

SHIP MANAGEMENT

Numerical data on the fleet managed by Piraeus/Athens companies

Ship type, Age, Register, Shipbuilding country

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In recent decades Piraeus and the wider Athens area have evolved as a leading maritime centre complementing Greece's international leadership in world shipping. This analysis attempts to "decipher" the unique characteristics of this geographical area as an international ship management centre. The research findings are based on data from the latest Greek Shipping Directory, which captures data until April 2022.

GENERAL FINDINGS

Total number of companies

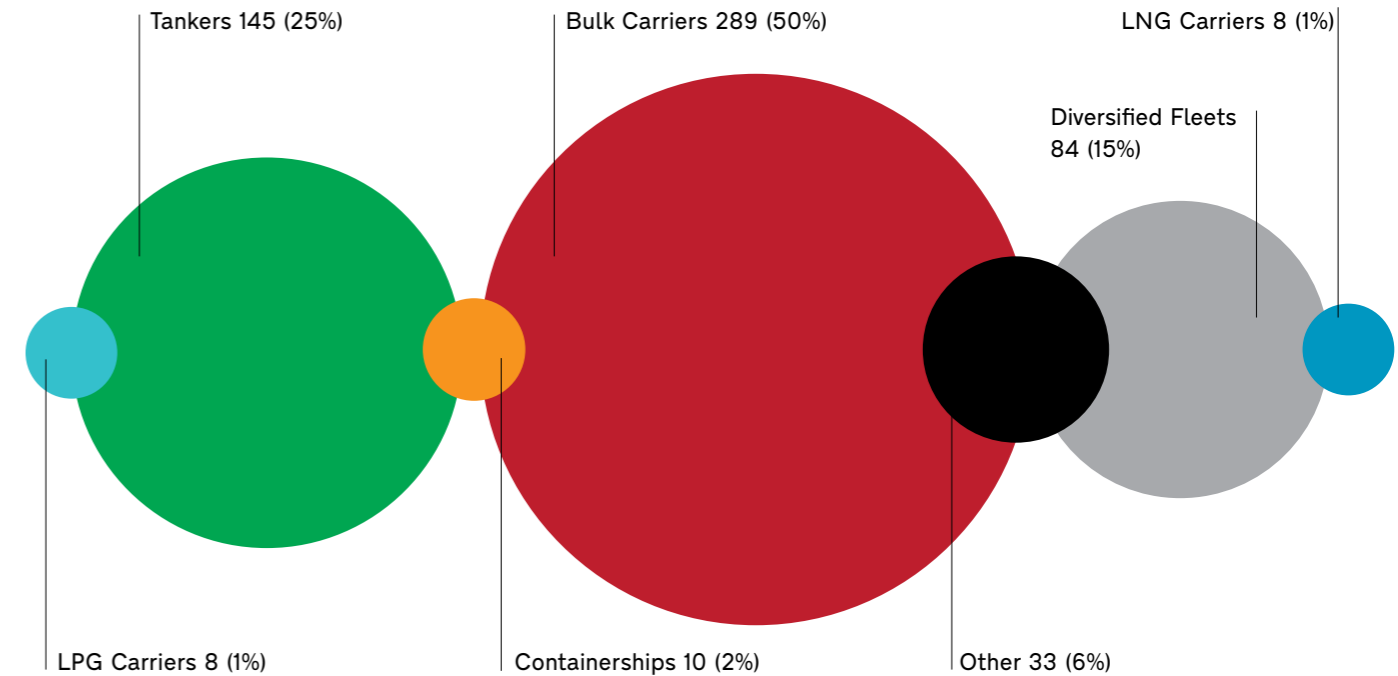
There are 577 ship management companies reported in Piraeus and the greater Athens area. The fleet they manage comprises 5,263 merchant ships, which operate in the ocean-going shipping freight markets. The total capacity of these ships is 443,969,165 dwt. As this study focuses on the Piraeus and greater Athens area's potential as an international ship management centre, these 577 companies include the foreign interest companies and independent third-party management companies that have chosen Piraeus/Athens as their fleet management centre or representative office location.

To the above companies should be added the 52 companies operating in passenger shipping that manage 193 ships of various types (ferries, cruise ships, etc.), and the 15 companies operating in the services sector with 326 support vessels at sea, such as tugboats, barges, lifeboats, and crew transport vessels. The reference to the ship types operated by all these companies is only indicative and not exhaustive.

An exclusive analysis of data sourced by the Greek Shipping Publications



Graph 1: Distribution of management companies located in Piraeus/Athens based on the type of ships they manage



Company fleet specialisation

As this study is focused on the companies operating in ocean-going shipping, which also set the bar for the development of Piraeus as an international ship management centre, the analysis below concerns this specific category of companies. Most of them manage the main types of bulk shipping vessels, i.e., bulk carriers and tankers (Graph 1). 50% (or 289) of them manage exclusively bulk carriers, while 25% (or 145) manage only tankers. Thus, 75% of them manage bulk carriers or tankers. Regarding specialised ship types, eight companies are reported to operate LNG carriers exclusively, eight companies exclusively LPG carriers, and ten companies only containerships. Also, 33 companies operate one of the other types of vessels. It is noted that 84 companies manage diversified fleets.

