy/plan.

Figure 31 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation have a formal gender policy/plan?”



In total, 30% of respondents reported that their organisation does not have a formal gender policy or plan. There is a noticeable gender bias perception in this matter: slightly less than half of female respondents (40%) indicated that their organisation lacks a gender policy, compared to only 13% of male respondents. Two possible explanations can be considered. First, men may be less aware of existing gender inequalities and therefore assume that appropriate gender policies are in place. Second, men might perceive that women are more favourably treated than how they actually are in reality. At the same time, a quite high percentage of men (48% versus 36%) were not sure about the existence of formal gender policy plan at their organisations, possible again due to a lack of knowledge or interest on such topics.

As shown in Figure 32, across the blue economy industries, 45% of respondents in living resources, 24% of respondents in ports and shipping, 23% in research and education (third level) and 20% in blue biotechnology reported that their organisation does not have a formal gender policy plan. In these sectors, the respondents also reported that they are not sure if their organisation has a gender policy plan. The highest percentage of unsure responses is in blue biotechnology (63%) and ports and shipping (49%). The sample in marine renewable energy, market and services and coastal tourism represents a small sample, and data cannot be considered representative. The absence of gender policies may have a negative impact on the career growth of female employees.

Figure 32 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation have a formal gender policy/plan? (broken down by sector)”

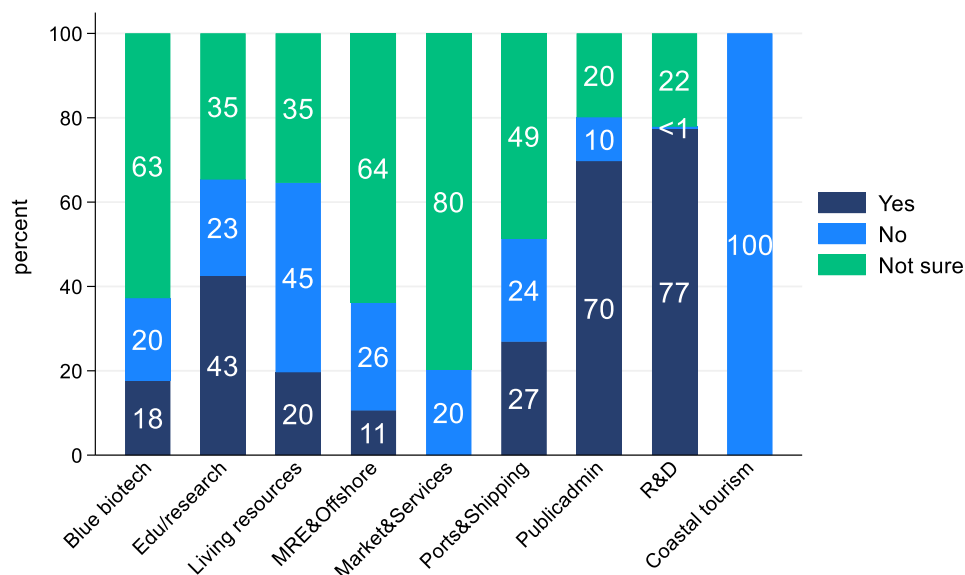
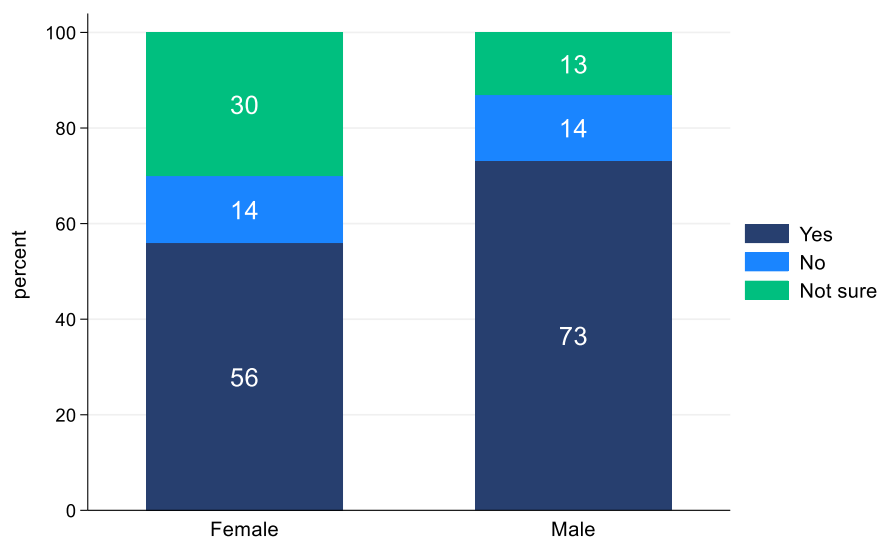


Figure 33 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does your firm/organisation formally or informally support the promotion and advancement of women?”



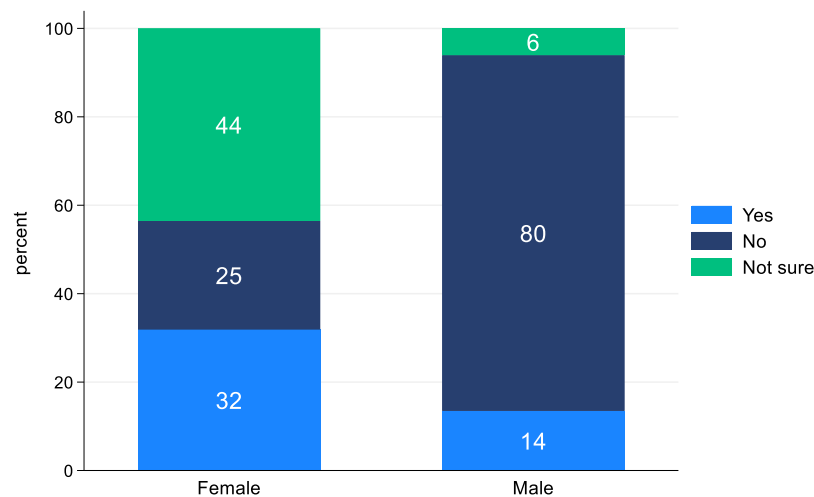
When questioned about the existence of formal or informal support to the promotion of women, a lower percentage of female respondents provided a positive answer. As shown in Figure 35, 56% of female respondents and 73% of male respondents perceive their organisation as supportive of women’s career growth. A much higher percentage of females was also not sure about the organizational support (30% females versus 13% males). This disparity suggests that some women may not fully trust the organisation’s commitment to their advancement. Uncertainty from respondents (both male and female) also suggests a lack of clarity or visibility around what specific support exists and how it is applied in practice for these respondents.

PERCEPTION OF BARRIERS

Similarly to the analysis of perceived opportunities, the WIN-BIG survey also asked respondents about their perception of barriers to career progression within their organisations/firms and across industries and sector. This section also presents the results on whether the respondents' companies have female managers and role models.

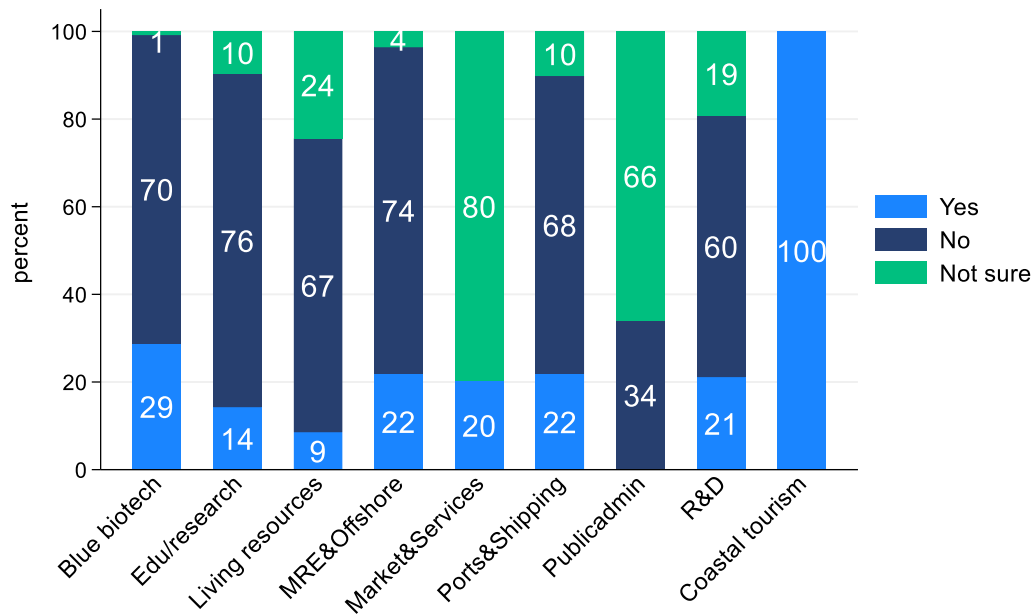
According to Turesky and Warner (2020) companies with female-managers have greater gender sensitivity, more flexible work-life benefits and perceived equal opportunities. An increased of share of female top managers is also associated with subsequent increases in the share of women in midlevel management positions (Kurtulus and Tomaskovic-Devey, 2012). Studies also find that female role models reduce stereotype threat and positively impact women's career-related engagement (Cortland and Kinias, 2019; Sealy and Singh, 2010).

Figure 34 Baltic Sea Basin responses to the WIN-BIG Survey question: "In your opinion, do barriers exist preventing women being promoted to senior positions in your firm/organisation?"



