



The Norwegian Shipowners' Association is the leading industry-, employer-, and contingency planning organisation for shipping and offshore.



MARITIME OUTLOOK



Contents

Introduction		7
Summary		8
Fleet in figures		10
About the Norwegian Shipov	wners' Association's fleet	14
Maritime Outlook 2025		16
Towards a new world order		20
The value of the maritime in	ndustry	30
Maritime competence		34
Towards low and zero emiss	ions	40
Data basis and methodology	у	46





Introduction

In a short period of time, the world has become a far more turbulent and unpredictable place than we could have imagined at the beginning of the year. International rules and norms for cooperation and trade are under pressure. Shipping is one of the most important drivers of global trade and economic growth and shipowners play a crucial role in value creation and in securing supply chains and jobs. From the major international ports to smaller coastal communities, shipping contributes to economic growth and stability, innovation and employment.

Norwegian shipowners are increasingly affected by geopolitical tensions that have a direct and indirect impact on trade and shipping. Conflicts in strategic waters, trade restrictions and uncertainty related to diplomatic relations create a situation that requires constant monitoring and adaptation. Shipowners must navigate in a world where sea routes are

affected by security threats, sanctions and changing trade relations. In addition, the shipping industry is facing stricter and more complex requirements on climate and sustainability, digitalisation and innovation, which will shape the business of the future. This will require the industry to continue to recruit bright minds who can develop tomorrow's solutions.

In this year's Maritime Outlook Report, we present an analysis of the economic outlook and regulatory changes affecting shipping. We highlight the most important topics that affect our members, as well as how shipowners navigate in increasingly complex surroundings.

Leck HX

Summary

Maritime Outlook 2025

Activity in international shipping is closely linked to developments in the world economy. The International Monetary Fund (IMF) estimates growth in the world economy of 3.3 percent in both 2025 and in 2026. The projections for world trade have been revised down somewhat from the previous year, as a result of global trade disruptions in the form of geopolitical unrest and conflict. However, recent years have been characterised by a high level of activity in the industry and high rates across the segments of the Norwegian Shipowners' Association's member fleet. Demand for ships and ship transport services has been higher than the supply side, which has led to low lay-up figures and growth in order books. Increased demand for oil and gas, and activities in offshore have been strong drivers for the growth in revenue and profitability in the member fleet. In the ro-ro segment, there has also been increased activity due to higher demand for road freight globally. In this year's economic outlook, we see that growth is slowing somewhat and stabilising in 2024 and towards 2025. Totale revenue grew by five percent in 2024, and is expected to increase by six percent in 2025.

Towards a new world order

Norwegian shipping companies are navigating an increasingly divided and unpredictable world, affected by protectionism, international tensions, and sanctions. The alliances and the international rules of the game that shipping has taken for granted are about to change. Increased tensions between the US and China are worrying Norwegian shipping companies, as many of them depend on these markets for their operations. Rivalry can affect the demand for goods and shipping services. Sanctions against Russia have led to the emergence of the shadow fleet, which undermines the international legal system and poses a security risk

Developments in the geopolitical field require Norway to strengthen its ability to promote and defend its own interests, as well as to maintain international regulations and cooperation, particularly with the EU. The EEA Agreement is Norway's most important trade agreement, which ensures equal conditions of competition and access to the internal market, which is crucial for Norwegian maritime industry.

Maritime security and contingency planning

The Norwegian-controlled foreign fleet is an important emergency response resource for Norway and its allies, and it is important to further develop cooperation on maritime security and contingency planning in order to meet security challenges. In addition to navigating a complex and changing geopolitical environment, shipping is affected by a number of threats such as cyber threats, armed conflict, terrorism and piracy.

The value of the maritime industry

In 2024, the Norwegian maritime industry employed almost 90,000 people and created values for NOK 219 billion. The industry is Norway's second largest export industry, where shipping companies account for a significant share of total exports. Norway also has the world's fifth largest fleet, measured in value. In order to maintain a competitive maritime industry, where shipping companies find it attractive to register ships and conduct business from Norway, the framework conditions must be stable, predictable and competitive. This includes a competitive shipping tax regime, and an attractive ship register.

Competence

Norwegian maritime expertise is essential for the Norwegian maritime industry. The green transition and digitalisation require continuously updated expertise and sets requirements to ongoing and further education. Operational experience at sea is most in demand, along with digital expertise, and the loss of this expertise will weaken the Norwegian maritime cluster. The net wage scheme for the employment of seafarers is crucial for maintaining Norwegian maritime expertise and competitiveness.

Climate and environment

Norwegian shipping companies are facing a significant transition towards low and zero emissions that requires new technologies, fuels and solutions. Belief in the climate goals has declined in recent years. An increasing proportion are uncertain whether they will reach the climate goals by 2030. Furthermore, the uncertainty associated with the 2050 climate targets has also increased. This is reflected in the types of fuel and energy carriers that the shipowners consider relevant. In 2025, biofuel and LNG have been ranked as the most relevant, which shows a shift towards lowemission and transition fuels, and that the shift to zero-emission fuels is now considered somewhat further ahead.

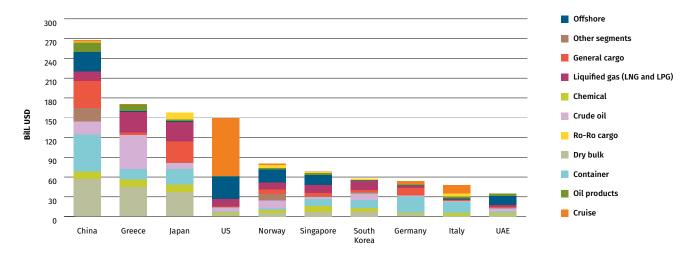
Furthermore, a lack of infrastructure, high prices and investment costs, as well as availability and technology, are considered major barriers to the use of alternative fuels. On the other hand, nine out of ten of the Norwegian Shipowners' Association's members have invested in solutions that reduce energy consumption and greenhouse gas emissions, such as battery and hybrid systems, wind-assisted propulsion systems and shore power. In order to invest further, barriers such as the markets willingness to pay and uncertainty related to technology choices must be addressed.

Fleet in figures

Norway is the fifth largest among the world's shipping nations, ranked by value. At the beginning of 2025, the value of the total world fleet was estimated at just over USD 1,500 billion, of which the 10 largest shipping nations hold 70 percent. Norway occupies fifth place among these nations. China, Greece, Japan and the US are the four largest

nations, followed by Norway, Singapore, South Korea and Germany. If we exclude the cruise fleet, Norway ranks as the world's fourth-largest shipping nation. The US' large cruise fleet accounts for approximately 60 percent of the country's fleet value, outranking both Norway and Singapore if the cruise segment is included.

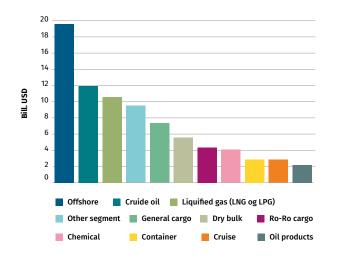
World's 10 largest shipping nations ranked by fleet value 2025. Bill. USD



In the Norwegian shipping fleet, the offshore segment has the highest value. Total value for Norway's fleet is estimated at USD 81 billion.

The shipbuilding industry is still characterised by high prices due to inflation and full order books at Asian shipyards. Throughout 2024, there was significant growth in the demand for container ships and other types of cargo ships. However, since the autumn of 2023, LNG and crude oil vessel rates have contributed to decelerated growth. Over the course of 2024, there has been a marked decline in LNG rates (liquified natural gas), to a historically low level. This is partly due to the high pace of construction, where freight capacity is increasing significantly faster than the supply of LNG. Moreover, the world fleet value was impacted by a downturn in the crude oil segment, which saw a 20 percent decline in 2024. The decline was partly due to reduced demand for crude oil from China.

The market value of the Norwegian shipping fleet by segment 2025. Bill. USD

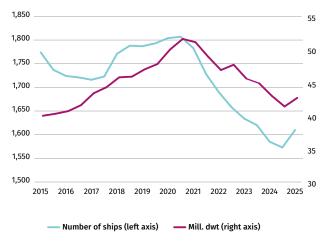


Source graphs: Menon Economics

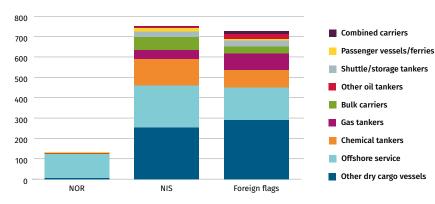
The Norwegian-controlled foreign-going fleet

In 2024, the Norwegian-controlled foreign-going fleet experienced growth in the number of ships and a decline in tonnage. Shipowners sold more than 100 ships, while vessel availability shows that 120 ships were purchased or delivered as newbuilds. Several smaller offshore vessels have been added to the fleet, while a larger share of tonnage has been sold in the tanker and dry cargo segments. 2024 is the first year since 2019, and before the pandemic, that the fleet has seen a positive net increase in the number of vessels. As of January 2025, the fleet numbers a total of 1,610 ships with a total tonnage of 42.7 million deadweight tonnes. At the same time last year, the fleet comprised 1,585 ships of 43 deadweight tonnes.

The Norwegian-controlled foreign-going fleet – development 2015–2025



The Norwegian-controlled foreign-going fleet – number of ships by flag and type of vessel as of 1 January 2025

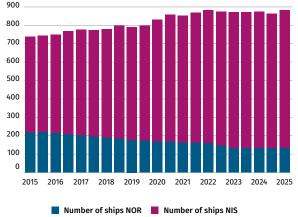


The importance of an attractive Norwegian flag

The Norwegian International Ship Register (NIS) comprises 752 ships as of 1 January 2025. This is a slight increase compared to the same survey last year. The Norwegian Ordinary Ship Register (NOR) has the same number of ships as one year ago. The Norwegian flag is attractive for shipowners in the foreign-going fleet, with steady growth over the last few years. Shipowners regard the Norwegian flag as a sign of quality and are keen to fly the Norwegian flag on their vessels. It is therefore important to uphold favourable framework conditions.