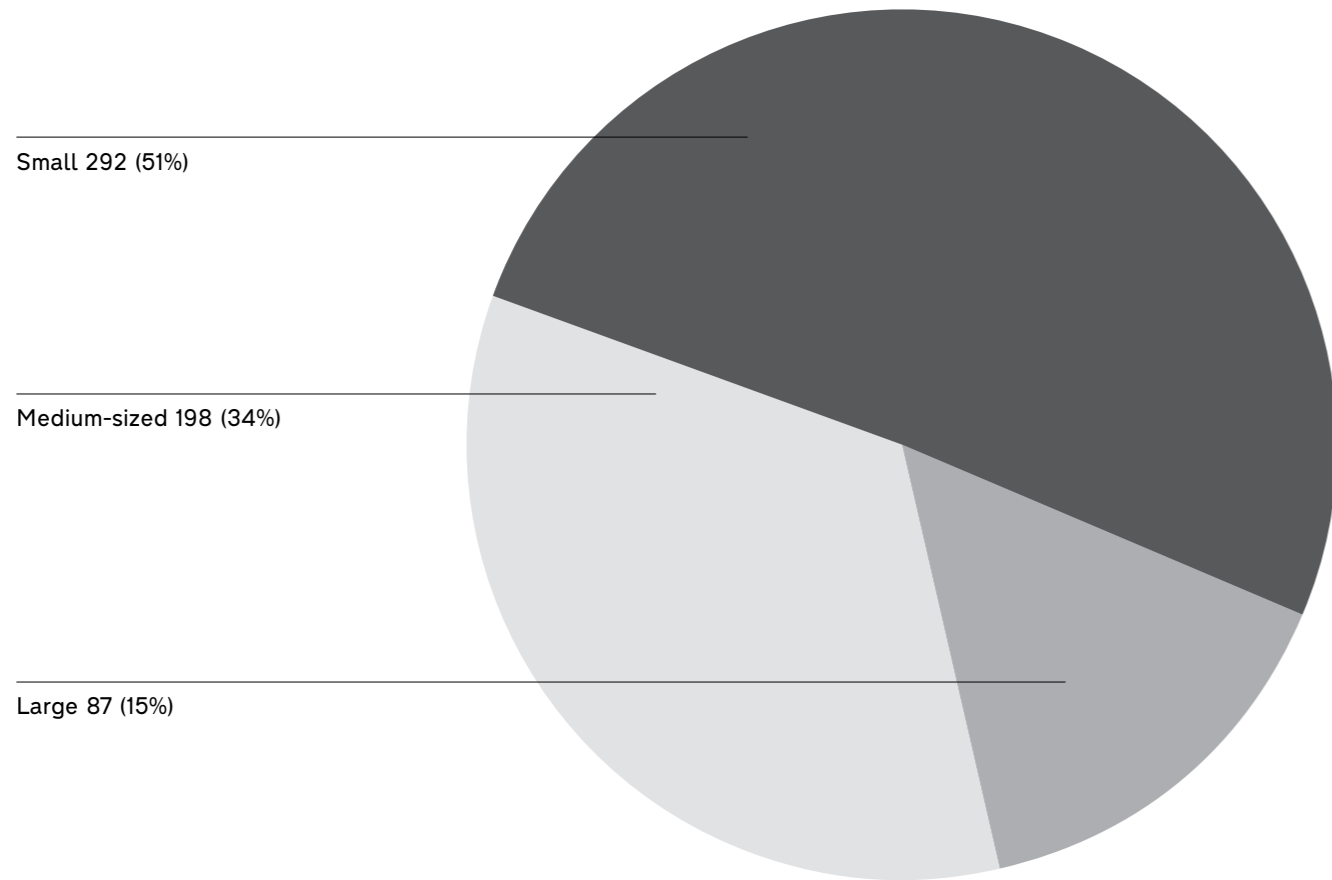
At this point, it is clarified that the analysis concerns the number of companies and not the shipping groups that may include more than one company. Obviously, a limited number of these companies belong to wider ship management groups; however, the fact remains that each of these companies remains responsible for managing its ships. In other words, there are common corporate functions shared by all the companies within the group, supporting ship management. But, as a rule, the basic ship management function itself is organised autonomously by each company in the group.



Company size

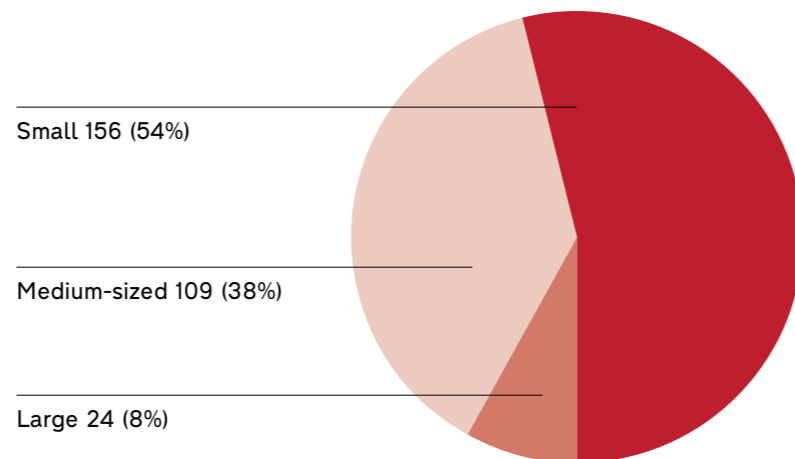
The examination and categorisation of companies based on the size of the fleet they manage show that almost 51% (or 292) of them manage up to four vessels ("small"), 34% (or 198) up to 15 vessels ("medium-sized"), and 15% (or 87) over 15 vessels ("large") (Graph 2).

Graph 2: Distribution of management companies located in Piraeus/Athens based on the size of the fleet they manage



The classification by size appears slightly different if the criterion is the type of ships operated by a company. Thus, as shown in Graph 3, 54% (or 156) of the companies operating only bulk carriers are of small size, 38% (or 109) are of medium size, and only 8% (or 24) are large-sized companies.

Graph 3: Distribution of bulker management companies based on the size of the fleet they manage