As shown in Figure 34, 25% of respondents answered that there are barriers preventing women being promoted to senior positions. Again, we observed a gender biased perception. A higher percentage of females 32% answered that "yes" there are barriers, compared to 14% of male employees. Significantly more females (44%) than males (6%) were uncertain about the existence of barriers preventing them from reaching senior positions.

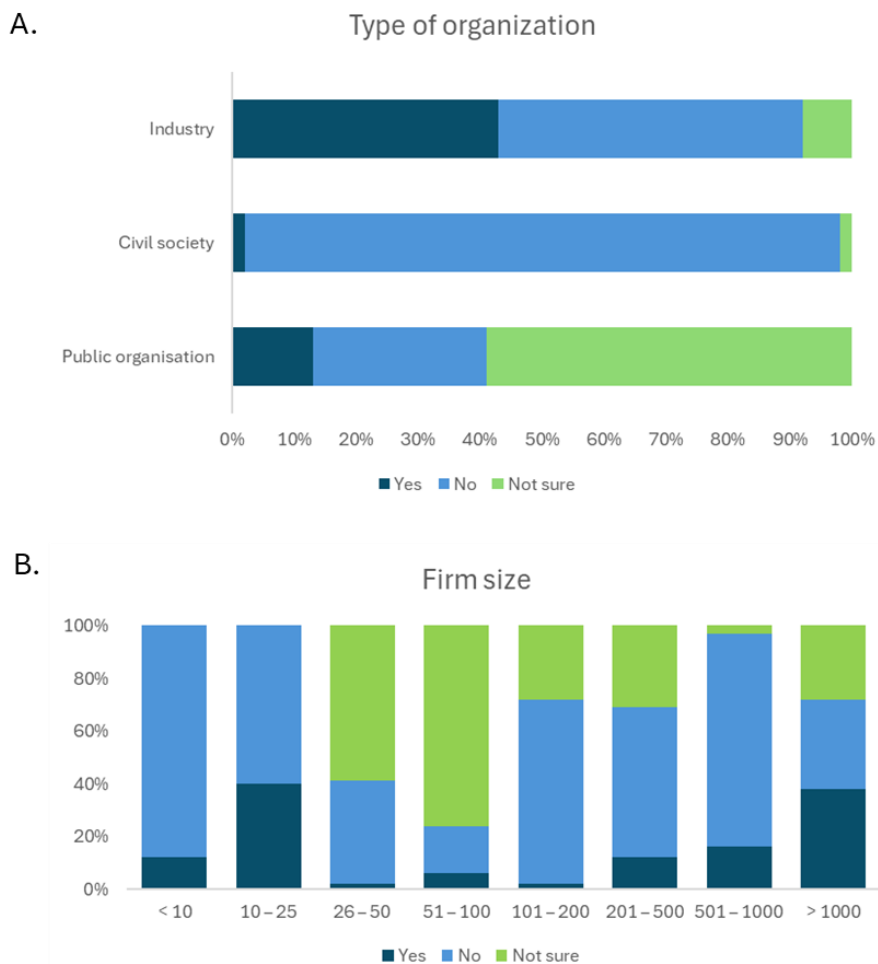
Figure 35 Baltic Sea Basin responses to the WIN-BIG Survey question: “In your opinion, do barriers exist preventing women being promoted to senior positions in your firm/organisation? (broken down by sector)”



When studying the question across the blue economy sectors (Figure 35), we can observe that the highest percentage of respondents who think that there are barriers preventing women being promoted work in blue biotechnology (29%), ports and shipping (22%) and in R&D (21%). The sample of marine renewable energy, public administration, coastal tourism and market and services is small and therefore related results must be viewed with caution.

Figure 36 presents the breakdown of the question on barriers by the type of organisation and firm size. Across the types of organisations, a higher percentage (43%) of employees in industry think that there are barriers for females being promoted to senior positions, compared to employees in civil society (2%) and public administration (13%).

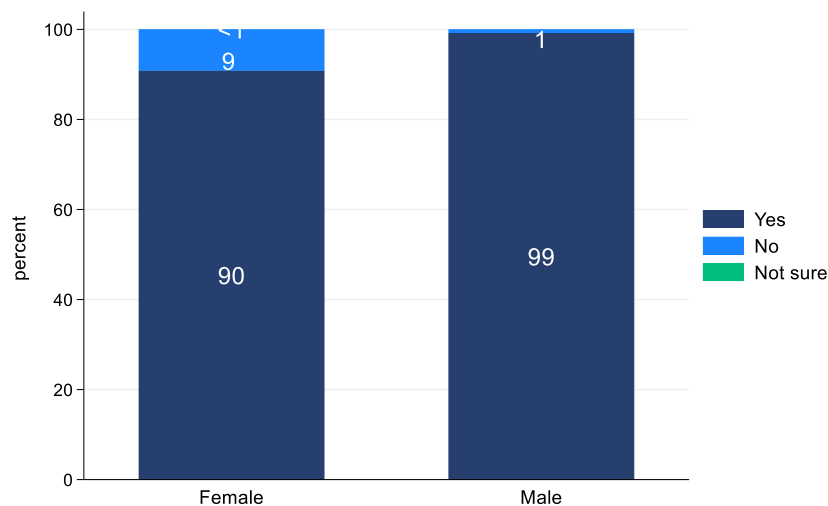
Figure 36 Baltic Sea Basin responses to the WIN-BIG Survey question: “In your opinion, do barriers exist preventing women being promoted to senior positions in your firm/organisation?” (broken down by type of organisation (A) and firm size (B))



When studying the size of the organisations, we can observe that the highest percentage of respondents (38%) who think there are barriers work in in firms with over 1000 employees. The sample of employees working in firm with 10 – 25 and 51-100 is small to be considered relevant.

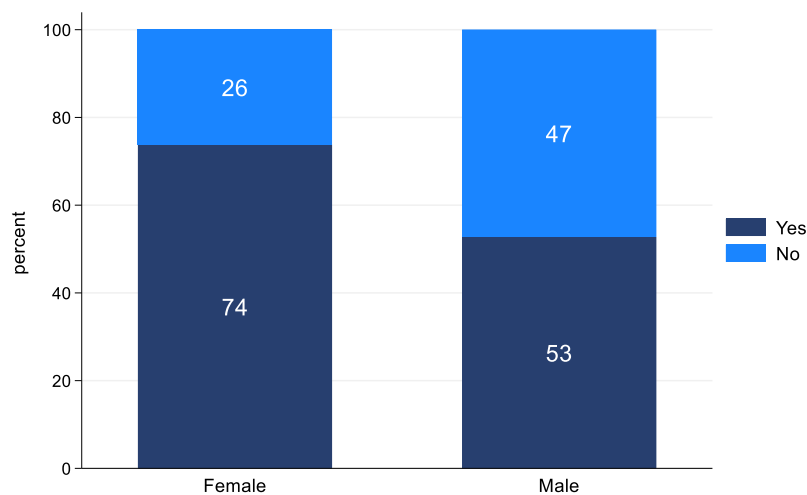
When assessed from a different perspective, on whether respondents’ organisations include women in managerial positions, approximately, 94% of respondents mentioned that they have a woman manager in their organisations (90% female and 99% male). Figure 37 illustrates this result.

Figure 37 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you have any women managers in the firm/organisation?”



This is an interesting result, given that women are underrepresented in certain blue economy industries, especially at senior levels.

Figure 38 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you personally have any women role models in the firm/organisation?”

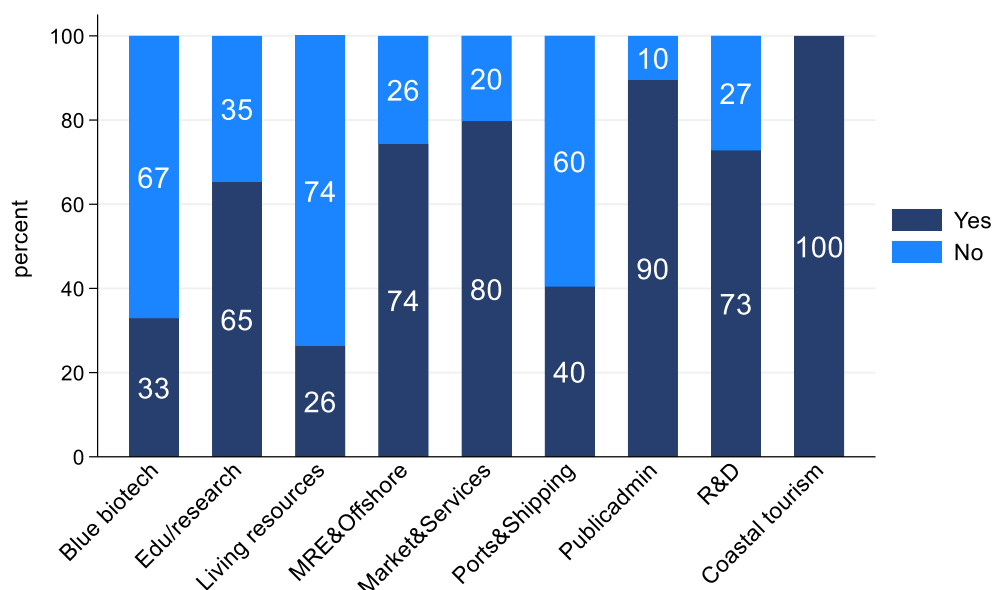


Compared to the question on female managers, a more negative responses are observable when it comes to the presence of female role models across organisations, as 66% of respondents noted that they have female role models (Figure 38). A higher percentage of female respondents provided a positive response (74% female versus 53% male). While, this percentage represents more than half of the sample, still a significant portion of the respondents (34%) said that they do not have female role models. This is most likely due to the underrepresentation of women in blue economy

organisations. It may be the case that while some female managers exist within the organisations, they may not actively act as role-models to employees or there may be too few to play this role.

