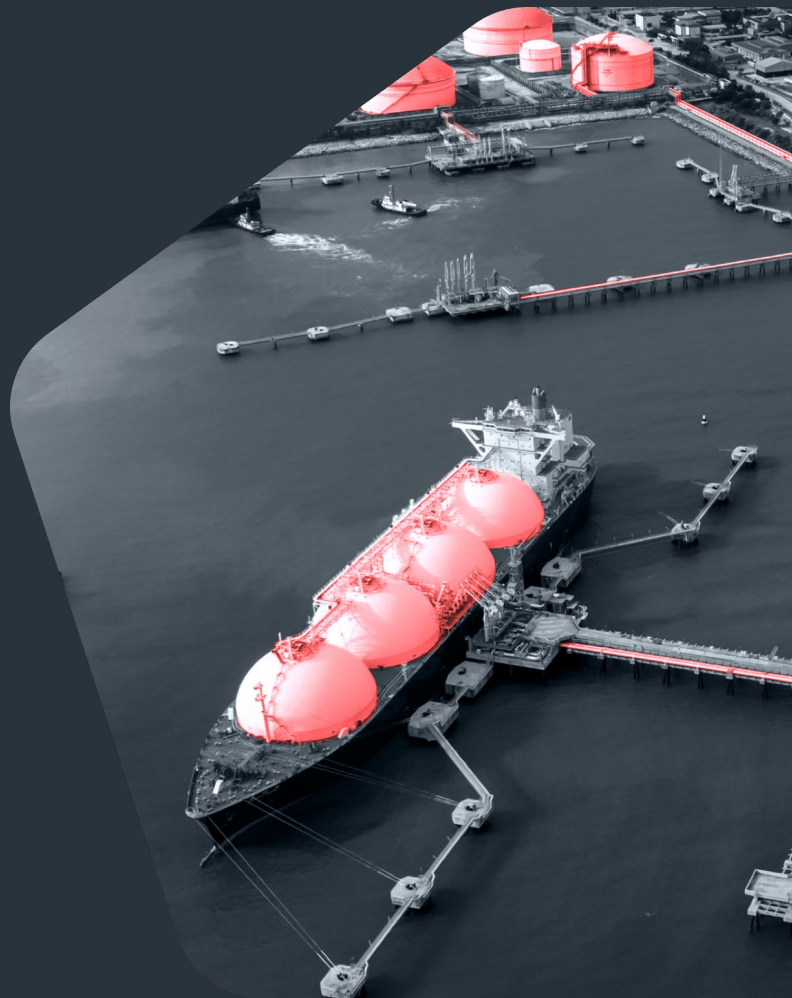




# From Niche to Global: The Rise of LNG Bunkering

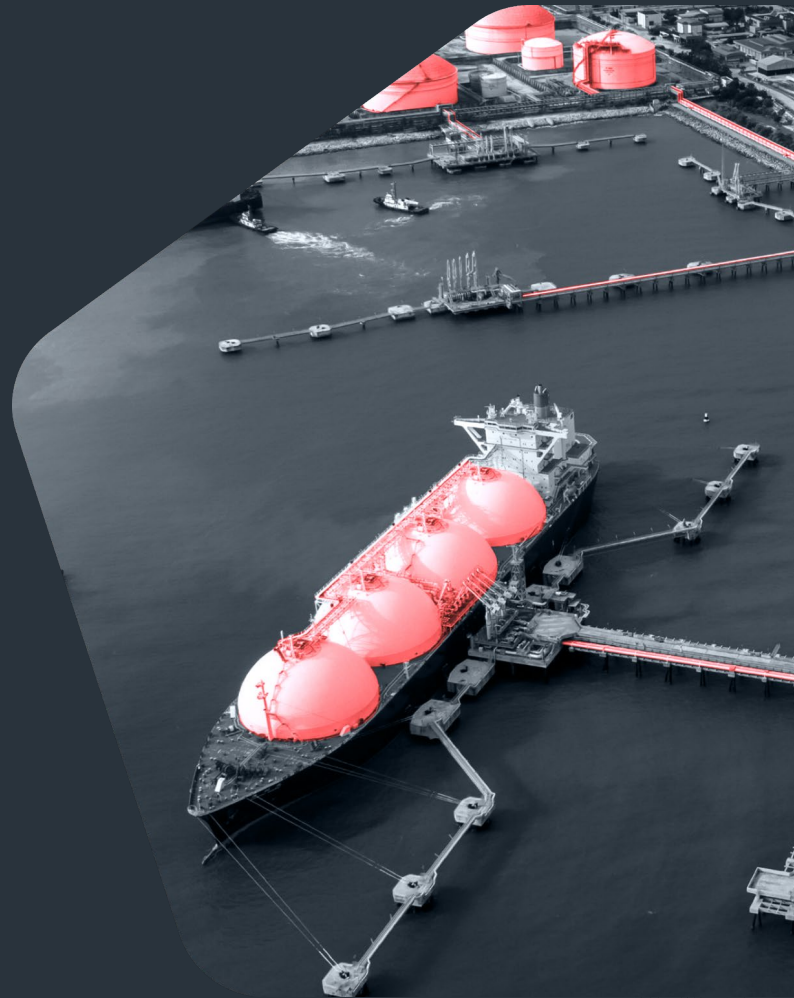
GIIGNL 2025 General Assembly – Monday, October 20<sup>th</sup>