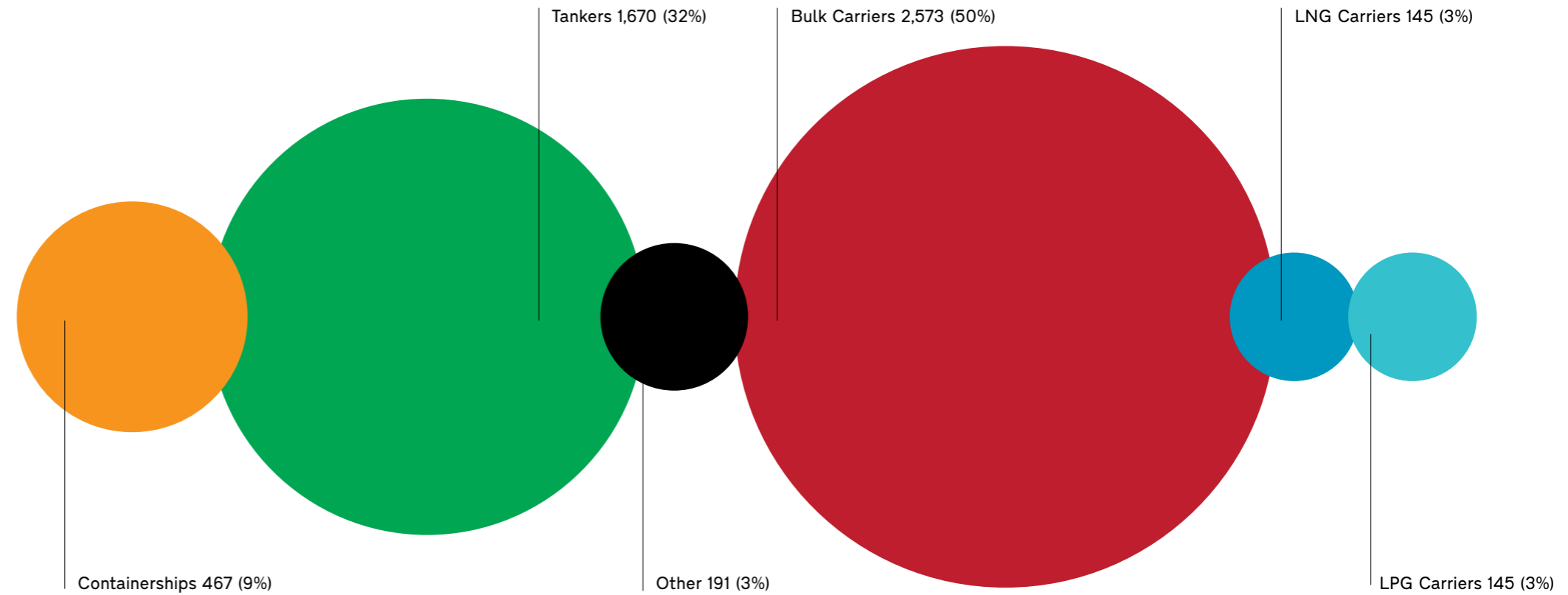


Respectively, of the companies that manage tankers exclusively, 56% (or 81) are of small size, 31% (or 45) are of medium size, and 13% are large-sized companies (Graph 4). However, a specific characteristic regarding the number of companies operating tankers should be taken into account: 27 companies in this category are reported to manage only vessels with less than 3,000 grt capacity, which operate in the bunkering market. The vast majority of them, i.e., 23 companies, are of small size. The companies specialising in bunkering vessels operate in local/regional markets and do not participate in the global liquid bulk cargo freight markets. As a result, the number of small tanker management companies is ultimately smaller, confirming the importance of the “size” factor for a company’s competitive operation in these markets.

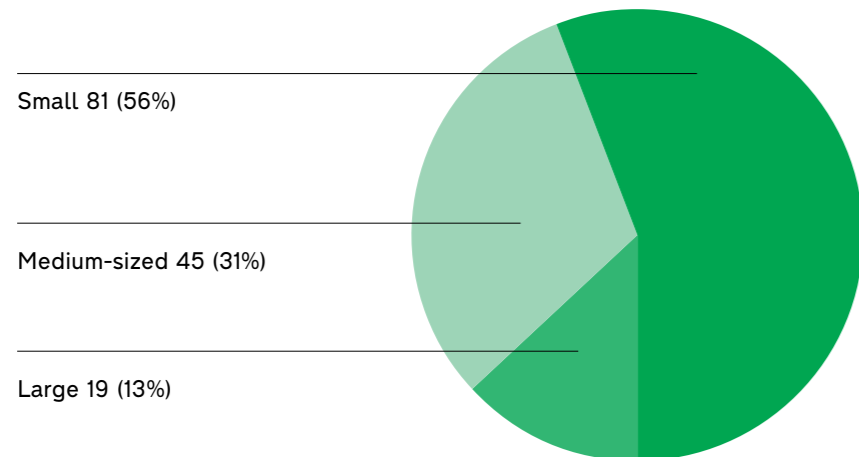
Ship types

Since this analysis concerns Piraeus and the broader region as a management centre for ocean-going shipping, it includes ships larger than 1,000 grt operating in the ocean-going shipping markets. Based on this criterion, the number of companies drops to 563 and the fleet they manage consists of 5,191 vessels. Of the 5,191 ships in these companies’ fleet, 2,573 (or 50%) are bulk carriers of all sizes. Equally significant is the percentage of liquid bulk cargo vessels, which make up 32% of the fleet, reaching 1,670. Containerships represent 9% (or 467) of the total 5,191 vessels, LNG carriers 3% (145 out of 5,191) and LPG carriers another 3%. Separate analyses are presented below, given these ships’ strong position in world seaborne trade and the predominance of the Greeks in LPG/LNG carrier management.

Graph 5: Distribution of fleets managed by companies operating in Piraeus/Athens by ship category



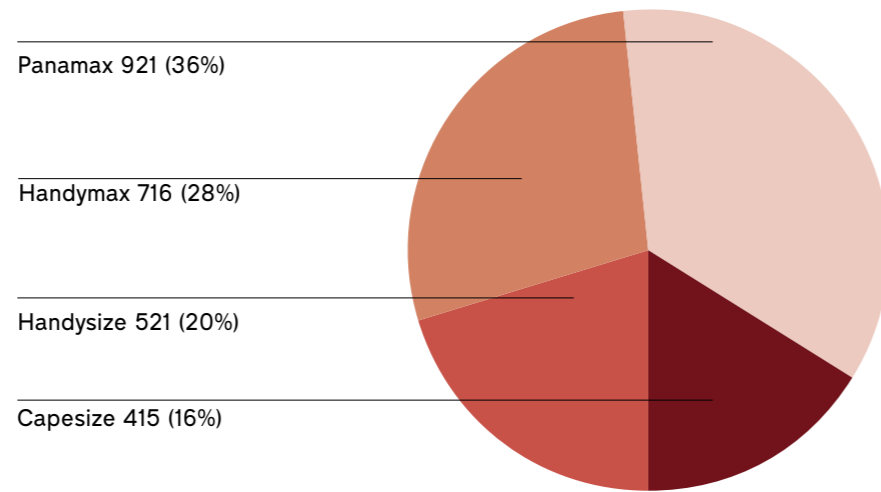
Graph 4: Distribution of tanker management companies based on the size of the fleet they manage