The composition of the Norwegian-controlled foreign-going fleet shows that the dry cargo segment is the largest segment of the fleet measured in number of ships. Ro-ro car carriers make up a substantial proportion of this segment. The offshore service segment is the second largest, followed by the chemical tanker segment.

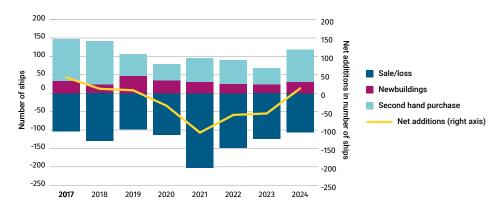
Norwegian-controlled foreign-going fleet – ships in NIS and NOR – development 2015–2025



Source graphs: Norwegian Shipowners' Association

The Norwegian-controlled foreign-going fleet consists of Norwegian Shipowners' Association members and other Norwegian foreign-going shipowners.

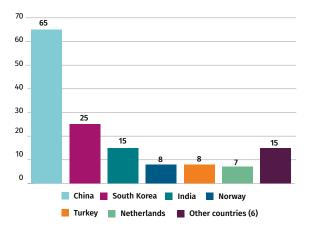
Additions/removals by number of ships in the Norwegian-controlled foreign-going fleet - development 2017–2024



Solid growth in the Norwegian-controlled order book

The foreign-going shipowners' order book currently consists of 143 ships. This is an increase of almost 25 percent compared with the same time last year. The value of the order book is NOK 140 billion, or USD 12 billion. The countries where most newbuilding work is carried out are China and South Korea, and this is also where most investments take place. In Norway, eight ships are currently under construction, all of which are either offshore vessels or offshore wind vessels. Over 50 percent of vessels in the order book are dry cargo vessels, of which a large share is made up by ro-ro car carriers, but also tonnage, that will be included in the short sea segment. In addition, 26 gas carriers (LNG) are under construction, and more than 20 ships that will be deployed in the offshore wind market. The estimated timeframe for delivery of the ships in the order book is from this current year until 2028.

Ships on order for the Norwegian-controlled foreigngoing fleet as of 1 January 2025. By building country

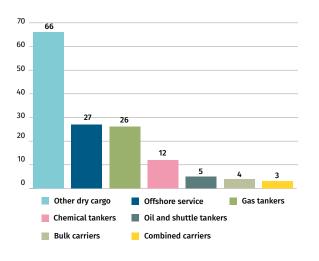


Source graphs: Norwegian Shipowners' Association

Ships on order for the Norwegian-controlled foreigngoing fleet – development over the past 10 years



Ships on order for the Norwegian-controlled foreign-going fleet as of 1 January 2025. By type

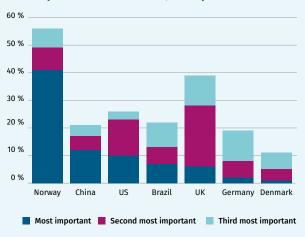


Countries of particular interest for shipowners' further development

In the Norwegian Shipowners' Association's member survey, the companies are asked to identify key countries for further development. If we look at all shipowner segments as one and isolate all of "the most important countries of particular interest", 41 percent answer that Norway is the most important country. China and the US follow with 12 and 10 percent, respectively. Seven percent answer Brazil and five percent rank the UK as the most important country.

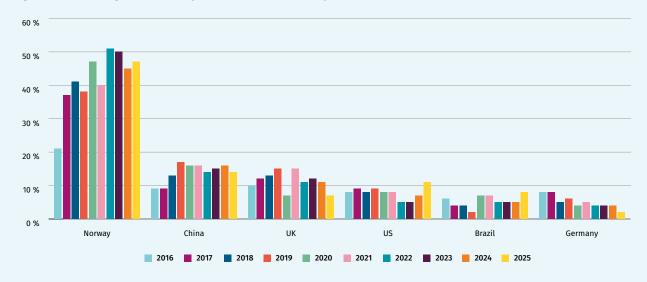
If we compare the "most important country of particular interest" over the last 10 years, Norway has consistently been ranked as the most important country, followed by China, the UK, the US, Brazil and Germany.

Most important countries 2025, all shipowners



Source: BDO AS/Norwegian Shipowners' Association

All shipowners' most important country/market over the last 10 years



About the Norwegian Shipowners' Association's fleet





Short sea

Shipowners in the short sea segment transport all types of goods and passengers. They operate between Norwegian and European ports, and between ports in Europe. A large part of transport within Europe is carried by ship, and this means that short sea shipping plays a crucial role for the transport needs of business and the competitiveness of Norwegian industry. The Norwegian Shipowners' Association's members in short sea shipping control around 240 ships. Shipowners in this segment are positioning themselves for the green transition, with several new ships on order.



Deep sea

The deep sea fleet consists of several segments where Norwegian shipowners are world leading and hold solid market shares. Among these are segments such as car carriers, LNG, shuttle tankers and chemical tankers. The vessels sail over large distances and between continents. The Norwegian Shipowners' Association's members in the deep sea segment control more than 700 ships calling at ports around the world on a daily basis. The companies have a number of offices abroad, giving Norwegian shipowners a strong presence on all continents.

Maritime Outlook 2025

The world economy

International shipping activity is closely linked to developments in the world economy. The International Monetary Fund (IMF) estimates that the world economy will grow by 3.3 percent both in 2025 and 2026. Most of the growth is expected to take place in emerging economies, particularly in Asia, with the two main drivers being India and China. The IMF estimates that global inflation will decline to 4.4 percent in 2025 and 3.5 percent in 2026. Overall, economic growth for 2024 was somewhat lower than expected due to reduced activity in several major economies such as China, India and Germany. In 2024, economic activity in the US was higher than expected due to increased consumption.

World trade projections have been somewhat scaled down compared with last year. Global trade disruptions persist due to geopolitical unrest and conflict, affecting investment and development in businesses reliant on trade flows. Trade and global shipping are closely interconnected, and rising trade restrictions and international unrest have an impact on the shipping industry.

Sea transport increased by approximately two percent in 2024, as expected given the economic activity and demand for goods. The growth was due to increased global demand for iron ore, coal, grain, oil and containerised goods. ²

Overall development

In recent years, the industry has experienced high activity and strong rates across all segments of the member fleet. The demand for ships and shipping services has been higher than supply, causing low lay-up figures and growth in orders of new vessels. Rising demand for oil and gas combined with high activity in the offshore segment were key drivers of growth in revenue for the shipowners. Activity also increased in the ro-ro segment due to higher global demand for auto freight services.

In this year's Maritime Outlook, growth has slowed down somewhat and stabilised in 2024 and towards 2025. Unless otherwise specified, the figures in Maritime Outlook and the subsequent chapters are based on this year's member survey conducted by the Norwegian Shipowners' Association. A total of 88 shipowners responded to the survey. These represent nearly 1,200 out of a total of around 1,400 member ships and rigs.

¹ IMF, World Economic Outlook. January 2025. <u>https://www.imf.org/en/Publications/WEO/Issues/2025/01/17/world-economic-outlook-update-january-2025</u>

² UNCTAD (2024). 2024 Review of maritime transport.

Revenue figures

Revenue for the Norwegian Shipowners' Association's members increased by a total of five percent in 2024, to NOK 339 billion. This is somewhat lower than last year's growth projections and a more moderate growth than in recent years. Revenue figures are still high, but growth seems to have stabilised. Overall growth in 2025 is projected at six percent.

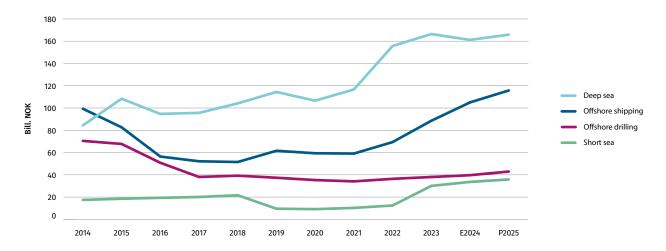
The deep sea fleet is the largest segment by revenue, as shown belowe. In 2024, revenue for the deep sea fleet totalled approximately NOK 161 billion, down from NOK 166 billion in 2023. However, after the record-breaking years 2022 and 2023, more moderate growth is to be expected. The 2025 prognoses show a growth rate of three percent within the deep sea segment.

The offshore service segment had a strong year in 2024. The segment saw an increase in revenue of 19 percent, up from a projected 11 percent in

last year's report. For the first time since 2014, the offshore segment in 2024 was at a higher level than before the oil crisis, with a revenue of NOK 105 billion. Activity in the segment is driven by a continued increase in demand for Norwegian oil and gas, largely fuelled by the loss of Russian energy supplies to the European market. For 2025, the segment expects further growth of 10 percent.

Offshore drilling companies also experienced an increase in revenue in 2024. Their revenue was up by four percent compared to 2023. Total revenue for the offshore drilling companies was just under NOK 40 billion in 2025. Projected growth for 2025 is eight percent. The short sea segment had a revenue growth of 12 percent in 2024, up from the previous year's projection of eight percent. In total, the revenue figure is almost NOK 36 billion. In 2025, the short sea segment is expected to grow by six percent.

Norwegian shipowners' revenue 2014-2025 (including 2024 estimates and 2025 prognosis)



Source: BDO AS/Norwegian Shipowners' Association The revenue figures include all Norwegian Shipowners' Association members.

