

Ammonia-powered shipping in APAC: steps to deployment

Ammonia Association of Australia Conference

University of WA Club, 16th June 2025

Wider regulatory picture

IMO-level

- FOCUS: Shared global framework
- Implementation of carbon pricing starting 1 January 2028 when > Direct Compliance Target
- Guidelines for vessels powered by ammonia, concentrating on design and safety considerations.

Flag-state* level

- FOCUS: Consistency, one-size fits all
- Consistency required through national legislative mechanisms.
- Role is ensuring compliance with new safety and environmental standards



Australian Government

Australian Maritime Safety Authority

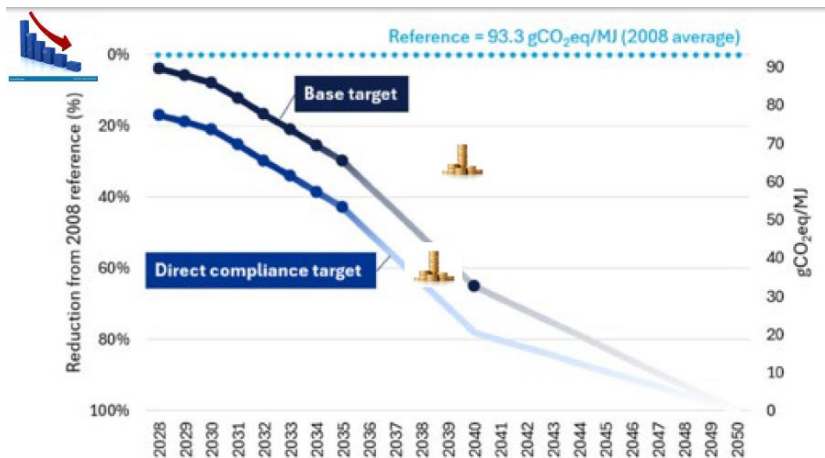


Official Website
Malaysia Marine
Department

* A registered ship of the nation subject to same nation's legislative requirements

Port-level

- FOCUS: Social license to operate
- Establishing safety protocols and emergency response plans specific to ammonia fuel handling, usage and storage within (and somewhat adjacent) to Port boundaries



