



• Vol.23

# Alternative Fuel Prospects in the Shipping Sector across EU

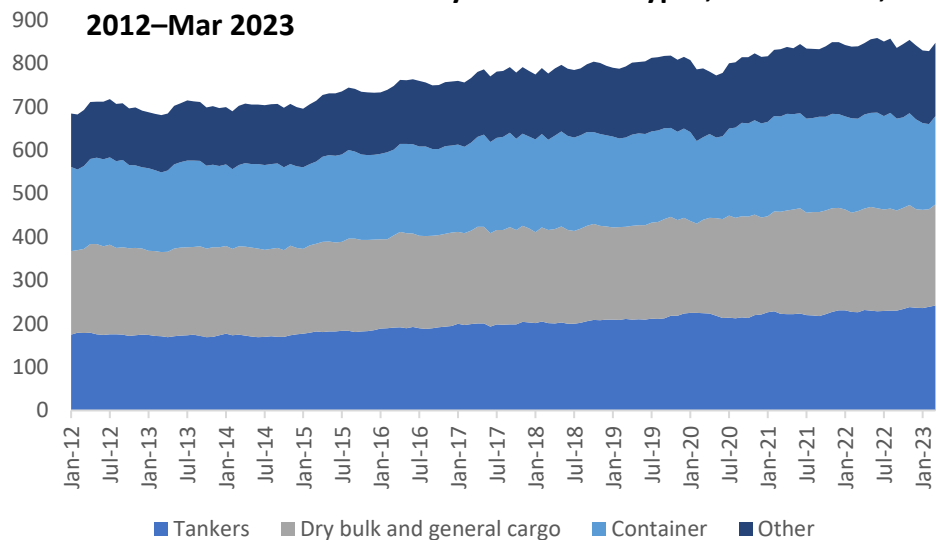


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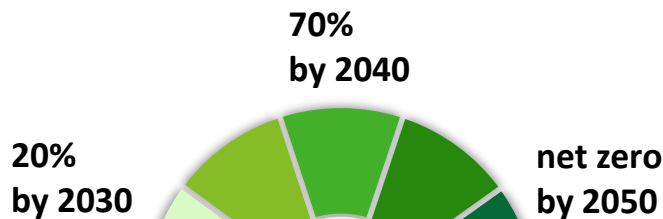
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**Carbon dioxide emissions by main vessel types, million tons, 2012–Mar 2023**

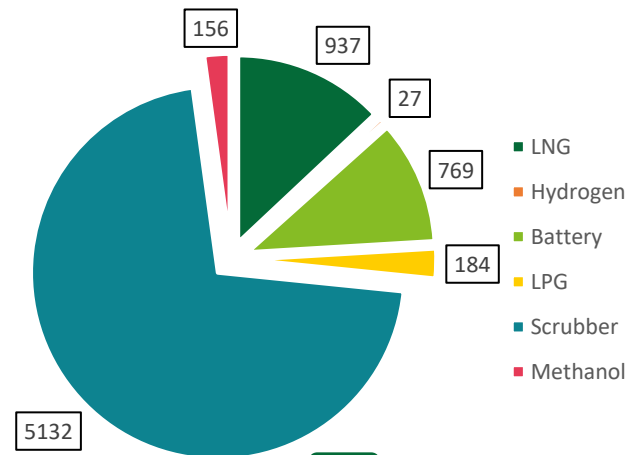


In January 2024, the **EU's Emissions Trading System (EU ETS)** was extended to **cover CO<sub>2</sub> emissions from all large ships** (of 5,000 gross tonnage and above) entering EU ports, regardless of their flag.