Lay-up figures

Lay-up figures for Norwegian shipping companies continue to be low, largely due to a high activity level in the industry. The number of ships and rigs in lay-up has decreased steadily since the pandemic. As of 1 January 2025, there were a total of five ships and rigs in lay-up. The forecast for the end of 2025 is a further reduction in the number of ships and rigs in lay-up, to a total of eight: four offshore vessels, three rigs and one short sea vessel.

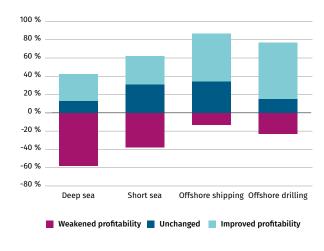
The high level of activity affects the lay-up figures but also the rate of ship recycling. When activity is high and demand is strong, it pays to have tonnage in operation for longer. Consequently, the recycling figures for 2025 are very low.

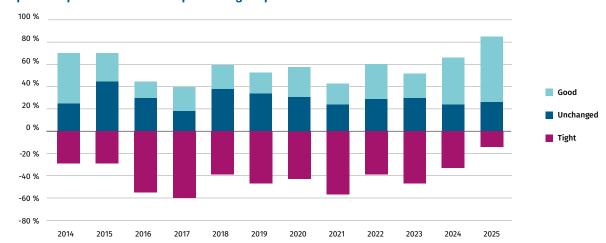
Profitability

There are variations between segments in terms of profitability expectations. In total, about 40 percent of the shipping companies expect profitability to improve in 2025, compared to 2024. This is somewhat lower than last year's expectation when 56 percent of the shipping companies expected profitability to improve. The greatest optimism is to be found in the offshore service and drilling segment. Here, more than half expect profitability to improve in both segments in 2025. This is due to increased activity on the Norwegian shelf and expectations of a continued high level of activity in 2025.

In the deep sea segment, almost six out of ten companies expect weaker profitability in 2025, down from 2024, when four out of ten expected lower profitability. Since 2021, the deep sea segment has experienced some unusually strong years, with high profitability. Consequently, it is not surprising that a higher proportion expect profitability to be somewhat lower in the next year than in previous years. This can also been seen in the short sea segment. In short sea, about one third of companies expect higher profitability while another third expects profitability to remain the same. 38 percent state that they expect reduced profitability in 2025, compared to 2024. Expectations of lower profitability can be linked to a stabilisation in the market.

Shipowners' expectations for development in 2025 operating results compared with 2024





Shipowners' perceived access to capital during the period 2014 to 2025

Source: BDO AS/Norwegian Shipowners' Association. N=81

Access to capital

In 2025, perceived access to capital has strengthened in all segments. Overall, 60 percent perceived access to capital to be good. This is the highest level in the last ten years, as shown in the figure below. This may be related to increased activity and improved profitability across many segments, which in turn makes the industry more attractive to banks and investors.

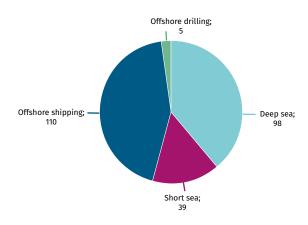
Just like last year, it is still the offshore and drilling companies that report a challenging situation regarding access to capital. On the other hand, half of the companies in the segment state that access to capital is good, which is an improvement from last year. This is reflected in improved profitability in 2024, and an expectation of higher profitability in 2025. The deep sea and short sea segments report good access to capital. Eight out of ten in the deep sea segment, and seven out of ten in the short sea segment, report good access to capital. This is a further improvement from last year, and is also reflected in the high contracting figures.

Contracting

Norwegian shipping companies consider ordering 252 ships and rigs over the next five years, up from last year's estimate of a total of 191 ships and rigs. There has been a particularly significant increase in offshore service, from last year's estimate of 75 vessels to this year's estimate of 110 vessels, as shown in the graph. Last year, 44 of these ships

were intended for operations in the offshore wind industry. This year, the number of ships is reported to be 52. In the short sea segment, the estimate of how many ships the group is considering contracting over the next five years has also increased. Last year, shipping companies in the short sea segment considered contracting 18 ships. This year they consider contracting 39 ships over the next five years.

Number of new ships and rigs that shipowners consider building in the coming five years



Source: BDO AS/Norwegian Shipowners' Association. N=56

Overall, this year's outlook for the industry shows that 2024 has been a year of high activity. Demand for goods and services continues to increase, and this is reflected in the shipping companies' operating results, lay-up figures and contracting plans.

Towards a new world order

Norwegian shipowners are navigating in a world shaped by security policy divisions and mounting pressure on the international order. The alliances and international rules that shipping has long relied on are set to change irrevocably. For decades, free trade and the reduction of trade barriers have been vital for global economic growth. Trump's declaration of a tariff war and its countermeasures will disrupt this development and create unpredictability. The relationship between Norway and Europe, US-China interactions, the war in Ukraine, a growing shadow fleet, and rising geopolitical tensions are greatly affecting shipping companies and operations.

Increasing protectionism and growing unpredictability mean that Norway must strengthen its ability to promote and defend its own interests and values. The rule-based legal

order and the principles of international law must be upheld. International cooperation is more crucial than ever to maintain and develop global rules and regulations, including those of the UN's International Maritime Organization (IMO). At the same time, international cooperation is weakened in the short term.

Against this backdrop, collaboration and affiliation with the EU will be crucial going forward. The EEA Agreement is Norway's most important trade agreement, and of immense importance for the Norwegian maritime industry. It secures Norwegian shipowners access to the internal market and to equal competitive conditions. However, EU cooperation extends beyond the EEA. It is also crucial for the shipping industry in key areas such as the green transition, economic security, and foreign and security policy.

THE NORWEGIAN SHIPOWNERS' ASSOCIATION ENCOURAGES THE NORWEGIAN AUTHORITIES TO:

- Pursue a renewed and more ambitious pro-European policy that will strengthen Norway's ties with the EU.
- Strengthen the administration of Norway's most important free trade agreement, the EEA Agreement, by reducing the backlog of EEA regulations.
- Establish a closer dialogue with the business community in the drafting and introduction of sanction regulations.
- Secure a strong competitive position for Norwegian industry in foreign markets in light of the declared trade war.
- Minimise special national requirements and regulations, and secure access to key markets in accordance with the principles of international law and on favourable competitive terms.

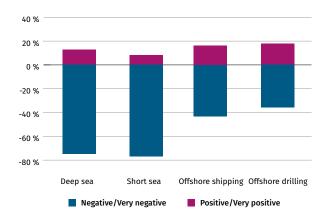
The international trade rules are changing

Globalisation and free trade have benefited the global community and the shipping industry. Tariff barriers and increased protectionism will bring greater unpredictability for international trade. This is highly detrimental for the shipping industry, which is essential for world trade.

It is not yet clear what the practical implications of this development will be. The shipping industry is a cyclic industry and highly adaptable. Still, 60 percent of the shipowners are reporting in this years' member survey that they are negatively affected by protectionism. The negative impact is particularly evident for deep sea and short sea shipping companies, both of which are highly exposed to foreign markets, as shown in the figure below.

The Norwegian Shipowners' Association represents a wide range of shipping services. This means that trade-restrictive measures may have varying consequences and disrupt value chains for shipping companies. Market, trade routes, segment and business model are just some of the parameters

Impact of global protectionism on shipping segments



Source: BDO AS/Norwegian Shipowners' Association. N=85

that may affect the outcome of such restrictions. Trade-restrictive measures may also reduce demand for shipping services. However, such measures may also increase demand for national and regional logistics services. This is, most likely one of the reasons why some members state that protectionism does not necessarily have only negative consequences.

Collaboration between Norway and Europe must be strengthened

Europe is a key market for the Norwegian Shipowners' Association's members, and the EEA Agreement is their most important trade agreement. A majority of member companies consider the EEA Agreement important for their activities. At the same time, Norwegian shipping is a key contributor to European competitiveness, civil preparedness and security of supply. The Norwegian fleet is the second largest European fleet after the Greek fleet (by market value). Norwegian shipping is the third-largest non-EU supplier of maritime transport to the EU, following the US and the UK. Moreover, the Norwegian offshore fleet is a key player in the extraction of oil and gas as well as in the generation of offshore wind power in Europe, making it critical to European energy security.

The EEA report presented in April 2024 showed that Norway has benefited from the EEA Agreement, but that its effectiveness is undermined by the delayed introduction of regulations in Norway. Furthermore, the report highlighted that the EEA Agreement is increasingly inadequate as it fails to address Norwegian interests not covered by the agreement. Since the report was presented, international political developments have supported the committee's conclusions.



The current geopolitical rivalry has turned trade and industry into both a goal and a means of exercising power among the major powers, including the EU. Norwegian shipping's exposure to this geopolitical situation begins in the European internal market. Not least, Norway is part of a value-based community firmly rooted in the EU. This necessitates a strengthening of Norway's European policy and a new debate on the opportunities and vulnerabilities of Norway's ties to the European continent.

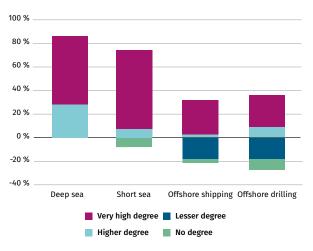
The US-China rivalry is a cause for concern

China's economy has expanded rapidly the last decades, making it the second largest economy in the world after the US. The global economy has become dependent on China's low-cost manufacturing and the country has become the so-called "factory of the world". In recent years, however, the US has tightened its grip on China, and we have seen mounting rivalry between the two great powers. This is reflected in the deteriorating relationship between the US and China on the issue of Taiwan's independence as well as in the ongoing tariff war between the US and China.

