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MARITIME
ADVISORY

HOW (YOU?) TO REDUCE EMISSIONS FROM SHIPPING

CLIMATE ACTION ACCELERATOR SEMINAR 11TH JUNE

WHO WE ARE

FURSTENBERG MARITIME ADVISORY

- Conor & Sofia Fürstenberg Stott
- Micro consultancy since 2019 - over 40 years combined maritime experience
- Strategic Sustainability Advisors
- Knowledge Partners for a Sustainable Maritime Energy Transition

THE AVERAGE SHIPOWNER

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The market value of the world fleet is currently close to **USD 1.3 trillion**, or **less than half the market value of Apple**.

The fleet consists of more than **108,000 vessels** owned by more than **27,000 owners**, meaning **the average owner controls three to four ships**.

Source: Shipping Market Review, May 2024

WHY ALTERNATIVE FUELS?

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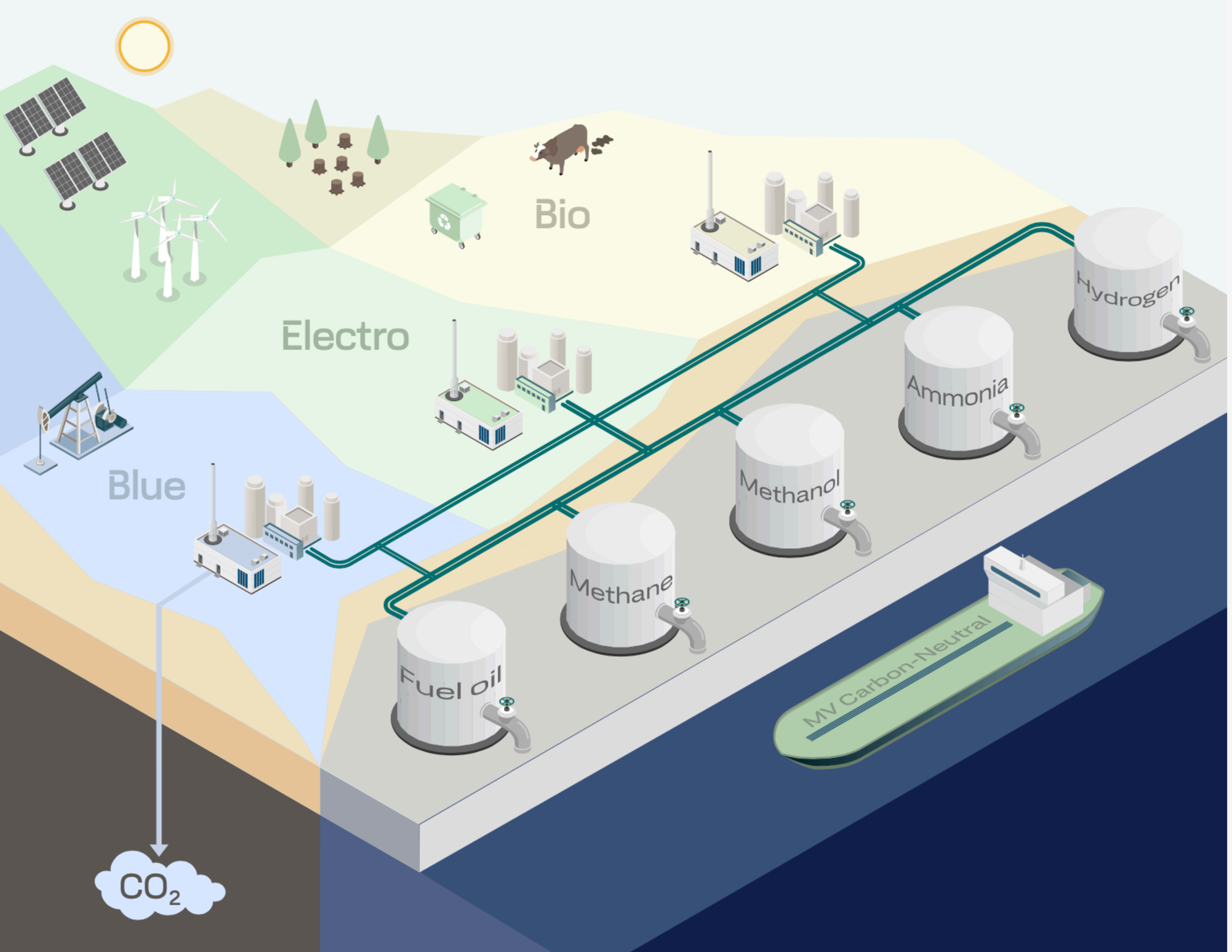
Photo credit: Shutterstock