# Market overview

LNG bunkering – GIIGNL 2025 General Assembly

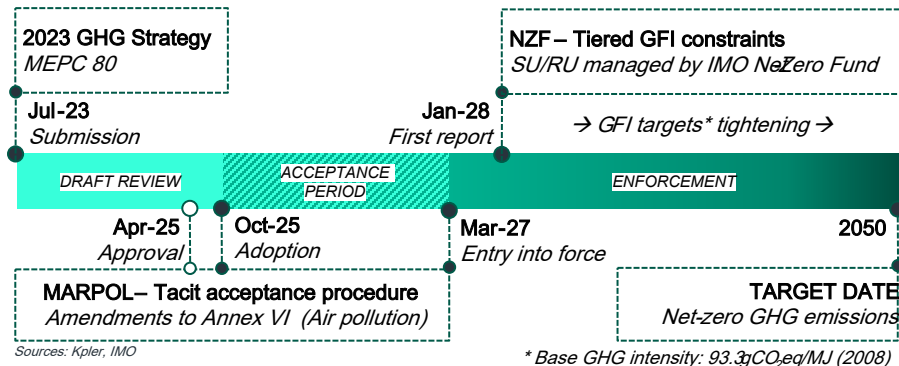


## LNG bunkering – Maritime regulations: LNG emerges as the main immediate alternative to move away from conventional fuels

### Regulations – International Maritime Organization (IMO)

- Net-Zero Framework: aims to reduce shipping GHG emissions
- Imposes gradual constraints on shipping fuel emissions, measured through the GHG Fuel Intensity (GFI) metric
- Implements GHG emissions pricing mechanism through the trading of Surplus Units (SU) & Remedial Units (RU)
- Reward for ships using zero or near-zero (ZNZ) emissions fuels
- All ships above 5,000 gross tonnage are to comply

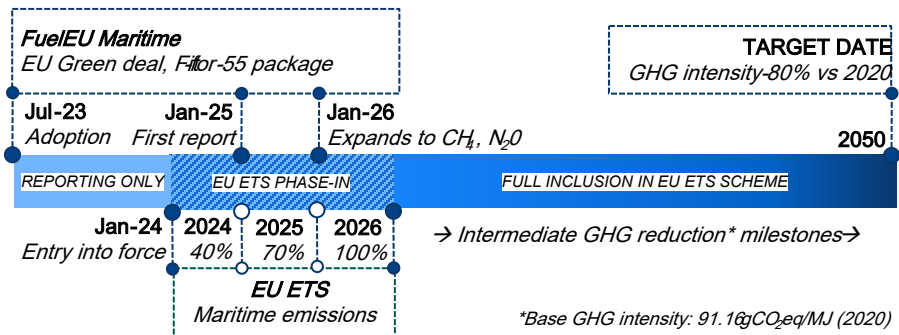
### IMO Net-Zero Framework (NZF) – Timeline



### Regulations – European Commission (EU)

- FuelEU Maritime: aims to reduce shipping GHG emissions, and reduce pollution at European ports
- Imposes gradual constraints on shipping fuel emissions, measured through the GHG Intensity
- Implements GHG emissions pricing mechanism through the inclusion of the maritime sector in the EU ETS scheme
- Covers 50% emissions for voyages from/to outside the EU
- All ships above 5,000 gross tonnage calling at European ports are to comply, and ships above 400 gross tonnage from 2027

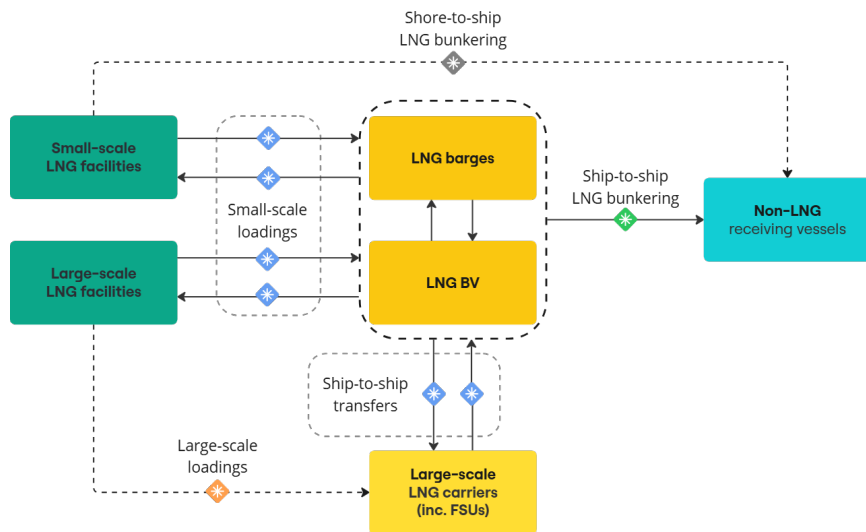
### FuelEU Maritime – Timeline





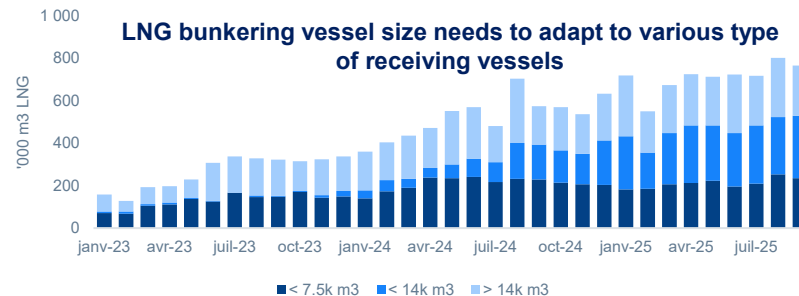
## LNG bunkering – Value chain: Flexibility at the core of the business model

### Simplified schematics of LNG bunkering

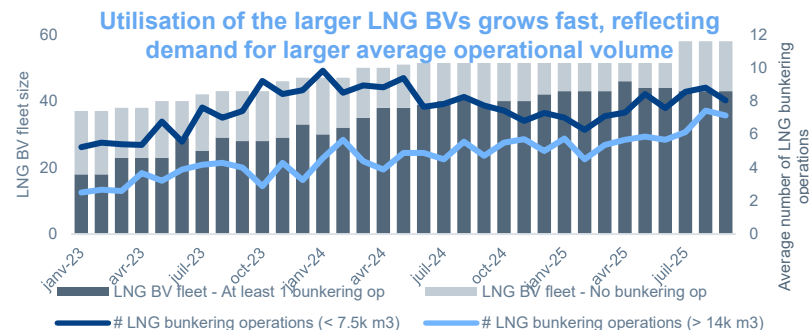


Source: Kpler  
Note: this analysis only covers LNG bunkering volumes delivered via LNG bunkering vessels