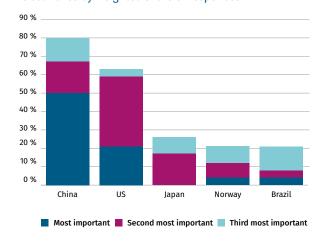
This year's member survey shows that shipping companies, and especially deep sea and short sea shipping companies, are strongly affected by the increased tensions between the US and China.

There is an extremely high probability that goods and energy transported in and out of the US, China and Europe are loaded onto a Norwegian-controlled ship.

Expected impact on shipping companies of increased tensions in US-China relations



Main markets for deep sea shipping companies Ranking of countries of particular interest for the further development of your future shipping activities – top five countries by weighted share of responses



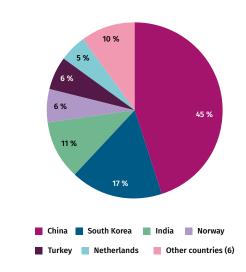
Source: BDO AS/Norwegian Shipowners' Association. N=87

Fifty percent of deep sea shipowners rank China as their most important market, which is down 10 percentage points from last year. One-fifth of the companies state that the US is their main market, while close to 40 percent cite the US as their second most important market.

The growing rivalry between the US and China is a cause for concern and may impact the activities of Norwegian shipping companies in both countries. One Norwegian-controlled ship calls at a US port every hour from dawn to dusk, all year round. In other words, Norwegian shipping plays a key role in US imports and exports.

Our member companies' interests in China can roughly be divided into two primary areas: provision of shipping services within traditional shipping (import and export) and contracting of vessels. As shown in the figure above, almost half of the Norwegian foreign-going shipowners' order book is with Chinese shipyards.

Norwegian foreign-going shipowners' order book measured in number of ships as of 1 January 2025, by building country



Source: Norwegian Shipowners' Association

Shipping is a highly cyclical industry that is directly influenced by global economic growth and fluctuations. Measures or restrictions on shipbuilding could have significant consequences, making it more difficult to build new ships or take delivery of ships that are under construction or completed. Furthermore, intensified rivalry could have a broad impact on Norwegian shipping interests, as the industry is dependent on Chinese shipbuilding capacities, and generates a significant share of its revenue from foreign markets. A downturn in world trade could directly impact shipping companies' revenues and, consequently, the maritime industry's contribution to value creation and employment in Norway.

Sanction policies have unintended consequences

The war in Ukraine continues into 2025 and Russia continues to challenge established principles of state sovereignty and territorial integrity. Furthermore, the war has created ripple effects and disruptions in trade and value chains.

The war is greatly affecting international shipping and shipping companies, through increased costs, challenges related to deliveries and supplies, reduced availability of seafarers and closed sea routes.

The war has led to extensive European and American sanctions against Russia. Russia was one of the main suppliers of gas to Europe until February 2022. Following the loss of deliveries of Russian gas, Norway is today the largest supplier of LNG to the European market. The price cap on Russian crude oil, introduced in December 2022, along with other sanctions, has increased the sanction risk of calling at and unloading crude oil in Russia so much that many European shipping companies choose to avoid these operations. As a result, new players have emerged to fill the gap in the market, and the shadow fleet has expanded significantly.

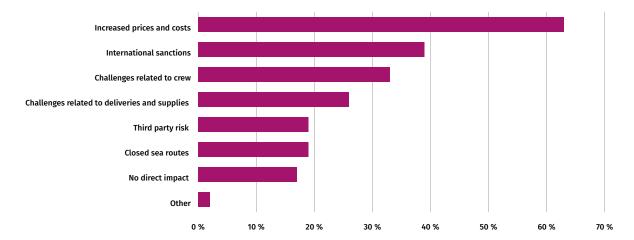
Shadow fleet is a common term for a fleet of ships that transport crude oil out of sanctioned countries. Many of these ships are old and are owned through companies whose ownership may be concealed and where the ships are not covered by conventional insurance. Many of the ships in

the shadow fleet change their flag registrations frequently and sail under flags with a low ranking from port control cooperations, such as the Paris MoU. Furthermore, ships are often classified by classification societies that are not members of the International Association of Classification Societies (IACS).

In other words, a shadow fleet undermines the international legal system on which shipping is dependent. It is also concerning that the shadow fleet has been involved in serious accidents, posing significant risks to the lives and health of seafarers, as well as incidents that could lead to environmental disasters affecting large marine and coastal areas.

The Norwegian Shipowners' Association has raised the issue of the shadow fleet with national and international authorities. The concern has grown as the size of the fleet has gradually increased and it has a security policy dimension. As of February 2025, the International Group estimates that the shadow fleet accounts for around 20 percent of the tanker fleet.

Impact of the war in Ukraine on shipowners

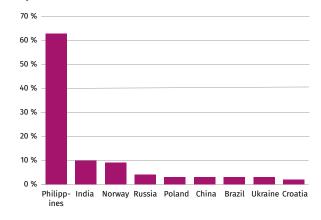


Foreign seafarers in new geopolitical times

In recent decades, shipping companies only had to consider geopolitical factors to a limited extent when crewing their vessels. Shipping companies have different relations with other countries and different practices regarding which countries they recruit from. This situation changed after Russia annexed Crimea in 2014. As a result of the conflict, it became difficult for Ukrainian and Russian seafarers to serve aboard ships calling at ports in Russia and Ukraine, respectively. The Russian invasion of Ukraine in February 2022 reinforced this development. The war has reshaped the global security landscape, including in Norway, and led to discussions about the nationality of the crew on Norwegian-flagged ships.

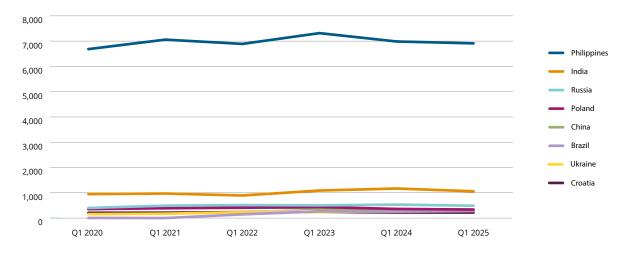
Crew nationality in the Norwegian-flagged and Norwegian-controlled fleet has remained relatively stable over the past five years. In 2025, there were just under 11,000 seafarers on board NIS ships according to the Joint Maritime Administration. Around 90 percent are foreign nationals. Norwegian shipping companies mainly recruit from the Philippines, followed by India and Norway. On average, Filipino seafarers have accounted for around two-thirds of the crew over the five-year period 2020-2025.

Number of seafarers on board NIS ships under a collective agreement with the Norwegian Shipowners' Association in Q1 2025



The NIS fleet operates globally, and in competition with other flag states. The ability to crew vessels in accordance with international framework conditions is essential for maintaining a strong Norwegian flag.

Development in the number of foreign seafarers on board NIS ships under a collective agreement with the Norwegian Shipowners' Association from 2020 to 2025 – largest nationalities



Source graphs: Joint Maritime Administration

A more complex conflict environment

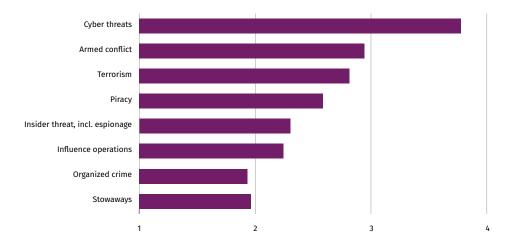
Shipping companies are navigating in increasingly more complex surroundings. Wars and conflicts on land impact safety and security at sea, directly through attacks on ships and indirectly by disrupting global supply chains. Moreover, sea routes may become part of a broader conflict, leading to restrictions on freedom of navigation. The increased risk of acts of war, piracy and other threats to shipping makes maritime security and preparedness increasingly important.

The conflict in the Middle East and attacks on the merchant fleet in the Red Sea continues to shape the maritime security situation in the region. It has also led to an increase in piracy attacks off the coast of Somalia. In the Black Sea, acts of war and

drifting sea mines pose a threat to ships and crew, limiting their ability to operate in these waters. With more complex surroundings, Russia's war in Ukraine has also led to a more critical security situation, even in areas along our own coast.

The maritime industry and shipping are not only exposed to physical threats such as piracy and armed conflict. The industry is also facing a more complex security environment where espionage, hybrid warfare, influence operations and cyber-attacks are valid and serious threats. The Norwegian Shipowners' Association's member survey for 2025 shows that cyber threats remain the greatest security threat affecting shipowner operations.

The impact of security threats on shipowner operations. Scale from 1 to 5 where 1 = no impact, 5 = very high impact

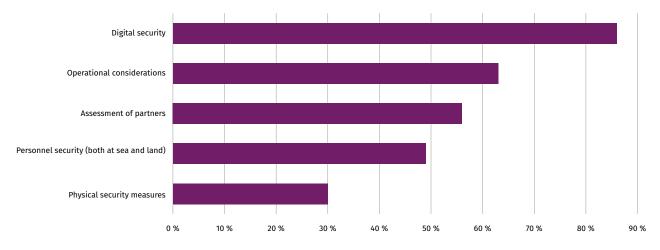


As an industry, shipping has always been faced with unpredictable situations that have required ability to adapt and willingness to change. In recent years, as the conflict environment has become more acute and complex, most shipping companies have implemented security measures based on threat assessments. Almost nine out of ten shipping companies have introduced digital security measures in response to increasing cyber threats. Furthermore, six out of ten shipping companies have implemented measures to ensure operational security. This may, for instance, involve assessing sailing routes or improving routines on board.

