Deloitte.

EU Shipping Competitiveness Study

International benchmark analysis

Study commissioned by the European Community Shipowners' Association

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1. Summary and conclusions

The European shipping industry is a strategic and economic pillar of the EU, but international competition has increased significantly. It is key, especially in light of the green and digital transition, to keep the European shipping industry competitive.

The European shipping industry is a relevant contributor to the EU economy, accounting for an estimated 685,000 jobs and adding roughly EUR 54 billion annually to the EU gross domestic product (GDP). On the global level of shipping, the EU is still a large player compared to most regions in the world. Whilst the EU represents around 15% of the global GDP, the European shipping fleet is one of the largest in the world, representing around 35% of the world fleet in terms of global tonnage across all segments.

Given the current ongoing global crises and increasing uncertainties, it is important to view the shipping sector not only as a business entity, but also as a geopolitical asset and a stabilizing factor in the region. European shipping, in particular, has played a significant role in maintaining the EU's position as a leader in international supply chains. According to the European Commission, almost 90% of the EU's external freight trade is seaborne. Europe also plays a key role in the energy security of the continent as almost half of gas imports and almost 90% of crude oil imports to the EU are carried out by sea. The European shipping fleet represents 26% of liquefied natural gas (LNG) carriers, 35% of tankers and 20% of LPG carriers globally.

In addition to supply chain security, trade plays a strategic role in securing Europe's competitiveness and growth. International trade accounts for 59% of the global GDP in 2023. In comparison, the EU is significantly more reliant on trade, which represents on average 96% of the EU's GDP, compared to key economies like China (37%) and the US (25%).

The European shipping industry represents a strategic asset for Europe, now more so than ever, facilitating the export and import of goods, food and energy, and ensuring the economic and geopolitical security of the continent.

In the past, various factors have contributed to making the EU an attractive location for shipping activities, including well-established frameworks and policies. These include competitive fiscal and social measures, supported by the EU Maritime State Aid Guidelines (SAGs), competent flag administrations and a highly skilled workforce. These SAGs and the tonnage tax (TT) regimes can be considered a major reason for keeping a healthy shipping industry in Europe, in addition to the region's strong maritime history.

Commissioned by the European Commission, former European Central Bank President Mario Draghi presented his vision on "The Future of European Competitiveness" in a dedicated report published in September 2024[1]. The report highlights the importance of maintaining the competitiveness of the EU shipping industry and emphasizes that "the Guidelines on State aid to maritime transport has been key for the industry to become world leader".

However, the report also quotes available data which showcases that, while the European fleet is growing in absolute terms, the global share of European ownership is declining due to strong competition by global non-EU shipping centres, which offer attractive conditions and a competitive business environment. Asia-based competitors gained ground to the detriment of the EU-controlled fleet, which has proportionally declined from 40% down to 35% of the global fleet.

In 2017, Deloitte published an international benchmark analysis in the form of the "EU Shipping Competitiveness Study". In this report, the EU maritime industry was compared to a group of selected leading international shipping centres. The study aimed at assessing the attractiveness of these regions and evaluating the long-term competitiveness of the EU as a hub for shipping and the broader maritime economy.

Since the previous study was conducted, significant shifts have taken place both at EU and international levels. The global

[1] The Draghi report on EU competitiveness (n.d.).

political and economic landscape has changed, and climate and environmental legislation has gained higher priority. Asian countries which compete with the EU, have introduced very ambitious industrial policies to support the competitiveness of their shipping industry on top of the competitive tax regime. Overall, the EU faces even fiercer international competition as a preferred location for shipping activities today than ever before. Various global shipping centres outside the EU are actively developing maritime clusters and employing innovative, and in parts aggressive, measures to attract shipping companies. This has resulted in a competitive advantage for companies operating in these regions.

To properly assess these changes, we have now fundamentally updated our study. This includes a revision of the benchmark with multiple new indicators and an expansion of its scope to include Singapore, Hong Kong (HK), Dubai, Shanghai, New York, and London as the “best in class” shipping centres around the world.

Our comprehensive benchmarking has once more identified Singapore as the top shipping centre at international level. In comparison with “best in class” centres from our benchmark, we have also identified specific policy gaps and improvement opportunities for the EU shipping industry.

As in the previous study, the comprehensive benchmarking analysis shows that Singapore is the top performer among the covered shipping centres, with the exception of availability of professional services (second to London) and availability of finance (third to New York and Shanghai). Singapore's success is attributed to its forward-looking, reliable, and supportive strategy, driven by an efficient national administration that prioritizes business-friendliness. The ease of doing business in Singapore is considered a significant political priority and is supported by a business-friendly and a flexible administration. Singapore excels in taxation and fiscal incentives, offering low effective taxation rates and various incentive schemes. The country also provides generous training grants for maritime employees and tax exemptions for seafarers. It has flexible guidelines and instruments in line with the international conventions, making it an attractive choice for shipowners. Singapore's registry offers excellent service and adheres to international conventions without introducing additional national requirements. It also performs well in logistics, ship management, maritime insurance, legal services, and arbitration. Singapore ranks first overall in regulatory, economic, and political factors, except for international influence and cost of living.

Comparing the “best in class” results from our benchmarking, we have observed a number of gaps in the EU policy framework, which vary in size and also in importance. Overall, they indicate why competition has increased and the European shipping industry is under pressure today. While the current EU policy framework has the effect of facilitating a competitive EU shipping sector, we also recognise that there are significant areas where improvements could be made in comparison with the policies of other jurisdictions included in the benchmark.

The principal framework for the EU’s maritime policy is set out in the 2009 Communication from the European Commission and the 2015-2016 “Mid-term Review of the EU’s Maritime Transport Policy until 2018 and Outlook to 2020”, which outline the main strategic goals for the shipping sector and the corresponding legislative initiatives. The EU strategy aims to improve the competitiveness of the European shipping sector while upholding environmental and safety standards, leading to economic growth and employment. It seeks to create stable and fair global conditions for shipping and maritime industries, addressing areas such as human resources, research and innovation, quality shipping, and EU involvement in international organizations like International Maritime Organization (IMO), International Labour Organization (ILO), and World Trade Organization (WTO).

However, implementing higher environmental and safety standards can increase operational burdens and costs for EU-based shipowners, posing challenges to the goal of enhancing competitiveness. Additionally, new policies, although not always specifically targeted at the maritime industry, have had an impact and significantly increased complexity. These include, but are not limited to, the Renewable Energy Directive (RED), the “Fit for 55” package which includes the Emission Trade System (ETS) and FuelEU Maritime, the Net-Zero Industry Act (NZIA), the Organisation for Economic Co-operative and Development (OECD) Pillar Two framework, Basel III regulations, the Corporate Sustainability Due Diligence Directive (CSDDD) or the Corporate Sustainability Reporting Directive (CSRD).

The upcoming EU Clean Industrial Deal and Member States recognising the need for a competitive, forward-looking, and future proof maritime industry as a crucial element to support Europe’s competitiveness, highlights the maritime industry’s vital role in striking a sensitive balance between competitiveness and the transition towards sustainability. A strong and forward-looking European shipping industry will remain crucial in sustaining Europe’s competitiveness on a global scale.

Policy recommendations include a focus on maintaining the competitive tax regime, reducing the administrative burden, facilitating investments and improving access to finance, and aligning EU legislation with IMO and ILO regulations.

Despite the EU’s ability to maintain global competitiveness in maritime trade, our findings also show that EU shipping is facing greater challenges in 2024 than it did in 2017. The decline of the EU share of the global fleet, although the tonnage of the fleet is increasing, showcases the magnitude of the challenges. The EU has established a comprehensive fiscal framework, with competitive tonnage tax regimes in most Member States. This has allowed for a “level playing field” in terms of fiscal competitiveness among other shipping centres in our benchmark.

However, certain EU policies have effects that diminish the appeal of the EU for shipowners and shipping activities. These shortcomings have been identified and compared with benchmarked international shipping centres, highlighting areas for improvement.

The main recommendations aimed at improving the competitive standing of the EU emphasize the importance of maintaining the Maritime State Aid Guidelines and building a strong European maritime cluster and a future-oriented, and comprehensive EU maritime strategy.

Additionally, our key recommendations address the importance of creating a more business-friendly environment by reducing administrative burdens. We also emphasize the significance of closing the investment gap by facilitating better access to public investments for clean fuels and technologies, as well as access to adequate financing. Finally, enhancing upskilling and reskilling provides an opportunity for the maritime industry to develop a competitive edge in attracting well-qualified people.

1. Developing a forward-looking European maritime strategy

Mario Draghi's 2024 report on European competitiveness recommends the creation of a new "Competitiveness Coordination Framework" to enhance EU-wide coordination and replace existing overlapping instruments. In line with this, the new European Commission under Ursula von der Leyen has announced their goal to create an EU industrial maritime strategy in September 2024, in order to enhance "the competitiveness, sustainability and resilience of Europe's maritime manufacturing sector". We strongly support this approach, particularly as the Maritime Sector faces intense international competition and holds high priority for the EU due to its vital role in various industries, energy security, trade and supply chain security, as well as defence and military resilience. Given the increasing geopolitical uncertainties in recent years, a modern maritime strategy should reflect the sector's heightened strategic importance. It is crucial to develop a comprehensive globally oriented shipping and maritime policy to guide the EU's activities and leverage the strengths of the EU shipping community as a whole.

A new European maritime strategy could ensure the international competitiveness of European shipping, facilitate cooperation between EU maritime centres, promote the EU shipping cluster, and focus on the synergies between different centres of excellence.

As such, the cornerstone of a European maritime strategy could be to maintain the State Aid Guidelines for Maritime Transport 2004 (SAGs) and, thus, a level playing field between the EU and non-EU maritime centres. The Draghi report similarly points out that "*the support via the Guidelines on State aid to maritime transport has been key for the industry to become world leader*". Similarly, we recommend maintaining the SAGs in their current form, in order to prevent shipping companies from moving away from the EU. Without this taxation level playing field, the competitiveness of European shipping would be significantly undermined. As the Draghi Report highlights in a key finding: "The shipping industry is highly mobile and the related assets, considered both taxable entities and as companies, can move out from one country to another over the course of weeks".

With a strong shipping industry, Europe should be viewed as one unified centre with players covering various aspects of the maritime industry such as services, clean fuels, clean technologies, legal services, port infrastructure, and insurance. To encourage knowledge transfer and expertise, industry-specific cooperation, research, and training could be facilitated, and regulations simplified and harmonized.

2. Aligning and simplifying the regulatory and policy environment and reducing administrative burden

The EU could prioritize regulatory simplification to ensure alignment with the international regulations at IMO and ILO level. If the EU opts for own regional standards, the economic impact must be assessed, and measures should be taken to assist EU-based shipowners in adjusting to the new regulations to maintain competitiveness. Instead of regional regulations, the EU could use its international influence and leverage its strong role in IMO and ILO to promote globally aligned standards. Based on the historic IMO agreement of July 2023 to reach net-zero Greenhouse Gas (GHG) emissions from international shipping by 2050, the IMO is preparing measures to implement these targets. The alignment of the EU legislation with the future IMO instruments will be essential to ensure a level playing field in the sector.

Naturally, administrative burden could be minimized, and support could be provided during the application or during the implementation of standards, in order to ensure legal certainty and avoid disadvantaging especially smaller shipping companies. Access to public funding for example through the Innovation Fund for the dedicated maritime calls or through the European Investment Bank remain difficult for small and medium -sized enterprise (SMEs), due to the administrative burden the applications require. Close consultation among Member States should be pursued to maintain fair competition and a level playing field. The European Commission recognises the challenge stemming from extensive administrative burden. In their recent communication on the Competitiveness Compass they highlight that regulatory simplification to reduce overall administrative burden by 25% and 35 % for SMEs should be a horizontal action and regulatory principle in order to ensure a business friendly environment and hence Europe's global competitiveness.

Additionally, the EU can support the modernization and digitization of Member States' flag registers, reducing operating costs for EU-flagged ships and enhancing service quality. Digitalisation also can reduce administrative burden for seafarers working on board and on shore, hence improving attractiveness of their job profile.

3. Closing the investment gap: supporting public investment and facilitating access to finance

The energy and digital transition of shipping requires immense investments. It is recommended to implement measures that guarantee access to adequate public and competitive private financing in the EU, which is vital for the competitiveness of shipping companies in Europe vis-à-vis their global competitors. Strengthening ship finance in Europe will also benefit the European maritime industrial cluster by supporting the development of innovative technologies and clean fuels in Europe.

A separate study has shown that the EU shipping sector faces “unique challenges that necessitate dedicated financial instruments.” The maritime industry is keen to invest in decarbonization solutions and technologies, but the costs to do so are high, asking for a more integrated and supportive financial framework. As a first step, an online portal of available financing instruments, tools, and products relevant to supporting investments in the shipping sector specific to decarbonisation has been launched, with an overall view to increase transparency and support the sector’s competitiveness in the global market.

Furthermore, strengthened ship finance could be achieved by spending the revenues from the EU ETS on energy transition-related activities to decarbonise the shipping sector at the EU and the Members States’ level. The earmarked revenues for the maritime sector under the Innovation Fund could be used to bridge the price gap between conventional and clean fuels and to support investments in clean technologies providing an additional incentive for suppliers to scale up industrial production in Europe. It is also recommended that additional funding instruments are introduced (such as the mechanism of Auctions-as a-Service) which allows Member States to use EU ETS national revenues to top up EU funds.

To ensure better access to banking finance for European shipping companies, the prudential regulation and risk related requirements could be reviewed. All finance – including sustainable finance tools - instruments could be designed considering the distinctive features of shipping and its needs.

European ship financing opportunities could be enhanced through a diversity of financing and funding tools involving capital markets and private investors to enable better risk sharing of innovative and transitional projects. This is key to enable the banking sector to enhance the competitiveness of the European fleet and finance the green transition of the sector. It is also recommended to expand the financing landscape, allowing and encouraging traditional banks to provide asset-backed ship loans, and exploring alternative financing instruments like leasing.

Additionally, it is crucial to improve financing conditions, particularly for small and medium-sized enterprises, as equity requirements have become more challenging. Efforts should be made to counter the influence of non-European sources of finance and fill the financing gap. The Draghi report highlights that “a number of third countries (e.g. UK, in Asia, in the Middle East, and in North America) offer a generous business environment. For example, China offers attractive leasing for shipowners, while EU commercial banks have slowed their support due to strict prudential requirements”.

4. Promoting upskilling and reskilling under a European framework

The overall labour shortage in Europe is affecting multiple areas of employment, especially in more physical professions. It is evident that there is a considerable shortfall in the availability of labour in the transportation sector, including in shipping.

In addition, upcoming clean fuels and digital technologies will require new and additional skills, education, and operational training for seafarers. The energy and digital transition will require to upskill and reskill an estimated 800.000 seafarers in the next ten years internationally and according to the Draghi report, 250.000 seafarers in Europe alone.

The need to invest in new skills for this industry transition should be recognised. Funding options at EU and Member State level such as upskilling funding, grants, or cost offsetting-training programs could be explored both at European and Member State levels.

It is equally important to enhance collaborative efforts to develop short-, medium- and long-term strategies to address labour shortages and to avoid skills shortages in the maritime industry. A more comprehensive approach to maritime skills training could be addressed through a unified framework that covers the diverse needs of the maritime sector. This encompasses a range of disciplines, including management, finance, law, and environmental, social and governance (ESG) skills, collectively strengthening the overall cluster. However, with regard to the training and certification of seafarers, it is important to support the international framework of the IMO Standards of training, certification and watchkeeping for seafarers (STCW) Convention, 1978, which is currently being updated, and to avoid regional standards that could jeopardize the employability of third-party country seafarers on board of EU-flagged vessels. Additionally, the introduction of an up-to-date framework for the mutual recognition of certifications in the EU is recommended.

2. Setting the scene

Today, the shipping industry in the EU is a highly mature industry sector and remains an economic powerhouse in the European economy. It employs 685,000[2] people and adds an estimated EUR 54 billion annually to the EU GDP. Whilst the EU represents around 15% of the global GDP, the European shipping fleet is one of the largest in the world, representing around 35% of the global tonnage across all segments (see figure 2).

More than 50% of value of goods transported to the EU is via ship, and over 40% of exports from the EU[3]. Almost 90% of the EU's external freight trade is seaborne[4]. It plays a key role in the energy security of the continent as 46% of the gas imports and 88% of crude oil imports to the EU are carried out by sea. The European shipping fleet represents 26% of LNG carriers, 35% of tankers and 20% of LPG carriers globally.

It can be argued that European shipping has enabled the EU to remain a leader in international supply chains and to deliver the exports of products and the imports of energy that are vital for the economy and the geopolitical security of the continent. Many factors have contributed to making the EU an attractive location for shipping activities, with established frameworks and policies being a core factor. These especially include a competitive regime for taxation and social measures to improve competitiveness facilitated by Community Guidelines on State aid to maritime transport (2004/C 13/03, hereinafter referred to as SAGs), quality registers and a strong skills base.

The EU continues to face growing international competition as a location for shipping activities. Several international shipping centres are building up maritime clusters and are making concerted efforts to attract shipping companies with innovative and aggressive measures and policies, leading to a competitive advantage for shipping companies operating under such regimes. In this study, we have hence enhanced our benchmark to cover Singapore, Hong Kong, Dubai, Shanghai, New York and London. It is clear that the EU policies will become increasingly important for future investment decisions and the long-term competitiveness of Europe as a centre for shipping and the whole maritime economy.

The new Commission under Ursula von der Leyen emphasized in September 2024 that competitiveness is at the top of their agenda and that sustainable competitiveness is a high priority across industries. This is not only set forth in the *Political Guidelines 2024-2029*, but also elaborated upon in greater detail in Mario Draghi's report, titled *The Future of European Competitiveness* and published in September 2024. In the course of its analysis, the report made reference to the European shipping industry, highlighted the following as key points for consideration:

> The EU's ownership share of the global maritime fleet is declining. The share of the global fleet owned by EU companies is shrinking[5], though the support via the Guidelines on State aid to maritime transport has been key for the industry to become world leader. The shipping industry is highly mobile and the related assets, considered both taxable entities and as companies, can move out from one country to another over the course of weeks. A number of third countries (e.g. UK, in Asia, in the Middle East, and in North America) offer a generous business environment. For example, China offers attractive leasing for shipowners, while EU commercial banks have slowed their support due to strict prudential requirements.
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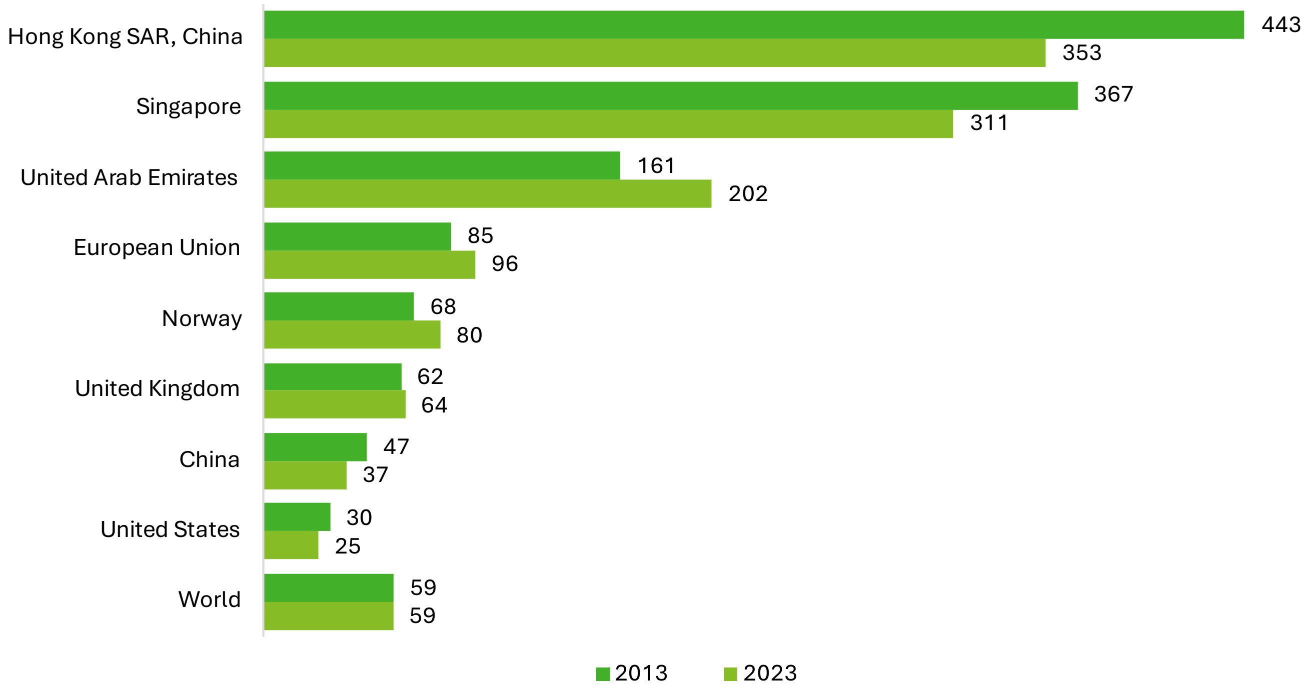
> **The future of European competitiveness: Report by Mario Draghi**

[2] The Economic Value of the EU Shipping Industry (2020).
[3] Employment by sex, age and detailed economic activity (2024).
[4] Mobility and Transport (n.d.).
[5] Between 2020 and 2024, Asia-based competitors gained ground to the detriment of the EU-controlled fleet, which has proportionally declined from 39.5% down to 35.4% of the global fleet. This is not an absolute decline as the European fleet grew during this period.

Figure 1 – International trade in percent of GDP



Note: Based on sum of exports and imports of goods and services;
European Union includes intra-EU trade, which accounts for about half of this total.
Source: World Development Indicators - World Bank Group

On global level, international trade as percent of GDP did not change much from 2013 to 2023, and amounts to approximately 59 percent. Maritime city-states, such as Singapore, have highly open economies and act as trading hubs, resulting in trade levels that exceed their GDP by more than a factor of 3. In contrast, global economic superpowers such as the United States and China are comparatively less reliant on global trade, despite being among the largest traders in absolute terms.

In comparison, the European Union and Norway[6] demonstrate a markedly greater reliance on global trade than for example China or the USA. Both also show a significant increase during the 2013 to 2023 timeframe under review. Given that the majority of trade is conducted via maritime routes, the shipping industry plays a pivotal role in the EU's economy. It not only generates significant revenue for Member States but also facilitates the import and export of goods, both among Member States as with third party countries. The continued viability of the shipping industry is essential to ensure affordable transport costs, to enhance the competitiveness of European exports, and to contribute to the wider economic and geopolitical stability of the continent. Moreover, in conjunction with technological innovations, it facilitates the transition of the shipping industry towards a sustainable and environmentally friendly economy. Given the EU's regulatory authority, it has the potential to spearhead this transition.

In recent years, dramatic crises have changed the world as a whole, and as such, have also affected global business climate and shipping activities. Most notably, COVID-19 and its aftereffects, the war in Ukraine and geopolitical tensions on both regional and global level have impacted the industry [for a summary, refer to the Deep Dive box on the following pages].

While surging container rates and prices during the COVID-19 pandemic and Red Sea Houthi attacks, as well as higher tanker rates and prices from sanctions on Russian energy exports, might have had temporary positive effects, these external disruptions make forward planning for shipowners and operators considerably more difficult. Ultimately, shipping has shown a strong resilience against these external crises and has been a stabilizing factor for the European and global Economy.

[6] Whilst EU and Norway are referred to separately in this chart, it is mostly referred to jointly in this report.

Within the EU maritime industry, many companies are still owned by individuals or families, and as such, there is a comparably high level of commitment to society and the legacy role many of these companies have had in their community. Still, shipowners and operators are driven primarily by market developments and commercial opportunities in their business decision of where to invest and expand their fleet. Decisions on where to establish and develop their office strongly depend on a "level playing field" offered by the country of location and thus depend on national and EU policies. The decision as to where a company is incorporated is of paramount importance not only from an economic perspective, as it determines where taxes are generated and much of the other associated value-added services are provided, but more importantly from a geopolitical perspective, as it determines under which country's nationality the fleet is controlled. For shipowners and operators, the recent economic slowdown and the ongoing uncertainties around decarbonisation of the sector have further exacerbated the importance of EU policies and the regime under which shipping operates within the EU. Global competition, particularly from Asian and Middle Eastern shipping companies, is even fiercer than it was a decade ago, as other shipping centres are now investing heavily to attract and expand their fleets and create a shipping-friendly environment.

The framework conditions related to the fiscal treatment of shipping companies, labour-related costs, investment, training, flag state administration, access to skills and services, etc, directly affect operating costs, income and returns on investment. Since the 1990s, these became increasingly important factors that influence business decisions. Hence, if the EU is to remain a competitive place to do business at a global level, and if significant relocation of shipping activities and- de-flagging to other jurisdictions are to be avoided, the EU will have to focus even more on shipping to a global level.

Based on detailed input from various parties active in the maritime industry, Deloitte presents a set of policy recommendations on how to improve Europe as a location for shipping activities in this report – which would result in a benefit for the whole maritime cluster. Deloitte has been commissioned to do so by the European Community Shipowners' Associations on the basis of a benchmark study of six specific international shipping centres (Singapore, Hong Kong, Dubai, Shanghai, New York and London) and a comparison of the successful policies in those centres with EU policies. The primary focus of the comparison is on policies where the EU is responsible for or may impact policies. The study does not focus on individual Member States' policy implementation. The insights from the six international shipping centres have led to recommendations for EU policies on two levels: the overall strategic approach to EU shipping and specific areas where the EU should develop its policies further.

Global Macroeconomic and Political Developments since 2017

1. **The COVID-19 pandemic and its aftermath**

   The COVID-19 pandemic has significantly disrupted the global economy, causing widespread issues also for the shipping industry and for shipowners. Global lockdowns and port restrictions led to delays, congestion, and a severe shortage of containers, disrupting supply chains. Shipowners faced operational challenges, including crew changes, and ensuring safety protocols, leading to increased costs. While demand fluctuations caused initial downturns in certain shipping routes, other segments like e-commerce surged, causing a mixed impact on transported volumes. Consequently, shipowners were compelled to enhance digitalization, re-evaluate strategies, and adapt to the rapidly changing market dynamics to maintain resilience. Overall, the European shipping industry has acted as a stabilizing factor during the pandemic, contributing to supply chain security.

   The long-term impacts of the COVID-19 pandemic on the shipping industry and shipowners are multifaceted. A notable acceleration in digital transformation can be observed, with increased adoption of new technologies for better efficiency and tracking. Additionally, the pandemic underscored the necessity for more resilient and flexible supply chains, prompting a re-evaluation of logistics strategies and potential regional diversification. Health and safety measures for crews are likely to remain stringent, driving up operational costs but ultimately improving crew welfare. The pandemic's aftermath has also fostered stronger collaboration across the supply chain stakeholders, enhancing industry-wide communication and crisis management capabilities.

2. **The War in Ukraine**

   The War in Ukraine has had profound consequences on the shipping industry, affecting shipowners and maritime clusters. The conflict has disrupted Black Sea routes, caused delays and rerouting of shipments, and had increased insurance premiums for vessels operating in the region. Shipowners face heightened risks and operational uncertainties, including potential loss of vessels and cargo.

   Shipping has played a crucial role in maintaining the supply chain during the war in Ukraine, particularly in the transport of essential commodities such as grain and energy resources. Despite the challenges posed by the conflict, efforts such as the Black Sea Grain Initiative have been instrumental in ensuring that grain shipments continue from Ukrainian ports, thereby supporting global food security and stabilizing grain prices.

   Sanctions imposed on Russia have led to shifts in trade patterns, with European markets seeking alternatives to Russian exports, particularly in energy supplies. This has strained global logistics and increased freight costs. Maritime clusters in countries bordering the conflict zone experience direct impacts, with port closures and rerouted cargoes affecting their operational viability and economic stability. However, the EU shipping industry was able to adjust and especially during the related energy crisis were able to secure supply chains in Europe. In parallel, Russia has been trying to avoid these sanctions by operating the so-called Russia "shadow fleet". This fleet consists of ships that are engaged in the trade of Russian oil not compliant with Group of seven (G7)/EU sanctions, and accumulatively have no known insurance or no insurance equivalent to Protection & Indemnity insurance (P&I) and are owned or operated by companies in countries that do not abide by the G7/EU sanctions. These ships pose significant threats to the environment and to the safety of navigation around European coasts and beyond.

   Overall, these challenges prompt the industry to reassess risk management strategies and strengthen contingency planning to navigate the evolving geopolitical landscape. The long-term impacts of the War in Ukraine are substantial and likely to reshape global maritime logistics for years to come. These include

   - *Trade Route Realignments*: The war has prompted a re-evaluation of traditional shipping routes. This is particularly evident in the context of declining traffic volumes between Russia and Europe, while there has been an increase in traffic to other countries, including China and India.
   - *Enhanced Risk Management*: Shipowners are likely to enhance their risk assessment and mitigation strategies, investing more in security measures, diversified routes, and comprehensive insurance policies to navigate geopolitical uncertainties. With heightened security risks and insurance premiums, operating costs stay elevated.
   - *Market Shifts*: The sanctions on Russia and the need to replace Ukrainian exports, like grains

and metals, reshape global markets. This could lead to stronger trade links between countries previously less connected, altering shipping demand patterns.

- *Geopolitical Recalibration*: Maritime clusters near the conflict zone face long-term economic uncertainty. They will need to adapt by either diversifying their services or focusing on emerging markets and industries, such as renewable energy shipping and offshore services.
- *Risk of Major Environmental Incidents*: the Russia "shadow fleet" has end of life ships with no known insurance or no insurance equivalent to P&I, as such representing significant threats to the environment and to the safety of navigation around European coasts and beyond.

3. Red Sea crisis and the Israel Hamas conflict

The Red Sea crisis and the ongoing Israel Hamas conflict have caused significant disruptions in the shipping industry, heavily impacting shipowners and maritime clusters. Escalated geopolitical tensions and security threats in the region have led to the major effects:

- *Increased Operational Risks*: Navigating the Red Sea has become riskier due to maritime security threats and attacks on ships that put the lives of seafarers and freedom of navigations at risk.
- *Rerouted Shipping Lanes*: To avoid the high-risk zones, shipowners are rerouting vessels, resulting in longer transit times, increased fuel consumption, and higher freight costs.
- *Delays and Uncertainty*: The crisis has caused port delays and uncertainty in scheduling, disrupting supply chains and affecting the reliability of shipping services.
- *Economic Impact*: Port closures and reduced maritime activity in affected areas lead to decreased revenues and economic instability for maritime clusters reliant on Red Sea trade routes.
- *Security Enhancements*: Investments in security measures and infrastructure upgrades are necessary to protect assets and ensure safe operations, increasing overall operational expenses.
- *Market Shifts*: Some maritime clusters may benefit from shifting trade flows as shipping companies seek alternative routes and ports, potentially boosting their own economic activity and strategic importance.

To avoid the Red Sea, shipowners are considering several alternative trade routes, each with its own set of economic implications (e.g. Cape of Good Hope route significantly increases transit times and fuel consumption but also exposes shipping to the piracy threats around the coast of West-Africa, leading to higher operational costs; arctic route requires specialized ice-class vessels and careful planning due to harsh weather condition; Suez Canal diversions lead to increased port congestion and operational delays from rescheduling; overland routes imply higher costs and capacity limitations compared to maritime transport)

These shifts of routes come with their own economic implications, which include increased operational costs, supply chain delays, changing competitiveness or maritime clusters or ports, market redistributions and environmental impact. Overall, while these alternative routes help mitigate the risks associated with the Red Sea crisis, they introduce economic challenges and necessitate strategic adjustments to maintain cost-effectiveness and supply chain reliability.

4. Rising protectionism

Increasing tariffs and trade barriers have disrupted global trade flows, leading to decreased cargo volumes on certain routes and increased volatility in shipping demand. Shipowners face uncertainties around cargo availability and fluctuating freight rates, which complicate financial planning and operational stability. Maritime clusters are similarly affected, as decreased port activity can undermine local economies dependent on trading volumes.