**IMO emissions reduction targets for shipping industry**



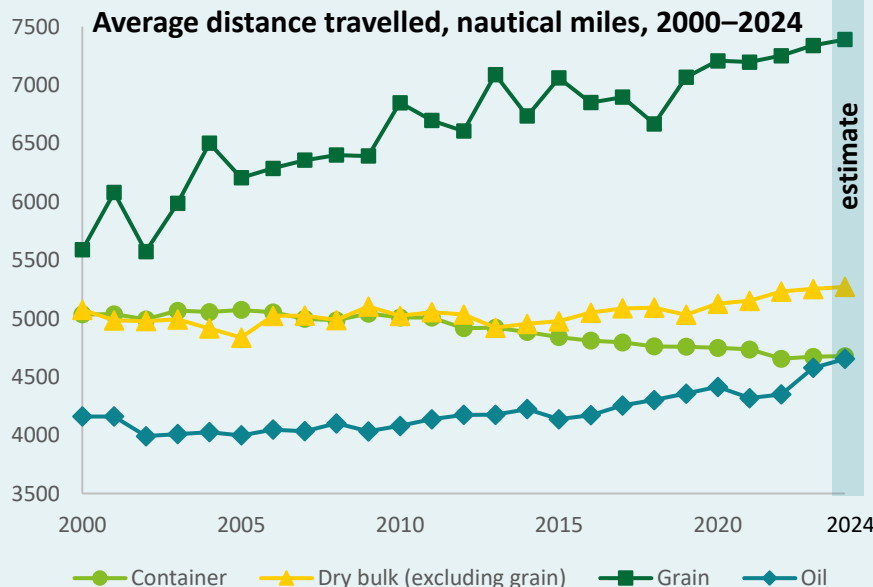
**Number of vessels globally with implemented alternative fuels and scrubber installations that are under operation 2023**



The **Panama Canal** is facing a **severe drought**, causing a **36% reduction in total transits** compared to the previous year, raising long-term concerns about climate change impacts on the canal's capacity.

The **Red Sea crisis**, has led to a **67% decline in weekly container ship transits** and significant drops in tanker and gas carrier transits.

**Rerouting ships around the Cape** may result in a **17% increase in carbon intensity** under the Carbon Intensity Index (CII) framework, emphasizing the need for real-time CII data intelligence to provide accurate assessments of carbon intensity within actual voyages.