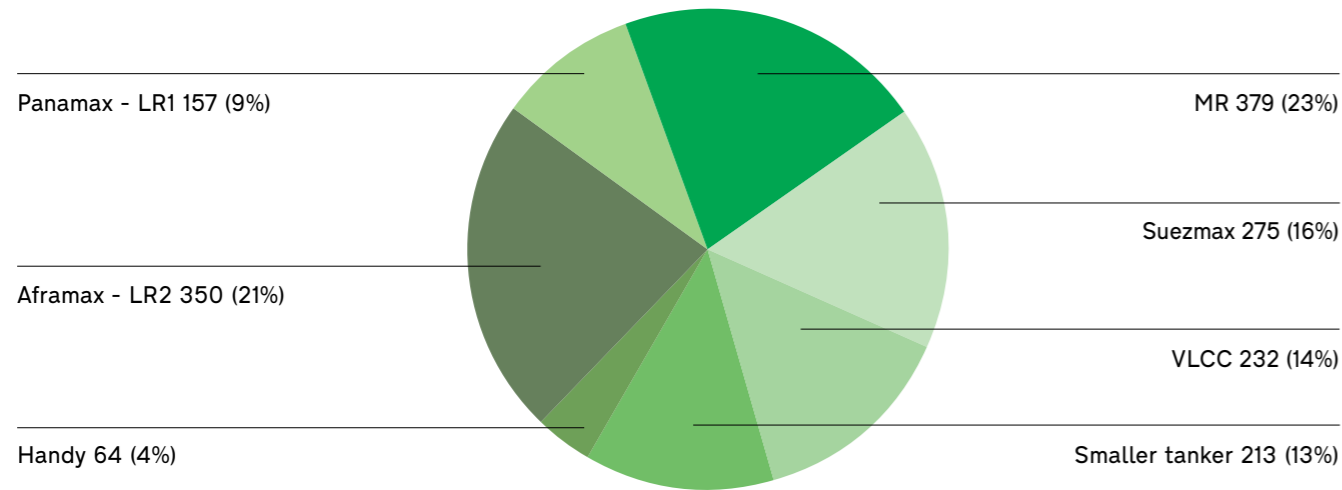
The analysis by size category shows that most of the bulk carriers are large-sized vessels, i.e., Capesize (415) and Panamax (921), while in the smaller sizes, there are 716 Handymax and 521 Handysize.

Graph 6: Categorisation of the bulk carrier fleet managed by companies operating in Piraeus/Athens



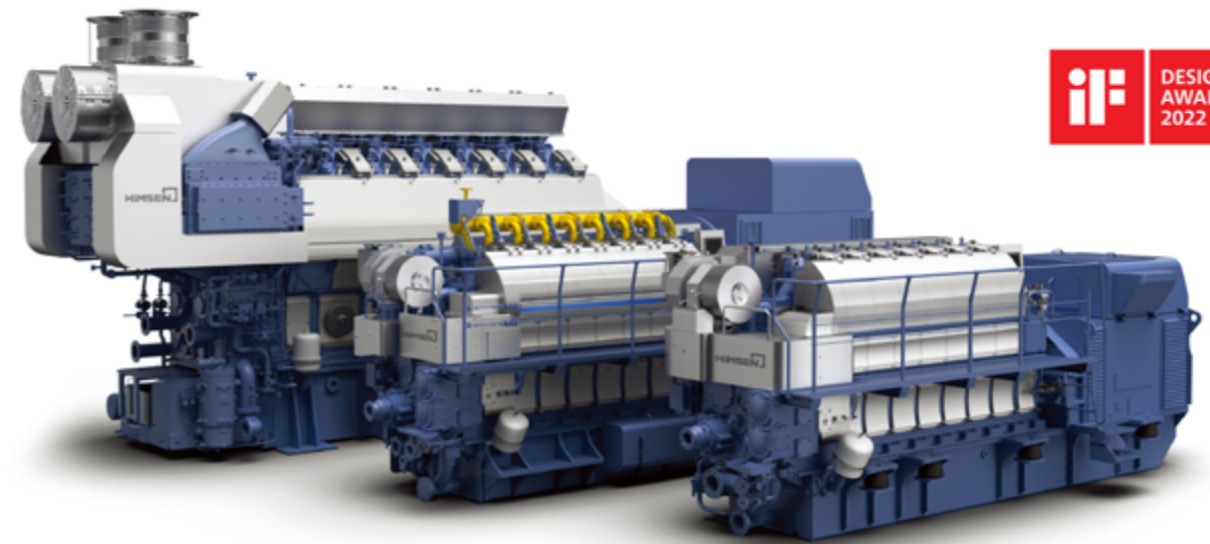
Regarding the 1,670 tankers, the picture is as follows: 232 VLCCs, 275 Suezmax, 350 Aframax-LR2, 157 Panamax- size, 379 MR, and 64 Handy vessels, while 213 of them belong to the smaller tanker category.

Graph 7: Categorisation of the tanker fleet managed by companies operating in Piraeus/Athens



Flexible multi-fuel HiMSEN engine

Natural Gas, Methanol Ammonia, Hydrogen



KEY FEATURES

- Net zero carbon emission in Methanol / Ammonia / Hydrogen mode
- Mixed fuel mode (Natural Gas with Hydrogen / Ammonia) for better economy
- Flexible fuel choice on board for secured redundancy

* Ammonia, Hydrogen : Under development

APPLICATION

- Container, LNG Carrier, Tanker, Bulker Ro-Pax, Ferry, Cruise, etc.
- Hybrid (Renewable and e-Fuel) Power Plant

POSIDONIA 2022

06-10 June (Mon-Fri), Athens, Greece, Metropolitan Expo

Exhibition booth

HYUNDAI / 3.507 / HALL 3

HHI Technical Seminar & Networking

7th, June 2022 / 12:45 - 14:30
Seminar Room 2B



Fleet age

The analysis of the companies' fleet includes six age categories: 0-5 years old, 6-10 years old, 11-15 years old, 16-20 years old, 21-25 years old, and 26+. The data in Graph 8 confirm the exceptional potential of the vessels operated from Piraeus/Athens: 75% of the total number of ships is under 15 years old, 38% less than 10 years old, and 13% less than five years old. The majority, i.e., about 37% (or 1,924 ships), belong to the 11-15-year age group, followed by 1,302 ships aged between 6 and 10 years.