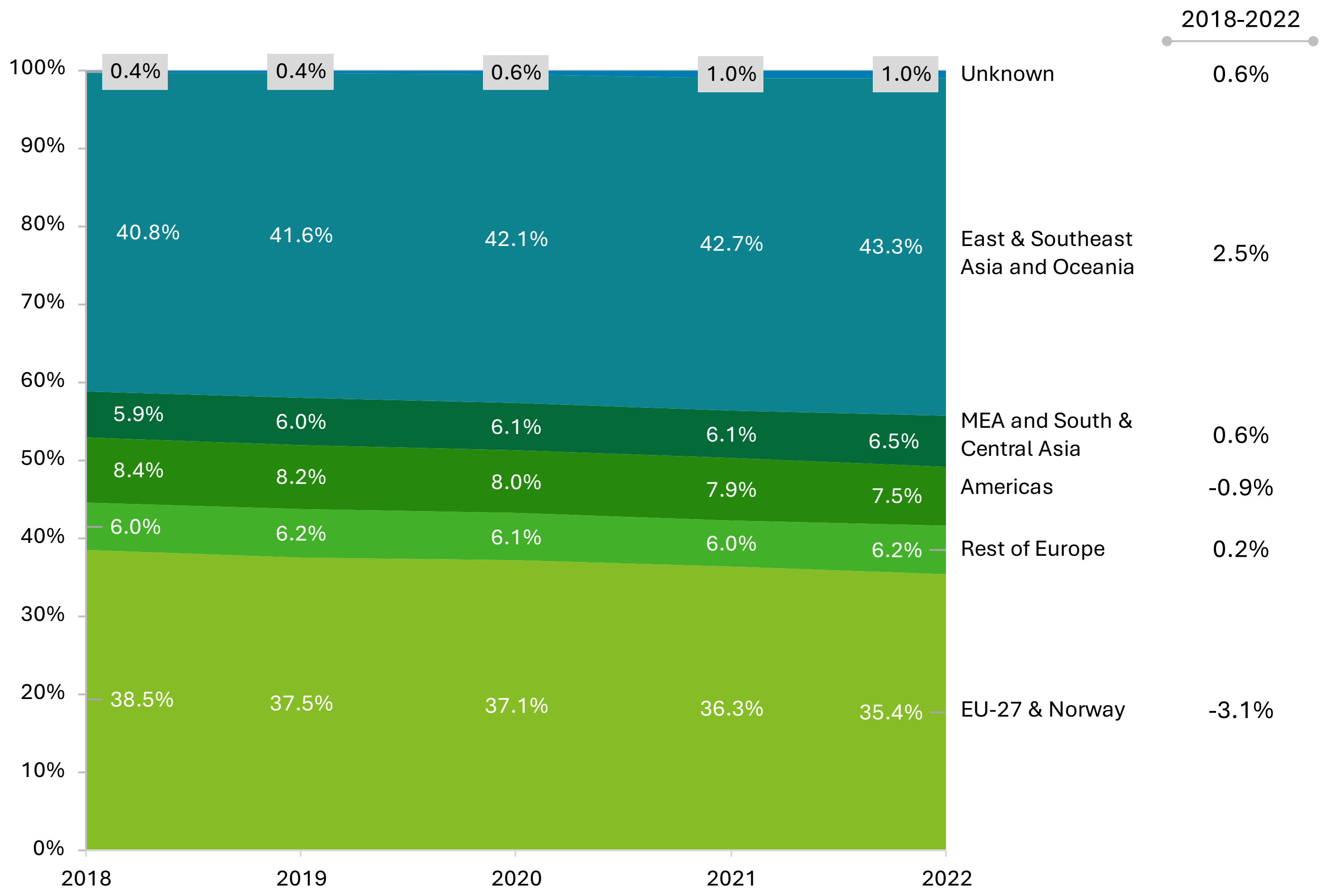
Protectionist policies have also accelerated the trend toward regionalization on customer side, with companies rethinking their supply chains and sourcing strategies, potentially reducing long-haul shipping demand in favor of shorter, regional routes. Shipowners may need to adjust their fleet compositions and operations to align with these evolving trade patterns.

Trade wars and rising protectionism disrupt traditional shipping markets, compel strategic adjustments for shipowners, and challenge maritime clusters to adapt to a shifting global trade landscape. Through innovative strategies, maritime clusters are trying to enhance their resilience, optimize operations, and position themselves as attractive hubs for future-proof maritime activities. As with all global political change, these volatile times present both risks and opportunities for the shipping sector.

Challenges of growth in the European shipping industry

Measured in the global share of gross tonnage owned and operated, the EU is one of the largest players in the world. In 2022, the EU-27 and Norway owned 35.4% of the gross world tonnage. However, compared to most of the international shipping centres in our benchmark, the EU is experiencing a slower growth in terms of the tonnage operated and owned[4] in particular.

Figure 2 – Development of total fleet size per world region – share in world fleet in terms of Gross Tonnage (GT)

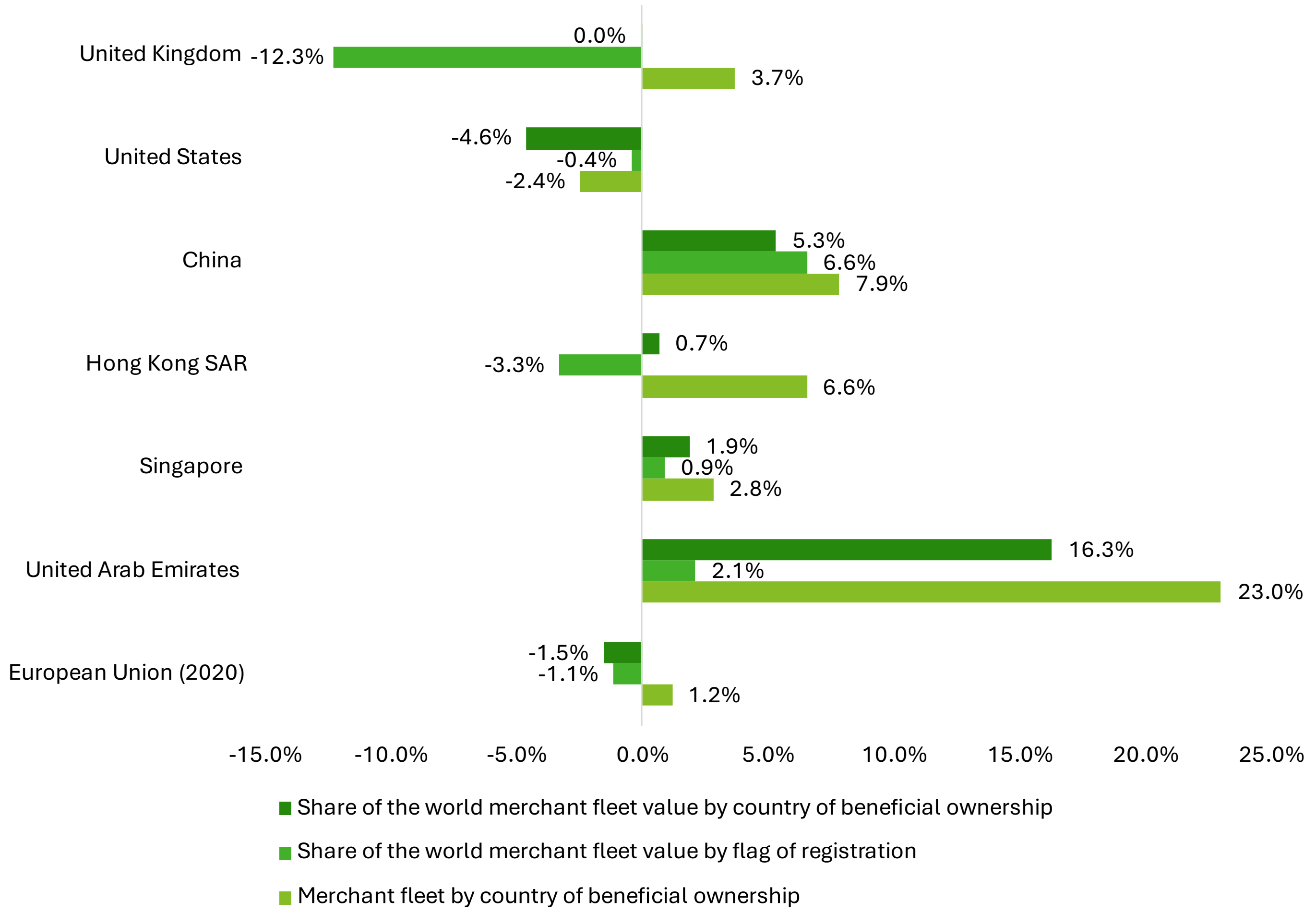


Source: Clarksons Research, 2022

Figure 2 shows the global capacity share of the fleet controlled by the EU-27 & Norway declined from almost 39% in 2018 to 35% in 2022. While growing in absolute terms, this means they lost market share, while the share of the Asian, Middle Eastern and African fleet increased. The East & Southeast Asian and Oceanian fleet, which was relatively close to the European fleet in 2018, increased from nearly 41% to more than 43% in 2022.

Maintaining the significant aggregate global market share of the EU shipping nations should therefore not be taken for granted, as especially Asian and Middle Eastern competitors develop rapidly. Maintaining its global market share will be increasingly difficult for EU shipping when competitors experience much higher growth rates.

Figure 3 – Compound annual growth rate (CAGR) of fleets size, 2019-2024

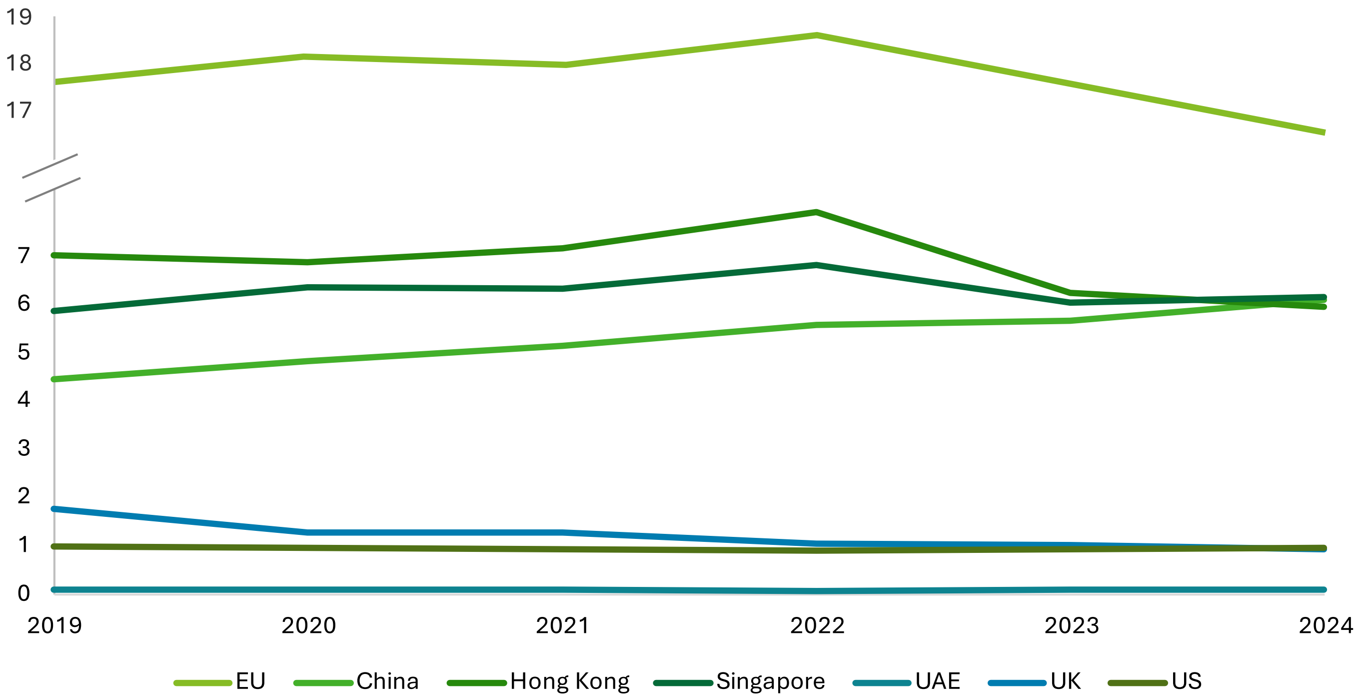


Source: UNCTAD, Division on Technology and Logistics, based on data supplied by Clarkson Research Services (London)

In the 2019-2024 timeframe, the EU has shown stagnation overall, with growth rates around -1.5% to +1.2%, depending on segment. At the same time, in particular Asian and UAE based international shipping centres have had strong annual growth rates of up to 23%, cf. figure 3. In particular, the merchant fleet by country of beneficial ownership has rapidly changed in the favour of Asia/UAE, whereas the EU and the US lags behind.

Still, it is clear that also previously strong shipping centres had to cope with global crises, so that the overall pictures is rather mixed and less pronounced than in 2017. What it shows however is that overall, the EU-owned tonnage compared to the global fleet is trailing behind, signalling that strong competitors are catching up and that market dynamics are changing on a global scale.

Figure 4 – Share of the world merchant fleet value by flag of registration



Source: UNCTAD, Division on Technology and Logistics, based on data supplied by Clarkson Research Services (London)

While the share of world fleet by operator domicile indicates that Europe is still an attractive market for shipping companies, there are other indicators suggesting that the EU is faced with an increasingly competitive pressure.

The "EU flag" (i.e. all EU member flags and Norway combined) is the largest flag globally. At the same time, the relative share of the combined EU flag compared to other flags is losing ground, cf. figure 4. Since 2019, the EU share of world fleet by flag of registration has dropped one percentage point. This decrease represents a gradual downward trend. It can also be observed that there was a significant drop after 2022. This also spilled to other leading centres, e.g. Singapore and Hong Kong, but these seem to have managed to stabilize their share in 2023/24. In this situation China shows a constant gain in share. Based on our benchmarking study the decreasing trend of the EU flag is due to the increasing competition between registries offering more business-friendly services and comparatively less administrative burden. At the same time, the benchmarking showed Singapore ranking first, that the competitiveness of a shipping centre is not dependent on any requirement to flag registry.

One key question is to what extent EU policies support the long-term global competitiveness or whether policies are in fact contributing to the relocation of shipping companies, ownership and activities as well as de-flagging outside Europe.

3. Key strength of leading and aspiring shipping centres

A comprehensive benchmarking of six leading and emerging international maritime centres serves as a basis for examining the aforementioned issues, with a particular focus on the competitive challenges the EU is facing in relation to a location for shipping activities. Singapore, London, Hong Kong, Dubai, Shanghai, and New York are the centres selected this year for the benchmarking of the attractiveness to shipping activities. These centres include either well established shipping centres like Singapore, or aspiring shipping centres like Dubai which are named the main competitors to the EU for location of strategic, commercial, and operational shipping activities. London has been added due to its proximity to the EU and its new competitive status after Brexit.

The objective of the benchmarking efforts was to identify the factors that contribute to the centres' reputation as the most attractive in their respective fields. As such, we have also taken a thorough look at the individual factors and their weighting and have made adjustments to take into account changes since the previous benchmark.

As has been the case for many years, and as mentioned in the previous 2017 study, we note that Singapore consistently scores highly in the benchmarking, highlighting the government's broad and dedicated focus on promoting the maritime economy and its comprehensive strategy to develop a maritime cluster.

Since the United Kingdom left the European Union, London became a strong competitor for the other European shipping centres, especially EU North Sea and Atlantic ports, because of the location's proximity and the maritime finance cluster. To gain an advantage from Brexit, the British government initiated the Maritime 2050 strategy in 2019, an inaugural long-term plan for the UK's maritime sector.

The strategies of the centres differ markedly. However, as a widely used instrument to attract shipping companies with fiscal incentives, tonnage tax is the first choice for most centres and also the most relevant factor for the vast majority of shipping companies. Singapore's strategy is to attract all types of global activities across the maritime cluster, whereas China aims to strengthen Shanghai as a domestic cluster, while keeping Hong Kong more international. Dubai hopes to increasingly attract head-quarters of shipping companies and management activities. The different strategies naturally lead to different focus areas of policymakers, which in turn are reflected in the benchmarking scores. The benchmarking results then demonstrate the wide-ranging, dedicated governmental focus on promoting the maritime economy and the comprehensive strategy to develop a maritime cluster in the different centres, to varying degrees.

3.1 Introduction to the six centres

Singapore

Singapore is a leading global maritime centre, propelled by comprehensive government-induced development and the attraction of foreign activities.

Singapore's strategic imperative focuses on drawing foreign investment to its shores. The entire shipping sector benefits from the city-state's initiatives, which include direct project grants and a business-friendly environment. The primary agency in driving these efforts is the Maritime and Port Authority of Singapore (MPA), which administers a broad range of tax incentives under the Maritime Sector Incentive (MSI) scheme. These incentives include a tonnage tax scheme, exemptions or reductions of tax on qualifying shipping income andproviding significant financial benefits to foreign and local maritime businesses. Additionally, the Maritime Cluster Fund supports various initiatives aimed at fostering innovation and growth within the sector. Singapore is also investing heavily in green technologies, aligning with global sustainability goals and enhancing its attractiveness as a forward-thinking maritime hub.

Hong Kong

Hong Kong remains a global maritime centre by leveraging its comparably liberal business conditions and strategic position as a gateway to China.

The city focuses on retaining and attracting both national and foreign ship owners and management through its ease of doing business and strategic advantages. The establishment of the Hong Kong Maritime and Port Board (HKMPB) promotes long-term development via government and industry cooperation. Investments in digital infrastructure for port operations enhance efficiency and competitiveness. Hong Kong offers significant fiscal incentives, including profits tax exemption for international shipping income, tax relief for capital expenditure on ships, and no GST/VAT, making it an attractive hub for maritime businesses. Nonetheless, Hong Kong has witnessed a decline in its overall appeal in comparison to Singapore. This is attributed to the limitations imposed by the politicised environment and the formation of new geopolitical blocs, as well as overall uncertainty concerning the political future of the city.

Dubai

Dubai is a rising maritime centre, distinguished by its overall low-tax regime and significant government investments in maritime infrastructure. Its strategic location, connecting Europe, Asia, and Africa, and ease of doing business attract foreign shipowners and operators. Dubai's maritime growth is supported by investments in Dubai Maritime City and the expansion of maritime logistics and technology hubs. Exemptions on import duties for maritime equipment and supplies further enhance its appeal. These initiatives are strategically managed by the Dubai Maritime City Authority, fostering a coordinated and progressive maritime environment.

Shanghai

Shanghai is a key national maritime centre in China, driven by national shipping companies and foreign offices established due to economic activity. The city's focus is on retaining national players in the maritime sector. Shanghai's strategic advantages include its prime location and access, facilitating efficient logistics and shipping operations. The city is also known for its maritime technology and logistics talent. Major initiatives include investments in the Shanghai Pudong Free Trade Zone (FTZ) and government ship subsidies. Additionally, Shanghai offers tax incentives such as reduced corporate income tax rates for eligible enterprises and VAT rebates on exported services, enhancing its appeal as a maritime hub.

London

London is a historically significant global maritime centre, currently leveraging its longstanding maritime prominence and comprehensive services to attract foreign companies and financial services. London's strategic imperative remains consistent, as it positions itself as a leader in providing access to sophisticated financial and legal services and green technology, facilitating sustainable operations within the maritime sector. London has century old tradition in being a maritime law cluster, which is driven by the wide-spread use of English law and London Arbitration in Shipping. With a new government in place, the centre is considered as being in a phase of re-establishment after Brexit, with some uncertainties. Yet, the well-established tonnage tax regime, the geographical proximity to the EU and the usage of Common Law all enhance its appeal. Additionally, the availability of research and development (R&D) tax relief supports innovation and technological advancements, reinforcing London's status as a premier maritime hub.

New York

New York is a global maritime centre leveraging its strategic location within the world strongest economy and financial markets. It attracts foreign companies and financial services, positioning itself as a hub for ship owners and management with access to capital and robust financial and legal services. The New York Shipping Exchange promotes long-term development by facilitating government and industry cooperation. Federal and state tax credits for maritime infrastructure investments and incentives for green shipping technologies further enhance New York's appeal in the maritime sector. Similar to London, it benefits from the wide-spread use of US law in shipping contracts.

Table 1 – The six centres in a nutshell

Shipping Centre	Overall strategic aspiration/ imperative	Key focus of the centre	Sector scope	Primary selling points	Noteworthy policies and investments
Singapore	Global maritime centre through comprehensive government-induced development and attraction of foreign activities	Attraction of foreign actors	Entire shipping sector	• Direct project grants • Ease of doing business	• Broad range of tax incentives under the Maritime Sector Incentive (MSI) scheme, including exemption or reduction of tax on qualifying shipping income • Maritime Cluster Fund • Investment in green technologies
Hong Kong	Global maritime centre through focus on comparably liberal business conditions and position as gateway to China	Retention and attraction of national (Chinese) and foreign actors	Ship owners and management	• Ease of doing business • Gateway to China	• Establishing Hong Kong Maritime and Port Board, a joint government/industry body • Enhanced digital infrastructure for port operations • Profits tax exemption for international shipping income, tax relief for capital expenditure on ships, no goods and services tax (GST)/ value-added tax (VAT)
Dubai	Regional maritime centre through no-tax regime and heavy government investments in physical maritime infrastructure	Attraction of foreign actors	Ship owners and branch offices	• Ease of doing business • Strategic location connects Europe, Asia and Africa	• Investments in physical infrastructure • Expansion of maritime logistics and technology hubs • Exemptions on import duties for maritime equipment and supplies
London	Global maritime centre through leveraging historical maritime prominence and comprehensive services	Attraction of foreign actors and financial services	Entire shipping sector	• Strong financial and legal services • Green technology allowing for sustainable operations	• Tonnage tax for ships strategically and commercially managed in the UK and R&D tax relief Support for Maritime Training (SMarT) for qualified seafarers • UK Shipping Concierge Service supports maritime businesses working with or in the UK
New York	Global maritime centre through strategic location and strong financial markets	Attraction of foreign actors and financial services	Ship owners and management	• Access to capital • Strong financial and legal services	• New York Shipping Exchange • Federal and state tax credits for maritime infrastructure investments, incentives for green shipping technologies
Shanghai	National maritime centre primarily based on national shipping companies and foreign satellite offices located due to economic activity	Retention of national actors	Ship owners	• Access and location • Maritime technology and logistics talent	• Investments in Shanghai Pudong FTZ government ship subsidies • Tax incentives in the Shanghai Free Trade Zone, including reduced corporate income tax rates for eligible enterprises • VAT rebates on exported services

The methodology behind the model

The benchmark model consists of eight competitiveness factors and 56 indicators. It builds upon the model used in 2016/2017, also for the purpose of comparability. The academic literature, previous competitiveness indices and discussions with industry stakeholders have provided a foundation for the selection of indicators and have guided the overall architecture of the model. The competitiveness factors are shown in the box below and will be further described throughout the report. Annex 1 shows the complete overview of local and global weights applied in the model. Most of the 56 indicators stem from the best available estimates from national authorities, international organisations and private data holders. The remaining indicators are based on desk research and expert interviews, and these data inputs have been quality assured. It is possible that some data will have been updated or revised after publication. The computation of the benchmark scores is based on successive aggregations of scores on individual weighted indicators that operationalise the overall competitiveness factor. Local weights are applied to indicators that add up to the global weight for the overall competitiveness factor shown in the table.

$$Competitiveness\ factore\ score_i = \sum (Indicator\ score_i \times\ local\ weight)$$

To maintain the relative distance between the variables that comprise the composite indices, a standard min-max transformation at the indicator level was performed so as to limit the range from 1 to 10. The standard formula for converting the quantitative data is the following:

$$std.score_i = 9 \times \frac{(score_i - score_{min})}{(score_{max} - score_{min})} + 1$$

In cases where higher values indicate the worst performance, such as number of eligibility requirements for tax incentives, the min-max transformation is reversely converted so that the 1-10 scale still corresponds to worst and best possible performance, respectively:

$$std.score_i = -9 \times \frac{(score_i - score_{min})}{(score_{max} - score_{min})} + 10$$

It is recognised that there are potential issues associated with a min-max transformation in cases where the sample size is limited. The model may automatically create variance, despite the variance being limited in practice.

Competitiveness factors and weighting

7.0%	Ease of doing business
30.0%	Taxation and fiscal incentives
14.5%	Skills
4.5%	Legal framework for vessel exploitation
12.0%	Flag attractiveness
14.5%	Availability of professional services
2.5%	Availability of finance
15.0%	Regulatory, economic & political factors

3.2 Overall result of the benchmarking

The benchmarking suggests that Singapore outperforms other shipping centres on most parameters, with the exception availability of professional services (second to London) and availability of finance (third to New York and Shanghai). Hong Kong and London are consistently high performers, while New York, Dubai, and Shanghai score well on specific factors, highlighting differences in overall centre strategy.

Figure 5.1 – Results of the benchmarking

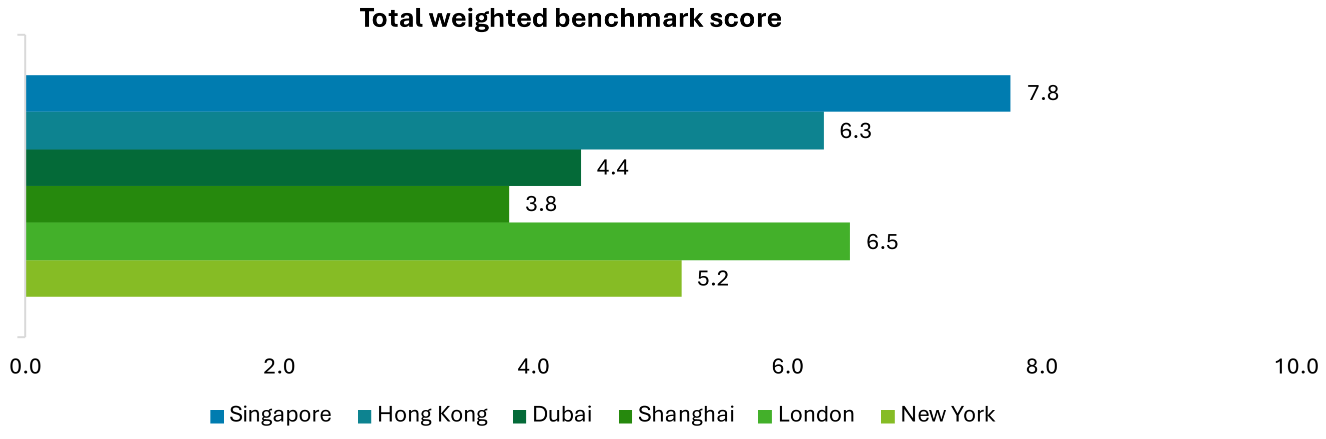
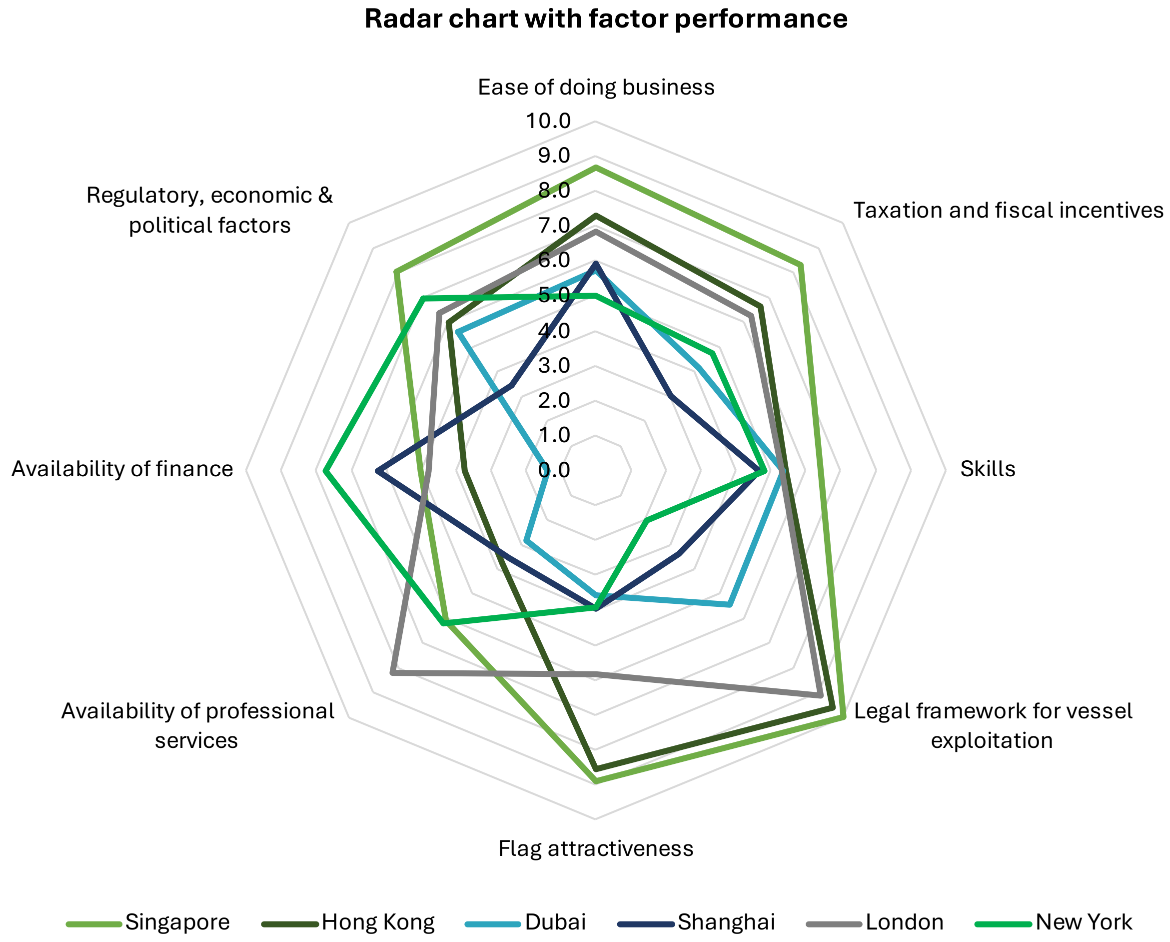


Figure 5.2 – Results of the benchmarking by factor



Singapore's first-class cluster environment offers almost no competitive disadvantages. The strategy used by the decision-makers in the centre to achieve this status differs significantly from all other centres. Singapore and the Maritime and Ports Authority (MPA) are based on a political imperative of a national government that has the ability to assert this imperative across all political levels.

London is a shipping centre with few weaknesses, but it is only in the availability of professional services that it stands out from other centres. London is the leader in professional services, especially in the areas of law and insurance. Although it has a solid base, London only plays in the midfield in almost all other areas. The shipping cluster in London also receives political support at the national level, but not nearly as much as in Singapore, as the shipping sector is not as important there and Brexit and the many personnel changes at the political level in recent years have not allowed for perceived continuity.

Hong Kong traditionally pursued a laissez-faire approach in government, with long-term liberal framework conditions taking precedence over short- and medium-term political programmes aimed at the competitiveness of the shipping sector. In assessing competitiveness, the Singapore approach is indeed very sector-specific, while Hong Kong takes a more general view of competitiveness. The greater integration into the Chinese political and economic system means that Hong Kong is losing its appeal as a centre of business and finance for international companies, as it does not have the same freedoms as Singapore, and at the same time is facing increased competition from Shanghai. The recent establishment of the Hong Kong Maritime and Port Board (HKMPB) shows that the local government is taking a more active approach to remain attractive to international shipping companies.

New York ranks fourth in the benchmarking, which is mainly due to its strong financial centre. However, shipping-specific incentives are under-developed, as other sector-specific priorities have been set at the national level in recent years.

Dubai has fallen from third place in the last study to fifth place this time. This is due to the fact that two strong well-established centres, London and New York, have joined the ranking, as well as the fact that the attractiveness of the tax system has declined. The Dubai Free Zone is still generally attractive, but not very shipping-specific. The Dubai Maritime Centre has made significant progress, but is still perceived as quite immature and does not offer the scope that the other centres offer. High public investment in physical maritime infrastructure and a strategic location have made Dubai an important regional hub. The strong focus on physical infrastructure has meant that the centre is still hampered by an underdeveloped legal framework, weak core institutions in the shipping sector and a lack of maritime expertise. Nevertheless, Dubai has undergone a period of substantial growth of their fleet over recent years. As a newcomer in the maritime sector, they are still in the process of building their infrastructure and catching up.

Shanghai ranks sixth and last in our survey, partly due to the lack of tax incentives for shipowners and operators based in the jurisdiction, but also due to general legal uncertainty. However, it is closing the gap on the other centres. Shanghai has made remarkable progress in its maritime activities in recent years, creating a network of Chinese owners and international managers that handle an increasing share of China's imports and exports. Shanghai is focusing its resources on meeting the requirements of the local market, rather than those of international shipping companies. Despite remaining less open than other international shipping centres, Shanghai is becoming a significant player on the international stage. This is due to China's status as the largest exporter globally and the identification of shipping as a strategic priority for China. Although Shanghai is not competing as strongly with other maritime centres to attract international fleets and is therefore evaluated as less competitive in our benchmark. The Chinese fleet is growing rapidly and is displacing established shipowners.

Other competitiveness benchmarks

Compared with other benchmarks of the performance and competitiveness of the six centres shown in table 2, the ranking in this study differs in some respects, but overall, paints a picture in line with some other studies.

A few things are worth noting: It seems obvious that all analysts agree that Singapore is the leader in terms of competitiveness, both in terms of the general business environment and shipping-specific conditions. As the benchmarks become more shipping-specific, London, which is new to our benchmark, scores higher because of its shipping-specific financial sector, especially insurance and its legal set-up in applying Common Law, as many contracts choose English law or London Arbitration as their jurisdiction. On the other hand, general competitiveness benchmarks tend to favour Dubai, which has a very competitive – but non-shipping-specific – business environment and tax regime, and a maritime cluster that is not as strong as in the other centres.

In our previous study in 2017, Hong Kong had a clear position in second place, just behind Singapore. This position has been lost and Hong Kong is now somewhere between second and last place, in part due to (geo-)political changes since the previous benchmark, in part also due to a stronger domestic focus of the centre.