### Global LNG bunkering volumes, split by LNG BV size



### LNG BV fleet utilization



Source: Kpler  
Note: the average monthly number of LNG bunkering operations is based on the number of BV that have at least one bunkering operation

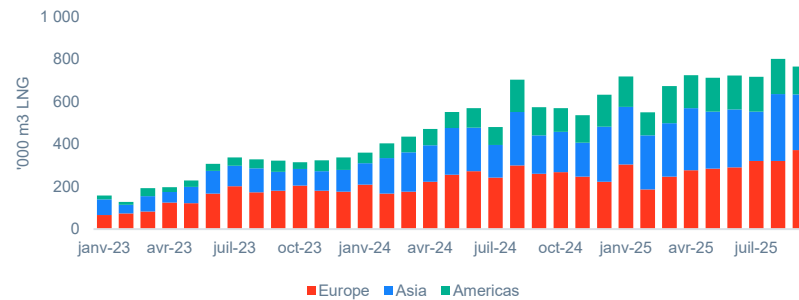
## LNG bunkering – Locations: Geographic expansion is rapid, proximity to LNG infrastructure remains key

| LNG bunkering | Europe | E & SE Asia | N America & Caribbeans | Middle East | All others |
|---------------|--------|-------------|------------------------|-------------|------------|
| Volumes       | ↑      | ↑           | ↑                      | ×           | ×          |
| Growth trend  | ↑      | ↑           | ↑                      | ↓           | ×          |

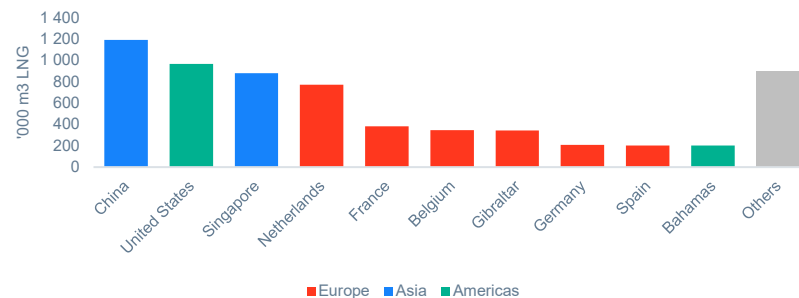
### Global: Top 10 LNG bunkering locations (Sep 2025)



### Global LNG bunkering volumes, split by region



### Top 10 countries by volume in 2025 (year -to-date)



Source: Kpler

LNG bunkering – Players: LNG bunkering market is still very concentrated on both supply and demand sides

## Suppliers

| Large-scale integrated players                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Small-scale specialists                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |         |

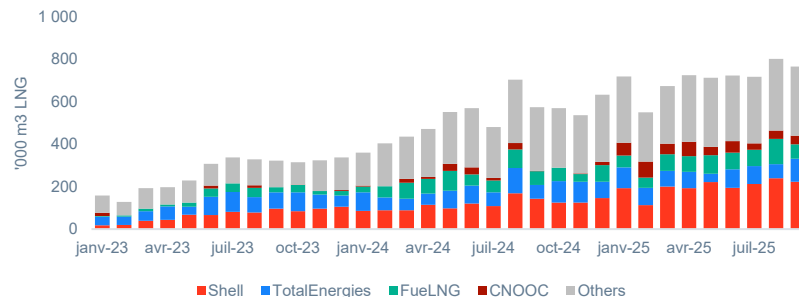
## Consumers

### Large shipping companies

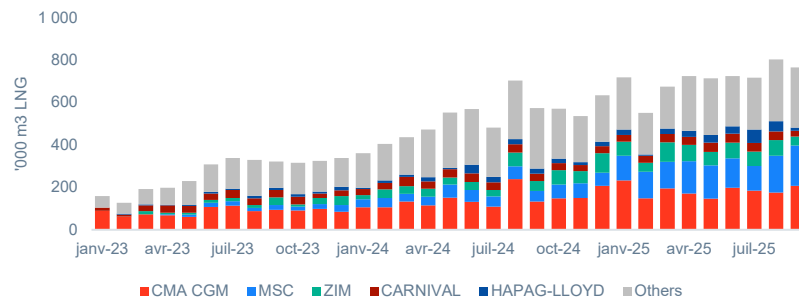


Source: Kpler

## Global LNG bunkering volumes, split by supplier



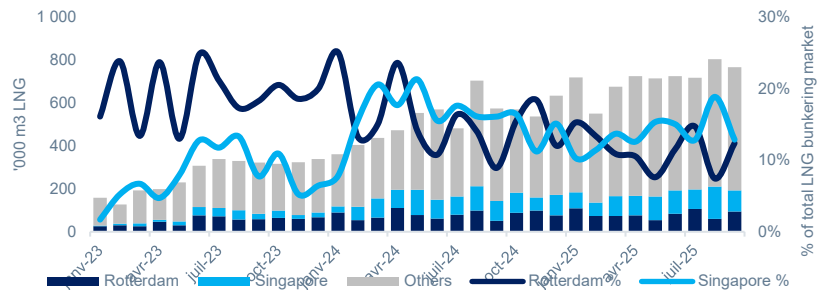
## Global LNG bunkering volumes, split by consumer



