

REPORT

GCE BLUE MARITIME: CLUSTER PERFORMANCE 2024



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Preface

Menon Economics has for nine consecutive years studied the competitiveness of the GCE Blue Maritime cluster, measured by key economic performance, both in absolute terms and compared to the rest of the maritime industry in Norway and to international competitors.

Menon Economics is an employee-owned consultancy operating in the interface between economics, politics and business. Menon Economics analyses issues and provides advice to companies, organizations and authorities. We combine economic and commercial expertise in fields such as industrial organization and competitive economy, strategy, finance, organizational design and social profitability. We use research-based methods in our analysis and work closely with leading academics in most disciplines.

The project is financed by Møre og Romsdal County Authority, ÅKP and Nordea. Menon Economics is responsible for the content in the report. We wish to thank GCE Blue Maritime for an interesting assignment. We also wish to thank everyone who has answered the survey.



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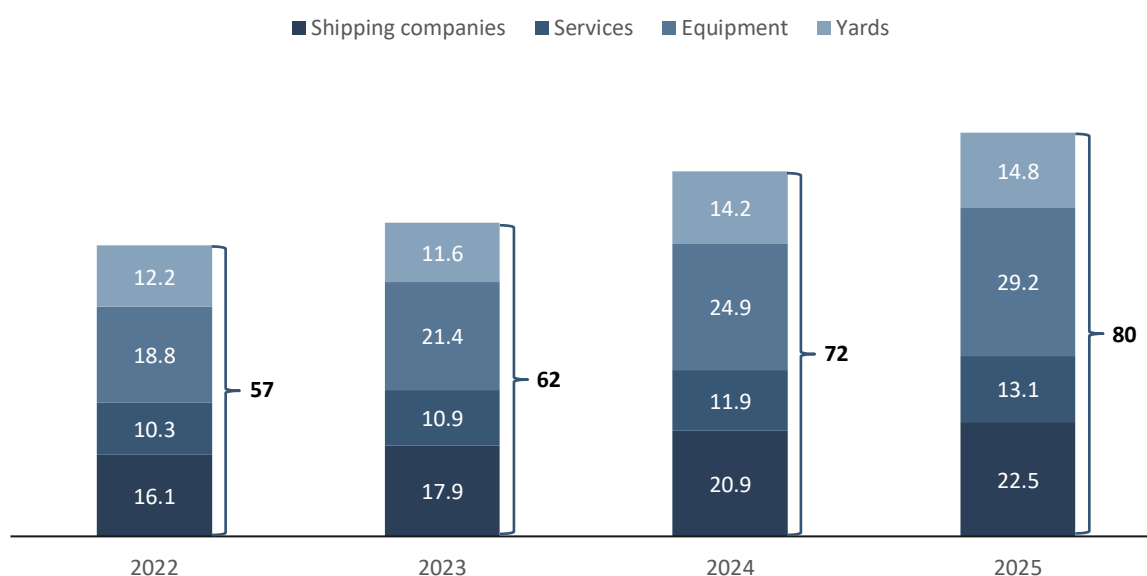
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Summary

Positive revenue growth, with expectations of further growth ahead

The overall revenue among the maritime companies in the Møre og Romsdal region has increased from 2022 to 2023. Further on it is expected to continue to rise in 2024 and 2025. While total revenues amounted to 62 billion NOK in 2023, they are predicted to reach 80 billion NOK by 2025, as illustrated below. The change in activity is, however, not uniform across the different groups of companies in the cluster. The equipment suppliers remain the largest group in terms of revenue and are expected to see the highest increase in revenue in both 2024 and 2025. The shipping companies constitute the second largest group in terms of revenue, with offshore wind emerging as a significant driver of growth. These companies also anticipate higher revenues towards 2025. The shipyards, while being the third largest group, have experienced declining revenues in recent years; however, 2023 marked a year of positive transformation with the achievement of a positive operating margin. With an increased number of orders and more diversified orderbooks, the shipyards are also projecting growth for the subsequent years. As for the service providers, revenue development has remained modest but stable and is expected to continue this trend through 2024 and 2025.

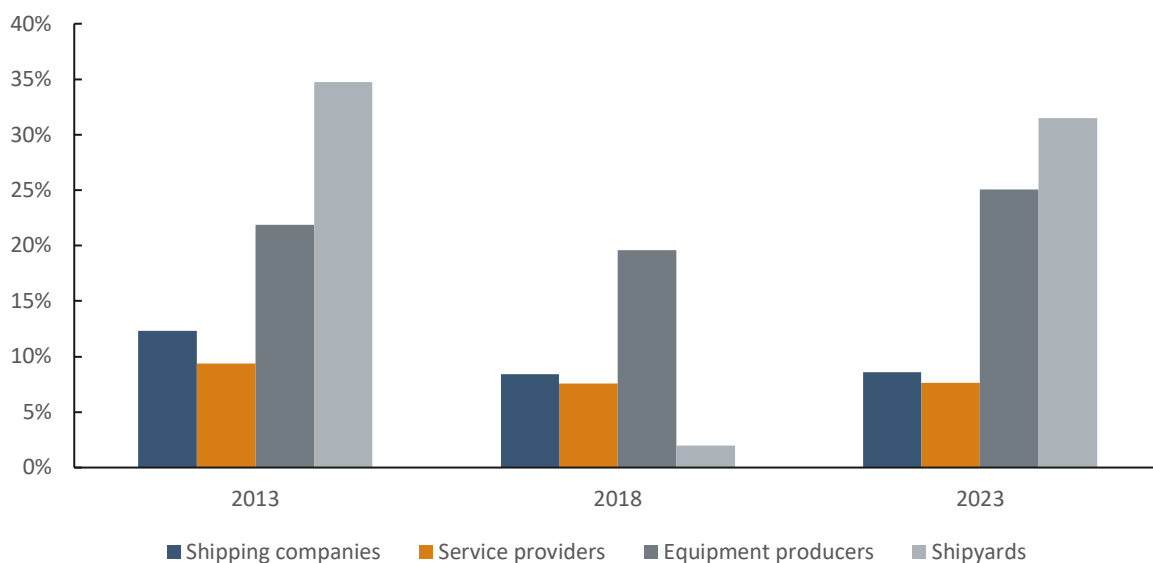
Figure 0-1: Overall revenue growth for the four main segments in the Møre og Romsdal region, 2022-2025. Estimates of revenue in 2024 and 2025 based on reported information from companies. NOK billion. Source: Menon Economics/2024



Continued growth in value added

The overall value added in the Møre og Romsdal region has been improving in recent years, reaching nearly 23 billion NOK in 2023. The improvement is primarily driven by higher profitability among the region's maritime companies, supported by restructuring efforts and diversification into new market segments across the maritime sector. The figure below provides a snapshot of the region's share of value added in the Norwegian maritime industry, segmented by the four main groups. Historically, the development in value added in Møre og Romsdal has closely followed national trends, but with some exceptions. As illustrated below, the region's share of value added, particularly among the shipyards, declined between 2013 and 2018, indicating that Møre og Romsdal was more significantly impacted by the offshore crisis compared to the rest of the Norwegian maritime industry.

Figure 0-2: The Møre og Romsdal region's share of the value added in the Norwegian maritime industry – in each of the four maritime groups. Source: Menon Economics/2024



Historically, the region's shipyards primarily served the oil and gas segment. However, the offshore crisis led to lower demand for this segment, resulting in a considerable reduction in yard activity and higher expenses associated with transitioning from oil and gas to other segments. This period marked a significant decline in the shipyards' market share, which fell from 35 percent in 2013 to 2 percent by 2018. While the consequences were less severe for the other groups, they were still impacted: the shipping companies' share decreased by 4 percentage points, service providers by 1 percentage point, and equipment suppliers by 1 percentage point over the same period.

In response to these challenges, the maritime sector in Møre og Romsdal undertook significant restructuring and diversification efforts. The shipyards shifted focus towards new areas such as cruise ships, ferries, aquaculture, and fisheries, which were crucial for the improvements in the value added share between 2018 and 2023. By 2023, the shipyards' share of value added rebounded to 31 percent. Similar trends were observed across the other groups: by 2023, the shipping companies' share had improved to 9 percent, and equipment suppliers to 22 percent, while the service providers maintained a steady share of 8 percent. This recovery demonstrates how the region successfully adapted to market changes and regained its respective shares.

Positive profitability expectations – increasing since 2020

Since 2020, there has been an increased profitability optimism within the cluster. By 2024, nearly 70 percent of respondents anticipate stronger profitability compared to 2023, reflecting a positive financial outlook. This optimism contrasts with the previous year, where more participants expected weaker profitability. The main drivers of this improved outlook include high activity on the Norwegian continental shelf, particularly due to increased demand for Norwegian gas, and heightened activity for equipment suppliers driven by new green regulations. Market development is viewed as the most significant positive influence, cited by 81 percent of respondents. Conversely, input prices are anticipated to have the most negative impact, reflecting concerns about global inflation and rising wage costs.

Cost efficiency also positively affects profitability, particularly among service providers and equipment suppliers, although a significant proportion of respondents report no effect. Exchange rates have mixed effects, with

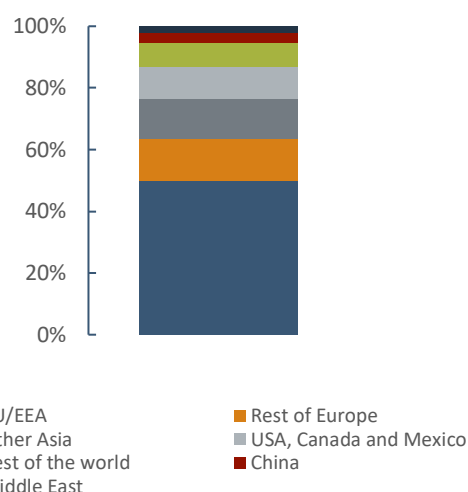
around 40 percent of cluster members expecting a negative impact while one third foresee a positive influence due to a weaker Norwegian krone boosting export competitiveness. Additionally, nearly 40 percent of the respondents view access to skills as a growing challenge, highlighting the difficulty in recruiting qualified talent to the region.

Export constitutes half of the cluster's revenue

The maritime industry is one of the largest export industries in the Møre og Romsdal region. Half of the Blue Maritime cluster's revenues stem from export of goods and services. The equipment suppliers maintain the highest export share, with 71 percent of their revenue predicted to come from exports in 2024. This group has a strong position in international markets. In contrast, the other three groups each maintain an export share of around 40 percent. Notably, the shipping companies have seen a significant increase in their export share, rising from 20 percent last year, driven by activities in the overall offshore segment and emerging opportunities in offshore wind. Conversely, the service providers have experienced a decline, dropping to approximately 40 percent export share from 50 percent last year.

Figure 0-3: Export revenues of the Blue Maritime cluster, distributed by geographical region, 2024.

The EU/EEA remains the most significant export market for the cluster, accounting for over 50 percent of total export revenues, an increase from 40 percent the previous year. The rest of Europe, Asia excluding China, and North America also represent important markets. The EU/EEA is particularly crucial for the shipyards and shipping companies, while the equipment suppliers have a more diversified global reach. The service providers and shipping companies also derive substantial revenues from European markets, benefiting from the demand for vessels in various sectors.



Looking forward, favorable market conditions are anticipated, driven by activity in both the newbuild market and the aftermarket. Upcoming regulations, the green transition, and an aging global fleet are expected to create significant export opportunities. Additionally, an increased focus on defense and contingency planning may further enhance market demand, supporting export growth across several groups within the cluster.

Offshore wind continues being the largest market segment

Offshore wind continues to be the largest market segment among the yards, equipment suppliers, and service providers in the cluster, accounting for approximately 23 percent of the aggregate market in 2024. This represents an increase from last year's share of 17 percent. The next significant segments are oil and gas at 15 percent, and merchant shipping at 12 percent, followed by the passenger segments (cruise ships, larger ferries, smaller ferries, and speedboats) collectively contributing another 13 percent.

While the offshore wind segment has grown significantly, the oil and gas segment has remained stable between 2023 and 2024. Fisheries and aquaculture have seen a reduction in revenue share. Defense and emergency preparedness currently account for only 1 percent of the cluster's revenue but are expected to grow substantially as the Norwegian Armed Forces upgrade and replace a large portion of their vessel fleet. This development

presents significant opportunities for the cluster in terms of economic benefits, export potential, and promoting green maritime technology.

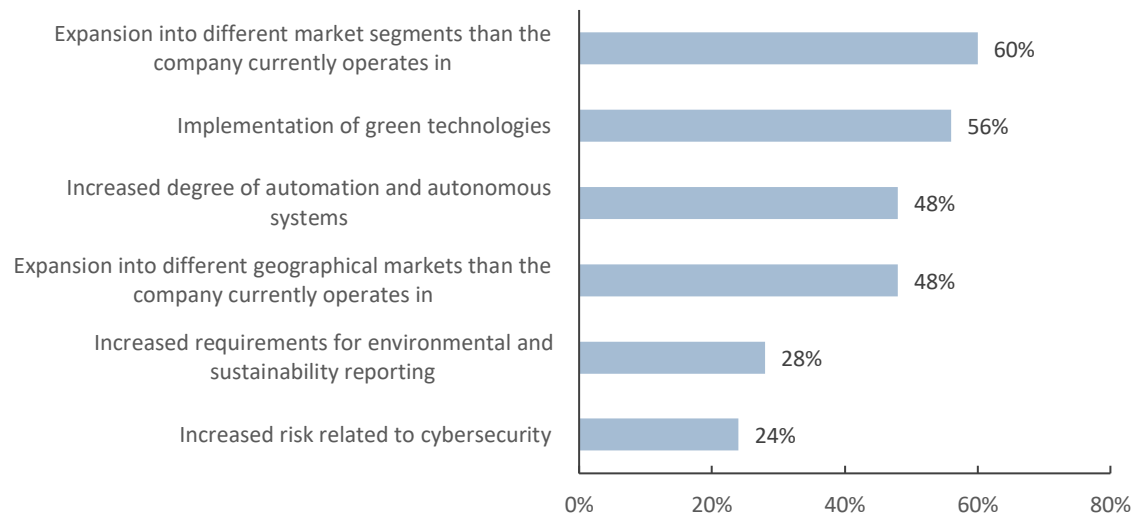
There are variations in revenue distribution among the market segments within the cluster. Shipyards generate over 50 percent of their revenues from the offshore wind segment, with the rest coming from fisheries, aquaculture, and other maritime activities. Service providers and equipment suppliers are more diversified, with equipment suppliers generating significant revenue from the oil and gas sector and merchant shipping.

Attracting, developing and retaining talent within the cluster

This year’s cluster analysis takes a closer look at how maritime companies work to attract, develop, and retain talent within the cluster. The focus is on understanding the efforts made by member companies to draw in relevant expertise and the strategies they employ to retain their workforce.

There is an increasing need for labour across several disciplines within the maritime cluster. While the current demand for additional employees is relatively low, it is expected to grow notably within the next five years. Further on, more than 60 percent of the respondents report that their company requires employees with different skills than those currently possessed. The main factors driving this need are expansions into new market segments, adopting green technologies, and increasing automation, as illustrated in the figure below.

Figure 0-4: The reasons for cluster companies requiring different types of competencies than their employees currently possess. Source: Menon Economics, 2024

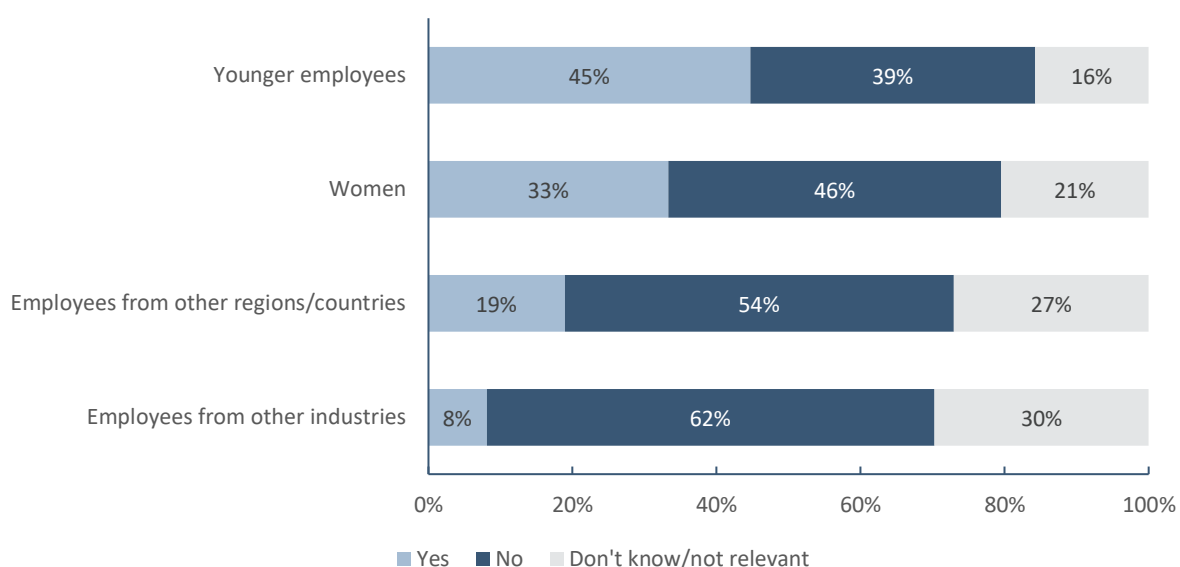


While the overall results indicate a need for all types of workers, additional results highlight a particular need for skilled workers. While the number of skilled workers has remained stable for several companies over the past five years, most respondents expect this need to grow over the next five years. This need reflects the broader national picture, in which demand for labour, and particularly for skilled workers, is expected to exceed the available supply. More than 40 percent of the respondents are already having difficulties recruiting these types of workers today. Several cluster companies highlight the need for a diverse range of skilled workers, particularly in electro-mechanical skills, automation, and technical competencies. To address this challenge, they emphasize the importance of strategies and suggest various measures to ensure that more people pursue vocational education.