New York, which is new to our study this year, scores average in most of the benchmarks. The benchmarking in this report seeks to balance general and shipping-specific competitiveness factors to provide the most comprehensive view of each centre's attractiveness.

Shanghai receives the lowest ranking in the benchmark, as in our last study. While it performs better in the shipping specific benchmarks by Menon and Xinhua, it has a similarly low ranking in the other broader benchmarks. The city is positioning itself as a gateway to the Chinese market, directing its efforts accordingly. In comparison to Singapore and Hong Kong, for instance, Shanghai offers a relatively limited international business environment without a tonnage tax.

Table 2 – Comparison with other shipping-specific and general benchmark analyses of competitiveness of centres

Shipping Centre	Deloitte 2024	Deloitte 2017[7]	Menon 2024[8]	Xinhua 2023[9]	EIU 2024[10]	Heritage foundation 2024[11]	IMD 2025[12]
Singapore	1	1	1	1	1	1	1
London	2	n/a	2	2	4	4	6
Shanghai	6	4	3	3	6	5	5
New York	4	n/a	4	6	2	3	4
Dubai	5	3	5	5	5	2	3
Hong Kong	3	2	6	4	3	n/a	2

Shipping specific ◄——► **General competitiveness**

Note: Figures for other benchmark analyses show the relative ranking between the six centres/countries and not the absolute ranking of each centre/country in the benchmark analysis.

[7] Deloitte Benchmark 2017 - EU Shipping Competitiveness Study (2017)
[8] Menon-Leading Maritime Cities 2024 -The Leading Maritime Cities of the world 2024 (n.d.)
[9] Xinhua-Baltic International Shipping Centre Development Index - Xinhua-Baltic ISCDI Report (2023) (n.d.)
[10] Economic Intelligence Unit (EIU) Overall business environment 2024 – EIU Data (n.d.)
[11] Heritage foundation - Index of Economic Freedom 2024 - 2024 Index of Economic Freedom (2024)
[12] International institute for management development (IMD) World Competitiveness 2025 - Compare results- world competitiveness ranking (n.d.)

3.3 Ranking on individual competitiveness factors

The following section presents a ranking of the six centres according to the eight competition factors of the benchmark model.

Ease of doing business

The competitiveness factor "ease of doing business" is an indicator of the overall regulatory economic environment in the process of starting or running a local firm. Starting point in this category is the World Bank's "Ease of doing business index". In our benchmark, six World Bank indicators have been included, leaving four behind, primarily due to overlap with other competitiveness factors. Furthermore, some of the competitiveness factors have been redefined to fit the scope of the study. It is important to note that this ease-of-doing-business measure reflects the economy as a whole and does not necessarily only concern the shipping industry. The rationale behind treating the economy as a whole is the vital supporting services in the shipping clusters.

For this reason, the general ease-of-doing-business statistics have been supplemented with shipping-specific perspectives of industry experts for further analysis.

Figure 6.1 – Ranking of shipping centres on competitiveness factor

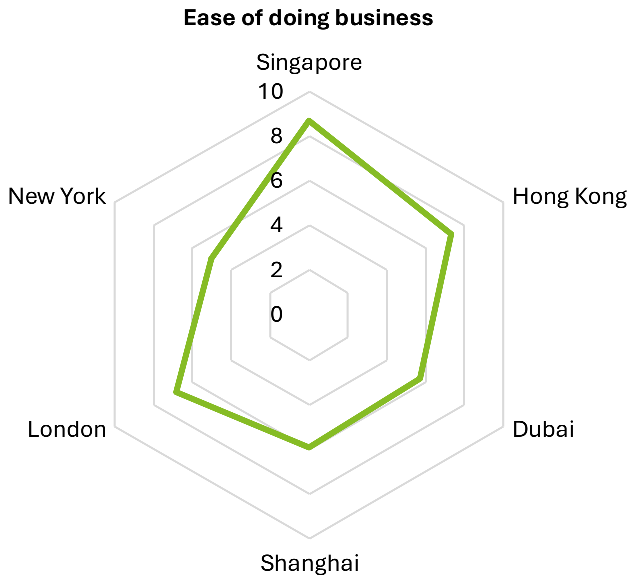
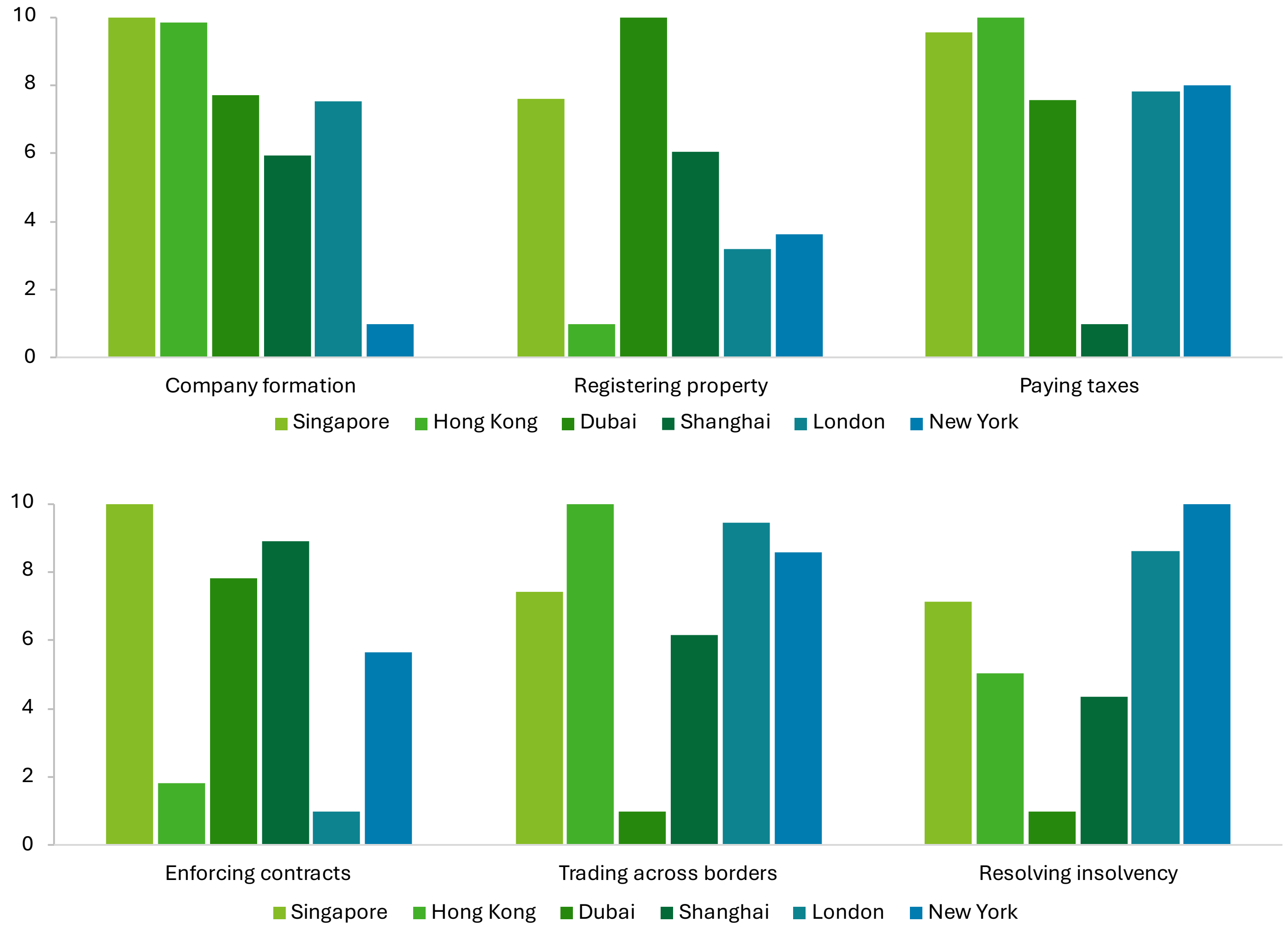


Figure 6.2 – Ranking of shipping centres on sub-indicators



Who is the best?

Singapore

What are the numbers saying?

In **Singapore**, a country with a strong emphasis on business-friendliness, the ease of doing business is regarded as a significant political factor. While Singapore does not rank first on all individual sub-factors, it performs above the global average on all of them, making it the highest-scoring centre ahead of Hong Kong and London. The provision of personalised assistance from senior government officials, and the flexibility of its administration in times of non-standard situations, are identified by sector experts as essential factors contributing to Singapore's ranking in the ease of doing business in the shipping sector.

Similarly, **Hong Kong** exhibits a strong performance in terms of ease of doing business, however, it lags behind Singapore in terms of cost and efficiency parameters related to property registration.

London ranks the same as Hong Kong and scores well in trading across borders and resolving insolvency but lags behind in enforcing contracts and registering property.

Shanghai faces challenges in the area of company formation and taxation, while **Dubai** has weaknesses in insolvency resolutions and cross-border operations.

Although **New York** scores best in terms of handling insolvencies, it ranks last overall in the ease of doing business, driven by the difficulty in company formation, as well as registering property.

Taxation and other fiscal incentives

Taxation and other fiscal incentives are seen as the key factor in the competitiveness of shipping centres. Due to the international nature of shipping, the sector is exposed to international competition more than almost any other industry. Therefore, many shipowners consider a favourable tonnage tax or a generally low tax system for shipping income to be a necessary condition for their companies in order to survive in the global market. An examination of the tax systems of the different shipping centres shows that there are different tax incentives for shipping companies, which result in different systems. The fundamental differences in the general tax systems make it very difficult to draw direct comparisons. In view of this, the ranking of cities in terms of the attractiveness of their tax systems for the shipping industry has been made on the basis of a general framework of indicators that apply to all systems, irrespective of the type of tax system. Table 3 provides a brief summary of the six tax systems. Beyond the general attractiveness of the tax rates offered by jurisdictions seeking to support their maritime cluster, each type of tax regime has advantages and disadvantages related to factors such as the level of bureaucracy, legal certainty and complexity.

However, these parameters are not included in the general tax model in figure 8, which is based on seven parameters that allow a comparison between centres that do not offer significant tax incentives for shipping and centres that offer substantial incentives for some income components of shipping companies.

Figure 7.1 – Ranking of shipping centres on competitiveness factor

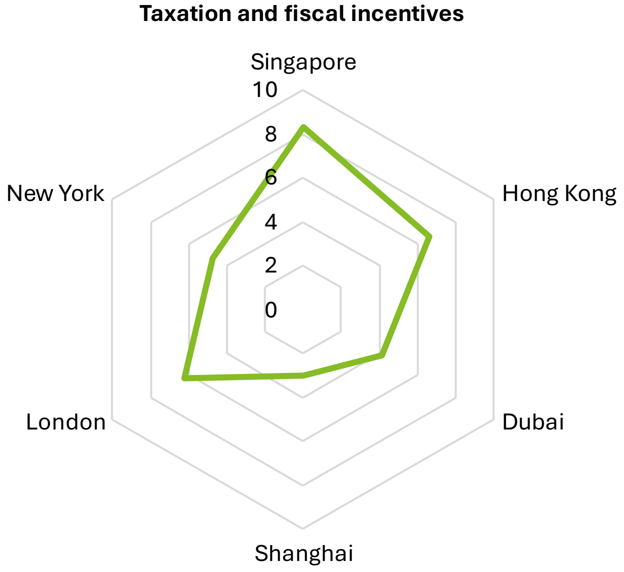
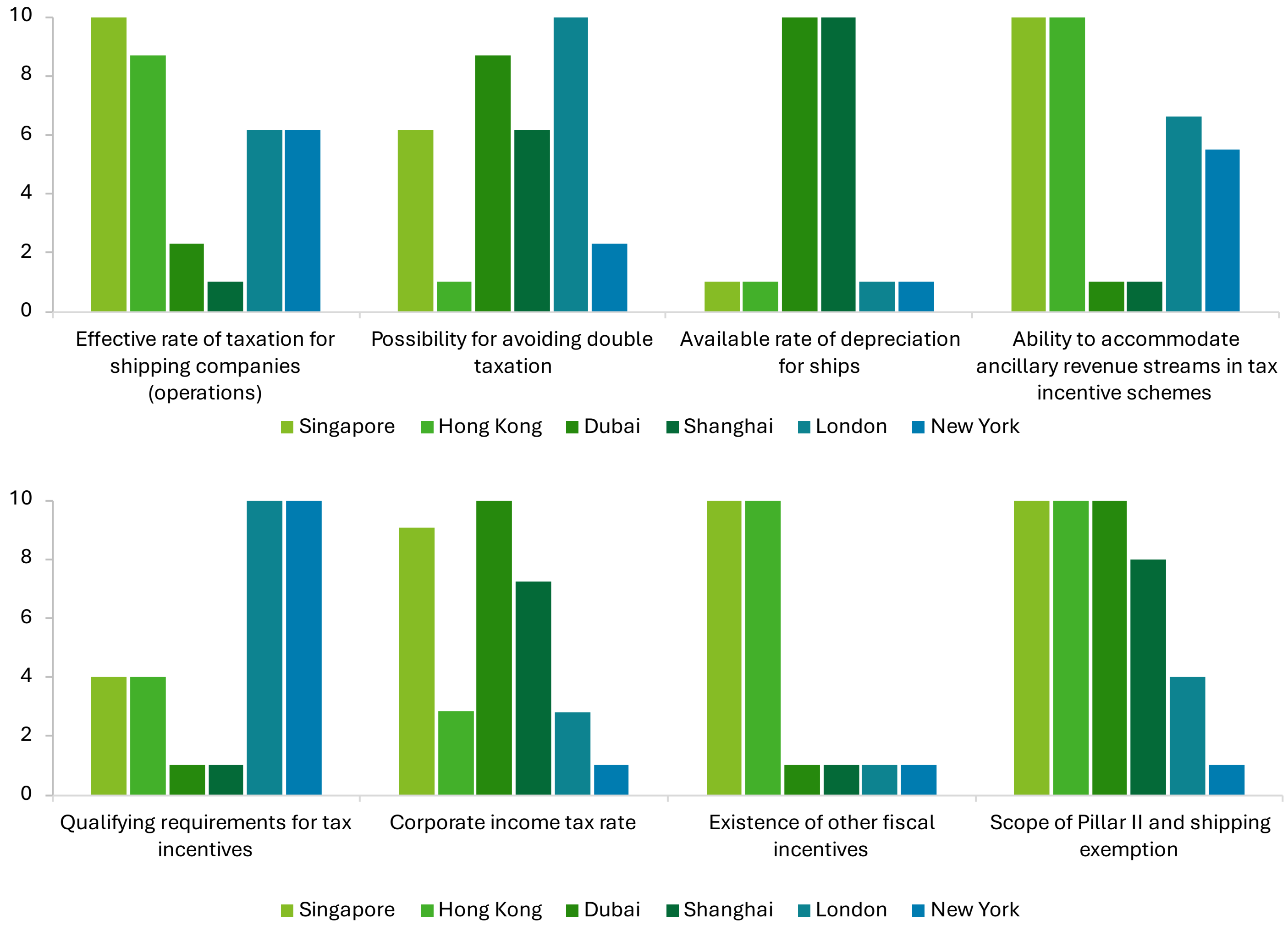


Figure 7.2 – Ranking of shipping centres on sub-indicators



Who is the best?

Singapore

What are the numbers saying?

Singapore scores highest overall in taxation and fiscal incentives, as there is the lowest rate of effective taxation for shipping companies, the highest ability to accommodate ancillary revenue streams in tax incentive schemes and additionally some other fiscal incentive schemes. It only scores low in the availability rate of depreciation of ships, which is not needed because of the other general favorable taxation. Concerning the types of vessels covered by the MSI-Approved International Shipping Enterprise (AIS) and Singapore registry of ships (SRS) schemes, the Singapore scheme offers tax incentives for offshore industry units (e.g. jack-ups, semi-submersibles, and submersibles) as well as floating production storage and loading vessels, dredgers, seismic vessels, tugboats and more. However, Singapore has implemented rules for environmentally friendly vessels. Currently, an incentive of up to 100% for tonnage tax is in place (until end of 2024 – as of now).

Hong Kong scores similar to Singapore in most subfactors but offers less possibilities to avoid double taxation and has a higher corporate income tax for non-shipping related activities, and therefore score slightly lower. In Hong Kong, non-resident ship management companies earning income from sources outside the Hong Kong jurisdiction qualify for fiscal incentives, like other support services. The key criterion is territoriality. Further, Hong Kong is introducing more incentives for green shipping if certain thresholds are met.

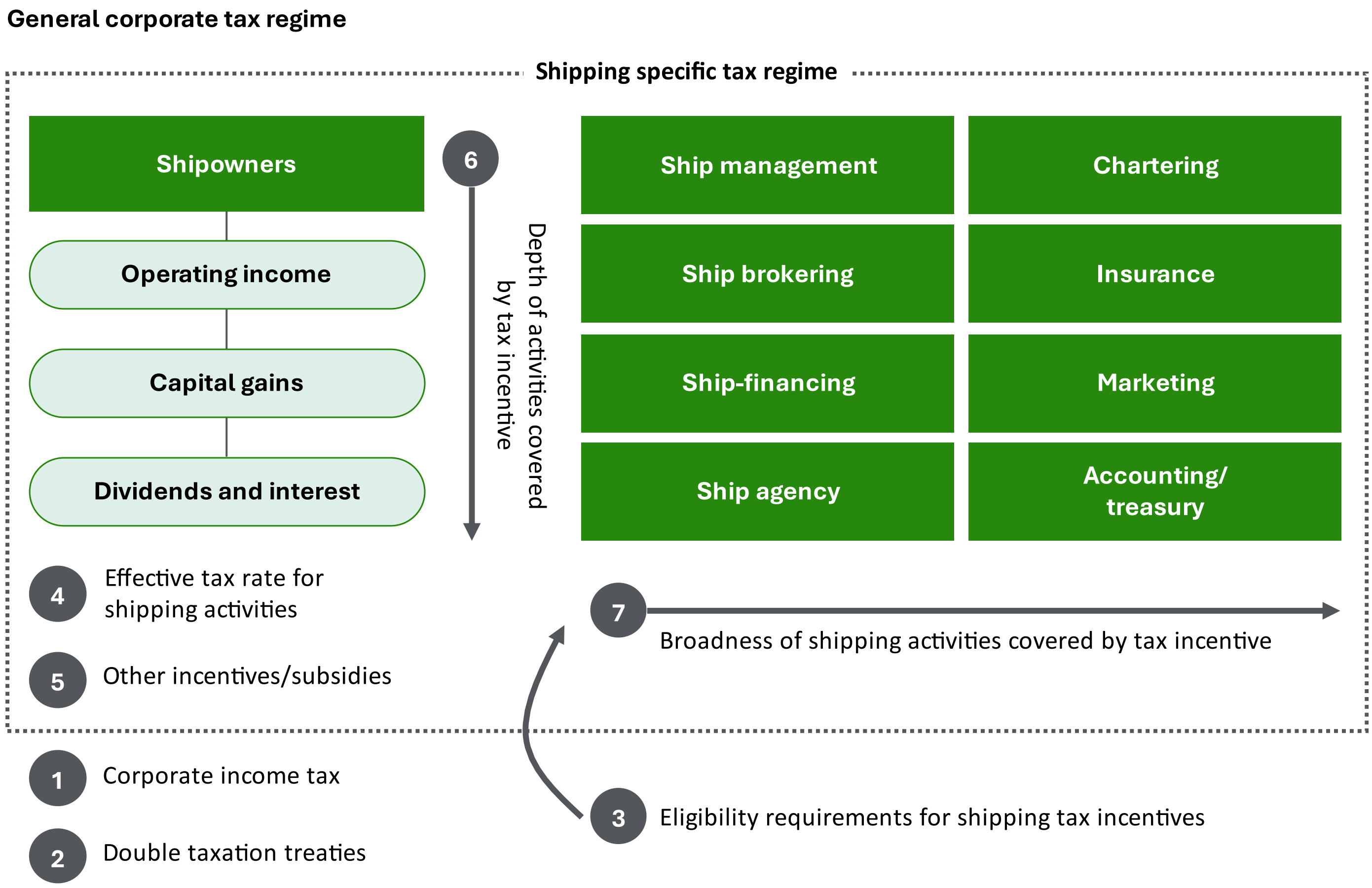
Even though **London's** overall score in taxation and fiscal incentives is nearly on par with Hong Kong, the scores of the subcategories shows a different picture. London scores highest in the possibility to avoid double taxation and the qualifying requirements for tax incentives, but the effective rate of taxation for shipping companies is higher and there are no other fiscal incentives in the UK. London has a broader activities definition and subsumes also (qualified) secondary activities, e.g. financing, to be covered by tonnage tax regime.

Dubai has a very low general corporate tax regime, and therefore scores highest in the corporate income tax rate. They have also a favorable rate of depreciation for ships, but they have less shipping specific tax rates and incentives. With the abolishment of the zero tax rate regimes and after the introduction of a (still low) corporate tax, in comparison to our last study Dubai score much lower in overall taxation and fiscal incentives, as the tonnage tax of most other shipping centers are more attractive. In Dubai, the general low tax regime applies not only to shipping, but to all activities, there are no shipping-specific requirements (9% Corporate Tax Rate above AED 375,000). In order to qualify for the standard tax regime an economic substance requirement needs to be fulfilled to be classified as a corporate residence in UAE[13]. In addition, Qualifying Free Zone Person Regime (QFZP) is eligible as a tax incentive if certain preconditions are met and provides a zero corporate income tax (CIT) rate.

New York scores high in the qualifying requirements for tax incentives, but scores low in nearly all other subfactors. There are Tax incentives for U.S.-based companies that elect to exempt their "qualified shipping activities" from U.S. corporate income tax. New York has a narrower definition of the activities applicable to tonnage tax. Eligible companies must operate U.S.-flagged, self-propelled vessels with a carrying capacity of at least 6,000 tons used exclusively in foreign commerce with the United States. The tax break applies to "core activities" of on qualifying vessels which are used for the transportation of "goods" or "passengers" (e.g., cruises).

Shanghai scores last with the highest rate of taxation for shipping companies, as the available rate of depreciation cannot compensate the low score in all other subfactors.

Figure 8 – Tax model used to compare attractiveness of tax regimes in the six centres



[13] QFZP allows i.a. ownership, management and operation of Ships for internal transportation a zero CIT rate.

Table 3 – Summary of the six different tax regimes

Singapore	Hong Kong	Dubai	Shanghai	London	New York
The Maritime Sector Incentive (MSI) is incentive for eligible shipping enterprises.	**Low tax regime with few narrowly defined shipping incentives**	**Specific free tax zone with a limited scope of shipping activities**	**Standard tax regime, with no shipping incentives**	**Tonnage tax regime**	**U.S. tonnage tax regime providing an incentive-based alternative system of taxation for U.S. vessel operators**
• Singapore Registry of Ships (MSI-SRS) aims to promote the registration of ships under the Singapore flag (tax exemption or net tonnage calculation). • Approved International Shipping Enterprise (MSI-AIS) seeks to encourage international ship owners and ship operators to establish their commercial shipping operations in Singapore (offers tax exemption or net tonnage calculation) for a certain period. • Maritime Leasing (MSI-ML) encourages entities to use Singapore as their capital and funding base to finance their vessels or sea containers (offers Concessionary tax rate or an alternative basis of tax based on the net tonnage). • MSI Shipping-related Support Services (MSI-SSS) Award seeks to promote the growth of ancillary shipping service providers and to encourage shipping conglomerates (concessionary tax rate of 10% on the incremental income).	• General low tax regime, including no dividend tax, withholding tax, VAT, capital gains tax, sales tax, etc. • Operating profits derived from international shipping operations not subject to profit tax, neither is charter hire income. • Annual tonnage charge applies for HK flagged vessel • Excluded from Pillar Two	• Qualifying Free Zone Person (QFZP) regime is a tax incentive that may apply to shipping provided certain conditions (e.g., substance requirements) are met and subsequently benefit from a 0% CT rate on its qualifying income. • In short, the main relevant activity for the shipping industry that may be considered qualifying is the ownership, management and operation of ships. • These includes the international transportation of passengers, goods or livestock, towing activities and the provision of general assistance to ships at sea, dredging activities at sea, and the leasing and chartering of ships on a bareboat basis. • Low corporate tax regime (9% to taxable profit exceeding AED 375k), but no dividend tax, inheritance tax, withholding tax, etc. • The UAE has not yet implemented the Pillar Two rules but is expected to do so in the near future.	• Shipping companies are offered no preferential treatment in the Chinese tax code. • Dividend tax, capital gain tax, VAT, special local levies. • Extensive list of double taxation agreements. • Foreign companies will be subject to CIT in China, which may be reduced / removed by double tax treaties. It's highly dependent on the type of shipping income, i.e. leasing of vessels by way of voyage charter, time charter and wet lease, bare charter, dry lease, etc. • China did not implement Pillar Two yet.	• Eased the requirements for tax regime past Brexit • Narrow activities to be covered by “shipping” income • Very extensive number of double taxation agreements • Companies within CT, which operate or manage qualifying ships that are “strategically and commercially managed in the UK”, can take advantage of the tonnage tax regime. • All tonnage tax companies, except those that only manage qualifying ships, must make a commitment to meet a minimum training obligation. • International shipping income is excluded from global anti-base erosion (GloBE) income and therefore not subject to the Pillar Two 15% minimum tax rate provisions, provided the shipping activity crosses borders.	• Tax incentive to U.S.-based electing corporations by excluding its “qualifying shipping activities” from U.S. corporate income tax. • Electing corporations must operate self-propelled U.S. flag vessels of not less than 6,000 deadweight tons used exclusively in the U.S. foreign trade. • Incentive applies to transport of "goods" or “passengers” (i.e., cruise lines) on qualifying vessels referred to as “core activities”. • Ancillary revenue streams, such as terminal operations or intermodal activities, may be excluded, but the gross income from such ancillary activities are limited to 20% of the gross income from the core activities. • Any deduction or loss attributable to the gross income of the qualifying shipping activities, such as depreciation, are disallowed. • Election to defer gain on the sale of a vessel used in the U.S. tonnage tax regime if proceeds are reinvested in similar vessel(s). • The U.S. has other incentives for U.S. based shippers including participation in the Merchant Marine Capital Construction Fund permitting immediate expensing of vessel acquisitions. Stringent requirements including Jones Act participation. • The U.S. has not adopted the Pillar Two OECD framework.
Shipping incentive regimes	**Shipping incentive regimes**	**Standard tax regime, but QFZPs grant tax benefits**	**Standard tax regime**	**Shipping incentive regimes**	**Shipping incentive regimes**

Skills

The supply of skilled labour and the institutions, policies and frameworks that support the maritime cluster are critical to the competitiveness of maritime centres. Human resource issues are complex in general, but even more so in the maritime sector, with a fragmented demand for skilled workers onshore and offshore, ranging from finance graduates to cadets. The benchmarking model breaks down skills competitiveness into three sub-factors: (1) structural indicators of the workforce, (2) taxation and related regulations, and (3) maritime education. The factor as such considers both general and shipping-specific and demand-side drivers for skills.

Figure 9.1 – Ranking of shipping centres on competitiveness factor

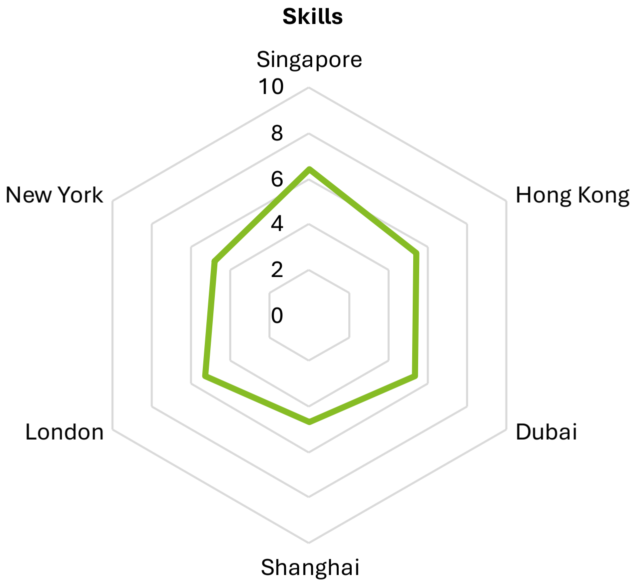
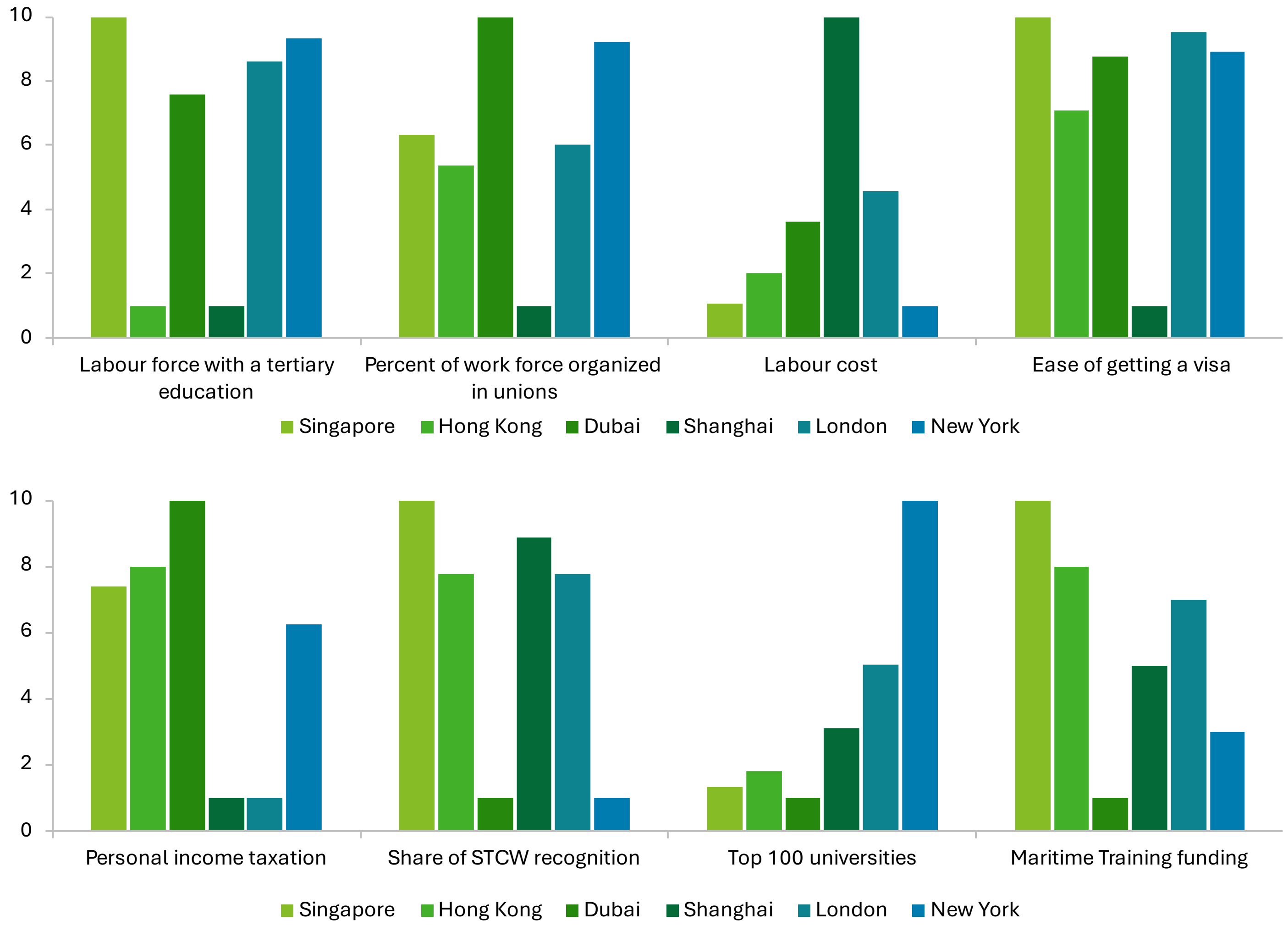


Figure 9.2 – Ranking of shipping centres on sub-indicators



Who is the best?

Singapore and Hong Kong

What are the numbers saying?

Both **Singapore** and **Hong Kong** score highly on the skills benchmark, as both offer generous training grants for maritime employees and tax exemptions for seafarers with worldwide income. Seafarers trained in these countries are recognised by the EU and most European maritime authorities for their STCW certificates. Singapore also uses international expatriates in addition to local workers for onshore work. This is facilitated by the fact that the bureaucracy involved in obtaining visas is kept to a minimum. Hong Kong offers the best combination of supply of skilled local labour, strong general universities, maritime training institutes for seafarers, labour costs and personal tax rates. Compared to Singapore, labour costs in Hong Kong are significantly lower, mainly because Hong Kong companies are better able to find local labour rather than relying on foreign permanent residents/expats from Singapore.

London, Shanghai, Dubai and **New York** have similar overall score in skills, but differ in the subfactors. While London rank best in ease of getting a visa and labour force with a tertiary education, as well as Share of STCW recognition, it has high labour costs. Shanghai ranks best in with a low labour cost but worst in unionization of the work force and it is difficult to get visa. New York has the best universities and also a highly skilled labour force but ranks last in share of STCW recognition and labour costs.

