



HOW A LARGE SHIPOWNER IS MANAGING THE ENERGY TRANSITION: **ACTING NOW, INVESTING IN THE FUTURE**

NAS MARINE BOARD FALL MEETING

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CARGO DIVISION – SHIPPING, LOGISTICS, TERMINALS



- **600** vessels
- **230+** routes
- **500** ports of call
- **54** terminals
- **23** million TEU carried annually
- **524** offices
- **155** countries
- **100K** MSC Group employees

DECARBONISING SHIPPING



CLIMATE CRISIS

GLOBAL WARMING

ENERGY TRANSITION?

NET DECARBONISATION BY 2050

IMO2023

HOW

COMMITMENT

INDUSTRY WIDE R&D

FUTURE FUELS

REACHING ZERO CARBON FUTURE



RECORD-BREAKING CONTAINER SHIPS

Modern, efficient, lower-carbon footprint by design, innovative ship design, new engineering features, improved fuel economy

2019-2021: **MSC Gülsün Class** (23,756 TEU) 16 vessels – 7.49g CO₂/ton/mile by design

MSC RETROFITTING PROGRAMME

innovative engineering to increase efficiency and lower fuel consumption of the existing fleet.

INCREASING EFFICIENCY, REDUCING EMISSIONS

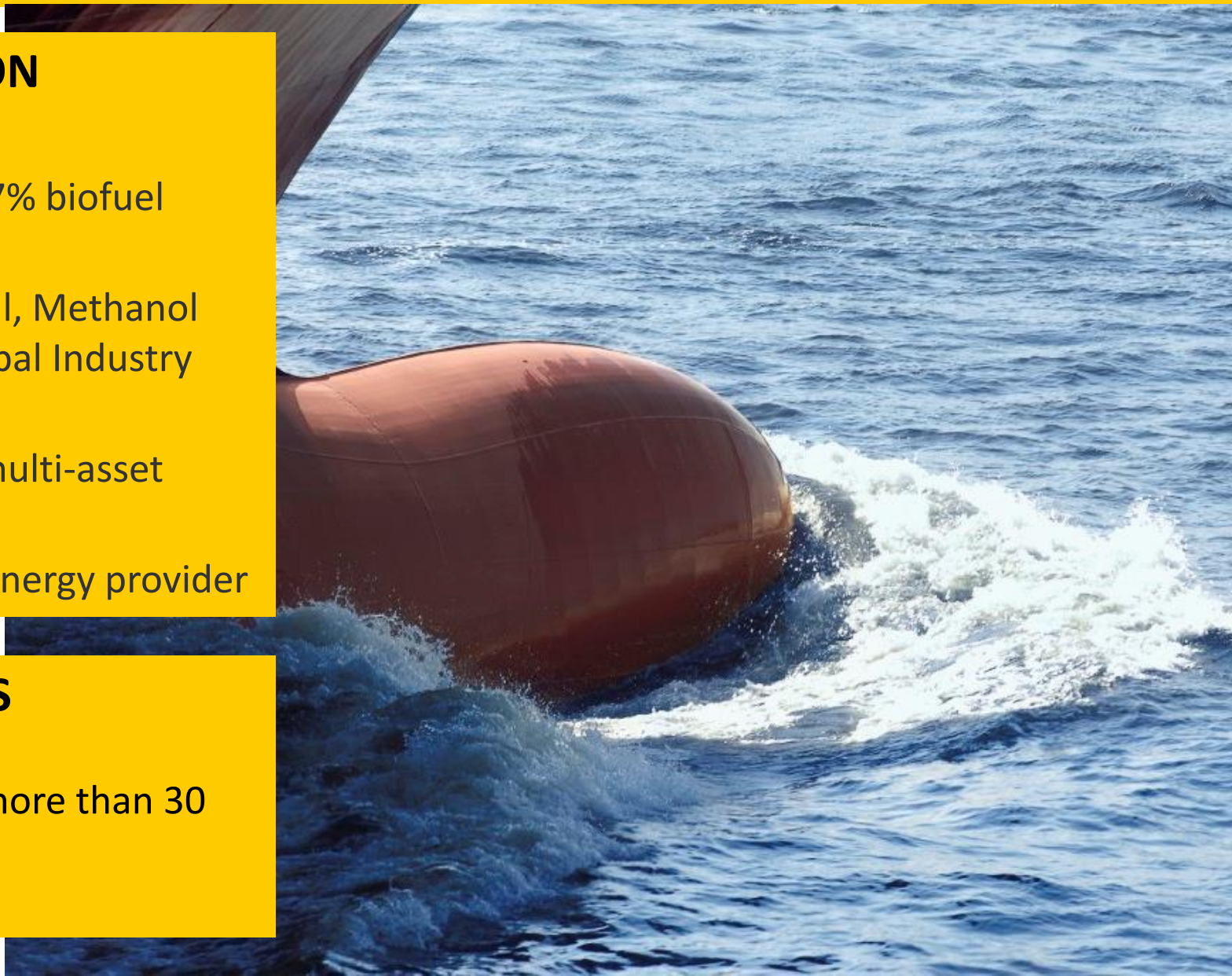


ALTERNATIVE FUELS & PROPULSION TECHNOLOGIES

- Pioneering large scale usage of up to 47% biofuel blends for container ships
- Active member of the Hydrogen Council, Methanol Institute, Getting to Zero Coalition, Global Industry Alliance, CCWG etc.
- Sharing R&D & experience across our multi-asset portfolio: container, cruise, ferry
- Strategic, multi-year partnership with energy provider

TRIALING INNOVATIVE SOLUTIONS

- Hull-skating solutions
- Silverstream air lubrication system – more than 30 orders for newbuilds
- Synthetic fuels



WHAT SHIPPING SECTOR NEEDS?

INVESTMENT IN R&D

- None of the options available today will provide a long-term or full solution alone
- A massive injection of capital and energy is needed to accelerate R&D
- A global market-based measure, potentially incorporating carbon pricing, could help catalyse the urgently required development at scale of zero-emission marine fuel solutions



A COMBINATION OF NEW FUELS AND NEW CONVERTERS

Air bubble blankets
Better performing engines
More efficient propellers
Synthetic/bioLNG
Shorepower
Biofuel blends

Complementary battery power
Hydrogen fuel cells
Ammonia
Wind
Solar
Nuclear



Container shipping sector is essential for global trade and development:

- 80% of goods we use daily are transported by sea
- Global MBM required to urgently close the R&D gap in developing zero carbon solutions - the source does matter!
- We are actively taking concrete actions and seeking strategic partnerships to find the right mix of solutions that will help decarbonise shipping in the long term

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