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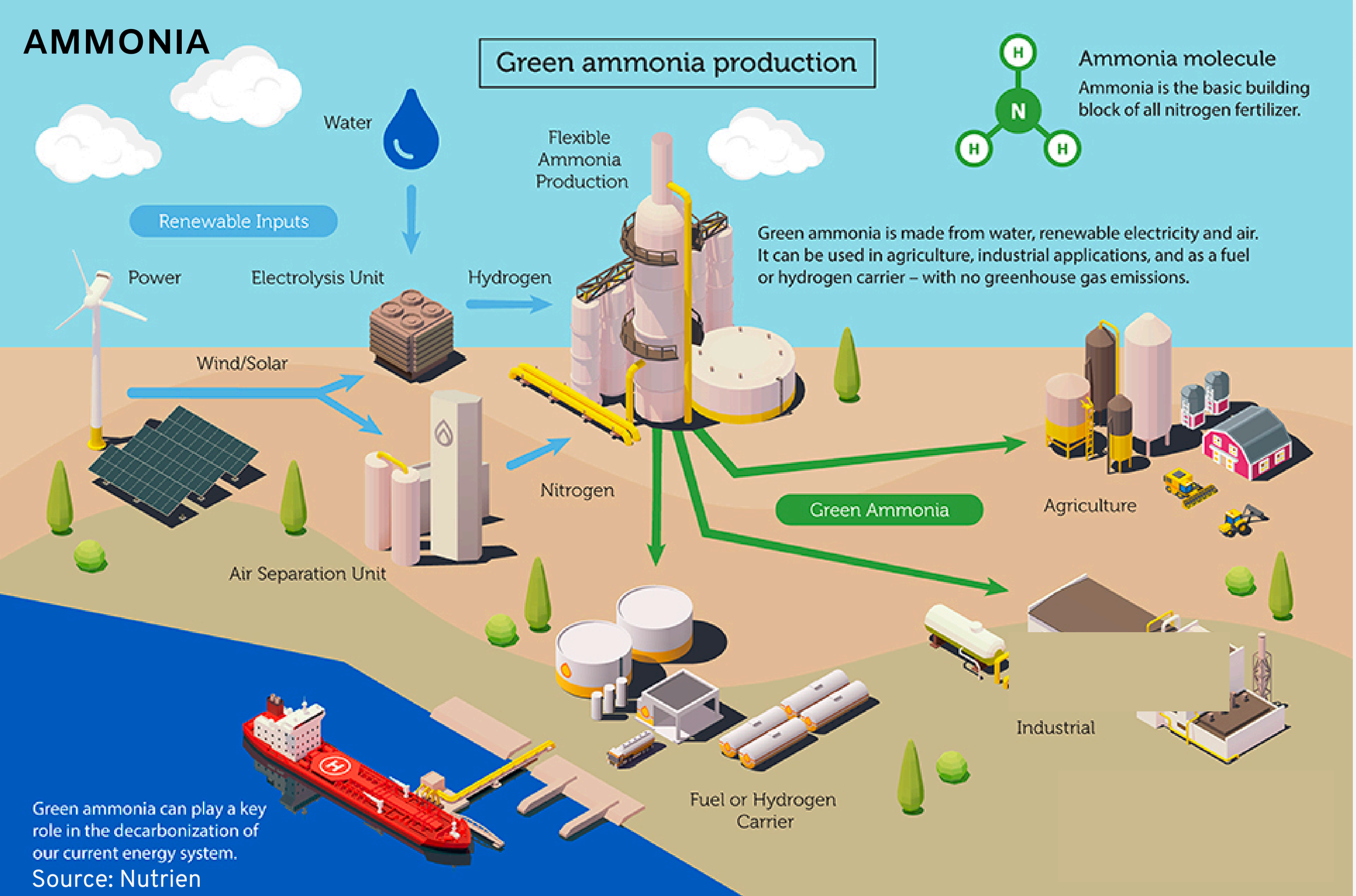
Source: DNV

AMMONIA



Green ammonia can play a key role in the decarbonization of our current energy system.

Source: Nutrien

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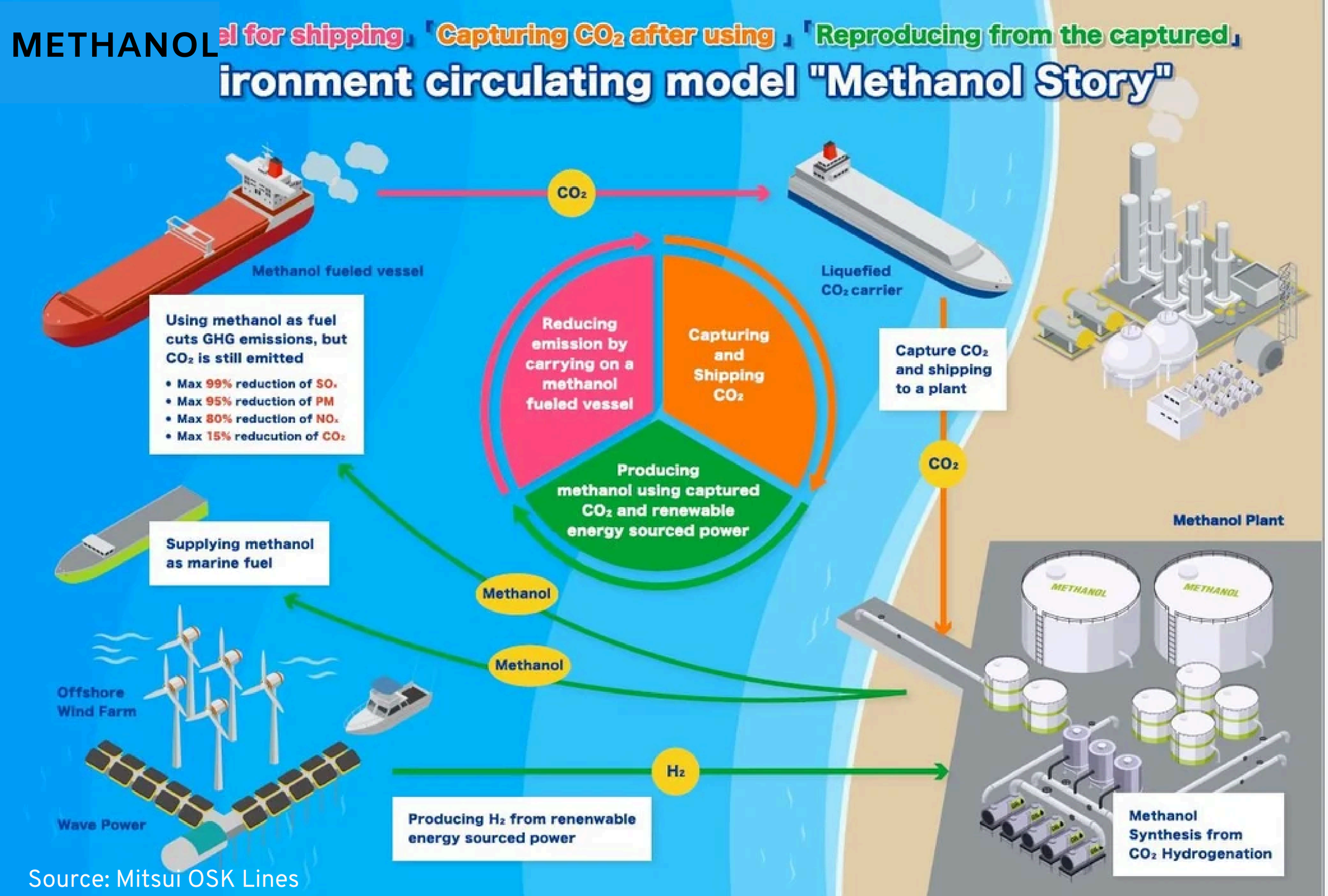
METHANOL



Source: Mitsui OSK Lines

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DIFFERENT TYPES OF BIOFUELS

Biofuels can be broadly categorized into three generations, some of which are ready for use in shipping, and others still maturing.

First generation

First generation or conventional biofuels are generated using agricultural crops, vegetable oil or food waste. These are the most commonly used biofuels worldwide.

Second generation

Second generation, or advanced biofuels, are produced from non-food biomass feedstocks like residual feedstocks from forestry or crops. They could have fewer negative environmental impacts relating to land use and food production.