THE NORWEGIAN SHIPOWNERS' ASSOCIATION ENCOURAGES THE NORWEGIAN AUTHORITIES TO:

- Further strengthen public-private cooperation on maritime security and contingency planning through effective coordination, information-sharing, and joint exercises.
- Maintain a strong Norwegian commitment to freedom of navigation and international maritime security to protect global supply chains and safeguard Norwegian security interests.

Areas where shipping companies have implemented security measures based on threat assessments



The shipping industry represents an important emergency response resource

The Norwegian-controlled foreign-going fleet has a constant presence on all the world's oceans, with over 1,600 ships and rigs and more than 100,000 international port calls annually. The Norwegian fleet plays a key role on the international stage, representing global interests that reach far beyond our neighbouring regions.

As part of a formal cooperation agreement with the Norwegian Ministry of Trade, Industry and Fisheries, the Norwegian Shipowners' Association's department for maritime security and contingency planning handles assignments related to maritime security and readiness on behalf of the Norwegian authorities. They support the Norwegian merchant fleet in their global operations and national preparedness, including those related to the NORTRASHIP mechanism (Norwegian Shipping and Trade Mission).

The Norwegian model for contingency planning, along with the ability and willingness of shipping companies to support Norwegian authorities in times of crisis and war, represents a significant resource with great potential. The shipping and maritime industry has extensive capabilities that can be utilised to replace emergency response

functions and manage crisis situations across a wide range of tasks, both military and civilian. Shipping accounts for around 80 percent of goods freight to Norway and 90 percent of all exports. It plays a crucial role in ensuring stable and predictable supply chains, for food security, delivery of goods and energy supply. If necessary, the industry can also help secure increased transport capacity for the supply of goods and critical resources, such as fuel.

Furthermore, shipping possesses capabilities and expertise in a number of other strategic areas, such as logistics support, monitoring and repair of critical subsea infrastructure, and transport capacity for allied reinforcement. Such assets can play a decisive role in times of crisis or war and are also in high demand among our allies.

Norwegian shipping represents an important emergency response resource for Norwegian authorities and our allies, one that will be crucial in addressing the current security policy challenges. The industry has well-established mechanisms for coordinating with Norwegian authorities, which can be further developed, especially in the areas of civil preparedness and crisis management.



Royal Norwegian Navy vessel «Fridtjof Nansen» demonstrating presence at critical infrastructure in the Barents Sea. Photo: Catharina Molland Dale / Norwegian Armed Forces

The value of the maritime industry

The Norwegian maritime industry contributes to substantial export revenues, employment and value creation. To maintain the contribution of the maritime industry to the Norwegian economy, and to preserve Norway's position as a world-leading maritime nation, the industry is dependent on predictable and competitive framework conditions. Shipping is a global industry operating with international competition. Norwegian shipping's position globally depends on the national conditions under which the Norwegian-owned fleet is covered. The most important conditions for ensuring a competitive maritime industry with high value creation and employment are the tonnage tax scheme, the net wage scheme for seafarers and a competitive ship register. In addition, it is important to have stable, predictable and competitive framework conditions for Norwegian private ownership.

THE NORWEGIAN SHIPOWNERS' ASSOCIATION ENCOURAGES THE AUTHORITIES TO:

- Ensure a competitive Norwegian tonnage tax scheme.
- Ensure a competitive net wage scheme for seafarers.
- · Abolish the wealth tax on working capital.
- Accelerate the development of Utsira Nord, with the conditions the industry has been envisioned.
- Create a clearer and more detailed timeline for the announcement of more offshore wind areas, so that the industry has predictability for long-term investments on the Norwegian shelf and in Norwegian ports.

Values are created along the coast

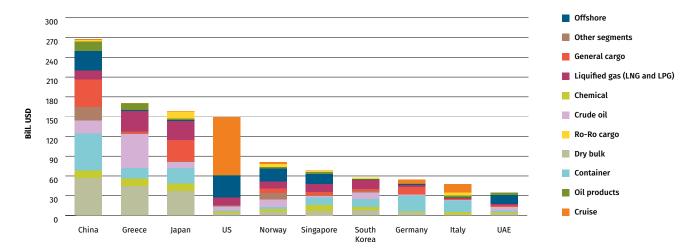
The Norwegian maritime industry employs almost 90,000 people in Norway, where more than half is employed in Western Norway, in the counties of Rogaland, Vestland and Møre og Romsdal.¹ In other words, the industry is a significant employer along the Norwegian coast. The industry also creates significant value. In 2024, value creation was NOK 219 billion, a slight increase from the previous year. The maritime industry is also Norway's second largest export industry, and the shipping industry itself is Norway's largest service export industry. In 2024, the total export estimate was NOK 330 billion, where Norwegian shipping companies accounted for just under 60 percent of the exports, equivalent to NOK 215 billion.

Key figures for the maritime industry

	2022	2023	2024 (est.)
Employed	82,600	85,600	86,700
Value creation	NOK 187 bill.	NOK 208 bill.	NOK 219 bill.
Revenue	NOK 557 bill.	NOK 591 bill.	NOK 624 bill.
Export	-	NOK 313 bill.	NOK 330 bill.

Source: Maritimt Forum/Menon Economics

¹ Value Creation Report 2025 – Menon Economics, Maritimt Forum



The world's 10 largest shipping nations ranked by fleet value in 2025

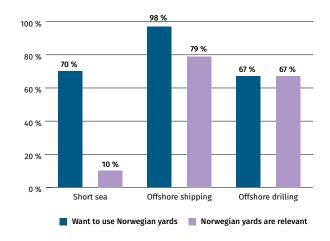
Source: Menon Economics

The value of the total world fleet at the beginning of 2025 is estimated to be more than USD 1,500 billion. The 10 largest shipping nations constitute 70 percent of this value. Norway is in fifth place among the nations, shown in the figure below. It is especially the technologically advanced offshore fleet that contributes to the high Norwegian fleet value.

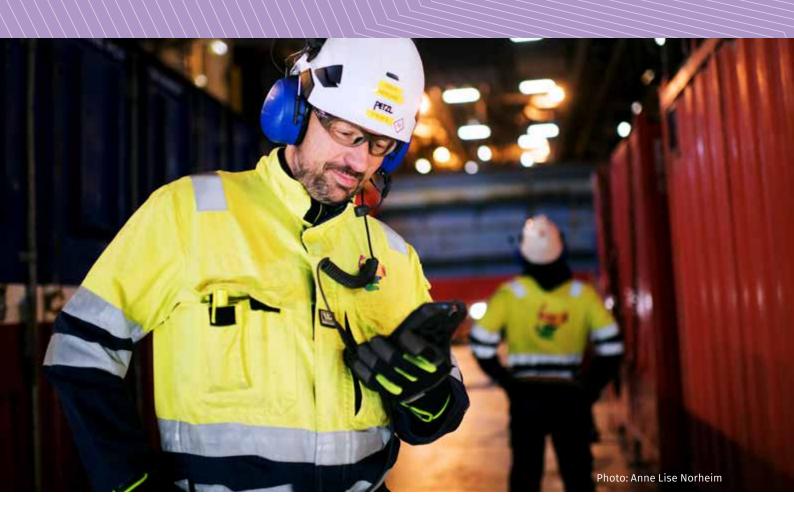
Norway is one of the few countries with a complete maritime cluster – companies that design, build, operate and sell ships, as well as supply equipment and services. The core of the cluster are shipowners. They are an important customer for shipyards and suppliers and make up the largest part of the maritime industry measured in both value creation and employment. As in previous years, this year's member survey shows that two-thirds of Norwegian shipowners, excluding deep sea shipping companies², largely want to use Norwegian shipyards. On the other hand, more than half of the shipowners answered that Norwegian shipyards are not relevant due to costs. This is shown in the figure.

About a third of the shipping companies state that capacity is a barrier to using Norwegian shipyards. This is related to several factors, including the size of the shipyard and capacity to build larger ships and capacity in the form of expertise and specialisation in different types of ships.

Share of shipowners that want to build at Norwegian yards, and share who consider Norwegian yards to be relevant when ordering new vessels



² Norwegian shipyards do not build deep sea ships, due to capacity considering the size of the ships, as well as the cost.

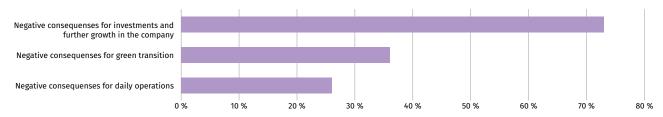


Private ownership is important for innovation, employment and the green transition

In order for companies to choose to register ships and operate from Norway, the framework conditions must be stable, predictable and competitive. A high proportion of Norwegian shipping companies are owned by Norwegian private owners and are located nationally. This benefits Norway. However, the wealth tax on working capital weakens the competitiveness of companies owned by Norwegian private owners, as they have to pay wealth tax, while foreign owners do not incur this tax. As shown in the figure below, 74 percent of shipping companies respond that increased wealth tax has negative consequences for investments and growth in the company, an

increase from just under 70 percent last year. This is not surprising, as almost two out of three answer that they have taken out more dividends (in the last two years) than they would otherwise have done due to the current wealth tax. In this way, the wealth tax weakens the investment capacity of the shipping companies. This is particularly unfortunate at a time when it is crucial that shipping companies have the financial muscle to meet the current and future emission requirements. This is confirmed by one in three shipping companies, who respond that the wealth tax on working capital has negative consequences for the green transition.

What consequences does your business experience from increased wealth tax?