Source: Kpler

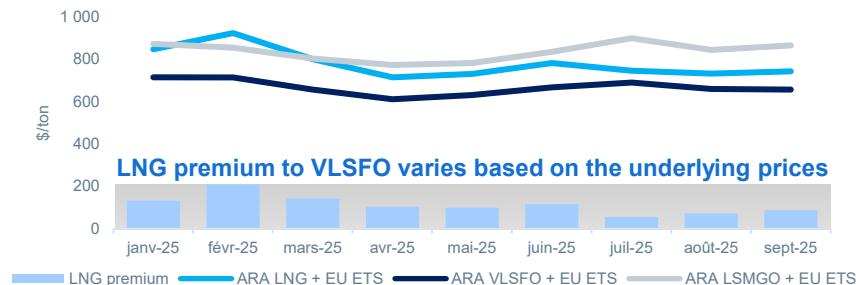
## LNG bunkering – Pricing: relative price vs conventional fuels still largely depends on the underlying regional LNG prices

### Rotterdam vs Singapore as % global LNG bunkering market



Source: Kpler

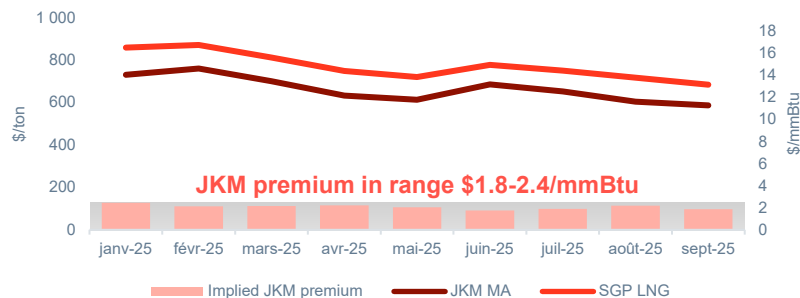
### Rotterdam LNG bunker vs VLSFO price



Source: ENGINE, ICE, NYMEX

Note: To compare with VLSFO prices, LNG bunker prices in \$/t are converted into VLSFO LNG LHV: 50.436 GJ/t, VLSFO LHV: 40.6 GJ/t

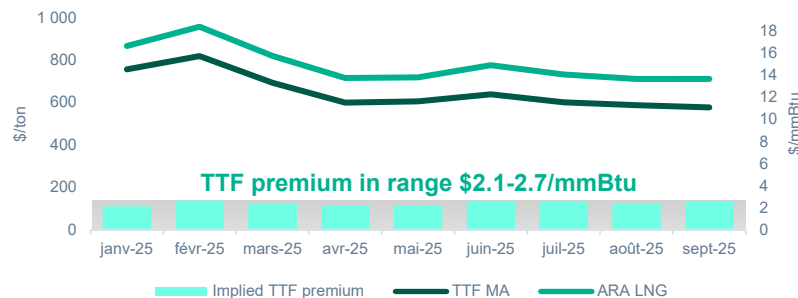
### Singapore LNG bunker prices vs JKM



Source: ENGINE, ICE, NYMEX

Note: To compare with VLSFO prices, LNG bunker prices in \$/t are converted into VLSFO LNG LHV: 50.436 GJ/t, VLSFO LHV: 40.6 GJ/t

### Rotterdam LNG bunker prices vs TTF



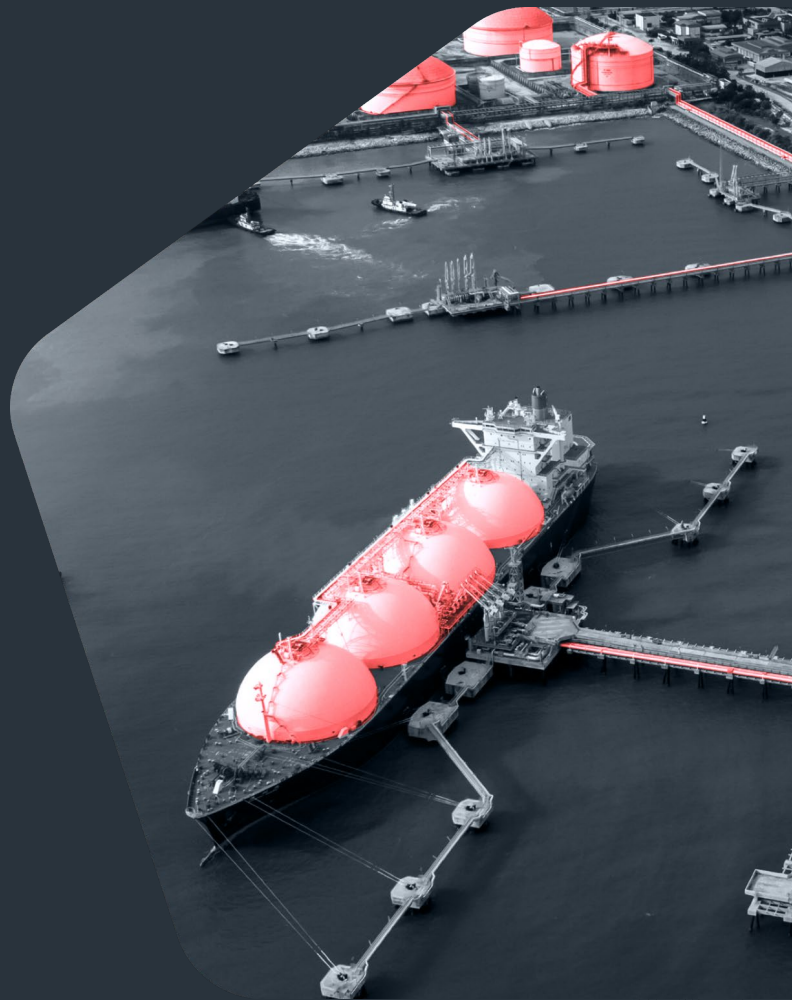
Source: ENGINE, ICE, NYMEX

Note: To compare with VLSFO prices, LNG bunker prices in \$/t are converted into VLSFO LNG LHV: 50.436 GJ/t, VLSFO LHV: 40.6 GJ/t

kpler

# Assets & Infrastructure

LNG bunkering – GIIGNL 2025 General Assembly



## LNG bunkering – Demand: Shipyard orders for dual-fuel vessels support solid future LNG bunkering demand

### LNG bunkering supply

Stabilis signs a 10-year supply deal for LNG from Galveston (Oct-2025)

