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Green and efficient

THERE is a lot of apprehension about the compulsion for ships and shipping to be more sustainable and offer an altogether lighter carbon footprint to the maritime world.

People see it as an unavoidable change, mandatory and probably expensive, and are reluctant to take the initiative. This is a perfectly understandable reaction and those who criticise the marine industry ought to consider their own footprints and their own attitudes towards change.

But enhanced sustainability can bring with it improved efficiency. This was very obvious at the recent international conference on ship efficiency organised by the German Society for Maritime Technology, at which there was no shortage of ideas which, incrementally, can make ships both greener and more efficient.

One thing is for sure, it is a combined operation which is necessary to make ships more energy efficient and thus more sustainable. Engineers, naval architects, and mariners all have something to contribute in the design and operating processes that will produce and operate the efficient ship. An engine that is properly in tune, well-maintained and controlled by people who know what they are doing, gets the most out of every ounce of fuel. But there was a chain of responsibility for efficiency, not helped by charterers scouring the markets for the worst quality and thus cheapest fuel, which would subsequently cause immense problems to those whose job was engine management. Efficiency is enhanced by ensuring that the hull is not fouled, so the maintenance regime is all encompassing, both inside and outside the engine room.

A ship which is hydrodynamically sound, with the best possible propeller design and autopilot working optimally, also makes a major contribution. And only recently, it seems, are naval architects waking up to what is lost through wind resistance, in pushing a ship-shape resembling a house brick (at least above the water) into a head wind.

But what is the point of optimising the ship design if it has to wait at anchor because of congestion on the berth, or is delayed in port because of landside inefficiencies. It is a bit like the valid arguments about supersonic air transport, which showed conclusively that all the benefits of such high speed could be achieved at a fraction of the cost if traffic congestion en route to the airport, and cumbersome waiting times for passengers, could be eliminated.

In the case of ships, better information and procedures could optimise speeds between ports and obviate delays, rather than having ships blinding along to 'arrive', and then wait so wastefully for the berth to become available. There remains a great deal of scope for progress on ship efficiency. It is a matter of priorities.