

The Chartered
Institute of Logistics
and Transport

Case No. 2

Under the HK and EU financial subsidies, will it delay the phasing out of those ageing vessels and perpetuate the over-supplied tonnage in the global seaborne trade?

Team F

Members:

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- 5.) Ren Chi Yan, William



Container shipping overcapacity set to double in 2025

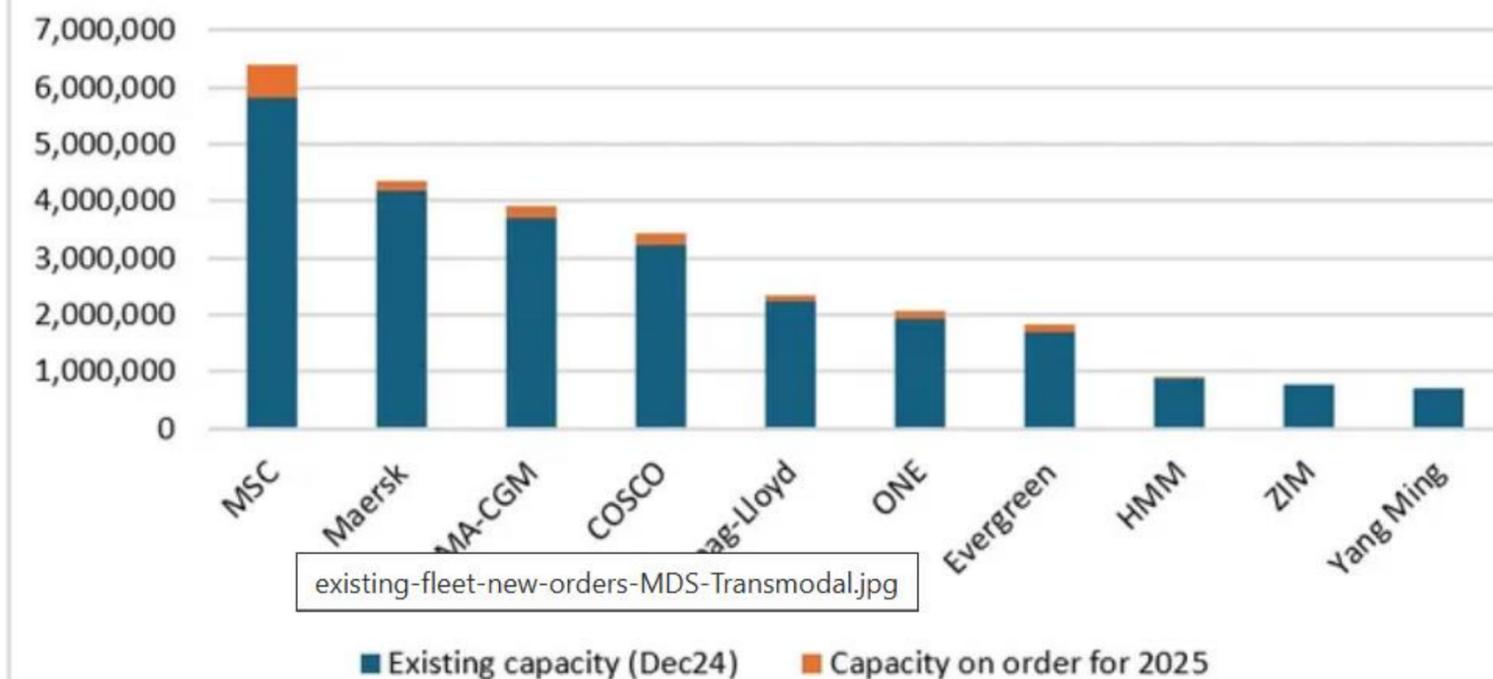
Consultancy MDS Transmodal has calculated the current fleet stands at 29,483,380 teu, with some 1,817,706 teu to be delivered next year, however, MDS also calculated that over 3 million teu will be 20 years old or over by the end of 2024.

“In 2024 overcapacity was significantly suppressed, despite significant fleet growth. We estimate vessel overcapacity in 2024 will be in the region 3-4%,” said the report, written by a researcher, “Despite underlying overcapacity, the high level of uncertainty surrounding Cape of Good Hope transits has understandably enticed a surge in newbuilding investment in 2024,” the report added.

