



EUROPEAN POLICY BRIEF

November 20th 2024

WINBIG

– Women in the Blue Economy:

Closing the Knowledge Gap on Gender Equality Status within the EU Blue Economy



Co-funded by
the European Union

CONTEXT/INTRODUCTION

The **Blue Economy (BuE)** is traditionally a male-dominated economy in both its established and emerging sectors, with women representing less than 30% of the overall workforce and often employed in low-paid, low-status positions.

The **WIN-BIG (Women in Blue Economy - Intelligence Gathering and Capacity Boosting) project** has been funded by the European Commission to advance the current knowledge on gender issues within the BuE and to support women in joining and advancing in their careers within. As part of the project, WIN-BIG is **collecting information (past and current) on gender representation** and the **roles of and barriers to women in BuE** across the **six EU Sea Basins** (Atlantic, Mediterranean, Baltic, North, Arctic and Black Sea). The first step in this work was a systematic literature review of studies published from 2010-2024 that focused on gender equality issues in the EU blue economy. Out of the initial 1154 studies reviewed, 65 studies met these criteria and were selected for further analysis.

In parallel, the project is also carrying out an **EU-wide survey** to gather **data** on women's roles and contributions across different sectors of the BuE that will help inform the EU's efforts to promote inclusivity and diversity in this vital sector.

Initial work carried out in the WIN-BIG project points to **several persisting issues** that require a **policy response**. A systematic review emphasises **research and data collection needs across all BuE activities** as well as **EU geographical uneven coverage**. It also highlights several **institutional and organisational policy changes needs**. **Sector awareness and attractiveness, women targeted campaigns and education**, are still lagging behind other sectors and are **key to gender balance in the blue economy**.

This Policy Brief highlights the baseline knowledge on gender in EU BuE and underlines key findings of the literature review. It also summarises how the WIN-BIG project is taking an important first step to narrow the knowledge gap by seeking new data and evidence, through a tailored survey, to help create a more supportive framework that can address these barriers.

POLICY IMPACT

WIN-BIG aims to **address the current lack or uneven knowledge on the role women play across blue economy sectors (BuE)**, with a focus on three highly technological emerging sectors: Blue Bioeconomy, Blue Sports, Marine Energy and Robotics.

WIN-BIG is contributing to the **EU's inclusive, fair and just transition goals** as well as the **Gender Equality Strategy** efforts by providing a **comprehensive dataset on gender representation** (past and current) and **roles of women in the BuE across all six EU sea basins**. Focusing on high intensity technological sectors of BuE, it is **pushing the boundaries for female STEM** engagement and careers.

IMPACT FOR CITIZENS & COMMUNITIES

WIN-BIG is helping to address **gender disparities** and **promote inclusivity** across the BuE, ensuring that women have **equal opportunities** to participate and advance in these industries.

WIN-BIG is **delivering pilot and women tailored networking events**. It is **boosting women-to-women empowerment**, strengthening **links and synergies** between women and with **men allies**, whilst **promoting cross-border and cross-sectoral sharing** of knowledge and best practices.

WIN-BIG is debunking gender bias and **inspiring more and younger women** to pursue a blue career.

IMPACT FOR COMPANIES & BUSINESSES

The **BuE** is traditionally male-dominated, with **women representing <30%** and **often employed in low-paid, low-status positions**. There is a need for:

1) **Sectoral policy framework revisions** to address gender disparities in a targeted mode

2) **Organisational reforms** e.g.

- Revising hiring and promotion practices to ensure neutrality
- Revising workplace safety, especially at sea
- Addressing biases and harassment
- Robust and confidential reporting systems
- Gender specific training
- Inclusive and family supportive frameworks

3) **Increase** in sectoral **awareness** and **attractiveness** e.g. through

- Targeted campaigns
- Training programmes
- Engagement with women in decision-making processes at all levels

BARRIERS & FUTURE

Initial work carried out in the WIN-BIG project points to **several persisting issues that require a policy response**. The literature review emphasises **research and data needs across all BuE activities**, as well as **institutional and organisational policy changes**.

There is particularly a **need for more comprehensive, sex-disaggregated data** to better understand the scope of gender disparities. Policymakers should consider **incentivising regular and homogenous data collection** that focuses on gender-related challenges and **representation in specific industries**.

A **more supportive framework** and **education** is also required **that can address barriers** (reported in the literature and emerging from the WIN-BIG survey).

EVIDENCE & ANALYSIS

As part of the WIN-BIG project a systematic literature review was carried out of studies published from 2010-2024 that focused on gender equality issues in the EU blue economy. Out of the initial **1154 studies reviewed**, 65 studies were selected for further analysis. Most of the 65 studies exposed both an **unbalanced coverage between BuE industries and across EU member states**. The literature reviewed points to **three overarching gender discrimination themes**, with ten linked sub-themes (Table 1):

Table 1: Themes related to gender discrimination/gender issues discussed in the literature.

Theme	Sub-themes
Societal Inequalities	<ul style="list-style-type: none"> • Lack of recognition/invisible status/unpaid work • Gendered division of labour by occupation • Stereotypical view of females in the sector
Power Inequalities	<ul style="list-style-type: none"> • Exclusion from decision-making and managerial positions

	<ul style="list-style-type: none"> • Lack of capital and access to funds • Lack of opportunities for training, mentorship and networking
Institutional Inequalities	<ul style="list-style-type: none"> • Omission of gender issues in policies and interventions • Gender pay discrimination • Lack of work-life/family-life balance • Safety issues

Source: Grigoryan H, Almeida Mb, Doherty E, Hynes S, O'Leary J, Shafique N and Vieira H. (2024). *Current Gender Equality Status in EU Blue Economy – Gaps and Recommendations for a More Inclusive and Fair Sector. (Submitted to Marine Policy on October 2024, under review).*

Regarding sectorial spread, these studies covered traditional industries, such as fisheries and maritime transport, with **few studies focusing on gender inequalities in emergent sectors** such as blue biotechnology, marine renewable energy or blue/nautical sports.

