

# *Greek Shipping Co-operation Committee*



## *Annual Report*

*2023 – 2024*

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## From the Chairman



Dear Colleagues,

It is with great pleasure that I present our 89th Annual Report.

Whilst the War in Ukraine seems no nearer to conclusion, the Gaza conflict and its effect on the Red Sea have made a very significant change to world trade as shipping avoids that area thus shunning the Suez Canal.

The increase in tonne-miles is very significant especially for the container, bulk and tanker sector.

Whilst it was felt that the Chinese economy was moving uncertainly, the imports of cargo into China have been larger than ever and demand has held up appropriately.

This year, being a time when over 60% of the world is having elections, we have had varying unusual results around the globe. Russia remained the same, South Africa realized that change was necessary, Europe has moved significantly to the right, the U.K. will move to the left and America has a choice of candidates whose policies are well known and are unlikely to change much.

However, this does not mean that a growing world population does not need to engage further in world trade in order to house, feed and equip all these people.

Climatically the Panama Canal seems to be slowly recovering but world shipping is still doing its best to compensate from disruption caused by longer port stays and less efficient infrastructure systems.

Whilst global economic prospects seem more stable, interest rates are not subsiding and remaining at relative high levels.

Looking at the specific markets, the Tanker sector had a very acceptable and lucrative year.

The Container market, which started the year in a bit of a subdued state is now doing very well with little overcapacity, significant port delays and much higher freight rates.

Whilst the L.N.G. sector remained stable, the L.P.G. market enjoyed its best ever year over the last 12 months.

The Car Carrier market is still very active, even with an ever-growing orderbook.

Whilst the Dry Bulk market has improved from last year, it is not doing as well as the orderbook would suggest. It is still at the mercy of a volatile FFA market and this suffers large fluctuations on an irregular basis.

Within this environment, the Greek Merchant fleet has been significantly selling older tanker and bulk carriers and ordering large numbers of newbuildings.

The orders are mainly for tankers large and small, larger bulk carriers and a fair number of gas carriers, both L.P.G. and L.N.G.

Since the global container orderbook is already at very high levels, the Greek orderbook has not substantially increased this year.

The Greek Fleet, being among the two largest in the world, is being renewed with a combination of high technology newbuildings as well as a fair number of dual-fuel ready ships.

Yet again, the fleet average age is falling and its GHG efficiency is rising. By virtue of its predominant position in the tramp shipping market, the Greek merchant fleet is always the first to adapt to changing global requirements and takes heed of all new regulations, whether global or regional. It is very important

to stress that the Greek fleet represents over 60% of the total EU tonnage and that it is strategically vital to meet the EU's needs.

With this in mind, we stress the importance of supporting the global marine regulator, the IMO, which has to take a practical and balanced attitude to all legalisation, as opposed to some of the more political elements of some regional legislators which do not have the knowledge to see the bigger picture.

The G.S.C.C. itself is always at the forefront of keeping its members closely informed of all these developments and lobbying at the highest levels in order to bring about a coherent legislative program.

## **Decarbonization**

The frustration felt by the tramp shipping sector which makes up the majority of the world fleet, is very visible as no global, definitive solutions are found to the decarbonization goal.

A multitude of different fuels with no global bunkering network and a still high well to wake carbon footprint makes the decision of which way to jump nigh on impossible.

However, in the meantime, technically sophisticated Owners are adopting all the latest hull and machinery innovations to make the world fleet's footprint even greener.

Whilst ETS and CII have been shown to be unfit as incentives, a straight forward Fuel Levy, albeit re-named so as to be mutually acceptable, will still be the best way to bring about our 2040 and 2050 goals.

## **ESG**

Apart from quantifying the carbon emissions and discussing a company's program for decarbonization, most, if not all, well-run shipping companies have carried out these tasks on their own in an efficient, well-organized manner for many years. They have quietly carried out their ESG obligations without fanfare!

## **Rightship**

This organization will not move forward if it does not increase its transparency and accountability. Otherwise, it just adds a layer of bureaucracy without significantly improving the safety of seafarers and ships. Flag, Class, and Port State already carry out all of these tasks in a professional and maritime manner with decades, not to say centuries, of experience.

## **Maritime Education in Greece**

We continue to stress the importance of a vibrant public and privately funded maritime education sector in Greece. It is a crucial element in the Greek Maritime cluster, and without it, Greece will not remain the epicentre of global ship management.

As the Greek fleet itself continues to become more sophisticated, and Greek companies invest in more and more ship types, it is imperative to be able to man them with Greek officers and crew.

The government must legislate for the creation of privately run schools to flourish and more investment in state-funded schools. Particular problems to be addressed are the low numbers and pay of the teaching staff in the Greek maritime academies. These are stifling the number of entrants annually.

## **G.S.C.C. Role and Liaisons**

One of the greatest strengths of the Greek shipping industry over the last half-century has been the close relationship between the Greek Shipping industry and the Ministry of Maritime Affairs and Island Policy, the Hellenic Coast Guard, and, of course, the Government itself.

Not undermining the progress already made towards the digitalization and the reduction of bureaucracy, we urge the Greek Ministry of Maritime Affairs and Island Policy to drastically reduce the bureaucratic burden involved with vessels flying the Greek Flag or it will lose its significance for Greek Managed Shipping. Actions are needed and not just promises.

Without the appreciation of how strong this link is, the Greek maritime cluster would not be as prominent as it is, and shipping would not hold the position of Greece's second most important export industry. The link must be maintained going forward to guarantee a vibrant maritime sector.

Apart from its close and warm links with the Union of Greek Ship Owners in Greece, the G.S.C.C. prides itself on maintaining a close dialogue with all major international maritime organizations, such as the I.M.O., I.C.S., INTERCARGO, INTERTANKO, BIMCO, the EU, national governments, MEPs and the International Group of P&I Clubs. We have P&I Club Chairmen and Directors on our Council.

Our relationship with senior IACS members is also very close, not least due to our presence as individual members on the boards of many National and International Committees of leading Classification Societies. We also work together with them to press for ever higher vessel standards in construction and operation.

Being based in London gives us the opportunity to keep close contact with the IMO, the Baltic Exchange (the world's leading shipping indices provider), the UK Chamber of Shipping, Maritime London, and other London-based organizations.

We look forward again to LISW 2025.

Finally, I would like to thank our Member Offices for their support, the Council, and the Secretariat for their hard work. Their efforts allow us to continue keeping our membership well-informed and lobby on a global basis in favour of positive practical legislation. When legislation is negative, we make our opinion very well-known, backing it up with well-reasoned arguments.

I am particularly grateful to our Vice-Chairmen, Constantinos Caroussis, John M. Lyras and Nikolas P. Tsakos, our Honorary Chairman Epaminondas Embiricos, our Honorary Vice Chairman Spyros Polemis our Treasurer Diamantis Lemos and Deputy Treasurer Dimitri Frank Saracakis.



Sadly, this year we lost one of our most distinguished colleagues and friend, Stathes Kulukundis. Stathes served the G.S.C.C. with great distinction for over 40 years and in that time represented Greek Shipping at the highest levels. We will miss his presence immensely.

My special thanks go to John Hadjipateras, George Embiricos, Filippos Lemos, Alex Hadjipateras and Basil Mavroleon, without whom our monthly reports and other documents would not be as professionally prepared as they are.

Our technical subcommittee headed by Dimitri Monioudis has proven extremely popular and effective, with active participation by senior technical officers of member companies in the U.K. and Greece, as well as achieving wider input from our extensive contact network within the global maritime community (e.g., classification societies, consultants, shipbuilders and propulsion manufacturers).

Our Director, Konstantinos Amarantidis, assisted by Maria Syllignaki and Vasso Giadikiaroglou continues to run the Committee smoothly and very professionally and I thank them for their sterling efforts.

As always, I wish to thank all the seafarers in the world, whose perseverance and sacrifice during these difficult times has been legendary. Without them, world seaborne trade would not be able to take place in the efficient and seamless way that exists today.

<b>G.S.C.C. Council Members 2022 - 2024</b>	
<b>Mr. Haralambos J. Fafalios</b>	Chairman
<b>Mr. Constantinos I. Caroussis</b>	Vice Chairman
<b>Mr. John M. Lyras</b>	Vice Chairman
<b>Mr. Nikolaos P. Tsakos</b>	Vice Chairman
<b>Mr. Diamantis J. Lemos</b>	Treasurer
<b>Mr. Dimitri Frank Saracakis</b>	Deputy Treasurer
<b>Mr. Dimitri C. Dragazis</b>	Member
<b>Mr. George E. Embiricos</b>	Member
<b>Mr. Alexandros J. Hadjipateras</b>	Member
<b>Mr. John M. Hadjipateras</b>	Member
<b>Dr. Nicholas Hadjiyiannis</b>	Member
<b>Mr. Antonios C. Kanellakis</b>	Member
<b>Mr. Alexandros C. Kedros</b>	Member
<b>Mr. Filippos P. N. Lemos</b>	Member
<b>Mr. Basil E. Mavroleon</b>	Member
<b>Mr. Dimitrios Monioudis</b>	Member
<b>Mr. Anthony P. Palios</b>	Member
<b>Mr. Michael Papaioannou</b>	Member
<b>Mr. Michael G. Pateras</b>	Member
<b>Mr. Andreas A. Tsavliris</b>	Member
<b>Mr. Epaminondas Embiricos</b>	Honorary Chairman
<b>Mr. Spyros M. Polemis</b>	Honorary Vice Chairman
<b>G.S.C.C. Secretariat</b>	
<b>Mr. Konstantinos Amarantidis</b>	Director
<b>Mrs Vasso Giadikiaroglou</b>	Assistant Director
<b>Ms Maria Syllignaki</b>	Assistant Director

## Fleet Statistics

### The World Fleet

As of 4 March 2024, according to S&P Global Market Intelligence data, the world fleet greater than 1,000 Gross Tons (GT), was 63,174 vessels of 1,617,010,504 GT, as well as 4,913 vessels of 215,022,850 GT on order.



### The Greek Controlled Fleet

According to the aforementioned S&P Global Market Intelligence data, as of 4 March 2024, Greek interests controlled 4,212 vessels of various categories of 355,209,500 total deadweight (DWT), and 208,252,588 total GT. Compared to data in the past year, this represents an increase of 102 vessels, 5,992,356 DWT and 3,905,226 GT.

The figures do not include 373 vessels of various categories on order of 33,143,130 DWT and 22,889,399 GT. Interestingly, the orderbook figures represent a 50% increase, which indicates a larger interest in ordering vessels with new technology by Greek companies.

With respect to vessel type, the Greek owned fleet as a percentage of the world fleet recorded an increase in the categories of Ore & Bulk Carriers, Cargo and Other Cargo ships, in terms of vessel numbers and DWT.

On the other hand, Oil Tankers, Chemical & Products Tankers, Liquefied Gas Carriers, Container Ships and Passenger Ships presented a slight decrease both in DWT and number of vessels, in relation to the corresponding world fleet type for the year 2023/2024.

What is notable is that Greek parent companies represent 23.7% of the world Tanker fleet, 16.1% of the world Ore and Bulk fleet and 10.1% of the Liquefied Gas fleet, in terms of vessel numbers.

Overall, the Greek-owned fleet stands at 6.7% of the world fleet in terms of number of vessels, 12.9% in terms of GT and 15.1% in terms of DWT.



According to the data, the past year saw an increase in the average age of the world fleet, from 17.8 years in 2022/2023, to 18.2 years in 2023/2024.

The average age of Greek-controlled vessels has slightly increased as well, now standing at 13.7 years of age. However, it remains 4.5 years younger than the industry average.

When calculated in terms of GT and DWT, the average age is reduced to just 12.1 and 12 years respectively, as against 13.1 and 12.8 of the world fleet.

(Source: S&P Global Market Intelligence)

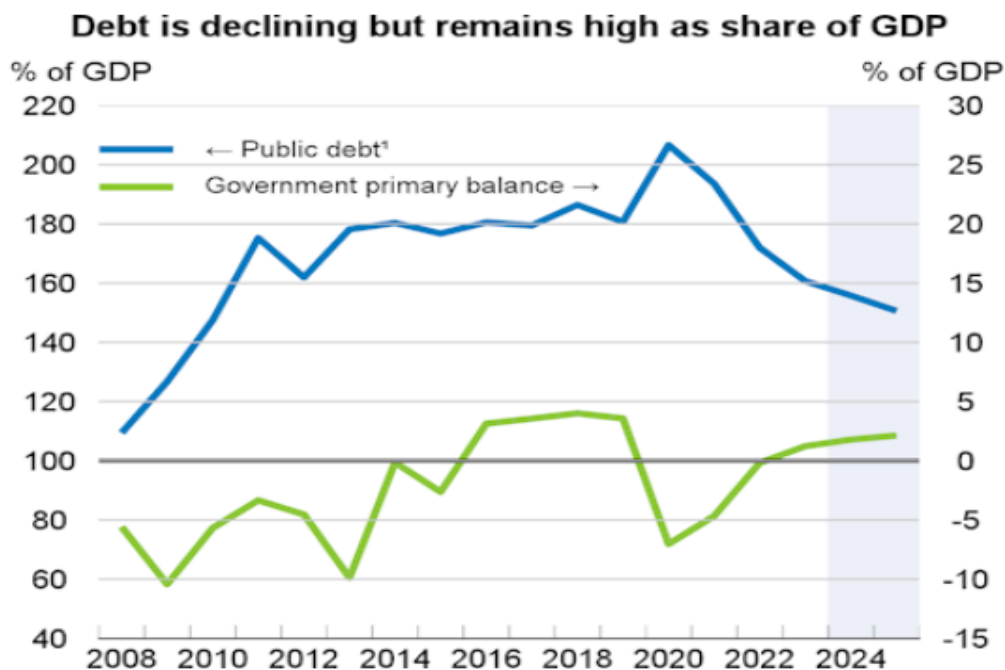
## Developments in Greece

### Economic Outlook

During the second half of 2023, an important milestone was achieved as three of the four credit rating agencies recognised by the Eurosystem upgraded the Greek sovereign's credit rating to investment grade. However, the fact that it took thirteen years for the country to return to investment grade suggests that confidence and economic policy credibility are crucial factors that, once lost, are very difficult to recoup according to Bank of Greece. Political stability, fiscal stability and financial stability need to be valued and preserved.

According to OECD forecasts, growth for Greece will remain at 2.0% in 2024 before picking up to 2.5% in 2025. Rising employment and real wages will strengthen consumption. Inflation will continue to fall, but at a slower pace, returning close to target by the end of 2025.

Public debt is expected to fall from 161% of GDP in 2023 to 151% by 2025. In light of high public debt, the projected decline of the budget deficit over the next two years is appropriate.



Source: OECD

The debt-to-GDP ratio will continue to decline. The primary surplus stood at 1.2% of GDP for 2023 and is projected to reach 1.8% in 2024 and 2.1% in 2025.

Real GDP growth stalled during the second half of 2023, as floods in September 2023 temporarily disrupted transport links and affected agricultural production especially.



Headline inflation has declined to 3.4% in March 2024, despite higher food prices. Employment growth has slowed, but the employment rate and labour shortages remain historically high. Annual wage growth picked up to 5.5% in the fourth quarter of 2023, with the minimum wage increasing by 9.4% in April 2023, and increasing again by 6.4% in April 2024.

Tourism has grown strongly, with travel receipts rising by 41.5% over the year to December 2023, reflecting higher traveller inflows.

Emergency energy measures, which amounted to 1% of GDP in 2023, are planned to be phased out in 2024. Additional spending measures for 2024 amounting to 0.4% of GDP include a public sector wage reform, discounts for taxpayers with children, and increases in the minimum guaranteed income.

## Other News

2023 saw a series of extreme weather events across Greece.

In late July 2023, wildfires in Rhodes sent tens of thousands of locals and tourists scrambling for safety. Blazes also ignited on the mainland and the islands of Corfu and Evia.

On 24 July, there were 82 fires burning across Greece, with 64 of those starting on 23 July. The prolonged stretch of extreme heat contributed to high fire risk across much of the country.



An estimated 19,000 people were evacuated from areas threatened by fires, according to news reports. Many sought safety in makeshift shelters such as schools, gymnasiums, and docked ships, while some in seaside villages boarded coast guard vessels to move to safety. Tragically, two Greek air force pilots died after their Canadair aircraft crashed while fighting the wildfires in Evia.

Following weeks of heat waves and fires, Greece was also impacted by record-breaking extreme rainfall and flooding when Storm Daniel made landfall in early September 2023.

Torrential rains unleashed widespread flooding in central Greece. Over the course of the four-day storm, floodwater submerged homes, turned streets into raging rivers, and swept cars out to sea. Seventeen (17) people lost their lives in Greece and around 5,000 people were displaced, with large swathes of agricultural land subsumed. The floods dealt a huge blow to livestock and agricultural production not only for the region but also for the whole country.

From September 4 - 6, some locations in Greece received an average years' worth of rain in one day. Storm Daniel is likely to be the most intense storm, in rainfall terms, that Greece has experienced since NASA Earth Observatory records began in 1930.



SYN-ENOSIS, the Greek Shipowners' Social Welfare Company, aimed at collecting 50 million euros to support the region of Thessaly after the devastating storm.

In December 2023, the President of the Union of Greek Shipowners, Melina Travlos, signed a Memorandum of Cooperation with the Minister of Infrastructure and Transportation, Christos Staikouras, and the CEO of "Ktiriakes Ypodomes S.A.", Athanasios Giannaris, for the restoration of all damaged schools in Thessaly and Central Greece, which were seriously affected by the catastrophic floods.

September 2023 also saw a change in the Greek Shipping Ministry with the succession of former Minister of Shipping and Inland Policy Miltiadis Varvitsiotis by Christos Stylianides.

Mr. Varvitsiotis announced his resignation following controversy over comments about the death of a man who had fallen into the sea, after being pushed back by crew members of a ferry he was trying to board in Piraeus, causing outrage in the country.



The new Shipping Minister, Christos Stylianides, is the first non-citizen to be granted a position in the Greek government. Greek and Cypriot Stylianides' career has spanned two decades and at least two countries. He was born in Nicosia and began his political career as a spokesperson for the Cypriot government, after a lengthy academic career at institutions such as Harvard.

He also spent nine years as an MP in Cyprus, before joining the EU as part of Jean-Claude Juncker's 2014 Commission. He was the European Commissioner for Humanitarian Aid and Crisis Management from 2014 until the end of the Juncker Commission in 2019. Stylianides later joined the Greek Government led by Kyriakos Mitsotakis, serving as Minister for Climate Crisis and Civil Protection.

More recently, during Posidonia shipping exhibition in Athens, plans to open the Hellenic Ship Safety Centre were announced by classification society ABS. The new ship safety centre will be based in Athens, with the aim of helping seafarers to prepare for handling a dynamic, multi-dimensional shipping industry as alternative fuels and emerging technologies present new challenges for the sector.



According to ABS, the centre will harness the power of new immersive training techniques, game-based learning and virtual reality environments to address critical emerging safety issues such as handling dynamic fuels, risks generated by cyber enabled systems, hybrid battery propulsion and other technological and decarbonization driven changes on board.