Legal framework for vessel exploitation

This competitiveness factor relates to specific rules that restrict the freedom of shipowners to operate vessels in different constellations. This factor largely depends on the nature of the national flag register and the specific rules of the shipping tax regime. In many cases, policymakers impose requirements for certain operational conditions to be met in order for the fiscal incentive to be applied. The specific eligibility requirements related to fiscal incentives are treated separately under the competitiveness factor taxation and other fiscal incentives. We also consider ship recycling regulation in this category, as stricter regulation will likely limit shipowner's freedom to operate their vessels, especially towards the end of their lifetime.

Figure 10.1 – Ranking of shipping centres on competitiveness factor

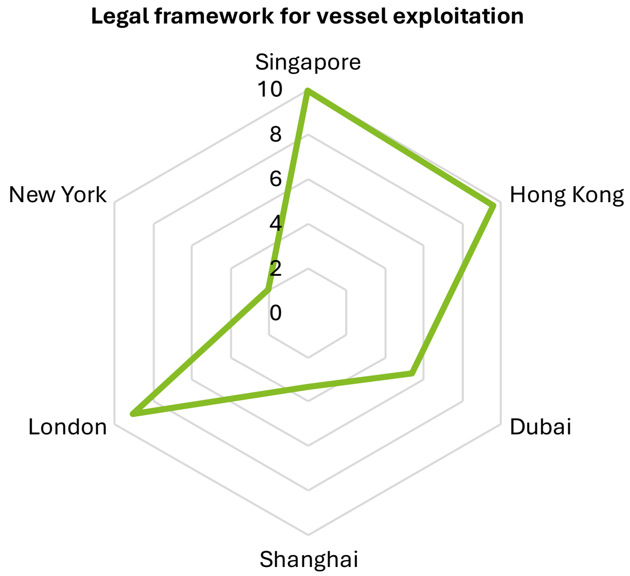
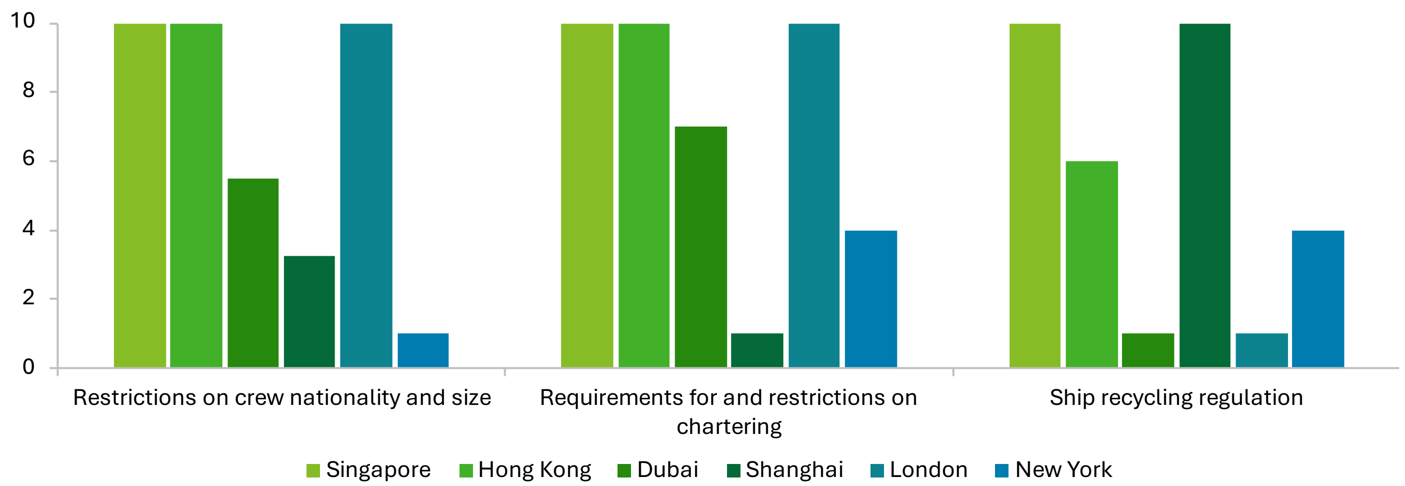


Figure 10.2 – Ranking of shipping centres on sub-indicators



Who is the best?

Singapore

What are the numbers saying?

Singapore, Hong Kong, and London do not impose any nationality restrictions on crew at any rank for ships in their national registers or on chartering, placing all three in first place. Singapore is additionally evaluated as having the most flexible guidelines on ship recycling, hence giving owners more options compared to, e.g., London.

Dubai's regulations have shown some complexity regarding crew changes, particularly with specific countries. Its ship recycling approach can also be considered in the medium range.

Shipowners operating ships in **Shanghai** under the Chinese flag have nationality requirements for crews, while US American laws in **New York** impose strict nationality restrictions on crew members for domestic shipping routes. This in turn means that crewing in these regimes is more complicated and costly, leading to a lower score.

A ship may be registered in Hong Kong, Singapore, Dubai or Shanghai in the name of a demise charterer. However, the ship may not be registered in the domestic registers in the ownership of one person and in another register in the disponent ownership of another person.

Flag attractiveness

The appeal of an efficiently working flag registry represents a factor for consideration by those centres competing for global activity in this domain, particularly in the context of ship registration. This is clearly demonstrated by an analysis of the data pertaining to the domestic flag registers of the UAE and China. By contrast, both Hong Kong and Singapore compete for global flagging activity in their open registries. This reflects the overarching strategy pursued by the policymakers in the six maritime centres and the types of activity they seek to attract.

Nevertheless, the capacity to provide appealing flags for shipowners within a centre confers a substantial competitive edge, as substantial merchant fleets will migrate to the broader maritime cluster, thereby imparting considerable expertise and capabilities to the maritime administrations of the centres.

Figure 11.1 – Ranking of shipping centres on competitiveness factor

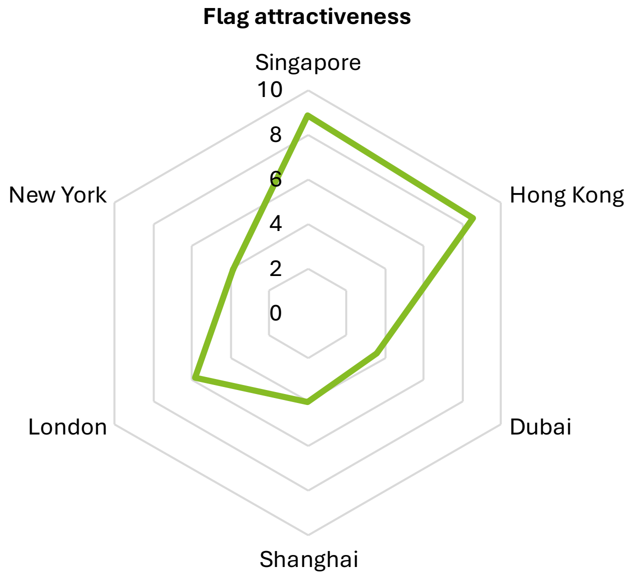
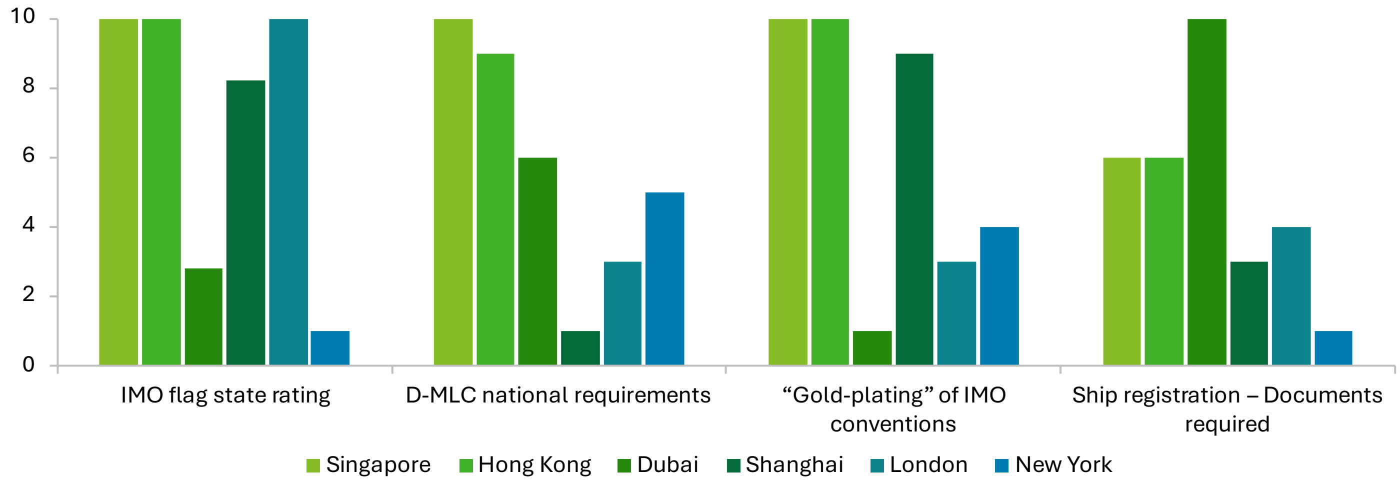
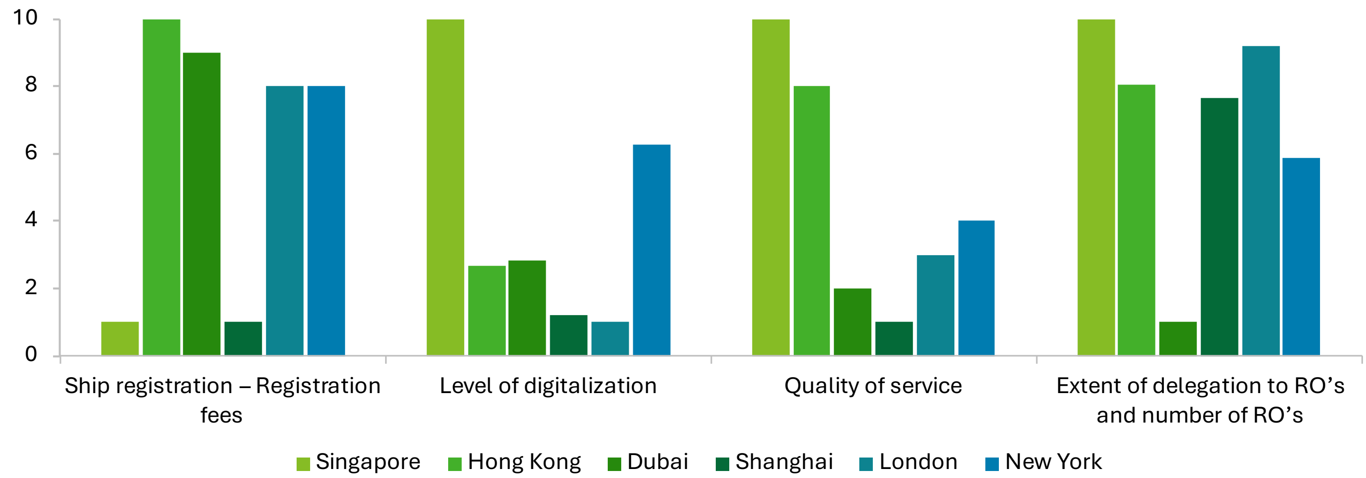


Figure 11.2 – Ranking of shipping centres on sub-indicators





Who is the best?

Singapore

What are the numbers saying?

The **Singapore** registry offers the most attractive package for shipowners with excellent service and few national requirements that go beyond IMO/ILO conventions. Its flag is considered a quality flag by various port state control memorandums of understanding (MOUs). Looking at the implementation of international conventions in the six centres, Singapore performs best in terms of pursuing effective implementation of all international conventions without introducing additional national requirements. In terms of perceived administrative service, Singapore's business-friendly, people-oriented and pragmatic approach is the most competitive approach, now also coupled with a high level of digitalization.

Hong Kong and **London** also score high overall. Hong Kong benefits from a high service level coupled with low ship registration fees. Both flags, as well as the Chinese flag, are all considered quality flags by various port state control MOUs. Both also have few national requirements that go beyond IMO/ILO conventions.

Dubai's assets are low administrative hurdles and low registration costs, but overall attractiveness is limited due to its newcomer status and the comparably low quality of service.

Shanghai similarly is ranked low on quality of service, and digitalization, with a higher level of administrative burden.

Finally, **New York** is rated lowest in ship registration documents required, indicating higher administrative efforts, coupled with several national requirements that go beyond IMO/ILO conventions.

Availability of professional services

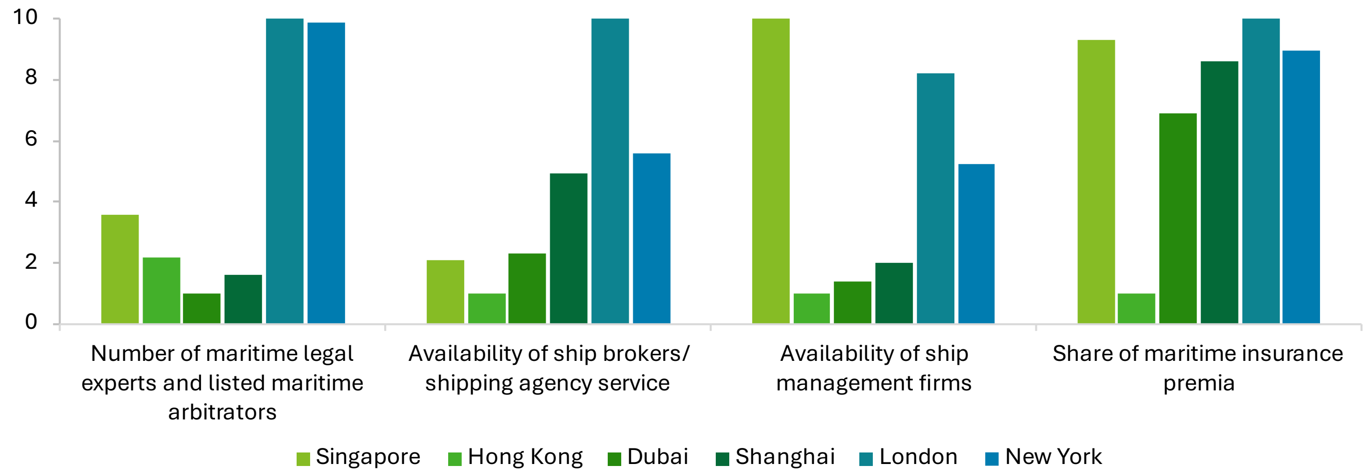
Shipping companies are complex businesses that depend on highly specialised services. The existence of providers of such services creates the basis for an efficient and effective business environment for shipping.

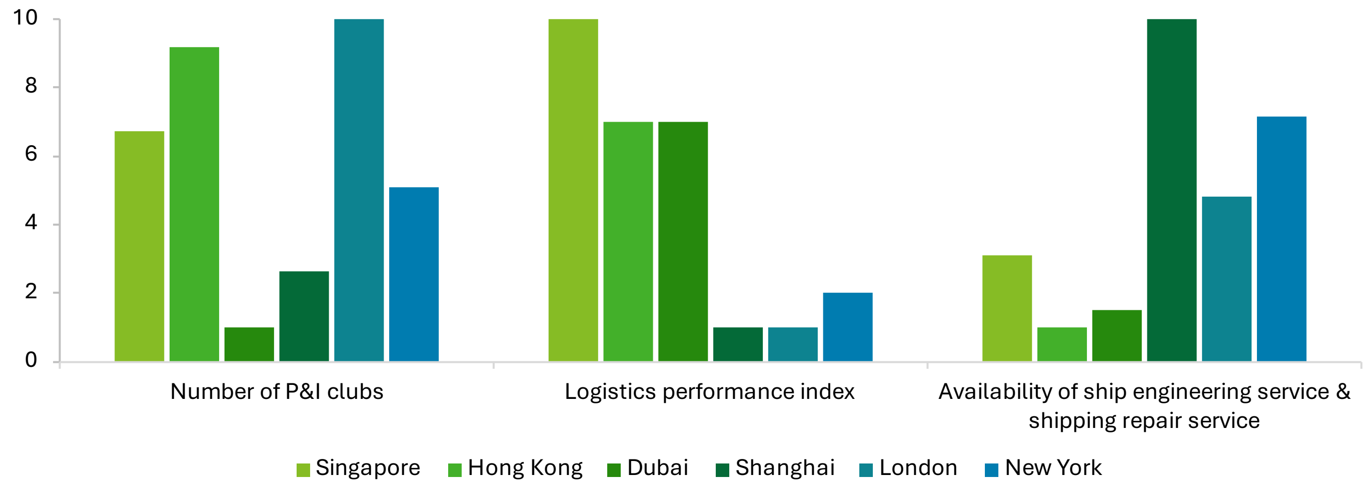
In addition to professional services, the existence of physical services surrounding the sector is also important, although to a lesser extent. The model considers both core professional services, such as legal, insurance and business services, as well as physical infrastructure provision, e.g., port infrastructure and ship engineering/repair services.

Accordingly, the competitiveness factor is a good indication of the overall completeness of the services side of the maritime cluster (excluding finance, which is treated separately).

Figure 12.1 – Ranking of shipping centres on competitiveness factor

Figure 12.2 – Ranking of shipping centres on sub-indicators





Who is the best?

London

What are the numbers saying?

London has the strongest services cluster. It outperforms other in the number of maritime legal experts and listed maritime arbitrators, availability of ship brokers/shipping agency service and share of maritime insurance premia. In terms of the number of P&I Clubs, London is the undisputed leader.

New York is strong in the number of maritime legal experts and listed maritime arbitrators, as well as share of maritime insurance premia, but scored medium in the other categories.

Singapore performs best in logistics performance index and availability of ship management firms, but also in the share of maritime insurance premia, legal services and arbitration, while Hong Kong and Shanghai are stronger in insurance, with the presence of most P&I clubs and the highest share of collected maritime insurance premiums. Singapore, offers the strongest supply of broader business support services such as ship agencies and management companies, as well as ship brokers. Singapore has a strong commercial and operational position that sets it apart from many other centres that tend to be strong in one or the other. As a central tranship-ment hub in East Asia, Singapore's physical services complement its strong professional services sector.

Due to China's strong shipbuilding competence, **Shanghai** stands out in the availability of ship engineering services and ship repair services. Only beaten by London, Shanghai could establish itself also in the area of insurance and scores second in the share of maritime insurance premia.

Both **Dubai** and **Hong Kong** lag behind the leaders in many areas, scoring above average only in the logistics performance index, and therefore rank last in the overall availability of professional services benchmark. However, compared to our 2017 study, Dubai overtakes Hong Kong by performing better on the share of insurance premiums.

Availability of finance

The shipping industry represents one of the most capital-intensive sectors in the global economy, necessitating substantial capital outlay on equipment and infrastructure. It is common practice for shipping companies to finance their operations through a combination of bank loans, bonds, the stock market, government-backed financing programmes, leasing structures and other financial instruments. Access to the financial services sector can be an important factor for shipping companies when determining their location, especially for small and medium sized companies, which have limited financial choices outside their home jurisdiction. The benchmark model considers the presence and activity of syndicated loan providers in the six countries, the general development of the financial markets, the number of listed shipping companies (if a stock exchange exists) and the extent to which the state is involved in ship financing, whether through co-financing or loan guarantees, and so forth.

Figure 13.1 – Ranking of shipping centres on competitiveness factor

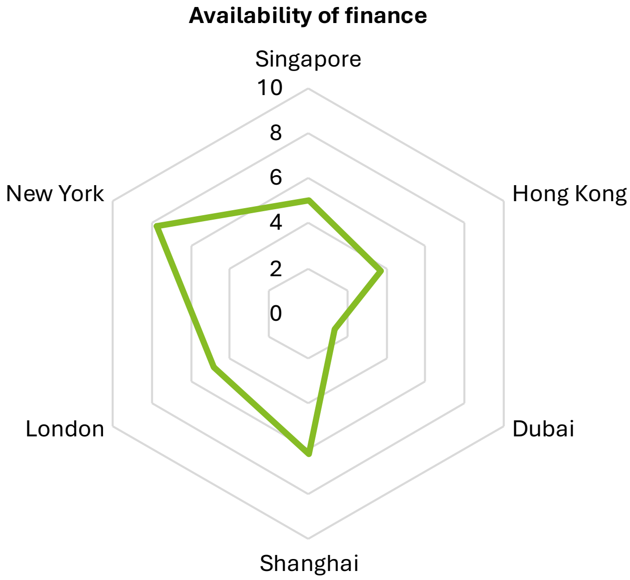
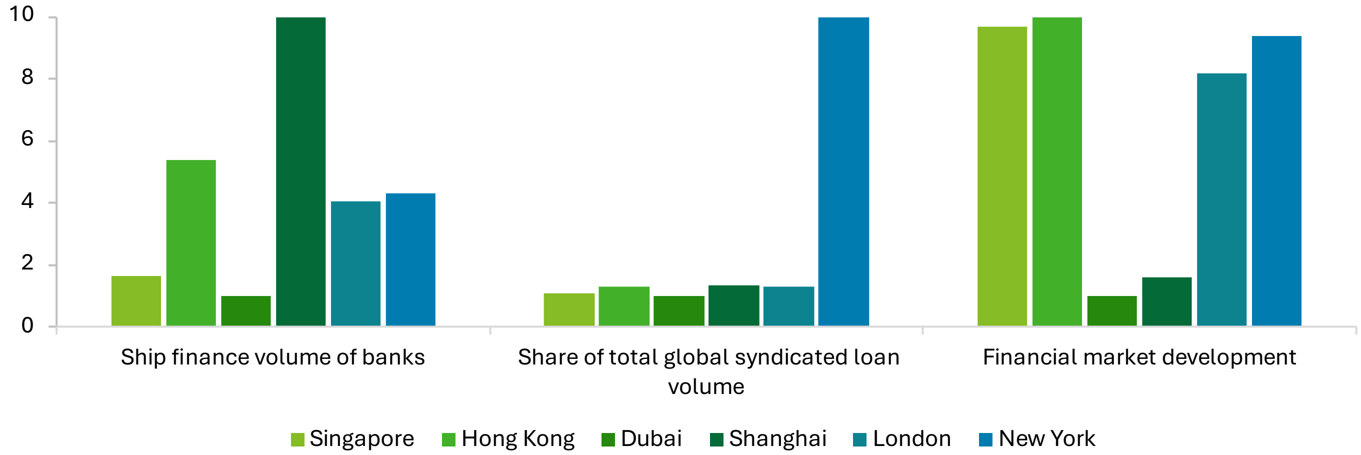
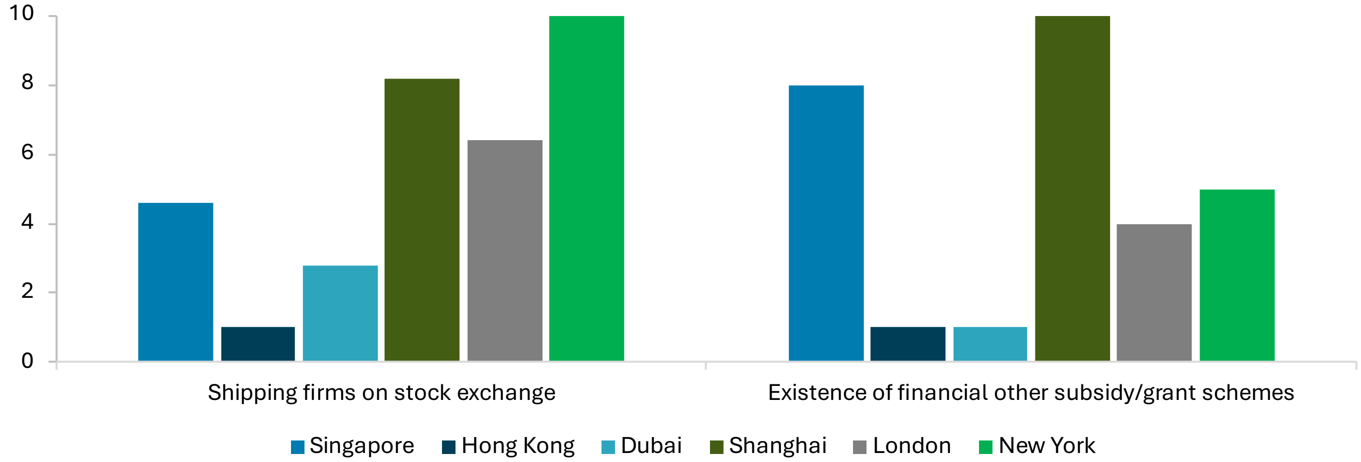


Figure 13.2 – Ranking of shipping centres on sub-indicators





Who is the best?

New York

What are the numbers saying?

New York stands as one of the world's leading financial hubs, excelling in nearly every category relevant to the shipping industry. The city hosts a significant number of shipping firms on its stock exchange and ranks highly in syndicated loan volumes and financial market development. However, despite its comprehensive financial infrastructure, ship finance volume from banks is not its primary focus. While New York remains a powerhouse in global finance, its dominance is less pronounced in direct ship financing compared to other markets.

Shanghai is a critical financial centre for the shipping industry, ranking highest in ship finance volume among banks. The city also has a strong presence of shipping firms on its stock exchange and benefits from substantial financial grant schemes, reflecting significant governmental support. However, Shanghai ranks lower in general syndicated loan volumes and overall financial market development, indicating areas where it is still growing compared to other global financial hubs.

London, while being a highly developed financial market, has a strong focus on shipping insurance. The financing volume ranks only in a middle position.

Singapore and **Hong Kong** are top financial centres with advanced markets. Hong Kong ranks second highest in ship finance volume and hosts many shipping firms on its stock exchange. Singapore excels in market development and financial subsidies, though it trails Hong Kong in ship finance. Both cities are pivotal, with Hong Kong strong in bank financing and Singapore in market support and subsidies.

Dubai cannot be considered a financial hub, as it lags in key areas such as ship finance volume and financial subsidies. Its market for shipping firms on the stock exchange is smaller, reflecting its less developed status compared to more established centres like Singapore and Hong Kong. Governmental financial support is also minimal, limiting its appeal for large-scale ship financing.

Regulatory, economic, and political factors

It is evident that legal certainty, political stability and a consistent governmental commitment to the shipping sector are crucial factors in the location decisions of companies in the shipping industry. In addition, the availability of a well-functioning legal system based on the Common Law tradition (which is the law commonly used in the shipping industry) and the prevailing economic conditions play a pivotal role in this regard. The capital-intensive nature of the sector, coupled with long payback periods, underscores the pivotal role of stability as a key competitiveness factor. The regulatory indicators pertain to the overall risk of legislative changes and the influence of the centre and the government in IMO and ILO. The ability to participate in these forums allows stakeholders in these centres to engage more effectively with the development of international regulations on safety, the environment and social matters. The political indicators assess the overall quality of the rule of law in the jurisdiction and the extent to which bureaucracy impedes business activity. ESG compliance cost and ESG incentives are indicators how environmental, social and governance policies affect the transition of the industries. In conclusion, the economic indicators provide insight into the prevailing economic conditions and the cost of living in the region.

Figure 14.1 – Ranking of shipping centres on competitiveness factor

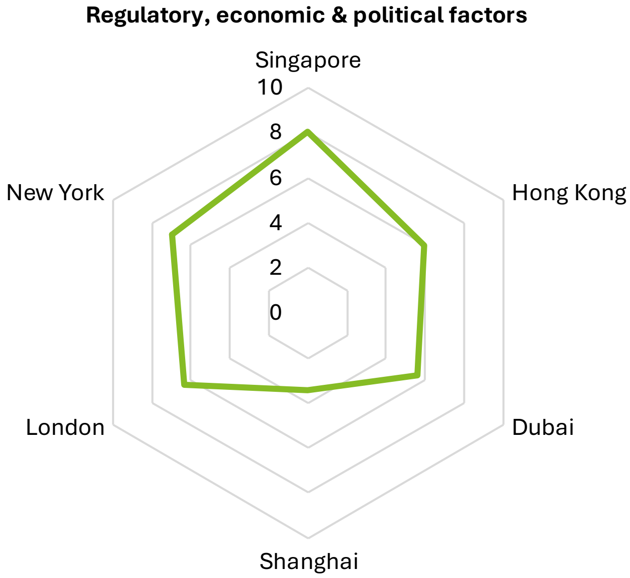
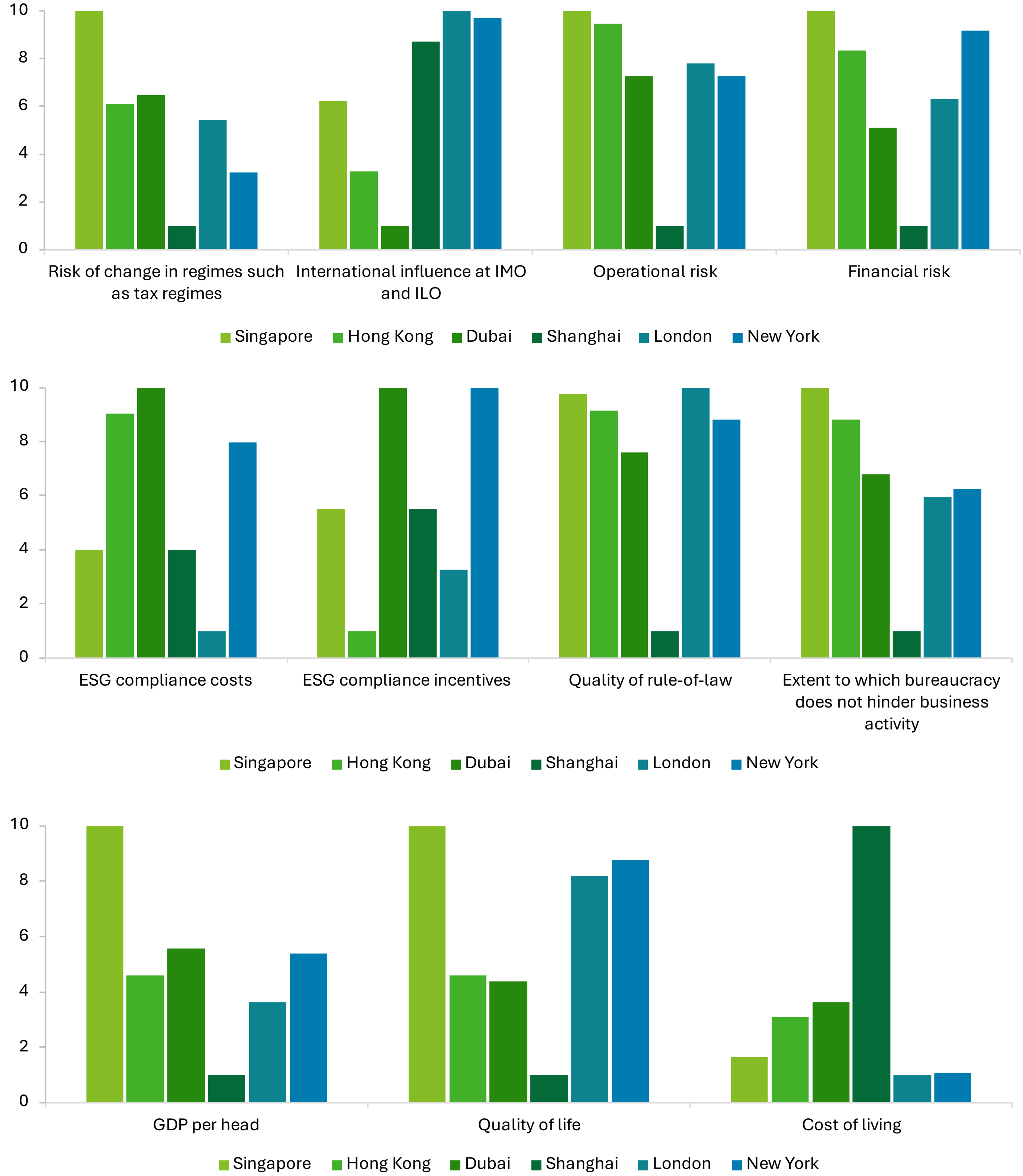


Figure 14.2 – Ranking of shipping centres on sub-indicators



Who is the best?

Singapore

What are the numbers saying?

Singapore scores best in factors such as risk of regime changes, GDP per capita, quality of life, extent to which bureaucracy does not hinder business activity, and therefore ranks first overall in regulatory, economic, and political factors. Singapore only falls behind in factors such as in international influence in IMO and ILO as well as cost of living**.**

New York has a high Influence at IMO and ILO and has low financial risk and a high quality of live, but also high cost of living.

London performs best in quality rule of law due to the usage of Common Law, as well as International Influence but is ranked last in regard to cost of living.

While **Hong Kong** performs well in similar indicators like Singapore, its scores are negatively affected by the uncertainty created by the Chinese administration and the lower quality of live as well as GDP per head.

Dubai performs best in ESG compliance cost and incentives but mediocre on most parameters and poorly on international influence.