Currently, limited access to qualified candidates and high salary demands are perceived as the *largest barriers* against recruiting competent workers among the responding companies. To address these challenges, companies are implementing strategies to enhance their attractiveness as employers. These include offering competitive salaries, flexible working conditions, and opportunities for career development, among other initiatives. Additionally, in recognizing the need to leverage the entire labour force, cluster companies have also initiated strategies to support the inclusion of diverse groups and to promote diversity.

Currently, among the companies responding to the survey, women constitute about one-fifth of the labour force, indicating a need for improved gender diversity. Several of the responding companies also employ multiple nationalities, reflecting some level of cultural diversity. According to the survey results, cluster companies are actively implementing initiatives to attract more women and younger employees to their companies, as illustrated in the figure below. However, there remain room for broader inclusion efforts, particularly in attracting talent from other industries and increasing the presence of various nationalities.

Figure 0-5: Do the cluster members' have specific initiatives to support the inclusion of..? Source: Menon Economics



An inclusive and attractive regional environment is crucial for promoting employee development and retaining talent in the region. Given the dynamic nature of the maritime industry and related sectors, it is essential for companies to continually invest in the development of their workforce. While 77 percent of the responding companies state that they offer formal continuing and further education to some extent or to a large extent, the majority (98 percent) report offering internal competence development such as courses, simulation tools, or tailored training. Although formal education is perceived as important, companies also value learning through teamwork, interaction with colleagues, on-the-job training, and participation in conferences and professional events, among others, as important factors, in further developing their employees.

To further enhance the region's appeal and retain talent, the responding companies emphasize the importance of creating attractive regional centres, promoting private enterprise, and improving visibility and marketing. Additionally, strengthening educational institutions and fostering partnerships are considered crucial for retaining talent and enhancing the region's attractiveness.

Introduction

GCE Blue Maritime is one of three Global Centres of Expertise in Norway – the highest level in the hierarchy of Norwegian Innovation Clusters. To become a GCE, a cluster must prove that it has established a systematic collaboration between the participating companies, a partnership characterised by dynamic relations with innovative power. The GCE clusters must also have a strong potential for growth in national and international markets and together form a robust innovation system. Menon Economics has for nine consecutive years studied the competitiveness of the Blue Maritime cluster, measured by key economic performance, both in absolute terms and compared to the rest of the maritime industry in Norway. In this year's report, we take a closer look at how maritime companies work to attract, develop, and retain talent within the cluster. The main focus is on understanding the efforts made by member companies to draw in relevant expertise and the strategies they employ to retain their workforce.

The report is structured as follows:

We first provide a short summary of the main findings in the report. Then, in the chapter titled “Economic performance of the maritime companies in the Møre og Romsdal region”, we take a closer look at the economic indicators. This includes present revenues, expected revenues, profitability in the short term, value added and employment. It also includes a brief view of the

Figure 0-1: The four segments in the cluster with company illustrations



cluster's export activities and market segments. In the next chapter we look at the economic development for the four main maritime groups, namely shipping companies, shipyards, equipment suppliers and maritime services (including ship designers). A selection of the leading companies within these four segments is shown in the figure above to illustrate the scope of the activities in the cluster. The analysis in the two above-mentioned chapters is based on accounting data from the companies, together with primary data collected from the companies through a tailor-made questionnaire. The deep dive in this year's report focuses on understanding how the cluster companies attract, develop, and retain talent within the cluster. This chapter is based on data collected from the cluster companies through a separate survey.

Definitions and delimitations

Blue Maritime cluster: This term refers to current and previous members of the Blue Maritime cluster, who have received the survey and were asked about their current financial situation, expectations about the future, and other questions that are presented later in the report. In this year's report we distributed two different surveys. One survey focused on financial data, and another survey addressed the special focus of this year's report – competence. We received 54 and 40 responses to these surveys, respectively.

Møre og Romsdal region: This term refers to all companies within the maritime sector that are registered in Møre og Romsdal county in Norway. Figures presenting historic development of financial data are based on this sample.

Historical financial data presented in this report up to 2023 are based on all maritime companies in the Møre og Romsdal region, whereas estimated financials for 2024 and 2025 are based on the answers we have received from former and current members of the Blue Maritime cluster.

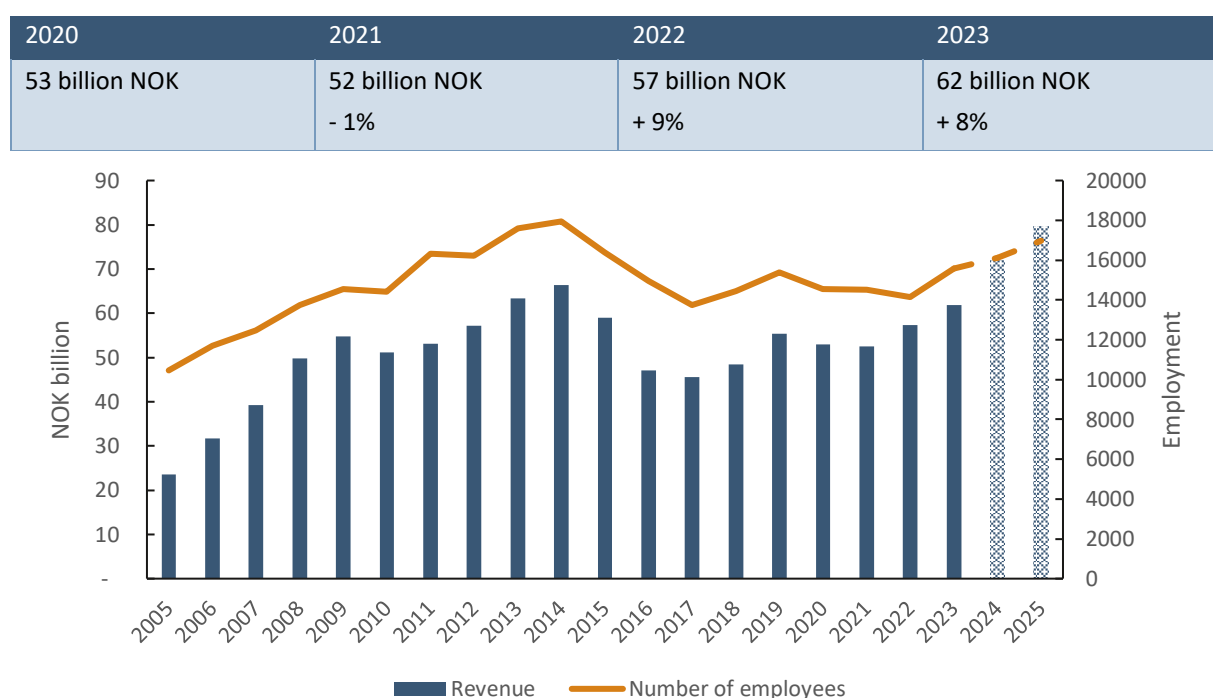
1. Economic performance in the maritime companies in the Møre og Romsdal region

1.1. Strong revenue growth – key contributions from equipment suppliers and market dynamics

In 2023, the total revenue for the maritime companies in Møre og Romsdal was 62 billion NOK, representing an 8 percent increase compared to 2022-levels.¹ This increase signifies a robust recovery and expansion, with revenues exceeding pre-pandemic levels recorded in 2019, as seen in the figure below. The revenue growth can be attributed to several factors. Favorable exchange rates positively impacted the export-oriented cluster, alongside a general increase in price levels. Further on, a rising demand driven by the green transition and regional supply chain restructuring due to global tensions has also affected the revenue development.

We project a continued positive outlook for both revenue and employment growth in the region for 2024 and 2025. In 2024, the revenues are expected to be at a level higher than the previous peak-year in 2014. Employment is projected to increase by 3 percent in 2024 and by 5 percent in 2025, as the anticipated rise in activity will necessitate a larger workforce. These forecasts are informed by a recent survey conducted among members of the Blue Maritime cluster, which indicates an optimistic perspective on future market conditions.

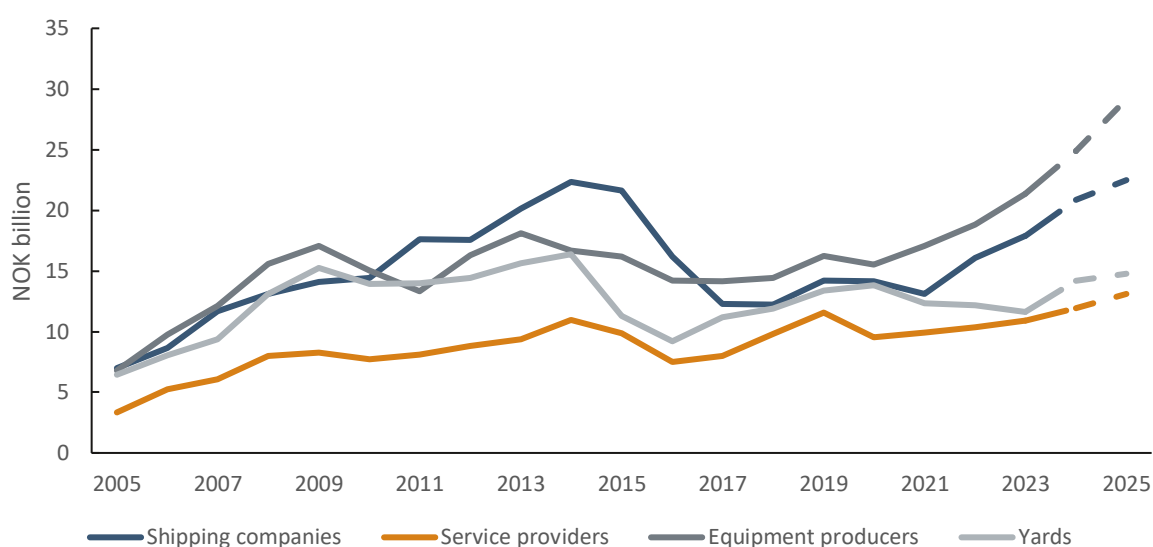
Figure 1-1: Aggregate revenue and employment in the Møre og Romsdal region, 2005-2025. Estimates of revenue in 2024 and 2025 based on reported information from companies. NOK billion. Source: Menon Economics/2024



¹ All revenue figures and financial data presented throughout this report have been revised based on updated data collection and analysis methodologies, including the inclusion and exclusion of certain companies within the Møre og Romsdal region. Consequently, when new companies are incorporated into the region or cluster, their entire historical data timeline is also included. As a result, the reported figures differ from those presented in previous reports, although the overall trends and trajectories remain relatively consistent.

Despite an overall increase in revenues among the maritime companies in the region, the development across the four main maritime groups has not been uniform. The equipment suppliers remain the largest group in terms of revenues in 2023, contributing to 34 percent of the revenues. The shipping companies are the second largest contributor with revenues close to 18 billion NOK in 2023, followed by the yards and service providers. Although the shipyards have faced challenges in returning to their pre-pandemic revenue levels, the group remains crucial in the Møre og Romsdal region, accounting for almost 20 percent of the total revenues within the cluster in 2023. This is shown in the figure below.

Figure 1-2: Revenues for the four maritime groups in the Møre og Romsdal region, 2004-2025. Estimates of revenues in 2024 and 2025 based on reported information from the companies. Source: Menon Economics/2024



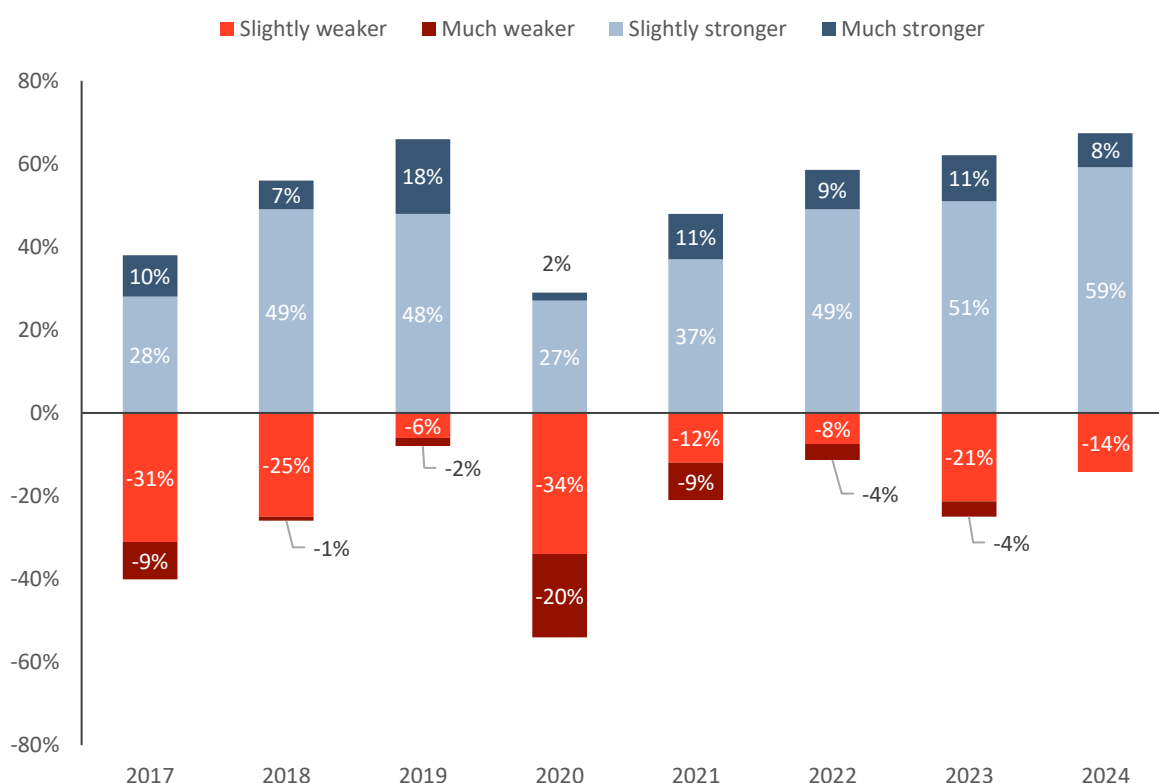
The equipment suppliers continue to be the main driver behind revenue growth in the cluster, experiencing a 14 percent increase in revenues between 2022 and 2023, and contributing to nearly 60 percent of the total revenue growth. According to the latest survey conducted among the Blue Maritime cluster, the equipment suppliers have the highest overall expectations for future growth within the cluster. As indicated by the figure above, the equipment suppliers' revenues are expected to reach 26.5 billion NOK by 2025.

The shipping companies are the second most significant contributor, with an 11 percent growth in revenue, accounting for about 40 percent of the cluster's increased revenues. Our estimates for 2024 and 2025 demonstrate that shipping companies in the region anticipate their revenue levels to continue increasing at a steady pace. The service providers experienced a modest 5 percent increase in revenue, but this was countered by a 4 percent decline in the shipyards' revenues, primarily due to lower newbuilding activity in 2023 compared to 2022. This reduction is largely driven by a few major shipyards and has significantly impacted the overall revenues in the group. Despite the yards' revenue decline since 2020, our estimates indicate that this trend is expected to reverse in 2024 and 2025. Notably, revenues in 2024 are already projected to exceed those of the pre-pandemic period in 2019. As for the service providers, which have historically exhibited similar revenue trends to the shipyards, growth has been modest but positive since 2020, as shown in the figure above. This positive development is expected to continue throughout both 2024 and 2025.

1.2. Increased profitability expectations driven by market development

Since 2020, the expectations have shown a trend of increasing optimism in terms of positive profitability outlooks. In 2024, almost 70 percent of the respondents anticipate stronger profitability compared to 2023. Although a larger proportion of respondents anticipated weaker profitability in 2023 than in 2022, this has shifted for 2024. Only 14 percent of the respondents in 2024 expect slightly weaker profitability, reflecting increased confidence in the financial outlook.