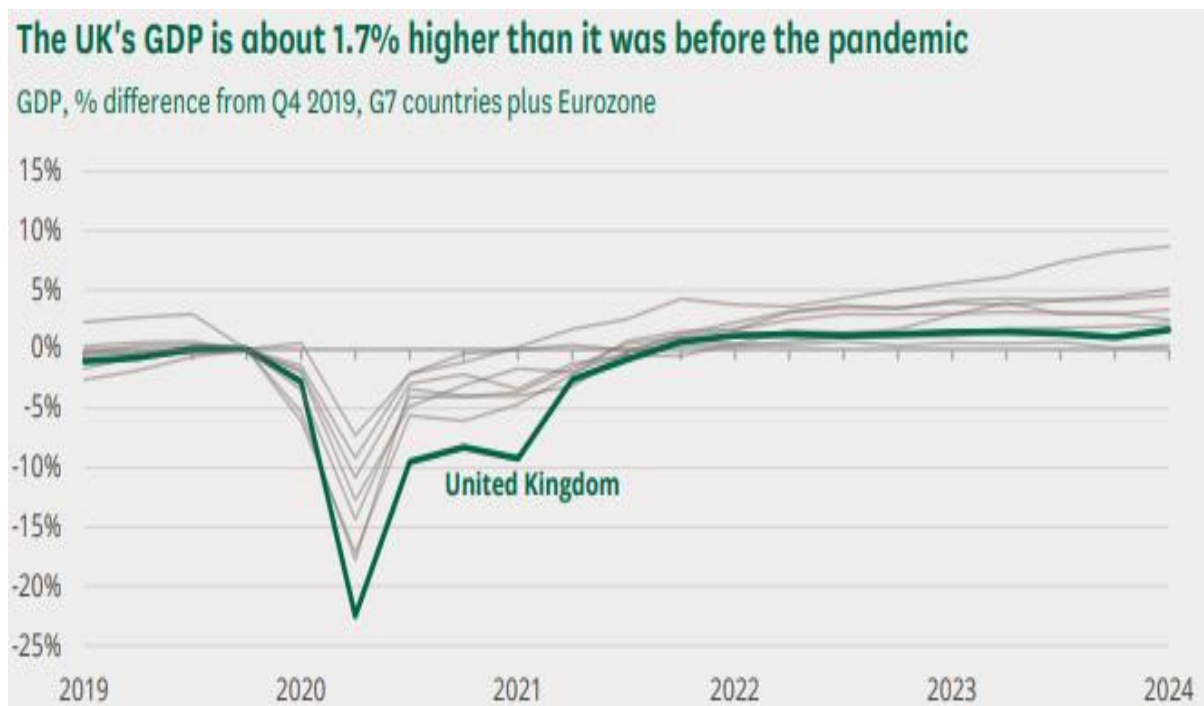
(Sources: SYN-ENOSIS, Bank of Greece, OECD, Euronews, NASA Earth Observatory, BBC, Maritime Executive, Ship Technology, Marine Link)

## Developments in the UK

### Economic Outlook

The UK economy is returning to growth. Initial estimates of the UK Office for National Statistics (ONS) on economic growth, published on May 10, 2024, suggest that the UK economy grew by 0.6% in the first quarter of 2024. This rate of growth was faster than that in France, Germany or the US over the same period.

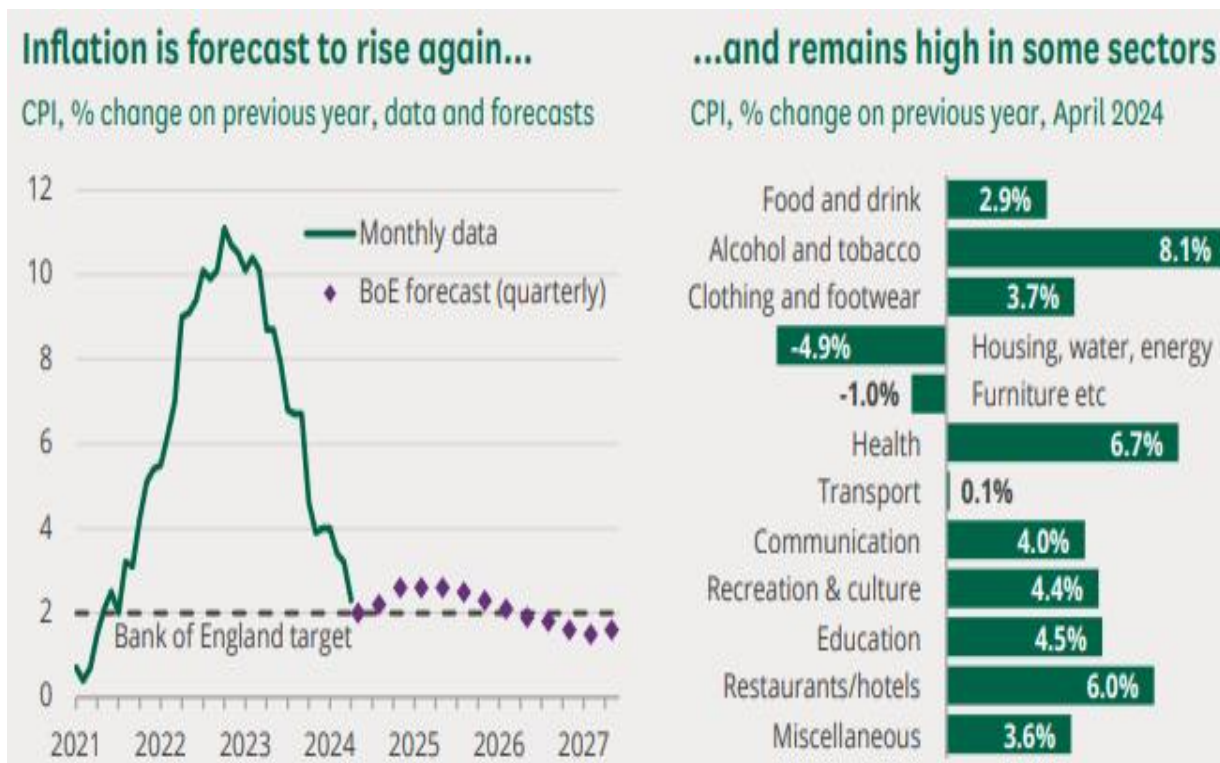
The return to growth also means that the UK has exited the “technical recession” (two consecutive quarters of the economy shrinking) that it entered in the third quarter of 2023. However, as the chart below shows, this growth comes in a context of relatively sluggish recovery since the Covid-19 pandemic.



Source: OECD

The economy has also failed to keep pace with growth in population. GDP per person shrank in real terms in every quarter of 2023, although this measure returned to growth in the first quarter of 2024.

Inflation continues to move along its downward trajectory, according to ONS. Inflation fell to 2.3% in April. This is well below the 11.1% it reached in October 2022, which the ONS estimates was the highest rate since October 1981. However, the rate remained above the Bank of England’s target of 2%. The Bank of England currently expects inflation to rise slightly over the next year or so before returning to the target in 2026.



Source: ONS

As the right-hand side of the chart above shows, the fall in April’s inflation rate was largely driven by the price of energy. Gas was about 37.5% cheaper in April 2024 than it was 12 months earlier, and electricity was 21% cheaper.

With regard to interest rates, on 9 May the Bank of England’s Monetary Policy Committee announced that it would keep the Bank’s main interest rate at 5.25% as there was not enough evidence that inflation is going to remain close to the target. Interest rates have been left unchanged by the Bank for the sixth meeting in a row, after 14 consecutive rate increases.

Labour market data has been adding to the Bank’s uncertainty about whether to reduce rates. Low response rates to surveys from the ONS mean that the data on employment and unemployment rates is less reliable than it would normally be.

In Q1 2024, 1.49 million people were unemployed, up 103,000 from the year before. The UK harmonised unemployment rate for Q1 2024 was 4.3%, above the rate of Germany (3.2%) and the US (3.8%) but below that of France (7.4%).

Average wages, excluding bonuses, were 6% higher in the three months to March 2024, compared with the year before, and 2.4% higher after adjusting for inflation.

Productivity across the whole UK economy decreased by 0.3% in Q1 2024, compared with the previous quarter. In addition, compared with the previous year, it was down by 0.3%.

Government borrowing in 2023/24 was £121 billion, £6.4 billion less than in 2022/23. At the end of April 2024, public sector net debt was equivalent to 97.9% of GDP, compared to 95.4% a year before.



The UK had a trade deficit of £4.1 billion in the three months to March 2024, down from £7.3 billion in the three months to December 2023. The current account deficit was £21.2 billion in Q4 2023 (3.1% of GDP), up from £18.5 billion in Q3 2023 (2.7% of GDP).

The value of sterling fell by 0.5% between March and April 2024, following an increase of 0.5% between February and March. However, compared with a year ago, it is 3.9% higher.

## Other News

On 22 May 2024, UK Prime Minister Rishi Sunak announced he had requested permission from the King to dissolve parliament and called a general election to be held on July 4.

The Prime Minister had the flexibility to call the general election at a time of his choosing, up until 17 December 2024, which is five years after parliament first met after the last general election.

News of the vote came as a surprise as it had been expected that the elections would take place in autumn. In a rain-soaked Downing Street press conference, Sunak stated that the recent improved economic data was a significant part of his decision-making.

Both Rishi Sunak and Keir Starmer, Labour party leader, have already launched their election campaigns.



Moving over to shipping affairs, November 2023 saw a cabinet reshuffle, with the UK Government appointing Byron Davies as Parliamentary Under Secretary of State in the Department for Transport. Davies has a principal focus on shipping, meaning more of his time will be available for the UK's shipping industry at a time of considerable regulatory and commercial pressures.

Looking at tax measures, after much speculation, UK Chancellor of the Exchequer Jeremy Hunt on 6 March 2024 announced the abolition of the current non-domicile (remittance basis) tax regime in the Spring 2024 budget, and its replacement with the foreign income and gains (FIG) regime.

The FIG regime will allow foreign income and gains to be treated as outside the scope of UK taxation for four tax years, with overseas workdays relief (OWR) remaining restricted to three UK tax years. Eligibility for the FIG regime will be based on non-UK tax residence in the 10 UK tax years prior to establishing UK

tax residency. Transitional rules will apply during the 2025/26 and 2026/27 UK tax years.

This significant change in tax treatment could prompt more shipping companies to leave the UK. Following the last UK tax change in 2017, when a 15-year “cap” was introduced, many Greek shipping companies reacted by fleeing the country. It is expected that the London shipping community might lose more high-profile members, while the new measures could drive other companies to invest less than they would have if they had settled for a longer period.



(Sources: OECD, UK Office for National Statistics, House of Commons, UK Institute for Government, BDO, TradeWinds, Ship and Bunker, Reuters, BBC, CNBC, the Guardian)

# Decarbonization

## The broader picture

Decarbonization is among the major challenges currently facing the maritime industry. Carrying more than 80% of the global trade, international shipping accounts for 3% of global GHG emissions.

In a critical decade to reduce greenhouse gas emissions, a range of regulations have been introduced, aiming at decarbonising the maritime sector. The regulations of the International Maritime Organization (IMO) and the European Union (EU) might be the driving forces of change however, the United States and China have a significant role in the global decarbonization efforts.



In 2023, the IMO revised its initial strategy on the reduction of GHG emissions from ships, committing to dates and action plans. The EU's ambitious regulatory 'Fit for 55' package proposal has also made progress, with measures and deadlines fast approaching. However, it is important that the EU proposal should be aligned with the objectives defined by the IMO in the coming years, to avoid competitive disadvantages.

While the US does not have a climate target in its national laws, its rejoining to the Paris Agreement in 2021 binds the country to a commitment to reduce its greenhouse gas emissions in the coming decades. Some steps have been taken in recent years. The US State Department and the White House have issued a long-term strategy committing to achieving net zero emissions by 2050. In addition, several US federal agencies have developed a roadmap to reduce emissions from the transport sector, including shipping, published in January 2023. However, it will be necessary to wait to learn more about its actual targets, which are key to determining the future of decarbonization.



China will also play a key role in decarbonization as it is home to ten of the largest ports in the world. China is part of the IMO and has participated in the adoption of global regulations and targets for emission reductions in shipping. Its collaboration in these initiatives is essential to achieve a coordinated approach at the international level. If China does not complete the transition to a low-carbon economy, it will be impossible to reach global climate targets. The country emits 27% of the world's CO<sub>2</sub> and one-third of the world's greenhouse gases (GHG).

In September 2020, China announced its goal of peaking carbon emissions by 2030 and achieving carbon neutrality by 2060, known as the 30-60 targets. In the maritime sector, the country has presented its intention to develop ships powered by electric power and LNG, among other initiatives.

The regulations of these four key players can determine the direction and pace of decarbonization in the coming years. According to DNV, timing is critical. With carbon-neutral fuels expected to be in short supply, the maritime industry needs to



explore all decarbonization options to achieve a 20% reduction in greenhouse gas emissions by 2030, and continue to reach net zero emissions by 2050, in line with the targets set by the IMO.

## Revised IMO GHG Strategy

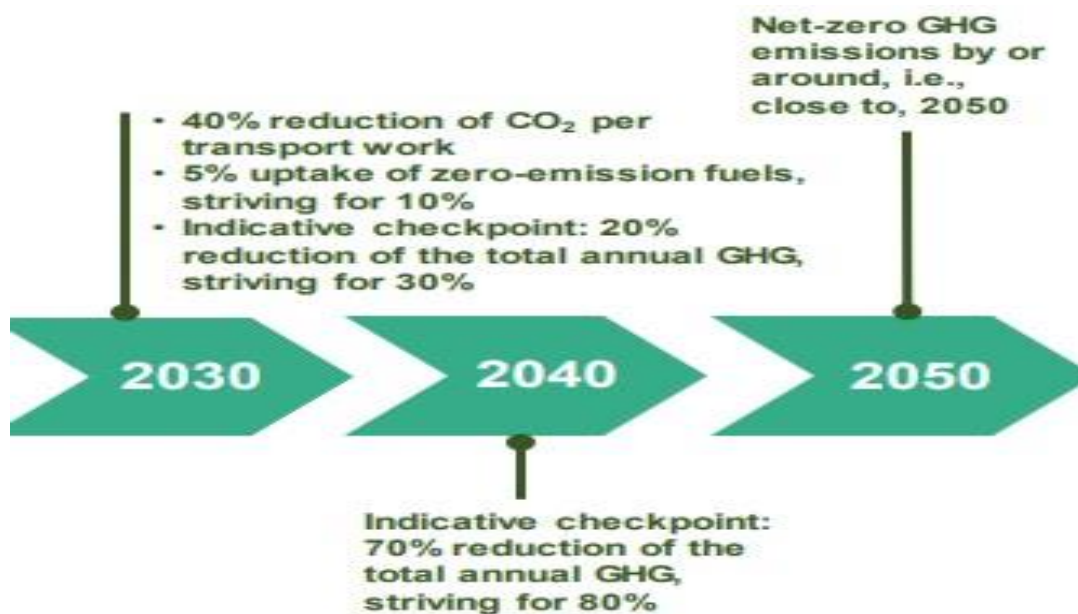
The International Maritime Organization (IMO) is advancing concrete measures to decarbonize shipping. In July 2023, the IMO's Marine Environment Protection Committee (MEPC) at its 80th meeting, adopted a revised GHG strategy which replaced the initial 2018 IMO Strategy on the reduction of GHG emissions from ships.



The revised strategy represents a framework for countries, setting out the future vision for international shipping, the levels of ambition to reduce GHG emissions and guiding principles. It includes candidate mid-term and long-term further measures, with possible timelines and their impacts on States. The revised strategy also identifies barriers and supportive measures including capacity building, technical cooperation and research and development.

The new targets aim at reducing total annual GHG emissions:

- **by at least 20% (striving for 30%) by 2030**, compared to 2008 levels, and ensure an uptake of alternative zero and near-zero GHG fuels.
- **by at least 70% (striving for 80%) by 2040**, compared to 2008 levels.
- **Achieve net-zero GHG emissions by or around 2050** as an ultimate ambition.



Source: IMO

According to the agreed timeline, the measures **will be adopted in late 2025** and will **enter into force in around mid-2027**.

The mid-term measures include the establishment of a global fuel standard for marine fuels and a global pricing mechanism for GHG emissions from ships.

To support decision-making, a comprehensive impact assessment is being carried out to analyse the potential economic impact of the various proposed measures on IMO Member States, including Least Developed Countries and Small Island Developing States. The finalized assessment is due to be submitted to the next meeting of MEPC, which will be held later this year, from 30<sup>th</sup> September to 4<sup>th</sup> October 2024.

The decarbonization targets pose challenges for a range of stakeholders, from ship owners, charterers and cargo owners to ship builders, designers, engine manufacturers, fuel suppliers, financiers and policy makers. Reaching these targets will require the application of new and existing technologies, lowering speed and the deployment of large volumes of sustainable zero-carbon or carbon-neutral fuels.

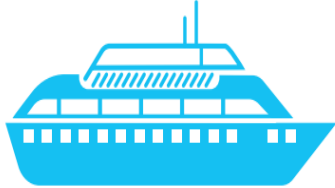
## EEDI/EEXI & CII

The Energy Efficiency Design Index (EEDI) represents a key component of the IMO’s regulations to lower the carbon intensity of the world fleet. The EEDI, which applies to most newbuildings, requires that the amount of CO<sub>2</sub> emitted by a vessel (in grams per tonne-mile of work), should be set using a formula based on the technical design parameters for a given ship.


The IMO does not specify how vessels are to meet EEDI targets. So long as the required energy efficiency level is attained, ship designers and shipyards are free to explore any technology or design solution that meets compliance.

EEDI


ENERGY EFFICIENCY DESIGN INDEX  
IMPROVING THE TECHNICAL  
PERFORMANCE OF NEW BUILD SHIPS



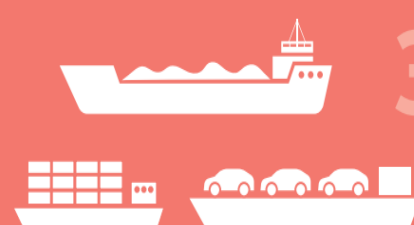
Ships which are **designed and constructed today** must be **MORE ENERGY EFFICIENT** than the baseline, thus reducing their carbon intensity


1


Performance targets are increasingly stringent over time, thus **INCENTIVIZING INNOVATION** in ship design


2

There are **DIFFERENT GOALS FOR DIFFERENT TYPES OF SHIPS**, recognizing the specificities of different types of ships


3

For example, **THE LARGEST CONTAINER SHIPS (>200,000 DWT)** built after 1 April 2022 **must be 50% more efficient** than the baseline


4

Source: IMO

Typical efficiency measures include the following:

- Propulsion optimisation (e.g. ducted propellers)
- Engine optimisation (e.g. hybrids)
- Energy efficient technologies
- Engine power limitation

The Energy Efficiency Existing Ship Index (EEXI) applies many of the same design requirements as the EEDI, with some adaptations regarding limited access to design data. The intention of the EEXI regulation is to bring existing vessels to a similar efficiency standard as more modern ones.

