



Descarbonización y el Impacto en los envíos / Decarbonisation and the impact on shipping

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Conferencia Anual Marítima CAM-2023

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About Drewry: Maritime Research and Consulting Services

01

Drewry is the leading international provider of research and consulting services to the maritime and shipping industry

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Founded in **1970**: More than **50** years continuously charting and assessing the world's maritime markets

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More than **70** FTEs and **30** associates serving clients from offices in London, Delhi, Shanghai and Singapore

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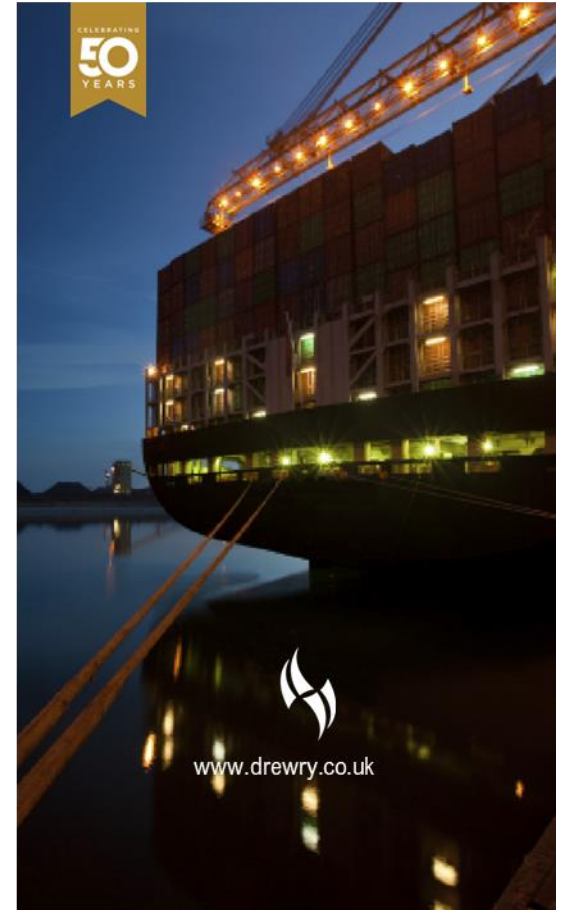
Services divided through **four** business units:

Maritime Research

Maritime Advisors

Supply Chain Advisors

Maritime Financial Research



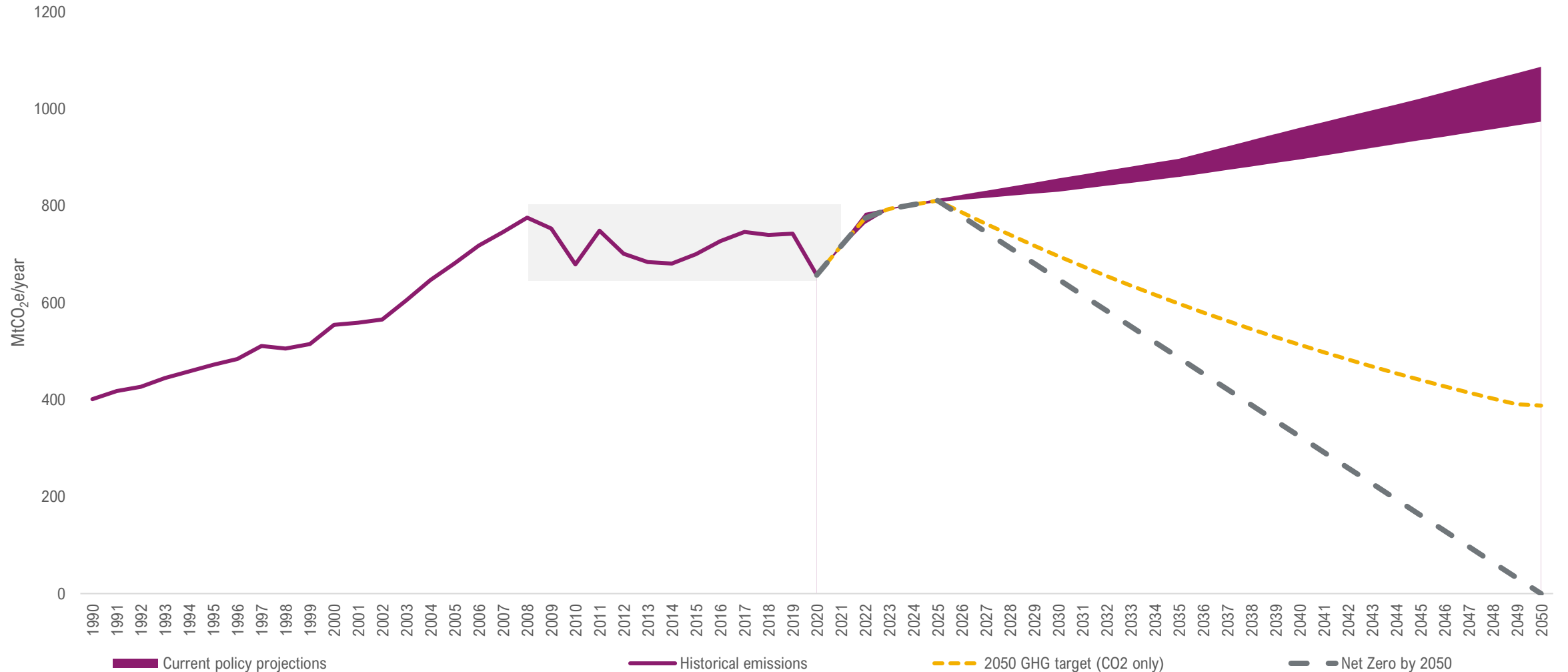
AGENDA

1. Decarbonisation – The past decade
2. The race to decarbonise
3. The switch to alternative fuels
4. Regionalisation of regulations
5. Long term changes



