

# Identify emerging maritime fuel efficiency and carbon reduction technologies



## Introduction and Business Challenge

At Rio Tinto, we aspire to leave a positive legacy for future generations.

Our Marine team currently orchestrates a fleet of more than 230 chartered vessels at any given time, operating alongside 17 vessels we own, to transport over 300 million tonnes of product per annum.

As one of the world's largest dry-bulk shippers, we have an opportunity to accelerate net zero marine emissions. Vessel efficiency gains will be a critical part of the solution, complementing alternative fuels.

We seek opportunities to innovate and implement emerging technologies that will increase vessel efficiency and reduce carbon output, aiming to broaden their application to support efforts to decarbonise the global maritime industry.

Backed by a funding pool of up to \$20 million, two of our owned 205k DWT Newcastlemax vessels will be made available to retrofit as a “floating lab” in 2023.

By crowdsourcing solutions to this complex challenge, we hope to identify and support projects that will help deliver breakthrough positive outcomes for our shipping value chain, and ultimately, the maritime industry through sharing of our findings.

## Solutions we seek

We seek ideas and solutions from the global research, technology, and innovation industry to achieve Rio Tinto's goals for this business challenge; we aim to:

- Identify and support the development of fuel efficiency and carbon reduction solutions that are at a prototype stage or more advanced (we appreciate numerous options exist in the maritime space and are looking to gather a comprehensive picture of these potential solutions)
- Stimulate the market to potentially transfer solutions from other industries
- Capture key lessons for future developments or opportunities
- Deliver against Rio Tinto's Marine decarbonisation strategy

Solutions may include projects such as (but not limited to) sails, kites, solar/battery hybrid kits, air lubrication, or onboard carbon capture.

The two likely vessels which would serve as the floating laboratory are the RTM Tasman and the RTM Columbus. They trade primarily, although not exclusively, on the Western Australia to East Asia iron ore route.

## Timeline

This initial phase will close for submissions on 7 July 2022. An initial shortlist of selected submissions will be contacted during the week of 25 July to discuss further.

## About your submission

We encourage you to include as much evidence as possible to support your submission's claims. This will boost our confidence in the feasibility and effectiveness of your solution or concept.

We may elect to proceed with any, all, or none of the submissions. Similarly, there could be aspects of your solution that could work with other solutions, so consider whether you would be willing to partner with other third parties. This will be discussed on an individual basis.

You should include an assessment of your solution's readiness, initially for installation in 2023. Rio Tinto is willing to fund and or cost-share projects from a total funding of up to \$20 million.

Rio Tinto will consider a mix of quantitative and qualitative criteria in determining whether to discuss submissions further. Should we wish to proceed further, a non-disclosure agreement will be entered into to ensure the intellectual property and information rights of both parties are maintained.

## How to lodge your submission

Please submit via the form on the [Pioneer Portal](#) and ensure that you agree to the Terms and Conditions.

For further clarification email [pioneerportal@riotinto.com](mailto:pioneerportal@riotinto.com).