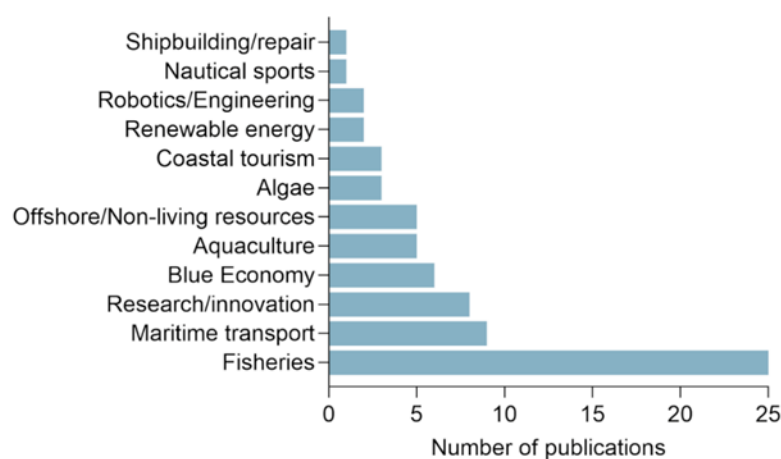


Figure 1: Distribution of the relevant publications considered in this study by blue economy industries.
Source: Grigoryan H, Almeida Mb, Doherty E, Hynes S, O'Leary J, Shafique N and Vieira H. (2024).

In **traditional sectors**, such as the fishing and related seafood industry, there is a **notable concentration of women in low-paid, low-status roles**, with women also often **performing unpaid or unrecognised work**, reflecting persistent societal inequalities.

Across **both traditional and emerging blue economy industries**, it has been reported that **women experience similar institutional barriers** also seen across several other non-marine sectors. Barriers reported include:

- Exclusion from decision-making processes;
- Unequal access to capital; and
- Power imbalances that favour men.

The research points to these **issues being particularly prevalent in the areas of marine research, robotics, and other intensive capital and technology-driven fields**.

Other findings of the literature review show that **women in maritime transport and offshore energy sector report:**

- High levels of institutional harassment;
- Unsafe working environments; and
- A lack of gender-sensitive policies.

The **absence of comprehensive workplace safety protocols and infrastructures**, specifically addressing women's needs, further exacerbates these challenges. Surprisingly, some traditional maritime sectors such as shipbuilding and repair have received relatively less focus in terms of gender issues.

While emerging industries like **blue biotechnology and marine renewable energy** hold much of the potential for economic growth and innovation, **gender biases continue to limit female participation and advancement in these industries**. Barriers such as:

- Accessing training;
- Mentorship; and
- Funding

are seen as hindering professional development and leadership opportunities.

Some of the **emergent sectors** such as blue/nautical sports, robotics/engineering and marine renewable energy **have fewer studies**, suggesting that these areas may perhaps face fewer gender-related challenges due to the recent emergence of these sectors, and/or they just may not have been sufficiently explored by researchers.

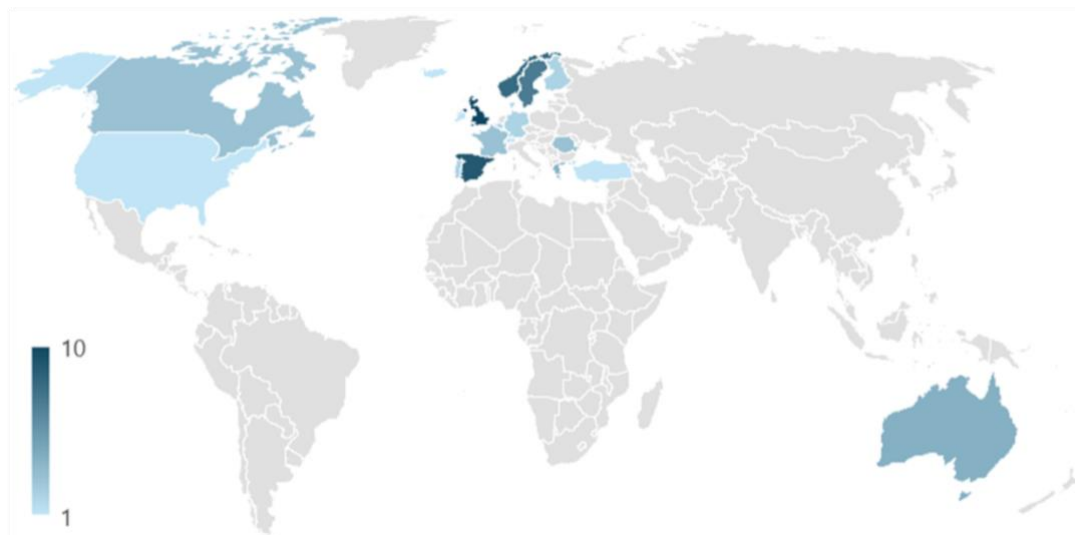


Figure 1: Distribution of the relevant publications considered in this study

The literature review also shows an **unbalanced EU presence versus other world geographies** (Australia and USA/Canada dominating) and **clearly points towards insufficient geographical coverage within EU level**; with little or no studies carried out in Italy and Eastern European countries. There is, however, some **evidence of growing academic interest and awareness regarding gender equality across the blue economy**, with an increase in research published over the last few years.