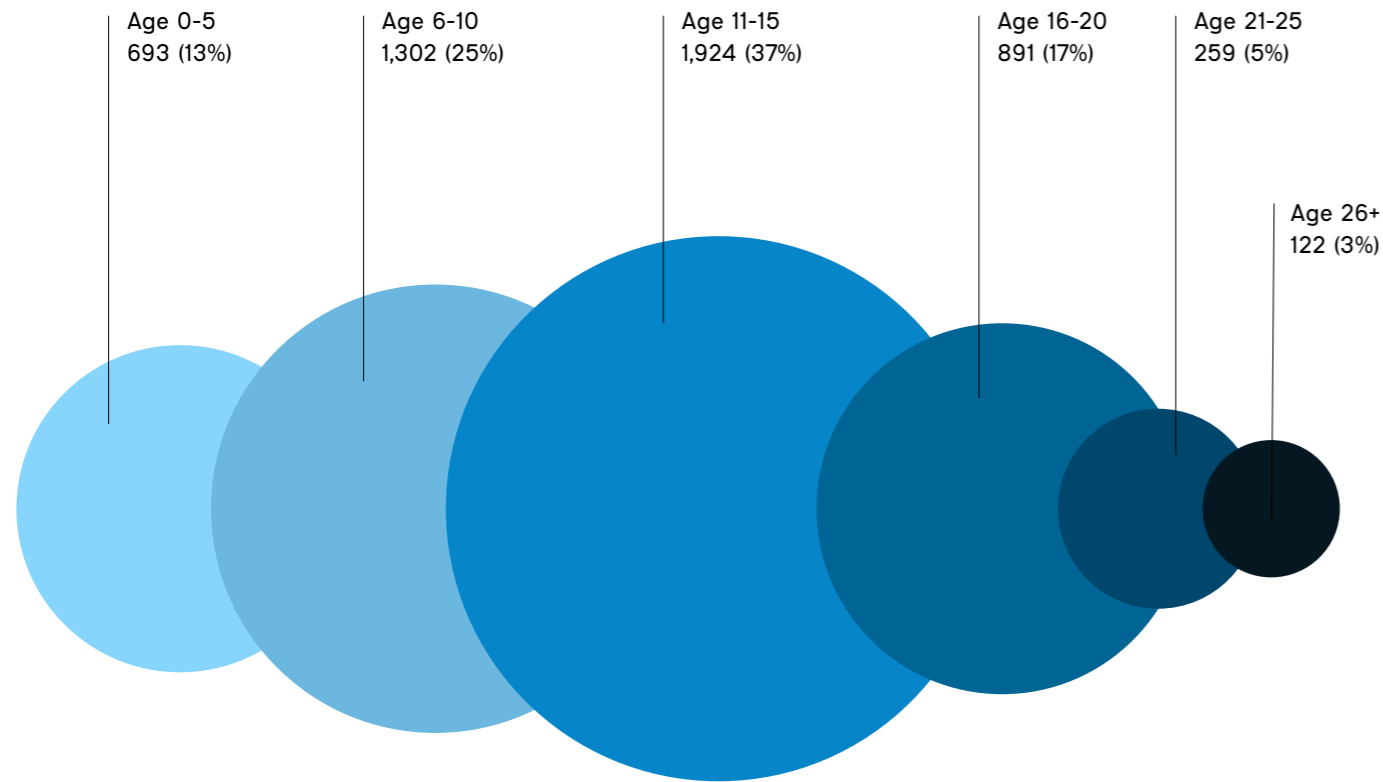
Register

Regarding the registers in which ships operated by companies based in Piraeus/Athens are registered, the picture is as follows: 1,304 ships (or 25%) fly the Marshall Islands flag (99.2 million dwt), 1,276 (or 25 %) the Liberian flag (110.4 million dwt), 744 (or 14%) the Maltese flag, and 505 ships (or 10%) the Greek flag (Graph 9). There are also 477 ships (or 9%) registered in the Panamanian register, while 282 ships (or 6%) and 279 ships (or 5%) are registered in Cyprus and the Bahamas, respectively. The remaining 324 ships (or 6%) are registered under 31 flags. Therefore, 94% of the fleet's vessels fly one of the above flags.

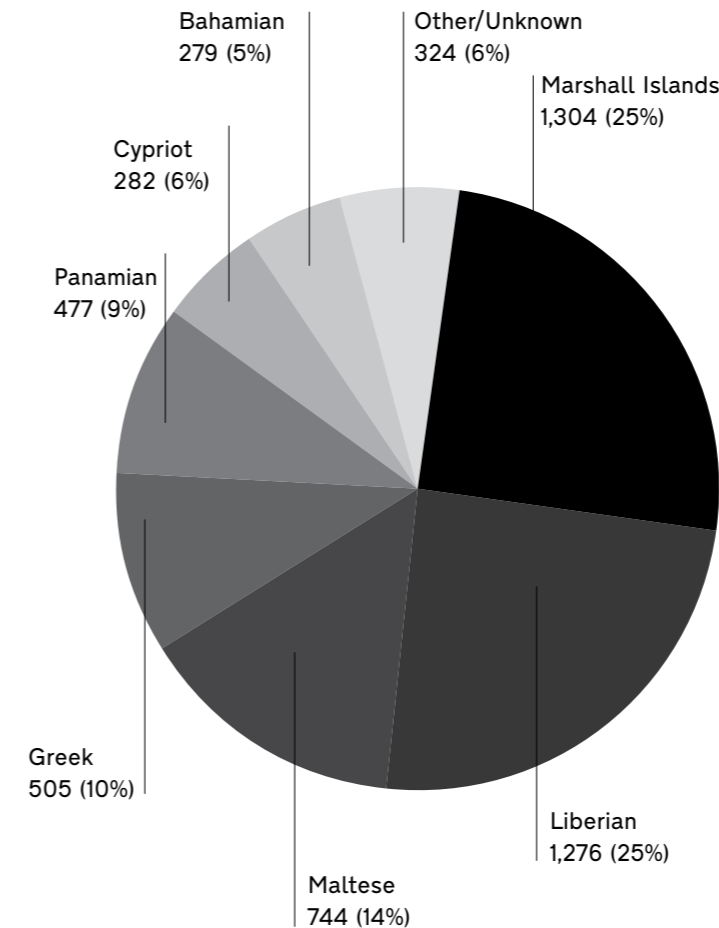
Shipbuilding country

The fleet analysis based on the shipbuilding country shows that most of the ships managed by Piraeus companies were built by Asia's three dominant shipbuilding powers: South Korea, Japan, and China have constructed 92% of the fleet's fleet vessels (Graph 10). South Korea holds the reins, with 34% (or 1,784) of these vessels built at this country's domestic shipyards. Chinese shipyards follow with a 29% market share (29.1% or 1,509 ships) and Japanese shipyards with 29% (28.5% or 1,483 vessels).

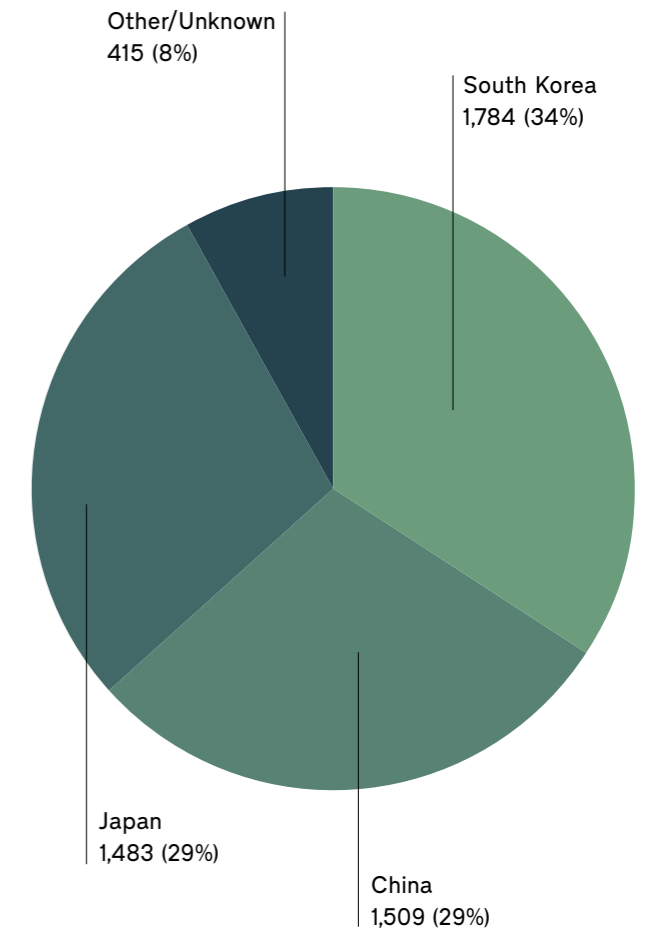
Graph 8: Distribution of the fleet managed by the companies based in Piraeus/Athens by age group