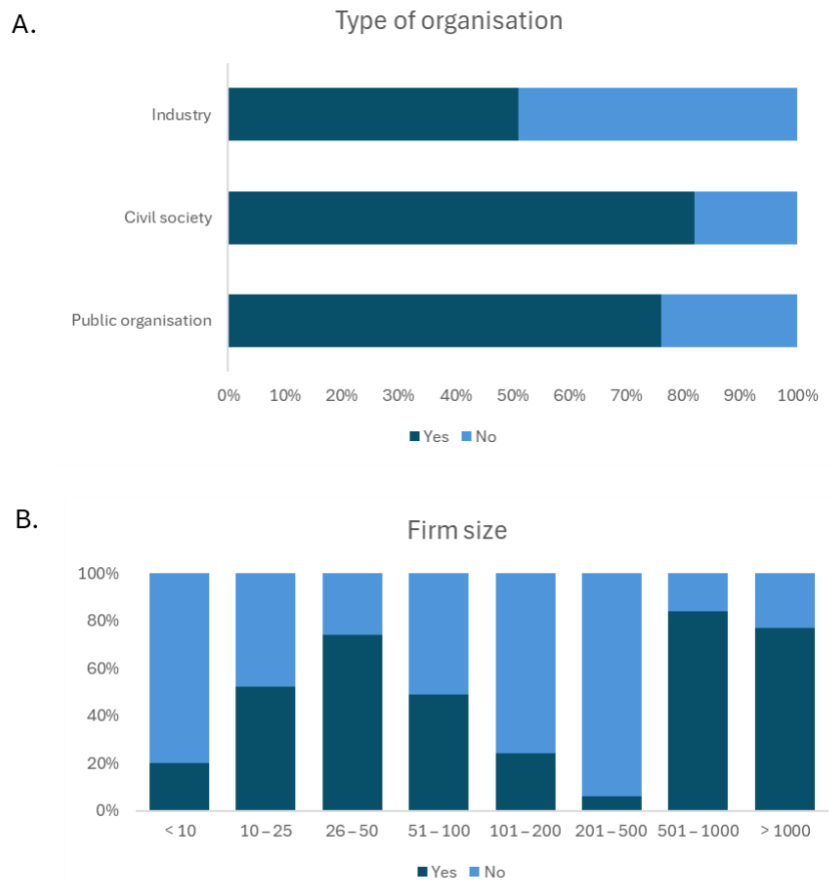
When this issue of women in managerial positions was looked at across the blue economy sectors, Figure 39 shows that 74% of respondents in living resources, 67% in blue biotechnology and 60% in ports and shipping answered that they do not have a female role model, all sectors where women are underrepresented.

Figure 39 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you personally have any women role models in the firm/organisation? (broken down by sector)”



When looking across the types of organisations, a higher percentage (49%) of employees in industry compared to those working in public organisations (24%) or civil society (18%) noted that they do not have female role models at their firm (Figure 40).

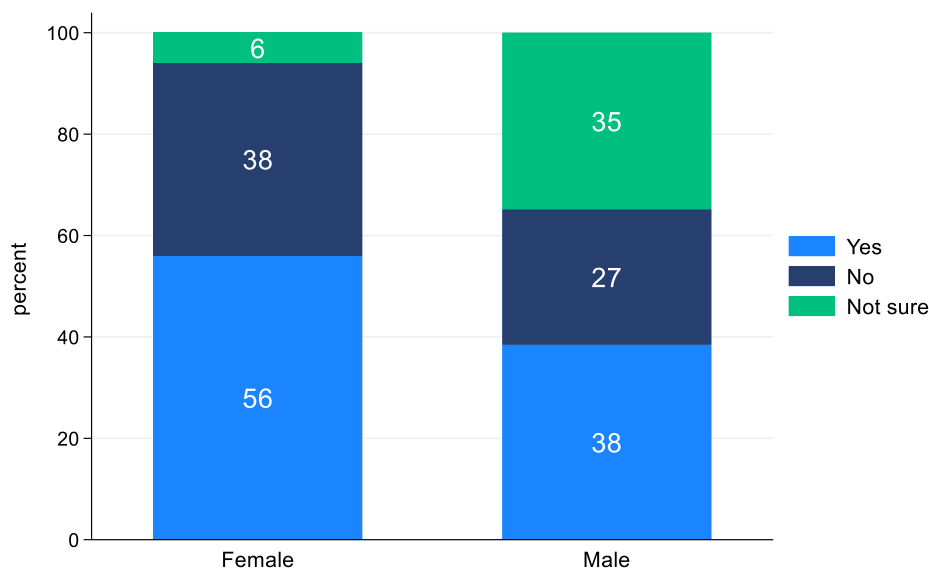
Figure 40 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you personally have any women role models in the firm/organisation? (broken down by organisation type and firm size)”



The results shows that the larger the organization a higher percentage of employees seem to have female role models. For example, 84% of respondents in in organisations with 501-1000 employees and 77% with over 1000 employees answered they have a female role model, while in smaller companies with less than 10 employees the percentage of respondents who have female role models was 20%. The sample of employees working in firm with 10 – 25 and 51-100 is small for the results to be considered relevant.

WIN-BIG investigated whether the social structures in place in each member state are perceived to impact the progress of gender equality.

Figure 41 Baltic Sea Basin responses to the WIN-BIG Survey question: “Does the social structures in the country where your firm is based (the norms/patterns of relations between family, religion, economic, political and education institutions of the society) impact on the achievement of gender equality in your industry?”



Almost half (49%) of respondents believe that social structures in the country where their firm is based (the norms and patterns of relations between family, religion, economic, political and education institutions of the society) impact the achievement of gender equality in their industry (Figure 41). Of note, a higher percentage of female respondents indicated that social structures impact gender equality (56% females versus 38% male). This variation suggests that females may perceive that the role societal norms has a greater impact in shaping gender inequalities. This is variable across sea basins and demonstrates clearer societal perceptions and knowledge across EU regions.

Respondents were also given opportunities to provide qualitative feedback regarding their experiences. One question related to factors that they perceived hindered career progression.

In blue biotechnology (one of the target sectors of the WIN-BIG project, and also an emerging field), most often the respondents mentioned **lack of work-life balance, and experience gap after the return from carer's leave**. They also referred to the concept of the **glass ceiling in their industry**, which literature defines as the presence of structural impediments, such as discrimination and gender bias, that do not allow women to gain access to top positions (e.g. Krambia Kapardis, Mavrikiou and Symeou, 2025; Purcell, Rhea MacArthur, and Samblanet, 2010). Respondents also made a reference to the idea of “leaky pipeline” which is defined by the scientific community as a phenomenon where higher number of females leave their industry than men (Auriol, Friebe and Wilhelm, 2020). Respondents mentioned that in the Baltic Region blue biotechnology is a male-dominated sector, with low number of female leaders who chose employees within their own networks.

In the traditional shipping industry, it was frequently noted that females still present a small number of the workforce and superiors on the vessel might be biased and block any promotion of women. It was also noted that **family commitment and the issue of being away from home** is a major challenge for women.

In aquaculture, family commitment was often mentioned. This factor was explained with the issue of relocation. One respondent noted that some positions require relocation which is hard to balance with family.

As for the research and education (third level) industry, the respondents noted lack of mentoring opportunities, lower salaries and family obligations. One of the respondents noted that long work hours and a lot of travel conflict with maintaining family life. In Research and development, respondents frequently mentioned that their organisations lack work-life/family balance. If a female employee aims to get a promotion, then she needs to work more, and in general it was reported that management is not supportive in the inclusion of employees in the lower level. One of the respondents also noted that there are prejudices about women's skills and qualifications.

FEMALE PERCEPTIONS OF GENDER INEQUALITIES

In this section of the survey, female only respondents were invited to respond to questions related to the gender pay gap, their perceptions of whether they are treated equally to men in the workplace and whether they have the same promotion opportunities as men. Equal treatment at work, equal pay and opportunities are fundamental principles of EU law (Guerrero Padrón et al., 2023). Most EU countries prohibit gender discrimination by law and have enacted specific equal treatment legislation (Böök, 2021). Nevertheless, studies note that the gender wage gap still remain a problem (Hedija, 2017; Lausi et al., 2021; Segovia-Pérez, 2019, Landmesser et al., 2019).



Figure 42 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel you are treated the same as men in your workplace?” Female responses only.

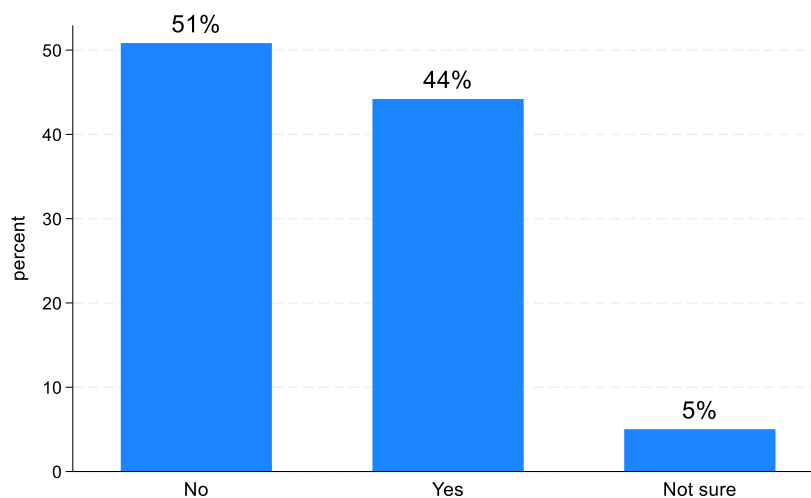


Figure 42 shows female respondents’ perceptions of whether they feel they are treated the same as men in their workplace. In total, more than half (55%) of female respondents reported that they do not feel or are unsure they received the same treatment as their male colleagues in the workplace. Respondents who gave a negative answer were able to explain why they felt that way and similar patterns emerged within certain industries. Women face difficulties combining fieldwork with childcare. In shipping gender pay gap was mentioned. Unequal salaries were also noted by respondents working in blue biotechnology and research and education (third level). In blue biotechnology and aquaculture respondents mentioned that females are regarded as assistant and men are the managers or those who do business. In marine renewable energy, harassment was reported and it was noted that while male colleagues with less experience are considered for the promotion, females are not considered for promotion. Both in R&D related to the marine and in marine robotics, the respondents noted that men’s opinion is easier accepted and male colleagues take females’ ideas and present them as their own.