Shell & TotalEnergies secure small-scale berth capacity at Gate (Jul-2025)

ExxonMobil enters LNG bunkering (Oct-2025)

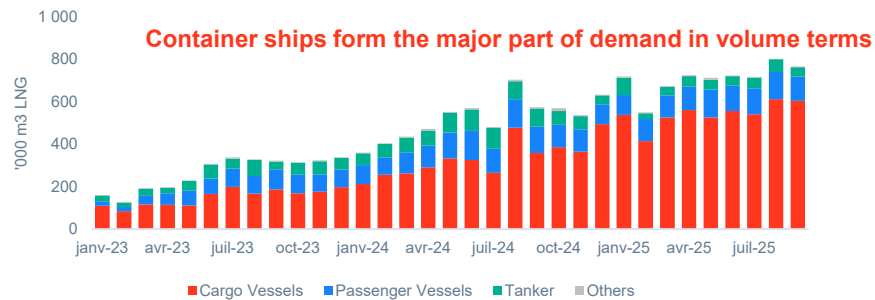
### LNG bunkering demand

CMA CGM orders another 10 LNG dual-fuel containerships (Sep-2025)

Maersk in advanced discussions to order 12 LNG dual-fuel containerships (Sep-2025)

EPS changes 14 ammonia dual-fuel bulk carrier order to LNG dual-fuel (Oct-2025)

### Global LNG bunkering volumes, split by receiving vessel type

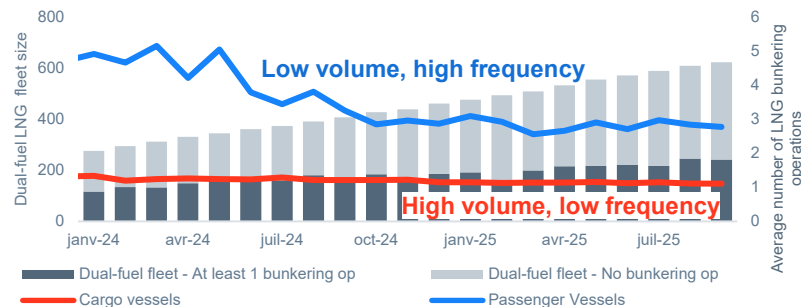


### Global LNG bunkering volumes, split by operation type



Source: Kpler

### Dual-fuel LNG fleet utilization

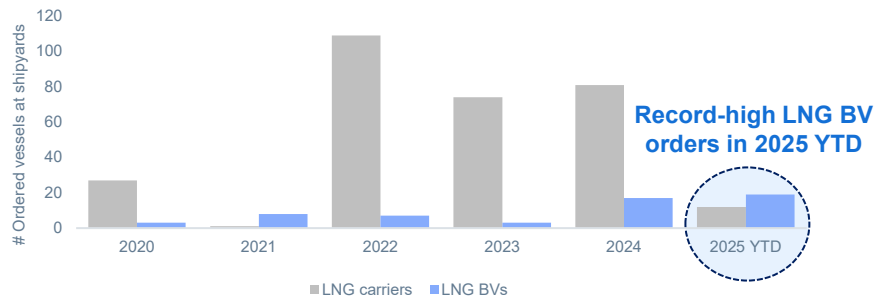


Source: Kpler

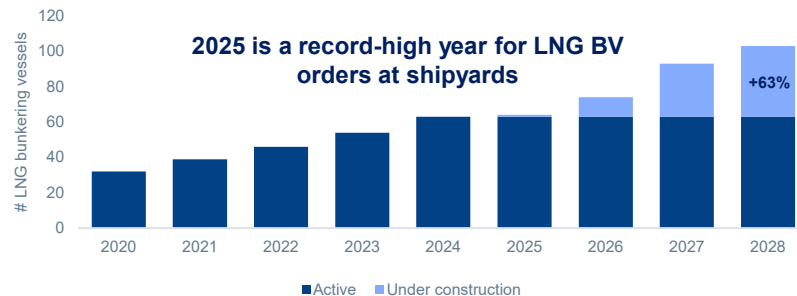
Note: the average monthly number of LNG bunkering operations is based on the number of DF vessels that have at least one bunkering operation

## LNG bunkering – Supply: Fleet of LNG BVs increase, with a shift toward larger sizes

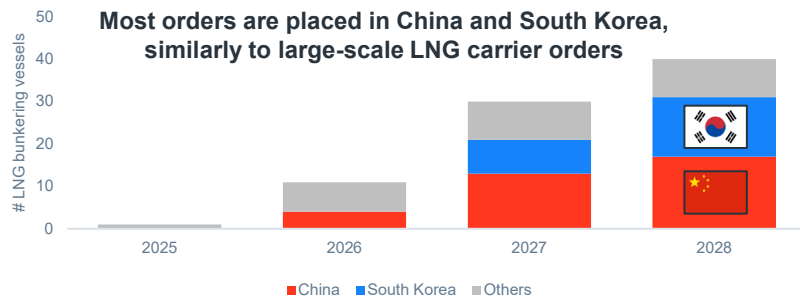
### LNG BV surpass large LNG carriers in 2025 shipyard orders