Graph 9: Distribution of the fleet managed by companies located in Piraeus/Athens per register (in numbers of vessels)



Graph 10: Distribution of the fleet managed by companies based in Piraeus / Athens by shipbuilding country



ANALYSIS WITH
**THE SHIP TYPE/CATEGORY
 AS THE BASIC CRITERION**



Ship types/categories by age group

Of the bulk carriers managed by companies located in Piraeus/Athens, 9% are up to 5 years old, while the corresponding percentage for the total fleet is 13%. They represent a high percentage in the 6-10-year age group: One in three (or 33%) bulk carriers belongs to this age group, versus one in four (or 25%) of the fleet's total vessels. This age group concerns only ships delivered between 2012 and 2016 - with a large number of orders placed in 2013.

The picture is slightly different for tankers: One in five tankers (or 20% of them) is up to five years old, and one in four (or 25%) is over 15 years old. Only 16% of the tankers are between 6 and 10 years old, although 25% of the entire fleet belongs to this age group.

The age distribution of containerships is of particular interest: 21% of the containerships are less than or up to ten years old, whereas the corresponding percentage for all the fleet's vessels is 38%. At the same time, 17% of the containerships are between 21 and 25 years old, versus 5% for all the fleet's vessels.

In the pre-pandemic years, the sluggish freight market was a decisive factor in the investment interest in the second-hand market compared to the shipbuilding market. Only 5% of the fleet's containerships were delivered between 2017 and 2022.

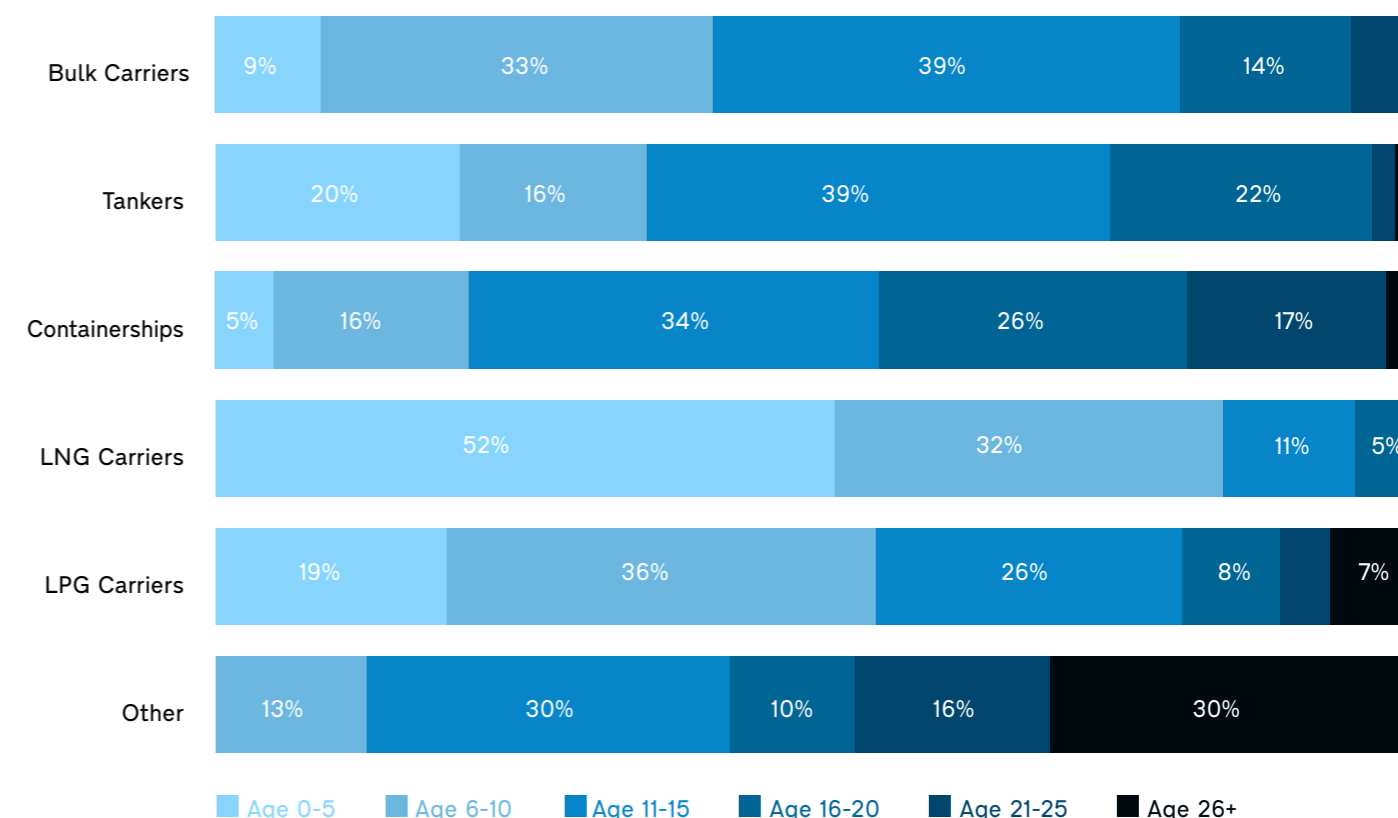
Equally interesting is the age distribution of LNG carriers: Only 16% (or 23) of the LNGCs are older than ten years. The recent boom in the LNG carrier market is due to natural gas becoming prominent

in the global energy landscape, which has led to increased demand. In recent years, investment interest in LNG carriers has grown exponentially: More than one in two LNGCs (or 52%) is up to five years old (compared to 13% for the total fleet vessels).

