

Survey suggests a multi-fuel future for the shipping industry on the path to zero emissions

Copenhagen and Singapore, April 20, 2023 - Shipping companies—encouraged by regulation, customer demand, investor pressure, and internal goals—are searching for ways to find greener fuel alternatives and reduce greenhouse gas emissions by 2050.

To understand how shipping industry leaders are thinking about future fuels and what their plans and projections are to adopt cleaner fuels and efficiency-boosting technologies, the Global Maritime Forum, the Global Centre for Maritime Decarbonisation, and the Mærsk Mc Kinney Møller Center for Zero Carbon Shipping conducted a survey of major shipping companies, with analytical support by McKinsey & Company.

“As the shipping industry is in a period of experimentation and exploration to understand the implications of adopting different green fuels, surveys like this play a crucial role to inform the industry and public, and support shipping’s transition to a zero-emissions future,” says Professor Lynn Loo, CEO of the Global Centre for Maritime Decarbonisation.

The most striking result from the survey is a multi-fuel future: the need to prepare for fleets operating on three or more fuel “families.” The most common mix by 2050 represented by forty-five per cent of respondents is a fleet concurrently running vessels on fuel oil/biodiesel, methane, methanol, and ammonia—a step-change in fuel diversity.

Bo Cerup-Simonsen, CEO of the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping, says, “the industry will need to think strategically about how to operate multi-fuel fleets and green fuels must be introduced in a safe and cost-efficient manner to make them the preferred alternative to current petroleum products.”

Other findings from the survey suggest that internal combustion engines will remain the preferred technology through 2050, and that the speed of shipping industry’s adoption of alternative fuels will be a function of the cost gap with fossil fuels and the degree of availability of such greener alternatives at ports worldwide.

Ports and bunker suppliers might prioritize the availability of individual fuels in the short term. But in the longer-term, ports that wish to attract the greatest possible number of future vessels should prepare for the need to offer multiple fuel types.

The single most important factor in fuel choice will likely be the rate of decarbonization required by regulators. Policymakers and regulators can help close the cost gap between green fuels and fossil fuels and create a “level playing field” for all shipping companies to accelerate their adoption of green fuels.

”To reach a zero-emissions future, the industry needs a more ambitious regulatory framework with clear reduction targets and supporting policies to close the cost gap between green fuels and the fossil fuels that currently power the global fleet. The sooner there is clarity about targets and policies, and the sooner these come into effect, the easier it will be for companies to develop a view on how to meet the goals. The role of regulators will be crucial in this process, in particular the outcome of the ongoing negotiations at the IMO,” says Johannah Christensen, CEO of the Global Maritime Forum.

The companies surveyed roughly represent twenty per cent of the world’s total fleet capacity; they own and operate container ships, tankers, dry bulkers, gas carriers, car carriers, cruise ships, tugs, and offshore vessels. The survey paints a multi-fuel picture of the industry that is striking. The onus is on each shipping company to develop its own proprietary view of its future fuel mix in line with its business strategy and decarbonization ambitions.

For questions or more information, please reach out to Global Maritime Forum’s Head of Communications, Rasmus Nord Jørgensen, at rnj@globalmaritimeforum.org

About the Global Maritime Forum

The Global Maritime Forum is an international not-for-profit organization, headquartered in Copenhagen, Denmark, committed to shaping the future of global seaborne trade to increase sustainable long-term economic development and human wellbeing.

About the Global Centre for Maritime Decarbonisation

The Global Centre for Maritime Decarbonisation is a non-profit organisation that aims to help the maritime industry eliminate GHG emissions by shaping standards for future fuels, financing first-of-a-kind projects, piloting low-carbon solutions in an end-to-end manner under real-world operations conditions and fostering collaboration across sectors.

About Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping

The Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping (MMMCZCS) is an independent, not-for-profit research and development center established in 2020 with funding from the A.P. Møller Foundation. Our purpose is to guide and accelerate decarbonization of the global maritime industry.

About McKinsey & Company

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