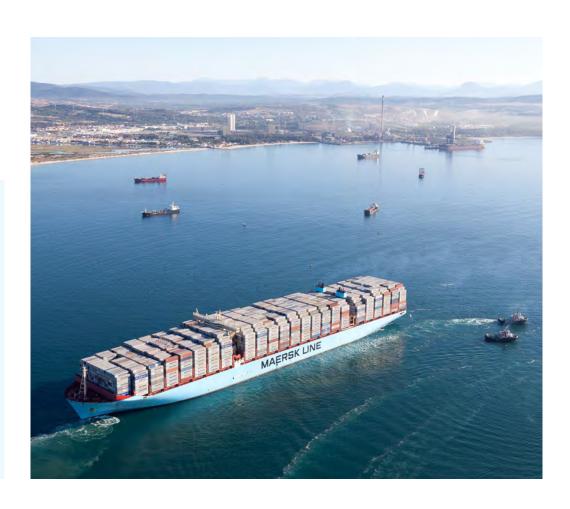


A.P. Moller - Maersk position paper

IMO – need for strong leadership to decarbonise global shipping

Key Facts

- Maersk urges the IMO to secure real progress on lowering GHG emissions in 2022.
- Maersk suggests a global carbon price combined with a fuel standard and other measures to promote effectiveness.
- Fuel standards and measures should be based on a full Wellto-Wake approach.



To secure global decarbonisation of shipping, a strong regulatory framework from the International Maritime Organization (IMO) is key. Regional regulation, such as the EU's Green Deal, only represents a small step forward in a global context (i.e., 15-20% of emissions).

Maersk urges the IMO to take more action and make significant progress at the upcoming important meetings in 2022. At present, progress is too slow. For Maersk, the solution for upcoming measures must be significantly more ambitious if we are to deliver the green transition of global shipping the global community is demanding of us. At the same

time, all IMO measures should be futureproofed, meaning they should be based on a full Life Cycle Assessment (LCA) and include all relevant Green House Gasses (GHG). As such, Maersk finds that the right solution is a package of measures centered around:

- A global fund and GHG price to secure just transition (i.e., channeling support to developing countries)
- A global fuel standard to secure the needed production of the new fuels
- Initial deployment of green corridors
- Enhance the IMO Data Collection System and transparency of that data



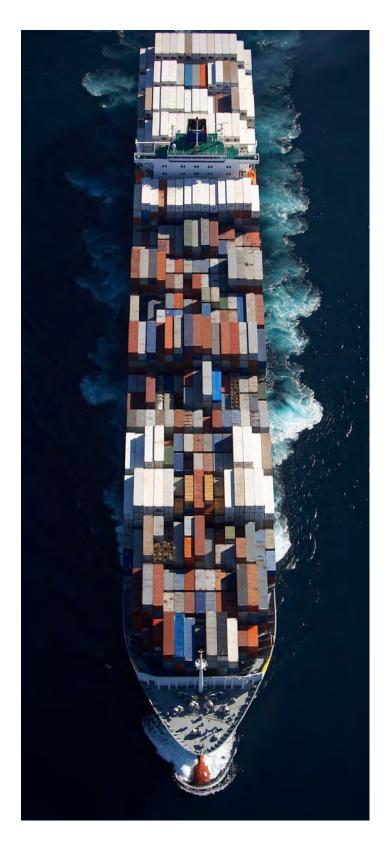
As a basis for these measures, and as part of the IMO GHG strategy to be finalised in 2023, the IMO should adopt a target of net-zero emissions in 2050 at the latest. The current (initial) IMO target of 50% reduction in 2050 compared to 2008 is very far from sufficiently ambitious and will bring shipping nowhere near a 1.5 degree pathway.