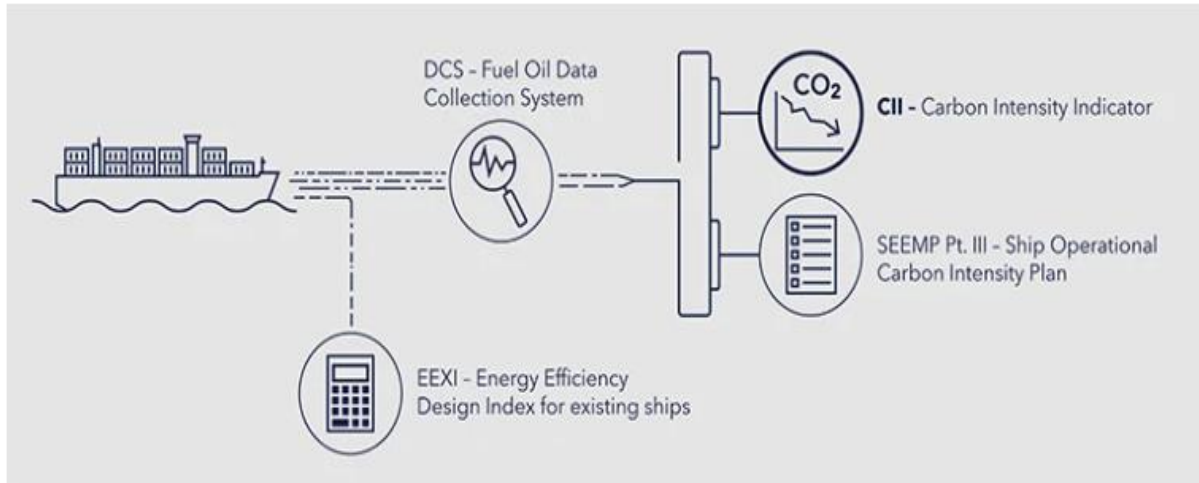
# EEXI

ENERGY EFFICIENCY EXISTING SHIPS INDEX IMPROVING THE TECHNICAL PERFORMANCE OF EXISTING SHIPS

- The requirements for EEXI certification ENTERED INTO FORCE on 1 November 2022**
- All ships are required to calculate their Attained Energy Efficiency EXISTING SHIP INDEX (EEXI)**
- The EEXI is a ONE-TIME CERTIFICATION for existing ships targeting design parameters**
- There are a variety of technical means to IMPROVE THE CARBON INTENSITY of existing ships and achieve the Required EEXI**
- A review clause requires IMO to REVIEW THE EFFECTIVENESS of the implementation of the EEXI requirements, by 1 January 2026 at the latest, and, if necessary, develop and adopt further amendments**

Source: IMO

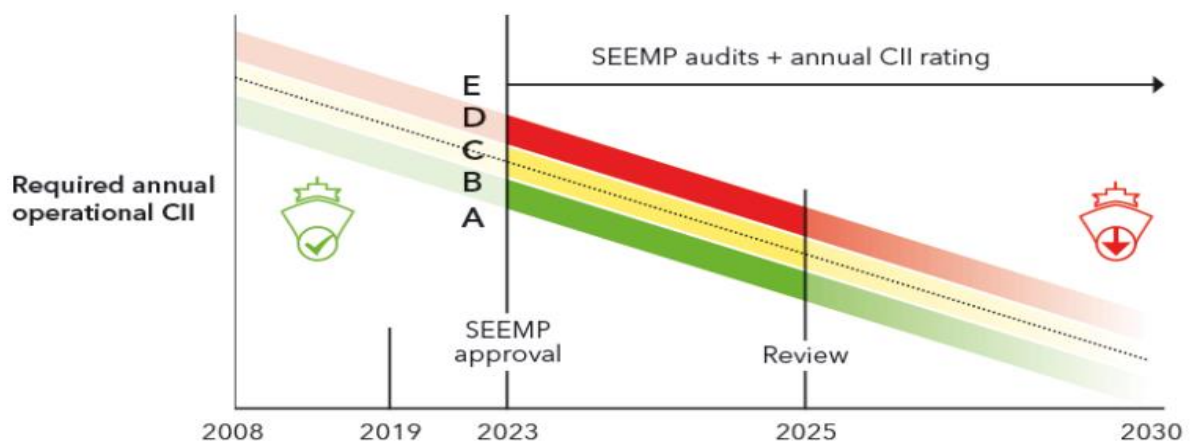
From 1<sup>st</sup> January 2023 it became mandatory for all ships to calculate their attained Energy Efficiency Existing Ship Index (EEXI) to measure their energy efficiency, and to initiate the collection of data for the reporting of their annual operational Carbon Intensity Indicator (CII) and CII rating.



Source: DNV

The CII is a measure of a ship’s energy efficiency and is given in grams of CO<sub>2</sub> emitted per cargo-carrying capacity and nautical mile.

The first year of the attained annual operational CII verification will be 2024 for the operation in calendar year 2023. Based on their performance, vessels will receive an environmental rating of A (major superior), B (minor superior), C (moderate), D (minor inferior) or E (inferior) performance level. The rating thresholds will become increasingly stringent as 2030 is approached.



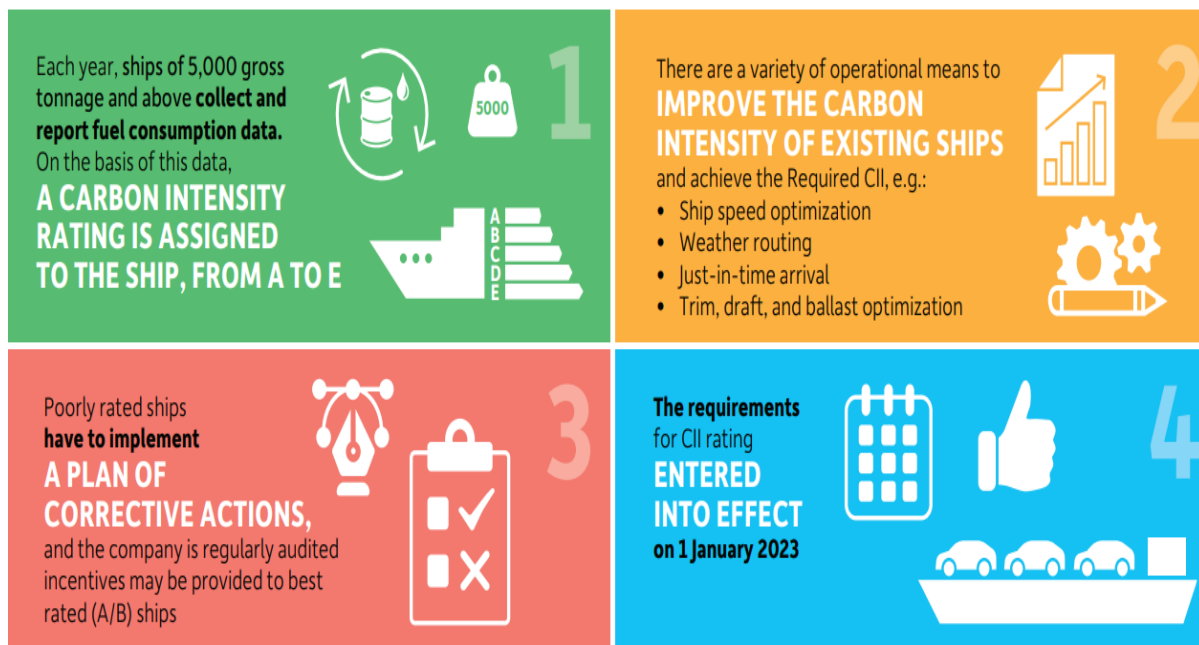
Source: DNV

Starting in 2024, the CII must be calculated and reported to the IMO Data Collection System (DCS) verifier together with the aggregated DCS data for the previous year, including any correction factors and voyage adjustments. The deadline for DCS and CII submission remains unchanged, no later than 31<sup>st</sup> March each year.

## CARBON INTENSITY INDICATOR (CII RATING)



IMPROVING THE OPERATIONAL PERFORMANCE OF EXISTING SHIPS



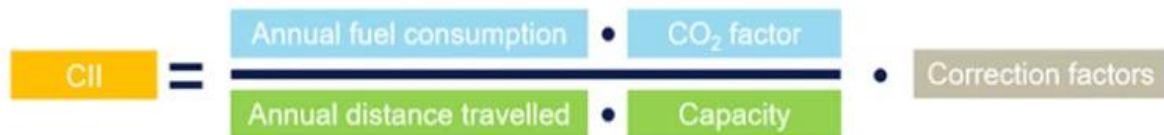
Source: IMO

The attained annual operational CII and the environmental rating (A to E) will be noted on the DCS Statement of Compliance (SoC), which will be required to be kept on board the vessel for five years.

In case of a D rating for three consecutive years, or one E rating, the SEEMP Part III must be updated with a corrective action plan and verified before the DCS SoC can be issued. The corrective action plan should consist of an analysis of why the required CII was not achieved and include a revised implementation plan.

The CII unit is “grams of CO<sub>2</sub> emitted per cargo-carrying capacity and nautical mile”, whereby cargo capacity is either deadweight or gross tonnage depending on ship type. In addition, to cater for special design and operational circumstances, the correction factors and voyage adjustments can be applied to the basic CII calculations for the purposes of determining the rating.

Simplified attained annual CII formula:



Source: DNV

## EU: ‘Fit for 55’

‘Fit for 55’, is the European legislative package proposal for reducing EU GHG emissions, adopted in 2021. The EU has played an important role on the international scene in leading the transition to a green economy however, it is essential that in the coming years the EU’s legislative proposal is well aligned with the objectives defined by the IMO.

‘Fit for 55’ sets two critical targets for GHG reduction:

- A 2030 deadline to reduce emissions by 55%, compared to a 1990 baseline.
- A 2050 deadline for carbon neutrality.

It is still subject to change and discussion but will likely result in a combination of several measures, such as carbon pricing, rules and targets.

These measures apply to all sectors of the economy, but proposals affecting the maritime industry are detailed below.



- ✚ **The EU Emissions Trading System (EU ETS):** revised to disincentivize GHG emissions in EU waters.
- ✚ **FuelEU Maritime:** a proposal to encourage the production and uptake of sustainable alternative fuels.
- ✚ **The Alternative Fuels Infrastructure Regulation (AFIR):** revised to ensure that EU member states adopt equally ambitious GHG reduction targets and to facilitate the roll-out of low-carbon fuels.
- ✚ **The Energy Taxation Directive (ETD):** revised to disincentivize the use of fossil fuels.
- ✚ **The Renewable Energy Directive (RED):** amended to adopt new renewable energy share and GHG emissions targets.



Two of the key forthcoming proposals are EU ETS and FuelEU Maritime:

## **EU ETS**

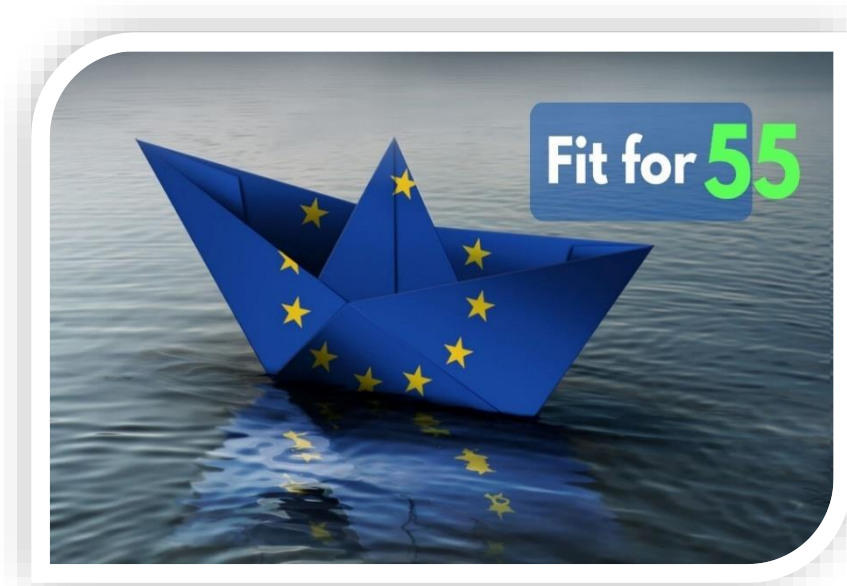
The Emission Trading System (ETS) aims at reducing the total volume of GHG emitted over time. It is implemented through a “cap and trade” mechanism,



meaning that every registered emitter must buy allowances corresponding to their emissions through an auction system.

Vessels that fall under the scope of the regulation have already begun collecting GHG emissions under the EU Monitoring, Reporting and Verification Regulation (2015/757) (EU MRV). This regulation paved the way for the implementation of the new market-based measure.

The Directive and the Regulation were published in the EU Official Journal on 16<sup>th</sup> May 2023. Both legislative acts entered into force on 5<sup>th</sup> June 2023, with applicability from 1<sup>st</sup> January 2024.



### **Understanding Cap and Trade**

The publication of the list of companies under EU ETS in February 2024, means that participants will now be able to purchase sets of emission allowances for the coming years. This list will be updated every two years.

Participants can only emit up to the amount covered by their allowances. If they don't have enough to cover their needs, they can purchase additional allowances.

According to Bureau Veritas (BV), the cap is reduced on an annual basis. The reduction linear factor for GHG emissions allowances will be -4.3 % from 2024 to 2027, and -4.4 % from 2028.

### Applicability as per Type of Vessel

The EU ETS will impact the following ship sizes and types, regardless of their flag:

- From **2024**: cargo and passenger ships of 5,000 gross tonnage (GT) and above.
- From **2027**: large offshore service ships (over 5,000 GT).
- From **2027**: offshore ships and general cargo ships above 400 GT may be included, based upon a report by European Commission.



### Emissions Included

Allowances will be needed for the following emissions from commercial operations (passengers/cargo transportation):

- 100% of the emissions from ships travelling between EU ports.
- 100% of the emissions at berth in EU ports.
- 50% of the emissions for ships travelling between an EU port and a port outside the EU.
- Exemptions for dry-docks and other maintenance/emergency reasons.

### Phase-in key dates

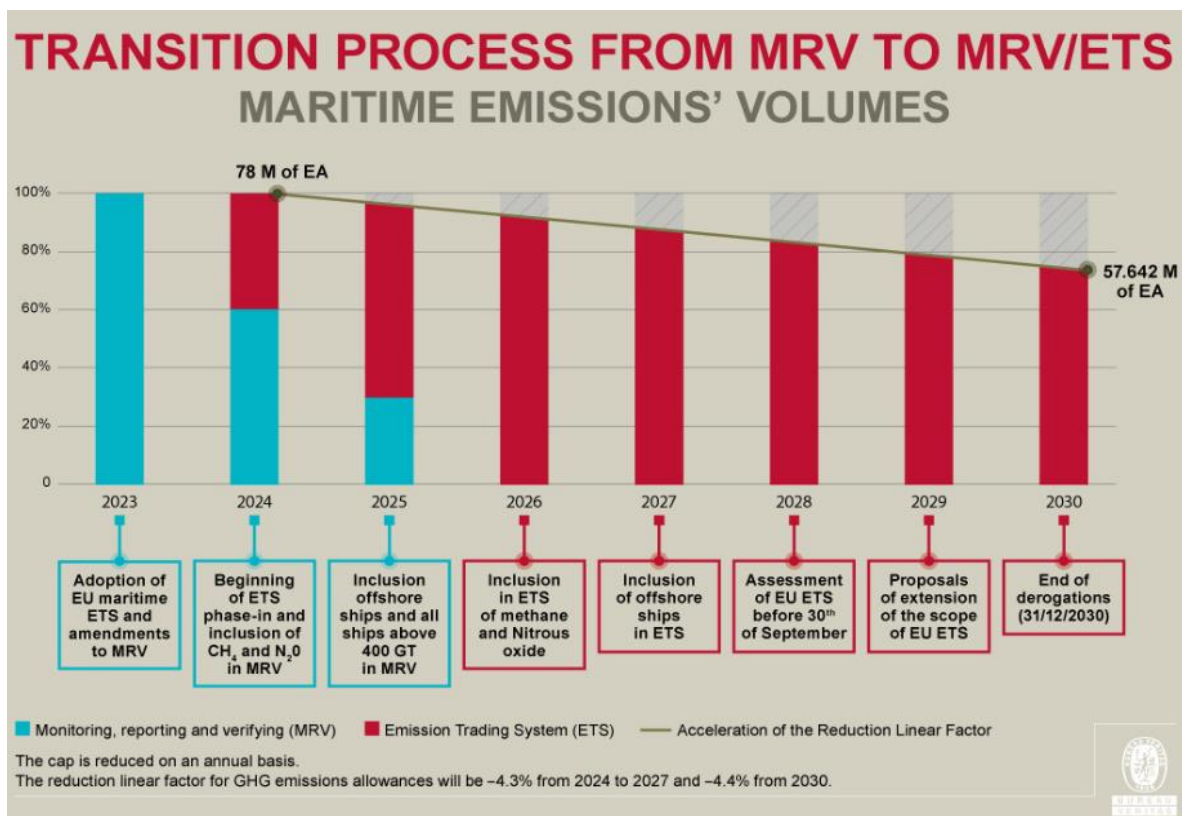
The phase-in period started from 1<sup>st</sup> January 2024, with:

- **40%** of the verified emissions covered in **2024**.
- **70%** of the verified emissions covered in **2025**.
- **100%** of the verified emissions covered in **2026**.

### EU MRV transition to EU ETS

Shipping companies will have to continue reporting their GHG emissions through the updated MRV platform.

The diagram below explains how the EU MRV will change into EU ETS, verified emissions change into allowed and traded emissions.



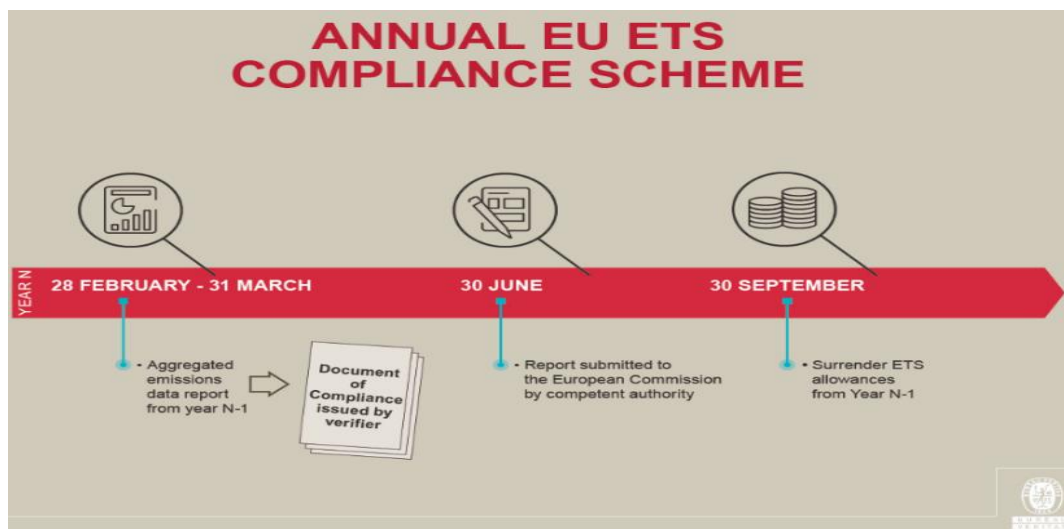
Source: Bureau Veritas

## Annual Compliance Scheme

The EU ETS Compliance Scheme is set on an annual basis.

The process has already begun as the EU MRV updated plan was scheduled for submission within the first three months of 2024. The plan was also required to be monitored by an accredited verifier and submitted for approval by 1<sup>st</sup> April 2024 to the shipping company's administrative authority.

From 1st January 2025, a shipping company will have to monitor its fleet's individual GHG emissions. Then, by 31<sup>st</sup> March 2025, the company must submit a report to the administering authority. Finally, by 30<sup>th</sup> September 2025, the shipping company will have to surrender 40% of CO<sub>2</sub> emissions emitted in 2024.



Source: Bureau Veritas

## FuelEU Maritime

FuelEU Maritime Regulation (Regulation (EU) 2023/1805) promotes the use of renewable, low-carbon fuels and clean energy technologies for ships, setting maximum limits for the yearly average GHG intensity of the energy used by vessels above 5,000 GT calling at European ports.

Targets will ensure that the greenhouse gas intensity of fuels used in the sector will gradually decrease over time, starting with a 2% decrease by 2025 and reaching up to an 80% reduction by 2050. Those targets will become more

ambitious over time to stimulate and reflect the necessary developments in technology, and the uptake in production of renewable and low-carbon fuels.

FuelEU Maritime will enter into force from 1<sup>st</sup> January 2025, except for Articles 8 and 9 on monitoring plans, which shall apply from 31<sup>st</sup> August 2024.

According to DNV, the GHG intensity is measured as GHG emissions per energy unit (g CO<sub>2e</sub>/MJ) and includes carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O).