Overall, LPG carriers are younger in age. More than half (55%) of the LPGCs are up to ten years old (compared to 38% in all the fleet's vessels). Also, 19% of the LPGCs are older than 15 years, while the corresponding percentage is 24%. Regarding the other types of merchant ships, 87% are older than ten years (compared to the total fleet's 61%). This fact shows that these ships have a longer economic life than bulk carriers, tankers, containerships, and gas carriers due to their construction and commercial use.

Graph 11: Distribution of the fleet by ship type and age group

Does not include percentages under 5%





Ship types/categories by register

This section attempts to correlate the types of ships with the registers in which they are registered.

Regarding bulk carriers: more than one in two (i.e., 55%) are registered either in the Marshall Islands or Liberia. Specifically, 31% are registered in the Marshall Islands (compared to 25% of the fleet's total vessels), and 24% are in Liberia.

As regards tankers, the Marshall Islands and Liberian registers have almost the same percentage: 24% of tankers fly the Liberian flag and 23% the Marshall Islands flag. These percentages are similar to those that these registers occupy in the entire merchant fleet managed by companies located in Piraeus/Athens.

It should also be noted that a significant percentage of tankers (17%) fly the

Greek flag, which, compared to the total fleet's 10%, reflects the potential of the national register in the tanker market.

The strength of the Greek register also becomes apparent through its share of LNG carriers. 29% (or 42) of the LNGCs fly the Greek flag, with the Greek registry being the register of choice for this type of ship. Then comes Malta, with 28% (or 41 vessels). These two registers record a much higher percentage in this category than they do for the whole fleet (Maltese register: 14%, Greek register: 10%).

In LPGCs, the Marshall Islands occupy first place, with 23% of these vessels flying their flag - approximately the same percentage as that of all ship types. The Liberian register's share in this vessel category is smaller (14%) than its 25% share in the whole fleet.

A significant percentage of LPGCs is

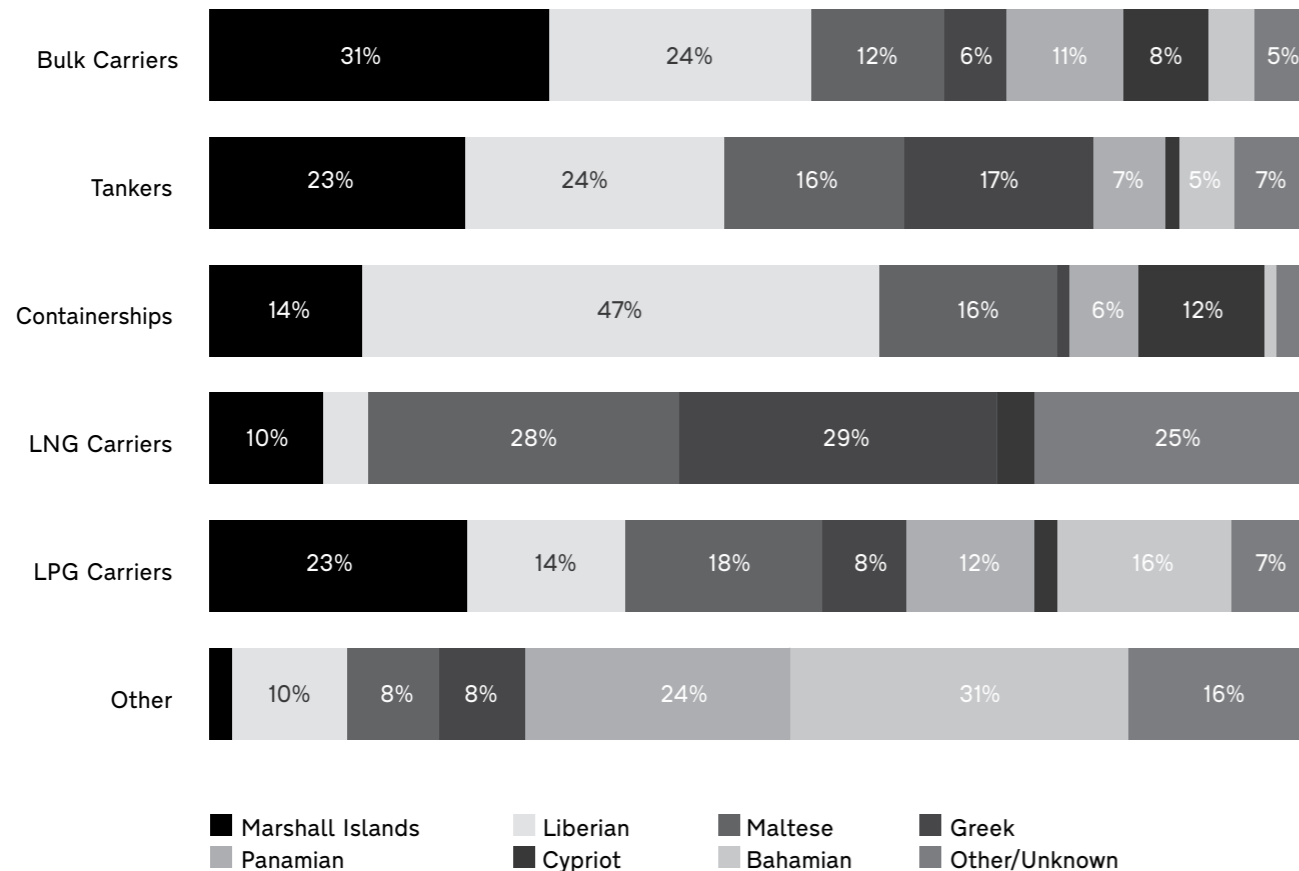
registered in the Bahamas register (16% versus just 5% for all ship types).

For containerships, the register of choice is by far that of Liberia, as 220 (or 47%) of the 467 containerships fly the Liberian flag, while Liberia's share for all vessel types reaches 25%.

As for the other types of ships, the most important registers are those of the Bahamas and Panama, which occupy 31% and 24%, respectively. However, their percentages reach 5% and 9% of the total of managed vessels, respectively.

Graph 12: Distribution of the fleet by type of ship and register

Does not include percentages under 5%



Renewable sources such as used cooking oil can significantly reduce CO₂ emissions in aviation.

Making flying more sustainable

There you go

JOIN OUR CORPORATE SAF PROGRAM TODAY

Sustainable Aviation Fuel (SAF) is produced from renewable sources like used cooking oil. Because it is made in a cleaner process than conventional fuel, it is one of the keys to reducing our carbon footprint. Join the Corporate SAF Program to help accelerate its usage and production. By participating, your company contributes to making SAF available around the globe - and therefore to the future of flying.

We can do this together.