Energy policy – the importance of a domestic market for offshore wind

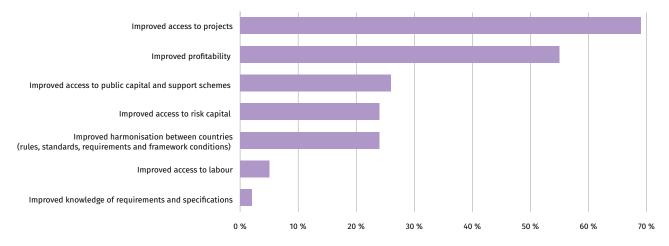
To succeed in meeting the future need for renewable energy, the world is dependent on developing large amounts of emission-free power production. Onshore wind and solar energy have so far dominated the development on most continents, but from 2030 offshore wind stands out as an important supplement. An offshore wind industry development in Norway and on the Norwegian continental shelf will be crucial for Norway's energy need, as activity in the oil and gas industry is predicted to decline.

The Norwegian maritime industry has a leading position in the international market for offshore wind. The Norwegian shipowners are leading the way in the global fixed foundation offshore wind market. They make use of Norwegian ships and technology and thereby contribute to a record-high export from the Norwegian supplier industry to fixed foundation offshore wind. A domestic market will provide a boost for the supplier industry, as it will enable the development and testing of technology and operational solutions on a larger scale. Not least, it will be important to bring down the costs related to the floating offshore wind industry.

Floating offshore wind is a limited market today but has great potential in the future. It is estimated that Norwegian players can achieve an annual revenue in floating offshore wind of between NOK 22 and 115 billion in 2050, depending on market development and future competitiveness.³ Predictability, good framework conditions and the development of a leading value chain for floating offshore wind will be crucial for Norwegian players' market share.

The Norwegian Shipowners' Association's members also point out that better access to projects is important to achieve further growth. Although Norwegian business and industry are gaining ground in international markets, there is a lack of projects constituting to a domestic market for offshore wind in Norway. It is further important that the projects are profitable, that the framework conditions are clear when investment decisions are to be made, and that they are not changed without close dialogue with the industry.

The shipping companies' assessment of the most important factors to achieve growth in the Norwegian offshore wind market



³ Menon Publication 149/2024. Market development for floating and bottom-fixed offshore wind.

Maritime competence

Norwegian maritime competence and Norwegian seafarers are essential for the Norwegian maritime cluster, and one of our most important competitive advantages. The industry needs to attract and develop a workforce with the right skills. There is an increased competition for manpower in general, and for professional expertise in particular, as well as strong competition for technological and digital expertise from other industries. Geopolitical developments has also had impact on competence and expertise, both because the Norwegian Armed Forces have become a new competitor for manpower and because shipping companies must develop staffing strategies that align with a new reality in terms of security.

THE NORWEGIAN SHIPOWNERS' ASSOCIATION ENCOURAGES NORWEGIAN AUTHORITIES TO:

- Strengthen the net wage scheme for seafarers on Norwegian-registered ships.
- · Earmark funds for maritime education.
- Secure sufficient access to maritime education, including further education and ongoing training.
- In the years ahead, undertake targeted and systematic efforts to strengthen recruitment and education in maritime subjects, to ensure that the industry has the necessary personnel and expertise — both in the military and civilian sector.
- Continue the efforts to follow up on the Gender Equality Strategy for the Maritime Sector.

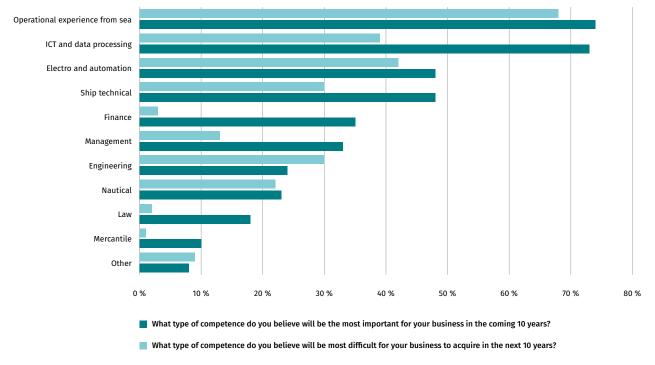
Operational experience from sea is still the most sought-after expertise

As in previous surveys, this year's member survey shows that personnel with operational experience from sea is still in high demand. This type of competence, along with ICT and digital skills, is what the Norwegian Shipowners' Association members believe will be the most important expertise to attract in the years to come. Loss of this type of expertise will weaken the Norwegian maritime cluster.

Shipowners require a wide range of expertise, from financial and legal expertise to more ship-specific expertise such as electrical, automation, mechanical and nautical expertise. As shown in the figure on the next page, ship-specific expertise is perceived more difficult to obtain than the other areas of expertise.

To ensure adequate access to expertise, information sharing and reputational work is important. To contribute to this, the Norwegian Shipowners' Association has launched the Maritime Career Campaign, which aims to build awareness about our industry, educational programmes and career paths for the primary target group, young people aged 13 to 25. Maritime Trainee is another prioritised initiative that, in addition to serving as an important recruitment arena and competence-enhancing measure for top candidates in the industry, also plays a key role in promoting and enhancing the industry's reputation.

The shipowners' need for competence and the areas of competence considered most challenging to acquire over the next decade



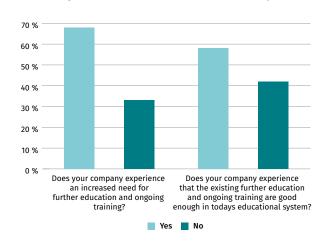
Source: BDO AS/Norwegian Shipowners' Association. N=88

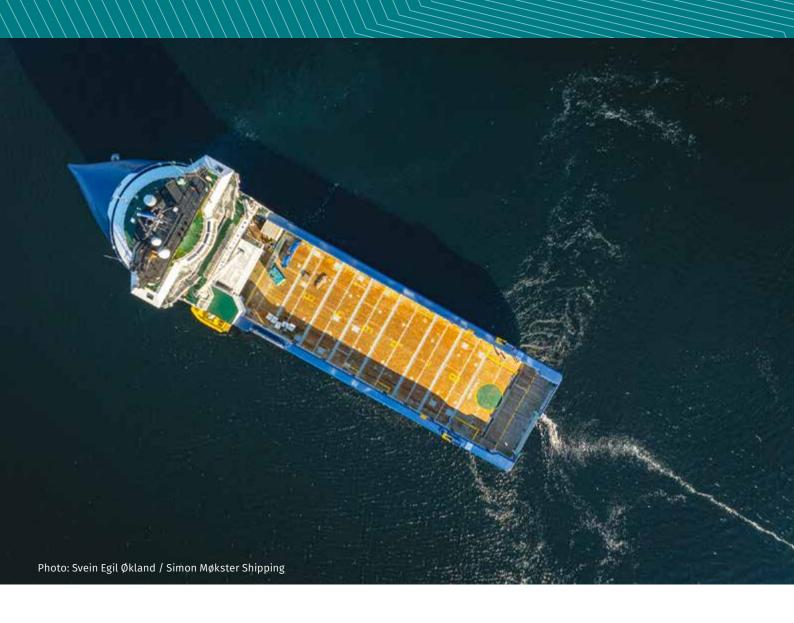
New expertise and qualifications needed

If Norway is to retain its position as a world-leading maritime nation, we must provide world-leading maritime education and training. In recent years, significant resources have been allocated to raising the quality of Norwegian maritime education, but we have not reached our target yet. This is partly due to the fact that we are working towards a moving target, where drivers such as the green transition and digitalisation continuously require new and updated expertise.

In a time when requirements for expertise and qualifications are changing rapidly, a strong focus on further education and ongoing training is required. About seven out of ten shipowners state that they experience an increased need for further education and ongoing training. On the other hand, four out of ten state that the opportunities for such education and training are not sufficient under the current education system.

Needs and possibilities in the current education system





The Norwegian government must ensure that there are effective schemes and incentives for companies to offer further education and ongoing training for their employees, and to ensure that everyone has an opportunity for lifelong learning. Furthermore, educational institutions must be enabled to develop and deliver effective further education and training programmes without it affecting their regular educational programme.

Maritime professional education is highly specialised and limited in terms of the number of available study places. The specialist environments are relatively small at the individual educational institution. Recent consolidations have led to the growth of educational institutions, resulting in an increasing number of priorities to be addressed, while the overall economy of the sector has weakened. Unfortunately, costly programmes consisting of few students and small academic environments are given lower priority. In the

shipping industry's experience, educational institutions fail to keep up on technological industry developments, and teachers' competence quickly becomes outdated. The shipping industry is concerned that this will have a negative effect on Norwegian maritime education, and thus on the industry in the years ahead. Consequently, it is crucial to invest in, specify, and earmark funds for maritime education going forward.

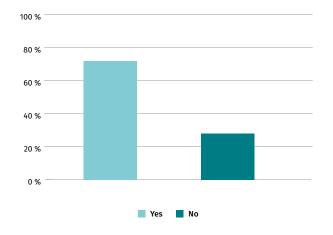
The need for strengthened maritime education is also linked to the key role of Norwegian shipping in total defence and national shipping preparedness. In a crisis or war, the state would be dependent on utilising the resources and capacities available in the shipping industry. Consequently, going forward it will be necessary to undertake targeted and systematic efforts to strengthen recruitment and education in maritime subjects, precisely to ensure that the industry has the necessary personnel and expertise — both in the military and civilian sector.

A strengthened net wage scheme is important to safeguard Norwegian operational expertise

The net wage scheme for the employment of seafarers is intended to ensure Norwegian maritime expertise and the recruitment of Norwegian seafarers, and to contribute to Norwegian shipping companies receiving competitive conditions compared to conditions in other countries. The scheme has been a central part of Norwegian shipping policy since it was introduced in the 1990s, and is an important instrument for securing Norwegian maritime employment and competitiveness compared to competing ship registers.