In addition to emissions from energy use on board the ship, GHG emissions are calculated from a well-to-wake perspective, including emissions related to the extraction, cultivation, production and transport of fuel. The regulation includes provisions for crediting ships using wind-assisted propulsion.

The GHG intensity requirements are set as a percentage reduction relative to a 2020 reference value of 91.16 g CO<sub>2e</sub>/MJ. The percentage reduction requirement increases gradually every five years up to 2050, meaning, for example, that it stays at 2% from 2025 to the end of 2029:

Year	2025	2030	2035	2040	2045	2050
Reduction (%)	2%	6%	14.5%	31%	62%	80%
Required GHG intensity (gCO <sub>2e</sub> /MJ)	89.3	85.7	77.9	62.9	34.6	18.2

Source: DNV

## Voyages - scope

The FuelEU Maritime GHG intensity requirements apply to 100% of energy used on voyages and port calls within the EU/ EEA, and to 50% of energy used on voyages into or out of the EU/EEA.

To avoid evasive behaviour, container ships stopping in transshipment ports outside the EU/EEA, but less than 300 nautical miles from an EU/EEA port, need to include 50% of the energy for the voyage to that port as well, rather than only the short leg from the transshipment port.

The GHG intensity requirements apply to ships above 5,000 GT transporting cargo or passengers for commercial purposes. It does not apply to offshore ships. However, the scope could change as part of the scheduled review by the end of 2027.

FuelEU Maritime also sets requirements on the use of shore power for container and passenger ships from 2030.

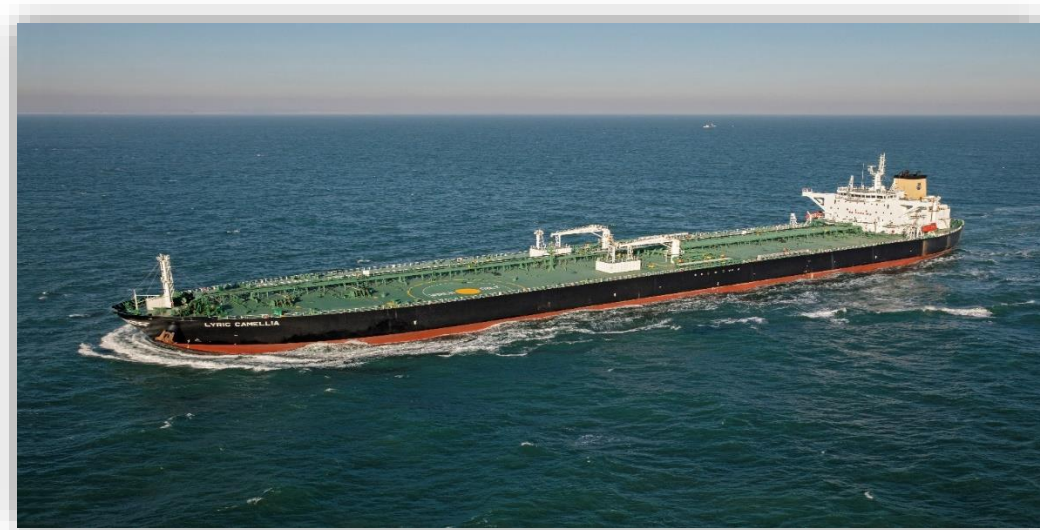


## Compliance process - Responsible shipping company

The requirements apply to the shipping company, which is the shipowner or any other organization or person, such as the manager or the bareboat charterer, who has assumed responsibility for the operation of the ship, including duties and responsibilities imposed by the ISM Code.

As opposed to EU ETS, the responsible company under FuelEU Maritime must be the ISM company (DoC holder) and cannot be retained by the registered owner unless the owner is also the ISM company. This implies that the responsible company for a ship may not be the same for EU ETS and FuelEU Maritime. Each responsible company will need to be registered with an administering state, which is the same as the Administering Authority for EU ETS compliance.

In the event of a change of company, the shipping company has the responsibility, on 31<sup>st</sup> December in any given year, for compliance for the whole calendar year. However, previous companies are required to report and verify energy use and emissions as soon as possible after the changeover.



### **Pooling of compliance**

FuelEU Maritime includes the option to attain compliance across a fleet of ships, even if they belong to different companies. This means that each individual ship does not need to achieve the required GHG intensity but can rely on other ships to achieve a combined level of GHG intensity below the requirement.

### **Banking and borrowing of compliance surplus**

If a ship has an average GHG intensity below the requirement, the surplus emission amount (compliance surplus) can be banked for use in the subsequent compliance period. Similarly, a ship can borrow advance compliance surplus from a subsequent period, limited to 2% and only for two consecutive periods, and with a 10% penalty on the borrowed compliance surplus for the subsequent period.

## Penalties

Ships that have a higher GHG intensity than the requirement must pay a penalty corresponding to its compliance deficit, measured as the difference between the required and the actual GHG intensity, multiplied by the energy use. The penalty is progressively increased if the ship has a compliance deficit for two or more consecutive reporting periods. The compliance deficit is calculated into energy based on the actual GHG intensity of the ship, applying a penalty of € 2,400 per tonne VLSFO energy equivalent, or about € 58.50 per GJ of non-compliant energy use. Hence, the penalties can be significant.

## Reporting and verification

The energy use and emissions will be reported and verified through a scheme which is separate from the existing EU MRV system. However, elements from the MRV regulation can be re-used for the purpose of the FuelEU Maritime regulation.



By 31<sup>st</sup> August 2024, the FuelEU Maritime Monitoring Plan needs to be submitted to a verifier, describing the method for monitoring and reporting of the data required under this regulation. This plan comes in addition to the current MRV Monitoring Plan, though part of this can be re-used.

Vessels trading in the EU/EEA countries shall have an approved FuelEU Maritime Monitoring Plan on board before 1<sup>st</sup> January 2025.



## Preparing for Compliance

The deadline of 31<sup>st</sup> August 2024 is approaching fast, and early preparation is strongly recommended.

- **Step 1:** Prepare the FuelEU Maritime Monitoring Plan, with complementing documentation.
- **Step 2:** Copy the plan of other vessels.
- **Step 3:** Submit the plans for verification after EU documents are published.

## Other useful information about the preparation of FuelEU Maritime:

Requirements for providing new documents relating to the FuelEU Monitoring Plan verification highly depends on the ship type:

- For passenger/container vessels, some documentation related to onshore power supply equipment will be required.
- If the vessels have any other equipment like fuel cells, zero-emissions technology or wind-assisted propulsion installed on board, documentation to confirm this would also be required before plan verification.

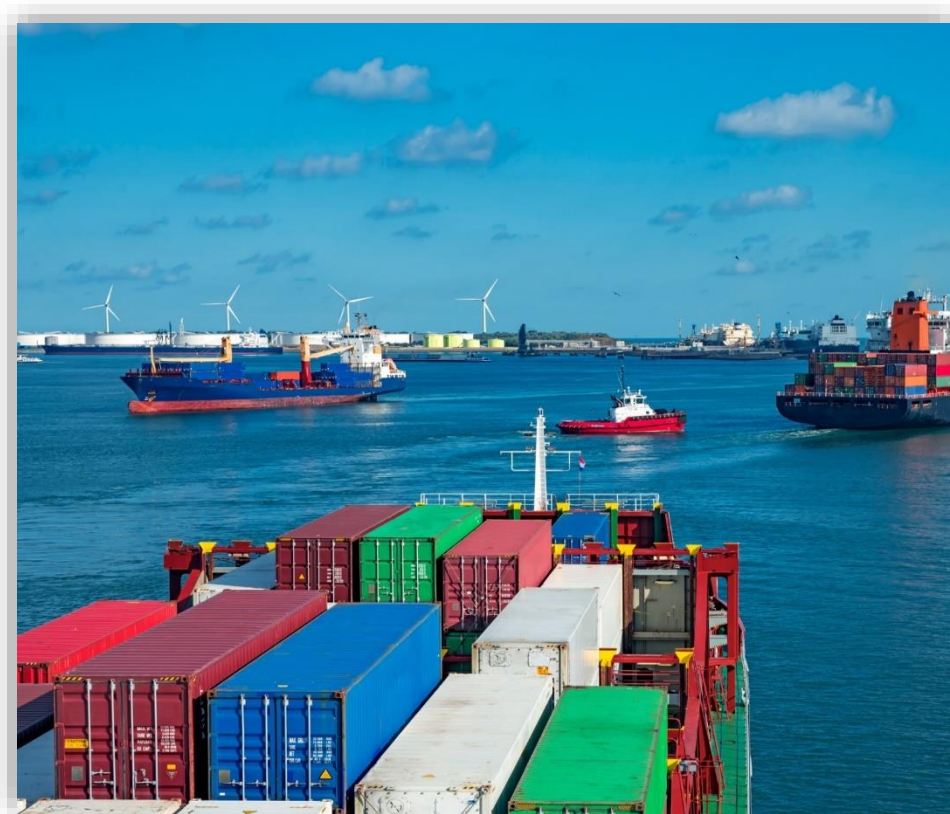


Companies shall also specify the established total electrical power demand of the ship at berth. By default, this would be based on the main engine power, but it can also be taken from the ship's electrical load balance/study.

The Continuous Synopsis Record and Safety Management Certificate of the vessel might also be required to confirm the company that is responsible for the vessel.

Companies must also complement the control system and data gap procedures to include the additional data to be monitored and reported for the purpose of the FuelEU Maritime regulation. The FuelEU Monitoring Plan online form will therefore also contain the outline of the overall control system creator. This new requirement, coming from both the FuelEU Maritime regulation and the revised MRV regulation, states that companies need to describe their data flow processes from the emissions measurement to data compilation.

Finally, companies need to describe the potential impact and probability of incidents which may happen at each step and to define the control activities mitigating the risk such incidents might have.



(Sources: United Nations Global Compact, IMO, EU / European Commission, DNV, BV, Class NK, ICS, the Baltic Exchange, Port de Barcelona)

## Houthi Attacks Against Shipping

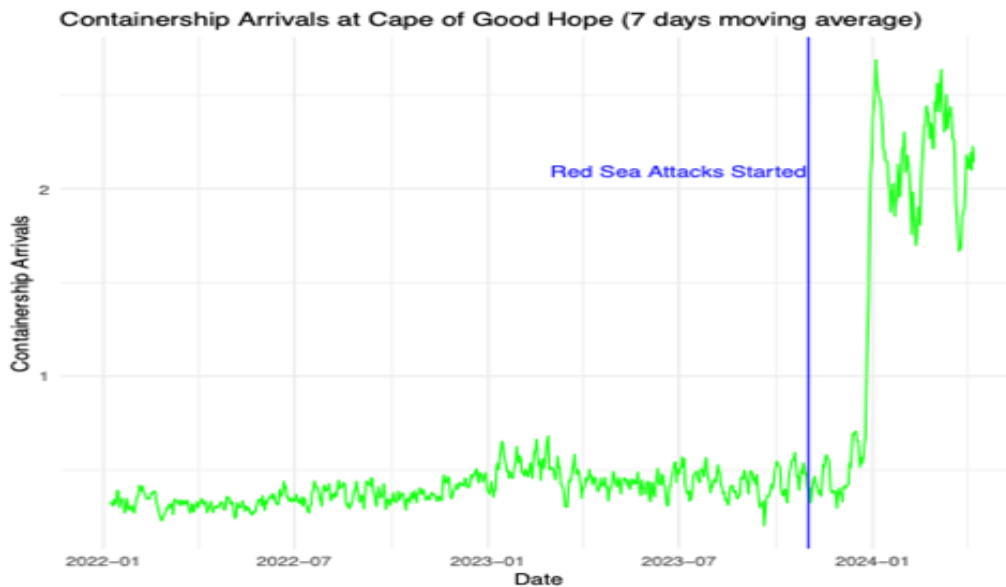


The end of 2023 and the first quarter of 2024 were marked by major disruptions to global maritime trade flows with ships entering the Gulf of Aden, sailing through the Red Sea and the Suez Canal, facing attacks by Yemen-based Houthis.

This new wave of disruption follows the unprecedented global logistics crunch caused by the COVID-19 pandemic between 2020-2022, and the war in Ukraine since 2022. It also compounds the challenges caused by the reduced vessel transits in the Panama Canal resulting from the impact of drought on water levels. However, the maritime industry continues to prove its resilience by maintaining trading flows under these challenging conditions.

Security threats in the Red Sea have caused a significant redirection of ship arrivals and transits, culminating in far-reaching global trade and transport repercussions. Ships across all shipping segments on the Asia-Europe and Asia-Atlantic trade lane have diverted their initial trajectory and started sailing around Africa's Cape of Good Hope.

The tonnage of ships entering the Gulf of Aden fell by more than 70% between the first half of December 2023 and the first half of February 2024. Meanwhile, by the first week of March 2024, the gross tonnage of vessels arriving at the Cape of Good Hope has increased by 85% (7-day moving average), compared to the first half of December 2023. The Capes' containership arrivals by GT increased by a striking 328% as shown in the graph below.



Source: UNCTAD & Clarksons Research

Vessels are now travelling longer distances and facing higher operational costs, while pressure is created on the supply side. The 12 days in additional sailing time for a vessel going from Shanghai to Rotterdam are driving up costs and extending delays. According to J.P. Morgan Research, the cost of shipping more than doubled on the Shanghai-Rotterdam route, rising by 350% on the Shanghai-Genoa route between 1 December 2023 and 1 February 2024.

The Red Sea crisis has also impacted African ports, causing congestion as well as other issues as these ports are not always fully prepared to cater to larger vessels.

Apart from the impact on global economy and the major implications in trade flows, there is an acute human cost. Innocent seafarers have lost their lives and have been injured.

On June 13, the Ukraine owned cargoship “*Verbena*” was hit by two anti-ship cruise missiles 98 nm east of Aden, with one seafarer severely injured. The vessel was later abandoned by its crew and is believed to have sunk.

A day earlier, on June 12, the Greek owned bulk carrier “*Tutor*” was struck in the stern by an unmanned small craft while underway in the Southern Red Sea. The vessel was later struck a second time. The second engineer lost his life in the attack, while the vessel sank a few days later. The remaining crew members were safely evacuated by warships patrolling the area.

In March 2024, the bulk carrier vessel M/V “*True Confidence*” was attacked at 54 nautical miles southwest of Aden. The attack resulted in the tragic loss of three

crew members, with four others sustaining injuries. The attack caused significant damage to the ship, prompting the crew to abandon it shortly after the attack.

In February 2024, the M/V “*Rubymar*”, a cargo ship carrying 41,000 tons of fertilizer, 200 MT of Heavy Fuel Oil and 90 MT of Marine Diesel was struck by uncrewed aerial device. It was reported to have leaked oil, creating an 18-mile-long oil slick in the Red Sea, with the crew abandoning ship. The ship subsequently sank on 2 March 2024.

While this security threat impedes freedom of navigation and endangers the marine environment, the safety and well-being of seafarers are of utmost importance. Seafarers affected by these incidents must not be forgotten. More action is needed to address the critical situation facing shipping in the Red Sea.

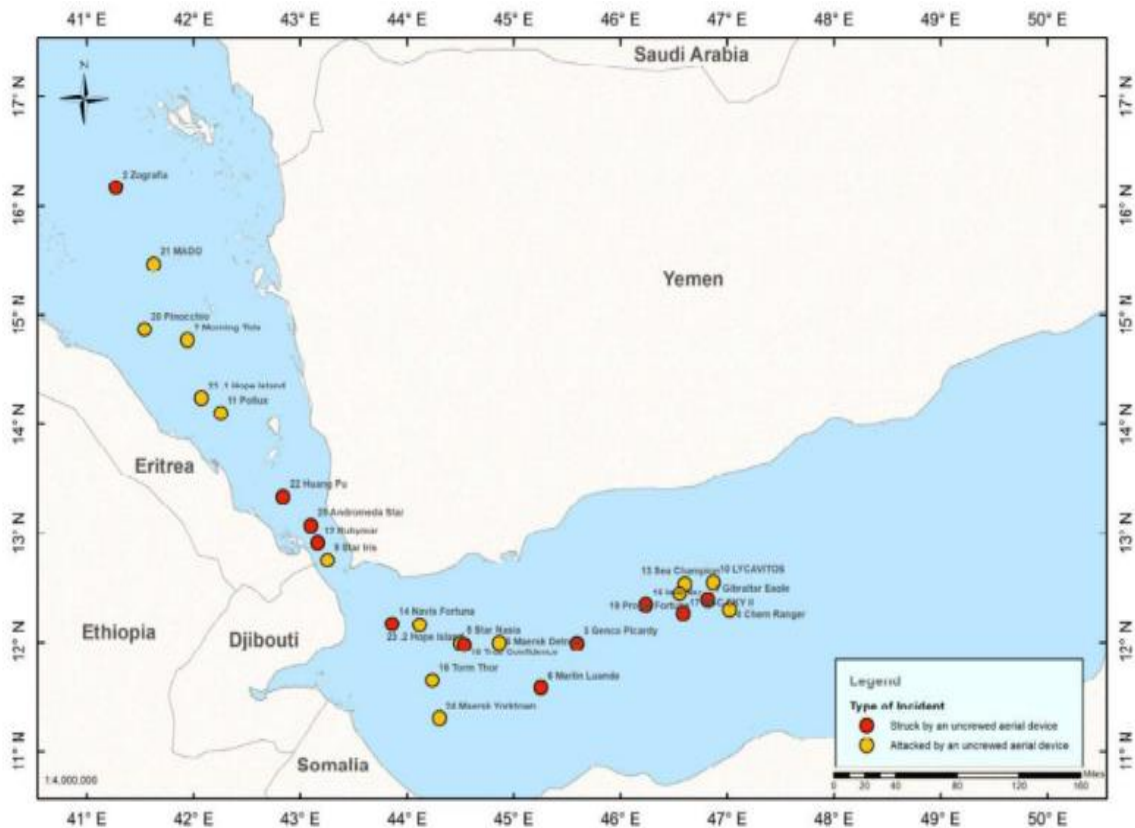


“*Galaxy Leader*” and its crew still remain hijacked since November 2023. The IMO and the maritime industry have expressed their concerns for the 25 seafarers who are being held hostage, and have called on the Houthis for their immediate release.

On a more positive note, April saw the release of bulk carrier M/V “*Abdullah*” after more than a month of being held hostage. The Bangladesh-flagged vessel was reported under attack in March by 22 armed assailants at approximately 425nm east of Mogadishu, Somalia.

Since 19 November 2023, the IMO Secretariat has recorded 43 incidents, including acts of piracy against international shipping vessels transiting the Red

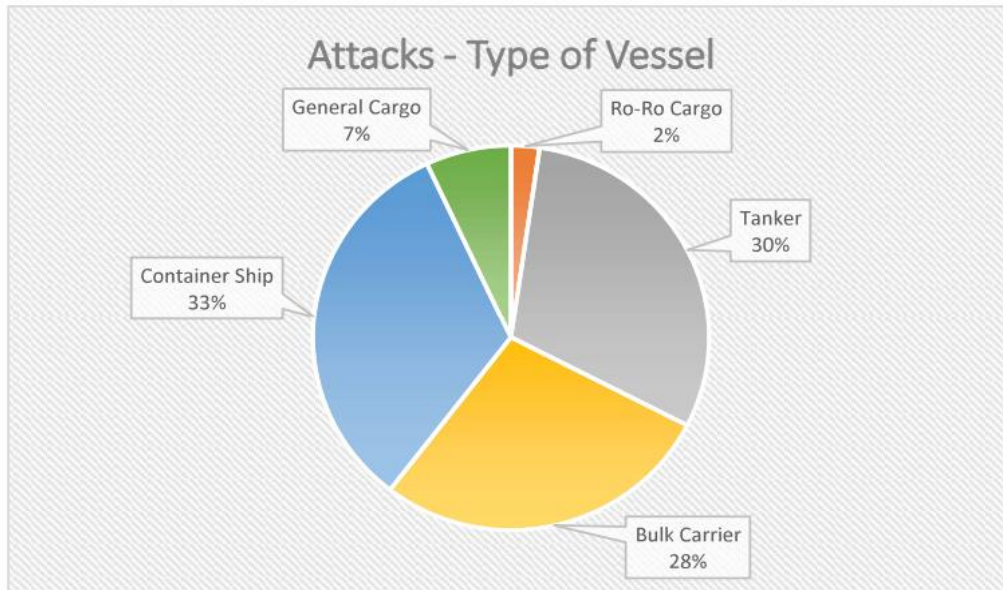
Sea and Gulf of Aden. The below map presents the incidents reported between 10 January to 8 May 2024, offering a visual representation of the dangerous zone.