The shipbroker said that in 2025, the deliveries of new vessels will again raise the capacity oversupply. “Even allowing for Red Sea avoidance, oversupply is expected to increase from 3-4% in 2024 to 7-8% in 2025,” the broker said.

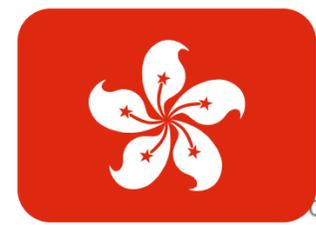
Source: Container Shipping Overcapacity to Double in 2025 (The Loadstar)

Existing fleet capacity (TEU) + capacity on order for 2025 by top 10 shipping lines



Graph: MDS Transmodal

Hong Kong



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Press Releases

03 May 2024

HKMA announces details on extending the Green and Sustainable Finance Grant Scheme and expanding subsidy scope to cover transition finance instruments

The Hong Kong Monetary Authority (HKMA) released today (3 May) the details on the extension of the Green and Sustainable Finance Grant Scheme (GSF Grant Scheme) as announced in the 2024-25 Budget.

The Green and Sustainable Finance Grant Scheme (GSF Grant Scheme)

- ✓ Green and Sustainable Bonds and Loans
- ✓ Transition Bonds and Loans

As per 2024 June, loans and advances exceeded \$10 billion, account for 1.4% of loans and advances used in Hong Kong

Source: HKMA: Extends Green and Sustainable Finance Grant Scheme to 2027

European Union



NEWS ARTICLE | 29 July 2024 | Directorate-General for Mobility and Transport | 1 min read

European Commission launches Ship Financing Portal to boost the maritime sector's green transition

The [Ship Financing Portal](#), designed to improve access to financing for the shipping sector and the wider maritime industry, is now online!

The platform, launched by the European Commission's Directorate-General for Mobility and Transport, provides businesses and organisations with a repository of available financial tools needed to drive fleet renewal and retrofitting, enhance efficiency, and reduce environmental impact.

The Ship Financing Portal Scheme (SFP scheme)

- ✓ Provide wide range of financing products issued by EU, Member States, and private institution.
- ✓ Green bonds, loans, and transition finance.

Sources: EU Launches Ship Financing Portal for Green Transition



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Press Releases

03 May 2024

HKMA announces Sustainable Finance Grant Scheme to cover transition

The Hong Kong Monetary Authority and Sustainable Finance Group

Launched in May 2021, the issuance in Hong Kong. The Scheme by three years to 2024, a view to encouraging relevant platform as they move towards

The Green and Sustainable Finance Grant Scheme

Green

As per 2024 Jun

account for 1.4%

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NEWS ARTICLE | 20 July 2024 | Directorate General for Mobility and Transport | 4 min read

Ships Ship Financing Sector's green



Delay phasing out aging vessel



Ageing ships and new ships exist at the same time



Results in over-supplied tonnage in global shipping

Finance Grant Scheme

products issued by EU, the institution. transition finance.

Price Analysis

Overview

Analysis

Recommendation Conclusion

5

30 years old

New 5-7 years old

Cargo Ship

Engine and Propulsion Upgrades :\$3 million
Hull Modifications: \$500,000
Digital Enhancements: \$1.5 million
Total Retrofitting Costs: USD\$5 million

new 5-10-year old:
Construction Costs: USD\$25 million

Roro Ship

Ramp and Access Upgrades: \$1.2 million
Engine and Propulsion Upgrades: \$2.8 million
Safety and Navigation Upgrades: \$600,000
Total Retrofitting Cost: USD\$4.6 million

new 5-10-year old:
Construction Costs: USD\$45 million

Tanker Ship

Tank and Structural Enhancements: \$2 million
Emission Control Systems: \$3 million
Energy Efficiency Improvements: \$1 million
Total Retrofitting Cost: USD\$6 million

new 5-10-year old:
Construction Costs: USD\$70 million

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NEW

Purchase 24 new ships in 2024



Total investments: USD\$4 billion
Cost per each ship on average:
USD\$4 billion / 24 = USD\$1.6 billion