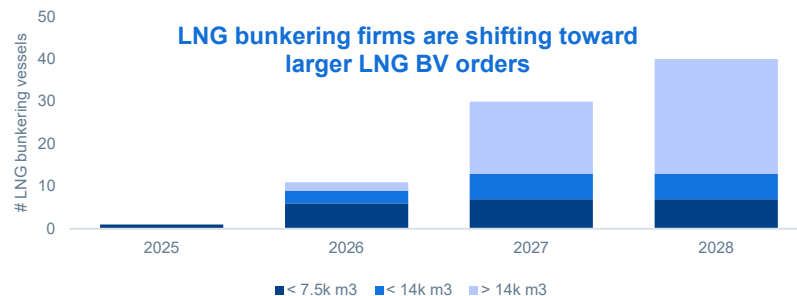
### LNG BV fleet development until 2028, split by status



### LNG BV fleet under construction, split by build country



### LNG BV fleet under construction, split by size

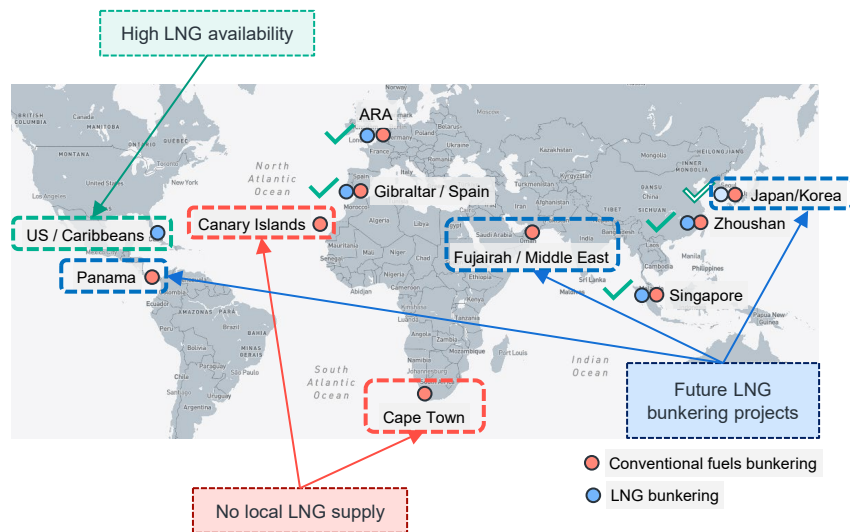


Source: Kpler

Source: Kpler

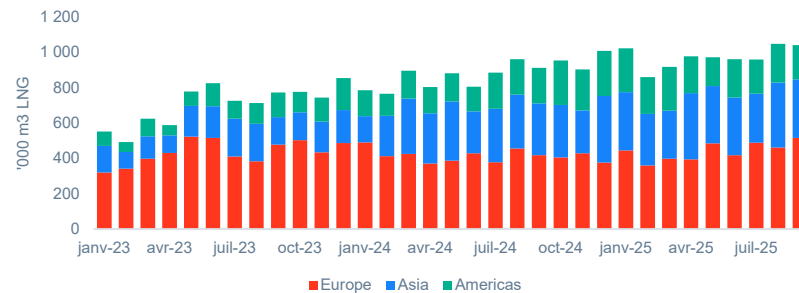
## LNG bunkering – Infrastructure: Availability is needed to avoid future operational bottlenecks