Shanghai has the lowest cost of living and therefore ranks first in this aspect, but it is not sufficient to offset the lacks in most other factors, operational, financial and tax regimes risks, combined with a low quality of rule of law and quality of Life, and therefore performs worst overall in regulatory, economic, and political factors.

4. Assessing the EU policy framework

A comparative analysis of the EU maritime cluster with other leading centres reveals a number of strengths, as well as certain challenges pertaining to its role as a shipping centre. It can be concluded that the current EU policy framework, with the SAGs as a base, is effective in facilitating a competitive EU shipping sector. However, it is also evident that there are areas for improvement when compared to the policies of other jurisdictions included in the benchmark. Furthermore, inconsistencies in the maritime policy framework, both at the EU and the level of individual Member States, could impact competitiveness. Deviating from international standards and regulations may also undermine the international level playing field and therefore the competitiveness of the European shipping sector.

Our examination of maritime policies within the European Union has particularly focused on the eight competitiveness factors which were identified, and the according performance of international shipping centres. In order to identify areas for improvement, we have taken the "best in class" results of the six centres on these competitiveness factors as the benchmark and examined the EU's approach and the limitations of its policy framework vis-à-vis these winners. The review is primarily concerned with the EU policy framework, encompassing EU regulations and guidelines, specific EU policy initiatives, and coordination measures.

EU framework and policies

The principal framework for the EU's maritime policy is set out in the 2009 Communication from the European Commission and the 2015-2016 "Mid-term Review of the EU's Maritime Transport Policy until 2018 and Outlook to 2020", which outline the main strategic goals for the shipping sector and related initiatives. The strategy's objective is to enhance the competitiveness of the European shipping sector while maintaining environmental performance and maritime safety standards, thereby increasing overall economic activity and European employment. It aims to "achieve and maintain stable and predictable global competitive conditions for shipping and other maritime industries" while addressing topics such as human resources, quality shipping, increasing the effectiveness of EU involvement in IMO, ILO and WTO as well as research and innovation developments to improve safety and environmental performance while protecting knowledge and intellectual property.

This strategy comes with the introduction of new environmental as well as health and safety standards that exceed global benchmarks, which increase complexity and in turn, would hinder the target of enhancing competitiveness.

Furthermore, several new policies have been introduced since 2017, increasing complexity further. Many of these are not exclusively targeted at the maritime industry, but since shipping has not been excluded, it is therefore also affected. These include:

- The "**Fit for 55**" package aims to reduce greenhouse gas emissions by 55% across several sectors by 2030, including the maritime sector.
- Within the "Fit for 55" package, the **Emissions Trade System (ETS)** was extended to cover additional sectors such as maritime, road transport, and buildings. For the shipping industry, this mandates the need to purchase emissions allowances for any vessels above 5.000 GT during their voyages from and to EU ports, and during their operations in port from the 1st of January 2024, increasing operational costs and investments in more efficient technologies.
- **FuelEU Maritime** is also part of the "Fit for 55" package and is designed to decrease the carbon intensity of fuels used in maritime transport, promoting sustainable alternative fuels. The regulation introduced a fuel standard for ships, which set a maximum limit for yearly average greenhouse gas intensity of vessels above 5.000 GT during their voyages from and to the EU ports, and during their operations in ports. Moreover, the regulation also introduces zero-emission requirements for ships at berth. FuelEU Maritime entered into force on 1 January 2025 and will compel shipowners to adopt low-carbon or alternative fuels to ensure compliance.
- The **Renewable Energy Directive** (RED) is a cornerstone in the EU's efforts to increase the share of renewable energy in its overall energy consumption, with a target of 42.5% to 45% by 2030. This directive was revised as part of the

Fit for 55 Package. It now includes a binding combined sub-target of 5.5% for advanced biofuels and RFNBOs in the share of renewable energies supplied to the whole transport sector. For shipping, it gives the possibility to Member States with maritime ports to introduce a sub-target of 1.2% for the supply of RFNBOs to shipping. This underscores the importance of sustainable practices in maintaining competitiveness and compliance in the global market, potentially increasing operational costs but also opening opportunities for innovation and efficiency improvements.
- The **Net-Zero Industry Act** (NZIA) is a legislative initiative designed to guide the European Union towards achieving a net-zero carbon economy by 2050. It emphasizes the adoption of clean technologies, enhancing energy efficiency, and supporting industries in reducing their carbon footprint. For the shipping industry, this means a significant shift towards zero-emission fuels and technologies, such as green hydrogen, which will likely increase operational costs and require substantial investment in new infrastructure.
- The **OECD's Pillar Two** framework introduces a global minimum corporate tax rate of 15% to tackle tax base erosion and profit shifting by multinational corporations. The EU is aligning its tax policies to implement this framework across its Member States. Even though international shipping is excluded, there are some specific uncertainties for the shipping sector.
- **Basel III** regulations and the even stricter final post-crisis reforms from 2017 known as Basel IV, were introduced to enhance the quality and quantity of bank capital, improve risk management, and address weaknesses exposed by the financial crisis. Regulations started rolling out gradually from in 2013, with full EU implementation in 2023. Shipowners face tighter lending conditions and higher cost of lending, requiring shipowners to reassess their financing strategies and manage compliance costs effectively.
- The **Corporate Sustainability Reporting Directive** (CSRD), which is a component of the European Green Deal, is already in force, with the initial group of companies required to adhere to it starting January 2024. This Directive mandates that applicable companies incorporate detailed sustainability information into their standard financial reports. It replaces and broadens the scope of the Non-financial Reporting Directive (NFRD), with the goal of enhancing transparency in sustainability practices. This aims to allow investors and customers to gain a more comprehensive understanding of the company's overall health and future prospects.
- Complementing the CRSD, the **Corporate Sustainability Due Diligence Directive** (CSDDD) entered into force on 25 July 2024 and requires companies to conduct due diligence on their supply chains to identify, prevent, and mitigate adverse human rights and environmental impacts. This directive aims to foster sustainable and ethical business practices within the EU and globally. The maritime cluster needs to implement comprehensive supply chain due diligence processes to ensure compliance, which involves additional administrative efforts and associated costs.
- The Regulation on **measures for a high common level of cybersecurity** across the Union (NIS2 Directive). The EU cybersecurity rules introduced in 2016 were updated by the NIS2 Directive that came into force in 2023. By expanding the scope of the cybersecurity rules to new sectors and entities, it further improves the resilience and incident response capacities of public and private entities, competent authorities and the EU as a whole. It modernised the existing legal framework to keep up with increased digitisation and an evolving cybersecurity threat landscape. A culture of security across sectors is vital for our economy and society, that rely heavily on ICTs, such as energy, transport, water, banking, financial market infrastructures, healthcare and digital infrastructure.
- Further, the EU/G7 has imposed a series of **sanctions** on Russia following Russia's invasion of Ukraine in 2022. The shipping industry is directly impacted by increased compliance requirements.

On 1 June 2023, the EU Commission published a Communication titled "Maritime Safety: at the heart of clean and modern shipping". The document highlights the particular significance of maritime transportation for the European Union and was accompanied by proposals to revise five relevant pieces of legislation with the aim of modernising EU legislation on maritime safety and the prevention of water pollution from ships. Following this, four directives were revised and published in the Official Journal of the EU by the end of 2024:

1. Directive (EU) 2024/3100 amending Directive 2009/21/EC on compliance with **flag state requirements**. This directive provides a series of measures involving the European Maritime Safety Agency (EMSA) and the national authorities that will enhance cooperation and standards in safety and environmental controls. The directive has been amended to take account of digitalisation, improve inspections and cooperation between flag states, and align with international rules on safety, pollution prevention,

and working conditions, through inspections and surveys. EMSA will support this co-operation through the revision of training programmes for flag State inspectors. The directive takes effect on 5 January 2025, and Member States have until 6 July 2027 to transpose its provisions into national law.[6]

2. Directive 2009/16/EC on **port state control** has been updated to align with new international requirements and the standards of the IMO and the Paris Memorandum of Understanding (MoU). It focuses on inspecting foreign ships in national ports to ensure compliance with international regulations, including crew conditions. The directive expands to include new international rules, such as conventions on ballast water and wreck removal, and emphasizes environmental performance in assessing ships' risk profiles. It also enhances the ability of Member States to detect and address non-compliance with safety, environmental protection, and pollution prevention standards. The updated Directive was published in the Official Journal of the EU on 16 December 2024 and came into force 20 days from this date.[7]
3. Directive (EU) 2024/3017 revised Directive 2009/18/EC on **maritime transport accident investigation**. Its scope was to take into account changes in the international maritime regulatory environment and technological developments in the maritime sector in recent years and extend to smaller fishing vessels. It promotes the digitalisation of the investigation of maritime accidents, including the introduction of electronic certificates. The revised directive entered into force on 26 December 2024, and Member States have two and a half years, until 27 June 2027, to transpose its provisions into national law.[8]
4. Directive (EU) 2024/3101 revised Directive 2005/35/EC on **ship-source pollution and the introduction of penalties**. The revised directive aims to prevent any kind of illegal discharges into European seas by aligning EU legislation with international rules and extending the scope to a wider range of polluting substances. It also aims to create a stronger legal framework for penalties and their application. Furthermore, it also aims to optimise CleanSeaNet (the EMSA database), which will lead to timely enforcement and cooperation between Member States. The intention is to combat pollution from maritime ships, thereby preventing all ship-owners and operators, regardless of the ship's flag, from releasing any type of illegal discharge into European seas, in line with IMO rules. The directive contains a framework for penalties for infringements, and their application. In addition, there is an extended range of substances classified as polluting, and enforcement has been strengthened. The revised Directive entered into force on 5 January 2025, and Member States have until 6 July 2027 to transpose its provisions in their national laws.[9]

The revision of Regulation (EC) No 1406/2002 on the rules concerning the **European Maritime Safety Agency** is ongoing. This proposal updates the mandate of EMSA to better reflect the growing role of the agency in many areas of maritime transport, including safety, pollution prevention and environmental protection, climate change, security, surveillance and crisis management, including the new security and sustainability tasks arising from this legislative package. As of January 2025, the legislative process was still ongoing.[10]

Overall, the EU states explicitly the importance of the shipping sector, reiterating their previous stance:

> Maritime transport is of strategic importance for the EU economy and the connections between and within Member States. With 75% of the EU's external trade being seaborne, a performing, safe, secure, and more sustainable maritime sector is essential for our trade competitiveness and to source goods and materials to our single market.
>
> **MARITIME SAFETY: AT THE HEART OF CLEAN AND MODERN SHIPPING –**
>
> Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions

Benchmarking EU policy

In the following sections, the eight factors from our benchmarking evaluation are examined, with the findings of the six international centres presented vis-à-vis the according EU context, with EU policies described in relation to the specific factors, and the potential challenges or gaps being identified.

We conclude that the current EU policy framework has the effect of facilitating a competitive EU shipping sector. However, we also recognise that there are significant areas where improvements could be made in comparison with the policies of other jurisdictions included in the benchmark. The EU policy framework could be further enhanced to better facilitate a competitive EU shipping sector. In particular, there may be scope to improve overall regulatory stability and to develop policies that actively target and support the full EU maritime cluster and EU shipping activities in global markets. We also conclude that while the overall EU maritime policy has remained fairly unchanged for many years, this stability has also helped to keep an EU maritime industry in the region, and as such, any fundamental changes to the overarching policies should be considered with care.

The general objectives set in 2004 are still valid and are therefore the focus of our benchmark.

General objectives of revised State aid guidelines

The Commission has stressed that increased transparency of State aid is necessary so that not only national au-thorities in the broad sense but also companies and individuals are aware of their rights and obligations. These Guidelines are intended to contribute to this and to clarify what State aid schemes may be introduced in order to support the Community maritime interest, with the aim of:

- improving a safe, efficient, secure and environment friendly maritime transport,
- encouraging the flagging or re-flagging to Member States' registers,
- contributing to the consolidation of the maritime cluster established in the Member States while maintaining an overall competitive fleet on world markets,
- maintaining and improving maritime know-how and protecting and promoting employment for European seafarers, and
- contributing to the promotion of new services in the field of short sea shipping following the White Paper on Community transport policy.

COMMISSION COMMUNICATION C(2004) 43 —
COMMUNITY GUIDELINES ON STATE AID TO MARITIME TRANSPORT

4.1 Ease of doing business

Ease of doing business concerns the key administrative processes for the shipping sector across such processes as company formation, resolving insolvency and registration of property, etc.

Administrative and regulatory burdens are one of the main barriers to investment. Quantitative studies by the European Commission and others show that a supportive business environment is essential to stimulate investment.[14] However, the regionalisation of EU regulations, such as FuelEU and ETS, duplicates compliance systems, increasing administrative burden and costs for companies. Aligning key regulations with the IMO standards would help streamline reporting and reduce this burden. This is further discussed in section 4.7. Additionally, unexpected or frequent changes in regulation or its enforcement over time can create uncertainty and increase the risk that investments will be channelled elsewhere.

In our benchmark, Singapore emerged as the clear winner. The city-state places a strong emphasis on business-friendliness, and the ease of doing business is regarded as a

[14] Regulation, Institutions and Aggregate Investment: New Evidence from OECD Countries', CESifo Working Paper No 6415 (2017). Unlocking investment in intangible assets (2017).

significant political factor. While Singapore does not rank first on all individual sub-factors, it performs above the global average on all of them, making it the highest-scoring centre ahead of Hong Kong and London. The provision of personalised assistance from senior government officials, and the flexibility of its administration in times of non-standard situations, are identified by sector experts as essential factors contributing to Singapore's ranking in the ease of doing business in the shipping sector.

The EU framework for ease of doing business

The EU framework for ease of doing business is generally considered a national policy matter administered by individual Member States. However, there are relevant effects from EU policy making into the ease of doing business, and the EU could potentially play a significant role in pushing for streamlining administrative processes, for burden reductions, and for supporting such efforts at a national level.

Most factors influencing the ease of doing business are general and not shipping-specific. As such, initiatives at EU level to reduce administrative burdens and increase the overall ease of doing business have been pursued, such as the REFIT programme which aims to make EU laws simpler, more targeted, and easier to comply with.

In addition to the general measures pursued by the EU, a number of initiatives have been put forward to reduce the administrative burden on EU maritime industry stakeholders. However, the ambition so far has been to create a true European maritime transport space without barriers, removing unnecessary administrative barriers to maritime transport within the internal market.

The EU has taken steps to streamline customs procedures, enhance the efficiency of electronic transmissions through e-maritime systems and rationalise relevant EU regulations. These programmes have been put into practice in systems such as the Union Maritime Information and Exchange System (SafeSeaNet), maritime digital services like THETIS for greenhouse gas emission reporting and a development of EU Seafarers' Certification Platform (eCertification). In general, the work of the European Maritime Safety Agency (EMSA) is welcomed as it supports the reduction of the reporting burden on shipping through its work on the European Maritime Single Window. These systems provide excellent examples of how administrative procedures in the maritime sector can be harmonised. Conversely, these initiatives are not providing EU-flagged vessels with direct competitive advantages. It is therefore essential that initiatives are designed with this objective in mind, in order to enhance the competitiveness of EU flags in comparison to those of Singapore, United Kingdom and other major flags.

The aforementioned initiatives are also illustrative of the fact that EU policy does not directly address the ease of doing business for global shipping companies. Rather, the focus is on providing national administrations (such as port authorities, coastal stations, search and rescue services, vessel traffic services, and pollution response agencies) with the information they require to fulfil their duties. While initiatives to reduce the administrative burden on the authorities are commendable and necessary, there is still a lack of initiatives aimed at reducing the administrative burden looking at private stakeholders. In Singapore and Hong Kong, policymakers are focused on streamlining the processes involved in global business, with a markedly different perspective. It should be noted, however, that making direct comparisons between national administrations and the EU as a whole in this regard is challenging.

The EU is a heavyweight in trade negotiations and therefore uses this instrument to improve the ease of doing business by reducing trade barriers and stimulating global shipping. Meanwhile, national administrations are using softer instruments such as improving service delivery in flag administration. However, initiatives to improve service delivery have been driven on EU level and can be further improved.

Policy gaps in relation to ease of doing business

The EU's continued emphasis on minimising administrative burdens, both on general business and shipping-specific interfaces, is seen as a key objective. However, due to factors such as poor implementation by Member States and insufficient harmonisation, these efforts are often unsuccessful to deliver the expected positive results in practice.

For example, only 1% of EU cross-border activities can be carried out fully digitally, i.e. without the need for a physical document at any stage of the transport process[15]. The current procedures for ships in EU ports (with two million port calls a year) and for land freight are overly complex, as they are either paper-based or based on several proprietary and not always interoperable IT systems and solutions, which impedes collaboration with authorities and among firms[16]. But the EU is already

[15] Differences exist across single modes, with 40% of information exchange taking place electronically in aviation, 5% in rail and less than 1% in road and maritime. See: Transport and environment report 2022 (2022).
[16] The future of European competitiveness (2024).

taking first steps to addressing the issue with recently adopted rules to digitize information exchange in general freight transport[17], and the Maritime Single Window Environment allowing ship operators to (re)use the same interface and data definitions at every EU port[18]. Still, there is work to be done: the system is not up and running yet, and while the dataset is harmonised, the requirements are still not the same in each port. In addition, reporting requirements in the context of customs and the lack of single market for short sea shipping remain untouched. The shipping sector itself has addressed the topic also by industry collaboration mainly targeted to standardise technology use in shipping, e.g., the Digital Container Shipping Association (DCSA) or Trade Lens, with mixed success so far.

"Some progress has been made in the digitisation of administrative processes, but it is far from being enough."

(Interview partner)

A considerable number of initiatives are launched with the best of intentions, but ultimately do not achieve their intended objectives due to a lack of comprehensive stakeholder engagement. While initiatives are often shaped by the perspectives of the authorities, there is a need to incorporate the input of a wider range of stakeholders, including not only national authorities but also private entities from big international corporations to smaller national SMEs.

Table 4 – Identified policy gaps for ease of doing business

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Ease of doing business	EoB.1	**Focus on administrative procedures for trade within the EU** The EU is generally seeking to facilitate trade within the EU and to simplify the business activities associated with these activities. The lack of a perspective for global shipping companies is seen as a political gap.	EU/Member States	◔
	EoB.2	**Slow pace of digitalization and alignment** The EU has launched initiatives for digitalization and harmonization of the administrations to reduce the administrative burdens for shipping companies. However, implementation speed is below expectations and the level of digitalization is behind other global shipping centres.	EU/Member States	◔
	EoB.3	**Lack of single point of contact and standardisation of regulatory processes** The lack of a single point of contact for global shipping companies and for dealing with EU legislation. No standardisation of regulatory processes between Member States.	EU/Member States	◕

4.2 Taxation and other fiscal incentives

Taxation and other fiscal incentives play a crucial role in determining the competitiveness and attractiveness of maritime hubs. To attract and sustain shipping activities, it is vital for the EU to ensure that it offers a competitive (fiscal) environment comparable to other major shipping centres outside the EU. Our comparative analysis of six prominent international non-EU shipping centres revealed that the majority of the centres offer attractive tonnage tax regimes – where in some centre's incentives are based on a wider definition of shipping activities than in the EU. Nonetheless, each centre in the overview has different preconditions in relation to the incentives granted.

In light of the recent negotiations concerning the taxation of global corporations and the subsequent implementation of the OECD Global Anti-Base Erosion Model Rules (Pillar Two), it would appear that income generated by the shipping industry is exempt from the aforementioned minimum taxation. As Pillar Two is a recent international agreement from 2021, it is still being implemented in most countries and the actual exclusion of shipping varies from one national jurisdiction to another, as definitions and conditions may differ. There are differing interpretations as

[17] Regulation on electronic freight transport information (2024).

[18] Regulation establishing a European Maritime Single Window environment and repealing Directive 2010/65/EU (2019).

to which activities are still core to shipping and therefore exempt, and which activities are ancillary and therefore not covered by the exemption. In particular, while shipping income is exempt, the recognition of ship management activities is not straightforward, as commented on in the Pillar Two frequently asked questions (FAQs): "Finally, with respect to the question regarding technical and crew ship management: whether these activities can be considered covered by Article 17, paragraph 1(b)(iv) depends on the exact facts and circumstances of the case." [19] Consequently, Pillar Two's implementation and impact on the maritime industry remains unclear, creating legal ambiguity and uncertainty. It will however only apply to companies above a certain threshold, which is €750 million in revenue. As the tonnage tax is a well-established and reliable system, like most other shipping centres have it, its definition of shipping activities can be considered a reliable reference point. It is therefore recommended that the implementation of Pillar Two does not challenge the status quo, but rather builds on the existing definitions and case practices to ensure consistency and reliability.

In certain centers, the tax incentives are designed especially for shipping-related activities (i.e. London, Hong Kong, New York, Singapore). In others, like Dubai, the tax incentives are provided as a result of a general low tax regime.

The benchmarking also reveals that some centers like Dubai, Hong Kong and Singapore use tax as one of the main competitiveness factors. In Dubai, this is paired with an extended range of double-taxation treaties with important trade partners. Singapore offers lucrative shipping incentives to a broad base of shipping activities (both core shipping operations and supporting services) with relatively low barriers of entry into the incentivized fiscal schemes. In addition, Hong Kong offers a very simple legislative regime, in which temporary shipping-specific incentives are not used and increased its numbers of concluded double-taxation treaties. Following Brexit, London has loosened its taxing regime to compete with the global market.

The EU framework for taxation and fiscal incentives

The core framework for the European tax regulations governing shipping are the SAGs. First introduced in 1989 and amended in 1997 and 2004, these facilitative guidelines set the limits of how far Member States can go in supporting their shipping sector fiscally. Our extensive interview program has underlined the importance of keeping the fiscal measures provided by the SAGs in place. Within the SAG framework, Member States can make use of a wider range of flexibility, i.e. the competences to develop packages within the framework of the SAGs.

The constraints to that flexibility pertain to specific regulatory requirements and established case law arising from EU administrative practice, such as those related to eligibility criteria and quantitative thresholds for, e.g., chartered flag shares. Additionally, the European Commission will approve only those new tonnage tax schemes, which provide similar taxation levels to the existing ones[20]. Section 3.1(18) of the SAGs states that:

"[t]he notional profit rates provided for by EC States have been homogeneous up to now. However, since corporate tax rates may vary significantly across the EC, the tonnage taxes to be paid for the same tonnage might be very uneven in the different EC States. To keep the present equitable balance, the EC Commission stipulated that it will only approve schemes giving rise to a tax-load for the same tonnage fairly in line with the schemes already approved. Based on its experience, the Authority notes that instead of calculating virtual profits to which the ordinary corporate tax is applied, some States may decide to directly fix special tonnage tax rates. The Authority will likewise seek to keep an equitable balance in line with already approved systems."

While the system allows for a degree of flexibility regarding different tonnage tax models, EU Member States must still comply with the overarching principle of harmonization, under the goal of maintaining a level playing field within the EU.

[19] Frequently Asked Questions on Pillar 2 Directive (n.d.).
[20] The 2004 Guidelines on state aid to maritime transport (2009).

Accepted derogations from the flag requirement in the guidelines

If the general flag link requirement is to be derogated from, the applicant must demonstrate that the strategic and commercial management of all ships concerned is carried out from within the territory and that this activity contributes substantially to economic activity and employment within the community. The beneficiaries of the schemes must be liable to corporate tax in the community. In addition, the European Commission requests any available evidence to show that all vessels operated by companies benefiting from these measures comply with the relevant international and EU safety standards, including those relating to on board working conditions.

Before aid is exceptionally granted (or confirmed) to fleets, which also comprise vessels flying other flags, Member States should ensure that beneficiary companies commit themselves to increasing or at least maintaining under the flag of one of the Member States the share of tonnage that they will be operating under such flags after entering the tonnage system.

The tonnage share requirement applies to the parent company and subsidiary companies taken together on a consolidated basis. Shipowners may not benefit from the tonnage tax for further non-EU flagged tonnage that they operate if

- the share of their fleet tonnage under community flags has decreased since January 2004 (for companies who have opted for the tonnage tax regime after January 2004, this calculation will be based on the fleet at the year-end of the first year the taxpayer qualifies for the tonnage tax regime) or
- the share is below 60% of their total fleet tonnage or
- the global EU tonnage eligible for tax relief in the Member State concerned has decreased over the last three years.

The community tonnage share requirement set out in the provision does not apply to undertakings operating at least 60% of their tonnage under a community flag[13].

The SAGs set a framework for eligibility requirements for state-aided tax relief measures, for broadness of activities covered by tax incentives, for effective tax rates and for depth of revenues covered by tax incentives. Subsequently, this framework is described and compared to the non-EU maritime clusters.

Eligibility requirements

The prerequisite for access to the tax relief schemes of EU Member States in general requires a link with an EU flag as well as a corporate residence in one of the Member States. However, exemptions from the flag link requirement in the EU may be approved if a shipowner applies with the entire fleet and if the company is established commercially and strategically within a Member State's territory liable to corporate tax. More detailed explanations concerning the possibility to derogate from the flag link can be found in the box above.

There are no comparable flag link requirements found in the international centers, except for New York – where comparable (strict) rules are in place. Other eligibility requirements exist, but they differ significantly between the centers included in the comparison. In Singapore, a residency for companies is given if the management and the control is exercised within the boundaries of Singapore. And in Hong Kong, shipping companies operating foreign flagged or Hong Kong-flagged vessels will not be taxed on their income sourced outside the Hong Kong jurisdiction.

In the EU, a company is in general required to live up to the above stated flag link requirements as well as ensuring strategic and commercial management that contributes substantially to economic activity and employment within the community[21]. The same company in Singapore would only have to demonstrate the latter and to a lesser extent than in Europe.

Broadness of activities covered by tax incentives

The scope of activities covered by tax incentives is also regulated in the guidelines. The EU definition of maritime transport applied is "transport of passengers and goods at sea", and a shift to acknowledge the services and transport activities as analogues has been observed. In a nutshell, the regime covers qualifying legal entities performing qualifying activities in relation to qualifying vessels.

- Qualifying legal entities are shipowners, charterers (bareboat, demise, time, and voyage) and ship managers providing technical and/or crewing services.

[21] EC Consultation on review of the Community guidelines on state aid to maritime transport (2012).

- Qualifying activity for shipowners and charterers means maritime transport of goods or people between ports and offshore installations. Qualifying activity when applied to ship managers means services provided to a shipowner or bareboat charterer based on a written agreement in relation to crew and/or technical management.
- Qualifying vessel is a sea-going vessel that has been certified in line with international principles and legislation of the flag country and that lives up to certain requirements[22].

Activities essential for or closely related to maritime transport (i.e., ancillary activities) include services such as transport to and from the ship in the port area, loading and unloading of goods, embarkation and disembarkation of passengers, temporary storage of goods, ticket sales and booking of maritime transport, and the running of freight and passenger terminals. These ancillary activities are inherently linked to maritime transport and, as a result, can be considered eligible for taxation under the tonnage tax regime, to a certain extent.

For **ship management companies**, the application of the SAGs is limited. Aid may only be granted for those vessels for which the ship management company has been assigned the entire crew and/ or technical management. Contrary to this, the commercial management does not qualify for tonnage tax[23]. The ship manager must take complete responsibility for the vessel's operation adhering to the international safety management (ISM) Code. The EU mandates that the tax base for ship management companies should be approximately 25% (in terms of tonnage or notional profit) of what would apply to the shipowner for the same ship or tonnage. In addition, the eligibility of ship management companies for the tonnage tax scheme varies significantly between Member States. In certain countries, ship management companies are excluded from the tonnage tax system.

Typically, **dredging and towage activities** are not covered under the guidelines. Regarding the types of vessels eligible under European tonnage tax systems, the EU public consultation on the current SAGs[24] revealed that there is a lack of clarity on the topic of offshore service vessels.

In relation to **chartering vessels with crew**, the European Commission has indicated that it will not accept companies operating under the tonnage tax regimes if the company's entire fleet consists of ships chartered in with crew from other companies. However, it has been accepted for up to 80% of the company's fleet under tonnage tax consist of ships that could be chartered in with crew from third parties. Increasing this percentage to 90% is also possible, but only under strict conditions.

In this case, a company could have up to 80-90% of its net tonnage contracted under time charters, with the remaining 10-20% under bareboat charters. These conditions should be considered alongside the general flag link requirements outlined earlier, which impose additional requirements for qualifying for the tonnage tax eligibility of income from chartering activities.

When it comes to **bareboat chartering** out, it is generally allowed when a shipping company experiences an overcapacity situation over a period of three years, for instance due to temporary downturns in the market. Other countries have no special conditions for bareboat chartering out. According to the European Commission, temporary and limited bareboat chartering out aligns with the maritime guidelines, as the key objectives in the common interest spelled out in the maritime guidelines are safeguarded. The objectives are 'maintaining and improving maritime knowhow and protecting and promoting employment for European seafarers' and 'contributing to the consolidation of the maritime cluster established in the Member States while maintaining an overall competitive fleet on world markets. In practical terms, bareboat chartering is treated the same as vessels ownership regarding legal standing in the guidelines.

In general, the benchmarked centers offer tax incentives for a much broader range of activities. Singapore as a "best in class" shipping hub offers an incentive system that covers a range of activities not currently included under the EU interpretation of the SAGs. Generally, vessels that qualify for registration under the Singapore Registry of Ships are also eligible for these fiscal incentives. This represents a broader scope compared to the EU, which applies a narrower sectoral ring-fence concerning vessel types and leaves room for clarification for certain types of vessels. The scope of income qualifying under the Singaporean fiscal schemes has been

[22] Member states usually allow the following specialist vessels under TT: cable layer, diving support vessel, oceanographic vessel, pilot vessel, remotely operated vehicle support, cable repair, fire-fighting vessel, oil-well stimulation vessel, pipe-laying vessel, research vessel, seismic survey ship, trenching vessel, crane/derrick barge, pile driving vessel, polar research vessel, survey vessel, offshore supply vessel, anchor-handling vessel, vessels for transport of personnel and supplies, contractor ships, tender vessels, tugs and dredgers (under the rule that 50% of the vessels' annual operational time involves the transport at deep sea).

[23] Communication from the Commission providing guidance on State aid to shipmanagement companies (2009).

[24] EC Consultation on review of the Community guidelines on state aid to maritime transport (2012).

extended to include income derived from operation of ships used for exploration or exploitation of offshore energy or offshore minerals, as well as ancillary activities related to these operations. Additionally, Singapore does not require any flag links in terms of chartering operations in/out for any of the eligible vessels.

For Singapore, the tax incentives available for ship management companies are somewhat limited. An approved MSISSI company will enjoy an already low tax rate on the incremental income derived from the provision of shipping- related support services, including ship management. If it results in a more favorable tax-effective rate compared to the current tonnage tax rule in the EU, varies- depending on the specific operation. Experience shows that the effective tax rates are often significantly lower in Singapore. Furthermore, the Singapore scheme also allows a wider range of supporting services to be included such as ship agency, forward freight agreement (FFA) trading, ship brokering, etc. while fostering a broader scope of cluster activities.

Tax rates

The maritime SAGs define tonnage tax systems as the primary approved tax model. Tonnage tax means that the shipowner pays a flat tax rate directly related to the tonnage operated. The tonnage tax will be payable regardless of the company's actual profits or losses and is calculated on the basis of a notional profit on which corporate tax is levied.

There are differences between Member States in terms of both corporate tax rates and in the methods used for calculating the taxable income. Nevertheless, it is generally assessed that the effective tax rates under tonnage tax regimes are all considered competitive, and differences between Member States are moderate. This was also confirmed during our extensive interview programme with key stakeholders in the sector. The differences between the tonnage tax regimes of EU Member States and tax systems of international shipping centers are generally not considered to be a decisive factor, as long as these regimes provide a more or less similar fiscal treatment. However, as soon as the differences become more pronounced between different jurisdictions as a result of competing on a more favourable tax regime, it becomes a decisive factor in choosing the shipping center. This is based on the fact that such taxes become also due while making losses. On the contrary, under shipping incentive regimes such as Singapore, there is no taxation when the operator is in a tax loss position. In that aspect, a competitiveness difference persists.

As mentioned, Dubai offers a low tax regime for all businesses, but not a specific tonnage tax regime. Hong Kong and Singapore offer a complete tax exemption on shipping profits sourced outside their jurisdictions (whereas Hong Kong has introduced some preconditions to be met for 2023 and onwards)[25]. The tonnage levies are, depending on the size of the vessel, lower in Singapore and Hong Kong even in comparison to the lowest tonnage tax system in the EU. Compared to an EU average, the tonnage charges levied on ships in the two jurisdictions are around 70% and 79% lower, respectively, for Singapore and Hong Kong.

The major difference between the tonnage tax systems in the EU vis-à-vis the shipping-incentive systems in Singapore[26] and Hong Kong is the missing flag link requirement. In the EU, tonnage taxes are levied on all registered and chartered ships on a basis of notional profits or flat-rate fees. It is worthwhile to mention that London has also eased its flagging requirements past Brexit and the tax base is (also) determined for the notional amount as per tonnage tax preconditions.

Depth of revenues covered by tax incentives

The primary focus of the tonnage tax system is aimed at the operational income generated by the qualifying shipping activity itself. As such, operating income from core qualifying activities of eligible entities qualifies for tonnage tax.