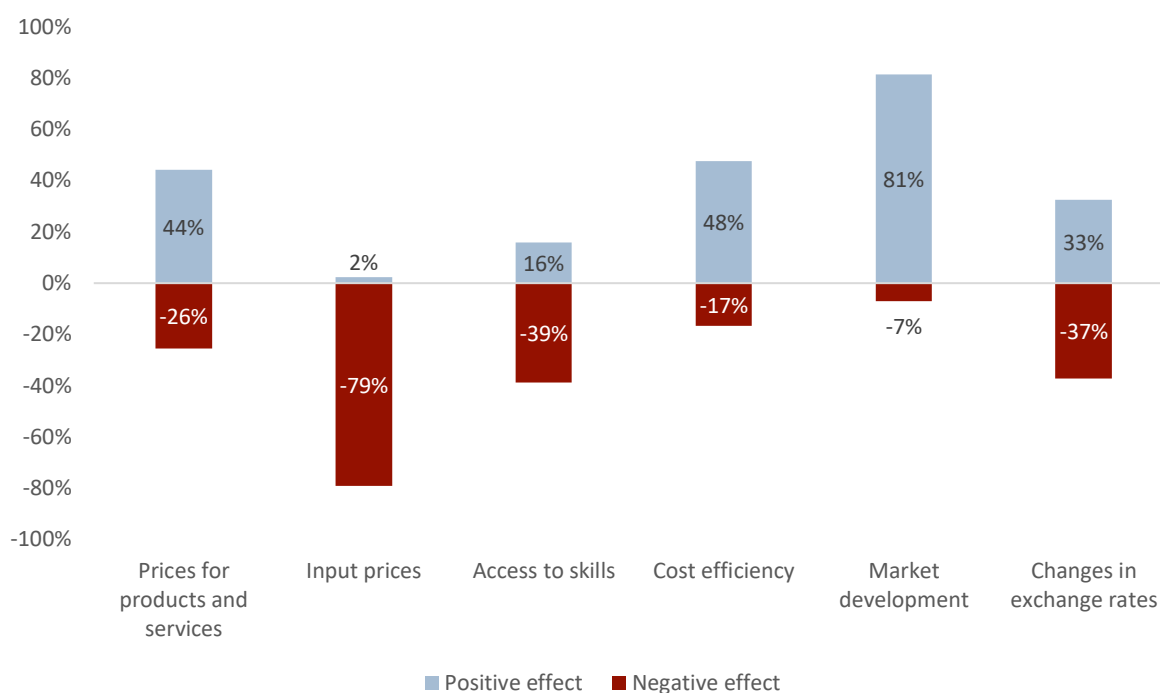
Figure 1-3: The Blue Maritime cluster members' profitability expectations: "How do you expect operating profits to develop this year compared to last year?". 2017–2024. N=49. Source: Menon Economics/2024



The reasons for the increased profitability expectations are multifaceted and are closely related to the market development and the trends affecting the industry. Global factors such as geopolitical disruptions to trade patterns and tightening emissions regulations are significantly impacting the maritime industry, including the cluster in Møre og Romsdal. Shipping companies are witnessing high activity on the Norwegian continental shelf, especially due to the rising demand for Norwegian gas, which has led to high utilization rates for vessels and increased freight rates. Additionally, the equipment suppliers are experiencing heightened activity in both aftermarket services and newbuilds, driven in part by new regulations related to the green transition.

The figure below shows factors affecting the cluster members' profitability in 2024. Compared to last year, a larger share of members expects market development to affect their profitability positively. The same can be said about the prices the members receive for their products and services, as well as cost efficiency. Market development is expected to be the largest contributor to improved profitability, while input prices is the factor expected to have the most negative impact.

Figure 1-4: Reported reasons for expected reduced (red) and improved (blue) profitability in 2024. N=48. Source: Menon Economics/2024



The most significant positive impact is attributed to market development, with 81 percent of respondents stating that this will affect their profitability positively. Members have strong expectations for the markets in which they operate, and this year, a larger proportion states this as a positive influence compared to last year (81 percent versus 62 percent). Correspondingly, fewer respondents believe market development will have a negative impact (7 percent this year versus 19 percent in 2023).

Prices for products and services have varied effects on the different maritime groups; while shipping companies see a positive impact, most other businesses experience a negative effect. Conversely, input prices are a universally negative factor across all groups. Input prices are expected to have the most significant adverse effect on profitability, with 79 percent of respondents highlighting this concern. The outlook on input prices is relatively consistent with insights from 2022 and 2023. Global inflation driven by energy prices, as well as increasing wage costs to keep up with rising prices, has been a trend in many sectors, and translates into higher input prices for companies in the region. Cost efficiency is also a notable factor, particularly for the service providers and equipment suppliers, where it contributes to lower costs and positively affects profitability. However, a relatively large proportion of respondents report no effect from cost efficiency.

Like last year, exchange rates are expected to have a mixed impact on profitability. Nearly 40 percent of the cluster members anticipate a negative impact, while one-third expect a positive effect. A weaker Norwegian krone has made Norwegian goods and services cheaper for foreign buyers, which can be an advantage for exporters and the shipbuilding industry. This increased competitiveness in the international market can potentially stimulate exports and contribute to increased value creation. Additionally, the depreciation of the NOK enhances the attractiveness of Norwegian salaries for foreign workers, potentially attracting a more diverse and skilled labor force to the maritime sector in Møre og Romsdal.

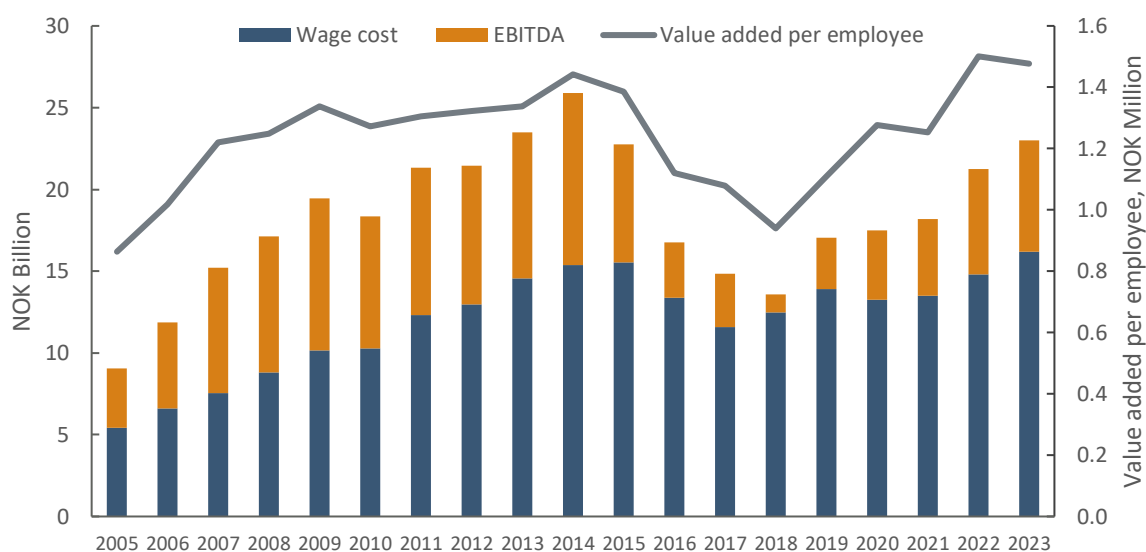
In 2024, access to skills is perceived as having a negative effect on profitability by nearly 40 percent of the respondents. The corresponding figure in last year's report was 35 percent, indicating that concerns about

workforce skills have become increasingly significant. In the survey, cluster members were further asked how challenging or easy they find it to recruit people with relevant skills to the region. One-fifth of the members find this very challenging, while more than 50 percent find it somewhat challenging. Only 4 percent consider it somewhat easy. This reflects the widespread difficulties in attracting qualified talent to the region, highlighting the need for targeted strategies to improve recruitment efforts and address skill shortages. This is further examined in a later chapter.

1.3. Continued growth in value added – sustained by diversification and enhanced profitability

After experiencing a continuous decline in activity from 2015 onwards, the overall value added among the maritime companies in the Møre og Romsdal region began improving again in 2019. Since 2021, value added has exhibited notable improvement. This is seen in the figure below. Despite challenging market conditions, the maritime cluster has demonstrated resilience through restructuring efforts and diversification into new markets. In 2023, value added reached nearly 23 billion NOK, approaching levels observed prior to the offshore crisis. Another interesting feature in the figure below is labour productivity, measured as value added per employee². Even though labour productivity has increased since 2018, there was a slight decrease from 2022 to 2023. In 2023, employment grew more than the value added, reflecting the need for increased labour in preparation for anticipated market growth.

Figure 1-5: Value added split by wage cost and EBITDA, and productivity measured as value added per employee in the Møre og Romsdal region. Source: Menon Economics/2024



This recent development in the value added shown in the figure above can largely be attributed to overall enhancement in EBITDA³. A closer look at the components of value added reveals an important trend. Wage

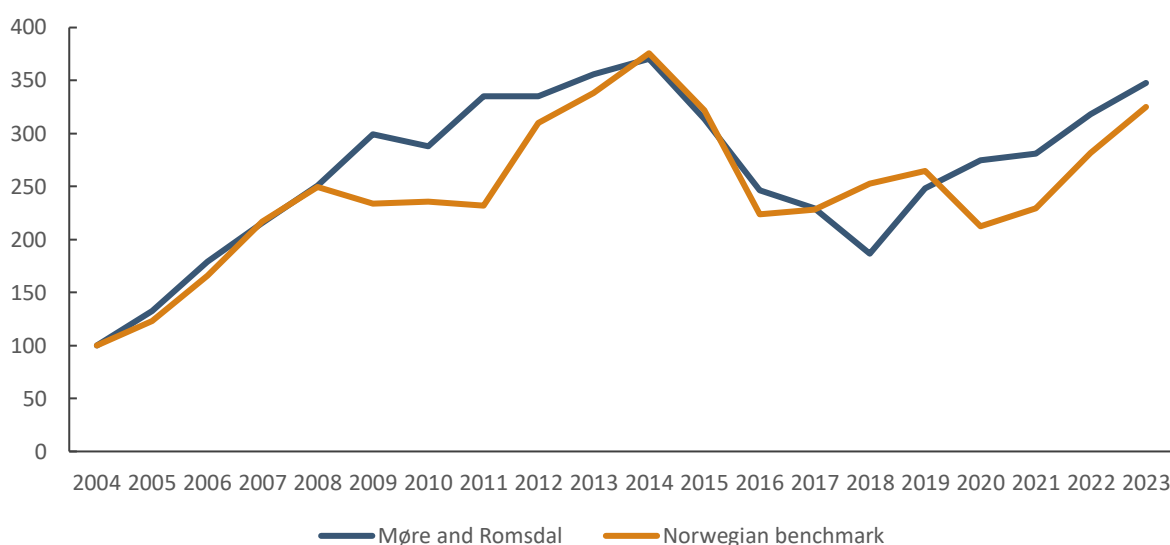
² A measure of economic performance and efficiency, providing insight into how effectively employees contribute to generating economic value.

³ EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortisation) is a measure of a company's operating performance, calculated by adding back interest, taxes, depreciation, and amortisation to net income. By excluding these costs, EBITDA provides a clearer view of core operational profitability, unaffected by capital structure and tax environment. EBIT (Earnings Before Interest and Taxes) includes depreciation and amortisation, offering insight into profitability accounting for asset wear and capital expenditures.

costs have consistently been a substantial portion of value added in the Møre og Romsdal region's maritime industry. While wage costs remained relatively stable even during the offshore crisis, EBITDA experienced significant fluctuations. The dramatic decline in EBITDA from 2014 to 2018 was a major factor in the drop in value added. The recovery since 2019 has primarily been driven by a rebound in EBITDA, reflecting improved profitability and effective restructuring by companies. Additionally, the rise in EBITDA has been supported by the depreciation of the Norwegian krone against the currencies of Norway's major trading partners. The weaker Norwegian krone has made Norwegian exports more competitive, boosting export revenues and contributing positively to EBITDA. All the main groups reported positive results in 2023, suggesting improved operational efficiency and cost management among these companies.

In the figure below, the indexed development of value added in the Møre og Romsdal region is compared to the national benchmark. The strong correlation between the two indicates that market characteristics significantly drive trends in both the region and the national landscape.

Figure 1-6: Indexed development of value added for Møre og Romsdal region and the Norwegian benchmark.⁴ Source: Menon Economics/2024



2008 marked a year of significant economic turbulence due to the global financial crisis. Despite this, the Møre og Romsdal region continued to grow and outperformed the national benchmark, primarily because of its reliance on the resilient oil and gas sector. However, the downturn in oil prices from 2014 onwards led to significant declines in value added for both the region and the national benchmark. Møre og Romsdal, heavily dependent on offshore oil and gas, was particularly affected, resulting in a longer recovery period compared to the national benchmark. From 2017 to 2019, the national benchmark outperformed the Møre og Romsdal region as the latter transitioned from oil and gas to new segments such as ferries and cruise ships, causing a temporary dip in value added. However, from 2019 onwards, Møre og Romsdal began to outperform the national benchmark thanks to its involvement in aquaculture and fisheries, which helped mitigate the negative impacts of the pandemic. By 2021, the value added in the Møre og Romsdal region and the national benchmark began to

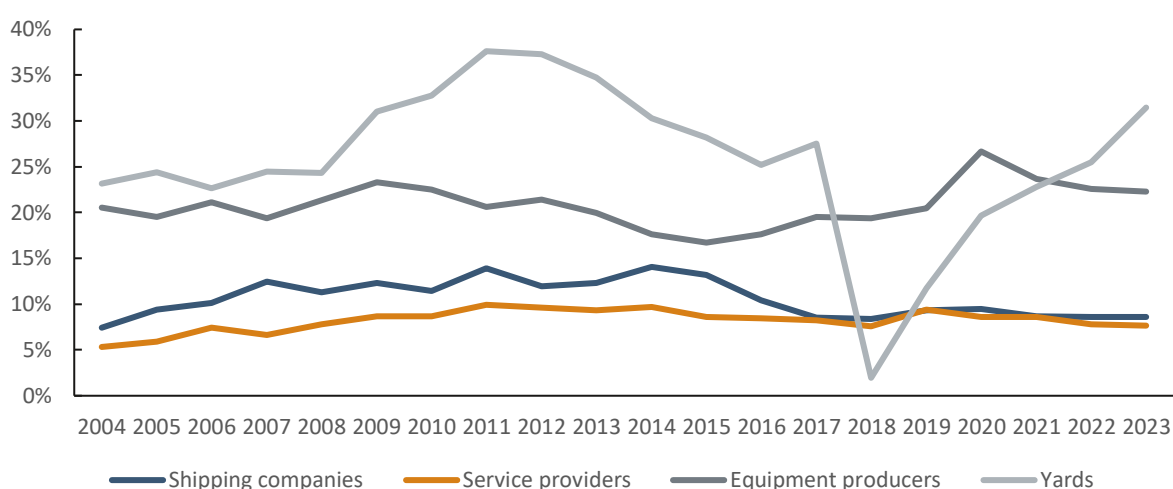
For the overall maritime industry in Møre og Romsdal, we use EBITDA to emphasise operational performance and profitability improvements over time. For specific segments later in the report, EBIT is used to account for differences in capital intensity and financial structures.

⁴ Drilling equipment is excluded in both populations.

converge, a trend that continued into 2022 and 2023. This convergence underscores the resilience and adaptability of the Møre og Romsdal region. Additionally, the growing offshore wind industry has played a critical role in the region's economic recovery and diversification.

Analyzing the Møre og Romsdal region's share in the domestic maritime industry's value added offers a perspective on the cluster's growth relative to the national market. From 2004 to 2011, the cluster's share rose from 9 percent to 15 percent, before declining and stabilizing at 11 percent from 2019 onwards. However, the performance varied significantly across the different maritime groups within the region. The figure below illustrates the region's share of value added in the Norwegian maritime industry across the four main maritime groups.

Figure 1-7: The Møre og Romsdal region's share of the value added in the Norwegian maritime industry – in each of the four maritime groups. Source: Menon Economics/2024



The shipyards in Møre og Romsdal accounted for nearly 40 percent of the value added among Norwegian shipbuilders in 2011, as seen in the figure above. This share dropped to 2 percent by 2018, mainly due to reduced activity and high costs associated with the transition from oil and gas to other segments. Nevertheless, subsequent efforts to diversify into areas such as cruise ships, ferries, aquaculture, and fisheries allowed the regions shipyards to regain a substantial share, reaching 31 percent by 2023. Similarly, Møre og Romsdal's shipping companies exhibited some volatility due to their dependence on the oil and gas market. Their contribution to the industry's value added rose to 14 percent by 2014, before declining to 9 percent by 2017, where it has since stabilized. This stabilization was supported by strong markets in offshore services and aquaculture.

On the other hand, equipment suppliers in Møre og Romsdal faced a downturn following the drop in oil prices but managed to recover more rapidly due to their diversified market portfolio. Their share went from 21 percent in 2011 to a peak of 27 percent in 2020 before stabilizing around 22-24 percent in subsequent years. This flexibility reduced their vulnerability to fluctuations within a single segment, enabling them to adapt to changing market conditions and maintain a more stable share of value added in the industry. In contrast, service providers in the Møre og Romsdal region have shown relative stability over the years. Their contribution has remained consistent, typically hovering around 8-10 percent. This steady performance highlights the resilience and consistency of service providers during broader market volatility.