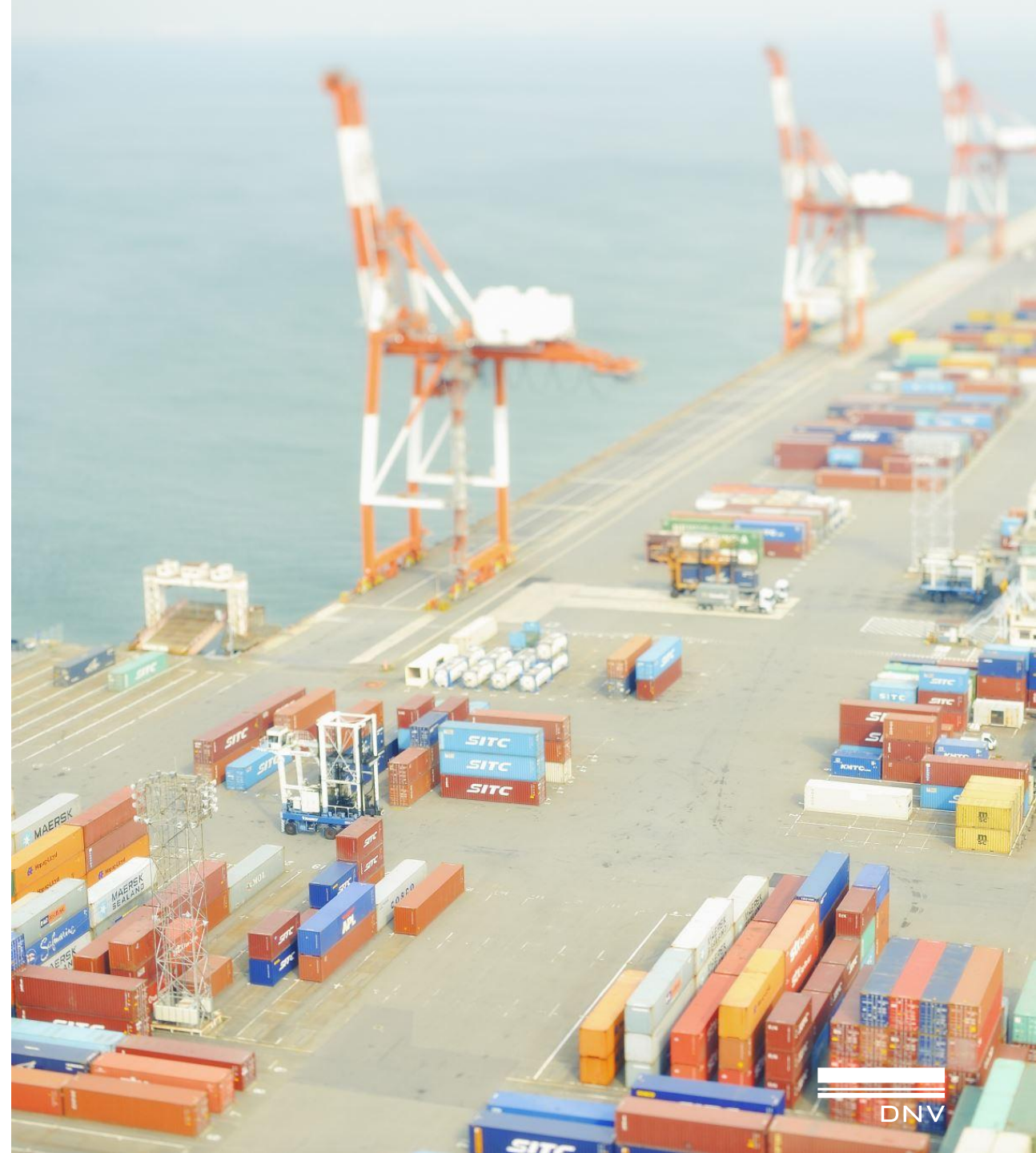
Gaps remaining

- Investment in infrastructure
- Lack of specific mandatory(international) regulations
- Incomplete guidelines (safety)
- Safety risks: toxicity and corrosiveness of assets and ERP
- Crew training needed including shore-staff
- Bunkering infrastructure development
- Stakeholder engagement in early stages



Significance for APAC

- Requires careful management of environmental, economic, safety, and regulatory aspects
- Compliance with international standards
- Countries like Singapore and Japan promoting ammonia as a marine fuel
- Extensive training programs required
- Increased investments in ports and infrastructure



Summary of Ammonia Fuelled Vessels / Production

Ammonia fuelled ships in operation

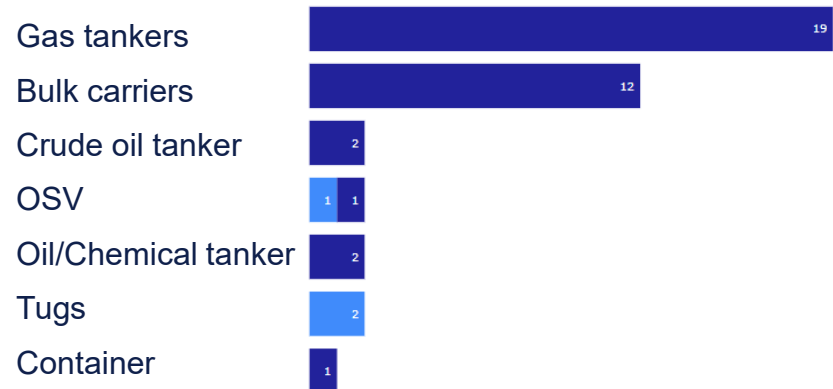
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Ammonia fuelled ships under testing

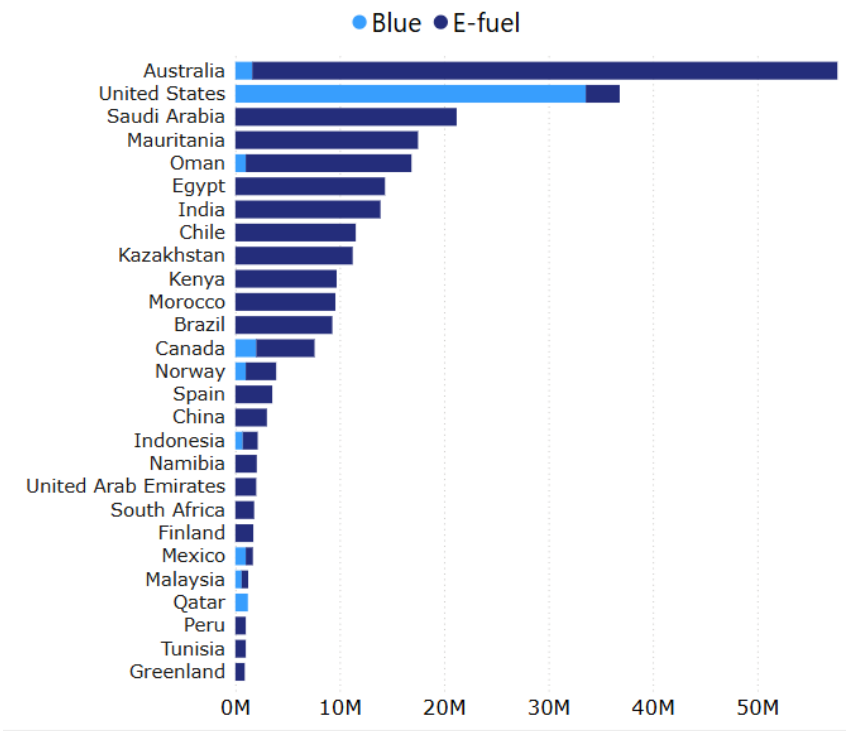
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Ammonia fuelled ships on order

37



Ammonia production capacity by country



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