

Clean Oceans

You are preparing your fleet for a green future but what about your crew?



By Mikael Laurin, CEO, Lean Marine

When reading the news highlights for the maritime industry every morning, it becomes clear to me that our industry has had a clear focus on finding effective green solutions to meet the new regulations and targets lately. Some of the major container lines, including APM-Maersk and CMA CGM, are even striving to achieve more ambitious, self-imposed targets.

I am a strong believer that it is important for authorities and regulatory bodies to take on the role of directing the industry towards greener shipping practices.

We should not forget that in terms of CO₂-emissions per tonne of cargo transported per mile, shipping is the most efficient form of commercial transportation, far more efficient than road and air transport. However, its colossal scale means that it is also a substantial polluter, not just of CO₂ but also other harmful emissions to air and water like SO_x, NO_x and black carbon. Therefore, the pressure on the industry to clean up its act has never been greater, and other transportation sectors have leaped ahead while shipping has lagged behind.

This means the time has come to take significant action. Our planet can't wait, we must act now for today and the future.

Right now, the International Maritime Organization's (IMO) strict targets on the reduction of greenhouse gas (GHG) emissions from ships sit as a top priority for ship operators.

In April 2018, IMO's Marine Environment Protection Committee (MEPC) adopted an initial strategy envisaging a reduction in total GHG emissions from international shipping that demands emission from shipping should peak as soon as possible. A reduction in the total annual GHG emissions by at least 50% by 2050 compared to 2008 is required, while, at the same time, pursuing efforts towards zero emissions.

In August 2020, the Fourth IMO GHG Study was published that will serve as a key resource as IMO works to revise its GHG strategy. This study highlighted the increase in use of LNG as ship's fuel and concerns about methane emissions, perhaps a signal of a potential integration of methane emissions reduction in GHG targets in near future.

The EU, whose parliament voted in favor of including GHG emissions from the maritime sector in the EU's carbon market, will incentivise reduced emissions through the buying and selling of allowances, from 2022.

All these regulatory drivers are pushing shipowning companies and ship operators to make investments in technologies that will maximise ship efficiency and reduce fuel consumptions, emissions to air and polluting effluents to water.

I believe we have reached a level today where all major stakeholders in the shipping industry are committed to meeting their responsibilities, with many looking beyond regulatory requirement to enhance ship efficiency since it also brings commercial advantages. It is encouraging to see innovation flourishing accompanied by the widespread adoption of the cleanest, most efficient, and advanced technologies that can support the decarbonisation of our industry.

Some newbuilding designs of late are really encouraging. How they disregard convention to achieve operational efficiency and reduce carbon footprint will be great platforms for proving new technologies.

Fortunately, existing fleets are not forgotten, and many vessels have a lifespan of 30 years or longer. Most shipowning companies are investing in digitalisation for performance management and providing more advanced and efficient tools for maximising their

operational efficiency to their crew and onshore personnel.

However, a ship is only as efficient as the people operating it. The crew are at the centre of efficiency improvements. Their successful adaptation to new ways of working and new technologies onboard is imperative for succeeding in making the global fleet greener.

But how do you manage this when today's crew are already overloaded by their existing tasks?

Technology is one critical aspect of taking green action, but it is not enough on its own. The whole organisation should be invested in adapting changes towards improved environmental sustainability and continuous improvement. It should be part of the company culture.

To achieve this, educating people to work in a more sustainable way, creating awareness on results from green actions taken and engaging all stakeholders to reach and surpass green goals are vital.

It is with no doubt that the crew has the most fundamental role here. You cannot expect them to follow this change if they do not understand why it is important or how they can contribute. Everyone would love to be a part of an achievement, and as a company that provides technology that optimise vessel propulsion and vessel performance management software, it is our role to support ship operators and their crew with the tools they need to contribute to a fleet's success in fuel consumption and emissions reduction.

During my time as CEO of the tanker operating company Laurin Maritime, an operator of 45-50,000 dwt IMO II/III chemical tankers, we were extremely conscious on environmental sustainability and realising the results of our actions, notably in vessel operations. Therefore, early on, we took the decision to set high standards on operational efficiency and environmental sustainability.

To succeed in this, it was vital to have everyone in the company onboard with the idea. First, we aligned the agenda of the corporate management, operations, and the crew, and agreed on the green goals set. We were very lucky to have great teams onboard and onshore who knew the vessels, the operation and each other very well.

Our motto was: If you can measure it, you can manage it.

We considered it necessary to implement a continuous improvement loop: monitor vessel performance, conduct analysis, learn from that analysis, implement changes, and benchmark the fleet to improve efficiency, then keep doing it again. This loop would enable us to take fact-based decisions to improve operational efficiency.

To be more effective and efficient, we invested in new tools: an automated data collection system for gathering reliable and sufficient data, and a performance management tool.

However, when we implemented the new tools, it did not result in as large an efficiency improvement as we had expected.

This only happened after we had educated the crew on how to use the tools and shown them just how big a difference they are making, by sharing the results.

At Laurin Maritime, we saved large amounts of fuel and reduced the carbon footprint of our operations thanks to the continuous improvement actions supported by all stakeholders. It resulted in a positive impact on the bottom line and we didn't forget to celebrate our success as a team.

This is only one example from my previous experience yet remains relevant as the shipping industry adopts new clean technologies and advanced digital technologies.

Along with providing right tools, ship owners and operators must support crew and operations with the education they need, on new tools and for building a constructive mindset. Through education, you can empower the know-how and productive relation between crew and operations.

Since 2018, when Laurin Maritime was acquired by Team Tankers, I have sat on the technology provider side as the CEO of Lean Marine, a Swedish company that developed the automated propulsion optimisation system FuelOpt and the smart performance management and reporting software Fleet Analytics.

As a technology provider, it is crucial for us that the crew feels comfortable using our tools and understand the value that they deliver. To achieve this, we make sure crew get the training and information they need to achieve the best possible result for each individual vessel and to make sure that the full potential of our products is utilised. At Lean Marine, we support the crews with effective and easy-to-use tools, helping them to reduce their workload while improving vessel operational efficiency.

From a previous tanker owner and operator who has benefited from sitting on both sides of the table, my message to the companies operating the global fleet and to technology providers is: do not forget the needs and the value of education of crew when it comes to the use of clean technology in our industry. They are the backbone of the shipping industry and, of course, the backbone of greener shipping operations. ●



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