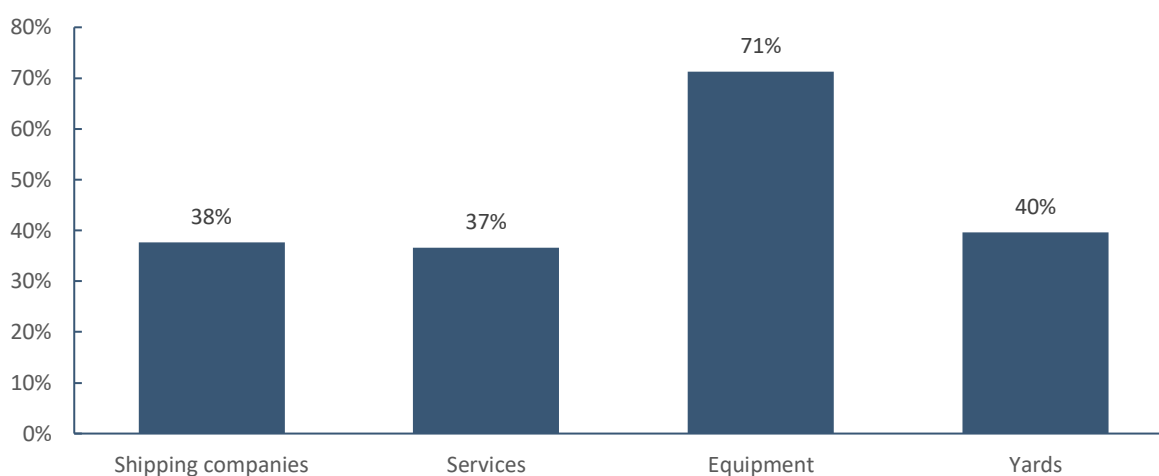
1.4. Stable export revenues of 50 percent

From a societal perspective, the primary goal is creating value and employment, regardless of whether it is generated locally, nationally, or internationally. However, export industries deserve special attention for several reasons. Although not immediately critical, maintaining a trade balance is important for financing imports of goods and services. For Norwegian companies, particularly those in smaller markets, exports are crucial for growth. When maritime companies from the Møre og Romsdal region succeed internationally, they highlight their competitive advantages and contribute to the competitiveness of the national business environment. Export success is also a marker of productivity, which is higher in export-driven industries. Furthermore, from a regional perspective, successful international competition fosters the development of competencies and capabilities that benefit other industries and sectors through collaborations and employee mobility. This leads to increased innovation and productivity, with larger market successes generating more significant ripple effects.

1.4.1. Equipment suppliers have the highest export share of the four groups

The overall export share in the cluster is projected to be 50 percent in 2024, maintaining the same level as the previous two years. As in past years, there are differences among the four groups within the cluster. Equipment suppliers have the highest export share, with 71 percent of their revenue coming from exports. In contrast, the other three groups each have an export share of approximately 40 percent. This is shown in the figure below.

Figure 1-8: Estimated export share for the four groups in the Blue Maritime cluster in 2024. N=51. Source: Menon Economics/2024



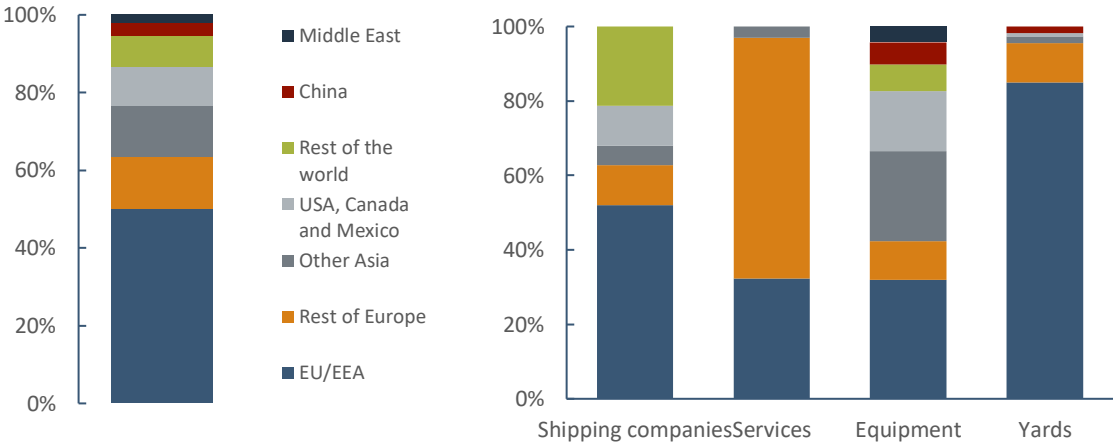
Comparing the export shares to the previous year, equipment suppliers and yards have maintained stable export shares. Shipping companies, however, have seen a significant increase, with their export share rising to nearly 40 percent from 20 percent last year. On the other hand, the services sector has experienced a decline in export share, dropping to approximately 40 percent from 50 percent last year. The high export share for equipment suppliers is driven by their strong position in global markets, with sustainable technological solutions and innovative ship concepts having a significant role in their success. Revenue is earned through direct sales to both foreign shipyards and shipping companies. Additionally, the equipment suppliers engage in indirect exports by supplying equipment to Norwegian shipyards that build ships for foreign shipping companies, or by delivering to Norwegian shipping companies that operate internationally.

The service providers derive 37 percent of their direct revenues from export activities in 2024, somewhat below the reported share from last year's survey. This drop can be attributed to several factors. First, the sample of companies surveyed this year was not identical to last year, leading to differences in reported export shares due to the variation in the firms' export activities. The introduction of new regulations and the ongoing green transition may also have caused the service providers to focus more on the domestic market to meet new compliance requirements and establish sustainable practices. Lastly, rising competition from international players with competitive pricing and innovative solutions could have pressured local providers, leading to a temporary reduction in export shares as they revise strategies to stay competitive globally. The shipyards derive 40 percent of their income from export activities, a figure consistent with the previous year, aided by favorable exchange rates. Lastly, shipping companies in the Møre og Romsdal region, primarily operating in the offshore and aquaculture sectors, have a diverse focus. While the aquaculture segment remains largely domestic, the offshore sector continues to thrive due to high activity levels on the Norwegian continental shelf. Consequently, the offshore segment's export activities are predominantly shaped by robust market conditions and emerging opportunities in offshore wind, which continues to grow as a key export market.

1.4.2. The European market constitutes over 60 percent of the cluster's revenue

The EU/EEA region constitutes a significant portion of the companies' export markets, being the most important export market. This market stands for 50 percent of the cluster's revenue, a figure similar to 2023. Following the EU/EEA region, the next significant markets are the rest of Europe, most likely the UK and Turkey, at 13 percent, Asia excluding China at 13 percent, and North America, including the US, Canada, and Mexico, at 10 percent. While the overall trends remain similar to those in 2023, the EU/EEA has grown in importance, increasing from 40 percent last year. The importance of the markets varies across the four groups in the cluster. The EU/EEA is particularly important for the yards in 2024, playing a crucial role in their export activities. For the service providers, the rest of Europe is the most significant market. The equipment suppliers, on the other hand, have a global reach, delivering to markets all over the world. Meanwhile, for shipping companies, while the EU/EEA remains highly significant, they also have a substantial presence in the rest of the world. This is shown in the figures below.

Figure 1-9: Left: Total export revenues of Blue Maritime cluster distributed by geographical region, 2024. Right: Export revenues distributed according to geographical regions for the four maritime groups. N=51. Source: Menon Economics/2024



As seen in the figure above, over 80 percent of the yard's revenues are expected to come from the EU/EEA in 2024. This represents an increase compared to last year, when this market accounted for a share of 55 percent of the group's revenue. This significant rise may indicate a strategic shift away from markets in China, Asia, and the Middle East, whose shares have declined since last year, towards the EU/EEA market. Geopolitical tensions and a heightened focus on self-sufficiency within Europe likely influence these changes. Efforts to reduce dependence on regions like China and Russia may drive a preference for more stable and predictable trade relationships within the EU/EEA. Additionally, favorable trade agreements, regulatory conditions, and alignment with sustainability goals might support increased exports to this market.

The EU/EEA and the rest of Europe are also important for shipping companies, with 60 percent of their export revenues originating from these markets. The remaining 40 percent is distributed across various other regions, including Asia, the USA, Canada and Mexico. The importance of the European market is especially driven by the demand for vessels for offshore wind. For service suppliers, the European market is similarly significant, serving as their most important export region. On the other hand, equipment suppliers have a more diversified export portfolio, targeting markets worldwide. Although they rely less on the European market compared to other groups, it still accounts for 40 percent of their export revenues. Asia, the US, Canada, and Mexico are also key markets for equipment suppliers. They supply equipment to both Norwegian and foreign vessels that are built at shipyards in various countries, serving a diverse range of vessel types.

Looking ahead, favorable market conditions are anticipated for several groups, driven by both the newbuild market and the aftermarket. Upcoming regulations and requirements in the shipping industry, the green transition, together with an aging global fleet are expected to create substantial export opportunities. Additionally, the focus on defense and contingency could further enhance market demand, supporting export growth across several of the groups.

1.5. Offshore wind continues to be the largest market segment

In line with last year, the companies were asked to distribute their revenues on various ocean industries and non-maritime activities. The figures below show how the revenues are divided by market segments for the shipyards, equipment suppliers and service providers. These three groups of companies can readjust from one market segment to another, although they might face switching costs. The shipping companies are excluded from the figures below because their vessels are tailor-made for specific operations (for example carrying passengers on a ferry). Hence, shipping companies are not included in our analysis of market segments.⁵ In Møre og Romsdal, the shipping companies primarily operate within the offshore shipping and aquaculture segments.

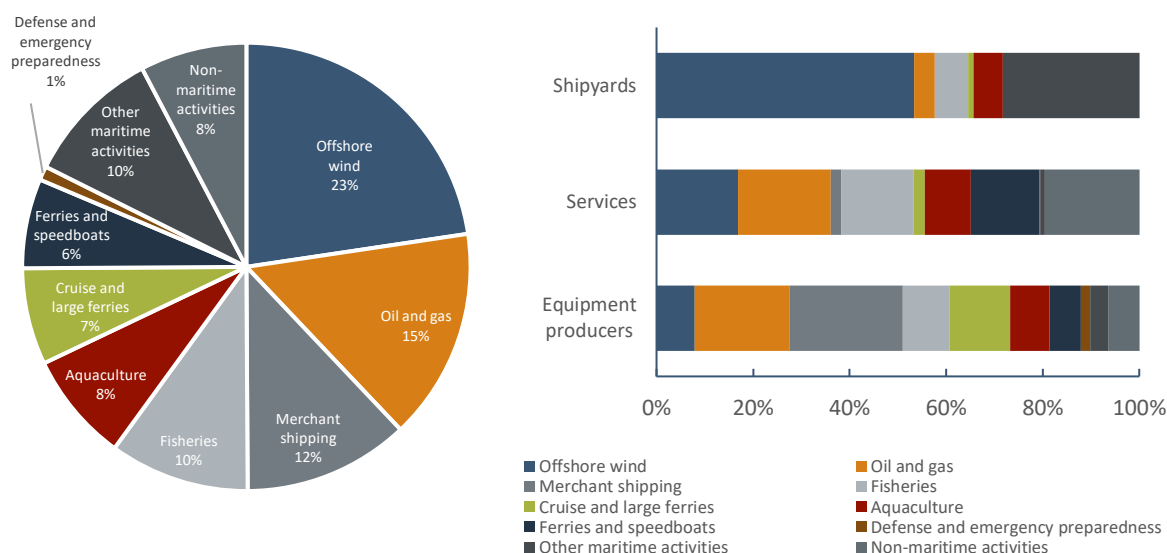
For the three groups, the offshore wind market constitutes 23 percent of the aggregated in terms of revenue, an increase from last year's share of 17 percent.⁶ This is mainly driven by an increase in the shipyards offshore wind activity, as well as the revenues from the equipment suppliers. However, the equipment suppliers have a more diversified portfolio, delivering to more market segments, as seen in the figure below to the right. The second largest market for the Møre og Romsdal region is the oil and gas market. The oil and gas market has experienced a significant decrease in recent years, from a share of around 50 percent in 2017 to 15 percent in 2024. The share

⁵ Shipping companies are not included as their operations are highly specialized to specific segments, making transitions between different market segments largely impractical. Changes within shipping companies occur over long periods as they adjust the composition of their fleet, thus short-term revenue analysis by segment is not relevant for this particular group.

⁶ In order to correct for differences between the four main groups' relative sizes in the survey compared to their relative sizes in the Møre og Romsdal region, we weight the survey results according to the groups' actual relative weights based on accounting data.

has remained stable from 2023 to 2024. Revenues from the offshore oil and gas market are especially important for the equipment suppliers and the service providers.

Figure 1-10: Left: Revenue split by market segment for companies in the Blue Maritime cluster in 2024. Based on survey results. Shipping companies are not included in the figure. N=42. Right: Revenue split by market segment for shipyards, services and equipment suppliers. N=42. Source: Menon Economics/2024



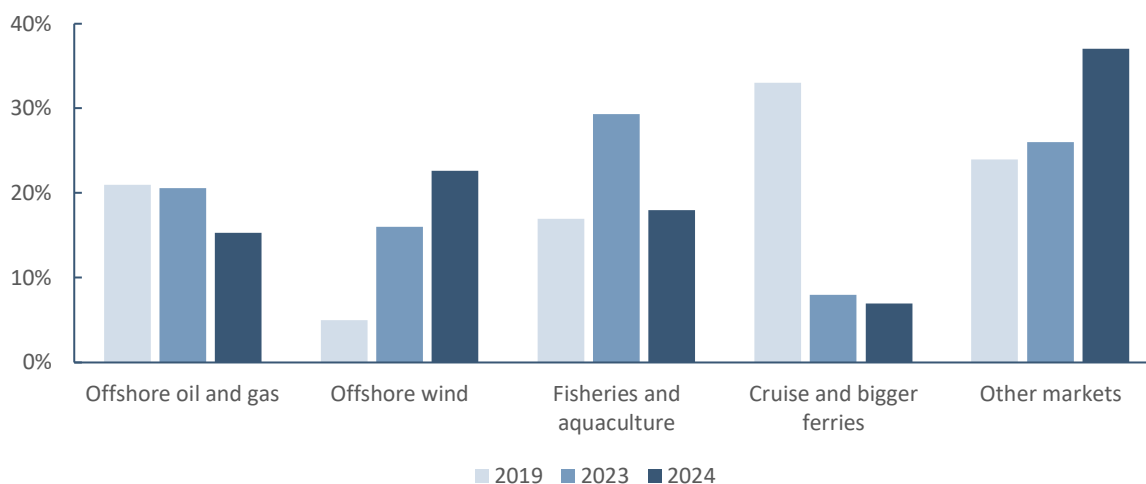
Defense and emergency preparedness currently account for only 1 percent of the cluster's revenue. However, this segment is expected to grow significantly as the Norwegian Armed Forces upgrade and replace large parts of their vessel fleet, as outlined in the Long-Term Plan on Defence.⁷ Earlier this year, Menon conducted a ripple effect analysis on building 10 offshore and 18 coastal standard vessels for the Norwegian Armed Forces at Norwegian shipyards.⁸ The findings indicate significant effects on value added and employment over a 30-year period, encompassing both construction and maintenance. With considerable impacts projected for Møre og Romsdal, this presents substantial opportunities for the cluster. Besides being economically beneficial, the development also offers export potential and the opportunity to promote green maritime technology. This suggests that the defense and emergency preparedness segment could become a much larger part of the cluster's revenue in the future.

When examining the change in revenue split by market segments for the cluster companies over the years 2019, 2023, and 2024, several trends emerge. While there has been a decline in offshore oil and gas activity, offshore wind activity has increased. Fisheries and aquaculture reached a peak in 2023. Conversely, there has been a large decline in revenue from the market for cruise and larger ferries. Meanwhile, other markets have experienced a rise in activity since 2019.

⁷ Langtidsplan for forsvarssektoren 2025-2036. Available [here](#).

⁸ Menon Economics (2024). Ringvirkningsanalyse av å bygge standardisert fartøysklasse i Norge. Available [here](#).

Figure 1-11: Revenue split by aggregated market segments for companies in the Blue Maritime cluster in 2019, 2023 and 2024. Based on survey results. Shipping companies are not included. Source: Menon Economics/2024



As seen in the figure above, there has been a decrease in the revenues related to the cruise and bigger ferries segment since 2019. Norway has accounted for approximately one-third of the global production of expedition cruise ships for the last decade. Although the market for cruise and large ferries have recovered rapidly since the pandemic and the activity level is way above 2019 levels today, there are few expedition cruise projects under construction as of today at Norwegian yards.⁹ The Norwegian maritime industry has also delivered various types of vessels and equipment to shipping companies in the fisheries and aquaculture segment for several decades, and this segment has become the most important segment for medium-sized Norwegian shipyards. However, as seen in the figure above, the cluster has experienced a decline in the revenues from this market from 2023 to 2024. This is mainly due to decreased activity at the yards.