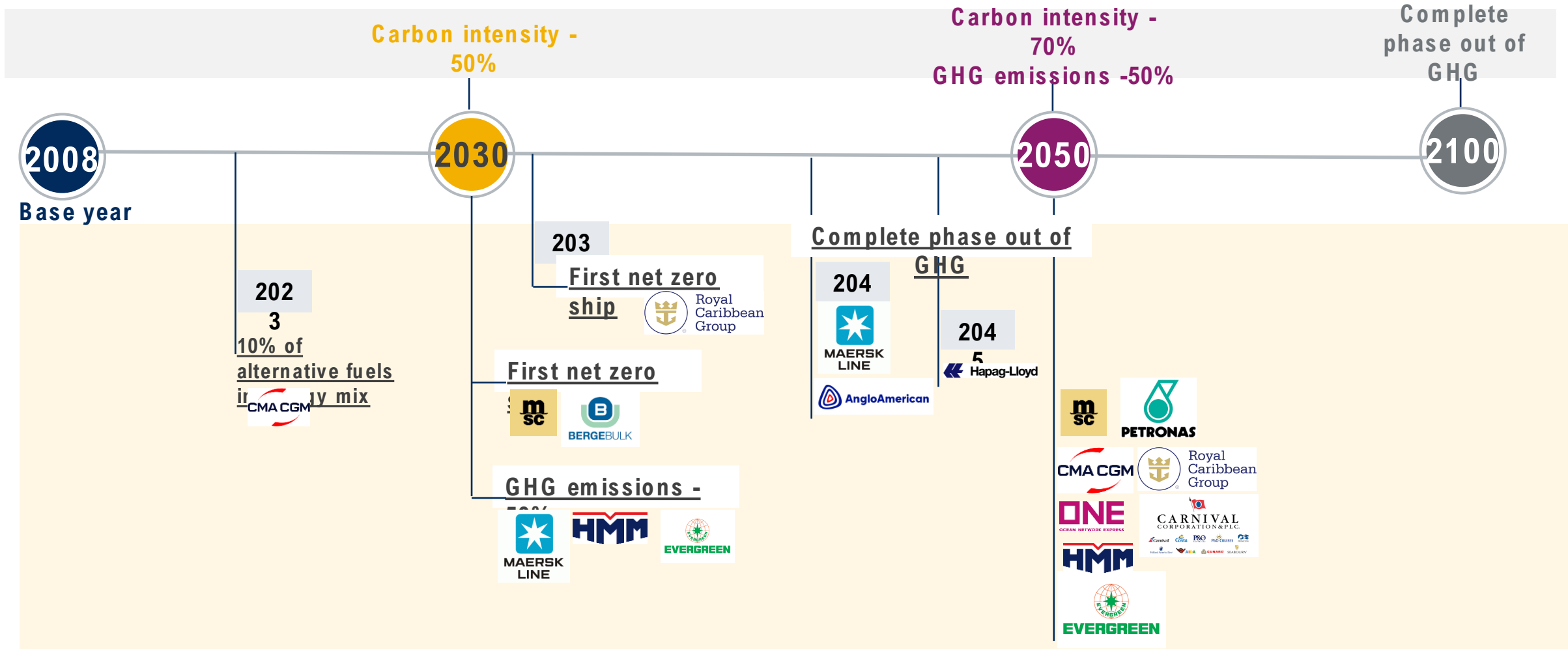
Emissions and IMO targets

Growing consensus that current policy measure are inadequate; greater policy ambition is needed



Self-imposed targets significantly surpass IMO targets

Financial motivation is and will drive rapid decarbonisation efforts



Current orderbook – conventional fuels vs alternative fuels

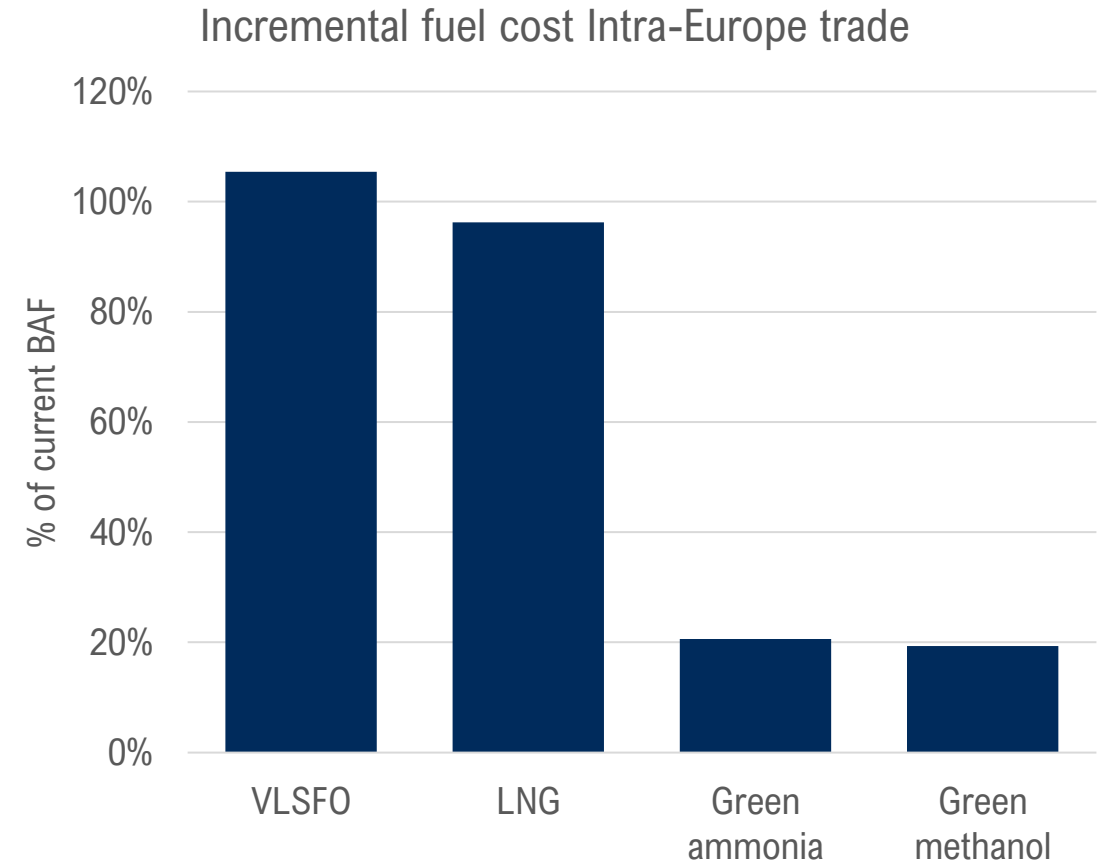
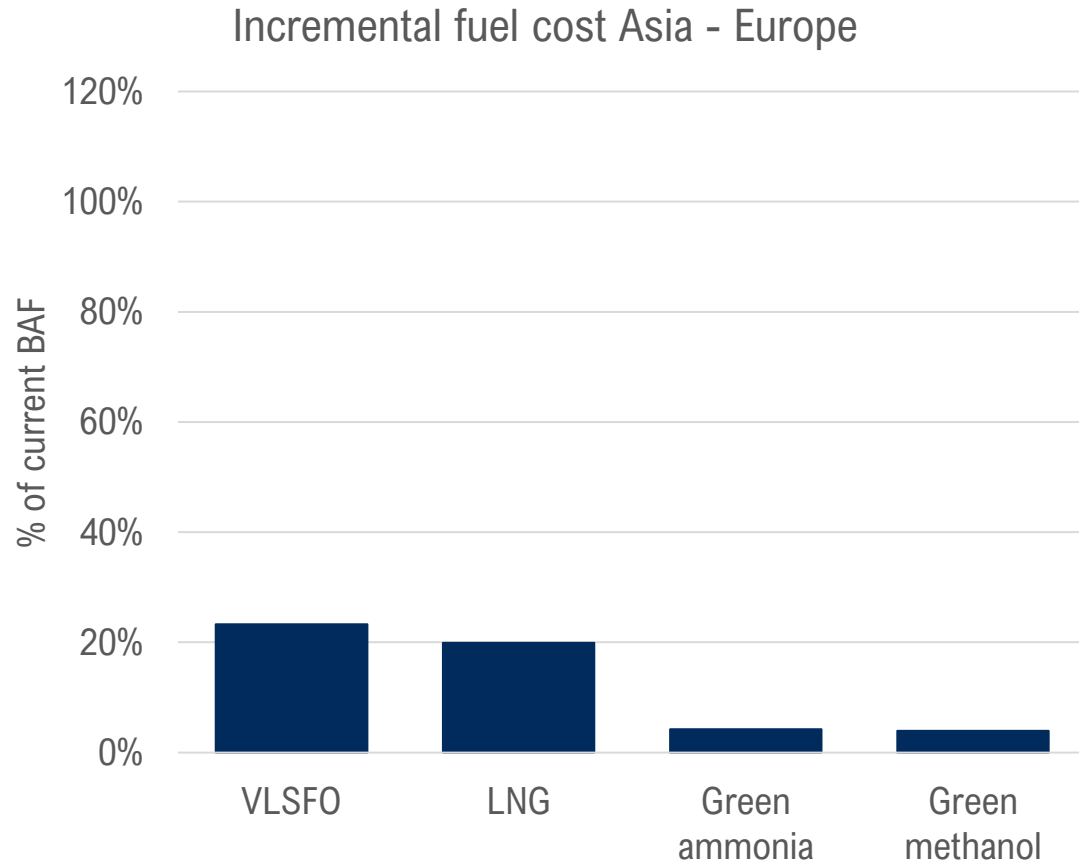
Segments will not move in tandem - Liner shipping to front-run the tramp segments