Figure 43 Baltic Sea Basin responses to the WIN-BIG Survey question: "If you are treated differently, how often does this happen?". Female responses only.

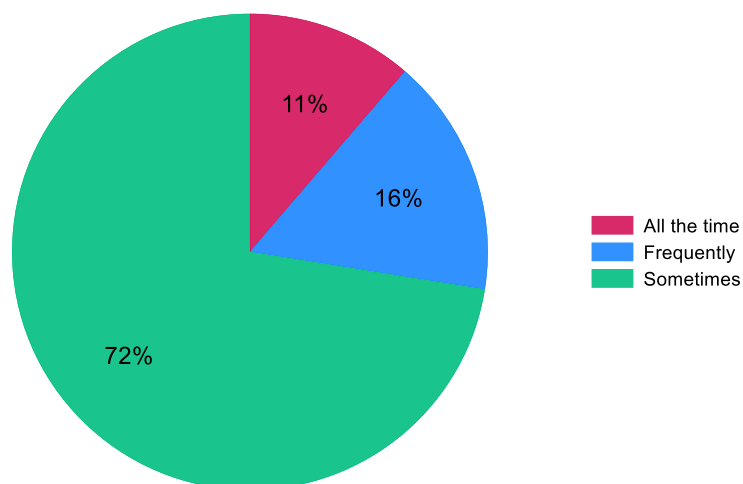
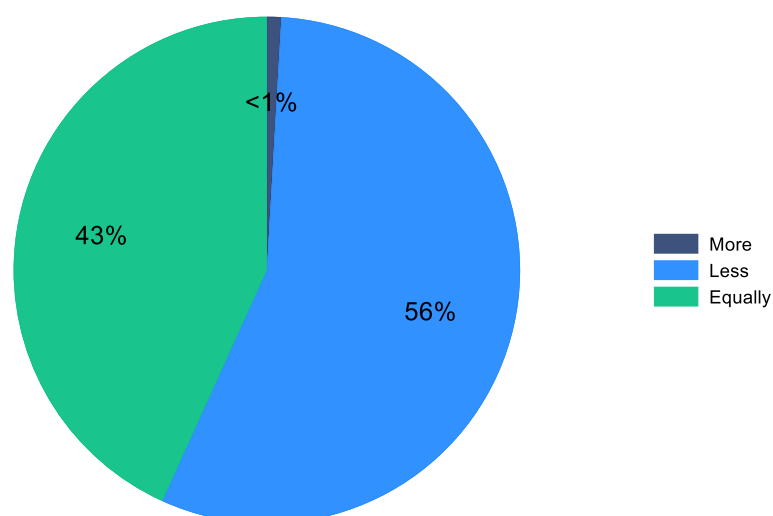


Figure 43 is an extension of the question regarding the perception of being treated the same as men. This question was not mandatory and includes a sample of 44 responses (42% of respondents in the sample). It illustrates the frequency with which women perceive being treated differently: more than half of females (72%) of this sample reported experiencing occasional unequal treatment, while 16% of female respondents in the sample expressed that it occurs frequently and 11% reported that this happens all the time. The high combined share "all the time" and "frequently" answers indicates that such experiences are not isolated occurrences but rather recurring aspects of workplace interactions towards women.

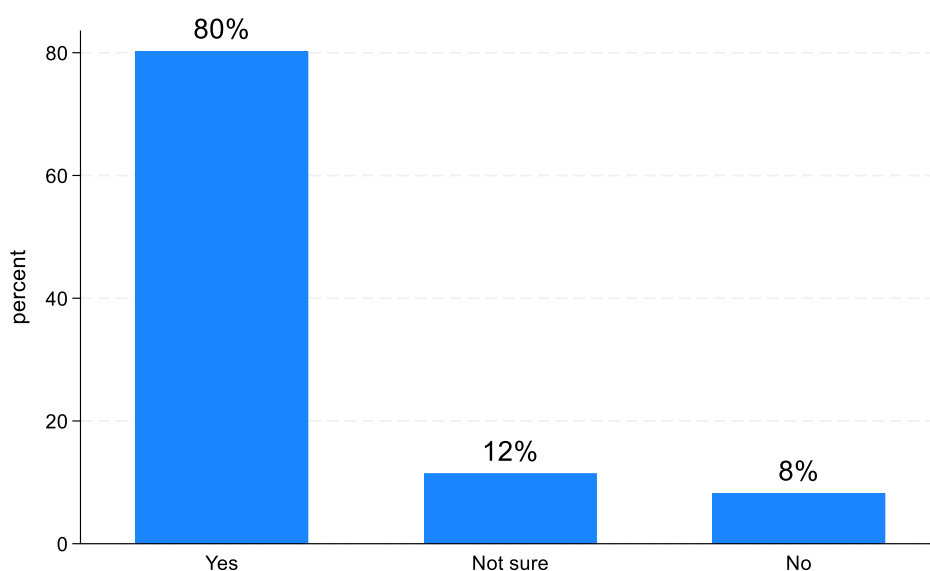
Figure 44 Baltic Sea Basin responses to the WIN-BIG Survey question: "In comparison with your male counterparts do you feel that you have more, less, or equal promotion opportunities in your industry?". Female responses only.



Examining the promotion opportunities available to women compared to their male counterparts, noteworthy that 56% of females think they have less opportunities in their industry, while 43% feel that they have equal promotion opportunities (Figure 44). This high percentage of female respondents who feel they have less opportunities shows that female employees might be in a disadvantaged position. Imbalanced opportunities available to men and women may slow down their career progression and lead to a lower number of women in senior roles.

Noteworthy, that despite a negative perception of opportunities for females, respondents are more positive about the change over time in the attitudes and behaviour towards women in their industry.

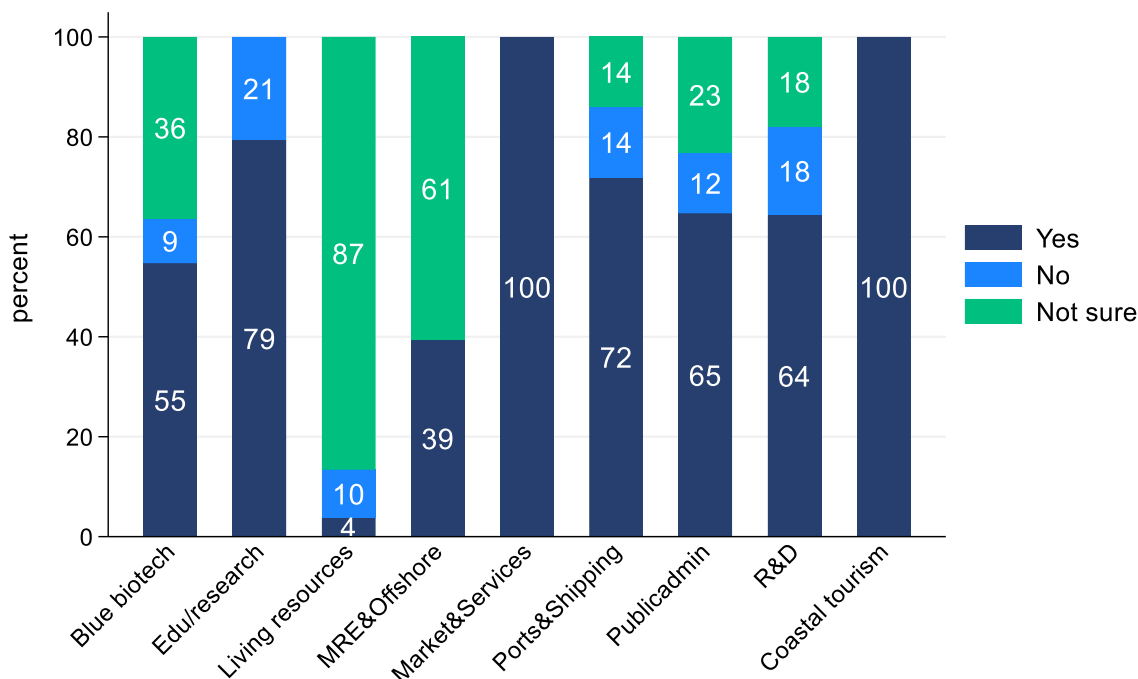
Figure 45 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career?”. Female responses only.



Overall, 80% of female respondents think that attitudes and behaviour towards women in their industry have changed for the better during their career (Figure 45). This suggests that while most women perceive progress in gender-related attitudes, some women remain uncertain about the extent of this change or do not see it in their particular industry.