⁹ Skipsrevyen (2023). *Konkurransekraft på havet: Hvordan norske verft har holdt kursen*. Tilgjengelig [her](#)

2. Key numbers for the four maritime groups

2.1. Shipping companies

Although activity levels were already high in 2022, the shipping companies operating in the Møre og Romsdal region experienced a modest increase in economic indicators also in 2023. This is shown in the table below. As can be seen, value added, and employment also increased in 2023. Despite demonstrating growth in these key financial metrics, operating margins¹⁰ were slightly lower in 2023 compared to 2022.

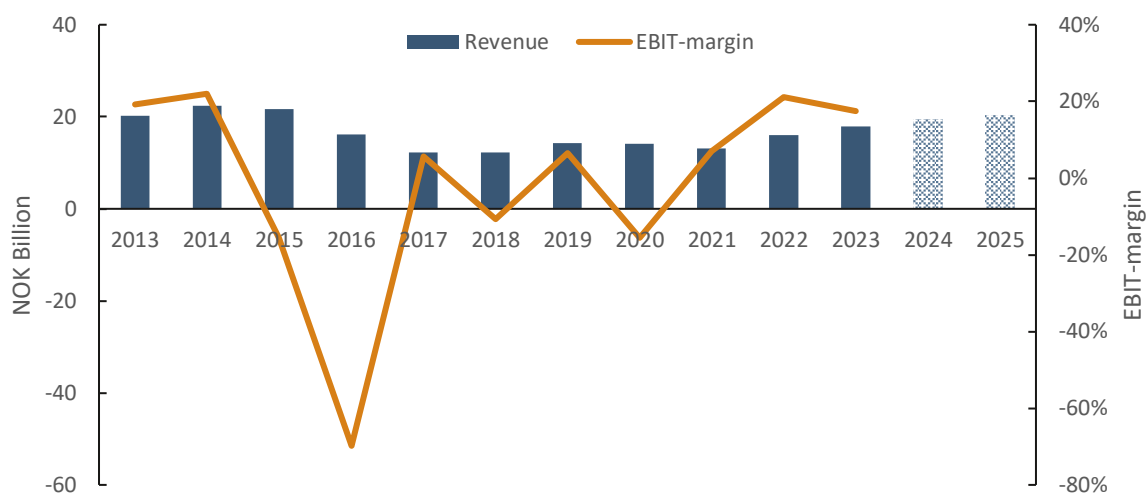
Figure 2-1: Development in key economic indicators for the shipping companies, 2022-2023. Source: Menon Economics/2024

		2022	2023	Shipping
	Revenue (NOK billion)	16.1	17.9 +11%	
	Value added (NOK billion)	10.6	11.1 +5%	
	Employment	4270	4680 +10%	
	Operating margin (EBIT-margin)	21%	18%	

Based on the expectations of the shipping companies in the cluster, revenues are anticipated to continue increasing in both 2024 and 2025, as shown in the figure below. Offshore wind is emerging as a significant driver of growth. With tightening timelines for decarbonization goals, the importance of this segment is increasing, creating unique opportunities for Norwegian offshore shipping companies. Currently, a substantial portion of offshore wind-related revenue comes from exports, contributing significantly to the overall revenue growth. Additionally, there is considerable global demand for tonnage, especially for the transport of oil and gas, driven by the ongoing war in Ukraine. This conflict has heightened the demand for alternative energy supplies, resulting in increased activity for offshore shipping companies on the Norwegian continental shelf as Europe seeks to replace Russian oil and gas.

¹⁰ In previous reports, we employed the EBITDA-margin to assess profitability across the main groups. This year, we have transitioned to using the operating margin (EBIT) to better reflect the core operational efficiency of businesses. Unlike EBITDA, which excludes depreciation and amortization, EBIT includes these expenses, providing a more comprehensive view of earnings before interest and taxes as a share of revenue. This approach allows for a clearer comparison of profitability across different segments within the maritime industry.

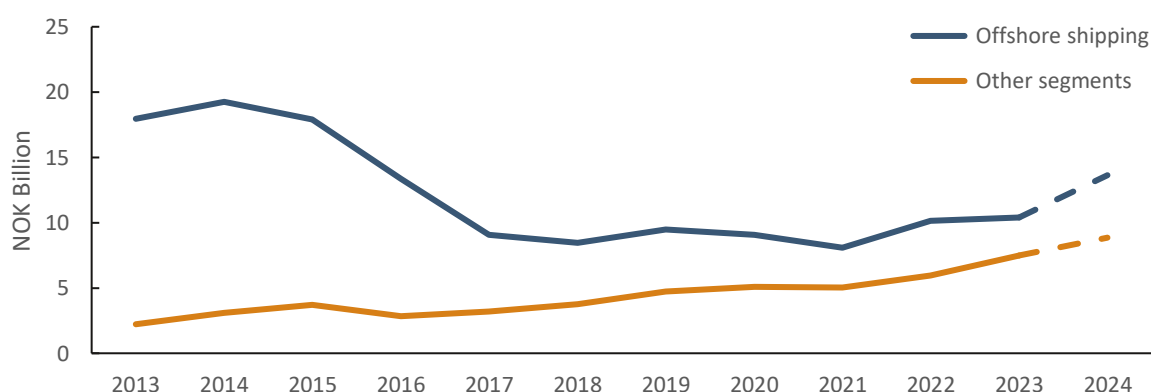
Figure 2-2: Revenue and EBIT-margin among shipping companies in the Blue Maritime cluster, from 2013-2025. Estimates for 2024 and 2025 based on reported information from companies. Source: Menon Economics/2024



As depicted in the figure above, the profitability of the shipping companies has fluctuated over time. Their involvement in the offshore market makes them susceptible to global economic trends and geopolitical fluctuations, which accounts for their varying financial performance. Despite encountering negative profitability in 2020 due to the pandemic, profitability has improved in subsequent years. As of 2023, the shipping companies have the highest profitability among the four maritime groups.

The shipping companies in the Møre og Romsdal region can be divided into several groups based on their activities: offshore shipping companies, well boat companies and other aquaculture service companies, merchant shipping, and passenger transport.¹¹ Offshore shipping and aquaculture are the largest segments in terms of revenue. Historically, the offshore segment has held a prominent position among the shipping companies in the region. It remains the largest segment by revenue, but the trend in other segments indicates a converging development, as shown in the figure below. The growth in other segments is mainly led by well boat companies and companies serving the aquaculture industry.

Figure 2-3: Revenues of offshore shipping segment and other segments in the Møre og Romsdal region from 2013 to 2024. Estimates of revenues in 2024 based on reported information from companies. Source: Menon Economics/2024



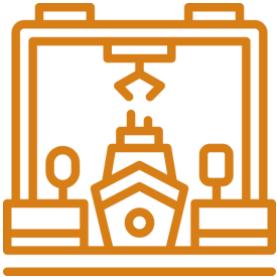
¹¹ Møre og Romsdal has a significant fishing vessel fleet. Its revenues are not included here since it is impossible to split revenues between maritime operations and sales of fish.

In 2023, 42 percent of the revenue for shipping companies in Møre og Romsdal was related to non-offshore segments, while 58 percent was associated with the offshore shipping segment, as seen in the figure above. Between 2022 and 2023, the offshore segment increased its revenue by 3 percent. This trajectory aligns with the projections outlined in last year’s report. The short-term outlook for 2024 is also positive; in the survey we conducted among Blue Maritime cluster members, offshore shipowners are expecting a 30 percent increase in their revenues in 2024. The remaining segments are primarily driven by well boat companies, along with coastal cruise, small ferries, and coastal freight transport. Notably, coastal freight transport has increased in importance, raising its share of total revenues from 4 percent in 2022 to 8 percent in 2023 among the shipping companies. In 2023, the well boat companies accounted for 29 percent of the revenues. Their revenue is closely tied to the number of fish being transported and the amount of processing done on board. Stable growth is expected in the short to medium term for these companies.¹² In the long term, significant growth potential lies in offshore aquaculture, where regulatory evaluations and setups are currently underway.¹³ Additionally, growth opportunities could arise if authorities allow more production at sea in units with reduced environmental impact, preferably closed and semi-closed systems.¹⁴

2.2. Shipyards

The Møre og Romsdal region stands as the most critical area for shipbuilding in Norway. While the last decade has brought significant changes in the group’s relative importance, 2023 marked a year of positive transformation for the shipyards in Møre og Romsdal. For the first time since 2014, the shipyards achieved a positive operating margin¹⁵, signaling a substantial turnaround in financial performance and demonstrating their progress towards successful adjustment to new market conditions.

Figure 2-4: Development in key economic indicators for the shipyards, 2022-2023. Source: Menon Economics/2024

		2022	2023	Shipyards
	Revenue (billion NOK)	12.2	11.6 -4%	
	Value added (billion NOK)	1.8	2.1 +19%	
	Employment	2250	2480 +10%	
	Operating margin (EBIT-margin)	-1%	+1%	

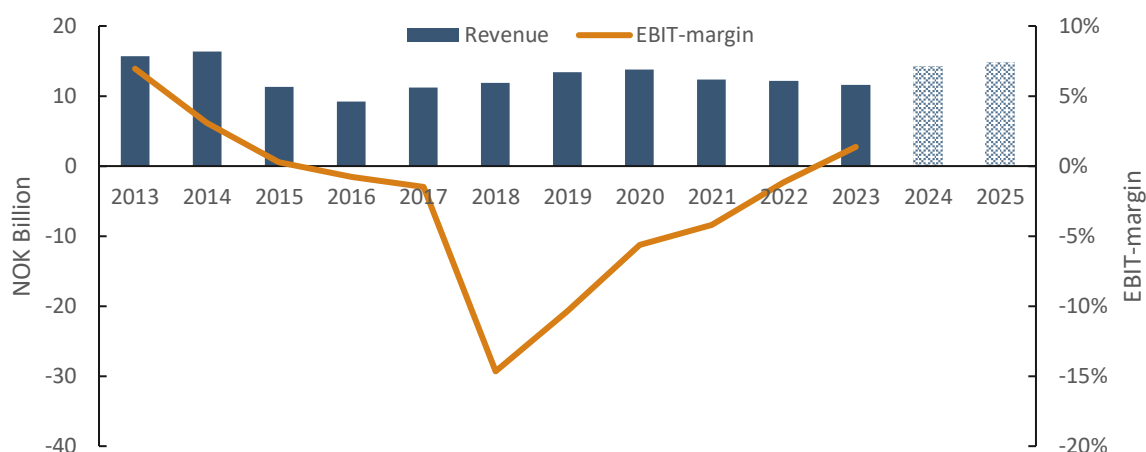
According to last year’s short-term outlook, revenue for 2023 and 2024 was expected to be slightly lower than 2022 levels. Actual figures for 2023 confirm this trend, showing a 4 percent decrease compared to 2022. As previously mentioned, this decline in shipyards’ activity levels is primarily due to lower newbuilding activity in

¹² Menon Economics (2022). Den maritime leverandørkjeden til havbruksnæringen – størrelse og vekstpotensial. Available [here](#).
¹³ Menon Economics (2023). Tillatelsesregime for havbruks til havs. Available [here](#).
¹⁴ NOU 2023: 23 Helhetlig forvaltning av akvakultur for bærekraftig verdiskaping. Available [here](#).
¹⁵ In previous reports, we employed the EBITDA-margin to assess profitability across the main groups. This year, we have transitioned to using the operating margin (EBIT) to better reflect the core operational efficiency of businesses. Unlike EBITDA, which excludes depreciation and amortization, EBIT includes these expenses, providing a more comprehensive view of earnings before interest and taxes as a share of revenue. This approach allows for a clearer comparison of profitability across different segments within the maritime industry.

2023 compared to 2022. The reduction was largely driven by a few major shipyards, significantly influencing the overall activity levels in the group.

However, the shipyards within the Blue Maritime cluster are optimistic about 2024, anticipating higher activity levels driven by an increased number of orders, diversified orderbooks, and a growing focus on emerging market segments such as offshore wind vessels and advanced aquaculture vessels. This marks a significant improvement compared to last year's short-term outlook. The forecast for 2025 also remains positive, with optimism for revenue growth in the coming years, as illustrated in the figure below.

Figure 2-5: Revenue and EBIT-margin among yards in the Blue Maritime cluster, from 2013-2025. Estimates for 2024 and 2025 based on reported information from companies. Source: Menon Economics/2024

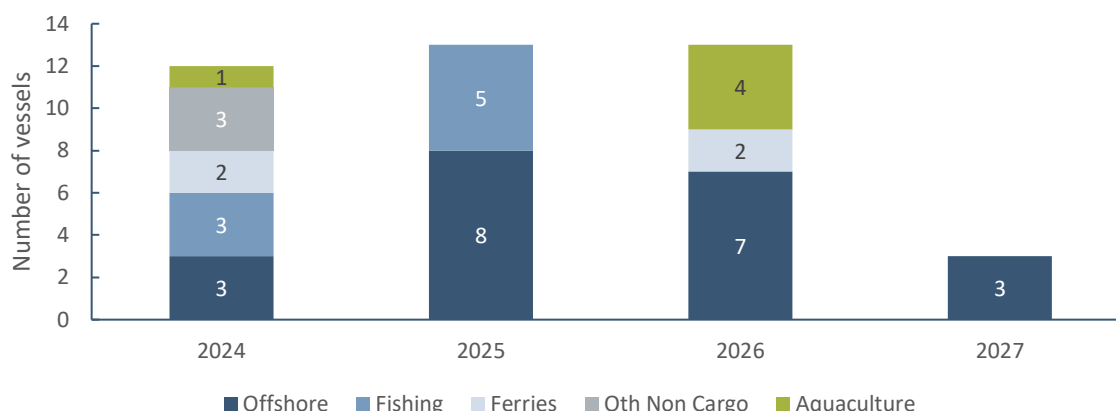


The shipyards' ability to adapt has been crucial to their recovery. Møre og Romsdal hosts some of Norway's largest shipbuilding companies, such as Vard and Ulstein, which serve as prime examples of shipyards that have undergone structural changes over the last decade. Vard, for instance, has managed to maintain its revenue share among shipyards in Møre og Romsdal despite the challenging transition from primarily building offshore service vessels to more diversified orderbooks.

Another important segment for the shipyards in Møre og Romsdal has been fisheries and aquaculture. Following the offshore crisis, the relative importance of this segment increased. Two examples of shipyards focusing on these segments are Larsnes Mek Verksted and Aas Mek Verksted. These yards have built live fish carriers, trawlers, and other types of aquaculture supply and fishing vessels over several years. While these two shipyards accounted for only 3 percent of the region's shipyards' total revenue in 2013, their share increased to 15 percent in 2023. Increased activity levels in the aquaculture industry, combined with growing demand for vessels capable of performing complex and specific operations, have generated significant revenue streams for shipyards in the region. By developing new value chains and competencies, the yards have positioned themselves competitively in new markets. The diversification strategy has not only secured their financial stability but also set the stage for sustained growth.

Supporting this growth and transformation has been the diversification of the yards' orderbooks. The orderbooks of Møre og Romsdal shipyards are well-diversified, as illustrated in the figure below. For 2024, they consist of various fleet types, such as offshore vessels, fishing and aquaculture vessels, ferries, and other non-cargo vessels.

Figure 2-6: Orderbooks of Møre og Romsdal shipyards. Number of vessels and types in orderbooks. Source: Clarksons World Fleet Register/2024



Several of the offshore vessels are intended for use in the offshore wind market. In 2025 and 2026, the orderbooks are primarily dominated by offshore, fishing and aquaculture vessels, with some ferries included in 2026. Currently, the orderbook for 2027 consists of offshore vessels only.

2.3. Equipment suppliers

The maritime equipment suppliers of Møre og Romsdal produce specialized equipment for shipping operations and are well-positioned in both national and global markets. Although revenues increased slightly below the projections outlined in last year's report, recent market developments resulted in high activity among suppliers in the region, with improvements in revenue, value added, operating margins¹⁶, and an expanded workforce in 2023.