Maersk is also following the ongoing IMO discussions on Guidelines for Lifecycle Assessment closely. These discussions are rather technical, as developing LCA guidelines is a scientific task. However, Maersk urges IMO Member States to devote much attention to this work and to ensure that IMO includes full LCA and Well-to-Wake emissions in its regulation. Since the IMO has traditionally considered only the Tank-to-Wake part of the emissions chain, it is crucial to revise the current approach. Solid and accurate LCA guidelines are paramount as a basis to securing actual decarbonisation, and not just merely pushing emissions away from shipping to other sectors. Finally, LCA guidelines and related IMO regulation must consider all greenhouse gases, not just CO2, to immediately reward the right fuel choices and avoid stranded assets, ensuring real climate impact.

Below are further details on measures of the IMO package as envisioned by Maersk:

A global fund and GHG price

For Maersk, a fundamental element to reach decarbonisation is to close the competitiveness gap between fossil and alternative fuels. The IMO should therefore deliver a Market Based Measure (MBM - e.g., carbon pricing) by 2025. A Market Based Measure needs to be of a sufficient price level as to cover the majority of the cost gap between fossil and renewable fuels. Maersk proposes an MBM of at least 450 USD/t fuel, as we estimate that this gap is of at least 450 USD per ton fuel (i.e., at least 150 USD per ton CO2) in the medium term at current oil price. All fuel assessments must be based on a full LCA or we risk pushing emissions from container vessels to elsewhere in the supply chain. A significant part of the revenue of a carbon pricing mechanism should be devoted



to climate mitigation and green projects in developing countries.

Regional measures can play a role, but should serve to put pressure at global level, as only international rules can secure a level playing field and decarbonisation of global shipping.



Global Fuel Standard

A Global Fuel Standard could introduce a certain limit value for the GHG emissions intensity of fuels used by ships, expressed in e.g., grams CO2eq/MJ. Maersk considers this valuable first and foremost, because it is relatively simple to introduce and implement based on the current IMO framework and thereby could cater for real action in the short term. Such measure should be based on compliance of ships in a fleet or a 'pool' of ships to incentivise high performance and investments in new, green technologies and fuels. As such, if requirements are not focused on every individual ship but instead a group of ships, it is possible to focus the investments on the vessels where it makes most sense and where largest GHG reductions can be obtained. A challenge is that such measure will not generate revenue to be channeled to less developed countries. Therefore, a fuel standard should be supplemented by a GHG fund and carbon pricing to collect the necessary funding.

A 'design standard' to end the production of fossil fueled ships

Just like green fuels should naturally be incentivised, there is a need to limit and reduce incentives to build fossil fueled vessels. Together with the abovementioned measures,

Maersk finds that the IMO should consider introducing a 'design standard' or phase-out of the production of vessels, which can solely be fueled on fossil fuel. Maersk suggests that from the mid 2030s, the IMO should introduce a design standard or new build standard which could require that ships built after a certain date must be capable of operating on a range of alternative fuels to be further defined – or prohibit building ships that can only operate on fossil fuels after this date. This proposal could be developed for the next phases of IMO EEDI regulation.

Initial deployment of green corridors

Maersk fully supports the Clydebank
Declaration for Green Shipping Corridors and
pushed for its foundation at COP26. For Maersk,
green corridors can be a means to push for early
deployment of green fuels. A green corridor
could be established by an agreement between
two or more ports to devote a trade lane to
green shipping. IMO could assist by applying
regulatory incentives to green corridors. This
would also mitigate some of the concerns at the
IMO that for some, less developed regions, it is
difficult to move the transition in the same pace
as other regions.





Transparency and data collection at the IMO

Solid data is key to securing actual GHG reductions from IMO regulations. The current IMO Data Collection System (DCS) needs to be improved. Among other things the DCS does not contain data on actual cargo carried. This means that current IMO measures, for instance the Carbon Intensity Indicator (CII) will not incentivise cargo optimization i.e., decreasing the carried cargo will improve the vessel "efficiency" according to the CII although this does not in reality improve efficiency. The EU MRV system contains data on actual cargo carried, which demonstrates that it is possible to collect such data. Also, customers and society in general request further transparency on ships' performance. Therefore, the IMO should pursue this legitimate request and introduce mandatory transparency around the data collected on GHG performance.