Hapag-Lloyd orders 24 new container ships

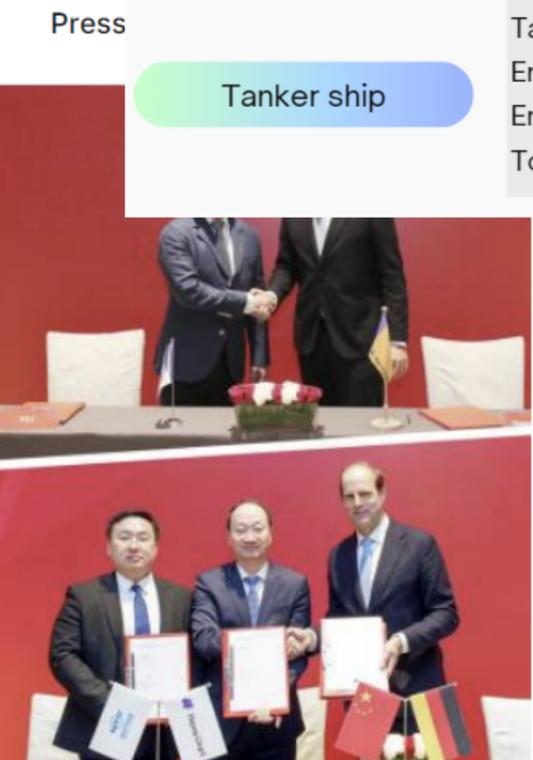
- Ships will feature liquefied gas dual-fuel propulsion and be ammonia-ready
- Deliveries between 2027 and 2029
- Investment volume of roughly USD 4 billion
- Rolf Habben Jansen: "We will continue to modernize and decarbonize our fleet."

Hapag-Lloyd has signed two contracts with two Chinese shipyards for a total of 24 new container ships. Of these, 12 newbuildings – each with a capacity of 16,800 TEU – will be built by Yangzijiang Shipbuilding Group. These units will be used to expand the capacity of services that are already in place. An additional 12 ships, each with a capacity of 9,200 TEU, have been ordered from New Times Shipbuilding Company Ltd. and will replace older units in the Hapag-Lloyd fleet that will be nearing the end of their service life in this decade.



USD\$1.6 billion per one new ship

Sources: Hapag-Lloyd Orders 24 New Ships for Modernization and Decarbonization



Price Analysis

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Cargo ship

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Press



Delay phasing out aging vessel



Results in over-supplied tonnage in global shipping

new ships in 2024

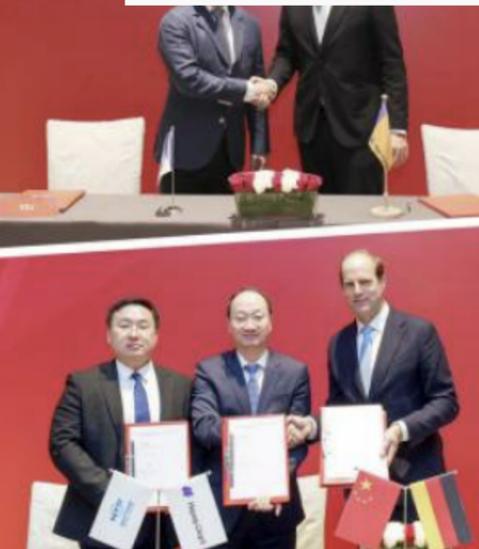
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per ship on average:
24 = USD\$1.6 billion