On the basis of section 3.1, subparagraph 19 of the maritime SAGs, the European Commission has accepted in its decision-making practice the following features in a number of tonnage tax schemes: tonnage tax regimes have to be ring-fenced to avoid spillover effects on economic activities that do not constitute maritime transport. To that end, the European Commission usually requests from Member States a series of ring-fencing measure such as: (i) the verification of commercial transactions across the ring fence based on the arm's length principle, (ii) rules on the fair sharing of the cost of capital expenditure between eligible and non-eligible activities, iii) rules on the fair allocation of revenues between eligible and non-eligible activities, iv) the all-or-nothing option for maritime groups (all eligible entities of the group shall opt for the tonnage tax where at least one of them does). Due to the existence of different forms of owning structures provided and applied by different legal orders in EU Member States, it is the case that analogous tax rules regarding the distribution of dividends stemming from shipping companies, as for other sectors, both at corporate

[25] IRD: Profits Tax - What you need to know as a Ship Operator (n.d.).

[26] Singapore announced a beneficial (alternative) income determination for shipping companies where details should be publicly revealed in Q3/2024.

level and at the level of private individuals, may be granted.

Income derived from shipping-related financial assets (i.e. interest on cash reserves, normal treasury operations, etc.) is not explicitly covered by the European tonnage tax models under the SAGs. This covers revenue from exceptional liquidity, long-term investments and income derived from activities. On the other hand, income derived from interest on working capital is eligible for tonnage taxation as it is seen by the EU as intrinsically linked to the business of operating ships[27]. The European Commission states that inclusion of income from short-term investment of operating capital in tonnage tax regimes is compatible insofar as it corresponds to revenue from the company's ordinary cash resources. Exactly what types of revenue are eligible for tonnage tax is still somewhat unclear in the light of this decision.

Capital gains from buying and selling assets/ships qualify under the tonnage tax system. These revenue streams are, however, only eligible for companies involved in ship operations in accordance with the wider tonnage tax regime requirements set out in the earlier section.

Other fiscal incentives

Both Hong Kong and Singapore offer eligible shipowners and operators additional fiscal incentives based on port state control performance (Annual Tonnage Charge Reduction Scheme) and environmental performance (Green Ship rebate), respectively. In both jurisdictions, the programmes discount the tonnage tax and provide incentives for improved standards of shipping. Hong Kong shipowners enjoy a 50% reduction in their annual tax upon completion of two years of continuous registry (qualifying period) with a zero-detention record. Singaporean shipowners enjoy a up to 50% tonnage levy reduction if the registered ship is capable of using less carbon causing fuel (the reduction is up to 100% if zero carbon is caused). Such fiscal incentive schemes are not generally used in the EU/EEA, with the exception of Norway that currently has in place differentiated tonnage tax rates based on environmental performance of vessels[28]. In addition, the differentiated tax models are restricted by the general rule of section 3.1, subparagraph 18, in the SAGs specifying that the effective tax rates must be 'fairly in line with' the tonnage tax applied to the similar tonnage under tax regimes in other Member States and that the reduced tonnage tax based on environmental criteria does not change this requirement.

Policy gaps in relation to taxation

Overall, the fiscal regime facilitated by the still applicable SAGs provides for a relatively competitive framework for the European shipping sector. It is clear that maintaining a level playing field for EU shipping companies vis-à-vis global competition is needed. Deloitte's analysis constitutes that the EU framework is less competitive regarding several elements compared to the competing international centers.

"The EU Maritime State Aid Guidelines are the single most important factor. If the tonnage tax would go away, shipping in Europe would go away. The favourable tax regime is the most fundamental point for EU shipping."

(Interview partner)

"The tonnage tax is the reason the industry still exists today, but there has also no increase in shipping activities. Hence, the current incentives are probably the minimum level, and other incentives are also necessary."

(Interview partner)

[27] Commission Decision (EU) 2029/1116 on state aid SA.33829 (2012/C) Maltese tonnage tax scheme and other State measures in favour of shippinh companies and their shareholders (2019).
[28] Shipping | Proposal to discontinue the Norwegian Tonnage Tax Regime (2022), Government committee publishes report recommending various tax changes (2023).

Table 5 – Identified policy gaps for taxation and fiscal incentives

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Taxation and other fiscal incentives	Tax 1	**Strict admission criteria and flag state conditions** EU flag link requirements for tonnage tax eligibility are stricter than in the maritime benchmarked centres.	EU: State Aid Guidelines	◕
	Tax 2	**Narrower sectoral and operational ring-fencing** The EU has more restrictions on activities and income than reference centres, where the tax benefits cover more shipping stakeholders and more seagoing vessels, as well as a broader range of maritime activities. The narrow scope leads to legal uncertainty regarding the applicability of new technologies and types of ships, which can hinder innovation.	EU: State Aid Guide-lines	◕
	Tax 3	**Additional incentives for carbon reducing methods** Other jurisdictions take a more encouraging approach of incentivizing the use of new environmentally friendly technologies rather than penalising conventional ones.	EU/Member States	◔

4.3 Skills

The skills factor refers to the availability of skilled maritime personnel, both onshore and offshore. Following our comprehensive benchmarking, we have identified Singapore and Hong Kong as the most effective maritime clusters in terms of skills development. Both clusters provide robust programmes that prioritise the development of maritime skills from a supply-side perspective. This is achieved by making significant investments in co-funding programmes for maritime education. This public support extends beyond the conventional STCW training programmes for seafarers, encompassing job creation across the maritime cluster.

Furthermore, Singapore offers a wide range of programmes designed to facilitate career development and entry into the maritime sector, funded by the Maritime Cluster Fund. Consequently, both Singapore and Hong Kong have systems that offer attractive initial training, entry-level professional development, higher education and professional development in both shipping and the broader maritime cluster. In Singapore, this approach is subject to ongoing review with active input from industry stakeholders. The government provides funding to support the alignment of supply and demand in skills development. Hong Kong and Singapore offer, in addition to the tonnage tax, similar support measures related to the cost of labour in shipping, such as tax exemptions on personal income of seafarers on board ships registered in their flag.

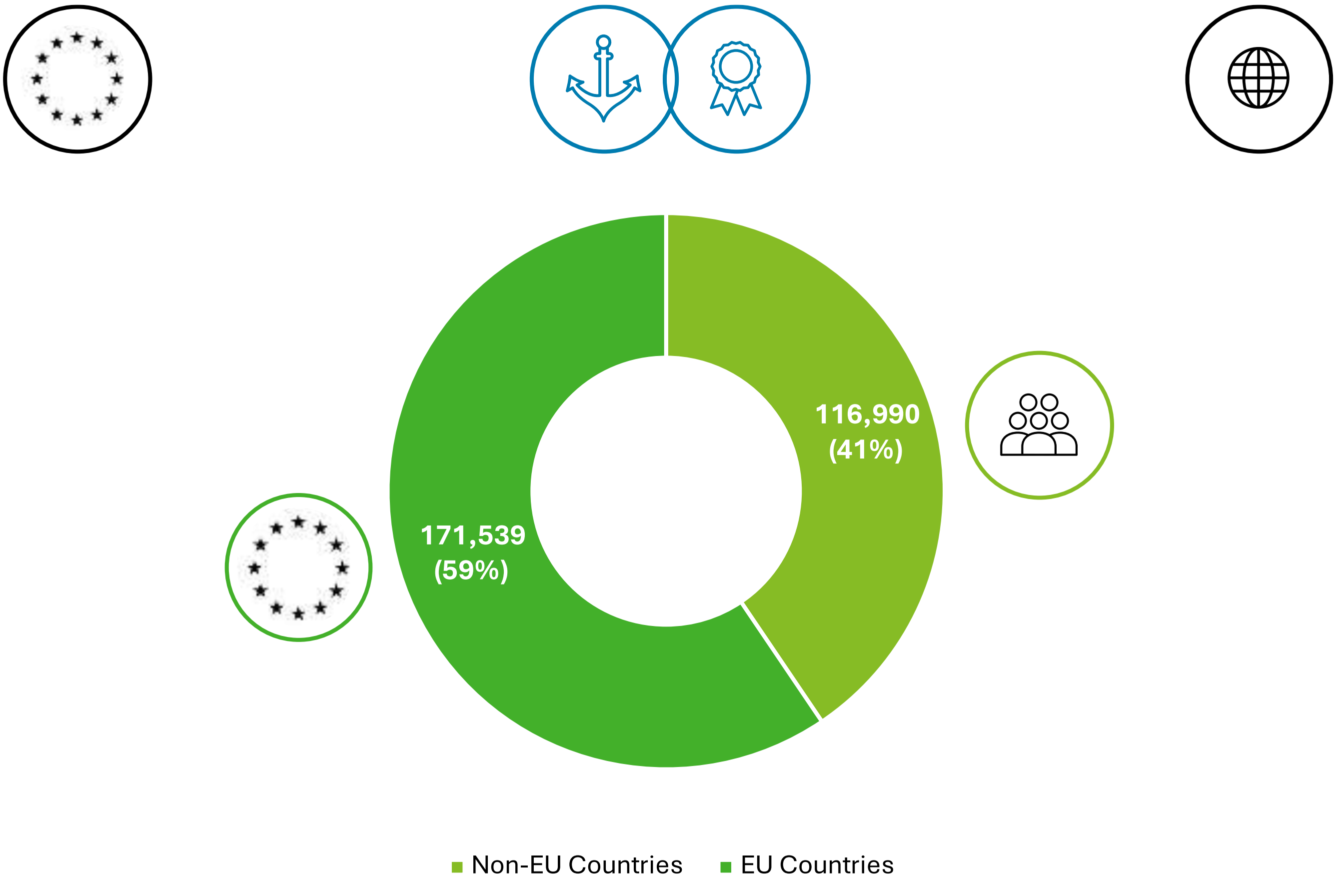
The EU framework for skills

The EU's objective is to address all human resources, training and employment issues in shipping, with the aim of attracting and retaining European seafarers. EMSA reports approximately 172,000 master's and officer's certifications from EU countries and around 117,000 Master's and officer certifications from non-EU countries that are recognised by EU countries in 2022, cf. figure 15.[29]

The EU Guidelines on State Aid to Maritime Transport have created more favourable conditions for the employment of EU personnel by allowing reduced rates of social security contributions and reduced rates of income tax for EU seafarers (or similar measures such as reimbursement of such costs). However, despite an increase in the EU-operated fleet between 2019 and 2024 (see figure 3), the employment of EU seafarers suffers from a general labour shortage in Europe, which is affecting multiple areas of employment, especially in more physical professions. It is evident that there is a considerable shortfall in the availability of labour in the transportation sector, including in shipping. In Europe, there is a notable absence of interest among young people in pursuing a career in this field, also because of the decreasing willingness to work far away from home. Nevertheless, the shipping industry has the potential to mitigate this shortage to a certain extent, as it can draw upon international labour markets.

[29] Seafarer Statistics in the EU 2022 (n.d.),
The employment is around 300.000 in the Water Transport sector. Employment by sex, age and detailed economic activity (from 2008 onwards, NACE Rev. 2 two digit level) - 1 000 (2024).

Figure 15 – EU Seafarer statistics 2022 (EU fleet) – masters and officers certified and recognized by EU countries



Source: EMSA STCW Information System

In order to successfully navigate the digital and ESG-driven changes, new skill sets are required. The shipping industry is undergoing a significant transformation driven by green and digital technologies. To remain competitive, ships will require advanced digital capabilities. The advent of new clean fuel technologies, including hydrogen, ammonia, batteries, and biofuels, will also require the development of new skills, educational programmes and operational training for seafarers. These changes are leading to a shift in focus from traditional seafaring roles to higher-value activities at sea and ashore.

This necessitates a shift in the EU's approach to maritime human resources. The European shipping industry emphasises the need for closer collaboration between the education and employment sectors to address the skills gaps that will emerge from this shift and to align the policy preferences of stakeholders. A number of EU funding programmes are available for this purpose, but there is scope for further action. The European Commission supports and encourages social dialogue, which has produced positive results in the maritime sector. For instance, a noteworthy case study has demonstrated the efficiency of sectoral social dialogues. In partnership, employers and employees have addressed a range of pivotal concerns, including the formulation of a global legislative proposal to address harassment and bullying on board. In particular, the European Commission backs the work of the relevant maritime social dialogue committees, which promote measures to develop career opportunities and training programmes across the maritime economy.

Furthermore, the Erasmus+ programme includes a number of initiatives that are of particular interest to stakeholders in the maritime industry. By way of illustration, sector skills alliances[30] are designed to establish European

[30] Blueprint for sectoral cooperation on skills (n.d.).

partnerships between industry, vocational and educational institutions and regulators. The objective is to define the skills required in a specific sector and to design and implement new curricula accordingly. Other Knowledge Alliances[31] focus on higher education, with the objective of strengthening the relationship between industry and universities. However, there is currently no integrated approach to skills development across the maritime cluster. As previously stated, the maritime cluster encompasses sectors directly related to the shipping industry, including shipping services, port services, marine works, shipbuilding, ship management and shipbroking. It also includes sectors indirectly related to the shipping industry, such as banking and financial services, R&D and education, and marine equipment. At the EU level, there is still a lack of coordinated efforts to ensure supply in this diverse cluster space. A narrow sectoral approach to skills anticipation and development is insufficient and lacks the coherence of the approaches seen in both Hong Kong and Singapore.

Policy gaps in relation to skills

Our analysis indicates that there are no significant gaps in the EU legal framework for training aid as set out in the SAGs. The SAGs framework for reducing the actual tax and social security burden is successful but would leave a significant policy gap if the SAGs framework were restricted. Maritime training can be subsidised up to 100% of training costs, subject to certain conditions. In practice, the level of public funding in the EU is approximately 50%, which is lower than in Singapore, where it is typically around 70-–90%. However, it should be noted that the possible measures under the SAGs also need to be implemented by EU Member States in order to be effective.

"In some EU countries there are good maritime universities, but because of the size of the fleet, this is not enough. There should be more support to maritime academics, but local administrations often do not have the budget to fully finance this."

(Interview partner)

"We need a pan-European campaign to promote that especially young people go to sea. And we need to keep that expertise in the EU."

(Interview partner)

The current report by Mario Draghi on EU competitiveness[32] addresses the issue of reskilling as follows:

"Reskilling is becoming a pressing need. Moreover, a large shift is expected in skills needs both in technical and administrative roles, driven by digitalisation (and the closely connected importance of cybersecurity) and by decarbonisation. For example, in the maritime sector, reskilling needs could affect some 250,000 seafarers in EU lx[33] during the coming years. New skills needs will arise related to the handling and bunkering of alternative fuels and their safety, alongside the ability to maintain optimal operating speeds, and, later, the management of automated vessel operations. Across the transport sector, demand for low-skilled workers is likely to decrease as complex human-machine interactions become more widespread in the medium term. Despite this, training currently focuses on present and immediate skills needs. Certification and driver licencing (and their recognition) for rail, maritime, coach transport and logistics professionals are not yet fully harmonised across the EU, which represents a significant obstacle."

There are minor gaps in the EU framework compared to international centres, mainly concerning the accessibility of training. At the same time, there is a clear issue with the attractiveness of the seafarer profession with declining interest among younger generations. There could be prioritised efforts and further initiatives focusing on enhancing the attractiveness of the maritime industry as an employer.

These gaps are listed in the table below.

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[31] Knowledge Alliances (n.d.).
[32] The Draghi report (n.d.).
[33] Based on estimates for reskilling needs at global level in the 'Zero Carbon by 2050 scenario', modelled by Lloyds Register and University Maritime Advisory Services, whereby some additional training would be required for 450,000 seafarers by 2030 and 800,000 seafarers by the mid-2030s. See: DNV AS, Insights into seafarer training and skills needed to support a decarbonized shipping industry (2022).

Table 6 – Identified policy gaps for skills

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Skills	Skills 1	**Declining interest in seafaring professions** Especially in younger generations, the interest in seafaring professions is increasing, as these jobs often involve hard labour and longer periods away from home.	EU/Member States	◑
	Skills 2	**High eligibility requirements for trainees and low level of promotion** Training subsidies are available only for EU/EEA residents on EU/EEA flagged vessels, not in active employment.	EU/Member States	◔
	Skills 3	**Narrow scope of training schemes** Singapore's and HK's approaches are cluster-wide and includes management/finance/law/brokering courses and seafarers on more vessel types. Supporting training and education could be further supported through mutual recognition of certifications within the EU.	EU/Member States	◑

4.4 Flag attractiveness and legal framework for vessel exploitation

The attractiveness of the flag and the legal framework for the operation of ships are two interrelated critical factors for competitiveness. They concern the operating conditions (set by flag administrations and are of key importance to shipowners and operators because of their direct impact on operating costs. The flag of a ship determines the legal framework under which it operates. This is therefore a decisive factor for the company chartering the ship, and thus (indirectly) also for the owner company. The flag of a ship has a particular influence on the labour law and safety law of a ship. In this regard, it is important for the operating company that international agreements and regulations, which come from the IMO and the ILO, for example, are fulfilled and recognised by other states and the ports to be called at. On the other hand, it is also important that the national requirements of the flag state do not deviate too much from these international standards. Another factor can also be the 'neutrality' of a flag state, as some flags are sanctioned by some ports, for example.

As shown in chapter 2, Singapore scores highest on the flag attractiveness parameter. The Singapore flag is attractive because of its international quality status, the high level of service and digitalisation provided by the Singapore Maritime and Ports Authority, and the absence of any operational restrictions or national regulations beyond the IMO/ILO conventions. In addition, Singapore has a simple registration process that requires fewer documents than other shipping centres and is carried out through the one-stop shop of the Singapore Maritime and Ports Authority.

The EU framework for flag attractiveness and legal framework for vessel exploitation

The pressure to further improve safety and environmental standards in the EU continues, which in some ways affects the competitiveness of EU flags. In recent years, the EU has often tried to influence the agenda at IMO/ILO level by putting pressure on other non-EU Member States and demanding an accelerated introduction of higher standards that should follow the newly introduced EU standards. At best, this approach means the early implementation of stricter regulations at the EU level, which puts the EU flag at a temporary competitive disadvantage compared to, for example, the Singapore flag. At worst, however, standards are introduced in the EU that are not considered effective at the international level and are therefore not introduced or are introduced in a fundamentally different way that is incompatible with EU regulations. This could lead to a situation where the EU has a standard that is not recognised internationally and hence decreases its competitiveness, instead of exerting pressure for the adoption of common and global standards.

Beyond that, the attractiveness of the flag is also strongly influenced by the quality of the services provided by the flag registers and the national flag administrations. At present, there are very few initiatives at EU level to exploit economies of scale in the flag registers of the Member States. Many of the services provided by the flag registers are the same or very similar, and individual Member States are pushing to increase the level of service through the same channels (digital reporting, applications for certificates of recognition, etc.).

There is no EU flag, and this will not be introduced in the near future either, as the EU, unlike the USA, is not a singular country. On the one hand, there is harmonisation at the EU level, but national requirements continue to differ significantly. On the other hand, all EU flags are normally considered to be of equally high standard. Since flags from EU states are in most cases considered to be almost equivalent (especially when it comes to meeting eligibility criteria) and the flag of a ship can be changed quickly, this factor, although important, is not as critical as some others.

The **EU Ship Recycling Regulation** provides the legally binding framework for ship recycling and aims to facilitate the early ratification of the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, which will enter into force on 26 June 2025. EU rules require that all EU ships going for dismantling, all new European ships and third country ships calling at EU ports, document all hazardous materials (as per the EU guidelines) used in the construction of the vessels. This documentation must include the location and approximate quantities of these materials. This helps the recycling of ships and reduces the presence of toxic materials on board. Port authorities in EU countries may inspect ships to check that they carry such an inventory and the necessary certificate. These rules stipulate requirements for ships and recycling facilities, with the objective of ensuring that ship recycling is conducted in an environmentally safe and sound manner. Furthermore, the rules restrict or prohibit the installation and use of hazardous materials on ships, including asbestos and ozone-depleting substances. Additionally, the rules establish a European list of ship recycling facilities.

Policy gaps in relation to flag attractiveness and legal framework for vessel exploitation

EU flags are required, at least to some extent, to be eligible for tonnage tax. As no other jurisdiction in the benchmarking sets flag link as a prerequisite for attractive tax treatment, flag attractiveness is less important in these jurisdictions in providing a competitive framework for shipping.

EU flags are under pressure from flag states offering lower costs due to direct implementation of all IMO and ILO conventions without additional standards or crew restrictions in terms of nationality requirements. The attractiveness of flags is largely a matter of Member State policy and is therefore generally outside the scope of this comparison. However, there is some EU legislation which affects the attractiveness of EU flags in general by imposing additional requirements compared to the level set by the relevant international conventions (examples include the range of European directives and regulations on health and safety and the environment). Some additional requirements may lead to unnecessarily increased administrative burden that makes the EU flag less attractive.

"The EU should avoid operating outside of the global [IMO] regime."
(Interview partner)

"The EU has an inward view to end any competition between members states, but they also should have a view of EU vs the rest of the world. They need a more global approach."
(Interview partner)

Table 7 – Identified policy gap for flag attractiveness and legal framework for vessel exploitation

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Flag attractiveness & legal framework for vessel exploitation	Flag 1	**Derogation between EU regulations and IMO/ILO standards** Additional requirements imposed by the EU or on the national level (by EU Member States), e.g., for safety and environmental standards increase administrative burden and operating costs under EU/ EEA flags vis-à-vis non-EU flags that pursue strict implementation of international IMO/ILO standards.	EU/Member States	◕
	Flag 2	**Existence of Member State crewing restrictions** Requirements of EU/EEA flags on crewing EU/EEA seafarers to a certain minimum extent lead to an increase in operating costs and limit much needed operational flexibility under such flags vis-à-vis bench-marked centres without such requirements.	Member States	◔
	Flag 3	**Lack of cross-member-state digital solutions for global shipping** Some non-EU shipping clusters are front-runners in digitization, while cross-Member State digital systems in the EU for flag services are non-existing. Speed of adoption and integration of digital system is to slow and not yet realized, parallel to the overall digitizations initiatives of the EU.	EU/Member States	◑

4.5 Availability of professional services

After the UK's departure from the EU, and its inclusion in the benchmark as a non-EU shipping centre, London now is a new number one in the ranking, clearly outperforming the number one from the previous study, Singapore, and also New York. London is considered the leader in terms of the availability of professional, mediating and supporting services, which is based on the fact that most shipping-related contracts are based on English common law. There is a cluster of legal advice and insurance services, as well as ship brokers, that has been established in the city for many decades. It can be stated that overall, the age and maturity of shipping centres has a strong influence on the breadth and depth of the wider maritime value chain, but policy measures can also accelerate the development of the professional services cluster and the support services relevant to shipowners.

In Singapore, professional services related to shipping are also subject to tax benefits. This reflects that the strategy of MPA covers the development of the entire value chain of shipping (Maritime Cluster Fund, MSI-SSS/ML Awards). Furthermore, the Maritime Cluster Fund is set up to facilitate growth of Singapore's maritime cluster by supporting the industry's manpower, business development and productivity improvement efforts. The key focus of this fund is overall maritime competitiveness and not the competitiveness of a specific type of company in a given sector. Shipowners and operators, technical and commercial maritime service providers, industry associations as well as tech/engineering companies with a maritime focus may apply for funding. The common denominator is the maritime theme.

In Dubai, the Maritime Sector Strategy outlines an ambitious plan for the development of the maritime professional services sector. The government is supporting the establishment of the Emirates Maritime Arbitration Centre (EMAC) inside the Dubai International Financial Centre (DIFC).

The EU framework for professional services

The EU does not currently have any measures in place which are targeted specifically at developing the professional services sector in proximity to the maritime industry. The long maritime history of European shipping means that many international maritime institutions such as arbitration centres, P&I Clubs, shipping associations, etc. are firmly established in Europe. Many of them are however located in London, which is no longer part of the EU but still an important element of the European maritime cluster for professional services. For the same reasons, government interaction is low. The maritime-related professional services sector, to the extent it is supported directly, is only supported through General Block Exemption Regulation (GBER) measures in individual Member States. As such, there are no explicitly formulated strategies or policy tools at EU level aimed at the professional services sector surrounding the core shipping sector. Furthermore, the general focus by the EU in relation to maritime clusters tends to be narrowed down to the added value of traditional maritime sectors: shipping, ports, shipbuilding, offshore services, maritime equipment, etc. [34]

Things are different for the physical part of services surrounding the shipping cluster: logistics and port performance and the shipbuilding and ship repair sectors. In these sectors, the EU has established a greater range of support measures. Measures supporting port development and logistics are set in the Trans-European Transport Network Regulation (TEN-T) and Maritime SAGs on support for short sea shipping and in SAGs for public financing of port infrastructures[35]. In 2024, the European Parliament approved the new revised TEN-T, which strengthens the physical professional services. This revision is part of the European Union's strategy for sustainable growth (European Green Deal), which aims to create a carbon-neutral Europe by 2050[36]. This includes support for the transition and modernization to a more environmental-friendly port infrastructure, as well as shore-side power and the supply of alternative fuels such as LNG, ammonia, and hydrogen. The investment-related support measures will be touched upon under availability of finance. These support measures are not directly targeted at shipping companies, but they do form part of the totality of the support measures granted to the EU shipping cluster.

Policy gaps in relation to professional services

Due to the long maritime history of EU shipping, most maritime institutions such as arbitration tribunals, P&I Clubs, shipping associations, etc. are firmly rooted in Europe. There are no explicitly formulated strategies or policy instruments at EU level targeting the professional services sector around the core shipping sector. While the EU's general maritime focus is on fisheries, the general maritime cluster tends to

[34] Policy Research Corporation (2008).
[35] State aid rules for port infrastructure (n.d.).
[36] Regulation of the European Parliament and of the Council on Union guidelines for the development of the trans-European transport network (2024).

receive less attention and many maritime sectors, such as shipping, ports, ship building, offshore services, marine equipment, etc., are spread across the EU and receive interest mainly from national authorities.

At the same time, benchmark studies on the performance of various EU maritime centres suggest that centres of excellence in various services sectors are spread across the European region, rather than being concentrated (as in Singapore). According to a recent study, Oslo is strongest in maritime technology, London in maritime finance and law, Rotterdam in ports and logistics[37].

There is a need for an active EU policy to support and strengthen the existing maritime clusters in the EU and the strong maritime services sector in the EU. Such strategies could enable individual Member States to better activate and harness the collective strength of the EU maritime community as a whole by focusing more on the possible synergies between these maritime centres of excellence spread across the EU. It is clear that a comparison of strategies between the EU and London or Singapore is unfair due to the significant differences in legal practice (common law vs civil law) and institutional complexity. However, there are important lessons to be learnt, and it highlights the EU's lack of a cluster strategy that extends beyond the core shipping sector.

"SAGs only serve as a minimum and they cannot guarantee that EU shipping will remain competitive without looking at the broader picture. What is needed is an overall coherent policy in order to safeguard the sustainability of EU shipping and the wider maritime cluster."

(Interview partner)

There is a marked difference between the EU and the six benchmarked centres, except Shanghai and New York, at a fundamental level in the way that professional services and services surrounding the core shipping operations are actively included in policies. In four of the six benchmarked centres, one of the core ambitions is to support the development of high value-added professional services jobs around the shipping operations. In Singapore in particular, the broader maritime cluster and the existence of a well-developed professional services sector are primary selling points. Singapore's way of looking at shipping and making policy to support shipping is wide-scoped and includes a perspective of the entire cluster of professional and physical services. In the EU, on the other hand, the support measures are not as calibrated towards the same end goal due to the lack of a wider cluster focus. Oxford Economics concluded that 685,000 jobs out of a total of 2 million jobs in the entire shipping cluster were based in the traditional shipping sector, whereas the others were in surrounding services[38]. This means that for every job directly supported by the shipping industry, another 1.9 jobs are supported elsewhere in the European economy.

Table 8 – Identified policy gaps for availability of professional services

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Availability of professional services	PS.1	**Lack of cluster focus** EU policy focuses on the traditional core sector of shipping, and there is a lack of integrated guidelines for the entire shipping cluster, including the professional services sector in the maritime sector.	EU/Member States	◑

[37] The leading maritime capitals of the world (2024).
[38] The Economic Value of the EU Shipping Industry (2020).

4.6 Availability of finance

Although a robust maritime financial services sector is essential for the capital-intensive shipping industry in terms of access to capital and a range of financial products, the internationalisation of the sector is reducing the importance of geography in the location decisions of shipping companies.

All major maritime hubs focus on developing their financial markets, with varying approaches. Singapore implements extensive research programs aimed at advancing their equity capital markets, while Shanghai has expanded its maritime financial presence through direct involvement in ship financing. Hong Kong benefits from its close financial ties with London, which creates spill-over effects noted by industry experts. Dubai has established itself as a player in the maritime finance sector to attract shipping companies. New York continues to serve as a global financial hub, offering strong integration with global maritime financial markets, and is often compared in significance to London in this sector.

Singapore provides a wide-ranging portfolio of programs, including the Maritime Singapore Green Initiative, the Maritime Cluster Fund, and the Maritime Innovation and Technology Fund. These programs support vessel upgrades, R&D investments, and productivity-enhancing capital investments for Singapore-based shipowners, complementing the extensive investments by the Chinese government in direct ship financing and leasing.

While Chinese financing and leasing options are being promoted to extend the value chain of Chinese shipbuilding, shipping companies worldwide are also taking advantage of financing opportunities in Japan, where low interest rates have made them even more attractive since the recent interest rate differential between Japan and Western countries.

The EU framework for availability of finance

The landscape of ship finance in Europe is increasingly influenced by stringent regulatory changes, particularly those aimed at ensuring financial stability and promoting sustainable practices. The implementation of Basel III introduced higher capital requirements for banks, making it more expensive for them to lend, particularly in sectors deemed "high-risk" (e.g. higher degree of difficulty to recoup investments), such as shipping. This, together with higher interest rates due to the inflation of recent years, has led to significantly tighter credit availability and higher borrowing costs for shipowners. At the same time, there is an ever-increasing demand for investments in the sector. The Draghi report, for example, estimates investment needed to decarbonize the shipping sector would be around €40 billion each year from 2031 to 2050.

The forthcoming finalisation of Basel III, scheduled to take effect on January 1, 2025, will impose even stricter regulations. *Basel III Finalising post-crisis reforms* will further increase the capital reserves that banks must hold against loans, particularly impacting corporate lending and specialized lending categories like mortgage lending. Furthermore, the upcoming *Basel III Finalising post-crisis reforms* package, which is binding for EU Member States, adds another layer of financial challenge. In contrast, countries such as the US, UK, UAE, Singapore, and China are not obliged to adopt these regulations, as they consist of non-binding high-level principles. Members of the Basel Committee are expected, but not required, to implement these standards through domestic regulation. The combined effect of higher borrowing costs, the need for significant capital outlays to meet environmental requirements, and the uneven global application of Basel III creates a particularly challenging financial environment for European shipowners.

These financial regulations are accompanied by increased pressure on shipowners to comply with demanding environmental standards. Regulations, aimed at reducing greenhouse gas emissions and improving energy efficiency, necessitate substantial investments in new vessels and the retrofitting of existing fleets. Additionally, there is an adverse effect of sustainable finance, which instead of providing incentives for banks to lend at a lower cost for sustainable projects, it further penalises transition finance and corporate finance which is not "best in class" leading therefore even further constraints on lending to transitioning shipping companies. This is expected to make financing in the EU even more costly and challenging to obtain for shipowners, who already face significant hurdles in securing funds in Europe for necessary investments. In the end, shipowners will likely find a way to finance themselves outside of the EU and outside of banks. This will however be increasingly burdensome especially for smaller companies, resulting in potentially losing their competitiveness.

Navigating these regulatory changes while maintaining global competitiveness is increasingly difficult, especially as in general, finance in Europe is more based on traditional banks, limiting the alternatives to bank financing.

Public funding initiatives

Public funding plays a crucial role in addressing the financial challenges faced by the maritime industry. Public funding is not going to be enough to cover the sector's investment needs, but it can play a significant role in enhancing private finance. One key initiative is the European Innovation Fund, which has launched calls funded by revenues from the Emissions Trading System (ETS) to support the EU industries' transition to greener practices. Given that shipping is competing with many other industries, it is key that dedicated calls for the shipping industry are opened under the European Innovation Fund.

The energy and digital transition of shipping requires immense investments. It is recommended to implement measures that guarantee access to adequate public and competitive private financing in the EU, which is vital for the competitiveness of shipping companies in Europe vis-à-vis their global competitors. Strengthening ship finance in Europe will also benefit the European maritime industrial cluster by supporting the development of innovative technologies and clean fuels in Europe.

This could be achieved by spending the revenues from the EU ETS on energy transition-related activities to decarbonise the shipping sector at the EU and the Members States level. The earmarked revenues for the maritime sector under the Innovation Fund could be used to bridge the price gap between conventional and clean fuels and to support investments in clean technologies providing an additional incentive for suppliers to scale up industrial production in Europe. It is also recommended that additional funding instruments are introduced (such as the mechanism of Auctions-as a-Service) which allows Member States to use EU ETS national revenues to top up EU funds.