Third generation

Third generation biofuels are a future generation of biofuels currently needing further development, produced from algae and microbes.

Source: Bureau Veritas

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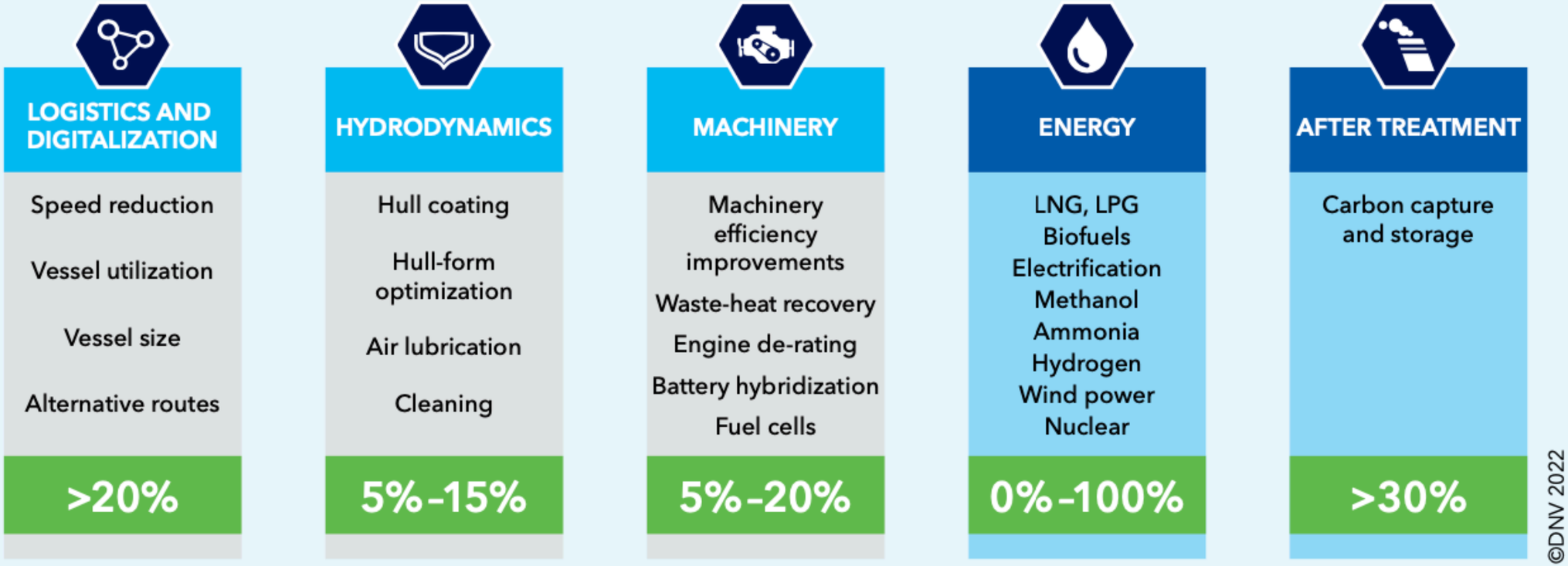
Figure 3.1

GHG emission-reduction potential of technologies that can contribute to shipping decarbonization