Cost per one new ship

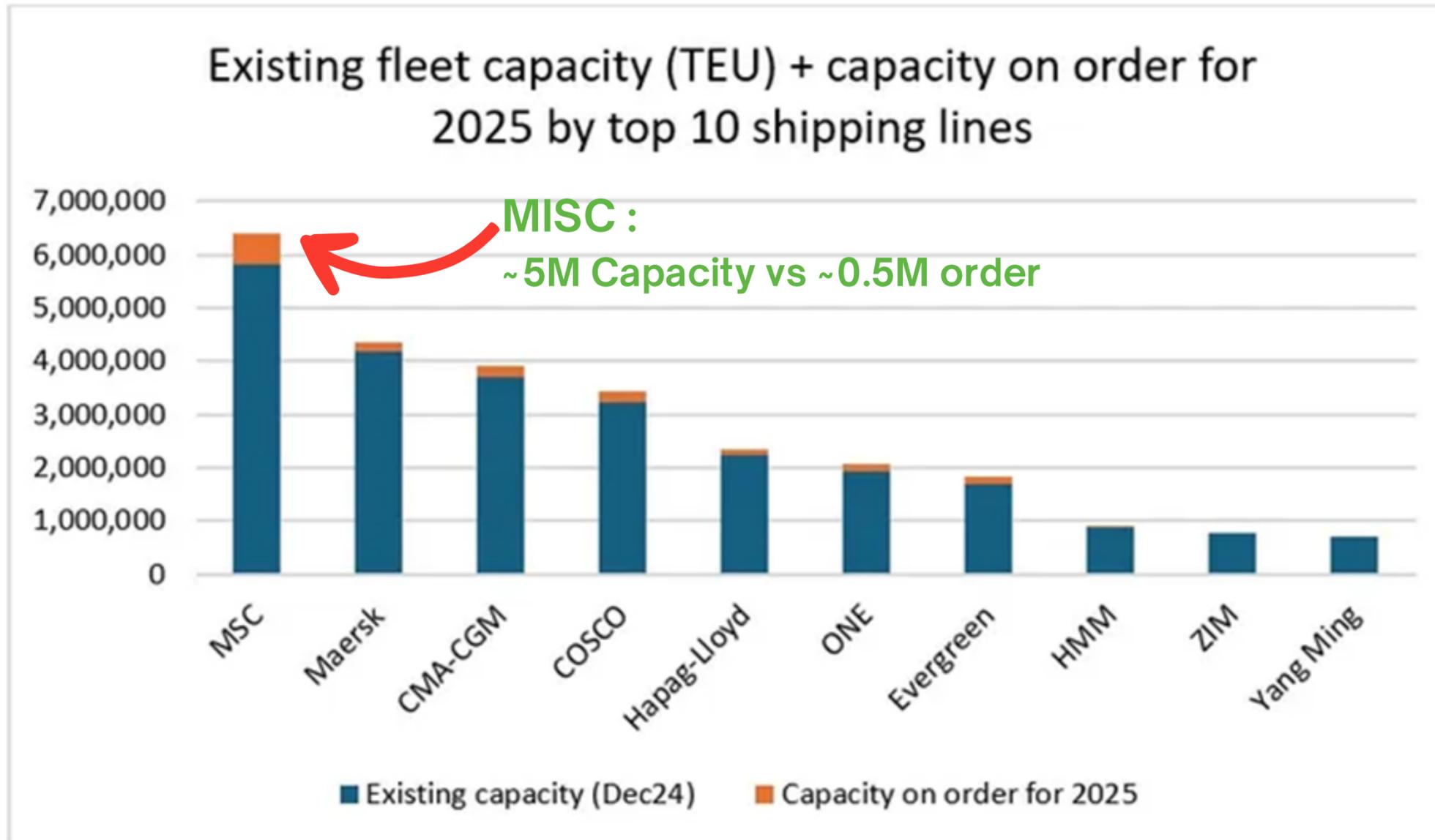
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Sources: Hapag-Lloyd Orders 24 New Ships for Modernization and Decarbonization

TEAM F - Case No.2



Over-supplied Situation



Universal Impact

The top 10 shipping lines have an existing fleet (in TEU) that exceeds current orders

Positive Sentiment Towards Forecast (TEU Order)

Flexibility:
“IF” shipping market will **increase**

Order uncertainty in the market causes TEU orders to **fluctuate** yearly

2019: 6.06M

2025: less than 1M

Source: Aneo. (2024, December 25). Container shipping overcapacity set to double in 2025 - Logfret. Logfret.