Figure 2-7: Development in key economic indicators for the equipment suppliers, 2022-2023. Source: Menon Economics/2024

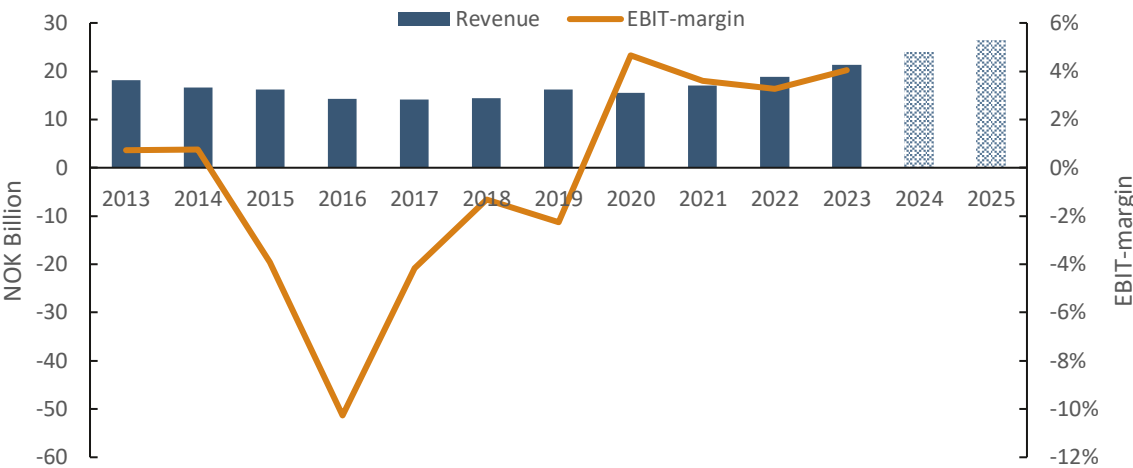
		2022	2023	Equipment suppliers
	Revenue (NOK billion)	18.8	21.4 +14%	
	Value added (NOK billion)	5.5	6.3 +14%	
	Employment	4500	4890 +9%	
	Operating margin (EBIT-margin)	3%	4%	

Like all parts of the cluster, the equipment suppliers had to adapt to new market conditions following the decline in demand from offshore shipping companies in the mid-2010s. This adaptation had noticeable effects on

¹⁶ In previous reports, we employed the EBITDA-margin to assess profitability across the main groups. This year, we have transitioned to using the operating margin (EBIT) to better reflect the core operational efficiency of businesses. Unlike EBITDA, which excludes depreciation and amortization, EBIT includes these expenses, providing a more comprehensive view of earnings before interest and taxes as a share of revenue. This approach allows for a clearer comparison of profitability across different segments within the maritime industry.

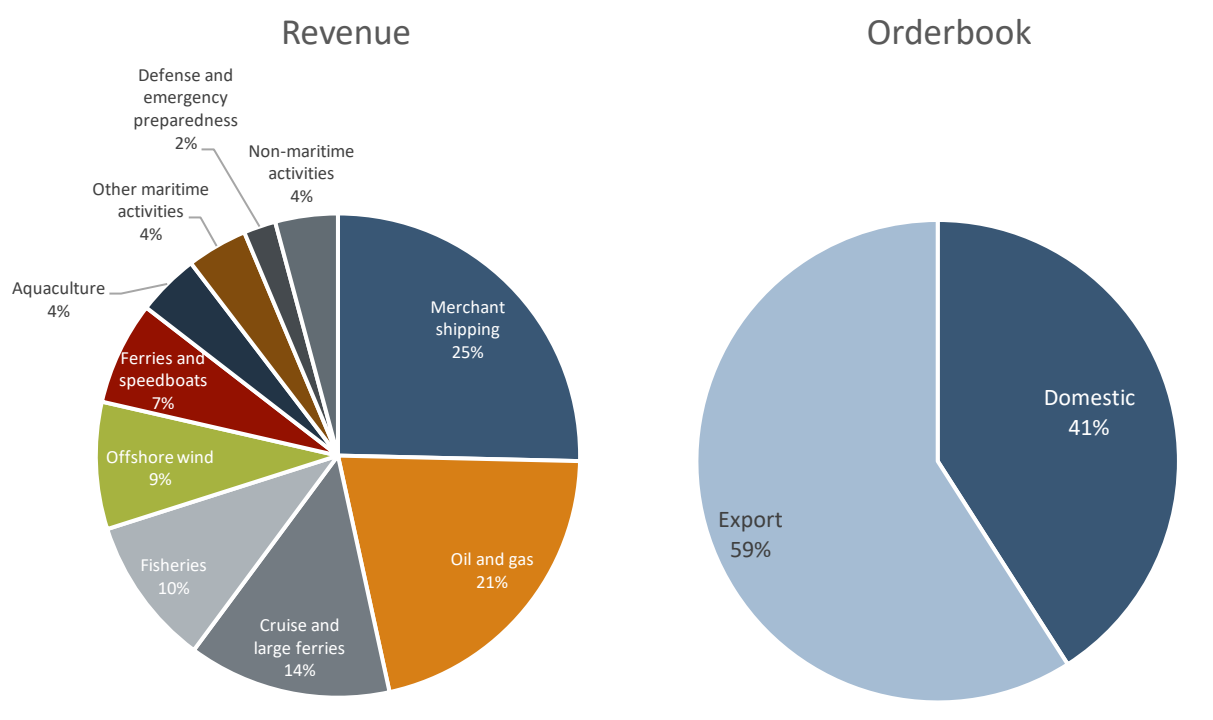
activity, resulting in declining revenues and negative profitability, as illustrated below. Aside from a setback due to the pandemic, revenues and profitability have been improving since 2017-2018. The pandemic-related decline was mainly driven by a few suppliers of equipment for the oil and gas industry. Based on information from equipment suppliers in the Blue Maritime cluster, we project that high activity levels will continue, resulting in increased revenues for both 2024 and 2025, as seen in the figure below.

Figure 2-8: Revenue and EBIT-margin among equipment suppliers in the Blue Maritime cluster, from 2013-2025. Estimates for 2024 and 2025 based on reported information from companies. Source: Menon Economics/2024



The positive outlook is driven by favorable market dynamics and conditions. Global market expansion and the transition to environmentally sustainable technologies are creating significant export opportunities, which is particularly important for equipment suppliers given their high export share. The equipment suppliers have well-diversified portfolios and cater to a broad range of segments, as illustrated below. This diversification enables them to mitigate risks and capitalize on revenue opportunities across multiple sectors, demonstrating their resilience and capacity to adapt to varying market conditions.

Figure 2-9: Left: Revenue by market segments for the equipment suppliers in the Blue Maritime cluster in 2024. Right: Orderbook by domestic market and export market. Source: Menon Economics/2024



Looking at the orderbook of the equipment suppliers in the figure above to the right, the domestic market constitutes 41 percent, while the export market constitutes 59 percent. Compared to historic export shares, the orderbook of the equipment suppliers is comparable to export shares in previous years, and reflects how the group’s market segments typically are divided between domestic and export markets.

2.4. Service providers

The maritime service providers in the Møre og Romsdal region consist of a diverse group of companies offering a range of services to various customers in Norway and abroad. These include technological solutions, financial and legal assistance, port and logistics operations, trade facilitation, and ship design services. In 2023, this group of companies experienced modest increases in revenue, employment, and value added. While the group remained profitable, profitability was slightly lower than in 2022.¹⁷ The main driver of revenue growth was the technological service providers, who accounted for nearly 40 percent of the growth and more than half of the group's generated revenue in 2023.

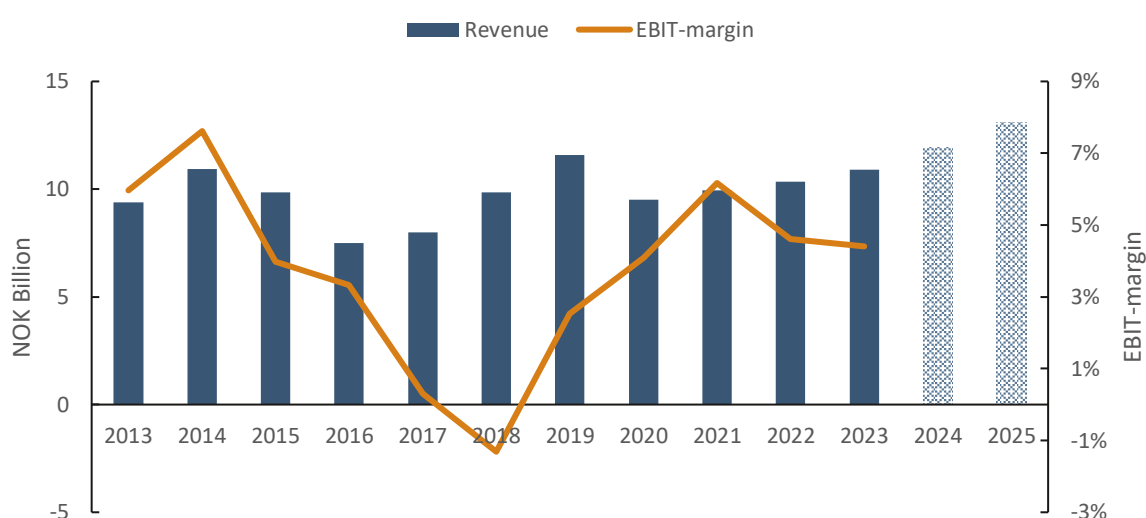
¹⁷ In previous reports, we employed the EBITDA-margin to assess profitability across the main groups. This year, we have transitioned to using the operating margin (EBIT) to better reflect the core operational efficiency of businesses. Unlike EBITDA, which excludes depreciation and amortization, EBIT includes these expenses, providing a more comprehensive view of earnings before interest and taxes as a share of revenue. This approach allows for a clearer comparison of profitability across different segments within the maritime industry.

Figure 2-10: Development in key economic indicators for the service providers, 2022-2023. Source: Menon Economics/2024

		2022	2023	Service providers
	Revenue (NOK billion)	10.3	10.9 +5%	
	Value added (NOK billion)	3.4	3.5 +5%	
	Employment	3140	3520 +12%	
	Operating margin (EBIT-margin)	5%	4%	

As previously mentioned, a large share of the service providers' activities is connected to the shipyards. Consequently, the revenue movements tend to mirror that of the yards, as illustrated in the figure below. This was true before the pandemic; however, the development has been more stable and favorable for service providers from the pandemic period until 2023. With the transition toward green solutions and increasing environmental expectations, combined with anticipated higher activity among the yards, the service providers in Møre og Romsdal are expecting revenue growth in both 2024 and 2025.

Figure 2-11: Revenue and EBIT-margin among service providers in the Blue Maritime cluster, from 2013-2025. Estimates for 2024 and 2025 based on reported information from companies. Source: Menon Economics/2024



Over the past decade, the service provider companies' profitability has fluctuated but has remained positive in all years except for 2018. This year is closely connected to the shipyard's performance, where 2018 marked a critical low point due to decreased activity and high costs associated with transitioning from oil and gas to other segments. This led to reduced demand and increased pressure on prices and margins. However, despite following a similar profitability trajectory as the shipyards, the service providers typically maintain higher levels of profitability. This can be attributed to several factors, including diversified revenue streams, higher value-added services, and recurring revenue models. These advantages provide these companies with greater stability and flexibility, enabling them to adapt more effectively to fluctuating market conditions compared to the shipyards.

Norwegian service providers are key players both globally and nationally, contributing to innovation and the green transition in shipping. As the maritime industry is to transition from fossil fuels to low- and zero-emission solutions, significant transformations are anticipated within maritime value chains. This shift creates new market opportunities and necessitates innovative business models for sustainable growth in the shipping industry and the broader maritime sector. Service providers, with their close connections to shipyards, are important in this development, particularly as shipyards start building vessels designed for alternative fuels. The Møre og Romsdal region exemplifies the positive impact service providers can have in the green transition. Companies such as Vard Electro, Ulstein, Skipsteknisk, HAV Design and Kongsberg Maritime are leading the way in ship design, installation, and software development. These firms are not only highlighting the region's role in maritime innovation but are also essential in developing integrated, energy-efficient solutions that propel the industry towards a more sustainable future.

3. Attracting, developing and retaining talent within the cluster

This year's cluster analysis takes a closer look at how maritime companies work to attract, develop, and retain talent within the cluster. The main focus is on understanding the efforts made by member companies to draw in relevant expertise and the strategies they employ to retain their workforce. Addressing these areas is crucial for understanding the attractiveness of both the individual companies and the Blue Maritime cluster as a whole. In this chapter, we will explore the main challenges faced by the cluster's companies in attracting and retaining talent and investigate the strategies they employ to build an attractive maritime region. Understanding these dynamics is essential for enhancing the region's appeal and ensuring a steady pipeline of skilled labour to support continued growth and innovation within the maritime sector.

3.1. The cluster's need for people and competence: Past, present and future

In today's evolving labour market, attracting, developing, and retaining talent is critical. Key trends such as technological advancements, the green transition, and demographic shifts are shaping future workforce needs. Norwegian enterprises are already facing considerable labour shortages, with one in four businesses reporting recruitment difficulties in 2023.¹⁸ This trend is expected to persist, particularly in sectors requiring vocational qualifications, driven by an aging population that further diminishes the available workforce.¹⁹ As the labour market tightens, competition for top talent intensifies, making it increasingly challenging for companies to secure the skilled professionals necessary to drive innovation and growth.

To understand the current state of the need for people and competence within the maritime cluster, members were asked about their need for employment within the next five years.²⁰ Around two-thirds of the companies answering stated that they need less than 10 additional staff members today. However, this picture is expected to change significantly within the next year. Within the next year, a larger portion of these companies —19 percent compared to the current 8 percent—anticipates needing more than 50 new employees. This trend continues over the next five years, with 29 percent of the companies projecting a need for more than 50 additional employees.

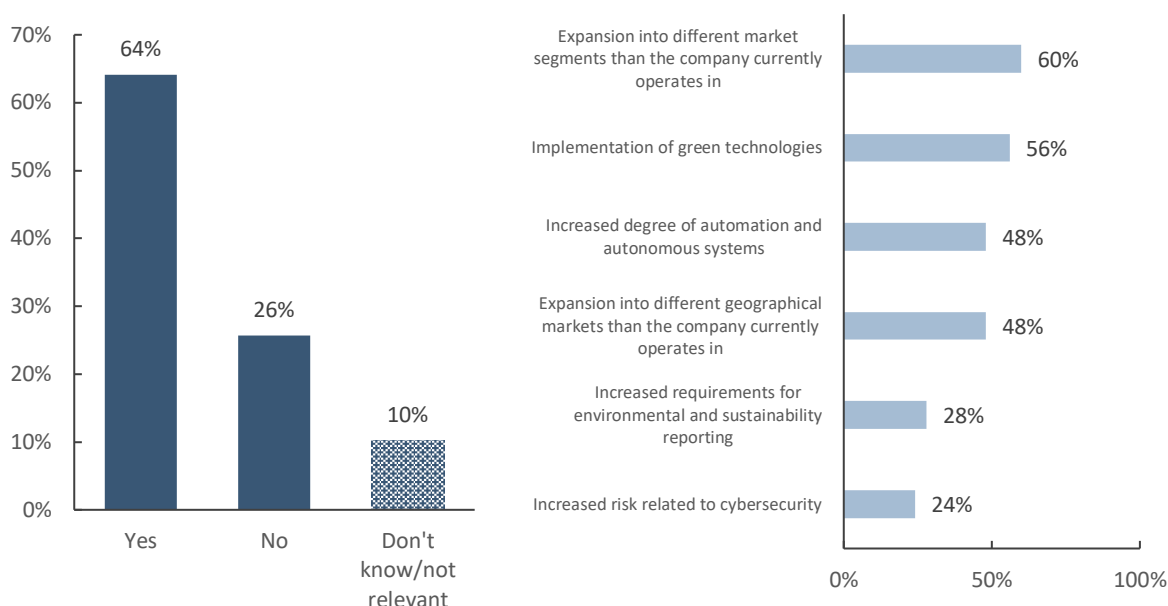
As new markets grow, the need for skilled professionals to support efficient and safe operations increases. At the same time, digitalization and technological advancements are transforming the nature of tasks and how they are performed, necessitating digital competence and higher security standards. The green transition, with the adoption of new energy carriers and propulsion systems, demands new skills both for the crew on ships and for all parts of the maritime cluster onshore. Soft skills, including project managers and leaders are also necessary in this regard. This is also shown in the results from the survey. As seen in the figure below, more than 60 percent of the cluster members that have answered the survey state that their company needs employees with different skills than those currently possessed by their employees today. Three out of five state that expansion into new market segments is a reason for the change in competence needs.

¹⁸ NAV (2023) *Bedriftsundersøkelsen 2023*. Available [here](#).

¹⁹ Arbeids- og velferdsdirektoratet (2023). *NAV's omverdensanalyse 2023-2035*. Available [here](#).

²⁰ The data is derived from the competence survey conducted for this year's report, which received 40 responses from members of the Blue Maritime cluster.

Figure 3-1: Left: “Does your company need a different type of competence than what your current employees possess?”. Right: “What is the reason that your company requires a different type of competence?”. N=39. Source: Menon Economics/2024



More than half of the respondents state that the implementation of green technologies is a reason for the change in competence needs. Additionally, an increase in the degree of automation is highlighted as a reason, with half of the respondents indicating this. While increased requirements for environmental and sustainability reporting (ESG) and increased risk related to cybersecurity are mentioned less frequently, 29 and 25 percent of respondents, respectively, still identify these factors as reasons for changed competence needs.