Source: DNV

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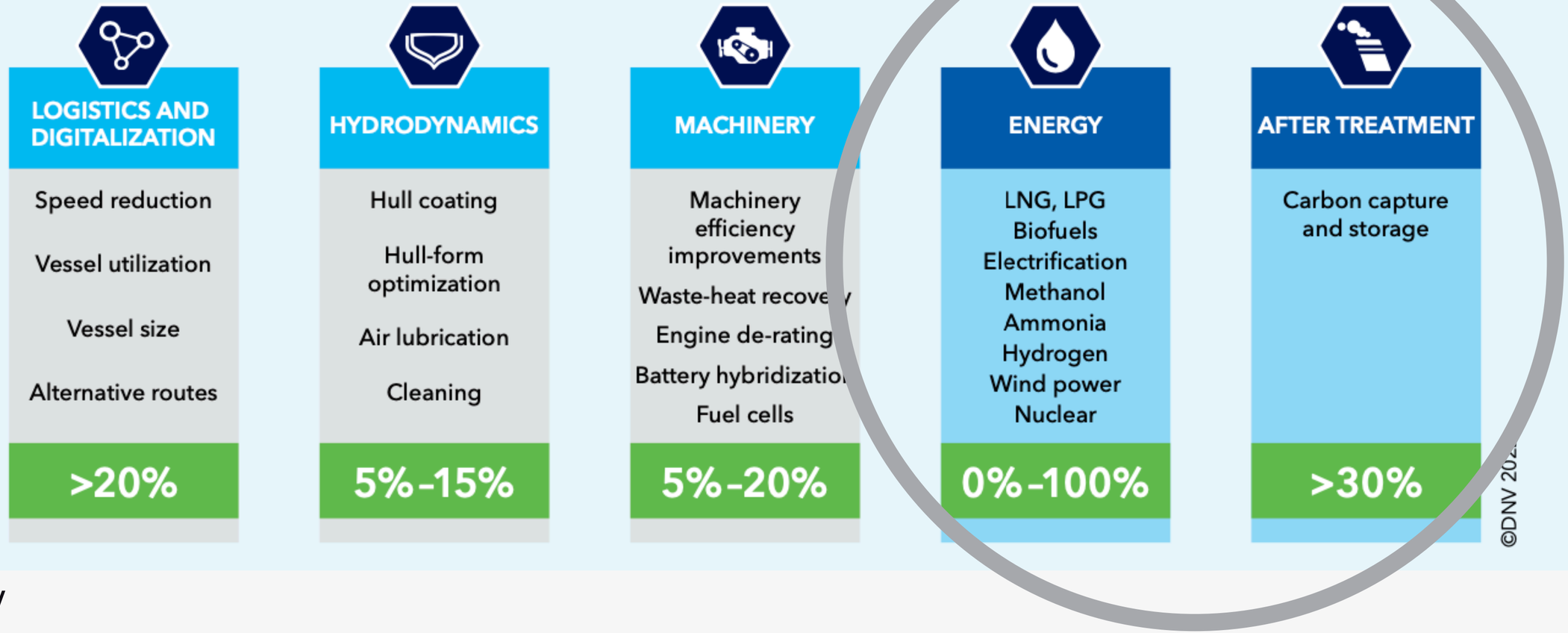
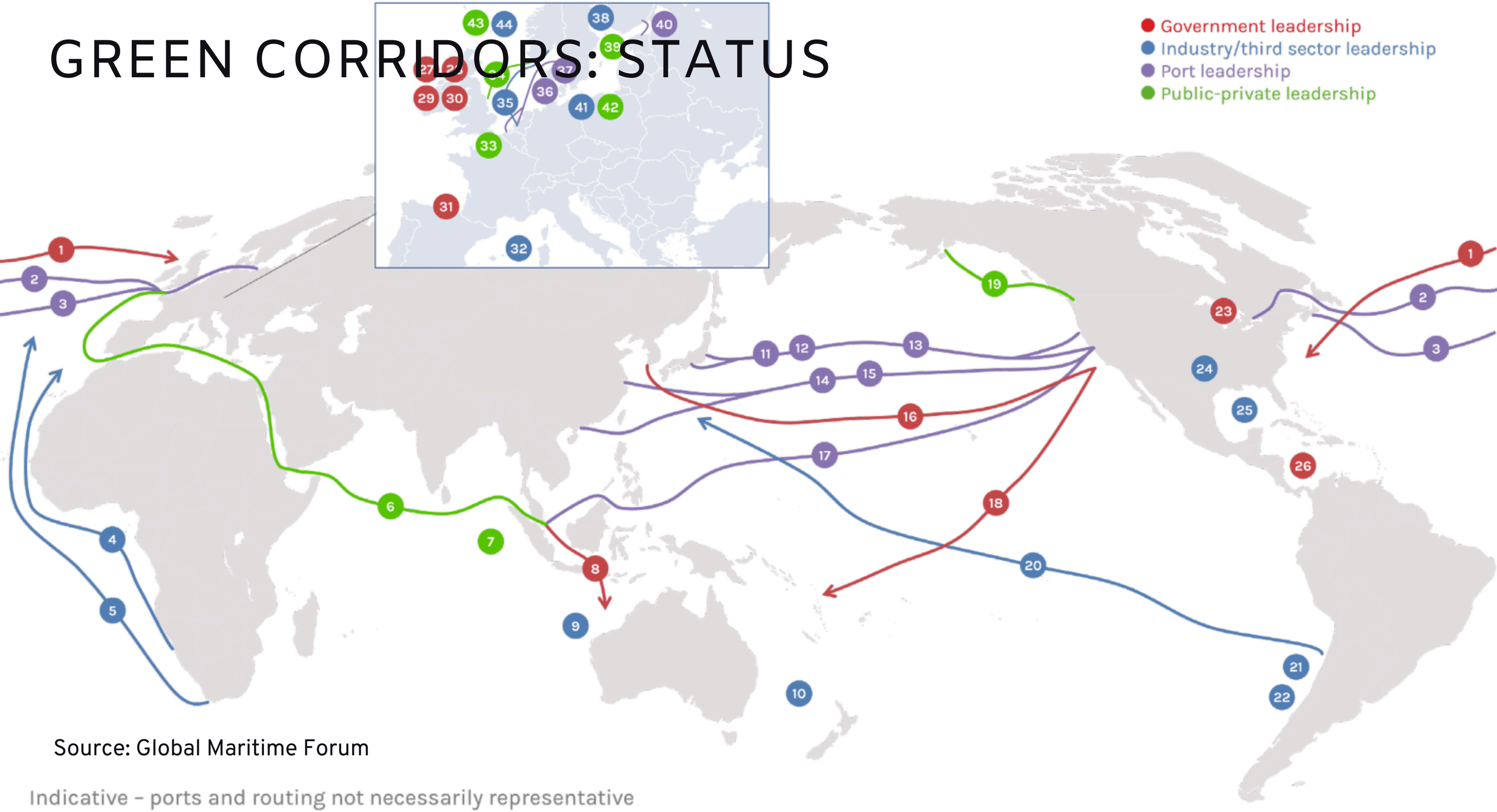
Figure 3.1

GHG emission-reduction potential of technologies that can contribute to shipping decarbonization



Source: DNV

GREEN CORRIDORS: STATUS



Source: Global Maritime Forum

Indicative – ports and routing not necessarily representative

HOW LONG DOES IT TAKE?

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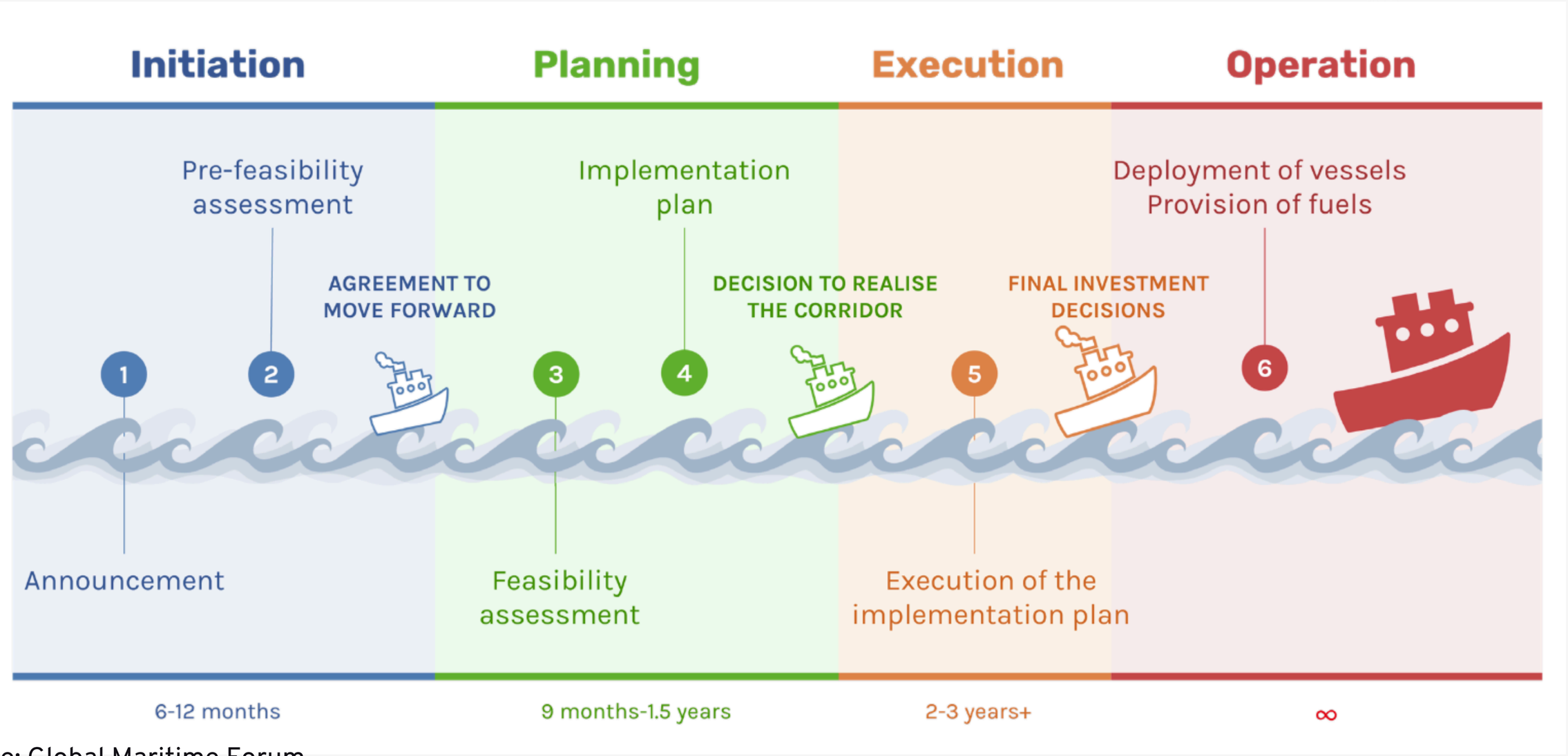