Ship types/categories by shipbuilding country

As mentioned above, most of the fleet's ships (i.e., 92%) come from the shipyards of China, South Korea, and Japan. Specifically, 96% of the bulk carriers, 93% of the tankers, and 79% of the containerships managed by companies located in Piraeus/Athens have been built in one of these three countries.

Regarding bulk carriers, Japan and China have constructed the lion's share of those managed by Piraeus companies: 41% of these bulk carriers were built in Japan and 39% in China, i.e., eight out of ten were constructed in one of these two countries versus less than six in ten (i.e., 58%) of all ship types built in Japanese or Chinese shipyards. The Japanese shipbuilding tradition is undoubtedly intertwined with building bulk carriers, whereas the rise of Chinese shipyards is also based on bulk carriers, which are ships requiring lower technological specialisation.

South Korea unquestionably has the lead in tankers: more than one in two (i.e., 54%) of the fleet's tankers have been built in South Korean shipyards. It is reported that the South Korean shipbuilding industry focuses on building ships of higher technological standards, which is reflected in the role they play in gas carriers construction. In particular, 91% of LNG carriers and 55% of LPG carriers have been built in South Korea.

It is worth noting that Japan is in second place regarding LPG carriers construction, its percentage reaching 31%.

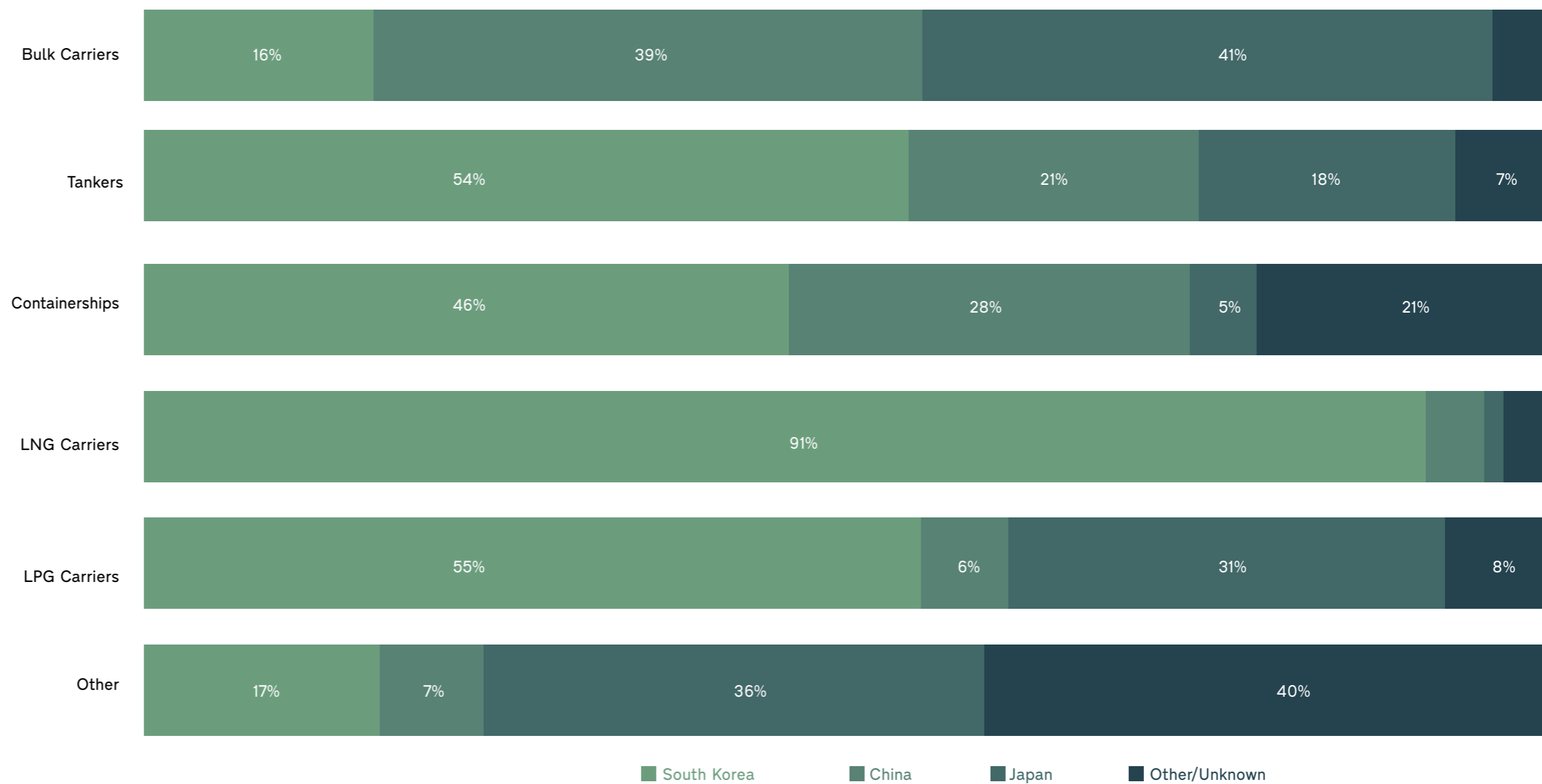
South Korean shipyards also hold a leading position in building containerships. More specifically, 46% of containerships have been built in South Korea, 28% in China, 5% in Japan, and 21% in countries other than these three top shipbuilding countries. However, Chinese shipyards are becoming an increasingly attractive option for building containerships: 57% of the containerships up to five-year-old have been constructed in China. Therefore, the above picture seems to be changing over the years.

Regarding other merchant ships, a significant percentage (40%) of them

have been built in countries other than South Korea, China, and Japan. That is mainly because many of these ships are older than average and were built at a time when the world's shipbuilding activity was not so concentrated in South Korean, Chinese, and Japanese shipyards. However, it should be noted that a high percentage (36%) of the other types of merchant ships in the fleet have been built in Japan.



Graph 13: Distribution of the fleet by type of ship and shipbuilding country
Does not include percentages under 5%





IN LIEU OF AN EPILOGUE

The figures on the fleet managed by companies located in Piraeus/Athens

- 1 in 2 ships is a bulk carrier
- 94% of the fleet flies one of the seven main flags (Marshall Islands, Liberia, Malta, Greece, Panama, Cyprus, Bahamas)
- 1 in 4 ships is between 6 and 10 years old
- More than 9 out of 10 ships have been built in South Korea, China, or Japan
- 84% of LNG carriers are up to 10 years old
- 29% of LNG carriers fly the Greek flag
- 41% of bulk carriers have been built in Japan
- 91% of LNG carriers have been built in South Korea
- 57% of containerships delivered between 2017 and 2022 were built in China.