The net wage scheme partially compensates for the cost disadvantage of employing workers from Norway and the other EEA countries. The scheme is in line with the EU guidelines on public funding to shipping and has been notified to the EFTA Surveillance Authority (ESA). In the same way as similar schemes in other EEA countries, the schemes are intended to encourage ship registration in Europe and contribute to the global competitiveness of the maritime industry without

Likelihood of replacing Norwegian seafarers with foreign seafarers if the reimbursement/net wage scheme for Norwegian seafarers were further weakened

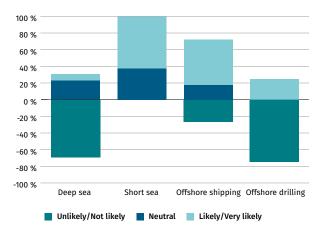


Source: BDO AS/Norwegian Shipowners' Association. N=50

distorting competition unnecessarily, by providing shipping companies in competitive segments with (partial) reimbursement of contributions corresponding to social security coverage and employees' income tax. The net wage scheme was therefore introduced in Norway, and in a number of European countries, to ensure competitiveness. The government has stated in the Hurdal Platform that they will strengthen the net wage scheme for the employment of seafarers.

In this year's survey, just over seven out of ten shipping companies, replied that they would replace Norwegians with foreign seafarers if the scheme were further weakened in 2025. This applies to all segments, except the offshore drilling segment. At the same time, just over 40 percent of the respondents reply that they are likely, or highly likely, to replace foreign seafarers with Norwegians if the upper limit for the net wage scheme were removed. This is particularly relevant for the short sea and offshore service segment.

Likelihood of replacing foreign seafarers with Norwegian seafarers if the upper limit for the reimbursement/net wage scheme for Norwegian seafarers were removed



Source: BDO AS/Norwegian Shipowners' Association. N=58

Norwegian wage and working conditions

The government's work to develop legislation about mandatory Norwegian wage level on foreign flagged ships in Norwegian waters and Norwegian Continental Shelf is of great cause of concern for the maritime industry. The government has announced that the bill will be submitted to the Parliament during April 2025. This legislative process is undermining long lines in Norwegian foreign policy and the flag state principle that is laid down in the UN Convention on the Law of the Sea.

Norway, as a small country with significant interests in shipping, is served with a strong flag state principle and markets for shipping services that are as free as possible of national regulation. The Norwegian Shipowners' Association views the proposal as a clear violation of the cabotage regulation and freedom of service pursuant to the EEA agreement, as EEA law has also previously been understood by the Norwegian authorities. It is also noted that ESA has determined that the proposal that was up for consultation in 2024 is not in line with the EEA Agreement.

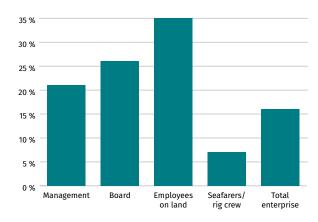
In the Norwegian Shipowners' Association's view, other measures, such as improvement of the net wage scheme for seafarers, will have a significantly greater effect on the competitiveness of Norwegian expertise than a statutory enactment of Norwegian wage and working conditions. On the contrary, the Norwegian Shipowners' Association's impact assessment shows that a requirement for Norwegian wages for foreign seafarers will lead to a reduction of Norwegian seafarers.

Gender equality strategy and women in the industry

Together with the Ministry of Trade, Industry and Fisheries and the other maritime employer and employee organisations, the Norwegian Shipowners' Association has signed a declaration of cooperation to work towards gender equality in the maritime sector. The strategy follows up on the ministry's gender equality strategy. The declaration addresses four focus areas: recruitment and role models, a working environment that benefits everyone, a working life free from harassment and an adapted workplace.

The Norwegian Shipowners' Association works actively to recruit an increasing proportion of women in the industry, both on land and at sea. The proportion of women among onshore employees and on the boards of shipping companies has increased by three percentage points since last year's report. This is a marginal increase, but it is still a step in the right direction.

Share of women in the industry



Source: BDO AS/Norwegian Shipowners' Association. N=87

Seven out of ten shipowners state that they have implemented measures to recruit more women to the business. Last year, 64 percent last year stated the same. Among the measures are targeted recruitment campaigns, increased awareness and training internally.



Towards low and zero emissions

The shipping industry is facing a transition that may change the industry forever. New technology will be implemented, ships will bunker with alternative fuels and the transition will necessitate new routines both on shore and at sea. Norwegian shipowners have already taken significant steps towards the green transition, and more than 90 percent of the Norwegian Shipowners' Association's members have invested in climate and environmental technology on board. Despite this, there are still substantial challenges and barriers to overcome if the industry is to achieve the transition to a low and zero-emission society.

Increased uncertainty leading up to 2030 and 2050

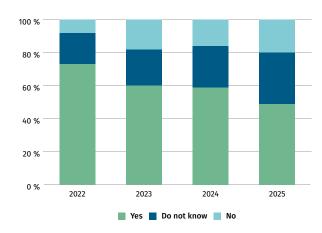
In 2020, the Norwegian Shipowners' Association's members adopted an ambitious climate strategy with specific targets for 2030 and 2050. Member shipowners will reduce their greenhouse gas emissions by 50 percent per unit by 2030, compared with 2008 emissions. As of 2030, members will only order vessels equipped with zero-emission technology. This is in line with the overall aim of having a climate-neutral fleet by 2050.

The shipowners belief in achieving the climate goals varies between the shipping companies: Forty percent believe they will achieve a 50 percent reduction in emissions by 2030. Optimism is highest

in the short sea and deep sea segments, where 50 and 60 percent, respectively, are positive they will achieve the goals. At the same time, an increasing proportion of the companies, about one out of four, are unsure whether they will achieve the 2030 target.

As regards the 2050 target, half of the shipping companies believe they will achieve climate neutrality. Confidence in their ability to achieve the climate target has fallen in recent years, as shown in the graph below. It is primarily uncertainty that is on the rise, and an increasing proportion of shipping companies report that they do not know whether they will achieve their climate targets.

Share of shipping companies that believe they will be climate neutral by 2050. 2022–2025

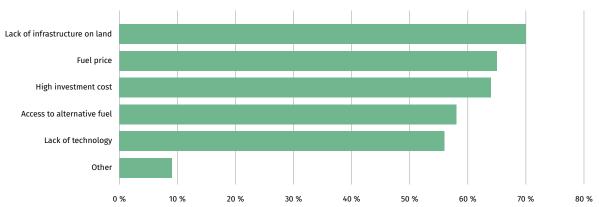


Source: BDO AS/Norwegian Shipowners' Association. N=86

THE NORWEGIAN SHIPOWNERS' ASSOCIATION ENCOURAGES THE NORWEGIAN AUTHORITIES TO:

- Specify what efforts and instruments are required to achieve the maritime 2030 goals. This should be done through the climate partnership.
- Expand policy instruments with new tools that support the scaling up and roll-out of climate and environmental technology.
- Present a plan for the production and use of alternative fuels, including the use of guarantee schemes such as contracts for difference.
- Take on a greater political role in the maritime transformation internationally, in co-operation with both the IMO and the EU.

Barriers to the use of alternative fuels



Source: BDO AS/Norwegian Shipowners' Association. N=88

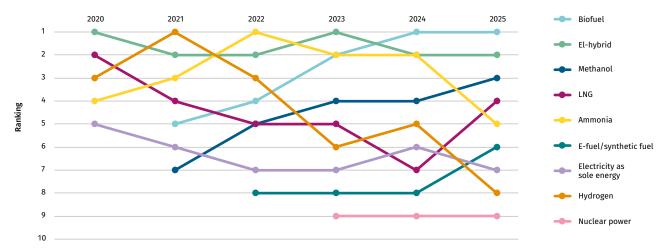
Transitioning to new fuels

If the shipping industry is to achieve its goal of a low and zero-emission fleet, it is essential to invest heavily in new climate technology and alternative fuels. However, there are many barriers to the use of alternative fuels. The barriers are related to a lack of onshore infrastructure, the price of alternative fuels, high investment costs, the availability of alternative fuels and a lack of technology. The barriers illustrate how new value chains must be developed and that the transition is complex. To overcome these barriers, it is essential to foster collaboration across the value chain, as well as close public-private collaboration.

The Norwegian Shipowners' Association's members are considering several fuel options for transitioning the fleet to a low and zero emission fleet. Biofuel is considered the most viable fuel option for the period leading up to 2050, followed by hybrid-electric power and methanol. The graph below shows the nine most viable energy solutions for achieving the 2050 climate target, as well as how shipping companies have assessed fuel and energy carriers since 2020.

The graph supports the fact that increasing uncertainty related to the 2050 target is also reflected in the types of fuel and energy carriers that are considered viable.

Fuel types and energy carriers the shipping companies are considering to achieve emission targets by 2050 – ranking over time



Source: BDO AS/Norwegian Shipowners' Association

Back in 2020, hydrogen and ammonia were ranked as the most viable alternatives, while in the years leading up to 2025, biofuel and LNG have climbed higher on the lists. This indicates a shift towards more typical transition fuels, suggesting that the transition to zero-emission fuels is now expected to occur later than originally anticipated. Additionally, a number of shipowners are considering carbon capture and storage as a solution towards 2050.

Investments in climate and environmental technology

The Norwegian Shipowners' Association's members have invested heavily in solutions to reduce their energy consumption and on-board greenhouse gas emissions. Energy efficiency measures such as battery and hybrid systems, wind-assisted propulsion, shore power and optimised hull and propeller performance, contribute to reduced fuel consumption.