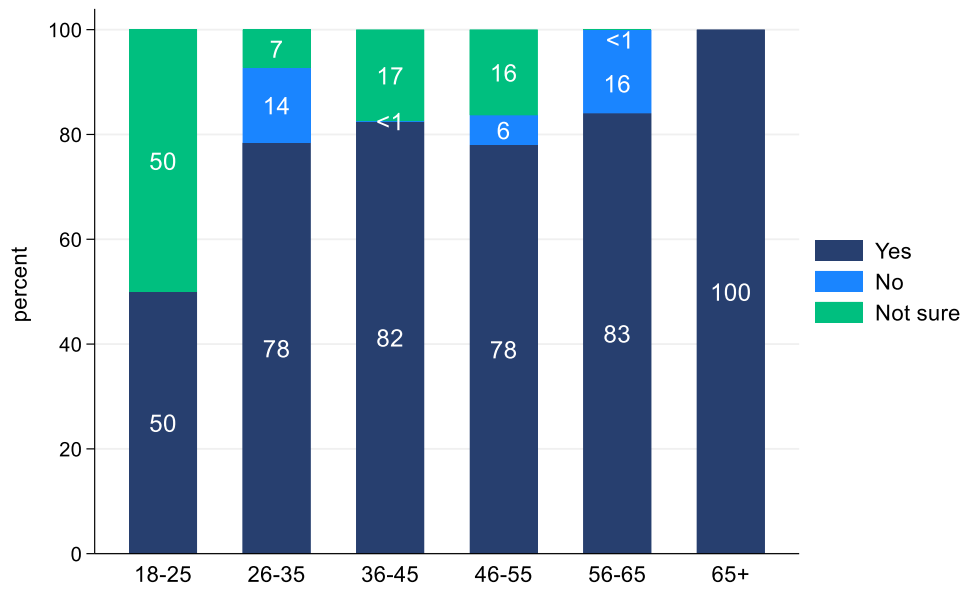
The highest percentage of respondents who think that attitudes towards women in their industry have not changed, work in the research and education related (third level) (21%), R&D related to the marine (18%) and in ports and shipping (14%). Noteworthy that in living resources 87% of respondents, and in blue biotechnology 36% of respondents, said that they are not sure that attitudes have changed for the better (Figure 46). While overall, females provided a positive response to the changes of attitudes and behaviour in most sectors, the example of the emerging sector of biotechnology shows that the process of change is not easy. The high percentage of “not sure” in the living resources sector also shows that it might be difficult to observe positive changes in traditional sectors as well.

Figure 46 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career? (broken down by sector)”. Female responses only.



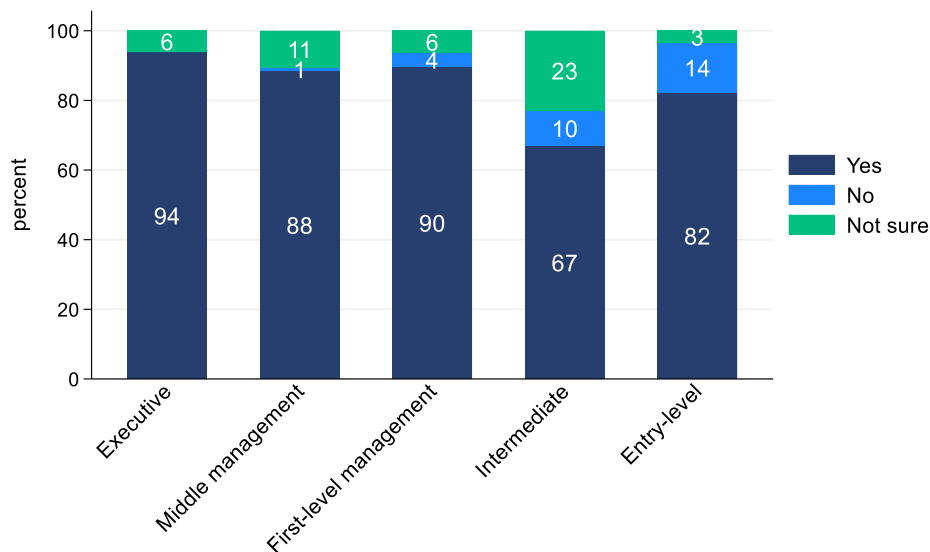
When studying the personal background of the respondents and the question on the change in the attitudes (Figure 47), we can observe that those aged 26-35 are the largest proportion of respondents who think that attitudes towards women have not changed for the better. Among female respondents aged between 36-45, 17% of respondents answered that they are not sure about the positive change and 16% in the age group of 46-55 have the same opinion. The sample of the respondents aged between 18-25, 56-65 and 65+ is a small to provide relevant data for analysis.

Figure 47 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career? (broken down by age)”. Female responses only.



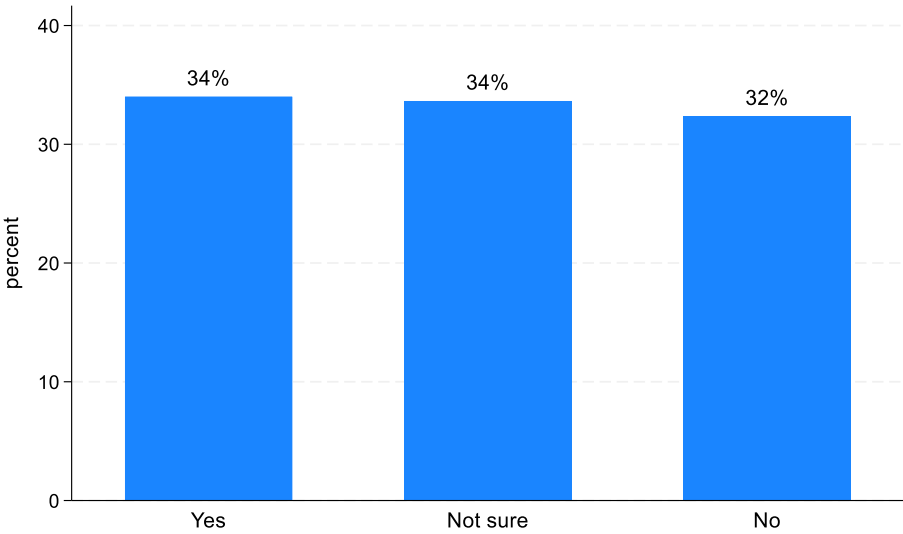
Across the female respondents according to their employment level (Figure 48), it is observable that lower percentage of females occupying intermediate (67%) positions think that the attitudes and behaviour towards women have improved during their career.

Figure 48 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you feel that attitudes and behaviour towards women in your industry have changed for the better during your career? (broken down by employment level)”. Female responses only.



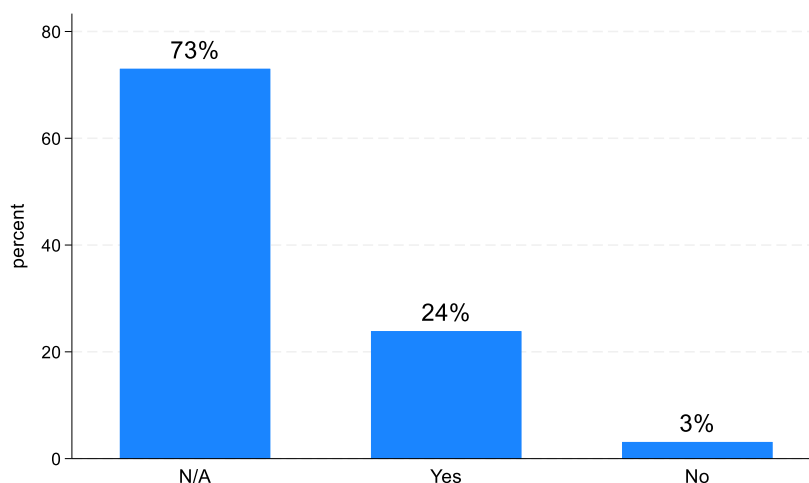
In terms of gender pay-gap, a striking 68% of female respondents are unsure or believe they are paid less than their male colleagues doing the same job (Figure 49). The 34% of negative responses illustrates the ongoing gender pay gap, a topic frequently debated in the scholarship and by policymakers. At the same time, the 34% of unsure responses suggests that salary and payment information is likely non-transparent or undisclosed at the company level.

Figure 49 Baltic Sea Basin responses to the WIN-BIG Survey question: “Do you think you are currently being paid less than your male colleagues, doing the same job, in your industry?”. Female responses only.



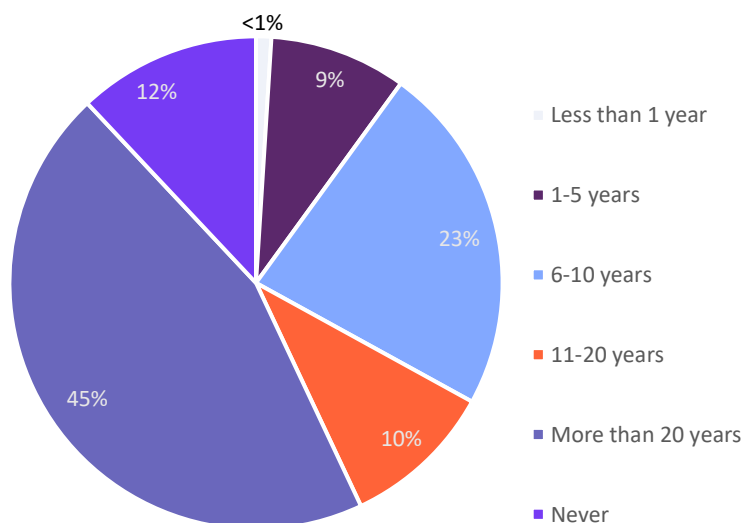
The survey also addressed the question about the provision of right equipment for female employees across the blue economy sectors (see Figure 50). Only 3% of respondents provided a negative response, with 73% not answering.