IMO2023 - Short term measure

To meet its ambition of reducing the carbon intensity of international shipping by 40% in 2030 compared to 2008, the IMO agreed in June 2021 on a set of short-term measures consisting of three main elements:

- EEXI: A technical measure for existing ships.
- A Carbon Intensity Indicator (CII) to determine the operational energy efficiency performance.
- A rating system where vessels will be rated as A, B, C, D or E vessels.

Maersk is in full support of reaching more progress on decarbonisation and hopefully CII and EEXI can be steps in the right direction. However, there are a number of elements in the CII that we believe will not provide optimal incentives for higher efficiency of vessels. As mentioned, the calculation is based on the deadweight of a vessel rather than the actual cargo the vessel carries. Thus, the CII does not incentivize cargo optimization. Moreover, there is no actual enforcement of the measure, and it is therefore up to the shipowner to assess the extent to which vessels should comply. Finally, there are no real incentives for fully climateneutral vessels. The highest rating possible is an A rating, which still contains emissions. In

a world where every year counts in the battle against climate change, Maersk believes that the IMO should push shipowners to invest in vessels operated on climate-neutral fuel ASAP.

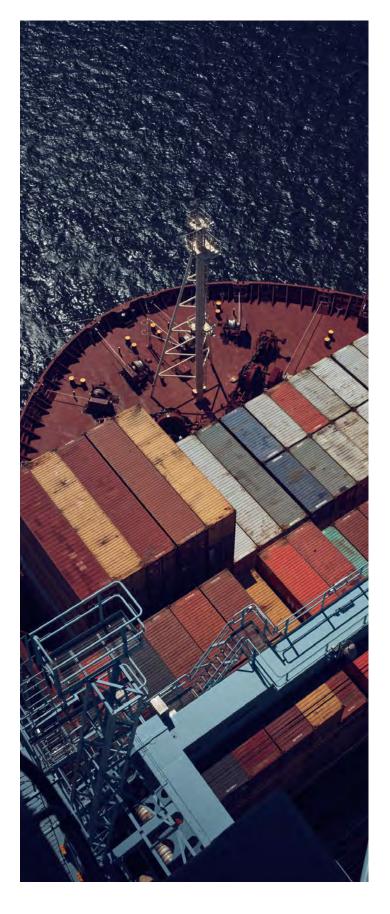




Figure 1: Examples of causes for the different ratings

| Rating | Explanation | Example |
|--------|---|---|
| A | Only the highest performing vessels | Usually vessels that are not only efficient but have a certain size and trade long distances |
| В | Vessel is performing above average | Generally, vessels which are operated very efficiently. These could be partially fueled with low carbon fuel |
| С | Vessel is in compliance | Generally, vessels which are efficiently operated. These could be partially fueled with low carbon fuel |
| D | Vessel is performing below average, D-rating allowed for max 3 consecutive years | There are various possible reasons for rating below average. It may be related to the vessels' efficiency, but it may also be related to other factors, for instance waiting time outside port, carrying certain cargo*. This may consequently vary substantially from year to year |
| E | Vessel is performing below average and corrective action plan must be developed immediately | Often vessels which trade shorter distance and have higher port time, which can impair the CII significantly |

^{*}It is still being debated at the IMO whether consumption of cargo, for instance from refrigerated containers, should be included in the CII, in some cases causing a poor rating although the vessel itself is highly efficient.

For further information please email policy@maersk.com

A.P. Moller - Maersk is an integrated container logistics company connecting and simplifying trade to help our customers grow and thrive. With a dedicated team of over 95.000, operating in 130 countries; we go all the way to enable global trade for a growing world.