Source: IMO

On 26 April, the Portuguese flagged container vessel MSC “Orion” was struck in the Indian Ocean by an uncrewed aerial device found lying on the deck of the vessel with no injuries or significant damage reported. This is the first attack to take place at such a distance from the Red Sea and the Gulf of Aden.

The attacks reported between 10 January to 8 May 2024 concerned the following types of vessels presented in the below graph.



Source: IMO

A number of Greek owned or controlled vessels have been caught up in the conflict.

January 2024 saw the attack by naval missiles on bulk carrier “Zografia” while transiting northbound in the Red Sea, 76 nautical miles northwest of Yemen’s port city of Saleef. The vessel suffered damage but luckily all 24 crew onboard were unharmed.

February saw multiple attacks on vessels of Greek interests, including Greek flagged MV “Sea Champion”, which was hit in the Gulf of Aden. There were two attempted attacks with missiles which exploded in close proximity to the ship, damaging a window. All 23 crew members were reported safe.



MV “*Star Iris*”, a Greek owned, Marshall Islands-flagged cargo vessel transiting the Red Sea carrying corn from Brazil was also targeted in February. No injuries to the crew were reported, while the vessel sustained minor damages.

The Greek owned “*Star Nasia*” was also damaged by three missiles launched by Houthis in February. The vessel reported minor damages and all crew were reported safe.

In April, Houthi terrorists fired three anti-ship ballistic missiles and three UAVs from Yemen into the Red Sea, off the coast of Mokha, Yemen, towards MV “*Cyclades*”, a Malta-flagged, Greek owned bulk carrier. It was reported that there were no injuries and the vessel continued to its next port of call.

Houthi attacks slowed in mid-April, with one week seeing no drone attacks. Later however, they resumed and continued at some of the highest levels seen since the start of the group’s campaign. In early May, the Houthi regime announced the start of a “fourth phase” of escalating attacks against vessels heading to Israeli ports.



On 18 May, Houthi militants hit an oil tanker with a ballistic missile, damaging the Panama-flagged Greek owned M/T “*Wind*”. No casualties were reported. The attack caused flooding, which temporarily resulted in the loss of propulsion and steering.

A few days later, on 28 May, Houthis launched five ballistic missiles from Yemen into the Red Sea, three of which struck M/V “*Laax*”, a Marshall Island flagged, Greek owned and operated bulk carrier. The vessel continued its voyage and luckily, no injuries were reported.



May also saw an attempted attack on MV “Yannis”, 68 nautical miles off the Yemeni port city of Hodeida. The missile attack impacted the water in close proximity to the ship, with crew and vessel reported safe.

This was one of the few confirmed attacks against vessels of this Greek shipping company. Houthis have threatened to target every ship of a company they believe has traded in Israel. They also claim that they are attacking vessels that are Israeli-owned or operated, or are heading to Israeli ports. However, many of the ships targeted have no connections with Israel.



The incidents in the Red Sea are a major concern as the merchant shipping community continues to come under attack. The transit of the Red Sea has become very risky, with seafarers on the frontline and their lives at stake.

In May, IMO MSC 108 adopted a Resolution on the security situation in the Red Sea and Gulf of Aden. The resolution deplores and condemns in the strongest possible terms the illegal and unjustifiable attacks, which threaten the safety and welfare of seafarers and the marine environment.

The resolution urges IMO Member States and observer organizations to provide maximum assistance to seafarers affected by attacks. Calling for peaceful dialogue and diplomacy, it urges any party that may have influence with the Houthis to use that influence to seek an end to these attacks.

Finally, the resolution encourages ship operators and vessels to carefully assess the nature and unpredictability of recent events when considering transit plans, based on vessel profile, business need and risk tolerance.

(Sources: UN Trade & Development, IMO, USCG, Combined Marine Forces, European Union Naval Force Operation, ICS, BIMCO, Clarksons, Sailor’s Society, J.P. Morgan, Lloyd’s List, TradeWinds, Reuters, BBC, The Guardian, CBS News, E-Kathimerini, G. Captain)

## Cyber Security

The maritime world is increasingly connected, with the majority of newbuilds and in-service vessels being fitted with digital systems. While this represents a technological leap forward, and has numerous benefits for data collection and ship monitoring, it also dramatically increases surface of attack for cybersecurity criminals.



In response to the growing threat of cybercrime, the International Maritime Organization had issued Resolution MSC.428(98) for Maritime Cyber Risk Management in Safety Management Systems in June 2017, which came into force in January 2021. In addition, IMO issued Guidelines on Maritime Cyber Risk Management in June 2022, providing high-level recommendations on maritime cyber risk management.

Since then, maritime industry organizations and governing bodies have issued several frameworks and standards to provide ship and port operators guidance on how to bolster the cyber security aspect of their vessels and facilities. The Guidelines on Cyber Security onboard Ships - Version 4, developed by BIMCO and other organisations a few years ago is a notable example.



More recently, BIMCO and ICS issued the 2024 Cyber Security Manual (5th edition). This workbook provides practical guidance for ship and shore, including technical departments, IT departments and equipment manufacturers. The manual contains 14 checklists and 7 annexes, including risk assessment and how to create a cyber security plan. It is aligned with IMO Resolution MSC.428(98) and will also be useful to the wider maritime industry.

In May 2024, IMO MSC 108 approved the revised Guidelines on maritime cyber risk management (MSC-FAL.1/Circ.3/Rev.3) and forwarded them to the IMO Facilitation Committee for its concurrent approval. The revision includes updates related to key definitions, background information and application, functional elements of cyber-risk management (including how to establish a risk management strategy, identify risks, protect computer-based systems, detect, respond to and recover from incidents), and other relevant international and industry standards and best practices.



The United States Coast Guard authority has also been recently focusing on cyber threats at sea. On February 2024, President Joe Biden signed an executive order which amended regulations regarding the safeguarding of vessels, harbours, ports and waterfront facilities of the United States (U.S.). Vessels and offshore and port facilities will be required to strengthen their cyber defences and comply with cybersecurity incident reporting rules.

The order specifically requires cyber threats to be considered through its updates to Part 6 of Title 33 of the Code of Federal Regulations (CFR). Under the new regulations, the Captain of the Port (COTP) and the Commandant of the United

States Coast Guard (USCG) are granted additional authorizations and powers to enhance cybersecurity measures.

The executive order defines a "cyber incident" and establishes a reporting requirement for such incidents. Any evidence of sabotage, subversive activity, or an actual or threatened cyber incident endangering vessels, harbours, ports or waterfront facilities must be immediately reported to the Federal Bureau of Investigation (FBI), the Cybersecurity and Infrastructure Security Agency (CISA) and the COTP.

Furthermore, it was reported that the Canadian government is proposing similar laws under Bill C-26, while it is expected that other port states might follow.

The International Association of Classification Societies has also steadily increased its focus on the reliability and functional effectiveness of onboard, safety-critical, computer-based systems. As of July 2024, two IACS Unified Requirements (UR) will become mandatory.



IACS had published the original versions of the following two Unified Requirements (UR) on cyber resilience in 2022:

- IACS UR E26 – Cyber Resilience of Ships.
- IACS UR E27 – Cyber Resilience of On-Board Systems and Equipment.

The IACS URs were formulated to establish a standardized set of minimum requirements, ensuring the delivery of vessels that meet the criteria of being cyber-resilient. Cyber-resilient vessels, systems and equipment include inherent safeguards against cyber incidents, and both the vessel and its crew are prepared with response measures in the event of such incidents.

In September 2023, IACS released the Rev. 1 version of UR E27, followed by the Rev. 1 version of UR E26 in November 2023. These revised versions superseded the original versions.

Both URs are to be implemented by IACS Societies on ships contracted for construction on or after 1 July 2024, and may be used for other ships as non-mandatory guidance. For all contracts signed after this date, shipyards and equipment suppliers now have to meet UR E26 and UR E27 requirements for a newbuild to be accepted by a class society. They are also required to provide documentation attesting to the vessel's compliance, which ship owners will have to update during a vessel's whole lifecycle.

In an increasingly connected and digitised maritime world, these URs represent a significant milestone in IACS' work to deliver safer shipping in the face of continuously evolving technological developments.

What is more, the updated NIS 2 Directive of the European Union, which also addresses maritime cybersecurity, came into force in January 2023 and has to be implemented in national regulation in October 2024.



NIS 2 Directive (Directive (EU) 2022/2555) is a legislative act that aims to achieve a high common level of cybersecurity across the European Union. EU Member States must ensure that essential and important entities take appropriate and proportionate technical, operational and organisational measures to manage the risks posed to the security of network and information systems, and to prevent or minimise the impact of incidents on recipients of their services and on other services.

As NIS2 compliance is not directly enforced by the European directive but through national laws, until national authorities have created national laws and requirements, the shipping industry must work with the guidance from the directive in preparation for compliance.

According to DNV, NIS 2 Directive covers multiple areas such as incident response, security of supply chains and leadership accountability. The directive describes what needs to be achieved, although it doesn't prescribe how one must achieve it targets. It is suggested that for critical infrastructure in the operational technology space, IEC 62443 set of standards might help asset owners to implement the right set of controls to secure their operations.

With National laws in effect by October this year, DNV recommends to develop a cybersecurity roadmap wherein you:

- discover what you already have in place,
- assess the risks of your systems and processes,
- act on the security gaps, and
- sustain your cyber security management system as business-as-usual.



Companies who have adopted and implemented all the aforementioned recommendations and guidelines for cyber security onboard ships in the past years will be well prepared to achieve compliance.

With many governing bodies consolidating and mandating a number of cyber security controls which have been previously provided as guidance, initiating the process of evaluating and improving a company's cyber resilience is highly recommended.

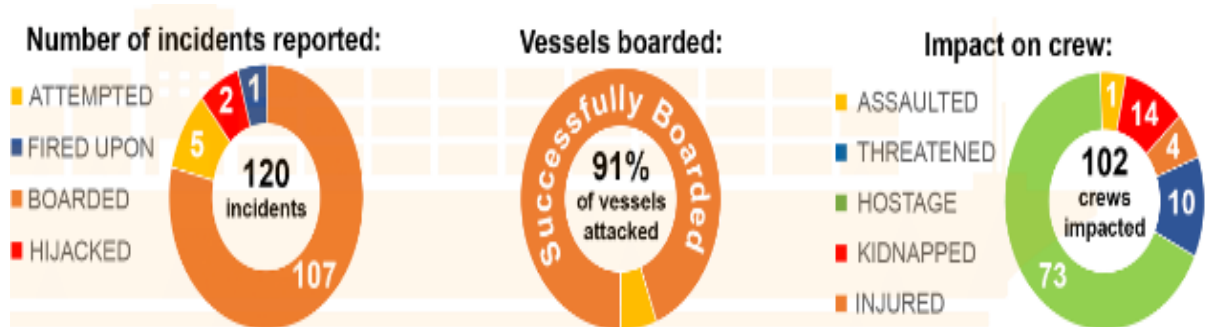
(Sources: IMO, USCG, EU NS 2 Directive, IACS, BIMCO, ICS, BV, DNV, ABS, Maritime Executive, Safety 4 Sea)

# Piracy

An increase in the number of reported incidents and risk to crew was noted in the previous year. The International Chamber of Commerce - International Maritime Bureau recorded 120 incidents of maritime piracy and armed robbery against ships in 2023, compared to 115 in 2022.

IMB urges caution for crew safety as the number of crew taken hostage surged from 41 in 2022 to 73 in 2023, while kidnappings increased from 2 in 2022 to 14 in 2023. A further 10 crew were threatened, four injured and one assaulted in 2023.

## 2023 Piracy Incidents



Source: IMB

With the threat of piracy and violence against crews continuing, shipping companies must remain vigilant and ensure they adhere to best practices.

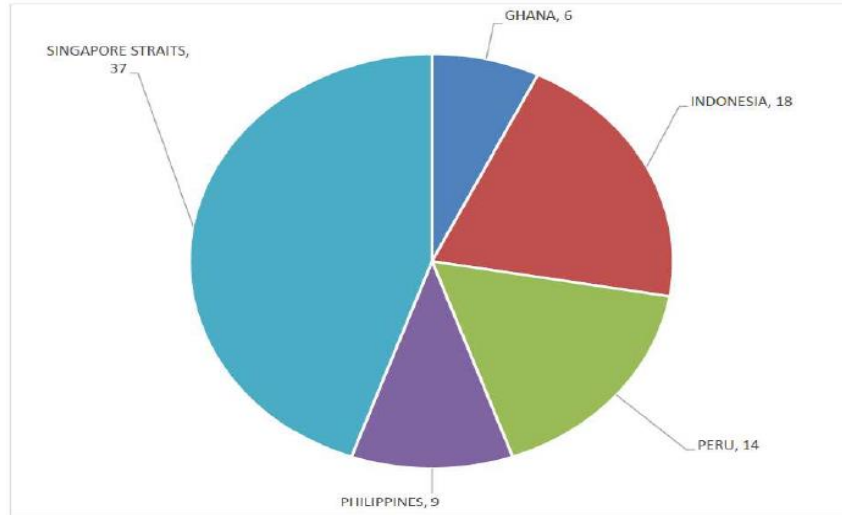
Looking at the type of vessels attacked in 2023, 45 attacks aimed at bulk carriers, 34 at tankers and 18 at container ships.



Source: IMB

The following five locations contributed 70% of the total 120 incidents reported to IMB in the period January to December 2023.

### 2023 Piracy Hotspots

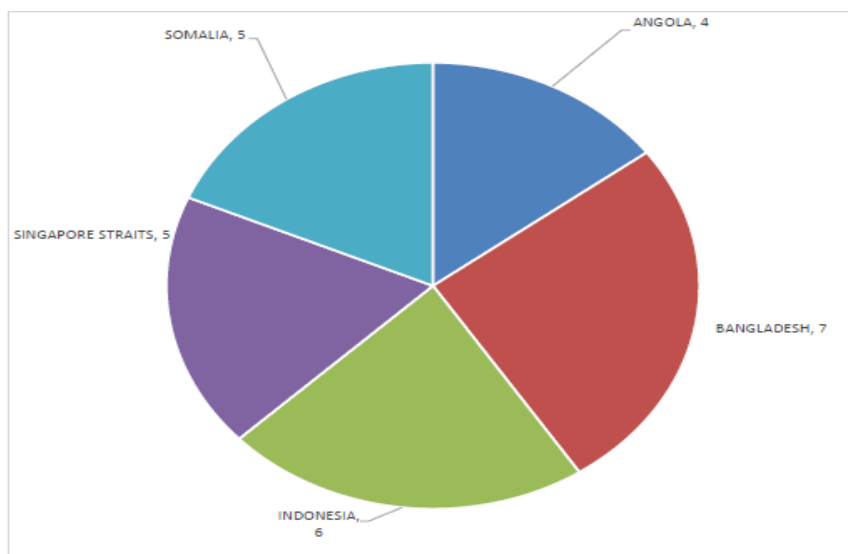


Source: IMB

The first quarter of 2024 saw a total of 33 incidents of piracy and armed robbery against ships, according to IMB. This is an increase from 27 incidents for the same period in 2023.

The following 5 locations contributed 82% of the total 33 incidents reported in Q1 2024.

### Q1 2024 Piracy Hotspots



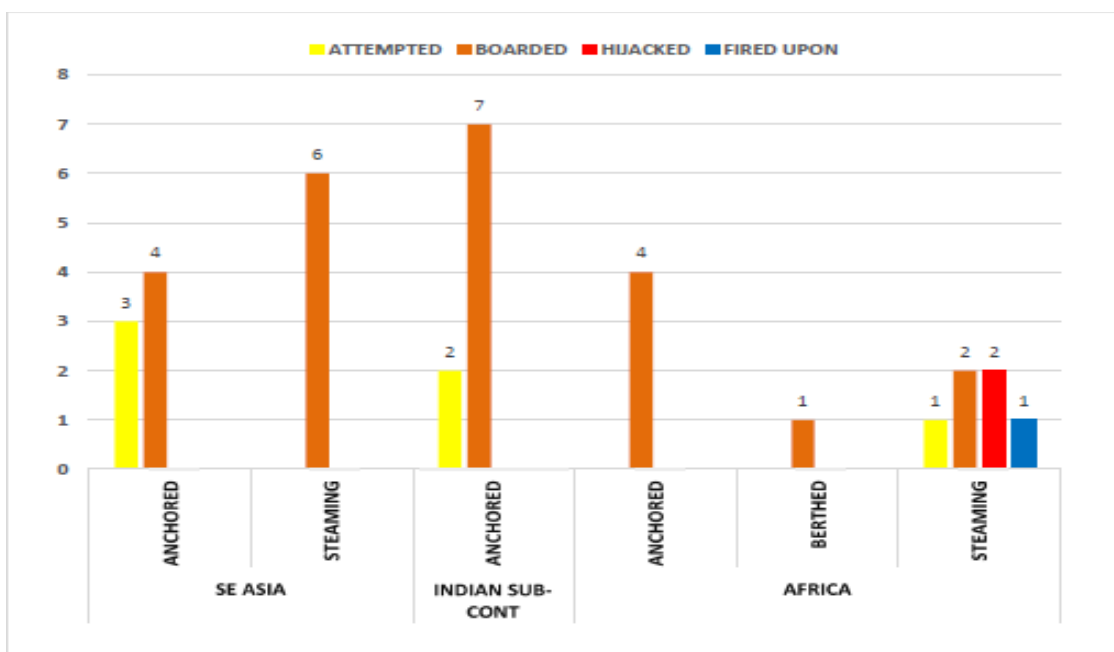
Source: IMB



Of the 33 incidents reported in Q1 2024, 24 vessels were boarded, six had attempted attacks, two were hijacked and one was fired upon. Violence towards crew continues with 35 crew members taken hostage, nine kidnapped and one threatened.

The below graph presents region specific type of incidents in relation to the status of vessel movement in Q1 2024. It should be noted that all hijackings reported were in African waters.

