

# Shipping needs radical rethink, warn climate experts

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Avoiding dangerous levels of climate change requires a radical rethink of the shipping system, according to a new report 'High Seas: High Stakes' released today by scientists at the Tyndall Centre for Climate Change Research based at The University of Manchester.

If global shipping is to make its fair contribution to avoiding the 2°C of warming associated with dangerous [climate change](#), CO2 emissions need to be cut within the next decade and fall by at least 80% by 2050 compared to 1990 levels, say the authors.

The report's findings highlight that much more needs to be done even to just curb the rate of growth in emissions, with slow-steaming – where ships run at lower speeds during their voyages in order to reduce fuel burn – an essential part of the push towards cutting CO2. It also highlights the importance of looking at the bigger picture: one high profile policy area currently in the minds of the shipping industry is how to cut the sulphur content of fuels. New regulations that encourage the uptake of fuels that are lower in sulphur, such as low sulphur diesel, may ultimately release higher levels of CO2. Wind-assisted propulsion, in conjunction with other technologies, is one option that offers scope for addressing both CO2 and sulphur, but that has little traction in the current debate.

This new report covers research completed under the Engineering and Physical Sciences Research Council (EPSRC) project entitled 'High Seas', led by Dr Alice Bows-Larkin in the School of Mechanical,

Aerospace and Civil Engineering at The University of Manchester. The project aimed to devise new methods and models for quantifying the CO2 [emissions](#) from the shipping sector, with a focus on UK imports and exports. It also had within its remit to identify technical, operational and demand-side changes necessary to decarbonise the shipping system, as well as investigate practical barriers to implementation.

"What was most striking when doing this research, particularly when compared with previous studies on decarbonising other sectors like aviation, is the wealth of opportunities available for reducing CO2 from shipping," said Dr Bows-Larkin. "The problem with cutting CO2 in the shipping sector is that the system is so complex that influencing change becomes the greatest challenge, even if the political will were there."

Contrary to the prevailing view, the research demonstrates that harnessing the opportunities available both in the short-term, such as slow-steaming and retrofit, as well as the long-term, the shipping sector has the potential to be a leading sector in the decarbonisation challenge.

Provided by University of Manchester

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