Negative Results - Leading to Inefficiency



Increase Shipping Cost (Unit)

- Ship fewer goods in same capacity



Surplus of Mega Ships

- Ships have higher usage more than Mega Ships



Unbalanced Return

- Purchase ship for future demand(-\$\$\$\$\$)
- Lack of ordering (+\$\$)
- Increase order competition and decrease income

CHALLENGE IDENTIFICATION

As of 2022, the average age of all ships in the world merchant fleet was just over 20 years

Companies may make minimal upgrades, such as retrofitting only one vessel with energy-efficient technology

Extending the lifespan of an old vessel instead of decommissioning



Assessment and Categorization

Filtering Ageing and Inefficient Ships

Accelerate Decommissioning

PROGRESSIVE VESSEL RETROFIT ELIGIBILITY

PRE-QUALIFICATION ASSESSMENT

Categorizes vessels into different age groups to evaluate their operational efficiency



WEIGHTED FACTORS

Older vessels may receive a higher weight in the EEOI, AER calculation



MONITOR COMPLIANCE AND ADJUST CRITERIA OVERTIME

Track compliance, tighten thresholds over time



Objective: avoid greenwashing, filter out aged vessels, and alleviate the over-supply of tonnage



OceanXchange

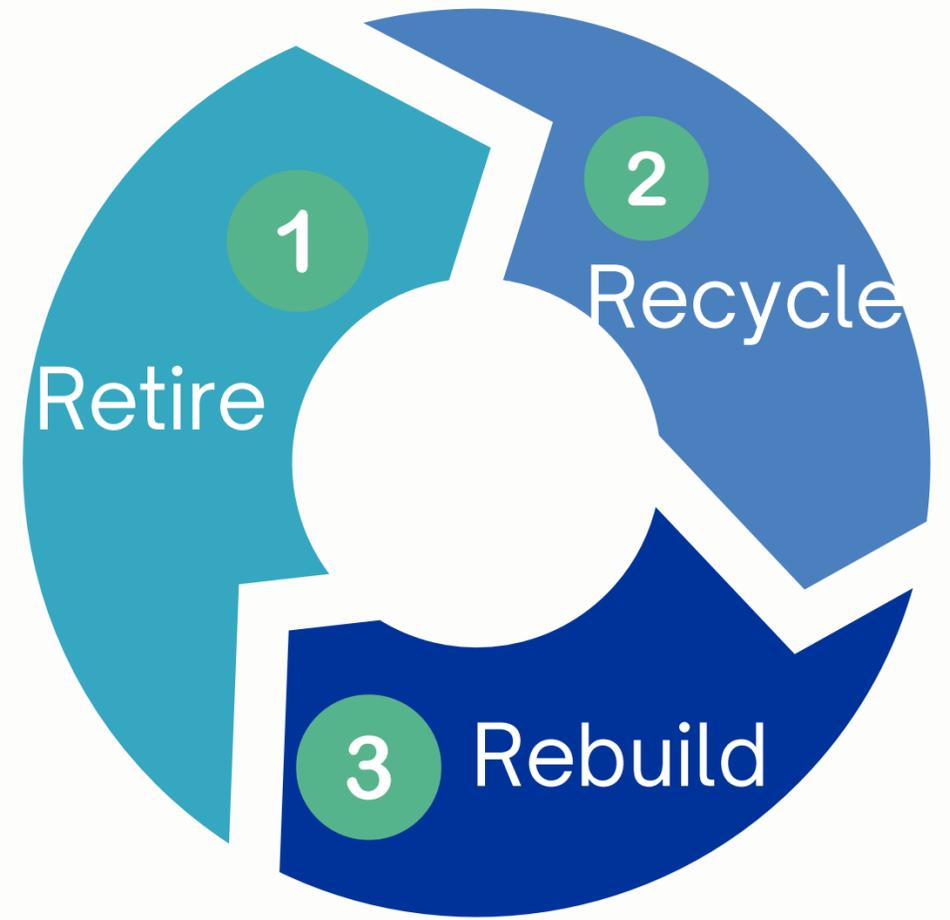


Problem:

Solution:

Unique Value:

Aging ships = Slower decarbonization + Oversupply crisis



Turn maritime waste into exportable green materials for Western markets

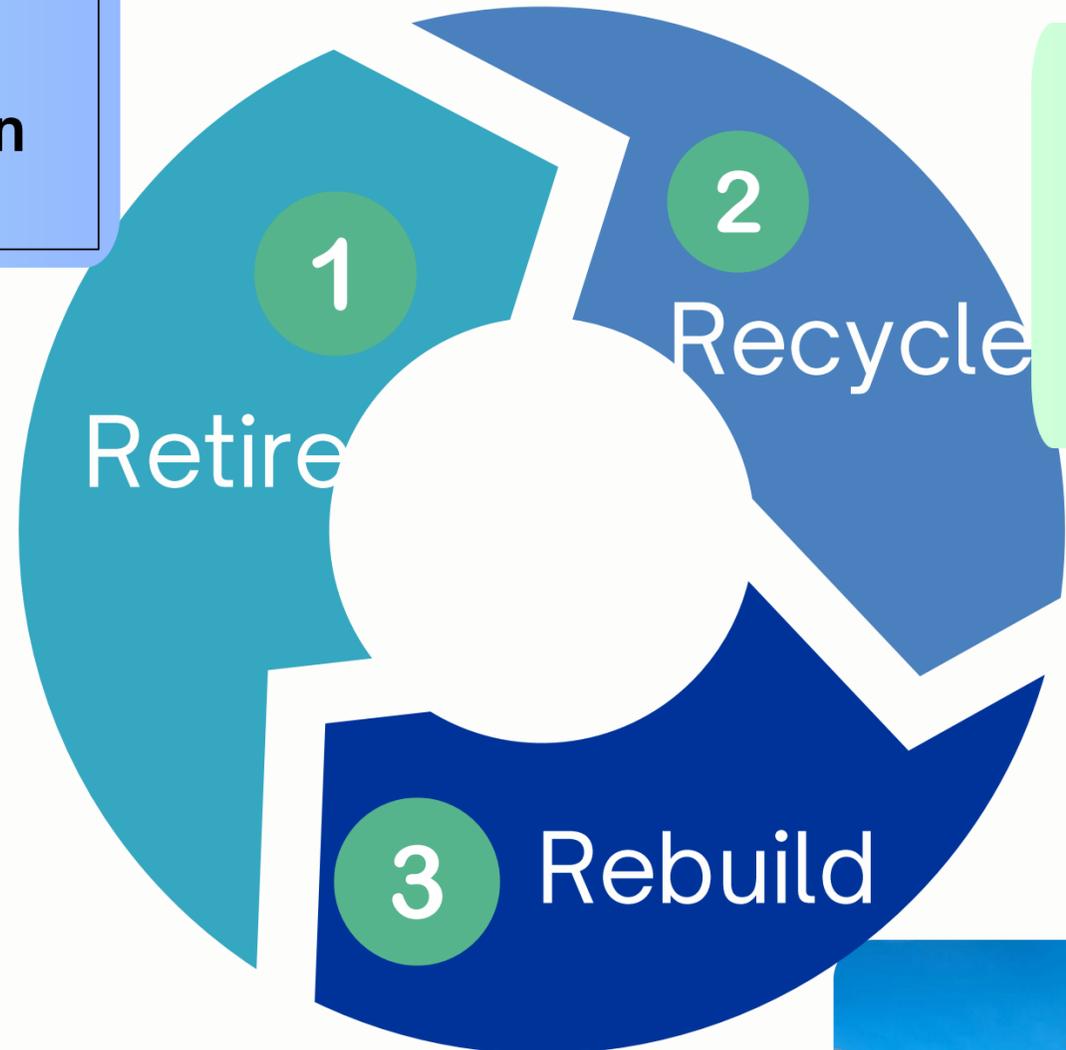


Incentivize shipowners to replace aging vessels with green ships

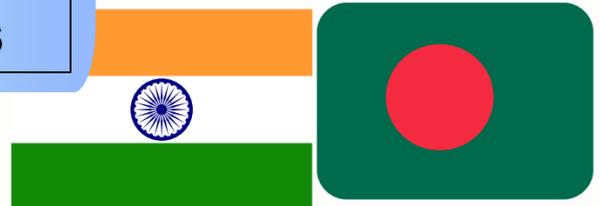
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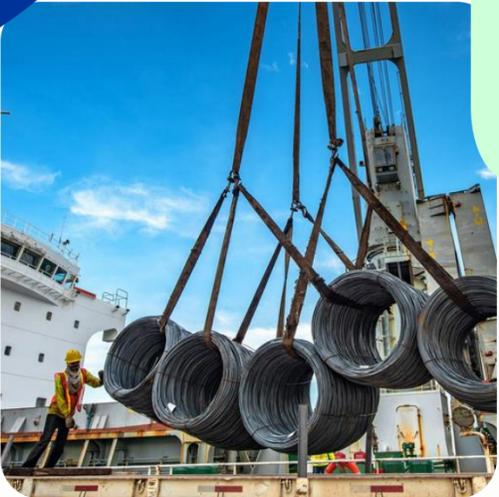