Source: Global Maritime Forum

ALTERNATIVE FUEL READINESS

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Avg of meeting criteria	Priority	Fossil MGO	Fossil LNG	Bio-methanol	Green Ammonia
Sustainability & Environmental	0.96	0.79	0.68	1.11	0.86
Safety	1.00	2.00	1.88	1.50	1.38
Technology Status	0.63	1.25	1.25	1.00	0.63
Security	0.75	1.50	1.50	1.38	0.75
Economic Feasibility	0.91	1.81	0.91	0.75	0.66
Regulatory	0.75	1.50	1.31	0.38	0.19
People	0.75	1.00	0.75	0.75	0.50
Engineering	0.68	1.36	1.25	0.68	0.68
aggregate		1.40	1.19	0.94	0.70

(range from 0 to 2, with higher values indicating higher level of meeting criteria)

Source: Maritime Technologies Forum

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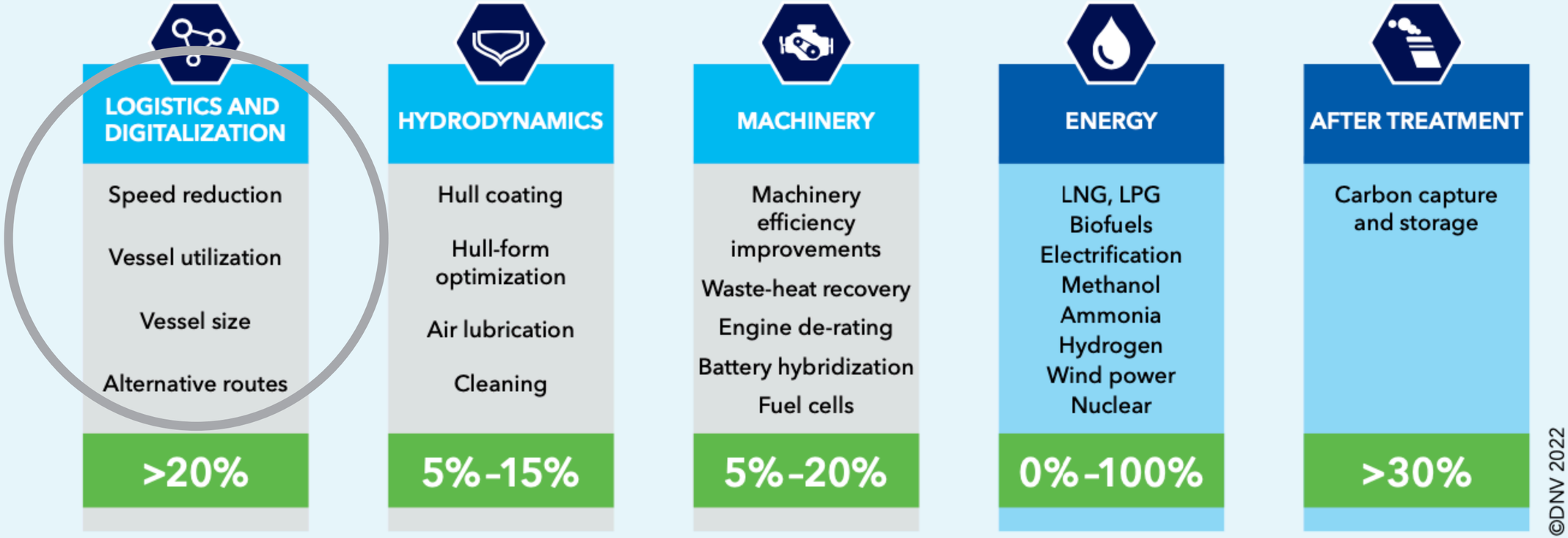
“sail fast and wait”