Figure 50 Baltic Sea Basin responses to the WIN-BIG Survey question: “If required for your work, are you provided with the right equipment (including the right size/fit) to carry out your role, including Personal Protective Equipment (PPE) (by sector)?”. Female responses only.



Finally, the survey asks female respondents their views on how long in years it will take to reach gender equality in their industry (Figure 51).

Figure 51 Baltic Sea Basin responses to the WIN-BIG Survey question: “How long do you think it will be until gender diversity in your industry is equal?” Female responses only



Among female respondents, the majority (45%) think that gender diversity in their industry will take more than 20 years to reach equality, while 10% think it will require 11-20 years, and 12% of females think that it will never happen.

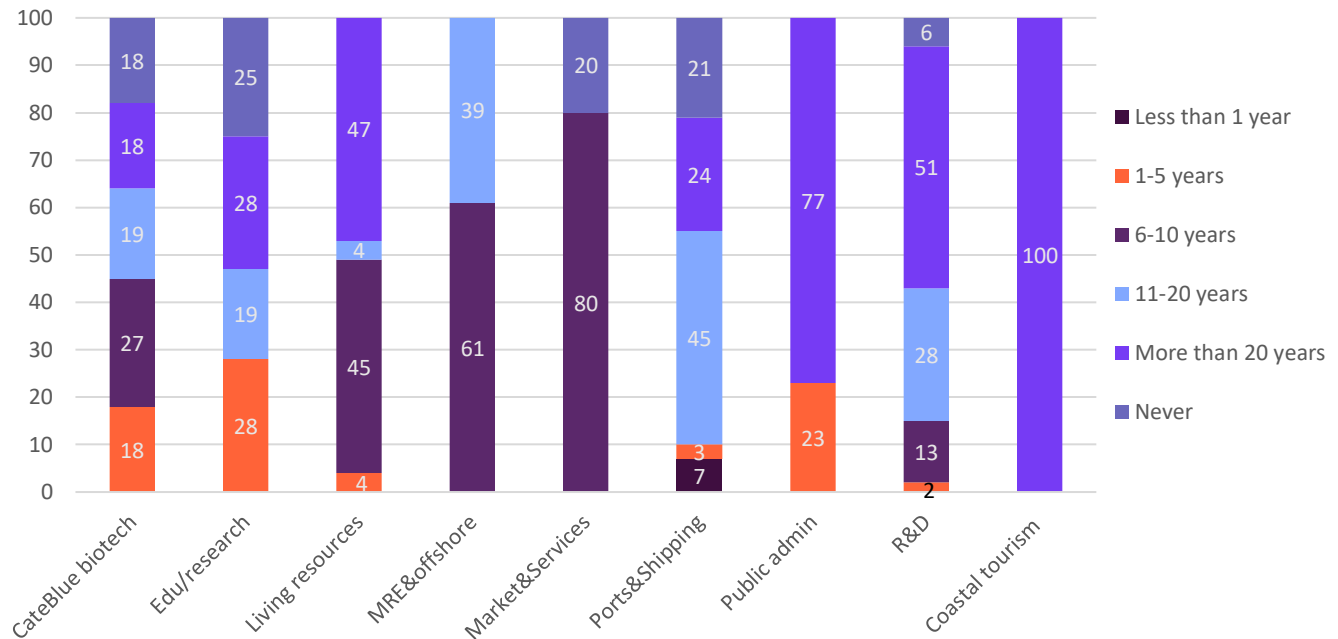
Table 8 presents a comparison of this data across the countries of the Baltic Sea Basin. In general, a low percentage of respondents chose that less than 5 years will be required to reach gender diversity. In Denmark, 39% think that 11-20 years will be required and 33% think that gender diversity will never happen. In organisations operating in Germany 40% of females also believe it will take more than 20 years to reach gender equality in Blue Economy. In Poland a very negative feeling is present, with more than half of respondents thinking that gender diversity will never be achieved. In Sweden, a similar pattern is observed with 87% of respondents stating that more than 20 years will be required until gender diversity is achieved.

Table 8 Baltic Sea Basin responses to the WIN-BIG Survey question: "How long do you think it will be until gender diversity in your industry is equal? (comparison across countries)"

Comparison Across Countries						
Country ¹⁶	Less than 1 year	1-5 years	6-10 years	11-20 years	More than 20 years	Never
Denmark	0%	24%	0%	39%	4%	33%
Estonia	31%	6%	16%	47%	0%	0%
Finland	0%	90%	5%	3%	0%	2%
Germany	1%	5%	35%	9%	40%	9%
Latvia	0%	0%	<1%	0%	99%	<1%
Lithuania	0%	35%	0%	0%	65%	0%
Poland	<1%	<1%	15%	18%	15%	52%
Sweden	0%	5%	0%	8%	87%	0%

¹⁶ Sample of Estonia comprises of 7 respondents. There are 4 respondents in Latvia and 4 in Lithuania. The sample of Finland comprises of 11 people.

Figure 52 Baltic Sea Basin responses to the WIN-BIG Survey question: “How long do you think it will be until gender diversity in your industry is equal?: female responses only (broken down by sector)



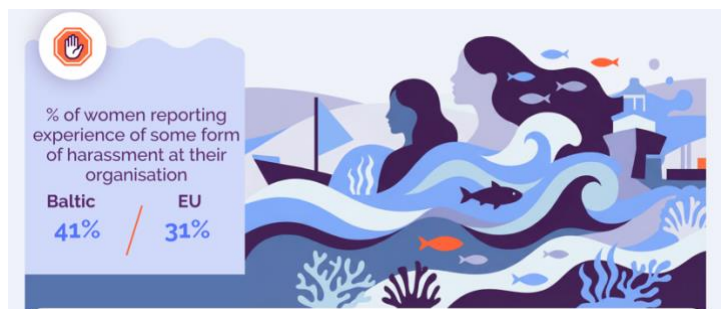
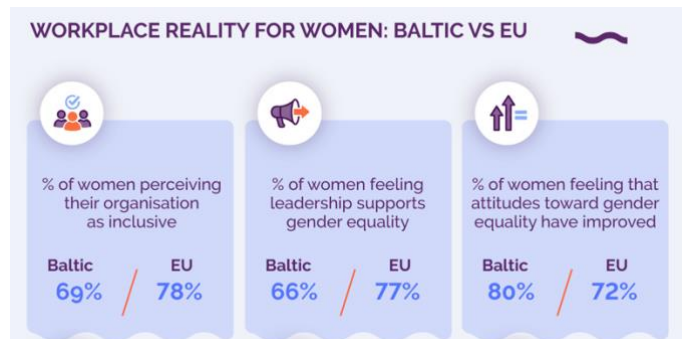
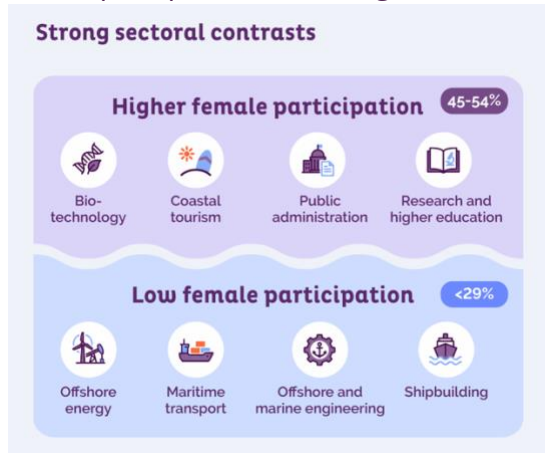
Among the blue economy sectors, 45% of respondents in living resources think that 6 to 10 years will be required for gender diversity. In blue biotechnology, a slightly more positive feeling prevails, and yet 18% think that more than 20 years will be required until gender diversity is achieved. In Ports and shipping, 45% of respondents think that 11-20 years will be required until gender diversity, but another 21% chose the option ‘Never’ (Figure 52).

Conclusions

This report presents findings from a survey that was conducted as part of the WIN-BIG project to map the gender status of the blue economy across six Sea Basins within Europe. The **Baltic Sea Area** has an estimated 1.4 million people employed in the blue economy, and **females comprise 43% of the total labour force**. Women are well represented in sectors such as **Biotechnology**, Coastal Tourism, Public Administration and Research and Higher Education. However, **female representation is lower in sectors related to Offshore, Engineering, Transport and Energy related sectors**, which may reflect wider trends of lower female representation in STEM intensive fields.

Generally, the results show a mixed picture with respect to gender equality in the blue economy sectors of the Baltic Sea Basin. In terms of **working arrangements and general culture a lower percentage of females in this region agrees on the existence of a positive culture**. Most female respondents report access to flexible working arrangements, which have become more prevalent since the Covid-19 Pandemic. Although, a certain percentage of respondents (8% males and 27% males) finds it difficult to strike an appropriate work-life balance, more than half of respondents are positive regarding the inclusivity of their work culture, with female respondents having slightly lower levels of agreement (69% females versus 72% males). A **gender biased perception** is observed with a much higher proportion of male respondents report that leadership within their organisation is committed to gender EDI, compared to male respondents (66% female versus 81% male).

Both genders in the Baltic Sea Basin reported abusive, inappropriate or negative behaviour. Practically the same percentage of females and males reported that they **have experienced gender discrimination within their organisations (26% female and 25% male)**. A similar percentage of female (33%) and male (30%) respondents reported that they have also witnessed discrimination. A **slightly higher proportion**



of women have suffered some form of harassment within their organisations (43% female versus 38% male).