3.1.1. Access to and need for skilled workers

There is a significant need for skilled workers.²¹ Historically, labour immigration has been a key driver for employment growth in the domestic labour market. Over the past decade, however, the number of labour immigrants has declined. Improved economic conditions in Eastern Europe have reduced the need for individuals to seek work abroad. Additionally, the oil crisis, the pandemic, and a steadily weakening Norwegian krone have diminished the competitiveness of Norwegian salaries.²² Geopolitical tension and deteriorating relations between countries are further limiting the pool and reducing the availability of foreign workers.²³ Furthermore, recent changes in labour legislation have tightened the rules for hiring temporary labour from staffing agencies, making it more challenging to meet labour needs.²⁴

The cluster has expressed concerns regarding how the lack of access to skilled labour is affecting their members' profitability. There is a substantial demand for skilled labour in the offshore wind industry, with an estimated

²¹ For the purposes of this report, a skilled worker is defined as an individual who possesses a recognized certificate of apprenticeship (fagbrev), a journeyman's certificate (svennebrev), has completed a vocational secondary education (yrkesfaglig videregående utdanning), or holds an equivalent competency certificate. This also includes individuals with education from vocational colleges (fagskoleutdanning).

²² Regjeringen (2023). Arbeidsmarked. Available [here](#).

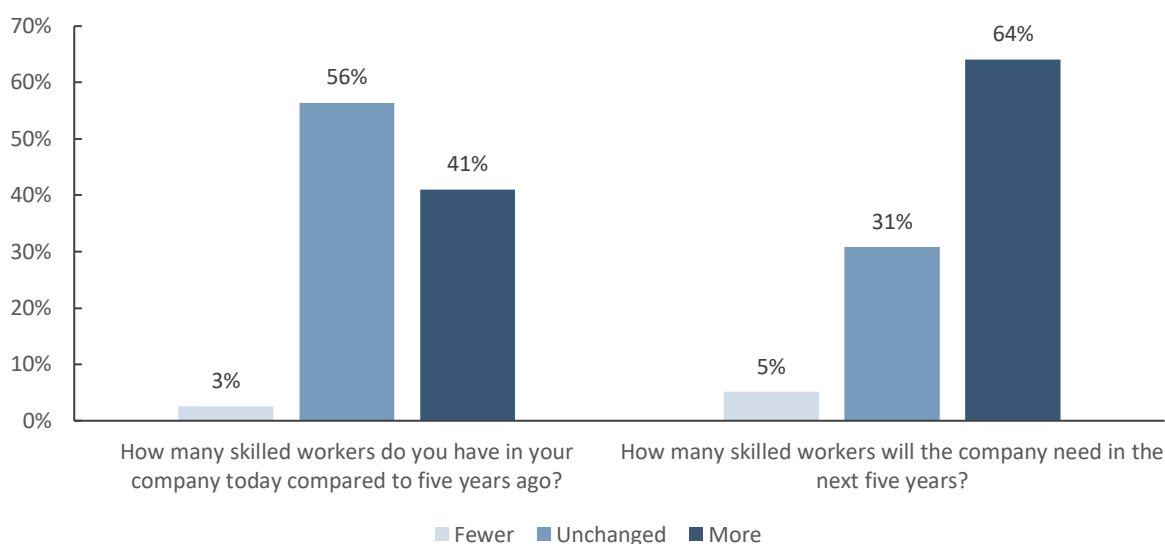
²³ Møre og Romsdal, however, have in 2022 and 2023 seen an increase in immigration, largely driven by immigrants from Ukraine. Møre og Romsdal fylkeskommune (2023). Sterk auke i innvandringa. Available [here](#)

²⁴ NHO (2022). Hva innebærer de nye innleiereglene for bedriftene? Available [here](#).

need for nearly 25 000 employees by 2035.²⁵ The maritime and offshore wind industries are closely connected, sharing many of the same skill requirements. Both industries rely heavily on technical and vocational expertise, particularly in fields like engineering, energy technology, and logistics. As a result, the same needs for and shortages of skilled labour that affect the offshore wind industry are also likely present in the cluster.

To better understand the current state of skilled labour in the maritime cluster, members were asked to compare the number of skilled workers in their companies today with the number five years ago, and to project their needs for the next five years. Currently, 56 percent of the cluster members report an unchanged number of skilled workers compared to five years ago, while 41 percent indicate an increase. Looking ahead, 64 percent of respondents anticipate needing more skilled workers in the next five years, whereas one-third expect their need to remain unchanged.

Figure 3-2: How many skilled workers do the cluster members have in their company today compared to five years ago, and how many will they need in five years? N=39. Source: Menon Economics/2024

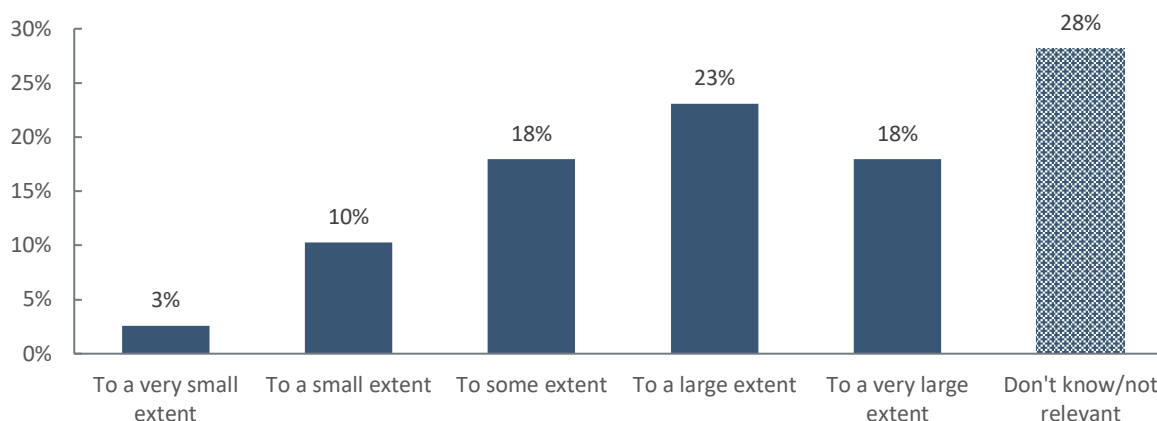


In several sectors and professions, the demand for workers and competence is expected to exceed the available supply, particularly among skilled workers.²⁶ Despite some stability in the current number of skilled workers, the projected increase in demand over the next five years suggests that the cluster might face significant recruitment challenges. To explore these challenges further, members were asked about their difficulty in recruiting skilled workers. As seen in the figure below, most of the respondents, 41 percent, indicated that they find this challenging to a large or very large extent. Only 13 percent find it challenging to a small or very small extent, while 18 percent find it challenging to some extent. Notably, 28 percent reported that they either did not know or did not find the question relevant.

²⁵ Menon Economics (2023). Gigawatt krever megaløft. Kompetansebehov i den norske havvindnæringen frem mot 2035. Available [here](#).

²⁶ Meld. St. 33 (2023-2024). En forsterket arbeidlinje – flere i jobb og færre på trygd. Available [here](#).

Figure 3-3: To what extent do the cluster members find it challenging to recruit skilled workers to their companies? N=39.
Source: Menon Economics/2024



When examining differences based on company size²⁷, larger companies responding to the survey experience more pronounced challenges in recruitment. Specifically, 72 percent of large companies find recruiting skilled workers challenging to either a large or very large extent. Conversely, 42 percent of small companies report similar challenges. Additionally, 29 percent of small companies indicated uncertainty or irrelevance regarding the question, compared to none of the large companies. The reasons for the differences between large and small companies is multifaceted. It may relate to their operations, or the type of skill sets and qualifications they are looking for. Overall, addressing these challenges will be important for ensuring a steady supply of skilled labour across the maritime cluster.

The cluster members need a diverse range of skilled workers for their companies. This includes electricians, industrial mechanics, plumbers, carpenters, and production operators. Additionally, there is demand for specialized roles such as motor mechanics, painters, steel and welding technicians, automation engineers, logistic experts, and those skilled in robotic production. Other critical roles are data analysts, sales and HR professionals, machinists, marine engineers, high-voltage technicians, and technical personnel with expertise in areas like CNC machining, surface treatment, and assembly. The combination of electro-mechanical skills, automation, and traditional technical competencies forms the foundation of the skilled workforce required in the cluster.

Several initiatives have been proposed by the cluster's members to ensure that more people pursue vocational education. These include raising the status of vocational education through positive campaigns that resonate with young people and offering better wages. Building a positive reputation for vocational training through industry organizations is also crucial.²⁸ Additionally, promoting the diverse opportunities offered by vocational education, such as roles in service engineering globally, is important. Highlighting that vocational careers can also lead to office jobs for those not pursuing academic routes can help counter the notion that higher education is the only path to success. Recognizing and valuing the unique skills brought back by vocational workers from customer and supplier interactions is also essential.

²⁷ For the purposes of this analysis, large companies are defined as those with more than 150 employees, while small companies are defined as those with fewer than 150 employees. This classification is applied consistently throughout the analysis wherever company size comparisons are made.

²⁸ An example of this is the Maritim Karriere campaign run by Maritim Forum and the Norwegian Shipowners' Association. The campaign aims to showcase the educational and career opportunities within the maritime industry, emphasizing that a maritime career is attractive, relevant and forward-looking.

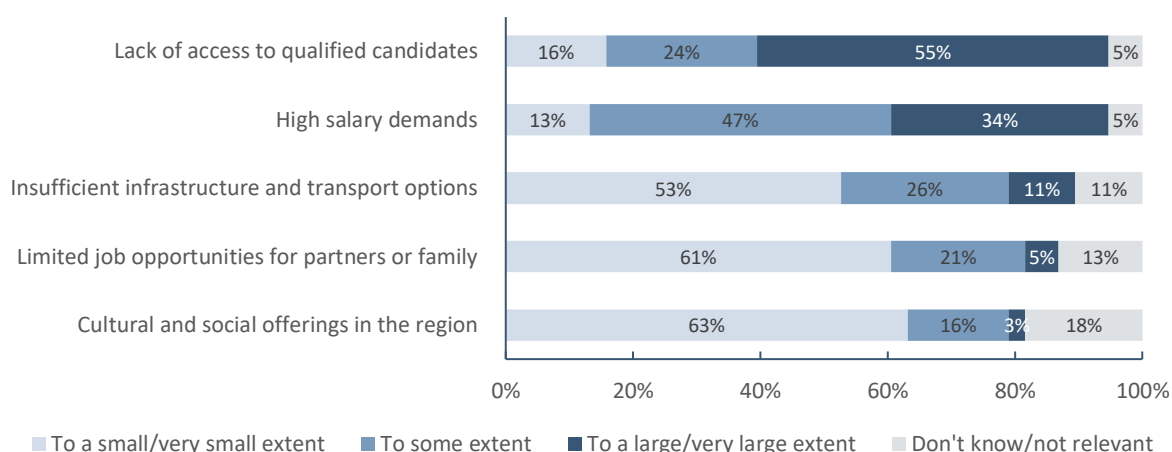
To make the industry and its professions more attractive, better study programs, more study places, and improved apprenticeship schemes should be offered. A positive trend can be observed in the number of students applying for vocational education in Møre og Romsdal. For the 2024/2025 school year, a historically high 65 percent of middle school students in the region applied for vocational education.²⁹ From 2022 to 2023, there was an increase in applicants for both electrical engineering and computer technology, as well as technological and industrial production.³⁰

However, previous analyses indicate that current educational capacities are insufficient to meet future demand, particularly in engineering and technology programs that are essential for the offshore wind industry.³¹ Regarding vocational education, there is an anticipated shortfall due to insufficient enrolment in relevant study programs. This anticipated shortage will increase competition for skilled labour across various industries, including areas that overlap with the cluster's needs. Therefore, it is necessary not only to expand the number of study places but also to implement effective recruitment strategies to attract more students to these vocational programs.

3.2. Attracting and retaining expertise and competence in the Møre og Romsdal region

Most sectors in Norway, including the maritime industry, face significant challenges in attracting enough people and accessing the necessary competence. Being an attractive work region is essential for attracting and retaining employees. Additionally, retaining employees within the region is vital to ensuring long-term growth and innovation. Recruiting workers with relevant competence to the Møre og Romsdal region is currently perceived as challenging, and this issue is expected to become increasingly pronounced in the future. As illustrated in the figure below, this is primarily due to the limited access to qualified candidates, with 55 percent of respondents indicating that this represents a significant or very significant barrier to recruitment.

Figure 3-4: To what extent do the following factors pose a barrier to recruiting competent workers to the clusters' companies? N=38. Source: Menon Economics/2024



²⁹ Møre og Romsdal fylkeskommune (2024). *Stor auke i andel søkarar til yrkesfag*. Available [here](#).

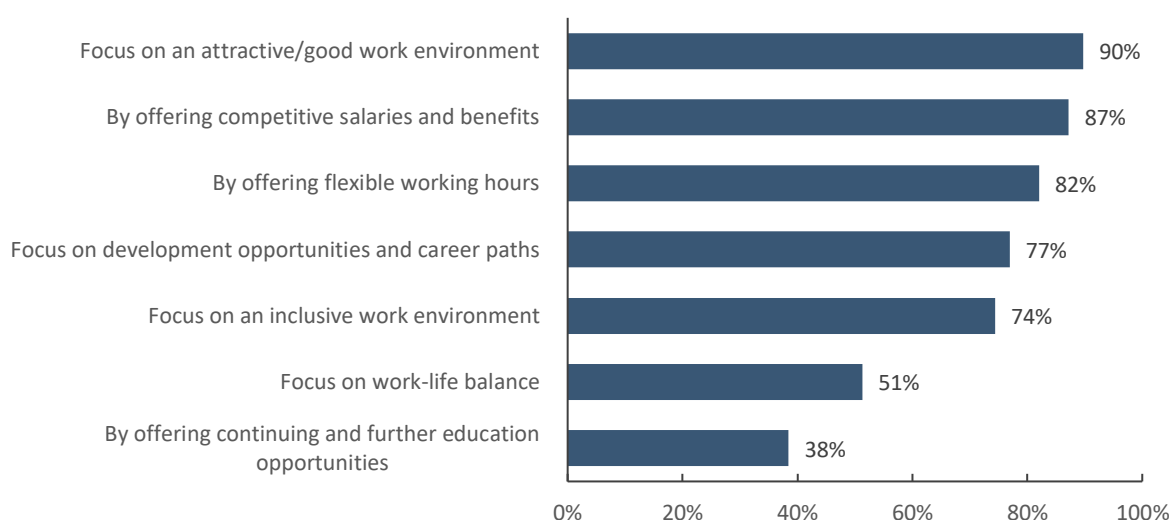
³⁰ Møre og Romsdal fylkeskommune (2023). *Fleire søkarar til vidaregåande opplæring*. Available [here](#).

³¹ Menon Economics (2023). *Gigawatt krever megaløft. Kompetansebehov i den norske havvindnæringen frem mot 2035*. Available [here](#).

High salary demands also represent a notable barrier, though to a slightly lesser degree. In contrast, insufficient infrastructure and transport options, limited job opportunities for partners or family members, and the region's cultural and social offerings are generally seen as less significant barriers by the majority of respondents.

The cluster companies that answered the survey employ various strategies to ensure they are perceived as attractive workplaces, as shown in the figure below. Nine out of ten focus on creating an appealing and positive work environment. In addition, a similar number of companies offer competitive salaries and benefits, as well as flexible working hours, to attract and retain employees. When comparing company sizes, it is evident that larger companies employ a wider range of strategies to attract and retain employees compared to smaller companies. Notably, a greater proportion of larger companies focus on providing continuing and further education opportunities, promoting inclusive work environments, offering development opportunities and career paths, and emphasizing work-life balance.

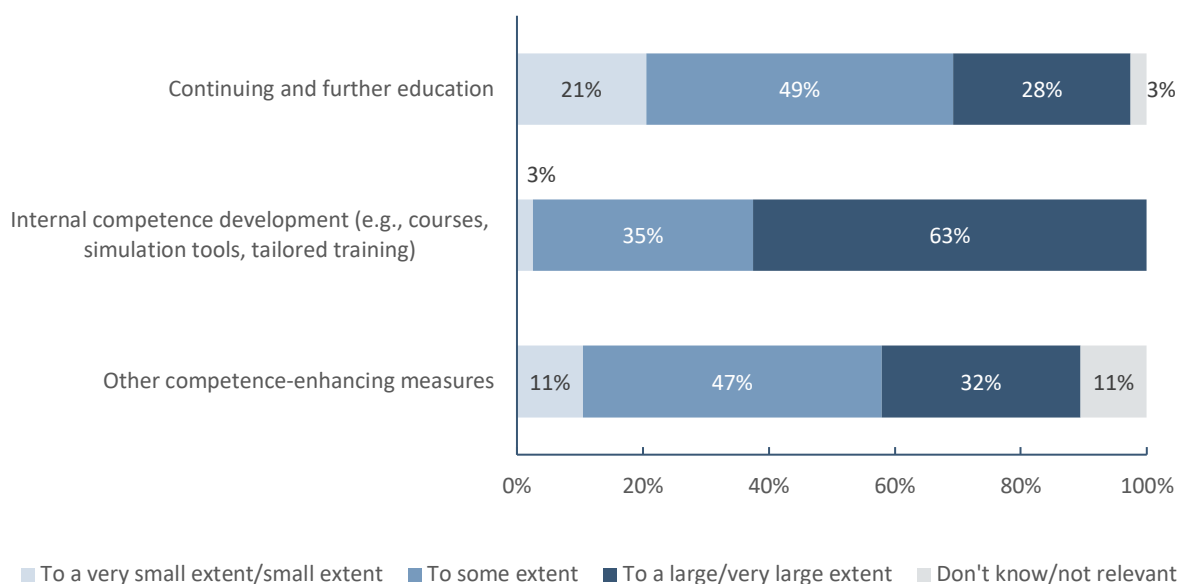
Figure 3-5: How the cluster members work to ensure that their company is perceived as an attractive workplace. N=39.
Source: Menon Economics/2024



While many companies emphasize offering flexible working hours, fewer explicitly focus on promoting work-life balance. Flexible working hours have the potential to enhance work-life balance by allowing employees to adjust their work schedules to meet personal and family needs. This suggests an opportunity for companies to more directly address and promote work-life balance. Furthermore, when asked about the factors posing significant barriers to recruitment, high salary demands emerged as a challenge. The figure above, however, shows that many companies are actively addressing this challenge by offering competitive salaries and benefits. This presents a paradox where addressing salary demands is both a solution and a barrier. It highlights the need for companies to find a balance between meeting salary expectations and managing financial constraints.