The European Investment Bank (EIB) also plays a significant role through its transport lending policy, which emphasizes support for inland water transport, European ports, and logistics, in alignment with EU policies on growth, employment, environmental protection, and energy efficiency.

Two prominent examples of EIB involvement in the maritime sector are the Green Shipping Programme Loan (GSPL)[39] and the Green Shipping Guarantee (GSG)[40] program, cf. figure 16. The Green Shipping Programme Loan provides EUR 245 million in financing for small shipbuilding projects, including the construction of new vessels, conversions, and retrofits that promote sustainable transport and environmental protection, with a total project cost of approximately EUR 500 million. This program offers sub-loans to multiple shipowners, with projects primarily implemented in European shipyards, ensuring compliance with stringent domestic and EU environmental and safety standards.

The Green Shipping Guarantee (GSG) program is another key initiative aimed at accelerating the adoption of greener technologies by European shipping companies. Structured as a guarantee framework, the GSG program works with financial institutions specialized in ship financing to provide guarantees for investments in sustainable maritime projects. The program was initially launched with a pilot phase, partnering with selected institutions to demonstrate its viability through specific pilot transactions.

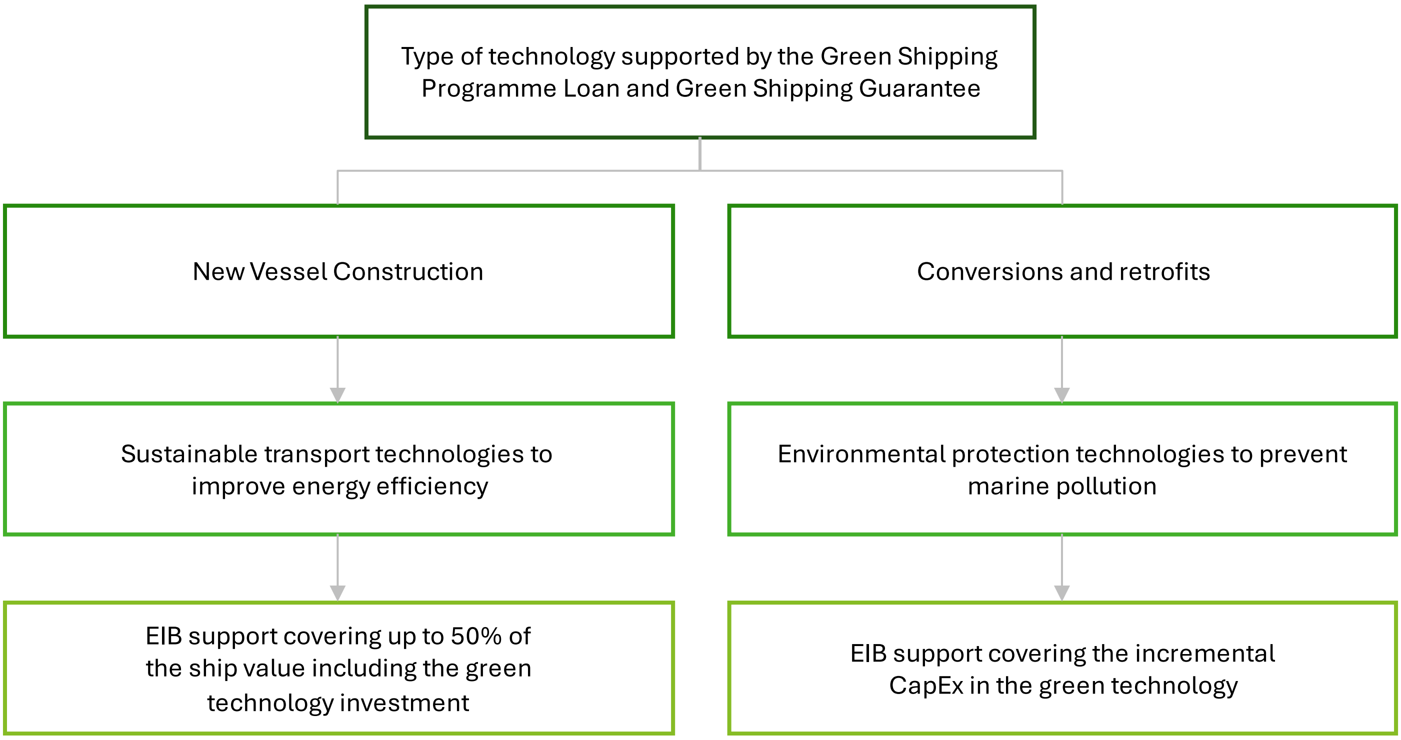
With a proposed EIB finance of approximately EUR 750 million and a total project cost of around EUR 3 billion, the GSG program is designed to finance shipbuilding projects that include new vessels, conversions, and retrofitting of existing fleets to meet environmental protection standards, including climate action initiatives. The program requires shipowners to be experienced operators with the necessary competence to undertake these projects and mandates that they hold all relevant environmental certifications.

The GSG program also emphasizes stringent procurement practices, requiring that shipyard selections follow EU procurement procedures, ensuring open and fair competition without state aid or intellectual property right issues. This meticulous approach aims to ensure that the financed projects adhere to the highest environmental and legal standards, fostering a more sustainable and competitive European maritime sector.

[39] Green shipping guarantee programme (2016).

[40] Green shipping programme loan (2016).

Figure 16 – EIB support offering through GSPL and GSG



While there has been some progress in developing alternative financing instruments, the complexity and stringent requirements of EU and EIB finance programs still present significant barriers, particularly for small and medium-sized enterprise (SME) shipowners. The intricate application processes and the need to meet high environmental and operational standards can be particularly challenging for smaller operators who may lack the resources to navigate these systems effectively.

As of 2024, European ship financing portfolios continue to navigate a challenging landscape. Stricter banking regulations, particularly with the implementation of Basel III, will sustain pressure on traditional bank financing, especially for specialized lending in the shipping sector. This will keep the cost of financing high, posing significant challenges for shipowners who need to invest in both environmental upgrades and new vessel acquisitions.

Policy gaps in relation to availability of finance

Consequently, several policy gaps have been identified in relation to shipping financing. These have been summarised in the table below.

"Financing in Europe is not possible anymore under the current environment, but that could be changed."

(Interview partner)

"EU shipping companies, especially SMEs, have relied and continue to rely on bank financing, therefore its decrease in the EU is a serious impediment to their growth. On the contrary, in many shipping centres outside of the EU, mostly in Asian countries, ship financing is much more developed with specialized instruments."

(Interview partner)

"Elsewhere, there are much more favourable rules for ship financing, in the EU there aren't. As a result, this creates a competitive disadvantage."

(Interview partner)

Table 9 – Identified policy gaps for availability of finance

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Availability of finance	Fin 1	**High focus on intra-EU investment support** Current investment programmes are primarily targeted at intra-EU trade facilitation and financial support is often contingent on the investment being of relevance for intra-EU trade (under Connecting Europe Facility (CEF), Horizon 2020 (H2020), EIB investment programmes).	EU/EIB	◕
	Fin 2	**High administrative complexity for EU financial offerings** The application process for financial support, and follow-on requirements for documentation (CSDDD) are perceived as too complicated and time consuming.	EU/EIB/Member States	◕
	Fin 3	**Insufficient support for SME shipowners** SME shipowners often lack access to funding due to the absence of financial instruments specifically designed for smaller operators, which limits their ability to invest in necessary upgrades and remain competitive.	EU/Member States	◕
	Fin 4	**Uncertainty surrounding new Basel regulations** Proposed changes in asset-based ship financing (as per Basel III) due to their de facto mandatory application in the EU, and higher impact due to bank loan reliance, as contrasted to other areas of the world, are a major source of risk for shipping companies.	EU/Member States	◕

4.7 Regulatory, economic and political factors

General regulatory, economic, and political factors are crucial for the attractiveness of shipping centers as they underpin all other considerations. Shipping companies prefer locations with quality rule of law by an independent judiciary, general trust in government, and legal certainty. This allows the stability and transparency essential for the long-term investments of shipping companies.

As we saw, Singapore scores high on these parameters and especially higher than their international competitors (like Dubai or London). Although Hong Kong performs comparably on the same indicators, its scores are somewhat hampered by the uncertainty created by the Chinese administration. New York has a stricter tax setup as its international competitors, but remains an important shipping hub, in particular due to its location within the world biggest economy. The comparably low costs in Shanghai cannot outweigh the relatively poor general business environment and quality of life.

The EU framework for regulatory, economic and political factors

It is still predominantly the Member States' own policies that affect the specific regulatory environment for shipping. Nevertheless, the EU provides the legal framework and monitors whether the national interpretations are in harmony with the EU overarching principles and regulations.

With regard to the legal certainty surrounding taxation and fiscal measures, it is evident that the EU has provided, through the SAGs and in general, a highly stable framework for a considerable length of time. As mentioned before, the SAGs have created a stable foundation in order to keep a competitive shipping sector in Europe. However, the continued applicability of the SAGs is not guaranteed for an indefinite period.

Given the pragmatic approach of Singapore and Hong Kong – for instance - the use of the SAGs as a one-size-fits-all model (used as a tool for Member State harmonization) is somewhat problematic seen from a business perspective. The facilitative nature of the SAGs makes it a fundamentally flexible framework and should allow accommodation of the specific needs of individual Member States. Building on the European climate objectives, there is an opportunity to become more competitive among maritime centres. The objective is to be accomplished by a modern framework that allows Member States to exercise a certain degree of autonomy in adjusting to measures implemented by international maritime centres.

Since at its core, the EU is heavily dependent on trade, the region is also active in negotiating multilateral free trade agreements (FTAs) on the international stage which should ensure to keep the administrative burden lower than without these FTAs[41]. However, the increasing (re-)formation of blocs makes it more difficult to bring in new partners and conclude new treaties. The EU is clearly committed to the Western liberal world view, but at the same time it is trying to establish itself as a unifying partner and maintain diplomatic and economic relations where the differences are not too great. The EU sees itself as a politically moderate and open region, which makes it attractive to shipping, as the EU is seen as a cosmopolitan and neutral home port.

Europe is one of the most interconnected regions in the world and world's largest exporter of manufactured goods and services and is itself the biggest export market for around 80 countries.[42]. Europe has become deeply integrated into global markets. And the EU's connectivity infrastructure is among the best in the world. For example, it has some of the largest mega-container ports in the world, with a significantly higher transhipment capacity than the ports in the US, which are only surpassed by ports in Asia. EU ports are increasingly specialised and four of the five largest ocean freight companies are EU companies[43].

Both the EU and European Member States have shown a perceived tendency not only to implement global standards, but also to elevate regional standards further, taking a leadership role in addressing various issues, including environmental, social and governance (ESG) topics. Recent examples include corporate sustainability due diligence (CSDDD)[44], environmental regulation (ETS[45], FuelEU[46]), anti-money laundering (AML)[47] and EU's Ship Recycling Regulation[48] . While these

[41] Negotiations and agreements (n.d.).
[42] EU position in world trade (n.d.).
[43] The Draghi report on EU competiveness (n.d.).
[44] Regulation oft he European Parliament and oft he Council on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds (2023).
[45] Regulation of the European Parliament of the Council establishing a carbon border adjustment mechanism (2023).
[46] Regulation of the European Parliament and of the Council on the use of renewable and low-carbon fuels in maritime transport (2023).
[47] Regulation of the European Parliament and of the Council on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing (2024).
[48] Regulation of the European Parliament and of the Council on ship recycling (2013).

regulations are well-intentioned and often also expected from the EU, they in parallel sometimes place heavy demands on companies and are not always effective in the globalized world of shipping, as they may endanger the level playing field in comparison to other international non-EU clusters.

"Currently the administrative burden in the EU is insane, with a lot of uncertainties. In the past, the EU guaranteed some certainties, now we only know that more regulation is to come."

(Interview partner)

"Shipping will go where it is sustainable, profitable and competitive."

(Interview partner)

"It is necessary to ensure a level playing field within the EU, but we should also not lose sight of other non-EU jurisdictions as well. Others do not have any rules at all."

(Interview partner)

Policy gaps in relation to regulatory, economic and political factors

Table 10 – Identified policy gaps for regulatory, economic and political factors

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Regulatory, economic and political factors	REP.1	**Legalistic interpretations trump pragmatism** The European Commission (EC) takes a legalistic view on applying the rules of the SAGs, whereas administrations in international centres are more pragmatic and business-friendly. The Singapore government is the frontier in terms of pragmatism and business friendliness.	EU/Member States	◕
	REP.2	**Weak growth prospects and slowdown in globalisation** European economy is growing on a much lower rate than most other regions in the world. Furthermore bloc building between the US and China and policies which favour regional production and job creation lead to a slowdown in globalisation, also effecting Europe.	EU/Member States	◑
	REP.3	**Rising administrative costs** Administrative burdens are increasing, as new reporting requirements are introduced. Many are not only implementing global standards, but try to push a higher regional standard for global issues. They demand a lot from companies, and are not always effective, as they might trigger evasive manoeuvres.	EU/Member States	●

4.8 Cross-cutting factors

Beyond the policy gaps related to specific competitiveness drivers, the two cross-cutting gaps related to the overall maritime strategy pursued in the EU context are even more relevant today than in our previous study.

There have been many calls in our interview programme for an update of the overall EU maritime policy framework. The world has changed significantly in recent years and the European Commission's original communication dates from 2009 and the latest update from 2015-2016. An updated EU maritime strategy is required to set the course for the next decades. In line with this need, the new European Commission has already revealed their decision to create an industrial maritime strategy in the coming year, in order to enhance "the competitiveness, sustainability and resilience of Europe's maritime manufacturing sector".

The current strengthening of the role of the European Maritime Safety Agency (EMSA) and the progress it has made in the field of maritime safety is an additional good example of how the EU is able to coordinate its capacities, even though the EU is a more complex political construct with a relevant diversity of views and agendas. However, as maritime safety is only one part of the overall picture and international shipping is a highly competitive environment, a further strengthening of the European cluster through a commitment is necessary to defend the current position as a leading maritime union.

"We need clear and transparent government policies to make shipping companies to feel welcome. Shipping has been seen more as a service than a strategic sector in the past, here a change of perspective is needed."

(Interview partner)

The first gap in the maritime agenda at EU level is the fragmentation of governance, with multiple arenas of policy-making across several Directorates-General with the possibility of different views and strategic agendas. It is not entirely fair to compare the complex political and administrative reality of the EU with that of Hong Kong, Singapore or Dubai. However, there are key lessons that can be drawn from these comparisons. The three jurisdictions have several things in common, including the fact that they have sought to consolidate the maritime agenda administratively and strategically with one or two primary stakeholders (in the form of the Hong Kong Maritime and Port Board, the Singapore Maritime and Ports Authority and the Dubai Maritime City Authority). This strong concentration of political and administrative power provides greater strategic clarity and a solid foundation for full alignment, cooperation, coordination, and reporting. The UK government as well has launched the "UK Shipping Concierge" service in 2021, a professional service to provide support and guidance for maritime businesses looking to access the UK market in one centralizes agency.

Furthermore, other world regions are making significant headway in digitising transport and adopting AI, driven by less fragmented governance. The global market for automated transport solutions is highly competitive. For example, substantial investments in the United States and China are already bearing fruit with the introduction of autonomous vehicles in urban and peri-urban areas. Moreover, both China and South Korea have identified the maritime sector as a key area for growth and have allocated state subsidies to support the development of digital solutions for the shipping sector[49].

Increased automation on-board ships, which could reach ultimately full autonomy or become remotely controlled unmanned vessels, are not a new maritime safety issue, but the development is gaining momentum. The recent technological breakthroughs in the fields of information technologies, digitalization, and machine learning, notably supported by EU funded research, have opened the possibility of a practical implementation of some of these solutions to Maritime Autonomous Surface Ships (MASS). This development may also provide opportunities and new concepts which could improve logistics, the overall environmental impact of transport and the secure maritime jobs on land. It is important to capitalise on this development and not allow competitors to gain an advantage. As a consequence, MASS will also need to be addressed from a regulatory perspective, as regulations have traditionally provided a safety threshold but may sometimes be a barrier to innovation, given that they were often drafted in different eras. Some older regulations are unable to fully anticipate the impact of new developments and lack the flexibility required to safeguard the necessary innovations. Additionally, the success depends widely on an EU-wide standardization of administrative requirements and digital portals, which has yet to happen.

Secondly, the EU lacks the shipping promotion structure currently being promoted in Singapore, London and

[49] The Draghi report on EU competiveness (n.d.).

Dubai, promoting a more shipping-friendly business environment. These jurisdictions actively attract shipping-related activities by highlighting their key offerings. In the EU context, promotional activities are largely a matter for national policymakers. For example, the promotion of multimodal transport forms part of the transition to sustainable and intelligent mobility, with greater integration of shipping. Both maritime and inland waterway transport are highly efficient modes of transport, and therefore represent an important part of the solution to the challenges facing the general transport industry. It can be observed that the Member States with the highest stake in the maritime sector have national authorities that are well-established, accessible, and proactive in promoting their strengths and facilitating the continuous development of their services. However, the collective strength of the EU is often argued by shipping stakeholders to be the key to the strength of individual Member States.

"Shipping centres outside the EU show much more flexibility, less bureaucracy and generally, a friendlier and more responsive stance to the needs of the shipping companies than EU shipping centres."

(Interview partner)

Table 11 – Identified cross-cutting policy gaps

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap
Cross cutting	Cross.1	**Lack of a comprehensive EU strategy for the shipping and maritime industry including regulatory fragmentation** In the maritime sector, there is demand for a renewed overall strategy for shipping and the wider industry. There is a lack of focus on the global competitiveness of the shipping and wider maritime sector and no alignment with current global challenges and future opportunities.	EU/Member States	◕
	Cross.2	**No common platform to promote EU shipping** All international centres are engaged in promotional activities with the objective of enhancing their appeal to potential companies. These activities are currently conducted at the level of individual Member States, if at all, and there is no unified promotional strategy for the EU maritime cluster as a whole.	EU/Member States	●

5. Policy recommendations

This chapter presents key recommendations in view of the development areas identified in the status quo of the EU policy framework. Our analysis underlines the need for an updated, forward-looking and comprehensive EU maritime strategy. Recognizing this need, the new European Commission under Ursula von der Leyen has announced their goal to create an EU industrial maritime strategy in the coming year, in order to enhance "the competitiveness, sustainability and resilience of Europe's maritime manufacturing sector". Policymakers could seize this opportunity to safeguard the strategic role of European shipping by strengthening all elements of competitiveness in the maritime cluster.

The EU as a maritime centre has managed to remain globally competitive, as evidenced by the continued large share of global shipping. However, there are clear signs that the competitiveness of EU shipping in 2024 is under more pressure than it was in 2017. The dynamic development outside the EU shows that it is sometimes easier for shipping companies outside the EU to set up or expand their fleet and that other non-EU locations are therefore increasingly being preferred.

The analysis has demonstrated that that the EU has established a comprehensive taxation policy framework, notably through competitive tonnage tax regimes in most Member States, creating a relatively level playing field with other global shipping centres. However, some EU policies still present shortcomings, which reduce the attractiveness of the EU as a location for shipping operations. These shortcomings have been identified through a benchmarking analysis comparing six leading international shipping centres. This chapter presents a series of principal recommendations aimed at refining the European Union's shipping policy and addressing the identified gaps in its current framework.

Our recommendations, based on interviews and on qualitative and quantitative benchmarking, strongly advocate for the EU to develop an overarching policy with a long-term vision for a strong and thriving maritime cluster, for which the international competitiveness of the European shipping industry is an absolute prerequisite. This policy should not only address the economic perspective, but also should consider the sector's strategic and geopolitical importance.

Specific recommendations relate to reducing administrative burden, improving access to finance and alinging with the IMO/ILO conventions in EU and Member State legislations. We put forth additional recommendations pertaining to the tax regime, crewing restrictions, the digitalisation of administrative procedures, and other matters beneficial to global shipping actors.

Overall, the EU shipping industry needs a shift in perspective on EU level, moving from a regional to a more global focus, in order to enhance the cluster's global competitiveness. While the harmonisation of regulations within the EU has been highly effective in promoting intra-EU trade and short sea shipping, the shipping industry is facing challenges from global competitors who are seeking to establish themselves as global centres. Therefore, the EU needs to refocus its policies, take into account global developments and focus more on the competitiveness of the EU cluster as a whole vis-à-vis other international shipping centres. It needs to develop a strategy to remain a globally competitive maritime region in the long term, and make sure shipping companies in the EU can compete on a global level playing field.

Therefore, the overarching general and broad recommendation is to compose a comprehensive, globally oriented maritime and shipping policy in the EU. This policy should have two key characteristics. First, it should have a strong focus on supporting the global competitiveness of shipping and the wider maritime sector. While the current maritime strategy and most of the initiatives launched emphasise the inherently global nature of shipping, they focus largely on the competitiveness of waterborne transport within the EU and other provisions related to safety and security. However, both markets, short sea shipping and global shipping, are important for Europe. Indeed, most EU shipping is international and cross-trade, transporting goods between third countries. This means that it earns its living outside the EU by doing business with trading partners outside the EU. Compared to 2017, this should also not only take into account economic reasoning, but also evaluate the shipping industry as a sector with overarching strategic importance in the light of current ongoing geopolitical uncertainties.

Secondly, the policy should be comprehensive, covering policy areas such as transport, taxation, environment, etc., and thus taking into account the key competitiveness factors. Our benchmarking analysis found that the strategies of the international clusters are comprehensive in the sense that policies across all competitiveness factors are aligned and coherent to support the particular position the cluster seeks to achieve. Following its Maritime Strategy 2009–2018, the EU could take a similar step and develop a comprehensive policy framework to support the objective of being a globally competitive location for the maritime industry.

The specific recommendations that follow are derived from the policy gap identified in our assessment. The presentation of the recommendations focuses on four priority recommendations. All recommendations have been summarised in a policy overview.

5.1 Prioritising policy issues

The gaps identified were prioritised in two steps. Firstly, the size of the gap was considered in relation to the policies identified at the international centres which were covered in our benchmark. Where EU policies in a given area are considerably less attractive, the gap is identified as significant. Secondly, the importance of the gap was assessed based on the weight of the competitiveness factor affected by the policy gap and other factors. The assessment and prioritisation of the gaps is presented in the table and explained in more detail thereafter.

Table 12 – Overview of policy gaps with size of gap and importance

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Ease of doing business	EoB.1	**Focus on administrative procedures for trade within the EU** The EU is generally seeking to facilitate trade within the EU and to simplify the business activities associated with these activities. The lack of a perspective for global shipping companies is seen as a political gap.	EU/Member States	◔	◔
	EoB.2	**Slow pace of digitalization and alignment** The EU has launched initiatives for digitalization and harmonization of the administrations to reduce the administrative burdens for shipping companies. However, implementation speed is below expectations and the level of digitalization is behind other global shipping centres.	EU/Member States	◔	◔
	EoB.3	**Lack of single point of contact and standardisation of regulatory processes** The lack of a single point of contact for global shipping companies and for dealing with EU legislation. No standardisation of regulatory processes between Member States.	EU/Member States	◕	◔

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Taxation and other fiscal incentives	Tax.1	**Strict admission criteria and flag state conditions** EU flag link requirements for tonnage tax eligibility are stricter than in the maritime benchmarked centres.	EU: State Aid Guidelines	◕	◕
	Tax.2	**Narrower sectoral and operational ring-fencing** The EU has more restrictions on activities and income than reference centres, where the tax benefits cover more shipping stakeholders and more seagoing vessels, as well as a broader range of maritime activities. The narrow scope leads to legal uncertainty regarding the applicability of new technologies and types of ships, which can hinder innovation.	EU: State Aid Guidelines	◕	◕
	Tax.3	**Additional incentives for carbon reducing methods** Other jurisdictions take a more encouraging approach of incentivizing the use of new environmental-friendly technologies rather than penalising conventional ones.	EU/Member States	◔	◕

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Skills	Skills.1	**Declining interest in seafaring professions** Especially in younger generations, the interest in seafaring professions is increas-ing, as these jobs often involve hard labour and longer periods away from home.	EU/Member States	◑	●
	Skills.2	**High eligibility requirements for trainees and low level of promotion** Training subsidies are available only for EU/EEA residents on EU/EEA flagged vessels, not in active employment.	EU/Member States	◔	●
	Skills.3	**Narrow scope of training schemes** The SAG only allows training in context of STCW, whereas Singapore's and HK's approaches are cluster-wide and includes management/finance/law/brokering courses and seafarers on more vessel types. Supporting training and educa-tion could be done outside the SAG, but mutual recognition of certifications within the EU is not always ensured.	EU: State Aid Guidelines	◑	●

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Flag attractiveness & Legal framework for vessel exploitation	Flag.1	**Derogation between EU regulations and IMO/ILO standards** Additional requirements imposed by the EU or on the national level (by EU Member States) e.g. for safety and environmental standards increase administrative burden and operating costs under EU/ EEA flags vis-à-vis non-EU flags that pursue strict implementation of international IMO/ILO standards.	EU/Member States	◕	◕
	Flag.2	**Existence of Member State crewing restrictions** Requirements of EU/EEA flags on crewing EU/EEA seafarers to a certain minimum extent lead to an increase in operating costs and limit much needed operational flexibility under such flags vis-à-vis bench-marked centres without such requirements.	Member States	◔	◔
	Flag.3	**Lack of cross Member State digital solutions for global shipping** Some non-EU shipping clusters are front-runners in digitization, while cross-Member State digital systems in the EU for flag services are non-existing. Speed of adoption and integration of digital system is to slow and not yet realized, parallel to the overall digitalization's initiatives of the EU.	EU/Member States	◑	◔

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Availability of professional services	PS.1	**Lack of cluster focus** EU policy focuses on the traditional core sector of shipping, and there is a lack of integrated guidelines for the entire shipping cluster, including the profes-sional services sector in the maritime sector.	EU/Member States	◑	◕

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Availability of finance	Fin.1	**High focus on intra-EU investment support** Current investment programmes are primarily targeted at intra-EU trade facilitation and financial support is often contingent on the investment being of relevance for intra-EU trade (under CEF, H2020, EIB investment programmes).	EU/EIB	◕	◔
	Fin.2	**High administrative complexity for EU financial offerings** The application process for financial support, and follow-on requirements for documentation (CSDDD) are perceived as too complicated and time consuming.	EU/EIB/Member States	◕	◔
	Fin.3	**Insufficient Support for SME Shipowners** SME shipowners often lack access to funding due to the absence of financial instruments specifically designed for smaller operators, which limits their ability to invest in necessary upgrades and remain competitive.	EU/Member States	◕	◔
	Fin.4	**Uncertainty surrounding new Basel regulations** Proposed changes in asset based ship financing (as per Basel III) due to their de facto mandatory application in the EU, and higher impact due to bank loan reliance, as contrasted to other areas of the world, are a major source of risk for shipping companies.	EU/Member States	◕	◔

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Regulatory, economic and political factors	REP.1	**Legalistic interpretations trump pragmatism** The EC takes a legalistic view on applying the rules of the SAGs, whereas administrations in international centres are more pragmatic and business friendly. The Singapore government is the frontier in terms of pragmatism and business friendliness.	EU/Member States	◕	◑
	REP.2	**Weak growth prospects and slowdown in globalisation** European economy is growing on a much lower rate than most other regions in the world. Furthermore bloc building between the US and China and policies which favour regional production and job creation lead to a slowdown in globalisation, also effecting Europe.	EU/Member States	◑	◑
	REP.3	**Increasing administrative cost** EU administrative burdens are increasing, as new reporting requirements are introduced. Many are not only implementing global standards, but try to push a higher regional standard for global issues. They demand a lot from companies, and are not always effective, as they might trigger evasive manoeuvres.	EU/Member States	●	◕

Factor	Gap ID	Description of identified gap	Primary policy owner	Size of gap	Importance
Cross cutting	Cross.1	**Lack of a comprehensive EU strategy for the shipping and maritime industry including regulatory fragmentation** In the maritime sector, there is demand for a renewed overall strategy for shipping and the wider industry. There is a lack of focus on the global competitiveness of the shipping and wider maritime sector and no alignment with current global challenges and future opportunities.	EU/Member States	◕	●
	Cross.2	**No common platform to promote EU shipping** All international centres are engaged in promotional activities with the objective of enhancing their appeal to potential companies. These activities are currently conducted at the level of individual Member States, if at all, and there is no unified promotional strategy for the EU maritime cluster as a whole.	EU/Member States	●	◕

5.2 Key recommendations

The main recommendations to enhance the EU's competitive position underline the need for an updated, forward-looking and comprehensive EU maritime strategy. We also believe that improved access to finance is crucial to the success of a new Maritime Strategy, as are measures aimed at reducing discrepancies between EU and Member State laws and international standards. The most significant recommendations, which are presented in detail below, are as follows:

Developing a forward-looking European maritime strategy

Mario Draghi's report "The future of European competitiveness" recommends establishing a new "Competitiveness Coordination Framework" to foster EU-wide coordination in priority areas, replacing other overlapping coordination instruments. We strongly encourage this approach, and Ursula von der Leyen's new Commission has also stated that they will develop an according EU industrial maritime strategy in order to enhance "the competitiveness, sustainability and resilience of Europe's maritime manufacturing sector".

The Maritime Sector is clearly one to face the greatest international competition and at the same time, it should be of high priority to the EU, as it is crucial not only for many other industries, but also for energy security, trade and supply chain security and military **resilience**. Its strategic importance has increased in recent years due to overall increasing geopolitical crises and uncertainties, and as such, a modern maritime strategy should reflect this new reality

"Shipping must be seen as a strategic sector in which "strategic action" is needed. We need a change of perspective, because it is now a completely different setup."

(Interview partner)

As it was outlined above, it is key to develop a **comprehensive, globally oriented shipping and maritime policy framework** to guide the EU's maritime activities. The crises of recent years have shown more than ever that shipping is not only an important economic sector, but also one of paramount geopolitical importance. There is a need for an active EU policy supporting and strengthening the existing maritime clusters within the EU and the strong EU maritime professional services sector. Such a strategy could allow individual Member States to better activate and leverage the shared strength of the EU shipping community as a whole, by focusing more on the possible synergies between the "maritime centres of excellence" that are spread across the EU. Maintaining a level playing field between European shipping and its non-European competitors is crucial for retaining shipping companies in Europe, and for fostering a thriving European maritime cluster. It is, thus, recommended that a unified platform be established for the promotion of the EU cluster and the international competitiveness of European shipping, with a particular focus on the various EU maritime centres of excellence and the cross-EU agglomeration effects. As explained during the course of this study, comparing strategies between the EU and other non-EU shipping centres is not straightforward, given the considerable differences in institutional complexity. However, there are important lessons to be learnt, including that a strategy needs to be kept up to date, that a cluster strategy needs to look beyond the core shipping sector, and that a stable and long-lasting interlocking cluster can be turned into a differentiator.

In order to deliver on an effective European maritime strategy, the strategy could build on the following two cornerstones:

1. To maintain the Maritime State Aid Guidelines and, thus, a level playing field between the EU and non-EU maritime centres. Mario Draghi's report similarly points out that "the support via the Guidelines on State aid to maritime transport has been key for the industry to become world leader". In this direction, it would also be recommended to maintain the SAGs in their current form, in order to prevent shipping companies from moving away from the EU. Without this taxation level playing field, the competitiveness of European shipping would be significantly undermined.
2. Recognizing the strategic and geopolitical role of European shipping: the wider maritime cluster only exists if there is a competitive shipping industry in Europe.

Going forward, it is recommended that Europe be considered as a cluster with a number of sub-clusters including operations, crew and technical management, shipping, ports, offshore, design, specialised shipbuilding, maritime equipment, green transformation, etc. To ensure the transfer of knowledge and expertise, it is recommended that industry-specific cooperation, research and training be facilitated and that regulations be simplified and harmonised.

Aligning and simplifying the regulatory and policy environment and reducing administrative burden

It would be optimal for the EU to pursue a policy of regulatory simplification, with the **objective of harmonising the policy framework within the EU and aligning the EU policy to international (IMO/ILO) conventions.** In cases where the EU deliberately decides to implement higher safety or environmental standards than those required by IMO/ILO conventions, it could be ensured that the full economic impact is assessed in advance and compared with a direct implementation of international conventions without additional EU requirements.

In cases where the economic impact is significant, supporting measures could be taken to help EU-based shipowners to adapt to the new regulations, as otherwise the competitiveness of the EU shipping industry would be impaired vs. its global competitors. Above all, however, the EU could refrain from defining and implementing regulation in a stand-alone effort, and instead use its international influence to introduce standards in a coordinated approach with other leading maritime nations. A strong role in IMO/ILO should hence be leveraged to promote the creation of a truly global level playing field. If this means 'lifting' other clusters to the EU level, the EU's dominant global role in this sector should be used to good effect in this regard.

For example: based on the IMO agreement of July 2023 to reach net-zero GHG emissions from international shipping by 2050, the IMO is preparing measures to implement these targets. The alignment of the EU legislation with the future IMO instruments will be essential to ensure a level playing field in the sector and to reduce the administrative burden stemming from regulatory fragmentation.