**Q1 2024 Region specific type of incident / vessel movement status**



Source: IMB

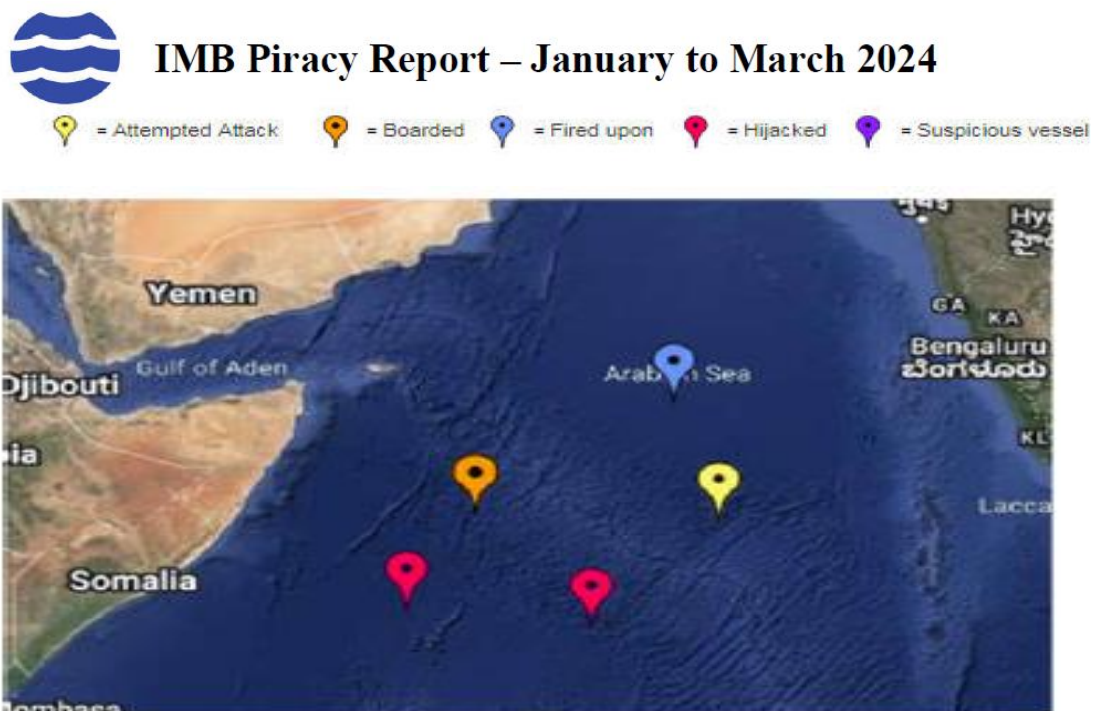
The rising acts of maritime piracy off the coast of Somalia are a worrying trend. The resurgence of Somali pirate activity reflects the crucial need to protect trade, safeguard routes, and the safety of seafarers who keep commerce moving. All measures to ensure the uninterrupted free flow of goods throughout international supply chains must be taken, according to IMB.

IMO’s work to address piracy and armed robbery at the regional level includes initiatives such as the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP-ISC), the Djibouti Code of Conduct (with Jeddah Amendment), covering the Western Indian Ocean and Gulf of Aden, and the Yaoundé Code of Conduct, covering the Gulf of Guinea. The continuous support of IMO member states and contributions are important, especially to the West and Central Africa Trust Fund, to aid safety of navigation.

## East Africa

December 2023 saw the first successful hijacking of a merchant vessel in Somali waters since 2017, raising concerns about the resurgence in Somali based piracy.

The IMB report of Q1 2024 highlights the continued threat of Somali piracy incidents, with two reported hijackings, one vessel fired upon, one boarded and an attempted approach reported.



Source: IMB

These incidents were attributed to Somali pirates who demonstrate mounting capabilities, targeting vessels at great distances from the Somali coast. The IMB is aware of several reported hijacked dhows and fishing vessels, which are ideal mother ships to launch attacks at distances from the Somali coastline.

On 12 March 2024, a Bangladesh flagged bulk carrier was hijacked and its 23 crew were taken hostage by over 20 Somali pirates. The vessel was underway approximately 550 nautical miles (nm) from Mogadishu while enroute from Mozambique to the United Arab Emirates.

The timely actions from authorities have ensured the return to safety of vessels and their crews.

A 40-hour operation by the Indian navy in the Indian Ocean on 15 March 2024 culminated in the capture of 35 Somali pirates and the release of a previously hijacked vessel and its 17 crew.

In addition, a bulk carrier boarded by pirates on 4 January over 450 nm off the east coast of Somalia was rendered safe along with its 21 crew members by an Indian naval vessel.

In late January, the Seychelles coast guard intervened to safeguard a hijacked fishing vessel and its six crew. Three suspected Somali pirates were apprehended in this operation.

As speedy intervention is not always possible, the IMB is urging vessel owners and Masters to follow all recommended guidelines in the latest version of the Best Management Practices (BMP 5).

## West Africa

In 2023 the number of incidents in the Gulf of Guinea saw a small increase, with 22 incidents reported to IMB, compared to 19 reports in 2022. While figures continue to remain much lower than the past few years (35 reported incidents in 2021 and 84 in 2020), Gulf of Guinea still remains a high-risk area.



Source: IMB

These waters accounted for three of the four globally reported hijackings in 2023, all 14 crew kidnappings, 75% of reported crew hostages and two injured crew during the previous year.

Considering the sustained targeting of seafarers, the IMB is apprehensive of the perceived reduction of incidents and continues to urge all vessels transiting these waters to follow recommended BMP guidelines and report incidents to the regional reporting centres and the IMB Piracy Reporting Centre as soon as there is a suspicion of an approaching threat.

In Q1 2024, incidents within the Gulf of Guinea waters continued to be at reduced levels. Six incidents were reported, compared to five in the same period of 2023. However, nine crew were kidnapped from a product tanker on 1 January 2024 around 45 nm south of Bioko Island, Equatorial Guinea.

Piracy and armed robbery in the Gulf of Guinea remains a threat. Continued and robust regional and international naval presence to respond to incidents and to safeguard life at sea still remains crucial.

## Asia

Incidents in the Singapore Straits continue to remain at high levels. 37 incidents were reported to IMB in 2023, while this figure stood at 38 in 2022.



### IMB Piracy Report – January to December 2023

📍 = Attempted Attack    📍 = Boarded    📍 = Fired upon    📍 = Hijacked    📍 = Suspicious vessel



Source: IMB

Vessels were successfully boarded in 95% of the reported incidents. Sixteen vessels, mainly bulk carriers over 80,000 DWT were boarded. Of these, six were over 170,000 DWT.

Whilst reported predominately as low-level opportunistic thefts, nine crew were taken hostage in 2023, compared to four in 2022, and a further two crew were threatened during these incidents. Knives were reported in 15 incidents and guns in a further three. The majority of incidents were reported during the hours of darkness and whilst vessels were underway.

The IMB encourages owners and operators to report all incidents to Singapore VTIS and the IMB Piracy Reporting Centre in a timely manner.

Looking at the Indonesian archipelago, there has been a year-on-year increase in reported incidents, up from 10 in 2022 to 18 in 2023. Weapons were reported in 50% of the incidents. Seven crew were threatened and two taken hostage in 2023.

Q1 2024 saw a noticeable increase in reported low-level opportunistic crimes in Bangladeshi waters, with seven incidents reported, out of which six were from vessels at anchorage in Chattogram, compared to one report for the whole of 2023.



## IMB Piracy Report – January to March 2024

 = Attempted Attack     = Boarded     = Fired upon     = Hijacked     = Suspicious vessel



Source: IMB

The Singapore Straits recorded five incidents against four large bulk carriers and a general cargo vessel, which were considered low-level opportunistic incidents. However, the threat for crew safety remains high as five crew were taken hostage in three separate incidents in January 2024.

## South America

In 2023, fourteen vessels at Callao anchorage in Peru reported being boarded. Seven crew were taken hostage and one assaulted and threatened. Guns and knives were reported in nine incidents. Other ports affected in South America were Macapa anchorage in Brazil, and Cartagena and Puerto Bolivar anchorages in Colombia.



### IMB Piracy Report – January to December 2023

 = Attempted Attack  
  = Boarded  
  = Fired upon  
  = Hijacked  
  = Suspicious vessel



Source: IMB

In Q1 2024 incidents reported across South America dropped. However, when navigating in Haiti, Brazil, Mexico, Colombia, Ecuador and Venezuela it is essential maintaining a strict anti-piracy watch, especially while at anchor. These waters remain risky and the IMB advises to stay vigilant and employ antipiracy measures.

(Sources: IMO, International Chamber of Commerce – International Maritime Bureau, ICS, Japan P&I Club, Steamship Mutual P&I Club)

# Ship Building

## Activity

2023 saw a good flow of orders for the global shipbuilding industry, according to Clarksons. Alternative fuels moved to nearly 50% of orderbook tonnage.

Greek shipping companies committed 60% more newbuild investment year-on-year, amounting to \$18 billion, marking the highest Greek investment by DWT since 2013 and reflecting the uptick in tanker orders. Additionally, European owners committed more investment than Asian owners for the first time since 2018.

A few points worth noting for 2023 include:

- ❖ Global shipyard output increased 10% year-on-year to 35 million compensated gross tonnage (CGT) in 2023, with China delivering 50% of output by CGT for the first time.
- ❖ South Korea delivered 26% of output.
- ❖ Japan delivered 14% of output.
- ❖ China was the market share leader in bulkers, tankers, and containers, while South Korea led in LNG over the past year.



In 2023 the orderbook was up only 4% year-on-year to 124 million CGT, with an aggregate value of \$367 billion, and a forward yard cover at a strong ~ 3.5 years.

Further declines were noted in the number of active yards building above 20,000 DWT, with shipyard capacity down ~ 35% from peak production.

Underlying fleet renewal requirements remain, according to Clarksons, as the fleet ages and emissions regulation accelerates.

Newbuild prices were up 10% across 2023, within 7% of peak 2008 pricing but 35% down on an inflation-adjusted basis.

In 2023, tanker orders increased by 222% by DWT, albeit from a low base, and bulker orders increased by 12% by DWT.

Although containership ordering fell by 43% in TEU (twenty-foot equivalent unit), this still represents historically high volumes, supported by liner companies continuing to invest in green fleet renewal programs (83% of capacity ordered was alternative-fuelled).



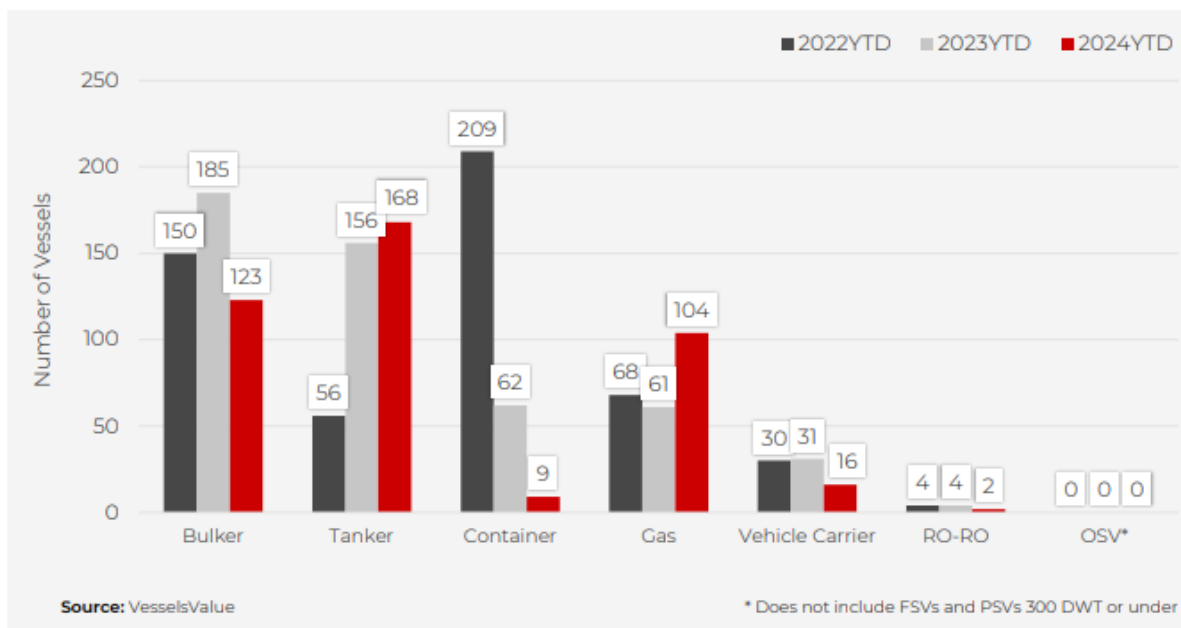
2023 was a record year for car carrier orders (80 orders of \$8.1 billion, 79% alternative-fuelled, rising to 98% including “ready” orders), and there were also good order volumes for gas carriers (68 VLGCs and 66 LNG).

As far as the current orderbook is concerned, the demand for gas carriers and liner vessels, particularly containerships and car carriers, remains robust. In contrast, the orderbooks for crude and product tankers, as well as dry bulk carriers, are comparatively modest. Notable contractions in the orderbook for cruise ships still reflect the sector’s challenges stemming from the global pandemic.



In Q1 2024, global orders for new ships totalled 353. This reflects a 24% decrease in terms of vessel numbers and a 5.9% drop in terms of CGT from 466 ships in Q1 2023. On the other hand, orders for LNG and LPG carriers were on the rise. Compared to the first quarter of 2023, orders for LPG and LNG carriers climbed by 176.3% and 50.3 %, respectively, while orders for tankers jumped by 71.4% over the same period. Orders for container ships and bulk carriers decreased by 57% and 51.6% respectively.

**Newbuilding Orders YTD by Number of Vessels**



Source: VesselsValue

Looking at the orderbook over the past two years, a significant increase in the number of tankers on order was noted in 2023 and 2024. The gas carrier orderbook also saw an uptick in 2024 compared to 2023, while the other categories saw a decrease in the number of vessels on order this year.

The above data by VesselsValue are presented on a year-to-date basis and are valid as of May 1, 2024.

Moving forward, the orderbook is expected to shrink as newly ordered ships are delivered and contracting activity remains subdued due to various economic and market pressures. By 2026, the orderbook is forecasted to decrease to around 170 million GT, according to ABS’s latest report.

## Yards

The competition for new orders in the shipbuilding market continues to grow. China and Korea typically dominate the market, with some months showing a nearly even split in orders.

China's shipping industry saw robust growth in 2023, with shipowners around the globe placing orders, some of which have been scheduled for 2028. China overtook Korea in overall shipbuilding competitiveness in 2023, according to the report "Comprehensive Competitiveness of the Shipbuilding Value Chain and New Directions for Korea's Maritime Strategy", released by the Korea Institute for Industrial Economics and Trade (KIET) in May 2024.



According to the report, China's overall competitiveness stood at 90.6 in 2023, 1.7 points ahead of Korea's 88.9. Korea had an advantage over China in R&D, design, and procurement, but its gap with China narrowed, and it lost ground to China in production. Korea was also overtaken by China in the aftermarket (AM) for ship maintenance and repairs, and in the service and demand sectors.

China's yards have built large production capacities and are very competitive on price. China is now targeting more of the mid-sized vessel construction orders, previously led by Japanese yards. China's yards are also breaking into new technologies, including methanol-fuelled vessels.

Another advantage for Chinese shipbuilding is that building warships can increase earnings for Chinese shipbuilding companies even when they are in

recession. China has the largest navy in East Asia and is likely to surpass even the world's most powerful nation, the US, in terms of the number of warships. All of this comes as the US announced it would start a trade investigation into the Chinese government's support of its shipbuilders. Five US labour unions lead the protest, alleging unfair competition and subsidized steel helping China build its dominance in shipbuilding. They are calling for tariffs and more US government support to rebuild domestic shipbuilding capabilities.

South Korea's industry is following a selective order-taking strategy. The yards are focusing on high-value newbuilds as well as emerging technologies for eco-friendly and technologically advanced vessels.



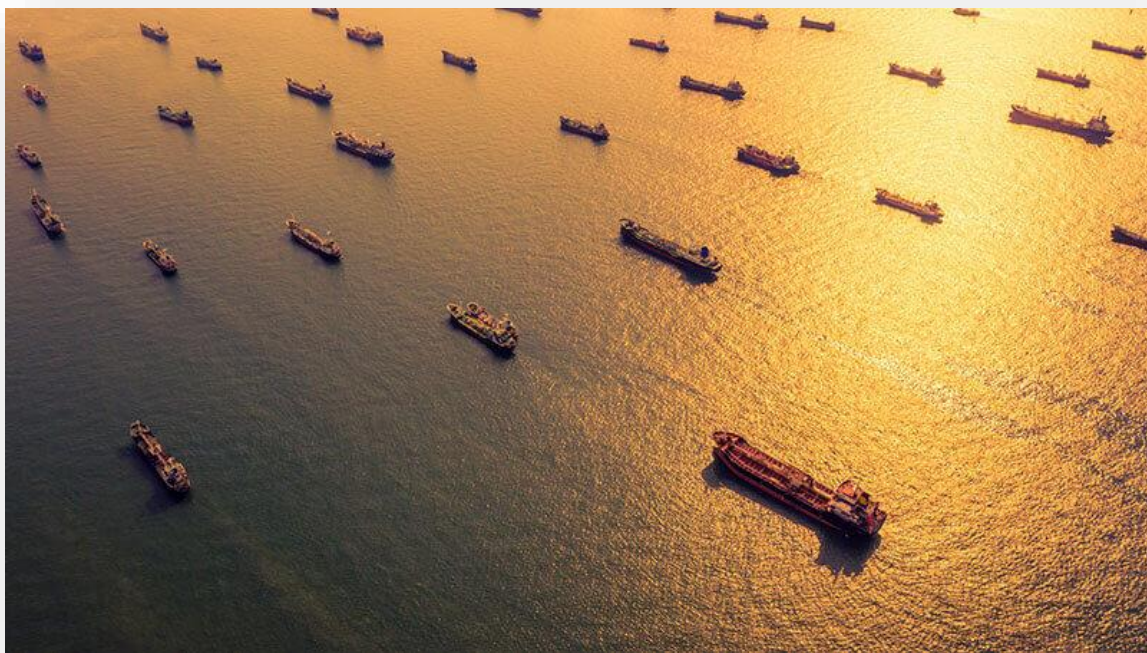
Korean shipyard conglomerate HD Korea Shipbuilding & Offshore Engineering announced in April the launch of a new R&D facility dedicated to comprehensive testing of decarbonizing maritime technologies. The facility is designed to simulate the full sequence of shipboard cargo operations (loading, operating, and unloading), employing technologies that reduce carbon emissions. Previous facilities were limited to examining specific functions, such as the supply of liquefied natural gas fuel to ships and the reliquefaction of LNG. One of the first projects at this new facility will be verifying the performance of reliquefaction equipment for liquefied carbon dioxide carriers, used for managing the state of carbon dioxide in transit, ensuring it remains in a liquid form under controlled temperatures and pressures.

In the first quarter of 2024, just over half of the orders received by South Korean yards were for LPG carriers. The emerging category of very large ammonia carriers accounted for just over 20% of the orders. Specifically, 29 LNG and 20 ammonia carriers placed in Q1 2024. Korean shipbuilders failed to take any

orders for VLCCs last year and are now seeing a slowdown in containership construction orders.

Although the number of ship orders increased in Q1 2024 compared to Q1 2023, Korean shipbuilders reported sluggish shipbuilding output. The growing proportion of less-skilled foreign workers on Korean shipbuilding sites is said to be the main factor. Major Korean shipbuilders are faced with the tough task of boosting labour efficiency while preventing safety accidents that fall under the Serious Accidents Punishment Act.

Overall, the Korean shipbuilding industry saw a 32.9% increase in orders in Q1 2024 compared to Q1 2023, while China saw a 0.7% increase and Japan an 89.7% decrease. Therefore, some experts are cautiously predicting that Korea might overtake China for the top spot in global shipbuilding orders this year since Korea has already surpassed China in terms of order value.