Ethically dismantle ships into reusable materials



1 retired ship = 10,000 tons of steel

Turn recycled resources into high-demand exports





Short Term: Artificial Reefs

Target: 500-4999GT ~4400 Vessels

- Enhancing Biodiversity
 - Habitat Creation
 - Coral Development
- Rising Diving Tourism
 - 1 vessel **1,215USD** | 2 vessels **2,596USD**

ESG

Ageing Vessels
Phasing Out

Reducing
Over-Supplied



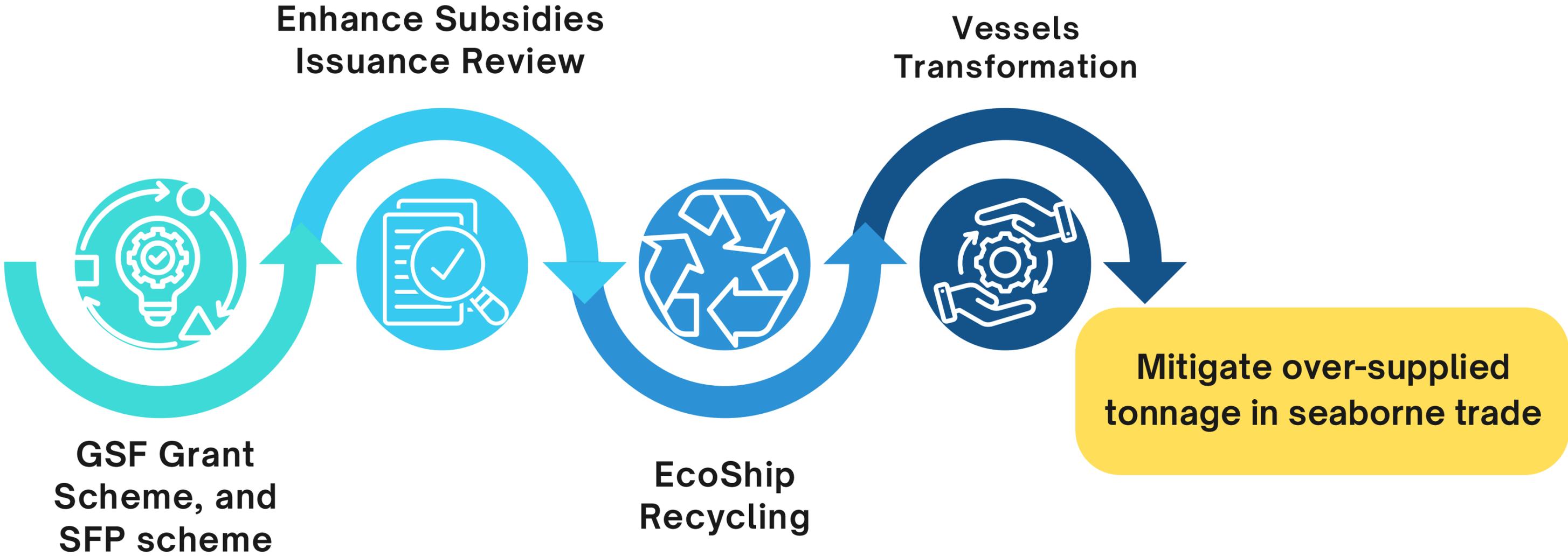
Long Term: Renewable Energy Platforms

Target: 25000-59999 GT 2539 Cargo & Container Vessels

- Solar Power
 - Generate ~40,000 kW/day (**32,000households**)
 - Wave Power
 - Generate Hydrogen and as its vessel fuel
- >**Zero-carbon Emission**

Bio-friendly

Sustainability



Thank You