At the same time, care should be taken to ensure that the administrative burden remains as low as possible, and that support is provided during the introduction of the standards in order to ensure legal certainty and to avoid disadvantaging smaller shipping companies with less capacity. It would also be advantageous if the Member States not only introduced the overarching standards in close consultation with each other, but also harmonised their implementation and enforcement. This would help to ensure a level playing field within the EU and avoid competitive imbalances.

"The EU needs to be in line with international regulations. If we try to implement things only regionally, it will backfire as you can only regulate something what is under your control. So, it is better to be a frontrunner at IMO level and try to bring people to the table. Otherwise, shipowners will flag outside the EU."
(Interview partner)

As of today, the European Commission also recognises the challenge stemming from extensive administrative burden. In their recent communication on the Competitiveness Compass[50] they have highlighted that regulatory simplification to reduce overall administrative burden by 25% and 35 % for SMEs should be a horizontal action and regulatory principle, in order to ensure a business friendly environment and hence Europe's global competitiveness.

Moreover, the EU could further **support the modernisation and digitalisation of the Member States' flag registers** through traditional funding programmes, research on the subject or the actual promotion of one-stop-shop solutions for the Member States' flag registers. Such initiatives would ultimately reduce the operating costs for ships under EU flags and increase the level of service in the various flag administrations of the Member States.

Closing the investment gap: supporting public investment and facilitating access to finance

The shipping industry's move towards cleaner energy and digitalization necessitates significant financial investments. This is emphasized in Mario Draghi's report, which estimates that the maritime sector requires annual investments of approximately EUR 40 billion to manage this transition. To ensure the competitiveness of European shipping companies, it is recommended to implement measures that facilitate access to sufficient public and private financing within the EU. Enhancing public and private ship financing in Europe will also support the growth of innovative technologies and sustainable fuels in the European maritime industry.

In 2024, the "Support study for the development of a living inventory of relevant instruments to support investments in the shipping sector"[51] was conducted for the European Commission. This study assessed how the EU could enhance the accessibility of green financing products for the European shipping sector and the broader maritime value chain. It aligns with our conclusions, emphasizing that the EU shipping sector encounters "unique challenges that necessitate dedicated financial instruments." The maritime industry is eager to invest in decarbonization technologies and solutions, but the associated costs are substantial, necessitating a more cohesive and supportive financial framework.

As an initial measure, an online portal has been launched[52] to provide information on available financing instruments, tools, and products pertinent to supporting investments in the shipping sector, specifically for decarbonization. This initiative aims to enhance transparency and bolster the sector's competitiveness in the global market.

It is recommended measuresto be implemented to **guarantee the accessibility of European financing for European shipowners**, in order to ensure the continued viability of the

[50] An EU Compass to regain competiveness and secure sustainable prosperity (2025).
[51] Support study for the development of a living inventory of relevant instruments to support investmnets in the shipping sector (2024).
[52] Ship financing portal (n.d.).

European maritime industry, broadening the financing landscape by enabling traditional banks to offer asset-backed ship loans, but also by developing alternative financing instruments such as leasing. While support for financing the transition to green shipping is welcome, the industry still faces a high degree of uncertainty about the “winning” technologies of this transition. As the technologies are not yet available or the infrastructure for green fuels is underdeveloped, not yet marketable or bankable or too expensive, sustainable financing requirements should take into account the transition phase.

In addition, financing conditions need to be improved, especially for small and medium-sized enterprises, as equity requirements have increased and become more difficult. A way has to be found to make European banks more competitive (and willing to compete) in terms of ship financing, in order to counter the recent push from non-European sources of finance, and to ultimately close the gap to reduce the cost of funding for companies. The Draghi report highlights that “a number of third countries (e.g. UK, in Asia, in the Middle East, and in North America) offer a generous business environment. For example, China offers attractive leasing for shipowners, while EU commercial banks have slowed their support due to strict prudential requirements”.

“Financing needs to be improved. When shipping is acknowledged as a strategic sector, there are ways to tackle the problem with financing which arise with the implementation of Basel III regulation.”

(Interview partner)

In order to mobilise private finance, public funding instruments can play a key role. The introduction of European shipping into the ETS will create significant revenues for Member States. This could be achieved by spending the revenues from the EU ETS on energy-transition-related activities to decarbonise the shipping sector at the EU and the Members States’ levels. The earmarked European revenues for the maritime sector under the Innovation Fund could be used to bridge the price gap between conventional and clean fuels and to support investments in clean technologies providing an additional incentive for suppliers to scale up industrial production in Europe. Additionally, it is suggested that new funding mechanisms, such as Auctions-as-a-Service, could be introduced, enabling Member States to use their national EU ETS revenues to supplement EU funds.

To improve access to banking finance for European shipping companies, it is advisable to reassess the prudential regulation and risk requirements. All financial instruments, including those related to sustainable finance, should be designed while considering the unique characteristics and needs of the shipping industry. Furthermore, it is recommended to expand the array of financing options by allowing and encouraging traditional banks to provide asset-backed ship loans, and by exploring alternative instruments like leasing.

Promoting upskilling and reskilling under a European framework

The shortage of skilled labour in Europe is having a significant impact on various industries, especially in more physical professions. The transportation sector, including shipping, is experiencing a notable lack of available labour.

Furthermore, the implementation of clean fuels and digital technologies in the industry will necessitate new skills, educational programs, and operational training for seafarers. According to the Draghi report, approximately 800,000 seafarers worldwide, and 250,000 seafarers in Europe alone, will need to be upskilled and reskilled over the next decade to adapt to the energy and digital transition.

It is crucial to acknowledge the need to invest in developing new skills for this fundamental industry transformation. Options for funding, such as upskilling funding, grants, and training programs with cost offsetting, could be explored at both the European and national levels. Additionally, collaborative efforts must be strengthened to develop short-term, medium-term, and long-term strategies to address labour shortages and prevent skill deficiencies in the maritime sector.

An inclusive approach to maritime skills training could be implemented, encompassing various disciplines such as management, finance, law, and ESG skills, in order to bolster the overall cluster. Moreover, it is recommended to establish an updated framework for the mutual recognition of certifications within the EU. However, with regard to the training and certification of seafarers, it is important to support the international framework of the IMO STCW Convention, 1978, which is currently being updated, and to avoid regional standards that could jeopardize the employability of third country seafarers on board of EU flagged vessels.

„We need a pan-European campaign to promote that young people go to sea. It is recognized by the EU that we need to keep shipping expertise in the EU. Overall, there should be more support to Maritime Academics, but often, the local governments do not have the budget to finance this.”

(Interview partner)

5.3 Specific recommendations

Table 13 – Summary of all identified policy gaps, their priority and corresponding policy recommendations

Factor	Description of identified gap	Priority	Policy recommendation
Ease of doing business	**Focus on administrative procedures for trade within the EU** The EU is generally seeking to facilitate trade within the EU and to simplify the business activities associated with these activities. The lack of a perspective for global shipping companies is seen as a political gap.	◔	**Harmonisation of administrative procedures within and outside the EU** Encouraging the harmonisation of administrative processes, documents and forms between Member States in the area with a focus on shipping, in order to present a stronger perspective for global shipping companies within and outside the EU.
	Slow pace of digitalization and alignment The EU has launched initiatives for digitalization and harmonization of the administrations to reduce the administrative burdens for shipping companies. However, implementation speed is below expectations and the level of digitalization is behind other global shipping centres.	◔	**Accelerating digitalization and alignment** A more flexible and pragmatic approach in the implementation of digitalization initiatives on EU and Member State level. Introduction of digitalization roadmap with clear milestones and responsibilities. Potentially securing of dedicated funding for digitalization initiatives.
	Lack of single point of contact and standardisation of regulatory processes The lack of a single point of contact for global shipping companies and for dealing with EU legislation. No standardisation of regulatory processes between Member States.	◑	**A single point of contact and the standardisation of the regulatory process** Establishing a single point of contact for global shipping companies, with close cooperation between Member States and the EU. Standardisation of regulatory processes between Member States and the EU.
Taxation and other fiscal incentives	**Strict admission criteria and flag state conditions** EU flag link requirements for tonnage tax eligibility are stricter than in the maritime benchmarked centres.	◕	**Flexible admission criteria** A more flexible interpretation of the tonnage tax and, at the same time, the maintenance of the EU Maritime State Guidelines in order to provide security and continuity for investment decisions.
	Narrower sectoral and operational ring-fencing The EU has more restrictions on activities and income than reference centres, where the tax benefits cover more shipping stakeholders and more seagoing vessels, as well as a broader range of maritime activities. The narrow scope leads to legal uncertainty regarding the applicability of new technologies and types of ships, which can hinder innovation.	◕	**More practical interpretation of definition of shipping activities** A more inclusive approach or less narrow definition of shipping activities helps the national authorities cover innovative frontrunners, especially with regard to new types of ships and technologies. The ability to adapt to specific cases enables stakeholders to innovate more quickly and prevents the downgrading of important know-how.
	Additional incentives for carbon reducing methods Other jurisdictions take a more encouraging approach of incentivizing the use of new environmental-friendly technologies rather than penalising conventional ones.	◑	**Additional incentives for carbon reduction methods** It is recommended that Member States consider additional incentives in instances where the shipowner or operator in question meets the specified performance criteria.

Factor	Description of identified gap	Priority	Policy recommendation
Skills	**Declining interest in seafaring professions** Especially in younger generations, the interest in seafaring professions is increasing, as these jobs often involve hard labour and longer periods away from home.	◕	**Revitalize interest in seafaring professions** Collaborative efforts between the EU and Member States should be launched to develop short-, medium- and long-term strategies to address labour shortages and to avoid skills shortages in the maritime industry. This could also include substantial investments in an overarching promotional strategy in order to create increased awareness for the attractiveness of seafaring professions.
Skills	**High eligibility requirements for trainees and low level of promotion** Training subsidies are available only for EU/EEA residents on EU/EEA flagged vessels, not in active employment.	◑	**Easily accessible admission criteria for trainees and promotion for careers on sea** The implementation of more lenient admission criteria for trainees, the acceleration of recruitment processes, and the enhancement of the accessibility of skilled personnel are key strategies to address the challenge of labour shortage. EU wide promotions of reskilling and upskilling of maritime personnel also to address the needs of new vessel technologies.
Skills	**Narrow scope of training schemes** Singapore's and HK's approaches are cluster-wide and includes management/finance/law/brokering courses and seafarers on more vessel types. Training and education could be further supported through mutual recognition of certifications.	◕	**Wide scope of training schemes and mutual recognition** A more comprehensive approach to maritime skills training - enables the integration of non-STCW-specific training into a unified framework that addresses the diverse needs of the maritime sector. This encompasses a range of disciplines, including management, finance, law, and ESG skills, collectively strengthening the overall cluster. Introduce an up-to-date framework for the mutual recognition of certifications in the EU.
Flag attractiveness & Legal framework for vessel exploitation	**Derogation between EU regulations and IMO/ILO standards** Additional requirements imposed by the EU or on the national level (by EU Member States), e.g., for safety and environmental standards increase administrative burden and operating costs under EU/ EEA flags vis-à-vis non-EU flags that pursue strict implementation of international IMO/ILO standards.	◕	**Consistency of EU regulations and IMO/ILO standards** Compliance with international regulations is essential, and a rapid but phased implementation of new standards can help to create favourable conditions and ensure legal certainty. IMO/ILO international standards could be implemented in a direct approach, without significant deviations to allow for a level playing field.
Flag attractiveness & Legal framework for vessel exploitation	**Existence of Member State crewing restrictions** Requirements of EU/EEA flags on crewing EU/EEA seafarers to a certain minimum extent lead to an increase in operating costs and limit much needed operational flexibility under such flags vis-à-vis bench-marked centres without such requirements.	◔	**No crewing restrictions** It is recommended that the Member States consider relaxing existing restrictions on manning or extending them to restrict the manning of EU seafarers, as opposed to just national seafarers, as is the case in some EU countries.
Flag attractiveness & Legal framework for vessel exploitation	**Lack of cross-member-state digital solutions for global shipping** Some non-EU shipping clusters are front-runners in digitization, while cross-member-state digital systems in the EU for flag services are non-existing. Speed of adoption and integration of digital system is to slow and not yet realized, parallel to the overall digitalization's initiatives of the EU.	◔	**Cross-member-state digital systems for flag services** It is recommended that the further digitalisation (and standardization) of flag state services in EU flag administrations should be promoted, with inspiration drawn from other successful models in order to optimise efficiency and enhance quality of service.

Factor	Description of identified gap	Priority	Policy recommendation
Availability of professional services	**Lack of cluster focus** EU policy focuses on the traditional core sector of shipping, and there is a lack of integrated guidelines for the entire shipping cluster, including the professional services sector in the maritime sector.		**Include wider scope in the cluster focus** Actively include perspectives on a wider maritime cluster, including the professional services sector, in policy making. Facilitate professional networks in the maritime services sector to reap synergies of European centres of excellence across EU Member States and different shipping sectors.
Availability of finance	**High focus on intra-EU investment support** Current investment programmes are primarily targeted at intra-EU trade facilitation and financial support is often contingent on the investment being of relevance for intra-EU trade (under CEF, H2020, EIB investment programmes).		**More support for investments which enable global trade and shipping** Widen the investment focus from intra EU to more global trade and shipping. More flexible possibilities to receive financial support even if the investment is more global in nature. Simplify access to public funding for example through the Innovation Fund for the dedicated maritime calls or through the European Investment Bank.
	High administrative complexity for EU financial offerings The application process for financial support, and follow-on requirements for documentation (CSDDD) are perceived as too complicated and time consuming.		**Reduce administrative complexity** Reduce administrative processes in the application process. Aim to reasonably adjust documentation requirements in order to be on similar levels as the international competition.
	Insufficient Support for SME Shipowners SME shipowners often lack access to funding due to the absence of financial instruments specifically designed for smaller operators, which limits their ability to invest in necessary upgrades and remain competitive.		**Develop financing framework for SME shipowners** EU needs to provide a framework that enables and simplifies ship financing for EU based shipping companies. Make ship financing a key priority on the agenda of the EU. Enhance ship finance markets in continental Europe as an alternative to bank lending. Simplify access to public funding. Use the ETS revenues to fund the transition of the shipping industry via dedicated calls.
	Uncertainty surrounding new Basel regulations Proposed changes in asset based ship financing (as per Basel III) due to their de facto mandatory application in the EU, and higher impact due to bank loan reliance, as contrasted to other areas of the world, are a major source of risk for shipping companies.		**Clarify Basel regulation** Aim to reduce risk for shipping companies and banks by defining application guidelines of Basel regulation, both on EU and Member State level. Try to level disadvantages for EU shipping companies within the regulation framework.

Factor	Description of identified gap	Priority	Policy recommendation
Regulatory, economic and political factors	**Legalistic interpretations trump pragmatism** The EC takes a legalistic view on applying the rules of the SAGs, whereas administrations in international centres are more pragmatic and business friendly. The Singapore government is the frontier in terms of pragmatism and business friendliness.	◑	**Higher flexibility in implementation of SAGs** Increase Member State autonomy around the implementation of SAGs by using a positive and facilitative demarcation as interpretative practice rather than negative prescriptive practice.
Regulatory, economic and political factors	**Weak growth prospects and slowdown in globalisation** European economy is growing on a much lower rate than most other regions in the world. Furthermore, bloc building between the US and China and policies which favour regional production and job creation lead to a slowdown in globalisation, also effecting Europe.	◑	**Reenforce the growth of the economy and pursue free trade agreements** It is essential to reenforce the growth and competitiveness of the local European single market, while maintaining its status as an open economy with a prominent global trading presence. To achieve this, it is crucial to strengthen policies that facilitate the reduction of trade and investment barriers, and promote free trade. It is also central to pursue ongoing negotiations and, at the same time, to open negotiations on free trade agreements with potential new partners.
Regulatory, economic and political factors	**Increasing administrative cost** EU administrative burdens is increasing, as new reporting requirements are introduced. Many are not only implementing global standards, but try to push a higher regional standard for global issues. They demand a lot from companies, and are not always effective, as they might trigger evasive manoeuvres.	◕	**Efficient administration easy to comply with** As the EU, be at the forefront in introducing new progressive regulation on a global level, also in order to improve global standards. At the same time ensure that the local economy remains competitive and is not overburdend by bureaucracy. Aim to introduce regulation that is easy to comply with and that minimizes administrative burdens.
Cross cutting	**Lack of a comprehensive EU strategy for the shipping and maritime industry including regulatory fragmentation** In the maritime sector, there is demand for a renewed overall strategy for shipping and the wider industry. There is a lack of focus on the global competitiveness of the shipping and wider maritime sector and no alignment with current global challenges and future opportunities.	◕	**Comprehensive, globally oriented strategy** A renewed strategy must take into account the current global challenges and at the same time show a perspective for the coming years that embraces future opportunities. Policy gaps should be addressed, while at the same time existing strengths of the EU as a global shipping centre should be leveraged. The maritime strategy should fit seamlessly into the context of the overall European strategy and be given a prominent position which reflects its economic and strategic importance.
Cross cutting	**No common platform to promote EU shipping** All international centres are engaged in promotional activities with the objective of enhancing their appeal to potential companies. These activities are currently conducted at the level of individual Member States, if at all, and there is no unified promotional strategy for the EU maritime cluster as a whole.	◕	**Common platform to promote EU shipping** Establish a common platform for promotion of the entire EU shipping cluster by focusing on different EU maritime centres of excellence and cross-EU agglomeration effects.

Annex 1

Factor	Sub-factor	Operationalisation	Data source	Description	Local weight	Global weight
Ease of doing business		Company formation	World Bank Ease of Doing Business index	Reflects the number of procedures, time, cost and paid-in minimum capital requirement for a small- to medium-size limited liability company to start up and formally operate in each economy's largest business city. The higher these are, the more costly it is to get a firm running. The overall score for starting a business is the average of the scores obtained for each of the component indicators. Country level, 2019	35.0%	2.5%
		Registering property	World Bank Ease of Doing Business index	Reflects the steps, time, and cost involved in registering a property, assuming a standardized case of an entrepreneur who wanted to purchase land and a building that was already registered and free of title dispute. In addition, the topic measured the quality of the land administration system in each economy. The quality of land administration index has five dimensions: reliability of infrastructure, transparency of information, geographic coverage, land dispute resolution, and equal access to property rights. Country level, 2019	15.0%	1.1%
		Paying taxes	World Bank Ease of Doing Business index	Reflects the recorded the taxes and mandatory contributions that a medium-size company must have paid or withheld in a given year, as well as the administrative burden of paying taxes and contributions. Country level, 2019	5.0%	0.4%
		Enforcing contracts	World Bank Ease of Doing Business index	Reflects the time and cost for resolving a commercial dispute through a local first-instance court, and the quality of judicial processes index, evaluating whether each economy had adopted a series of good practices that promote quality and efficiency in the court system. Country level, 2019	10.0%	0.7%
		Trading across borders	World Bank Ease of Doing Business index	Reflects the time and cost associated with the logistical process of exporting and importing goods. Doing Business measured the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods. Country level, 2019	25.0%	1.8%
		Resolving insolvency	World Bank Ease of Doing Business index	Reflects the time, cost and outcome of insolvency proceedings involving domestic legal entities. These variables were used to calculate the recovery rate, which was recorded as cents on the dollar recovered by secured creditors through reorganization, liquidation or debt enforcement (foreclosure or receivership) proceedings. To determine the present value of the amount recovered by creditors, Doing Business used the lending rates from the International Monetary Fund, supplemented with data from central banks and the Economist Intelligence Unit. Country level, 2019	10.0%	0.7%
Total					**100%**	**7.0%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weight	Global weight
Taxation and fiscal incentives	Fiscal incentive for shipping	Effective rate of taxation for shipping companies (operations)	Deloitte Tax Data	Effective tax rate for shipping companies under given national shipping incentive, tonnage tax system or wider tax system, depending on system. Country level, 2024	30.0%	9.0%
		Possibility for avoiding double taxation	Deloitte Tax Data	Measured as the number of double taxation agreements each country, where the shipping centre is located, have arranged with other countries both bilaterally and multilaterally. This number is scored relatively to the country with the most tax treaties (China) on a 1-10 ranking. The number 10 indicates the highest number among the five countries. Country level, 2024	12.5%	3.8%
		Available rate of depreciation for ships	Deloitte Tax Data	The faster a firm can depreciate assets, such as vessels, the higher the present value of the tax savings is, as the tax base is lowered earlier. Not relevant for shipowners opting for fiscal incentives such as tonnage tax, as no capital allowances are available. Country level, 2024	2.5%	0.8%
		Ability to accommodate ancillary revenue streams in tax incentive schemes	Deloitte Tax Data + Expert interviews	Indicates the broadness of the scope of the offered shipping incentives (e.g. whether shipping companies can include ancillary revenue from other activities into the shipping incentive/tonnage tax system). Country level, 2024	15.0%	4.5%
		Qualifying requirements for tax incentives	Desk research	Assessment of the strictness of eligibility requirements to the special fiscal treatment. Country level, 2024	15.0%	4.5%
	Corporate tax	Corporate income tax rate	World Bank Ease of Doing Business	Reflects tax as % of commercial profits. The total tax rate payable by businesses provides a comprehensive measure of the cost of all the taxes a business bears Country level, 2019	10.0%	3.0%
	Other incentive	Existence of other fiscal incentives	Expert interviews	Existence of any other fiscal incentive schemes, leading to a lower tax for shipping companies etc. Country level, 2024	7.5%	2.3%
	Legal certainty	Scope of Pillar II and shipping exemption	Expert interviews	Profit Allocation and Nexus & Global Minimum Taxation (Pillar One & Two). Country level, 2024	7.5%	2.3%
Total					**100%**	**30.0%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weight	Global weight
Skills	Structural labour force	Labour force with a tertiary education	Global Competitive-ness Index	Indicates the Population with tertiary education refers to the percentage of the population (above 25 years old) whose highest educational attainment is at the tertiary level. The tertiary level is based on International Standard Classification of Education 2011 (ISCED 2011) levels 5-8. Other things being equal, a higher educationally level, means a higher level of skills (and not the potential number qualified for a maritime), % Centre level, 2023	6.0%	0.9%
		Percent of work force organized in unions	Statista	Indicates the percentage share of countries workforce being members of labour unions worldwide % Country level, 2020	6.0%	0.9%
		Labour cost	Numbeo	Average Monthly Net Salary (After Tax), Salaries And Financing Country level, 2024	25.0%	3.6%
	Labour policies	Ease of getting a visa	Henley Passport Index	Henley Passport Index is considered the standard reference tool for global citizens and sovereign states when assessing where a passport ranks on the global mobility spectrum. Ranking from 1 to 10 ranking (1=easiest) Country level, 2024	10.0%	1.5%
		Personal income taxation	Deloitte Tax Data	% rate for 200.000 USD income Country level, 2024	22.0%	3.2%
	Maritime education	Share of STCW recognition	Desk research	Share of STCW recognition among 5 large shipping nations, % Country level, 2024	8.0%	1.2%
		Top 100 universities	Times higher education	Number of top 200 universities ranked on the basis of five indicators; the teaching environment, the research environment, research quality, knowledge transfer and internationalisation Centre level, 2024	6.0%	0.9%
		Maritime Training funding	Expert interviews and desk research	Existence of any funding schemes supporting the upskilling of seafarers/maritime personnel or career conversion into maritime etc. Ranking from 1 to 10 (10 indicates the highest government funding) Country level, 2024	17.0%	2.5%
Total					**100%**	**14.5%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weigh	Global weight
Legal framework for vessel exploi-tation		Restrictions on crew nationality and size	Shipping Industry Almanac and Desk research	Indicates whether there are limitations regarding the personal working on a vessel flying under a certain flag (with respect to nationality). Registry level, 2024	65%	2.9%
		Requirements for and restrictions on chartering	Shipping Industry Almanac and Desk research	Indicates whether there are limitations regarding the personal working on a vessel flying under a certain flag (with respect to nationality). Registry level, 2024	25%	1.1%
		Ship recycling regulation	Expert interviews and Desk research	Indicates the cost of compliance and the level of implementation of the Hong Kong Convention on Ship Recycling. Registry level, 2024	10%	0.5%
Total					**100%**	**4.5%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weigh	Global weight
Flag attractivene ss	Ratification of IMO/ILO conven-tions	IMO flag state rating	IMO Data-base	Index of extent ratification IMO and ILO conventions and IMO flag state rating. It sums up all positive performance indicators for a country Country/registry level, 2023	25%	3.0%
		Maritime labour convention (D-MLC) national requirements	Desk Research + expert interviews	The best scenario from a shipowner's point of view is a minimum implementation, so any over implementation is seen as negative. Ranking from 1 to 10 (10=minimum implementation) Country/registry level, 2024	10%	1.2%
		"Gold-plating" of IMO conventions	Desk Research + expert interviews	The best scenario from a shipowner's point of view is a minimum implementation, so any over implementation is seen as negative. Ranking from 1to 10, done by experts, incl. desk research Country/registry level, 2024	5%	0.6%
	Ship registration	Ship registration – Documents required	H. Dickinson + Desk research	Number of documents required in the registration process Registry level, 2024	5%	0.6%
		Ship registration – Registration Fees	Desk research	Max registration fee for new vessel registration Registry level, 2024	10%	1.2%
	Administrat ion of registry	Level of digitalization	UN e-government database	Online Service Index from the E-Government Database Country level, 2022	5%	0.6%
		Quality of service	Expert interviews	Expert ranking 1-10 of service provision in the five centres; Centre level, 2024	30%	3.6%
		Extent of delegation to recognized organization (RO's) and number of RO's	IMO and Paris MoU	Rank of top-rated (Paris MOU) RO's approved by country Registry level, 2021	10%	1.2%
Total					**100%**	**12.0%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weigh	Global weight
Availability of profession-nal services	Non-physical services	Number of maritime legal experts and listed maritime arbitrators	Who's who legal	Sum of maritime legal experts from 'Who's who legal' Centre/Country level, 2023	20%	2.9%
		Availability of ship brokers / shipping agency service	Lloyds List online	Sum of number of ship brokering companies and shipping agencies, directories.lloydslist. Com Centre level, 2023	20%	2.9%
		Availability of ship management firms	Lloyds List online	Number of ship management companies, directories.lloydslist.com Centre level, 2023	10%	1.5%
		Share of maritime insurance premia	The Leading Maritime capitals of the world	% of global premiums Country level, 2019	10%	1.5%
		Number of P&I clubs	Desk research	Number of P&I clubs established in centre Centre level, 2024	20%	2.9%
	Administration of registry	Logistics performance index	World Bank logitic performance index (LPI)	Overall quality of ports and logistics services. Subset index of the following port indicators from World Bank LPI; Customs, Infrastructure, International shipments, Logistics competence and quality, Tracking and tracing, Timelineness Country level, 2023	15%	2.2%
		Availability of ship engineering service + shipping repair service	Lloyds List online	Number of ship engineering service companies (incl. ship repair), directories.lloydslist.com Centre level, 2023	5%	0.7%
Total					**100%**	**14.5%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weigh	Global weight
Availability of finance		Ship finance volume of banks	Petrofin research	Share of lending by top 40 global banks lending of December Country level 2023	20%	0.5%
		Share of total global syndicated loan volume	The Leading Maritime capitals of the world	Share of Global Syndicated Loans - % of total Proceeds (US$mil) Country level, 2019	20%	0.5%
		Financial market development	World Economic Forum	World Economic Forum Competitiveness Report (Indicators 9.01-9.09) Country level, 2019	20%	0.5%
		Shipping firms on stock exchange	The Leading Maritime capitals of the world	Market value and number of listed maritime companies on local stock exchange Centre level, 2019	20%	0.5%
		Existence of financial other subsidy/grant schemes	Expert interviews + desk research	Research in to available schemes. Ranking from 1 to 10 (10=largest, most comprehensive scheme portfolio)	20%	0.5%
Total					**100%**	**2.5%**

Factor	Sub-factor	Operationalisation	Data source	Description	Local weigh	Global weight
Regulatory, economic & political factors	Regulatory & Risk	Risk of change in regimes such as tax regimes	World Bank Database on political stability	Index of political stability by the World Bank. Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. Percentile rank indicates the country's rank among all countries covered by the aggregate indicator, with 0 corresponding to lowest rank, and 100 to highest rank. Country level, 2022	10%	1.5%
		International influence at IMO and ILO	IMO Data-base	Submissions to IMO-MSC (1998-2019) Registry level, 2019	15%	2.3%
		Operational risk	Economist Intelligence Unit	Operational risk assesses and quantifies the risks to business profitability in 180 countries for the next two years. The analysis is based on 70 risk indicators that cover ten separate criteria, including economic, political and regulatory risks. These criteria forecast future risks and consider both qualitative and quantitative factors. Country level, 2024	5%	0.8%
		Financial risk	Economist Intelligence Unit	The Financial Risk Service (previously Country Risk Service) provides sovereign, currency and banking sector risk ratings for 131 countries, as well as a summary country risk rating. The ratings are based on 59 individual indicators covering five different risk factors, including political and economic structure risks. Supporting analysis includes short- and medium-term economic and political forecasts for the country. Country level, 2024	5%	0.8%
		ESG compliance costs	KPMG ESG Tax Tracker	The KPMG ESG Tax Tracker provides insight into the global ESG and Sustainability landscape for taxes, incentives and grants. ESG Taxes counts Carbon Tax, CO2 pricing, Waste tax & landfill tax, energy/electricity tax, coal tax, water tax & water usage fee, air passenger tax, tax on greenhouse gases, petroleum fuel tax, plastic tax, air pollution tax, vehicle tax. Country level, 2024	5%	0.8%
		ESG compliance incentives	KPMG ESG Tax Tracker	The KPMG ESG Tax Tracker provides insight into the global ESG and Sustainability landscape for taxes, incentives and grants. Renewable Energy (consumer), sustainable energy (producers), electric vehicle, new innovative projects and environmentally friendly investments, green power and Combined Heat and Power (CHP)/photovoltaic installations. Country level, 2024	5%	0.8%
	Political	Quality of rule-of-law	World Justice Project	Performance is assessed through 44 indicators organized around 8 themes: constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice, and criminal justice. Country level, 2023	15%	2.3%
		Extent to which bureaucracy does not hinder business activity	World Bank Database	Index of government effectiveness that captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Country level, 2022	10%	1.5%
	Regulatory, economic & political factors	GDP per head	World Bank Database	GDP per capita, public-private partnership (PPP) (current international $), 2023	10%	1.5%
		Quality of life	Mercer	Quality of life from expat survey in centres Centre level, 2023	10%	1.5%
		Cost of living	Expatistan's cost of living Index	Relative to the city with the highest cost of living Centre level, 2023	10%	1.5%
Total					**100%**	**15.0%**

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List of Abbreviations

AED	United Arab Emirates Dirham
AIS	Approved International Shipping Enterprise
AML	Anti-Money Laundering
CAGR	Compound Annual Growth Rate
CEF	Connecting Europe Facility
CHP	Combined Heat and Power
CIT	Corporate Income Tax
COVID-19	Coronavirus Disease 2019
CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
CT	Corporate Tax
DCSA	Digital Container Shipping Association
DIFC	Dubai International Financial Centre
D-MLC	Maritime Labour Convention (national requirements)
EC	European Commission
EEA	European Economic Area
EIB	European Investment Bank
EIU	Economic Intelligence Unit
EMAC	Emirates Maritime Arbitration Centre
EMSA	European Maritime Safety Agency
ESG	Environmental, Social, and Governance
ETS	Emissions Trading System
EU	European Union
EU/G7	European Union / Group of Seven
EUR	Euro
FAQ	Frequently Asked Questions

FFA	Forward Freight Agreement
FTA	Free Trade Agreement
FTZ	Free Trade Zone
GBER	General Block Exemption Regulation
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GloBE	Global Anti-Base Erosion
GSG	Green Shipping Guarantee
GSPL	Green Shipping Programme Loan
GST	Goods and Services Tax
GT	Gross Tonnage
H2020	Horizon 2020
HK	Hong Kong
HKMPB	Hong Kong Maritime and Port Board
ILO	International Labour Organization
IMD	International Institute for Management Development
IMO	International Maritime Organization
ISCED	International Standard Classification of Education
ISM	International Safety Management
IT	Information Technology
LNG	Liquefied Natural Gas
LPI	Logistics Performance Index
MASS	Maritime Autonomous Surface Ships
ML	Maritime Leasing
MoU	Memorandum of Understanding
MPA	Maritime and Port Authority of Singapore
MSI	Maritime Sector Incentive
NIS2	Network and Information Systems Directive 2

NZIA	Net-Zero Industry Act
OECD	Organisation for Economic Co-operation and Development
P&I	Protection and Indemnity Clubs
PPP	Public-Private Partnership
QFZP	Qualifying Free Zone Person
R&D	Research and Development
RED	Renewable Energy Directive
RO	Recognized Organizations
SAGs	State Aid Guidelines
SMarT	Support for Maritime Training
SMEs	Small and Medium -sized Enterprise
SRS	Singapore Registry of Ships
SSS	Maritime Sector Initiative – Shipping-related Support Services
STCW	Standards of Training, Certification, and Watchkeeping for Seafarers
TEN-T	Trans-European Transport Network
TT	Tonnage Tax
UAE	United Arab Emirates
UK	United Kingdom
UN	United Nations
US	United States
USD	United States Dollar
VAT	Value-Added Tax
WTO	World Trade Organization

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