



DRIFT Energy's yachts generate green hydrogen as they sail | Photo source [DRIFT Energy](#)

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A YACHT PRODUCES GREEN HYDROGEN AS IT SAILS

 AGRICULTURE & ENERGY

A company is creating hi-tech yachts that act as mobile hydrogen production plants

Spotted: Green hydrogen—which is produced using renewable energy sources such as solar or wind power—has been earmarked as a key player in the net zero transition. In response, innovators are exploring different ways of producing green hydrogen – and some are thinking outside the box.

Startup DRIFT Energy has developed a novel and creative approach to producing the fuel. The company has successfully produced hydrogen gas on board its first purpose-built hydrofoil sailboat. The sailboat harnesses the wind to power an electrolyser that generates hydrogen – all while the yacht is cruising the seas.

The company's unique idea is to essentially turn hydrofoil sailboats into mobile energy harvesting machines. The hydrofoils are able to harness the wind more effectively than traditional turbines, with an artificial intelligence company estimating that a flotilla of DRIFT's yachts could achieve a load factor of 72.5 per cent. This would compare extremely favourably to the load factors of both onshore wind (26.5 per cent) and offshore wind (39.9 per cent).

DRIFT's most potent secret ingredient, however, is the use of data to find optimal weather conditions for the vessels. A routing algorithm analyses factors such as wind speed, wind orientation, and wave height to find the optimal sea conditions for large-scale production of green hydrogen.

The company plans to commercialise its technology in the coming years. During sea trials, the hydrofoil produced six litres of hydrogen, but the team believe it could have produced more than 10 times more. Building on this success, the company's next step is to progress plans for vessels capable of producing 250,000 liters per hour.

Other hydrogen innovations recently spotted by Springwise include a next-generation hydrogen airship for cargo, a heavy-duty hydrogen truck, and off-grid hydrogen generation technology.

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Takeaway:

Green hydrogen is produced through electrolysis powered by renewable energy sources such as solar and wind. The scale at which green hydrogen will need to be produced to meet global demand is unprecedented. In order to meet this demand, a number of trends must be taken into account. First, the development of large-scale electrolyzers will be essential. Second, the siting of electrolyzers near renewable energy sources will minimise transport costs and maximise efficiency. Third, the use of green hydrogen in a variety of sectors—from industry to transportation—must be promoted in order to create a market for this new fuel source. Taken together, these trends will play a crucial role in enabling the successful production of green hydrogen on a commercial scale. DRIFT Energy's creative approach is part of this broader push.