### Major bunkering locations – Conventional fuels vs LNG

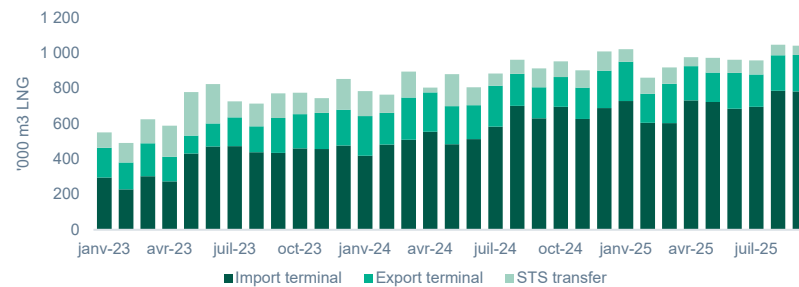


Source: Kpler

### LNG bunkering volumes by loading location, split by region



### LNG bunkering volumes by loading location, split by type



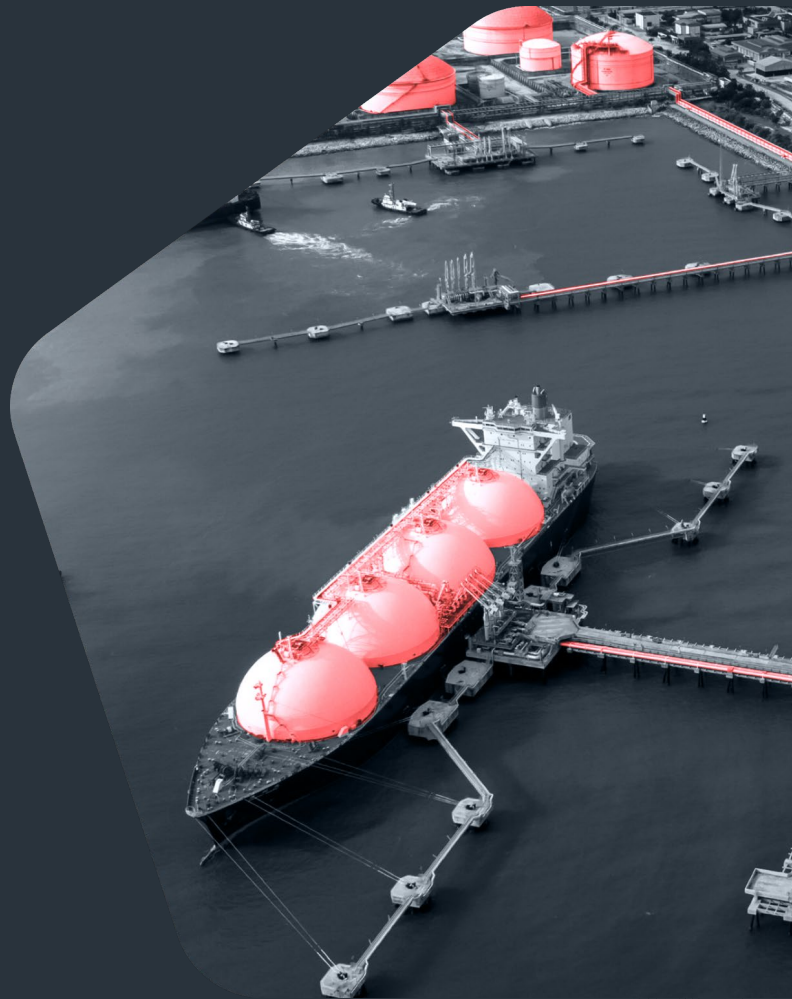
Source: Kpler

Note: the loading numbers include LNG bunkering + small-scale LNG trade



# Regional deep-dives

LNG bunkering – GIIGNL 2025 General Assembly



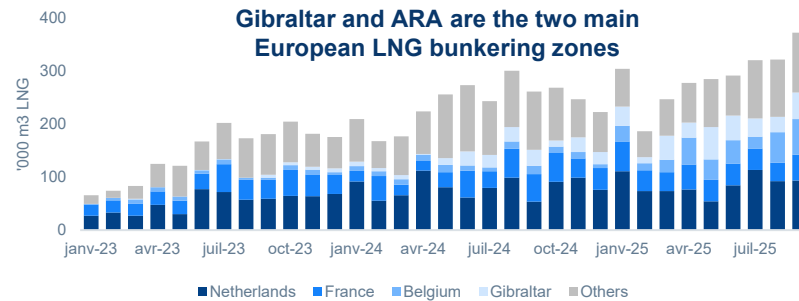
## LNG bunkering – Deep-dive: Europe

### Europe: Top 10 LNG bunkering locations (Sep 2025)

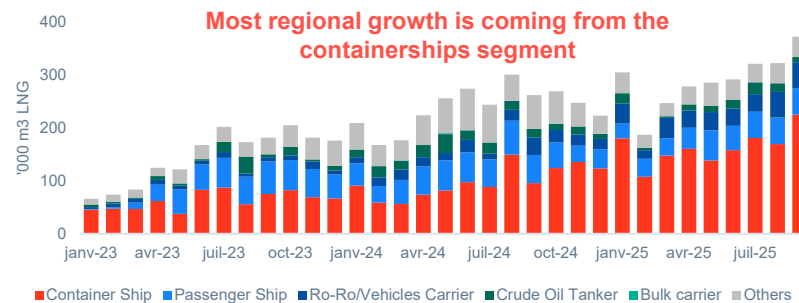


Source: Kpler

### European LNG bunkering volumes, split by country



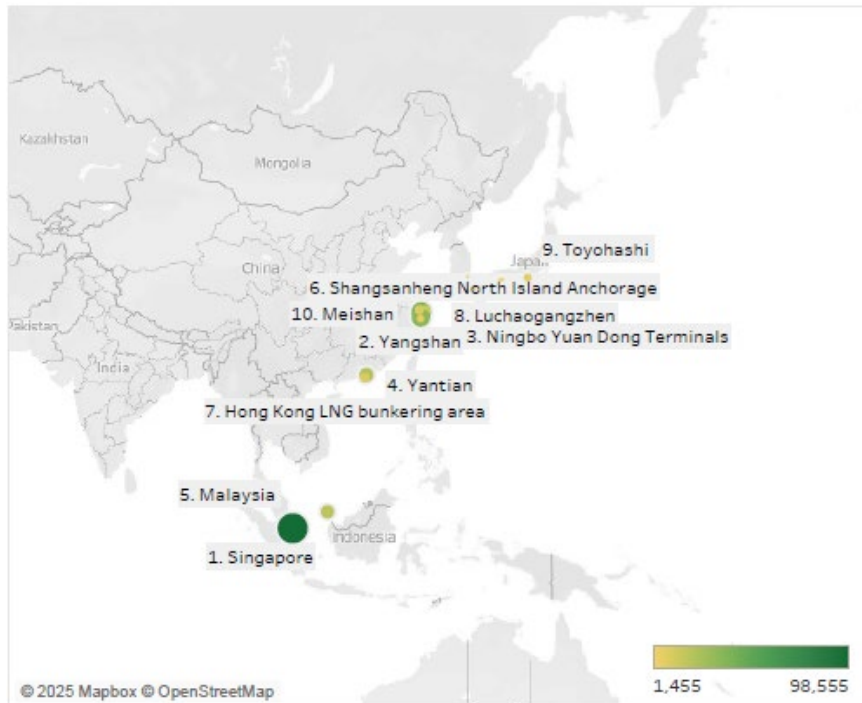
### European LNG bunkering volumes, split by consumer type



