## **Capital Link Decarbonization in Shipping Forum**

"Moving from Discussion to Delivery" Digital Conference Wednesday & Thursday, April 14 & 15, 2021

## Designing Ships Of The Future Fuels - Engines - Hull/Ship Design & Technology



Hayato Suga Corporate Officer ClassNK



Shin Ueda Deputy Director Mitsubishi Shipbuilding



## Dr. Loukas Barmparis President Safe Bulkers

To achieve the ambitious goal set by IMO to halve the GHG emission by 2050 and achieve zero emission during this century, we need to precisely investigate and evaluate each element around decarbonization of the maritime industry, including and not limited to type of fuels and propulsion technology, hull design, operation measures, change of trading patterns, etc at this moment.

Furthermore, we are expecting more and more collaborative initiatives to launch to fulfill the needs of a rapid implementation of green technologies. ClassNK is committing to support these initiatives not only by providing conventional classification service including assessments from safety perspective, but by providing a swift certification service to emerging technologies where existing standards may not cover.

In parallel with the expansion of new energy transportation, it will be necessary to establish CO2 transportation in order to maintain economic efficiency. For example, in thermal power plants, hydrogen or ammonia in addition to conventional fuels will significantly reduce CO2 emissions, but it seems to be necessary for some partial conventional fuel to keep economic efficiency, then CO2 need to be captured at power the station. CO2 is not an energy source, however, on the back side of green energy transportation, CO2 for storage or recycling will be considered.

CO2 capture technology can be used in the segments where carbon-free fuel is not suitable, for example LNG, LPG and methanol supply chain may use carbon as fuel for long future."

We are happy to participate in the Capital Link's Decarbonization in Shipping Forum. Safe Bulkers is a pure dry-bulk player, with exposure in the spot market, strong liquidity position which provides financial flexibility and ability to react in opportunities, an efficient fleet able to compete in the stringer environment of 2023 as GHG restrictions will be introduced and lean and efficient hands on operations providing for financial and operational advantages.



Lars Anderson Director, Power Supply Product Management Wärtsilä Marine Power

Things will change with the Poseidon Principles and the Sea Cargo Charter that measure CO2 against dwt, or cargo carried, and voyage distance. The old school design point will be less relevant and machinery selection will become more data driven.

A newbuilding's compliance runway with the decarbonization trajectories can be extended with decarbonization upgrades. There are many different ESDs and no one-size fits all, you need to do a value mapping and not traditional Payback which only captures static moment in time. You need to account for future cashflows from better charter utilization, NAV, monetization of Carbon Reduction via Poseidon Principles in terms access to banks preferred lending versus Mezzanine finance, not to mention Carbon Credit regimes.

For more information: http://forums.capitallink.com/shipping/2021decarbonization/