	Type	Carbon reduction kg CO ₂ /kWh less than VLSFO*	Likely cost multiple to VLSFO**	Percentage of orderbook (number of ships), sectors	Orderbook outlook
	IFO380 VLSFO	n/a	n/a	17% of Cruise ship orderbook 20% of PCC orderbook 60% of Container ship orderbook	Peaked in 2020, share of orderbook has been on a decline since
Reduced emissions	LNG	25% - 30%	0.8x - 2.5x	80% of PCC orderbook is dual fuel LNG/VLSFO 72% of Cruise ship orderbook is dual fuel LNG/VLSFO 30% of Container ship orderbook is dual fuel LNG/VLSFO	Likely to peak by mid 2020s
	Methanol	10% - 15%	1.5x - 2.5x	10% of Containership orderbook is dual fuel Methanol- VLSFO 5% of Cruise ship orderbook is dual fuel Methanol-VLSFO	Likely to peak by mid 2030s
	Biofuel	0% - 30%	1x - 4x	none	
Zero emissions	Ammonia	90% - 100%	1.7x - 3.4x	3 passenger ferries on order	Test and use case now-2030, Likely quick ramp up 2030 onwards
	Hydrogen	90% - 100%	2x - 4x	4 ships on order to test dual fuel use case Cruise ships Carnival Corp., Royal Caribbean, MSC	

* Carbon reduction in emissions, is tank-to-wake emissions; ** Likely cost multiple to VLSFO is the estimated cost range.