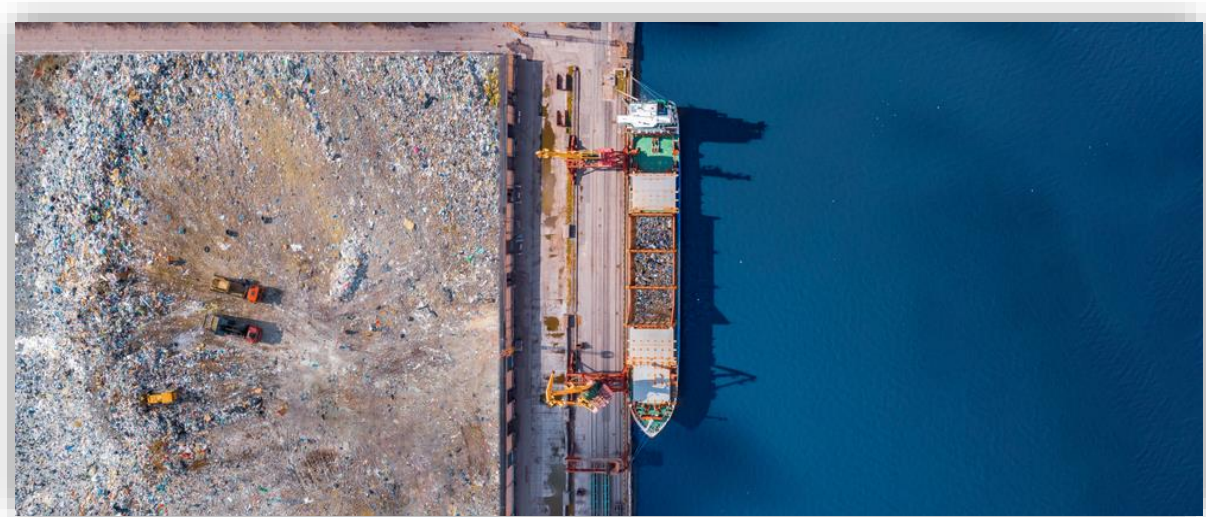
(Sources: ABS, Clarksons, VesselsValue, Hellenic Shipping News, Maritime Executive)

# Ship Recycling

## Regulatory Developments - IMO

More than a decade since its adoption in 2009, the IMO Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (HKC) will finally enter into force on **26 June 2025**. The Convention's ratification by Bangladesh and Liberia triggered its entry into force 24 months later.

Enforcement has now started to gain momentum with the Paris MoU, during its latest committee meeting in May 2024, agreeing on the incorporation of the HKC as of 1 July 2025.



The Hong Kong Convention aims to ensure that vessels, when being recycled after reaching the end of their operational lives, do not pose any unnecessary risks to human health, safety, and the environment.

### ➤ Impact on ship recycling practices globally

The HKC is expected to have a significant global impact on ship recycling practices. According to BIMCO, some 15,000 ships will require recycling over the next 10 years, an average of 1,500 per year. The impact on Ship Recycling Facilities (SRF) is expected to be significant. Each party to the HKC shall establish a mechanism for authorizing SRFs to ensure that such SRFs meet the requirements of the HKC. Such an authorization is called a Document of Authorization for Ship Recycling (DASR) and will be valid for a maximum of 5

years. Authorized SRFs shall only accept ships that comply with HKC, which they are authorized to recycle.

Each SRF shall prepare a Ship Recycling Facility Plan (SRFP) which shall include a system for ensuring the implementation of the HKC requirements, such as:

- A policy for ensuring safety and protection of the environment.
- A training program for the safe and environmentally sound operation of the SRF.
- An emergency preparedness and response plan.
- A record-keeping system.
- A system for reporting emissions, accidents, incidents, occupational diseases, and other adverse effects to workers' safety and the environment.



➤ Impact on Shipping

With the entry into force of the HKC, the maintenance of the Inventory of Hazardous Materials (IHM) in case of any changes in the ship's structure or equipment will become more important, as Port State Control is expected to focus on IHM inspections globally.

The world fleet consists of about 53,000 vessels within the scope of the HKC. DNV estimates that since the full application of EU's Ship Recycling Regulation, approximately 30,000 vessels are already carrying an IHM Certificate or

Statement of Compliance. Still, a large volume of about 23,000 vessels will need to be equipped with a certified IHM over the coming years.

Therefore, it is important that ship owners and managers start to familiarize themselves with the compliance requirements of the HKC as the entry into force date approaches.



➤ What must ships do to comply with HKC?

Upon entry into force on 26 June 2025, the Hong Kong Convention will require new ships and existing ships of 500 GT and above, no later than five years after the entry into force of the Convention, or before going for recycling if this is earlier, to have onboard a valid international certificate of IHM.

The IHM needs to be ship-specific and must be prepared, verified, and kept up to date in line with the IMO guidelines. Following the initial verification survey, ships will be required to have additional surveys during the life of the ship, and a final survey prior to recycling.

In July 2023, the IMO Marine Environment Protection Committee (MEPC) 80 adopted the **2023 Guidelines for the Development of the Inventory of Hazardous Materials**, with Resolution MEPC.379(80). These guidelines provide sufficient information for the development of the IHM in relation to the hazardous materials included in Appendices 1 and 2.

➤ Progress at MEPC

In March 2024, IMO MEPC 81 approved mandatory reporting formats with circular MEPC.1/Circ.910 on Formats for mandatory reports under Article 12 of the Hong Kong Convention.

According to the IMO, Article 12 of the HKC requires each Party to report to the Organization information on, inter alia, ship recycling facilities, competent authorities, an annual list of ships flying the flag of that Party to which an International Ready for Recycling Certificate has been issued, and an annual list of ships recycled within the jurisdiction of that Party.

In addition, MEPC 81 approved the future development of a GISIS (Global Integrated Shipping Information System) module to facilitate the communication of information required by the Hong Kong Convention.

MEPC 81 also discussed potential overlap in requirements between the HKC and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

Further proposals on the interplay between the Hong Kong and Basel Conventions regarding ship recycling will be submitted to MEPC 82 in October 2024.





## Regulatory Developments – EU



The long time needed for ratification of the IMO HKC has caused the EU to take action, resulting in the EU Ship Recycling Regulation (EU SRR), which entered into force on 30 December 2013 and has been fully applicable since 31 December 2020.

The EU SRR adopted the requirements of the IMO HKC as well as some additional requirements and is applicable on a regional level only.

The key requirements of EU SRR can be summarized in two main points:

1. Each ship of 500 GT and above shall have a certified Inventory of Hazardous Materials (IHM).
2. Ship Recycling Facilities (SRF) shall be authorized by their competent authorities and shall only accept ships that comply with the HKC requirements.

In July 2023, the European Commission adopted the 11th edition of the European List of ship recycling facilities, including three new yards located in Turkey. The updated list now contains 48 yards, including 38 yards in Europe (EU, Norway, and UK), 9 yards in Turkey and 1 yard in the USA.

In November 2023, it was reported that the European Parliament and Council reached an agreement on updated and more efficient rules for waste shipments. It is argued that this new agreement will make it possible to responsibly recycle EU-

flagged ships operating internationally at facilities outside the EU and OECD, provided that these facilities have EU approval.

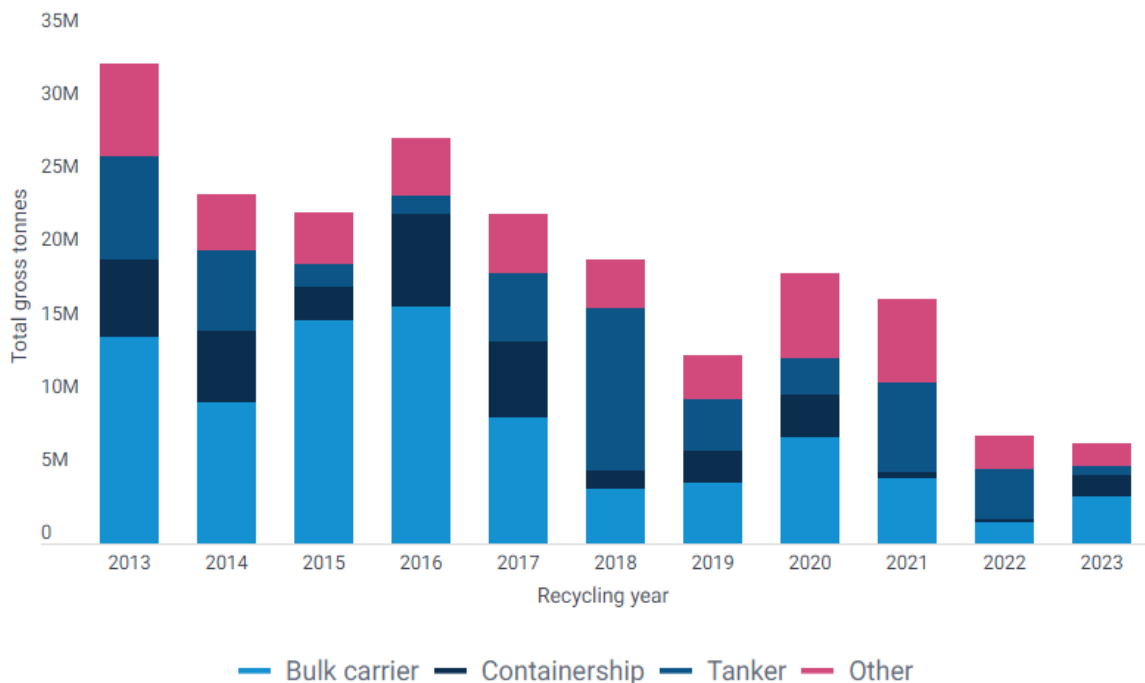
Facilities outside the EU will now, if they meet EU standards, be able to receive EU approval, which gives them an incentive to seek to attract customers with EU-flagged ships. It is expected that this will raise the quality of ship recycling facilities around the world.

## Recycling Activity

Lloyd’s List intelligence has released the following two charts, which present interesting data on ship recycling volumes.

The chart below highlights the dramatic decline in recycling figures of bulk carriers, tankers, containerships, and other vessels over the past ten years.

### Annual ship recycling volumes by ship type

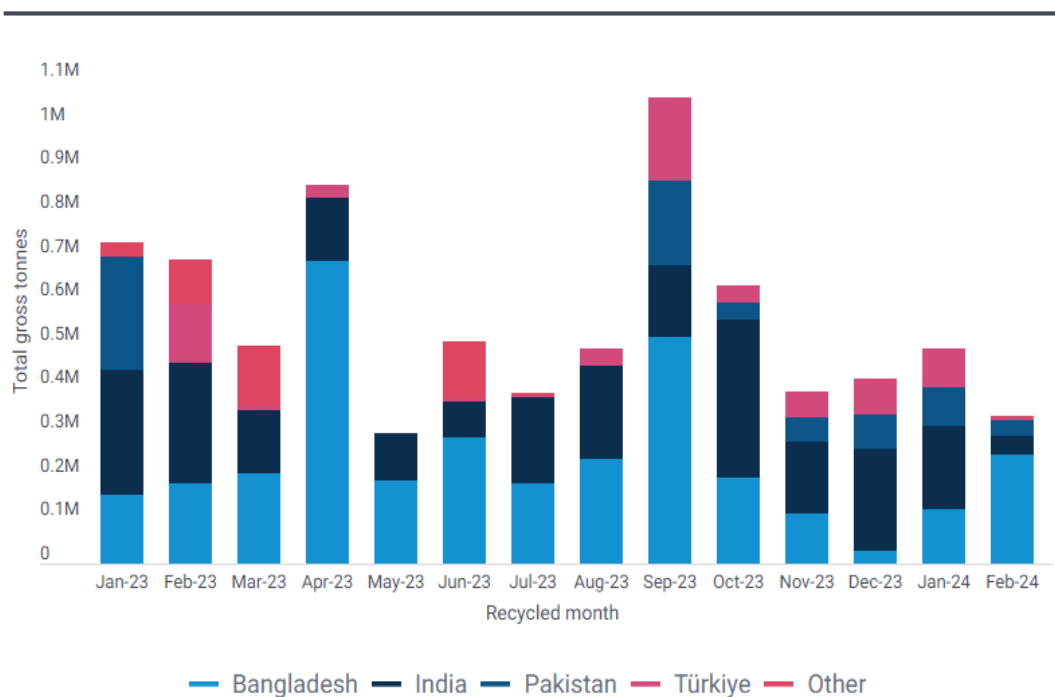


Source: Lloyd’s List Intelligence

A shortage of tonnage has ensured that the relatively high prices paid for recycling since 2022 are being maintained, although demand for recycled steel continues to face challenges due to foreign exchange restrictions in key ship recycling nations, according to data from Lloyd’s List Intelligence.

Looking at the latest recycling activity, the graph below demonstrates that recycling volumes in the first two months of 2024 were less than half the levels seen in January and February 2023.

### Monthly ship recycling volumes by country



Source: Lloyd’s List Intelligence

However, it is anticipated that the pace of ship recycling will increase as the industry begins to address decarbonization regulations. Key recycling nations in Asia remain the preferred destinations for ship recycling, reflecting the urgent need for regulations to serve as a catalyst for raising recycling standards.

(Sources: IMO, EU, ECSA, Paris MoU, DNV, ABS, Class NK, BIMCO, Liberia Registry, Lloyd’s List, Hellenic Shipping News, Maritime Executive, Marine Regulations)

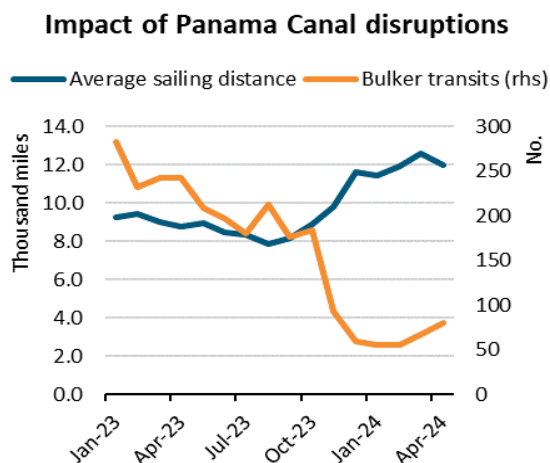
## Panama Canal

Panama is the only port of the world with coastline on two oceans. Only 80 kilometres separate the Atlantic from the Pacific across the Isthmus.



The Panama Canal serves more than 144 maritime routes connecting 160 countries and reaching some 1,700 ports in the world. The Canal handles approximately 5% of world trade.

To increase the number of crossings, Panama expanded the Canal eight years ago and, since its inauguration on 26th June 2016, the Expanded Canal not only exceeded traffic expectations, but also reaffirmed its environmental leadership in the maritime industry, prioritizing water savings and contributing to the reduction of CO<sub>2</sub> thanks to shorter distances of travel and greater load capacity.



Sources: Oceanbolt, Clarkson Shipping Intelligence

However, things changed in late 2023. In a historic move in October 2023, the Panama Canal Authority (ACP), restricted vessel transits through the Canal for the first time. Transits were reduced from the typical average of 36 per day, under normal conditions, to 22 for the entire month of December, in anticipation of the worst-case scenario for the following months.

As November rains were below average, but not as critically low as in October, and progress had been made by water-saving measures, starting on 16th January this year, the Canal was able to increase to 24 daily transits.

The rebound at the Panama Canal continued in the following months, including April, although there was still a long way to go to get back to pre-drought-restriction transit levels, and the pace of the recovery slowed versus March. The waterway handled 789 vessels in April, up 6% versus March, according to data released by the ACP. Transits had risen 13% in March versus February. April saw the highest level of total transits since October 2023, the month immediately prior to severe transit restrictions imposed by the ACP in response to the drought. April's total transits were 19%, above the nadir reached in February, albeit still 21% below October levels.

The Container segment represents more than half of the transits through the expanded Canal, followed by liquefied petroleum gas (LPG) and liquefied natural gas (LNG) vessels.



On 1st August 2023, the container ship Ever Max, successfully made its inaugural transit through the Neopanamax locks. The vessel boasts a length of 366 meters and a width of 51 meters, with a draft greater than 50 feet. However, due to the current weather conditions and draft limitations, the vessel had to leave part of its cargo at the Port of Balboa which was then transported by land to the Colon Container Terminal. As a result, the Panama Canal incurred a loss of more than \$40,000 in tolls for this transit.

LNG carrier transits via the Neopanamax locks remained insufficient last February, with one transit compared with three in March. LNG carrier transits in April were down 96% versus October 2023.

LPG vessel traffic fell in late 2023 but rose again in January 2024, increasing transit volumes by 12% and ethane transit volumes by 67% compared with December 2023.

The limits in daily transits in the Panama Canal have significantly affected the dry bulk market, with transits down 74% year on year (y/y) between January and April 2024. During this period, sailing distances for completed voyages in the affected routes rose 31% y/y, while the cargo volume dropped 25% y/y. Overall, tonne mile demand for these routes fell 1% y/y.

Gradual transit increases in April followed a further increase in the May crossings, from 24 to 31. In addition, from 1st June 2024, an additional slot became available in the Neopanamax locks, bringing the total to 32 and one step closer to the normal daily capacity.

The Panama Canal has been closely monitoring the development of weather events affecting water availability in the canal watershed, which according to forecasts, could worsen by the impact of the El Niño phenomenon.



The climatic emergency decreed by the Panamanian National Government in late 2023 reinforced what the Panama Canal had been stating regarding the reality of a shortage of fresh water. “This is an issue that the Panama Canal has been warning and preparing for; however, we could not have predicted exactly when the water shortage would occur to the degree that we are experiencing” said Canal Administrator Ricaurte Vásquez Morales.

The Panama Canal implements water-saving measures to maintain maximum capacity in their reservoirs during the May through December rainy season, and to cover the projected water demand during the dry season, which typically begins in January and lasts until April. The current conditions, however, are creating an unprecedented drought, and thus far has produced the driest year on record since 1950. Consequently, climate is progressively lowering the canal’s reservoir levels

and forcing the Panama Canal to periodically manage water utilization in a sustainable manner to maintain acceptable and competitive draft levels.



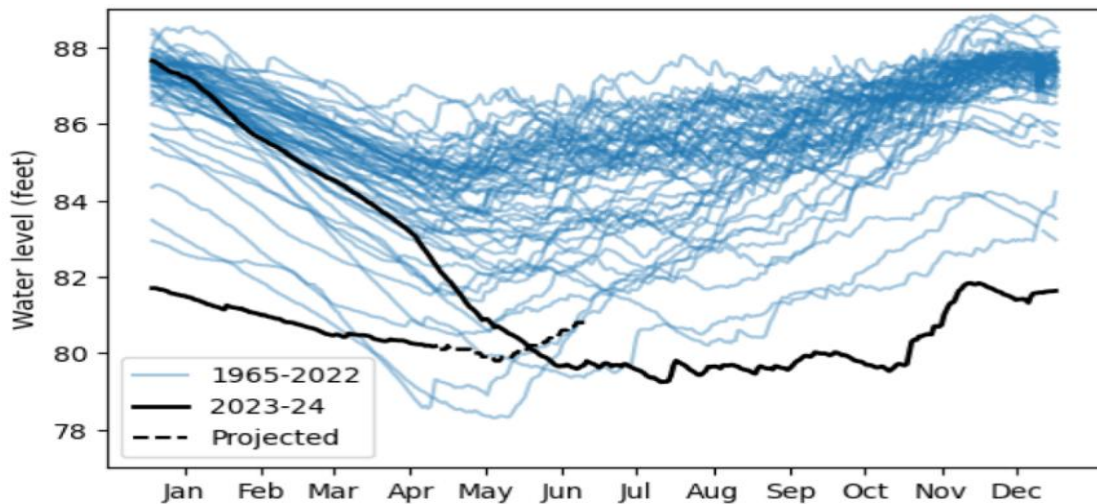
Draft allowances and lock usage were gradually reduced to conserve water, with each ship’s passage losing 190,000 cubic meters of water.

Total rainfall in 2023 was 30% lower than average. October was especially dry, recording 41% less rainfall than usual.

As a result, water levels in the rainfall-fed Gatun Lake reached a record low in the second half of 2023.

The last period of intense drought in the Canal was in 2019 – 2020. These cycles, according to the ACP Administrator, have historically happened once every five years; however, they are now being reduced to once every three years.

The graphic below shows water levels in Gatun Lake since 1965, where each line represents one year. The solid black line indicates 2023-24, while the dashed line shows projected lake water levels until mid-June 2024.