Source: Kpler

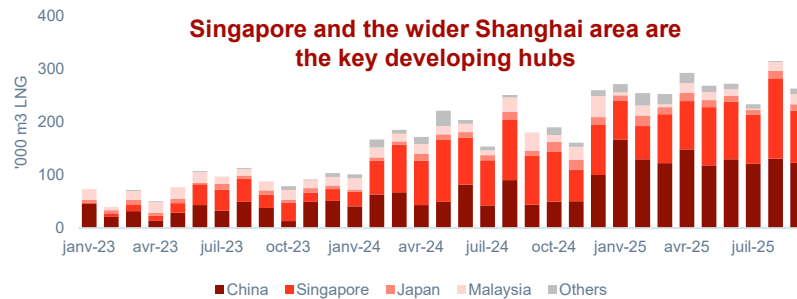
## LNG bunkering – Deep-dive: Asia

### Asia: Top 10 LNG bunkering locations (Sep 2025)

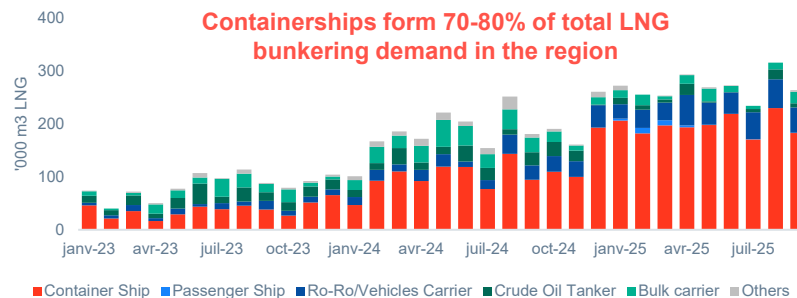


Source: Kpler

### Asian LNG bunkering volumes, split by country



### Asian LNG bunkering volumes, split by consumer type



Source: Kpler

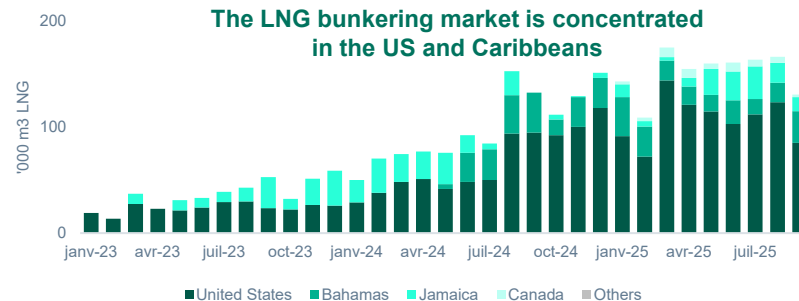
## LNG bunkering – Deep-dive: Americas

### Americas: Top 10 LNG bunkering locations (Sep 2025)

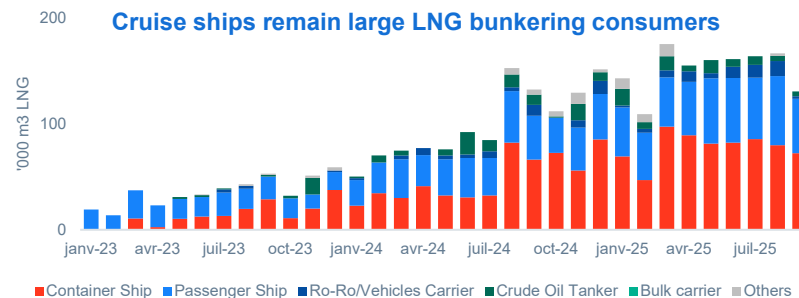


Source: Kpler

### American LNG bunkering volumes, split by country



### American LNG bunkering volumes, split by consumer type

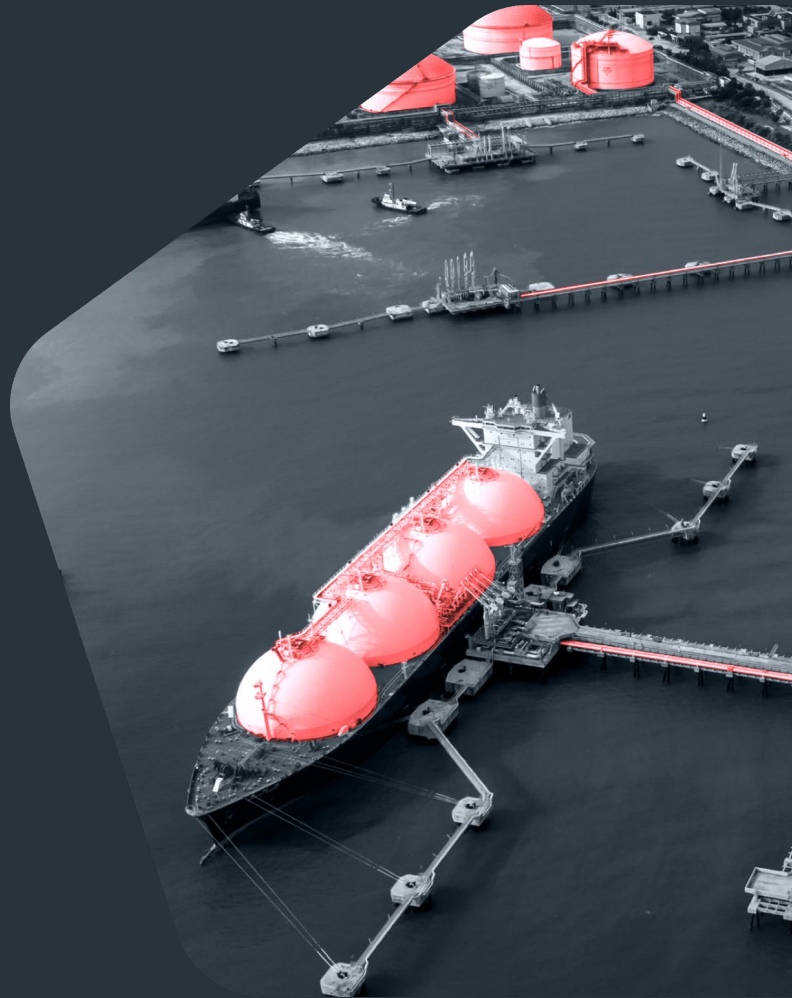


Source: Kpler



# Key takeaways

LNG bunkering – GIIGNL 2025 General Assembly



## LNG bunkering – Key takeaways



### LNG bunkering is booming

Orders of LNG BVs and dual-fuel vessels at shipyards are at record-high.

Infrastructure and ships can adapt to bio-LNG, which is the most mature ZNZ fuel technology.



### Price competitiveness is key

LNG bunkering pricing largely depends on the underlying LNG price.

Price stability and competitiveness against other fuels is critical.



### Infrastructure is needed

LNG bunkering supply and demand need to evolve hand in hand.

Local LNG supply availability is critical, and LNG bunkering infrastructure will be needed as global volumes grow