Regionalisation of regulations

...drive greater regionalisation of trade

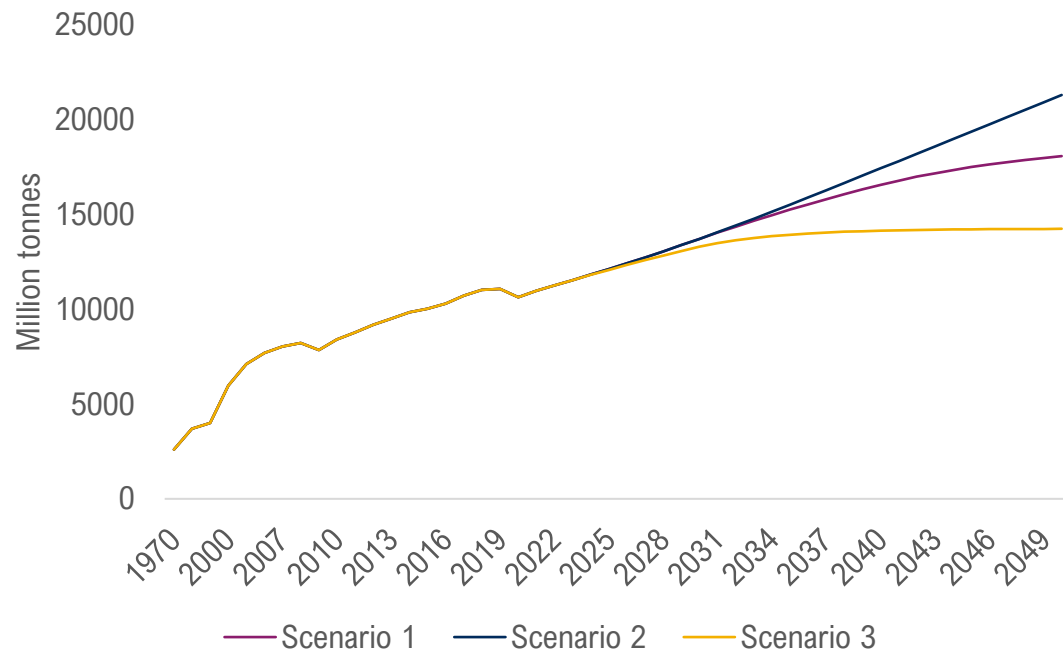


Based on current proposed EU Fit for 55 regulatory package

Likely changes in trade structure

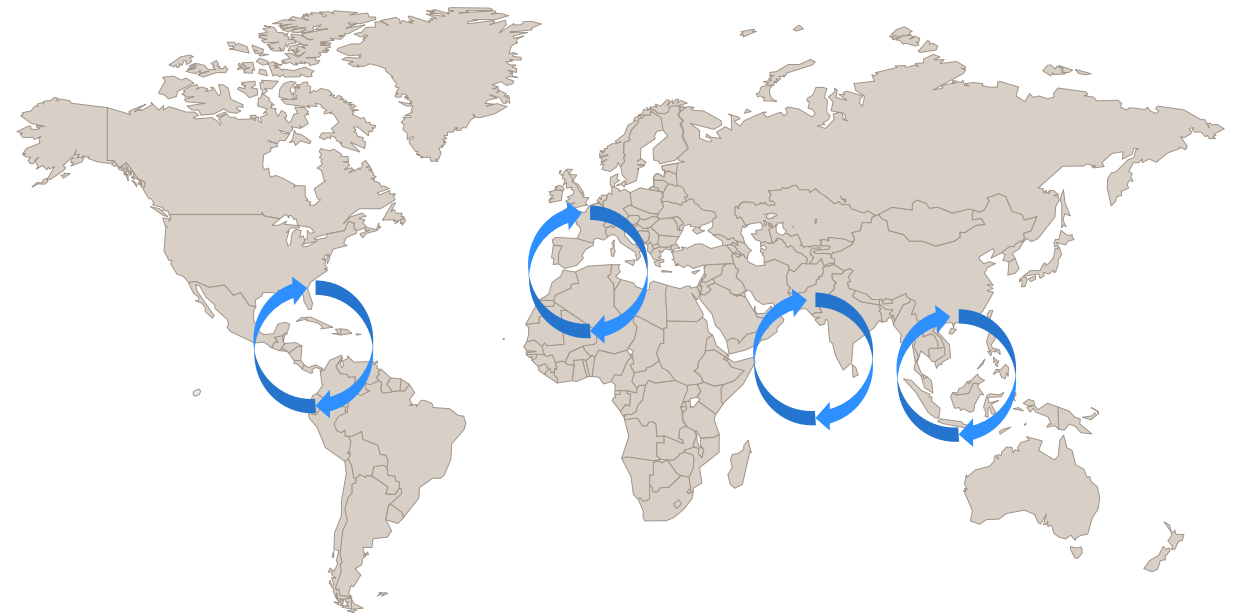
Decarbonisation is not just about the future fuel mix, will shape trade and fleet profiles

