



A unique group of leaders who are fast-tracking solutions to the most pressing challenges facing the Ocean



Shipping Industry Decarbonisation Coalition – building a Roadmap

Background

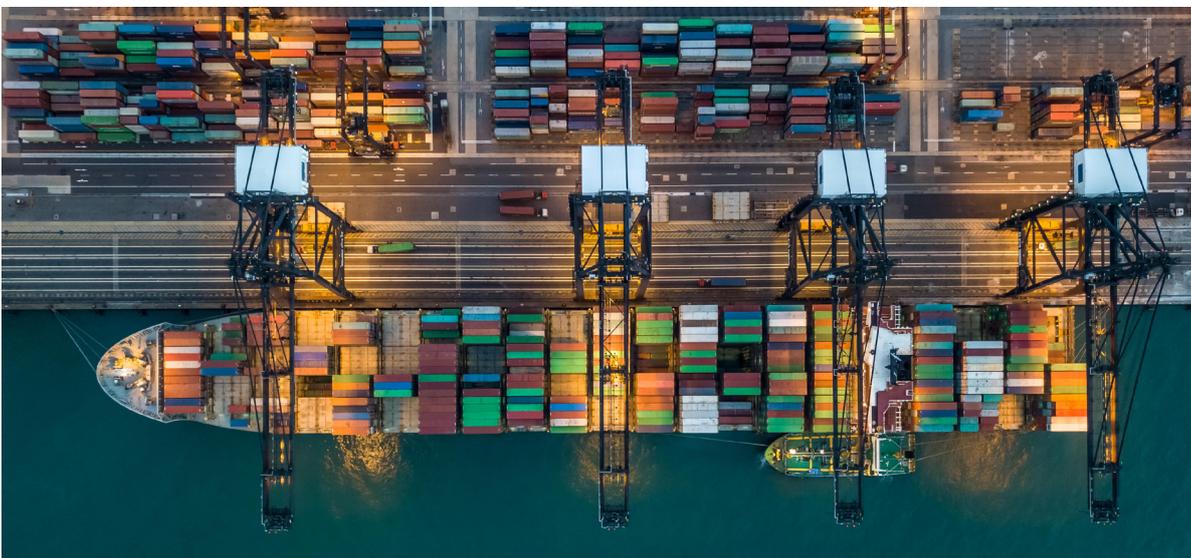
The maritime industry forms a significant part of the global economy, with 90% of all trade dependent on shipping vessels. International shipping accounts for almost 3% of global greenhouse gas (GHG) emissions, which would make it the world's sixth-largest GHG emitter if it were a country (equivalent to Germany's). Furthermore, it is predicted that these emissions will grow rapidly in the coming decades if left unchecked. A recent study estimated that under current trajectories of expected economic growth, inaction could result in the shipping industry having a 17% share of global CO₂ emissions by 2050.

As such, this sector has an important role to play in achieving a substantial part of the Sustainable Development Goals (SDGs) and in particular SDG 14 (Life Below Water or the 'Ocean Goal') as it relates directly to targets 14.1 (by 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution), and 14.3 (minimize and address the impacts of Ocean acidification, including through enhanced scientific cooperation at all levels). This sector also has a vital role to play in the overall achievement of SDG 13 (Climate Action) through reducing emissions from the sector;

SDG 7 (Affordable and Clean Energy), through opening new markets to accelerate the uptake of renewables, green transport and energy efficiency; and SDG 10 (Reduced Inequality), as shipping, as an enabler of trade, is a key component of globalisation and an enabler of export-led economic growth.

The alignment of increased transparency, political processes, and stakeholder pressure has created an opportunity in the shipping industry to embrace the decarbonisation of seaborne transport. The International Maritime Organization (IMO) has recently announced a climate strategy with targets to reduce GHG industry emissions by at least 50% at a global level by 2050. Despite the fact that this target may not be considered ambitious enough by some, there is real potential in leveraging the momentum created and helping to unlock new opportunities and innovations for decarbonising the industry. This would also enable the potential for ambitions to be further raised, making efforts towards reductions be in line with the Paris-agreed goals, which would need 100% emission reduction by 2050. Deployment of new technology and innovation are going to be key for this sector to decarbonise operational emissions, considering that even a 50% emission reduction requires a move to non-fossil energy sources for ships, starting in 2030 and accelerating to becoming the dominant energy source in 2040.