Source: Carbon Brief

The prolonged drought disrupted passage schedules, leading to severe restrictions for ships traversing the canal connecting the Atlantic and Pacific Oceans for over a year.

Recent rainfall has partially lifted restrictions, relieving shipping companies facing delays or significant costs. At times, up to 100 vessels were anchored for several weeks.

On 1<sup>st</sup> January 2024, the second phase of the three-year toll adjustment recommended by the Board of Directors of the Panama Canal Authority, which had been approved by the Cabinet Council of the Republic of Panama on 12th July 2022, became effective with new tolls, after providing the industry with a two-year advance notice.



Finally, effective from 15th June 2024, the maximum authorized draft allowed to vessels transiting the Neopanamax locks is now 14 meters (46.0 feet) TFW.

This adjustment means that by late July 2024, a total of 34 ships will be able to transit through the locks and channels every day, while considering the projected level of Gatun Lake and operational requirements.

The Panama Canal seems to be returning to its pre-drought condition, but the Panama Canal Authority anticipates that it may not regain full capacity until early 2025.

(Sources: Panama Canal Authority, Lloyd's List, Clarksons, Carbon Brief)



## Suez Canal

The Suez Canal is essential for trade between Asia, the Middle East and Europe. The Suez Canal is considered to be the shortest link between the east and the west due to its unique geographic location; it is an important international navigation canal linking between the Mediterranean Sea at Port Said and the Red Sea at Port Suez.

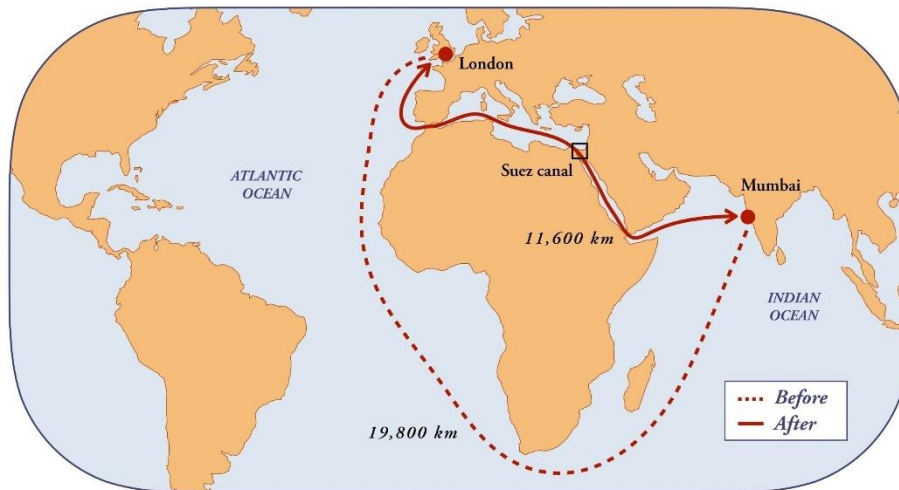
The Canal is extensively used by modern ships, as it is the fastest crossing from the Atlantic Ocean to the Indian Ocean via the Mediterranean.



Due to its geographical location and the ever-present tensions in the Middle East, the Suez Canal area has frequently been involved in crises. In recent years there has been a fair level of stability, with the last crisis being the Gaza war of 2008-2009.

However, tensions in the region have been escalating since November 2023, when Yemen-based Houthis started launching drone and missile attacks against ships transiting the Red Sea. The Shiite military group's attacks, intended to pressure Israel to stop its bombardment of Gaza, are leading to sustained delays and disruption in trade, along with surging shipping costs.

The continuous attacks by the Houthis have resulted in an increasing number of shipping companies that normally transport vital raw materials and fuels through this zone, to suspend operations in the area. Ships are being re-routed an additional 3,500 nautical miles around the Cape of Good Hope in South Africa — the route the Suez Canal was built to circumvent in 1869.

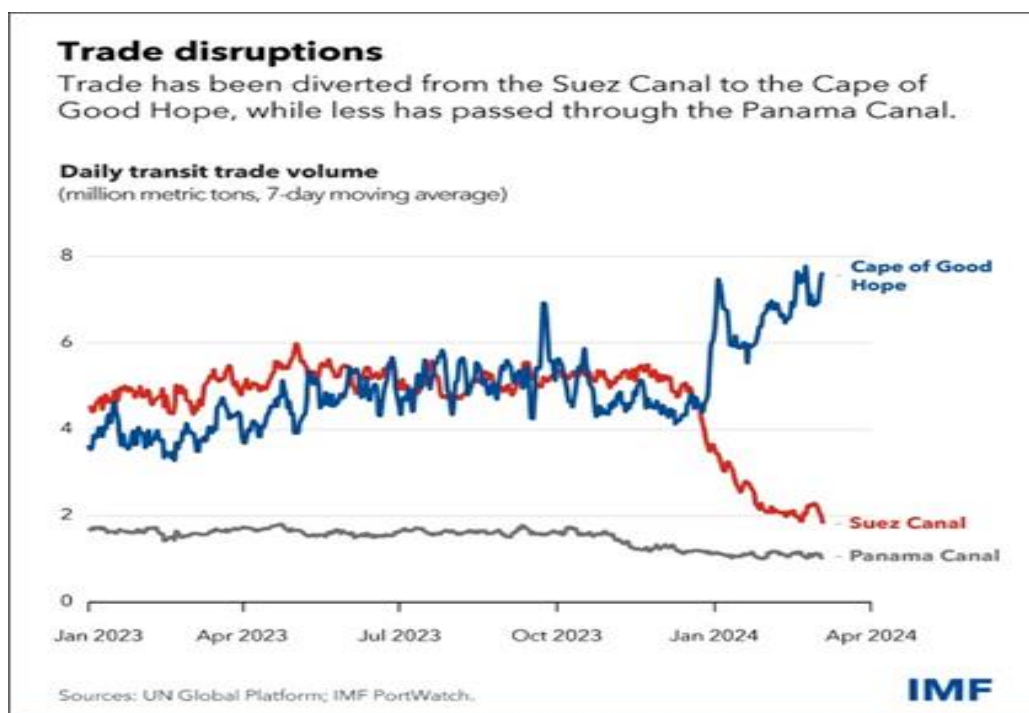


The impact of the re-routing is adding cost and time to vessel journeys. As a result, oil prices and war risk insurance premiums have spiked.

Crossings in deadweight (dwt) terms were up 50% year on year (y/y) in 2023 and almost double pre-Covid 2019 levels, with shifting oil trade patterns in the wake of the war in Ukraine having an acute impact.

The Suez Canal Authority (SCA) reported that 2,128 vessels have crossed the Canal since 19th November 2023, with only 55 vessels having been rerouted via the Cape of Good Hope.

These numbers changed dramatically on 17<sup>th</sup> December, as only 77 vessels crossed Egypt’s canal with a net cargo of 4 million tons.



Sources: UN Global Platform, IMF PortWatch

From 1st to 11th January 2024 these numbers had decreased by 50 percent, compared to the same period the previous year. There was a sharp drop, as several shipping companies diverted their ships around the Cape of Good Hope to avoid attacks in the Red Sea. This has increased delivery times by 10 days or more on average, which can cost \$1 million more per round trip in additional fuel costs.

This decline has had an impact on Egypt's foreign currency earnings, has contributed to the rise in food and energy prices globally and has cost the Egyptian nation around \$150 million in canal revenues, according to Bloomberg.

Traffic has been impacted all around. Box ship transits plummeted by 55.6 per cent in the first quarter of this year, dropping to 3,464 from 7,804 during the same period last year, according to data from Marine Traffic.



Dry bulk ship transits decreased by 20.8 per cent, wet bulk ship transits by 21.6 per cent, LPG carriers by 12 per cent, Ro-Ro transits by 46 per cent and dry break-bulk ship transits by 11.8 per cent. LNG trade through the Canal, meanwhile, has almost ground to a halt, with a fall of 84.3 per cent.

### **The Expansion of the Suez Canal**

Egypt has commissioned feasibility studies for another expansion of the Suez Canal to facilitate traffic in the vital waterway through which 12% of global maritime trade passes.

This new project to expand the Suez Canal in Egypt is reportedly 88% complete, as revealed by Osama Rabie, the Chairman of the SCA.

The project includes the deepening of the 30-kilometer southern sector of the Canal. This section begins at the 32-kilometre mark south of the Bitter Lakes and ends at the 162-kilometre mark at the southern mouth of the Canal.

The project also includes the expansion of the Canal between the 122-kilometre and 132-kilometre marks, into two-way traffic. This will increase the length of the New Suez Canal to 82 kilometres.

The Chairman of the SCA gave an overview of the updates of the Canal's southern sector development project, the waterway's latest development project, which shall contribute to increasing the margin of navigational safety by 28%, pointing out the completion of execution works on the project's first phase; i.e. widening the Canal by 40 m. eastward from 132 km to 162 km (Canal marking), and the continuance of work on the development project's second phase, which entails doubling the waterway from 122 km to 132 km (Canal marking) at an execution percentage of 72.5%.

A new strategy adopted by the SCA has the ambition to announce the Suez Canal as the Green Canal by 2030. Among other points, the strategy includes:

- The Suez Canal Authority endorses the efforts of the International Maritime Organization (IMO) to extend the concepts of the green transition to the maritime sector.
- The Suez Canal Authority is studying the provision of incentives for vessels that use green energy.
- The Suez Canal Authority conforms to environmental measures and controls, by affording savings in time and distance more than any other alternative route, thus contributing to reductions in fuel consumption ranging from 20% - 80%, and as a result reductions in harmful emissions.
- The ongoing development works in the waterway (the New Suez Canal and developing the Southern Sector) which have contributed to reducing transit and waiting times, and also increasing navigational safety levels.
- Setting strategies to convert the engines of the Suez Canal Authority's marine units to run on natural gas to reduce carbon emissions.
- Compliance with the optimum application of marine safety procedures to avoid pollution risks and oil spills.
- Conclusion of a deal with an international company specialized in solid and liquid waste collection and recycling from vessels.
- Contribution by the Suez Canal in decreasing CO<sub>2</sub> emissions by 31 million tons in 2021, when compared to the alternative routes, saving 10.3 million tons of fuel, whilst the New Suez Canal has contributed to a saving of 53 million tons of CO<sub>2</sub> equivalents.

Egypt is actively overseeing the implementation of 80 port projects, with a total investment of LE 129 billion, in collaboration with 100 private sector companies.



In Safaga, at the end of April this year, the Chairman of the Suez Canal Authority, Osama Rabie, inaugurated a factory for building tugboats as a subsidiary of the Red Sea Shipyard. The factory was constructed and equipped in seven months.

The factory is a partnership between the Suez Canal Authority and the Red Sea Shipyard. It spans over 9,000 square metres, and consists of three divisions (cutting, forming, and building), which are equipped to manufacture different types of vessels.



Additional efforts are being taken to increase the utilization of the Canal and to advantageously use its vital location. Each year, many projects are proposed and considered. For the first time, a promising project is being studied to transform the Suez Canal into a regional hub for the distribution of spare parts and the provision of rapid repair and maintenance services at the entrances of the Canal.

The Chairman of the SCA showcased the Authority's vision to establish new avenues and horizons for cooperation with success partners in fields related to providing new logistical services that were previously unavailable, such as providing rapid repair and maintenance services through highly efficient “mobile teams” that work in cooperation with the SCA's affiliated companies located at the northern and southern entrances of the Suez Canal, in order to optimize the utilization of the Suez Canal’s resources, capabilities, and unique location.

(Sources: Suez Canal Authority, U.S. Department of Defence, European Parliament, European External Action Service, UN Global Platform, International Monetary Fund, Egypt Today, Reuters, Ambrey Analytics, BBC, Economist Intelligence, Marine Traffic, Bloomberg)

## Sanctions Against Russia

As the war in Ukraine continues, so do the sanctions. On 24 February 2023, the one-year anniversary of Russia's invasion of Ukraine, the US Department of State and the US Department of Treasury's Office of Foreign Assets Control (OFAC) imposed sanctions on numerous additional individuals, entities and vessels that the US has determined are engaged in sanctions evasion.



OFAC removed a tank vessel and its owner from the SDN List after sanctioning them in October 2023 for violations of the Russian crude oil price cap. OFAC will consider petitions to remove vessels and owners from the SDN List based on the owner's ability to demonstrate its commitment to specific remedial measures that align the owner's operations with OFAC's regulations and compliance guidance.

In the context of the Russian price cap, the focus is on procedures OFAC wants owners to adopt for detecting and acting on “red flags” that indicate a cargo is: (i) of Russian origin; and (2) sold above the price cap.

As the United States is part of an international coalition of countries (the Price Cap Coalition), including the G7, the European Union, and Australia, they have agreed to prohibit the import of crude oil and petroleum products of Russian Federation origin (Russian oil).

According to data, in April 2024, prices for Russian Urals crude oil rose sharply to over \$84 per barrel, reaching levels not observed since July 2022 and significantly exceeding the G7, EU, and Australia’s imposed price cap of \$60 per barrel in December 2022.



The EU adopted its 12th package of sanctions against Russia on the 18 December 2023. In addition to the changes to the Price Cap scheme, key features for the shipping industry of the 12th package of sanctions include:

- Notification of tanker sales – In addition to a prohibition on selling or otherwise transferring ownership of tankers to a Russian person or for use in Russia, the EU has introduced a notification requirement for tanker sales more generally, where tankers are sold to any third country entity. The notification requirement is retrospective with all sales between 5 December 2022 and 19 December 2023 to be notified before 20 February 2024. Sales after 19 December 2023 should be notified immediately.
- A prohibition on the import of Liquefied Petroleum Gas with a winddown period until 20th December 2024 for contracts concluded before 19 December 2023.
- Tighter export restrictions concerning dual use goods and technology.
- An obligation for exporters to contractually prohibit re-export of certain sensitive goods and technology to Russia (with a wind-down period until 20 December 2024 or until their expiry date, whichever is earlier, for contracts concluded before 19 December 2023). Relevant goods are those relating to aviation, jet fuel, firearms and goods on the Common High Priority list.

During 2023, the EU Council imposed further trade, transport and energy measures, such as additional export restrictions on sensitive dual-use goods and advanced technologies and measures to facilitate divestment from Russia by EU operators. The Council also adopted several measures to tackle the circumvention of sanctions.

The Greek Navy has extended an advisory restricting ship traffic off the Southeastern Peloponnese coast, aimed at deterring ship-to-ship transfers of Russian oil.

As Reuters reports, this move comes amidst international sanctions complicating the trading of Russian crude and oil products, leading traders to seek alternative routes, including offshore transfers. Recent NAVTEX notices for military exercises in the Laconian Gulf area have been issued by Greece, urging vessels to avoid the region, with one issued on May 1st. The advisory, initially set to expire on May 9th, was extended, according to a defence ministry official.



Further measures are anticipated, with plans to extend maritime advisories for military exercises in the area, potentially pushing away ship-to-ship transfers close to Greek waters.



According to Reuters, this comes amid reports of tankers being stranded near the Laconian Gulf due to U.S. sanctions, exacerbating Russia's difficulties in shipping oil amidst mounting financial sanctions imposed by Western countries.

The latest package of measures, adopted on 23 February 2024, enhanced the EU's actions to stop Russia from acquiring Western sensitive technologies for Russian military.

(Sources: EU, UK P&I Club, US Office of Foreign Assets Control, Reuters, Safety 4 Sea, Politico)



## US Sanctions Against Iran



Extensive sanctions have been in place against Iran for a number of years. The Congress passed new legislation on April 2023 that authorizes new sanctions on Iranian oil shipments, particularly to China.

In addition, OFAC has designated to the SDN List numerous vessels, entities, and individuals that have played a role in transporting Iranian origin goods, including numerous shipments on behalf of a front company for Iranian governmental agencies, like the Ministry of Defense and Armed Forces Logistics (MODAFL) and the Iran's Islamic Revolutionary Guard Corps (IRGC).

These sanctions highlight the crucial need for due diligence, particularly regarding charterers that are not well-known within the industry and with regard to the origin of cargos. These designations to the SDN List also reflect information that have been received from U.S. officials regarding increased investigation and monitoring of Iran shipments.

On the sanctions package it was included a measure that imposes sanctions on foreign ports, vessels and refineries involved in the trade of sanctioned Iranian petroleum products. The so-called Stop Harboring Iranian Petroleum Act also includes sanctions on entities involved in ship-to-ship transfers of Iranian oil.

The US refrained from imposing new sanctions on Iran's shipping sector for most of last year and was said to be lax in its enforcement of existing sanctions as it was eyeing a prisoner exchange deal with Tehran that took place over the summer.

That appears to have changed after October 7, 2023. Iran’s backing of regional proxies like Hamas, who perpetrated the October 7 massacre, and the Houthis, who have been terrorising the Red Sea, have led the White House to renew its interest in Iran’s oil and shipping sectors.

(Sources: U.S. Congressional Research Service, U.S. Office of Foreign Assets Control, S&P Global, Lloyd’s List)

## US Sanctions Against Venezuela

The United States, temporarily suspended on October 18, 2023, certain sanctions against Venezuela in response to the recent signing of an electoral roadmap agreement between Venezuela's opposition political party and representatives of President Maduro.

Notably, the suspension of sanctions included the issuance of General License 44 (GL 44), which broadly speaking temporarily authorized through April 18, 2024, all transactions that are related to oil and gas sector operations in Venezuela. For purposes of the shipping sector, GL 44 temporarily authorized the provision of goods and services concerning “the production, lifting, sale, and exportation of oil or gas from Venezuela and transactions involving the state oil company PdVSA.”



On April 17, 2024, OFAC issued General License 44A (GL 44A), which terminates GL 44 and authorizes the wind - down of contracts, made pursuant to GL 44, in Venezuela’s oil and gas sector until May 31, 2024. Transactions such as payment transfers and deliveries of Venezuelan energy commodities can be conducted until May 31 if they are pursuant to an agreement made prior to the

issuance of GL 44A. However, new contracts, new investments, and new sales for goods and services in Venezuela's oil and gas sector are prohibited.

The "wind down" period provided by GL 44A is brief and the May 31 deadline should be construed strictly. However, OFAC has advised that it will entertain applications for specific licenses on a case-by-case basis from parties who require additional time to wind down existing contracts.

OFAC is aware that, in addition to spot commodity sales, some U.S. persons have made longer-term investments in Venezuela's oil and gas sector which cannot be terminated overnight. Owners who have vessels carrying Venezuelan energy commodities should apply for an OFAC license if they believe there is a risk that the cargo will not be discharged, and all related transactions concluded by May 31.

OFAC further clarify that US and non-US persons may continue to rely on other authorizations related to Venezuela's oil or gas sector operations in Venezuela, including General License 8M, "Authorizing Transactions Involving Petróleos de Venezuela, S.A. (PdVSA) Necessary for the Limited Maintenance of Essential Operations in Venezuela or the Wind Down of Operations in Venezuela for Certain Entities" and General License 41, "Authorizing Certain Transactions Related to Chevron Corporation's Joint Ventures in Venezuela."



Venezuelan President Nicolás Maduro is running for re-election on July 28, and seeking to restore his regime's international legitimacy after 11 years of political repression.

Although the US agreed last year to suspend sanctions against Venezuela, restored many of them last month, citing a failure by the regime to keep its commitment to a democratic process. The most popular opposition candidate, María Corina Machado, was banned from running, and some aides and other activists have been jailed or charged with crimes.

Opinion polls show most Venezuelans would eagerly boot Maduro from office if given half a chance. Numerous regional leaders, including the leftist presidents of Colombia and Brazil, have joined the US in criticizing the Maduro government's failure to abide by its commitments and allow a competitive election.

(Sources: West of England P&I Club, US Office of Foreign Assets Control, Corington & Burling, Bloomberg)