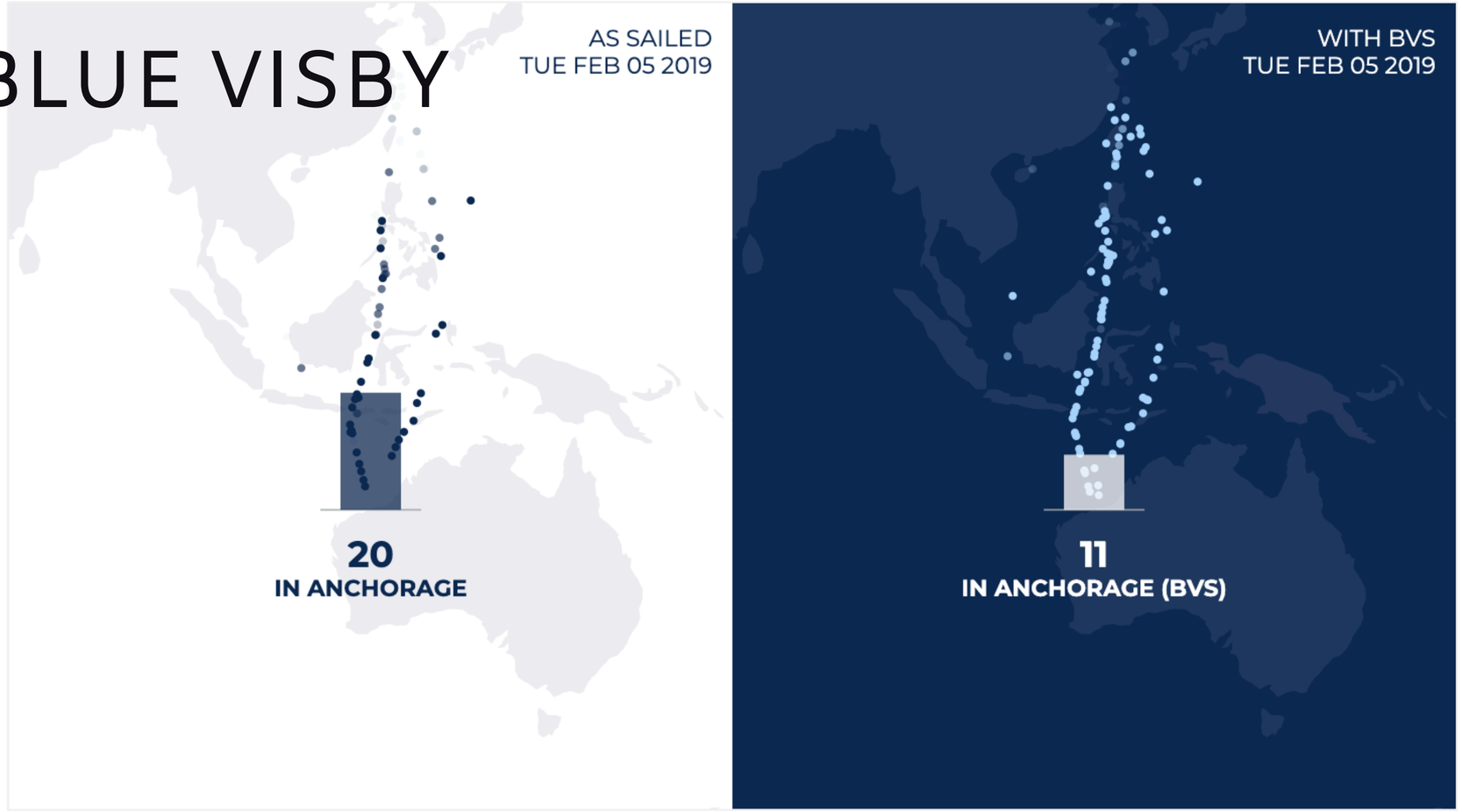
Figure 3.1

GHG emission-reduction potential of technologies that can contribute to shipping decarbonization



Source: DNV

BLUE VISBY



Cumulative CO_2 savings

For voyages to Port Hedland in 2019

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Blue Visby Solution:
Aiming to eradicate Sail Fast Then Wait (SFTW): the operational practice of ships that sail to their destination “with the utmost despatch”, without regard to other ships or to the conditions at the destination.

Source: Bluevisby.com

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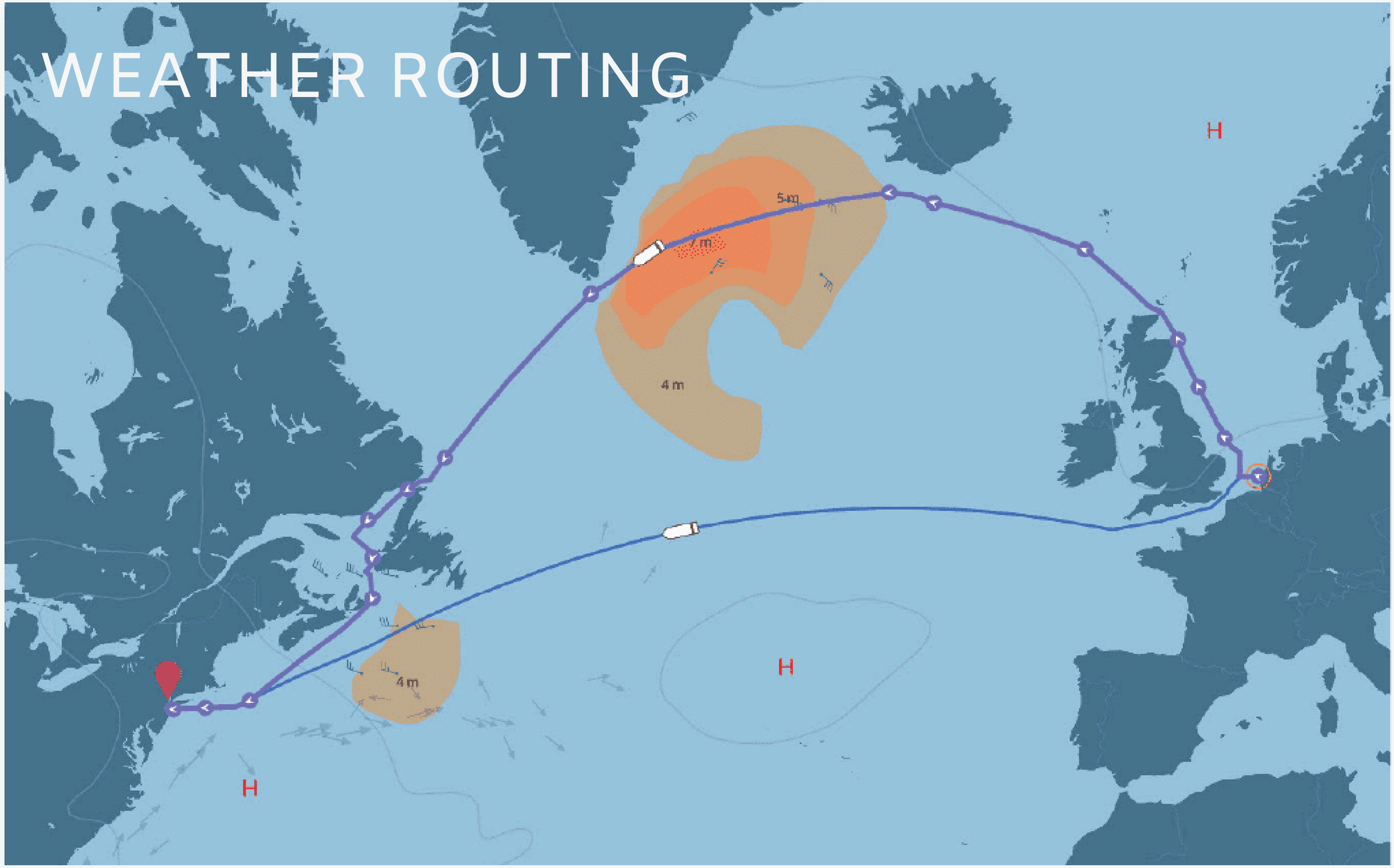
Digital Port Calls:
Services for the port call are **traditionally ordered via email or telephone**, and they can range anywhere from **several tens to several hundred** depending on the complexity of the port call.