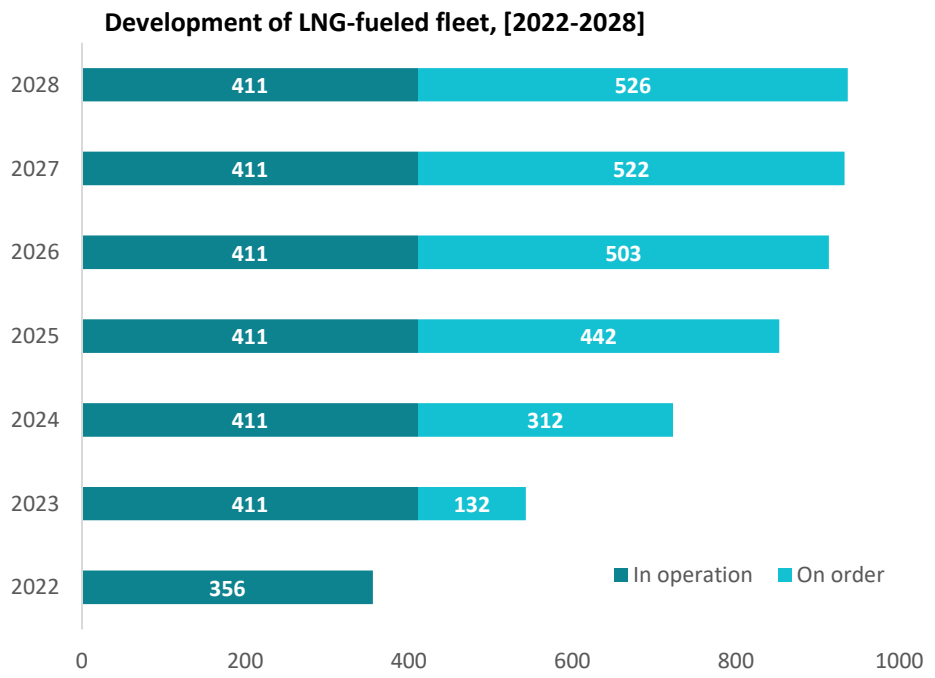
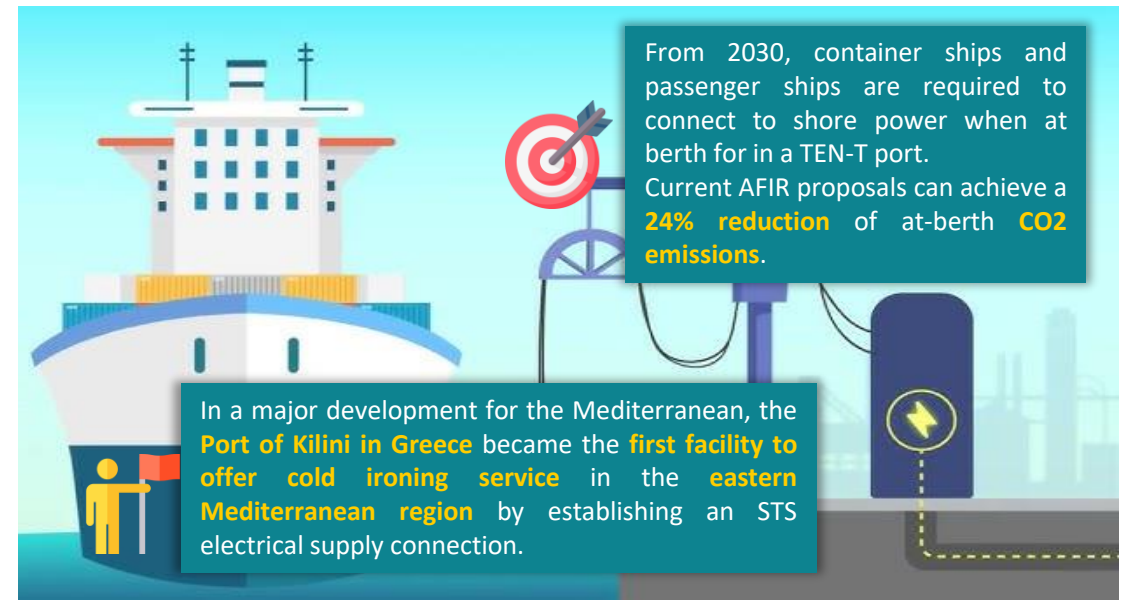
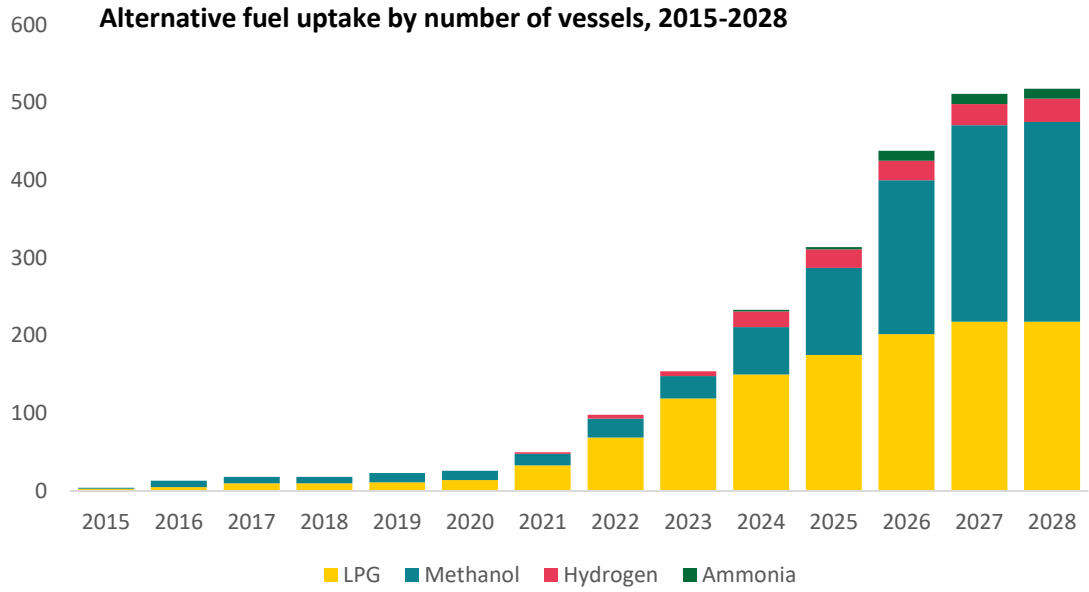
Hellenic Association for Energy Economics  
Chart of the Month – vol.22