Global seaborne trade growth



Scenario 1: trade grows at 1.7% pa to 2050.
Scenario 2: trade grows at 2.3% pa to 2050.
Scenario 3: trade grows at 0.8% pa to 2050.

Global vs regional trade



Conclusions

- ✓ Financial motivation is driving rapid decarbonisation efforts
- ✓ Multispeed varying / diverse pathways for different segments
- ✓ Decarbonisation is more than just fuels, shaping sectors, industries and economies – future trade could be very different



Thank you: Questions & Answers

CAM Conference 2023

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Drewry's Carbon Tax and New Fuel Forecast Report

BENEFITS



Identify suitable providers with whom to work on sustainability plans: Understand the main sustainability strategies and investment plans of major ocean carriers and forwarders - and who the leaders are



Understand the impact of new fuel types and fuel taxes: Inform internal stakeholders/management about medium-term container freight cost increases resulting from regulatory fuel changes

DELIVERABLES



Carrier Decarbonisation Guide (PDF Report)

Overview and comparison of the carrier fleet / Orderbook decisions as well as their carbon targets / roadmap



Carbon Tax and New Fuel Forecasts (MS Excel)

- Forecasted incremental cost (USD per TEU), per trade route and per Service of the different fuel alternatives (LNG, Methanol and Green Ammonia) and the EU's ETS system.
- Method and assumptions for full visibility

For further information please contact

us at carbonfuture@drewry.co.uk



Drewry's Sustainability and Resilience Advisory Service for Ports

BENEFITS



Report and diagnosis on the present S&R position of the facility,

- For internal use of the organisation
- By chapters:
 - ✓ Sustainability (environmental, social, economic)
 - ✓ Resilience



Understand the impact of sustainability and resilience performance in the competitive position of the port / terminal

SUSTAINABILITY

ENVIRONME

SOCIAL

ECONOMIC

RESILIENCE

DELIVERABLES



Phase 1 Assessment

- Assess the present S&R performance.
- Understand if the Client's S&R offer fits with current market expectations and future trends.
- Compare the outcome with a selected number of other ports and terminals
- Identify areas of improvement



Phase 2 Implementation of recommendations

- Facilitate the implementation of the actions included in proposed improvement
- Evaluation of results by assessing the situation after the action plan is implemented

A CUSTOMISABLE SOLUTION FOR GLOBAL SHIPPERS/BCOs

Best placed to meet the challenges of today's market... and better prepared for the future.

TECHNOLOGY & ANALYTICS

3

- Cutting-edge, bid management platform (Freightender partner)
- Proprietary AIS analytics
- Advanced analytics (Power BI dashboard)



MARKET INTELLIGENCE

1

- Freight cost benchmarking via **Drewry Benchmarking Club** (spot and contract ocean freight rates)
- Robust market forecasts
- Container capacity insights
- BAF implementation strategy

BEST PRACTICE ADVICE

2

- Carrier relationship management
- 'Shipper of choice' workshops
- Bid management
- Contract appraisals and design
- Sustainability/decarbonisation



Our fully customisable solution, combines cutting-edge technology and analytics, with in-depth market intelligence and best practice advice.





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