



The boat is 70 per cent self-sufficient in energy | Photo source [The SeaCleaners](#)

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BOAT ACTS AS FLOATING PLASTIC WASTE-DISPOSAL FACTORY

 MOBILITY & TRANSPORT

The Manta is a ship designed to collect and process plastic waste, before using it to power clean-up operations

Spotted: The French ocean explorer and ecologist Yvan Bourgon has designed the Manta – the first factory boat developed to collect and process large quantities of floating macro-plastic waste at sea. The plastic is not only removed from the ocean in the process but is then reused as fuel for the boat.

Every minute, 17 tons of plastic are dumped in the oceans, adding up to between 9 and 12 million tons each year. [According to the UN](#), if ambitious action is not taken, by 2050 the oceans will contain more plastic waste than fish. To combat this, Bourgon’s team have drawn up plans for a 56 metre-long boat that scoops up the waste as it moves through the water.

The plastic is sorted and then fed into a specially-designed burner that melts the plastic which will drive the turbine. This in turn generates enough electricity to power the boat and its systems. That electricity, combined with sails, solar cells and wind turbines, will make the boat 70 per cent self-sufficient in energy. The Manta has also been designed to operate autonomously for much of the time, cruising the seas in search of plastic.

Although still in the concept stage, Bourgon has said that just 400 of the boats could clean up a third of the ocean’s plastic waste. His hope is that the boat will serve as not only a clean-up tool, but an educational platform, a scientific laboratory to study plastic pollution, and as an ambassador for the fight against ocean waste. “To fold your arms and say ‘No, we’ll do nothing, we’ll leave it, we’ll focus on dry land, we’ll leave the waste in the ocean,’ is totally irresponsible,” [he says](#).

Marine pollution has been receiving a great deal of interest lately, and at Springwise we are seeing a large number of innovations aimed at cleaning up our oceans – often from those who live and work

around it. Recent ideas include a design for an ocean-based [clean-up station](#) and a device that attaches to sailboats and filters [micro-plastics](#) from the water.

Written By: Lisa Magloff

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11th February 2021

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Takeaway:

Bourgon will need to raise considerable investment and interest in this project before it can move from drawing board to reality, but as concern for the health of the oceans increases, funding 400 Mantas may not be that far-fetched. The concept also represents a new way of thinking about ocean pollution that will hopefully inspire others. Bourgon and his team hope to create a working prototype by 2024 and plan to operate initially in Africa, Asia and South America – areas where marine plastic pollution is especially dense.