The IMO's announced objectives for the shipping industry represent a unique opportunity to scope how business innovations, Fourth Industrial Revolution technologies (and the societal shifts they trigger), and the ramp up of global supply chains for advanced low-carbon and ultimately



zero-carbon fuels, can be harnessed to unlock new economic opportunities and address environmental issues by redesigning how transport systems are operating today. Building on the success of the Global Maritime Forum's "Call to Action", there is a mobilisation of the entire maritime value chain, together with leaders from across the broader private sector and other stakeholders, towards a shared goal of accelerating shipping's decarbonisation.

Together, the Friends of Ocean Action, the World Economic Forum and the Global Maritime Forum are seeking to accelerate, meaningfully and concretely, shipping decarbonisation by reframing the alternative fuels conversation among industry leaders, policy-makers and other key stakeholders. While existing analyses have contributed substantially to exploring the 'what', i.e. the basket of options in terms of fuels, propulsion technologies and other solutions for the industry, there is now the need to shift from dialogue to action, and this can be explored on three levels:

- 1) **Supplying** zero- or low-carbon fuels;
- 2) **Enabling demand** for these through financier, charterer and ship owner alignment; and
- 3) **Developing 'rules of the game'** that govern the industry and will ultimately define uptake of new fuels and technologies among most players.

In order to achieve the required level of deployment of new fuels, there is a fundamental need to bring together the supply and demand sides to build understanding and trust among industry players across sector boundaries and to generate confidence for investment in new technologies, infrastructure, ship retrofits and supply chains. This broader understanding and the resulting trust can then catalyse collaboration on design, financing and uptake of solutions. It is also important to ensure that new solutions will be implemented equitably, and will not restrict access by developing countries to global trade in particular.

While there are multiple demonstrations of and pilots in potential solutions underway, many of these are isolated and not yet at the scale required to prove full viability, especially for deep-sea shipping. By starting with cross-industry dialogue, the next step is to shepherd a series of conversations about how stakeholders can work together to get beyond isolated pilots into full-scale demonstrations of what is possible and to develop an industry roadmap to make the transition to a decarbonised future. The envisaged work on solutions and roadmaps needs to be in alignment with and complementary to the processes within the IMO.

Shipping Decarbonisation Partnership

Non-availability of zero emission fuels has been identified as a key risk to decarbonisation of shipping. The creation of an industry roadmap will help to engage stakeholders from across both the incumbent and new fuels value chains to identify the technologies, investments and timelines for decarbonisation of fuels and associated infrastructure. By providing a platform for dialogue, this Partnership aims to explore the following:

- The future fuel options that have the potential to drive decarbonisation for maritime;

- The geopolitics of the fuel supply, and the potential global distribution architecture;
- Integration with other sectors using or producing these commodities (i.e. other transport, energy storage, heat, chemicals); and
- Timescales, milestones and enablers of implementation of supply chains.

Private sector leadership

While the demand for new fuels will clearly come from ship owners and operators, there remains a need for leveraging through an aggregated demand signal, to give confidence to fuel suppliers and investors to make the required infrastructure investments. Through the Shipping Decarbonisation Partnership, leaders within the industry will continue to engage with their peers on the actions necessary for decarbonisation, the opportunities that are arising, and how the risks related to new fuels adoption can be managed through collaboration with ship builders and engine manufacturers through to charterers and financiers.

Changing the rules of the game

For supply and demand to be aligned, there is a need to build the confidence to invest in new fuel production and port infrastructure for bunkering, in parallel with investment and deployment of ships, engines and required retrofits compatible with the new fuels. This can only happen under a solid regulatory framework that de-risks the required investments and makes them bankable, in combination with coordinated multi-stakeholder action.

The Shipping Decarbonisation Partnership will engage with the IMO, as well as key countries to ensure that the regulatory frameworks adhere to the required conditions. It will be important to send a powerful signal to the IMO and governments that the private sector is supportive of decarbonisation and is interested in supporting and assisting its implementation with urgency and with minimum disruption to the sector.

Next steps

At the Global Maritime Forum's recent Annual Summit in Hong Kong, the following board-level champions were identified who are willing to push this agenda: A.P. Moller-Maersk, Cargill, Trafigura, Gaslog, Euronav, and Lloyd's Register. The Shipping Decarbonisation Partnership will continue to build this coalition of industry champions and engage others across the value chain, in particular the oil and gas sector, financiers, insurers and regulators who should be engaged as well. Driven by the need for innovation, an industry roadmap will be presented and discussed later in 2019.

The World Economic Forum Annual Meeting in January 2019 will hold conversations with industry leaders and sector experts on a pathway for a global industry shift and tech opportunities to support this, which will be further refined and taken forward in 2019.

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