The views on **career progression** are also somewhat mixed. For example, **women are less likely to view processes within their organisation as fair**. Slightly fewer women report access to opportunities to support their career aspirations (57% female vs. 68% male). On the contrary, a higher percentage of female employees note that they have access to training to support their career aspirations (82% women versus 67% of men). **Female respondents are also more likely to have access to mentoring in their careers** (73% female versus 65% male) and a higher share of women report that their direct supervisor supports their career aspirations (84% female versus 78% male).

With respect to **policies directly related to advancing equality in the workplace**, interestingly, **women are more likely to report that their organisations have formal policies related to gender balance** in hiring (44% female versus 36% male). But only 24% of female respondents report their firm has a formal gender policy compared to 39% of male respondents. **Women are also less likely to report that their organisations formally support the promotion and advancement of women** (56% female versus 73% male). A higher percentage of female respondents noted that they have female role models (74% of females and 53% of males). A higher share of female respondents think that **barriers exist preventing women being promoted to senior positions** (32% female versus 14% male). In the Baltic, female respondents are more likely to state that social structures in their country impact the achievement of gender equality in their industry (56% female versus 38% male).

For the questions asked solely of female respondents, **49% of females report they are unsure or not treated the same as men**. More than half (**56%**) **of women feel they have less promotion opportunities in their industry compared to men**. **More than 65% of women believe they are being paid less than men or are unsure of it**. While 80% of females believe that attitudes and behaviour have improved towards women during their career, **55% of females believe it will take more than 10 years to achieve gender equality**.

While overall, **80% of female respondents answered that attitudes and behaviour towards women in their sectors have changed for the better during their career**, there were differences in the answers across the blue economy sectors. **In living resources 87% of females, and in blue biotechnology 36% of females, were not sure that attitudes towards women have improved. In research and higher education 21%, in R&D 18%, and in ports and shipping 14%, think that attitudes have not improved.**

Among the blue economy sectors, **in the blue biotechnology, 19% of females** think that **11-20 years** will be required to reach gender diversity and **18%** think that more than **20 years** will be required, while 18% think that it will never happen. **In ports and shipping, 11-20 years** option was chosen by **45%** and **more than 20 years** was chosen by **24%** of female employees, while **21%** think that gender diversity will never be achieved.

Policy recommendations

It is encouraging that gender equality has been recognized by the EU as a strategic and relevant aspect for a just and fair transition, not only through its EU Gender Equality Strategy 2026-2030, but also through the adoption of various cross-cutting directives and action plans. The EU Gender Equality Strategy 2026-2030 introduces its roadmap principles, covering issues related to equal pay and economic empowerment, work-life balance and gender equality in care, equal employment opportunities and adequate working conditions, inclusive education and training, active and safe participation in public and political life, physical and mental health, freedom from gender-based violence, and institutional mechanisms that deliver on gender equality. At the same time, the next step should be the **consistent tracking of progress on gender equality by both the EU and its Member States, through systematic data collection**. This will help prevent a slowdown in progress and ensure that reforms and implementation of gender equality policies stay on track.

Despite significant efforts made within the framework of the EU Blue Economy Observatory and the EU STECF to collect data on the labour force across EU blue economy, there is **still a lack of data on gender breakdown in certain sectors across the industries**. The EU should develop a **harmonised approach to collating such gender specific workforce data for each blue economy industry**. This would help ensure that Member States report employment figures in a consistent manner. Additionally, the **reporting process should be made mandatory**. Also, tracking progress around experiences in the workplace for both male and female employees would help identify general trends and progress, identify issues and barriers and support the design of policies or solutions that might address barriers.

Generally, it **appears that there has been real and perceived progress in gender related issues**. Most respondents report positively on organisational culture and perceive improvements over time. It appears in the **context of career progression, women perceive barriers related to training and opportunities, including promotion opportunities**, rather than a lack of support by leadership within their organisations. Somewhat striking in the findings, is that men are much more likely to state that there are policies and supports in place to promote women's career advancement, compared to women themselves. This suggests that while men may perceive that women are being more supported in career advancement, this may not be the real experience of many women in these sectors. **Identification of evidence-based policies that support female enhancement and training for staff** on how such policies benefits the organisation may be useful for all employees and potentially reduce gaps between men and women. While trying not to speculate, given that men report lower levels of agreement regarding inclusivity and poor organisational culture and are more likely than women to perceive that organisations support women, **it is important that men do not view policies promoting women's advancement as having a negative impact on them**. Hence, **training on the benefits of gender parity policies for all employees is warranted**.

In addition, more than half of women believe it will take ten years or more to achieve full equality, which suggests that faster progress may be needed and more targeted actions and supports to advance equality. Of the current workforce, **almost half of respondents (43%) has experienced some form of harassment within their own organisation**. This points to the **need of policies, training and legislation that support rights within the workplace and promote a cross-cutting industry zero tolerance policy towards harassment and discrimination**. Such measures would benefit female employees in particular at the firm level, and men and women at the industry level (given high levels of reported harassment at the industry level reported by both genders).

Finally, the **emerging sectors of the blue economy** require greater visibility and **more information** about how they operate, as well as the types of skills they require.

Sectors such as **marine renewable energy, desalination, and blue biotechnology** are relatively new and at different stages of development. **Raising awareness about these sectors is essential**. This will encourage women, particularly those at the early stages of their careers, to consider pursuing opportunities in these fields.

In **blue biotechnology 29%** of respondents think that **there are barriers preventing women being promoted to senior positions**. While 90% of respondents in the sector noted that they have access to opportunities for career growth, 5% disagreed with the statement and another 5% were not sure. When it comes to the experience of harassment, **in blue biotechnology 28% of respondents reported harassment**. It would be necessary to focus on mechanisms to eliminate harassment at workplace, which would attract a higher number of workforces in the sector.

Caveats

Overall, the survey was weighted to ensure better representativeness at the sectoral level. Nevertheless, the respondents may not be representative of the full suite of blue economy industries in the survey. Respondents were more likely to be highly educated. For example, **65% of respondents had a Masters or PhD level degree**. Higher educated respondents may have more opportunities to work in sectors that promote better treatment of women. This suggests that **responses may be skewed towards more positive responses** than we may have observed if the data was more representative. The sample also includes a larger number of responses from Germany and Sweden, and very few in Lithuania, Latvia and Estonia. Thus, the results cover a limited geographical scope in the Baltic region. Finally, the data include very few observations in marine renewable energy, public administration and coastal tourism. The results rather capture responses from blue biotechnology, ports and shipping and R&D related to the marine.

In terms of future research, systematic data collection ensuring a representative sample is collected across the blue economy is needed. Without better data, it will continue to be difficult to understand what barriers exist for women and identify areas of progress and areas that need further work and supportive or incentive policies. While future research is needed, the current report provides the first evidence identifying the status and barriers that exist for women in the Blue Economy in the EU Baltic Sea Basin.

References

- Alonso Gallo N. and Gutiérrez López I. (2023) "Gender and Organizational Culture in the European Union: Situation and Prospects", *Frontiers Psychology*, 14:1164516.
- Araújo *et al.* (2021) "Current Status of the Algae Production Industry in Europe: An Emerging Sector of the Blue Bioeconomy", *Sec. Marine Fisheries, Aquaculture and Living Resources*, 7:626389.
- Ashikali, T. and Groeneveld, S. (2015) "Diversity Management in Public Organizations and Its Effect on Employees' Affective Commitment: The Role of Transformational Leadership and the Inclusiveness of the Organizational Culture", *Review of Public Personnel Administration*, 35(2), pp. 146-168.
- Auriol, E., Friebe, G. and Wilhelm, S. (2020) "Women in European Economics", in Lundberg, S. (ed.) *Women in Economics*. London: CEPR Press, pp. 26-30.
- Barabino *et al.* (2020) "Solutions to Gender Balance in STEM Fields Through Support, Training, Education and Mentoring: Report of the International Women in Medical Physics and Biomedical Engineering Task Group", *Science and Engineering Ethics*, 26, pp. 275-292.
- Boström, M. and Österman, C. (2022) "Creating Clarity and Crew Courage: Preventive and Promotive Measures for a Maritime Industry Without Bullying and Harassment", *Occupational Health Science*, 6(4), pp. 605-629.
- Böök, B. *et al.* (2021) *A comparative analysis of gender equality law in Europe 2020*, Luxembourg: Publications Office of the European Union. Available at: https://dspace.library.uu.nl/bitstream/handle/1874/416981/EELN_A_comparative_analysis_of_gender_equality_law_in_Europe_2020.pdf?sequence=1
- Carrasco-Santos, M.J.; Cristófol Rodríguez, C.; Royo Rodríguez, E. (2020) "Why is the Spanish hotel trade lagging so far behind in gender equality? A sustainability question", *Sustainability*, 12:4423.
- Carvalho, I. *et al.* (2018) "Women at the top of tourism organizations: Views from the glass roof", *Journal of Human Resources in Hospitality & Tourism*, 17(4), pp. 397-422.
- Casey, C. Skibnes, R. and Pringle, J.K. (2011) "Gender Equality and Corporate Governance: Policy Strategies in Norway and New Zealand", *Gender, Work and Organization*, 18(6), pp.613-630
- Chanou Zoufath, A. *et al.* (2023) Baseline study for the implementation of lighthouses of the Mission 'Restore our ocean and waters by 2030': Atlantic, Arctic, Danube and Mediterranean lighthouses. Luxembourg: Publications Office of the European Union.
- Clancy, J. and Feenstra, M. (2019) *Women, gender equality and the energy transition in the EU*, Brussels: European Union.