As illustrated above, 38 percent of the respondents report offering continuing and further education to their employees to ensure that their company is perceived as an attractive workplace. When asked specifically to what degree the companies support and invest in their employees through continuing education, 28 percent report primarily doing so. In contrast, 60 percent report focusing on and offering internal competency development such as implementing courses, simulation tools, and tailored training programs, while three out of four companies provide other competency-enhancing measures to some or a large extent.

Figure 3-6: «To what extent does the company support and invest in its employees through...». N=40. Source: Menon Economics/2024



These findings indicate that while formal continuing education is important, many companies also recognize the value of internal training and other development initiatives. This approach not only addresses immediate skill requirements but also promotes long-term adaptability and growth within the labor force. The observed variation in investment strategies may be attributed to different operational requirements and strategic priorities across the various groups within the cluster.

3.2.1. Diversity and inclusive labor strategies within the cluster

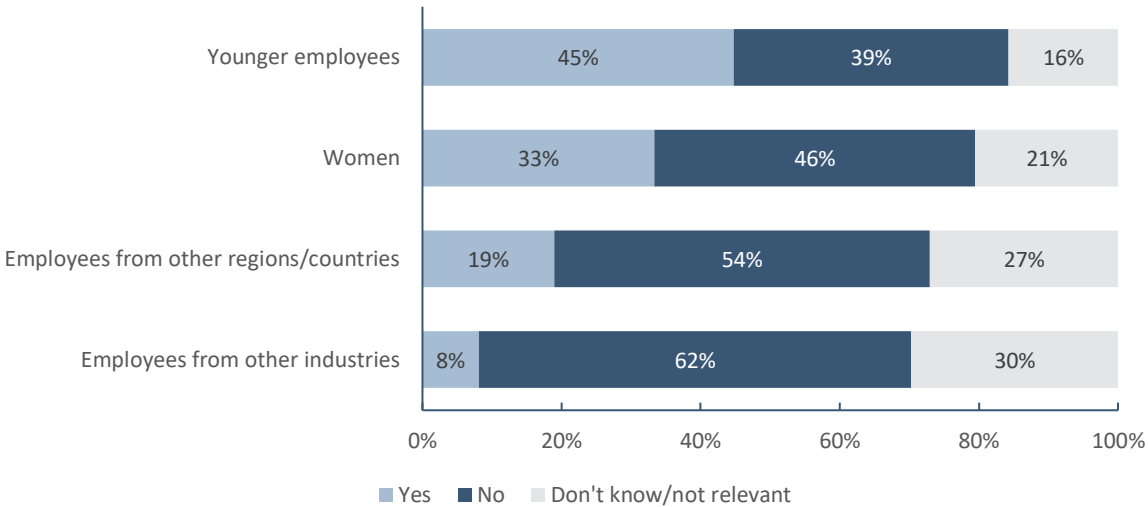
To address the need for securing sufficient labour, there is an urgent need to leverage the entire labour force effectively. Simultaneously, many individuals remain outside the workforce, highlighting the necessity for inclusion initiatives to integrate more people into employment. The Inclusive Work Environment agreement encompasses the entire Norwegian labour market and emphasizes collaboration to prevent sick leave and exclusion from the workforce.³² The agreement mandates active steps from companies to foster inclusion and reduce dropouts from the labour market.

Groups such as young people, immigrants, older workers, and individuals with low formal qualifications or health challenges are especially at risk of being marginalized during economic shifts. Notably, the number of young people on disability benefits has doubled over the last ten years.³³ This underscores the need for targeted initiatives aimed at their inclusion. Companies in the cluster have initiated various strategies to support the inclusion of diverse groups. As illustrated in the figure below, there are significant initiatives focusing on younger employees and women.

³² Regjeringen (2022). *Hva er et inkluderende arbeidsliv?* Available [here](#).

³³ NAV (2022). *Nav-veiledere: Unge trenger mer tid for å unngå uføretrygd*. Available [here](#).

Figure 3-7: Do the cluster members’ have specific initiatives to support the inclusion of...? N=39. Source: Menon Economics/2024



Currently, according to the companies responding to the survey, women constitute about one-fifth of the workforce across the cluster, highlighting a significant opportunity for improvement in gender diversity. Additionally, many of these companies employ multiple nationalities, reflecting some level of cultural diversity. Recognizing the importance of inclusivity, companies are actively implementing targeted initiatives primarily aimed at attracting women and younger employees into the maritime sector.

Overall, 45 percent of companies report having initiatives specifically targeting younger employees, indicating a recognition of the importance of developing new talent. Additionally, one out of three companies have initiatives aimed at supporting the inclusion of women. While there is a clear emphasis on these groups, there remains room for broader inclusion efforts, particularly in attracting talent from other industries and increasing the presence of various nationalities.

When comparing large and small companies on an overarching level, some key differences emerge. Larger companies have a higher tendency to focus on the inclusion of younger employees and women. Specifically, 75 percent of large companies have initiatives for younger employees compared to 34 percent of small companies, while 63 percent of large companies have initiatives for women compared to 25 percent of small companies. This indicates that larger companies may have more resources to invest in comprehensive inclusion strategies. However, in terms of initiatives for employees from other industries and regions/countries, both large and small companies show relatively low engagement. While efforts to include diverse groups are present, there is potential for further broadening of recruitment practices to encompass a wider geographical pool.

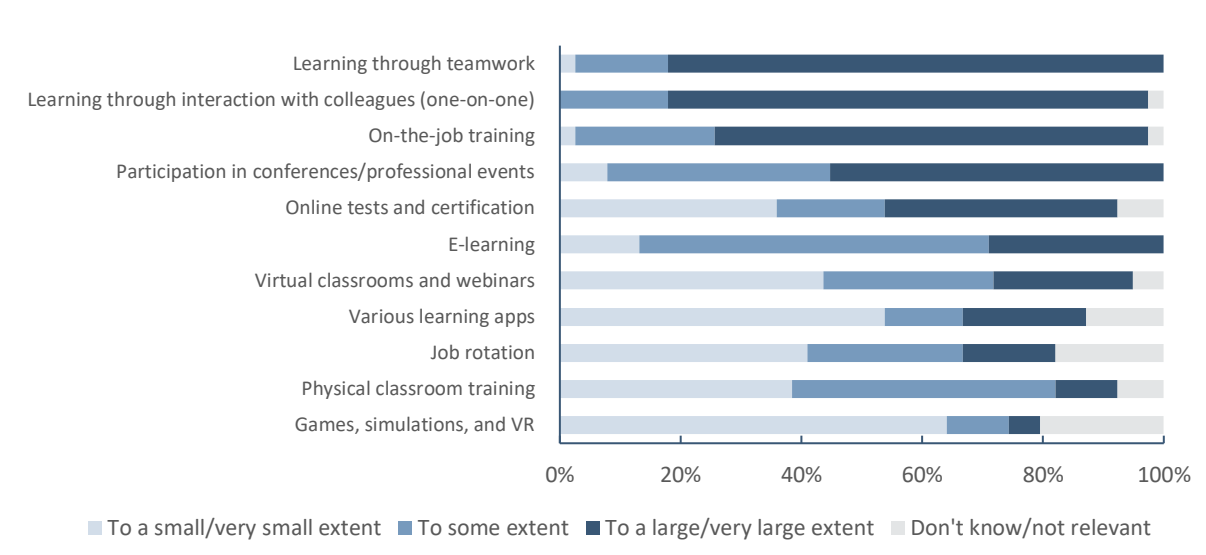
Moreover, just 8 percent of companies have initiatives for employees transitioning from other industries. This limited cross-industry inclusion might suggest a preference for recruiting within the maritime sector, possibly leading to “industry cannibalism” where talent circulates within the same sector. For instance, large, financially strong companies may recruit extensively within the cluster, potentially leading to smaller companies being “drained of expertise”. These findings reflect a varied approach to inclusion within the cluster. While there is a clear emphasis on initiatives for younger employees and women, there remain gaps in the inclusion of individuals from other regions, countries, and industries. This variation highlights opportunities for companies to expand their inclusion strategies.

3.2.2. Enhancing employee development and attractiveness of the Møre og Romsdal region

An inclusive and attractive regional environment is crucial for promoting employee development and retaining talent in the Møre og Romsdal region. Given the dynamic nature of the maritime industry and related sectors, it is essential for companies to continually invest in the development of their workforce. Therefore, it is important to understand which factors contribute to both the development and retention of employees within the cluster companies, as well as strategies to enhance the overall attractiveness of the region for potential new hires and the existing workforce.

To this end, companies have identified several key factors that are critical in developing employee competence. As shown in the figure below, learning through teamwork and interaction with colleagues, along with on-the-job training, are considered the most important factors. Additionally, many respondents point to E-learning and participation in conferences or professional events as effective methods for enhancing employee skills and knowledge.

Figure 3-8: To what extent are the following factors important in further developing the competence of the cluster member's employees? N=39. Source: Menon Economics/2024



Overall, there are minor differences among the companies. Larger companies tend to place greater significance on advanced technological methods such as virtual classrooms, webinars, e-learning, and physical classrooms. In contrast, smaller companies place a higher emphasis on participation in conferences and professional events compared to their larger counterparts. Additionally, while games, simulations, and VR are generally considered less significant by most companies, they hold more importance for smaller companies. These tendencies reflect larger companies' focus on scalable and efficient training methods, while smaller companies prioritize networking and experiential learning opportunities. However, it is important to exercise caution when interpreting these results due to potential limitations related to sample size and representativeness.

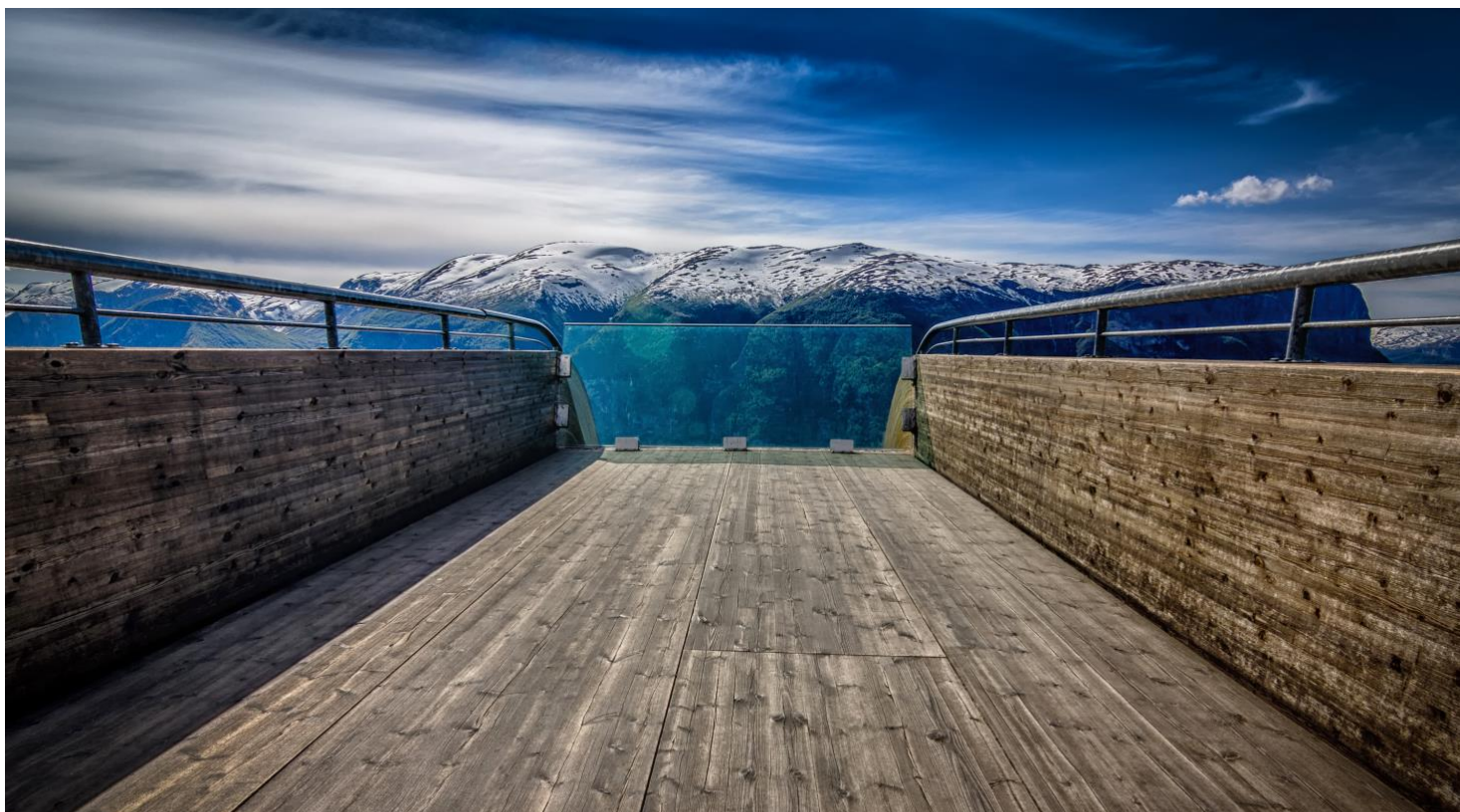
To support the competency needs of their workforce, cluster companies emphasize the importance of offering relevant courses and seminars that address employee requirements. Organizations like GCE Blue Maritime play a crucial role in facilitating projects and collaborations for developing and piloting new technologies and methods. While the direct management of competency development is typically handled by the companies themselves or in partnership with educational institutions like NTNU, it is vital for organizations like GCE Blue

Maritime to continue and expand their efforts in this area. NTNU Ålesund plays an important role in continuing and further education and offers courses and training programs aimed at developing competencies in the maritime sector. Invitations to participate in training and gatherings are invaluable, especially for smaller organizations. Sharing industry knowledge and future competency needs, developing course concepts for global workforce training, and organizing technical seminars and workshops on the latest advancements, including green technology, are also crucial. Building cross-industry relationships through meetings and seminars, advocating for the industry at political levels, and ensuring the visibility of available courses and projects are key actions. Modular training programs, relevant local professional days, and enabling hospitations (practice placements or exchange periods allowing employees to learn and gain experience in other organizations) further enhance the region's attractiveness and competency retention.

In 2022, Menon conducted a study on the need for skills and strategies related to technological development within the industry.³⁴ The study found that technological advancements necessitate new competencies and continuous development. It also emphasized the importance of aligning training with the specific needs of employees and fostering collaboration between industry and educational institutions to ensure that training programs meet evolving industry demands. This underscores the importance of the above-mentioned strategies, highlighting the need for adaptable learning opportunities and the value of strong industry-academia collaborations in maintaining a competitive and competent workforce.

To enhance the region's appeal and retain talent, several strategies are suggested by the cluster's companies. Developing strong regional centers that are attractive to residents and businesses is essential. This includes providing sufficient services, and robust cultural offerings. Economic policies should promote private enterprise, and a broader focus on the region's diverse industries, also beyond the maritime industry. Visibility and marketing efforts showcasing the region's success and opportunities are crucial. Improved collaboration, better roads and infrastructure, and a more extensive range of job opportunities are also important. Strengthening inter-regional communication can expand access to a wider job market. Additionally, enhancing residential and cultural environments will make the region more attractive to both new graduates and skilled workers. Establishing international technology companies will further boost the region's profile. Finally, promoting local educational institutions and specific industry-related competencies, sharing success stories, fostering partnerships, and ensuring relevant local upskilling and continuing education programs can further strengthen the region's competitiveness and attractiveness.

³⁴ Menon Economics (2022). *Kompetansebehov og kompetansestrategier som følge av teknologiutvikling i maritim næring*. Available [here](#).



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