Source: Grieg Connect

WEATHER ROUTING



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Source: NAPA

WHAT YOU CAN DO

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1. Look at your **own transport logistics system**, are your warehouses currently located in an optimal way, considering transport footprint and efficiency?

WHAT YOU CAN DO

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2. Investigate **intermodal inefficiencies** in your system; how much of your logistics can be shifted from air to sea, from truck to sea?

WHAT YOU CAN DO

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3. Consider if you are **willing to pay** a green premium for your transport. Explore opportunities to share additional cost across your value chain.

WHAT YOU CAN DO

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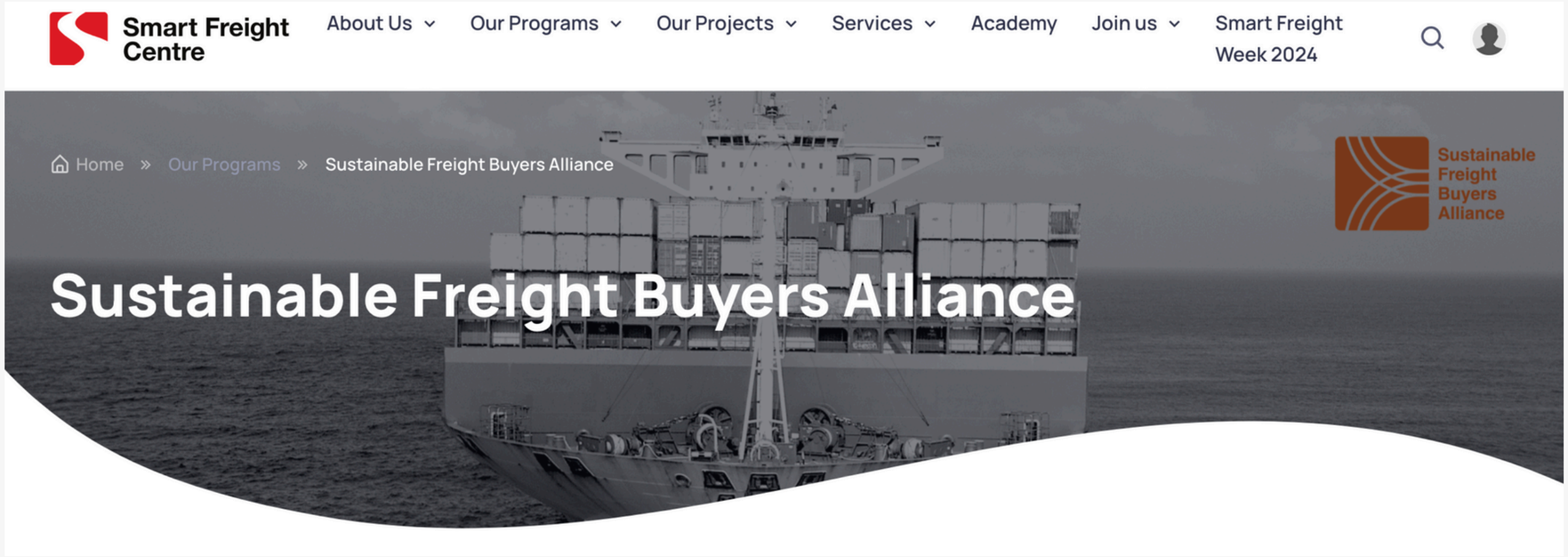
4. Approach your service provider, and **ask for statistics,** such as how well do they do compared to other shipowners and operators along the same trade route? Consider joining e.g. Sustainable Freight Buyers Alliance



WHAT YOU CAN DO

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5. Ask your service provider for their decarbonisation programmes, ask for their **sustainability ambitions.** What are their long-term targets, what are they already doing? Explore how you can you provide incentives for them to take action.

WHAT YOU CAN DO

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6. The **longer contracts**, the more risk a shipowner can take, and the more they can invest in innovations and new solutions. Assess your opportunity to lock in service providers for e.g. 10 years, how will that impact your own risk and flexibility? What can you concretely do to lower shipowner’s risk?

WHAT YOU CAN DO

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7. About 20% of maritime fuel consumption globally, is spent outside the port, waiting. There are systemic inefficiencies causing this, but initiatives such as BlueVisby looks at opportunities to share risk through digital and contractual innovation. While you cannot accomplish impact alone, explore what can you do, through your **contracts of affreightment**, and collaboratively with the industry, to reduce waisted time and energy at anchorage.

WHAT YOU CAN DO

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8. Read up. Maritime decarbonisation is complex, and the better questions you can ask your service provider, the better decisions you can make. **Be aware of greenwashing!** Consider joining maritime-led Calls to Action.