Coleman, L.R. and Taylor, E.D. (2023) "The Importance of Diversity, Equity, and Inclusion for Effective, Ethical Leadership", *Clinics in Sports Medicine*, 42(2), pp. 269 – 280.

Cortland, C.I. and Kinias, Z. (2019) "Stereotype Threat and Women's Work Satisfaction: The Importance of Role Models", *Archives of Scientific Psychology*, 7, pp.81-89.

Croucher, R. and Økland, G.M. (2021) "Women Production Workers' Introduction into a Norwegian Shipyard 1965-1989", *Business History*, 63(5), pp. 776-794.

Del Carmen Triana et al. (2019) "Perceived Workplace Gender Discrimination and Employee Consequences: A Meta-Analysis and Complementary Studies Considering Country Context", *Journal of Management*, 45(6), pp. 2419-2447.

Di Vaio, A., Zaffar, A., Balsalobre-Lorente, D. and Garofalo, A. (2023) "Decarbonization technology responsibility to gender equality in the shipping industry: a systematic literature review and new avenues ahead", *Journal of Shipping and Trade*, 8(9).

Dogg Jonsdottir, S. et al. (2022) "Risk Factors for Workplace Sexual Harassment and Violence among a National Cohort of Women in Iceland: a Cross-Sectional Study", *Lancet Public Health*, 7, pp.e763-774.

Dragomir, C. (2019) "Gender in Postmodernism Maritime Transport", *Postmodern openings* 10(1), pp. 182-192.

European Commission (2026) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Gender Equality Strategy 2026-2030*. Available at: https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/gender-equality-strategy_en#gender-equality-strategy-2026-2030

European Commission (2025) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A Roadmap for Women's Rights*. Available at: https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/gender-equality-strategy_en

European Commission (2024) *2024 Report on Gender Equality in the EU*. Luxembourg: Publications Office of the European Union.

European Parliament. *Ensuring European transportation works for women*. (2023) Strasbourg: European Parliament. Available at: https://www.europarl.europa.eu/doceo/document/TA-9-2023-0339_EN.html

Evertsson, M. (2016) "Parental Leave and Careers: Women's and Men's Wages After Parental Leave in Sweden", *Advances in Life Course Research*, 29, pp. 26–40.

Goba, V. et al. (2023) Baseline study for the implementation of the lighthouse in the Baltic and North Sea basins for the Mission 'Restore our Ocean and Waters by 2030'. Luxembourg: Publications Office of the European Union.

Górska, M. and Burlakova, I. (2025) "The Role of Women's Leadership in Business: Challenges and Prospects", *Economics, Finance and Management Review*, 1(21), pp. 116-129.

Grimett, L. (2024) "The Status of Women within the Maritime Sector", *American Journal of Industrial and Business Management*, 14, pp. 1-35.

Guerrero Padrón, T., Kovačević, L. and Ribes Moreno, M.I. (2023) "Labour Law and Gender", in Vujadinović, D., Fröhlich, M. and Giegerich, T. (eds.) *Gender-Competent Legal Education*. Switzerland: Springer.

Hedija, V. (2017) "Sector-Specific Gender Pay Gap: Evidence from the European Union Countries", *Economic Research-Ekonomska Istraživanja*, 30(1), pp. 1804-1819.

Holzinger, F. et al. (2019) "Implementing Measures to Promote Gender Equality and Career Opportunities of Early Career Researchers", in Murgia, A. and Poggio, B. (eds.) *Gender and Precarious Research Careers. A Comparative Analysis*. Abingdon and New York: Routledge, pp. 209-235.

Johannesen, E. et al. (2023) "Gender and Early Career Status: Variables of Participation at an International Marine Science Conference", *ICES journal of marine science*, 80(4), pp. 1016-1027.

Kamm, R, Schelten, C.K., Braker, G. (2020) "Gender Equality in Marine Sciences in Kiel, Germany: How Project-Funded Measures can Urge Institutions to Act", *Advances in Geosciences*, 53, pp. 7-106.

Katsanevakis, S. et al. (2020) "Twelve Recommendations for Advancing Marine Conservation in European and Contiguous Seas", *Frontiers in Marine Science*, 7.DOI: 10.3389/fmars.2020.565968.

Kim, T. et al. (2019) "Impact of automation technology on gender parity in maritime industry", *WMU Journal of Maritime Affairs*, 18, pp. 579-593.

Krambia Kapardis, M., Mavrikiou, P. and Symeou, L. (2025) "Gender Leadership Imbalance in Academia: An Etiological Approach", *Social Sciences*, 14(8).

Kurtulus, F.A. and Tomaskovic-Devey, D. (2012) "Do Female Top Managers Help Women to Advance? A Panel Study Using EEO-1 Records", *The Annals of the American Academy*, 639, pp. 173-197.

Lausi *et al.* (2021) "Gender Pay Gap Perception: A Five-Country European Study", *SN Soc Sci*, 1(267).

Lechman, E. and Popowska, M. (2022) "Overcoming Gender Bias in the Digital Economy. Empirical Evidence for European Countries", *Gender, Technology and Development*, 26(3), pp. 404-436.

Legg, S. *et al.* (2023) "Gender Equity in Oceanography", *Annual Review of Marine Science*, 15, pp. 15-39.

Loriol, M., Dassisti, L. and Grattagliano (2020) "Harassment at Work in France and Italy First hypothesis for an International Comparison", *Aggression and Violent Behaviour*, 53, 101427.

Lucas, H. Pinnington, S. and Cabeza, L.F. (2018) "Education and Training Gaps in the Renewable Energy Sector", *Solar Energy*, 173, pp. 449-455.

Martini and Cavenago (2016) "The Role of Perceived Workplace Development Opportunities in Enhancing Individual Employability", *International Journal of Training and Development*, 21(1), pp. 18-34.

Matysiak, A. and Cukrowska-Torzewska, E. (2021) "Gender and Labour Market Outcomes", in Schneider, N.F. and Kreyenfeld, M. (eds) *Research handbook on the sociology*. Cheltenham, UK: Edward Elgar Publishing, pp. 329-341.

Marques, M. (2021) "The EU Blue Economy in the World", *Public Policy Portuguese Journal*, 6(1), pp. 56-70.

Macarie, F.C. and Moldovan, O. (2012) "Gender discrimination in management. Theoretical and empirical perspectives", *Transylvanian review of Administrative Sciences*, 35, pp. 153-172.

OECD (2025) *Gender Equality in a Changing World: Taking Stock and Moving Forward*. Paris: OECD Publishing.

Purcell, D., Rhea MacArthur, K. and Samblanet, A. (2010) "Gender and the Glass Ceiling at Work", *Sociology Compass*, 4(9), pp. 705-717.

Ramos Martín, N.E. (2014) "Positive Action in EU Gender Equality Law: Promoting Women in Corporate Decision-Making Positions", *Spanish Labour Law and Employment Relations Journal*, 3(1), pp. 20-33.

Roosmaa E.-L. and Saar, E. (2023) "Gender Differences in ICT Training Participation in International Comparison", RASI paper, No 22, Talinn University. Available at:

https://www.tlu.ee/sites/default/files/Instituudid/%C3%9CTI/RASI/2023_RASI%20toimetised%20nr%2022_Gender%20differences%20in%20ICT%20training%20participation%20in%20international%20comparison.pdf#page5

Salmi, P. and Sonck-Rautio, K. (2018) "Invisible Work, Ignored Knowledge? Changing Gender Roles, Division of Labor, and Household Strategies in Finnish Small-Scale Fisheries", *Maritime Studies* 17(2), pp. 213-221.

Shellock, R.J. et al. (2022) "Breaking Down Barriers: The Identification of Actions to Promote Gender Equality in Interdisciplinary Marine Research Institutions", *One Earth* 5(6), pp. 687-708. DOI: <https://doi.org/10.1016/j.oneear.2022.05.006>.

Sealy, R.H.V and Singh, V. (2010) "The Importance of Role Models and Demographic Context for Senior Women's Work Identity Development", *International Journal of Management Reviews*, pp. 284-300.

Segovia-Pérez, M. et al. (2019) ""Being a woman in an ICT job: an analysis of the gender pay gap and discrimination in Spain", *New Technology, Work and Employment*, 35(1), pp. 20-39.

Sofiar, A. and Nugrahani, H.S.D. (2024) "Three Scandinavian Countries in the Baltic Sea: A Critical Study of the Blue Economy Programmes", *Journal of Strategic and Global Studies*, 7(2).

Tikkanen, T., Hovdhaugen, E. and Støren, L.A. (2018) "Work-Related Training and Workplace Learning: Nordic Perspectives and European Comparisons", *International Journal of Lifelong Education*, 37(5), pp. 523-526.

Turesky, M. and Warner, M.E. (2020) "Gender Dynamics in the Planning Workplace", *Journal of the American Planning Association*, 86(2), pp. 157-170.

Varriale, L., Buonocore, F. and Ferrara, M. (2016) "Insights and Challenges from Italian Regulations for Women Employment and Career Advancement: The Role of Mentoring Programs in Banking and Finance Industry", *Law and Economics Yearly Review*, 5(2), pp. 309-329.

Wikström et al. (2023) "Mentoring programmes – building capacity for learning and retaining workers in the workplace", *Journal of Workplace Learning*, 35(8), pp.732-751.

Zhao, M. et al. (2013) "Women as Visible and Invisible Workers in Fisheries: A Case Study of Northern England", *Marine Policy* 37, pp. 69-76. <https://doi.org/10.1016/j.marpol.2012.04.013>