Shipowners work continuously to optimise their operations, including through efficient route

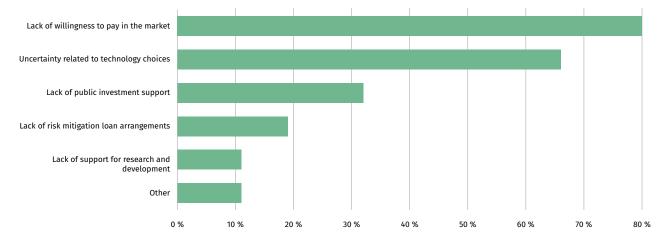
planning. Several companies are also investing in dual-fuel engines that can run on more environmentally friendly fuels such as methanol and ammonia.

Barriers to investment in climate and environmental technology

Nine out of ten members have invested in climate and environmental technology on board. This has helped to make the fleet more energy efficient and reduce emissions. However, there are still several barriers to further investment in climate and environmental technology.

The greatest barriers are a lack of willingness to pay in the market and uncertainty relating to the choice of technology. Almost 80 percent of member shipowners report that willingness to pay is a major barrier, while 66 percent are unsure about technology choices. More than 30 percent report that a lack of public investment support is a barrier to investments.

Shipping companies' assessment of the central barriers to investment in climate and environmental technology



Source: BDO AS/Norwegian Shipowners' Association. N=88



From the Norwegian Shipowners' Association launch of the Climate report 2025.

2025: In need of a national and international breakthrough

In December 2024, the Norwegian government and the maritime industry signed a climate partnership agreement. The Norwegian Shipowners' Association is positive to the new collaboration and the work ahead. Currently, the industry is not on track to achieve the 2030 targets, and more needs to be done – faster. It is crucial that the partnership results in concrete measures and new policy instruments.

Furthermore, 2025 is a key year for international climate action in the shipping industry. In 2023, the International Maritime Organization (IMO) secured a new climate strategy for shipping, following tough negotiations. With a clear goal of climate neutrality

by 2050, the strategy significantly raised the transition expectations for international shipping.

However, it takes more than ambitious goals to reduce emissions. That is why the IMO must introduce new regulations in 2025 to ensure that emission cuts align with the climate goals. The Norwegian Shipowners' Association acknowledges that the EU has taken the lead by introducing effective regulations that, for the first time, apply to international shipping. However, currently these only apply to a small proportion of the fleet (less than 15 percent). Consequently, it is imperative to agree on measures for the rest of the fleet at IMO level.

Emissions from the Norwegian Shipowners' Association's member fleet

In 2025, the Norwegian Shipowners' Association published its own climate report, for the first time. The report provides an overview of technology uptake and fuel, and how our activities and emissions are distributed across ship types, regions and regulations.



The Norwegian Shipowners' Association's member fleet emitted 28.7 million tonnes of CO₂e in 2024.¹

- This constitutes 3.1 percent of emissions from international shipping globally.
- Compared to Norway's national emissions, this corresponds to **61**° **percent**, or 25x domestic aviation.

The Norwegian Shipowners' Association's member fleet is responsible for emissions of 5.4 million tonnes of ${\rm CO_2}$ in the EU MRV.³

- Thirty five percent of the Norwegian Shipowners' Association's member fleet and **20 percent** of its emissions are covered by the EU ETS emissions trading system and the FuelEU maritime regulation.
- From 2025–2027, both the reporting obligation and regulations will be extended to include new ship types.





The Norwegian Shipowners' Association's member fleet is responsible for emissions of 1.35 million tonnes of ${\rm CO_2}$ in Norway.⁴

- Less than **five percent** of member fleet emissions take place in Norway.
- Nevertheless, these emissions account for **29 percent** of domestic shipping and fishing emissions a responsibility that must be taken seriously.

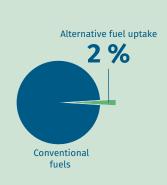
NOTES

- 1. Emission figures provided by DNV, based on AIS data and DNV's MASTER model, January 2025
- 2. SSB, 46.7 million tonnes CO₂e in 2023
- 3. The figures in the EU's emissions database for ships THETIS-MRV cover sailings in, and in and out of, the EU/EEA
- 4. Barometer for green restructuring of shipping 2024. DNV for the Ministry of Climate and Environment

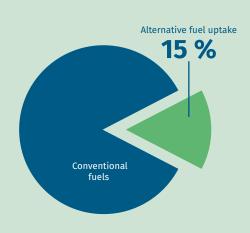
Increase in alternative fuel uptake

According to DNV's Maritime Forecast to 2050, the uptake of alternative fuels in the world fleet is two percent. Uptake in the Norwegian Shipowners' Association member fleet is 15 percent.

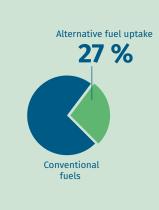
WORLD FLEET

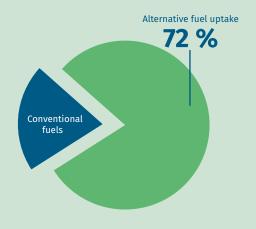


NORWEGIAN SHIPOWNERS' ASSOCIATION MEMBER FLEET



In the order book, the uptake of alternative fuel technologies in the world fleet has increased to **27 percent.** The Norwegian Shipowners' Association member fleet has ordered 123 ships. Among these, uptake is **72 percent** (89 ships).





Data basis and methodology

Data sources used in this report are specified in the text, tables and figures. Sources and methodology are described below. The Norwegian Shipowners' Association has worked in collaboration with BDO AS on the analysis. All graphics have source citations.

Member survey on the shipping companies' future outlook and framework conditions

The Norwegian Shipowners' Association conducted a survey of its members in the period from 6 January to 20 January 2025. Members were sent an electronic questionnaire in which their expectations concerning developments in key economic figures, emerging markets, access to capital and expertise, and political framework conditions were surveyed. Eighty eight out of 125 relevant member companies responded to the survey, giving a response rate of 70 percent. The participants in the survey are representative of the membership mass of the Norwegian Shipowners' Association, both in terms of fleet size and ship segment. The material therefore provides a sound basis for generalising from sample to population. Almost without exception, responses were provided by owners and business leaders. Restructuring and changes in the Norwegian Shipowners' Association's member fleet may affect the results of the data collected.

Calculation of shipping companies' revenue growth in 2024 and 2025

BDO AS has access to accounting data for Norwegian shipping companies' revenue in 2023. In the survey, shipping companies were asked to report revenue in 2023, an estimate for revenue in 2024 and expected percentage growth in revenue for 2025. Since BDO AS does not have complete revenue figures for all shipping companies in 2024, these are calculated as follows:

- a) The shipping companies' self-reported revenue in 2023 is compared with information from official sources (including audited revenue and the companies' own annual reports, including consolidated accounts) for the same year. This is to assess whether the self-reported revenue in the survey can be used as a basis for calculating the revenue of the total population of shipping companies in Norway.
- b) Self-reported revenue in 2024 is adjusted for the share of total revenue in each of the four shipping groups included in the data basis.
- c) The forecasts for 2025 are calculated by multiplying the 2024 revenue of each member company by their self-reported growth in 2025. The estimated revenue is then summed up for the four shipping groups. Furthermore, the estimated revenue is adjusted for the share of total revenue in each of the four shipping groups included in the data basis.

Valuation of the global shipping fleet

Menon Economics, on assignment for the Norwegian Shipowners' Association, has estimated the value of the world's fleet of ships from 2001 to the present, divided into 14 ship segments and all the world's countries. The results are presented at an aggregated level, where the segments are merged into 11 segments. The calculations within each segment are based on newbuilding prices, freight rates, age, number of ships, estimated lifetime, gross tonnage and deadweight tonnage.

Until 2022, data from IHS Markit has been used to calculate the size and composition of individual countries' shipping fleets, while price data has mainly been taken from Clarksons Platou. As of 2022, data for calculating the composition and size of the fleets has been derived from Clarksons World Fleet Register.

In last year's report, 2024 prices were calculated based on the latest available 2023 figures. However, in this year's report we have based our 2025 estimates on the latest available 2024 price data, and monthly rates from January 2025. This is to avoid fluctuations caused by seasonal variations, which do not necessarily provide an accurate picture. Concurrently, last year's 2024 estimates were changed to actual values for the whole of 2024. To put it differently; this entails that cases with last months' rates have been replaced by annual averages.

The shipbuilding industry is still characterised by high prices due to inflation and full order books at Asian shipyards. In 2024, we saw significant growth in the demand for container ships and other types of cargo ships. However, since the autumn of 2023, LNG and crude oil vessel rates have contributed to decelerated growth. Over the course of 2024, we have seen a marked decline in LNG rates, to a historically low level. This is partly due to the high pace of construction, where freight capacity is increasing significantly faster than the supply of ING.1

Moreover, the world fleet value was impacted by a downturn in the crude oil segment, which saw a 20 percent decline in 2024. The decline was partly due to reduced demand for crude oil from China.²

Norwegian-controlled foreign-going fleet definitions and delimitations

The Norwegian Shipowners' Association maintains its own statistics on the Norwegian-controlled foreign-going fleet. The delimitations for inclusion of ships in the Norwegian-controlled foreign-going fleet are based on the following principles:

- All ships registered in the Norwegian International Ship Register (NIS)
- Ships registered in the Norwegian Ordinary Ship Register (NOR), sailing in foreign trade.
- · Ships under foreign flags, owned by Norwegiancontrolled shipping companies (with Norwegian ownership of at least 50 percent) and sailing in foreign trade.

Global LNG Hub (2025)

² Lloyds List (2024)

Norwegian Shipowners' Association

P.O. Box 1452 Vika, NO-0116 Oslo

Phone: +47 22 40 15 00

post@rederi.no

in @Norwegian Shipowners' Association

facebook.com/NorgesRederiforbund

www.rederi.no/en