WHAT YOU CAN DO

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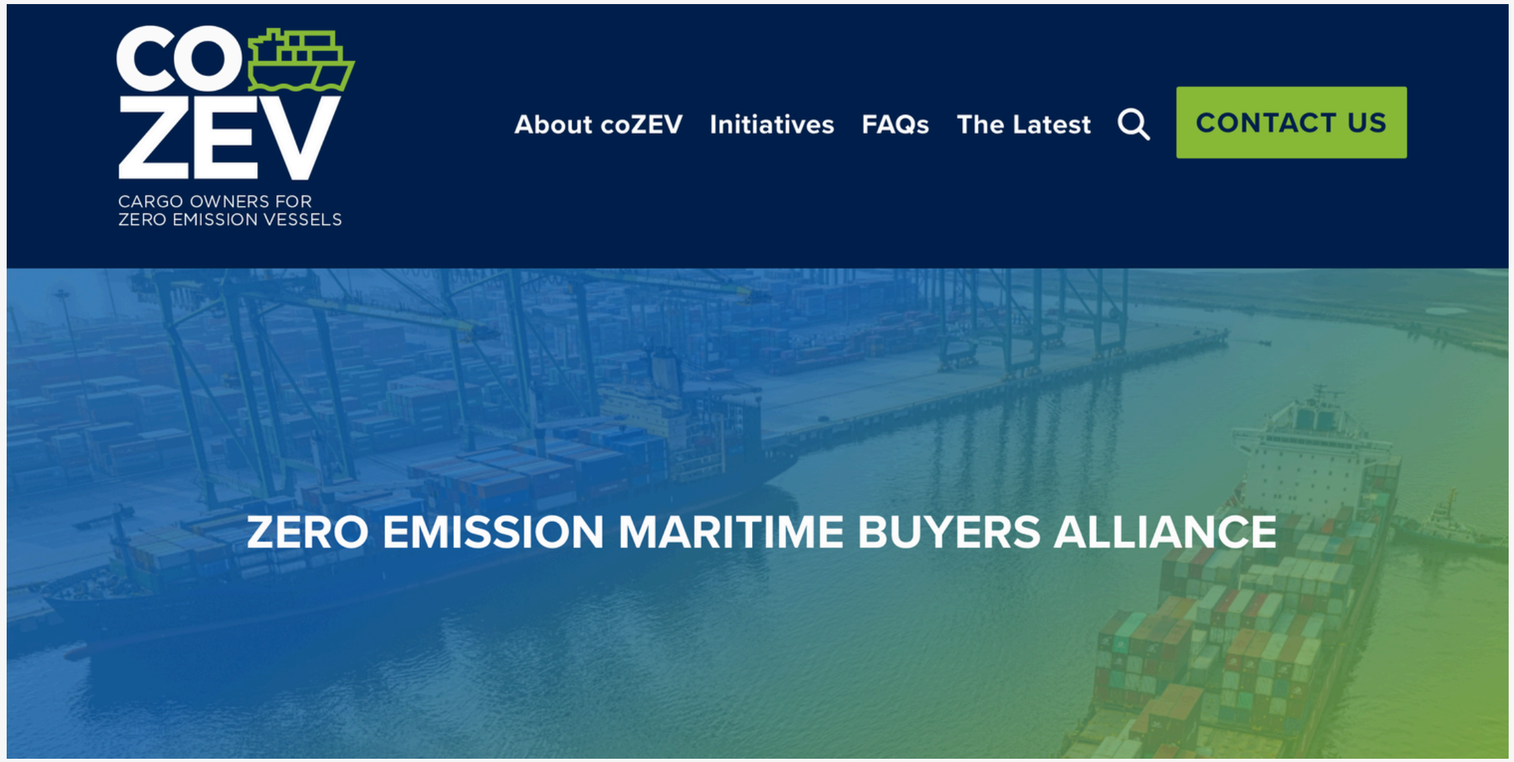
9. Collaborate. Consider joining coZEV, and the Zero Emission Maritime Buyers Association



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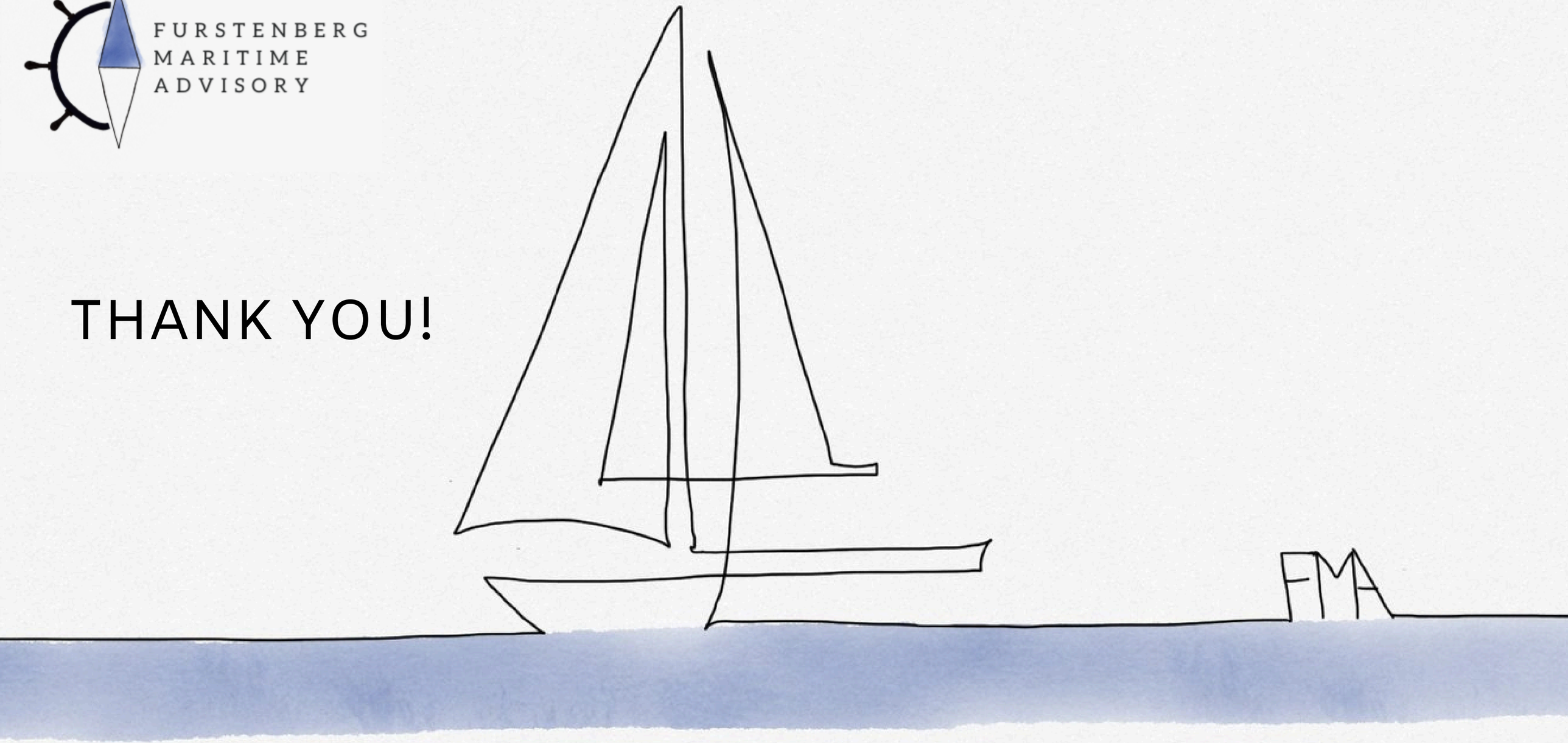
THANK YOU!



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