Greek shipping has the **largest fleet** operating with **alternative fuels**. Notably, **6.7% of the Greek-owned fleet** can use **LNG dual-fuel**.

Additionally, it is the **second-largest fleet** globally that has installed **sulfur oxide (SOx) scrubbers on its ships**. Specifically, **36% of Greek-owned new tankers on order** will be equipped with sulfur oxide scrubber systems.

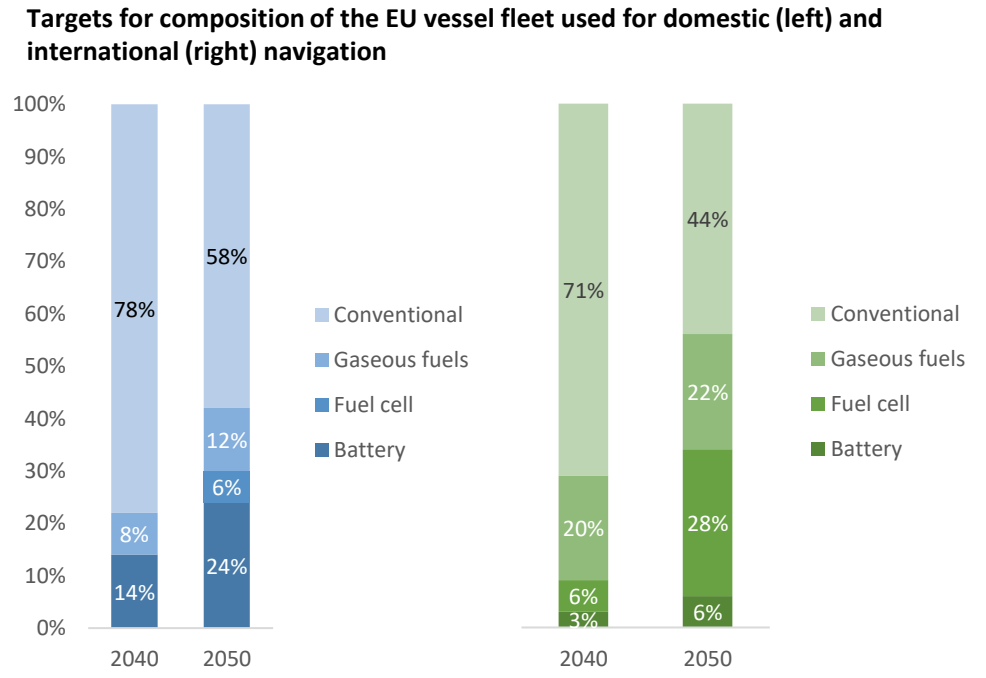
Source: UNCTAD, DNV, UGS, Hellenic Shipping News, HAAE analysis

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Based on the newly announced **Europe's 2040 climate targets**, the composition of the vessel fleet used both for **domestic and international maritime transport** in the EU is projected to **change considerably between 2015 and 2050**, with respect to the **energy carriers used**.

Notably, conventional fuels will be replaced by **battery-electric, fuel cells**, and other **gaseous fuels**, such as (LNG, biogas, and e-gas)



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