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Hydrogen: Getting the Green Light, Driving Europe's Green Recovery

1 July 2020

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My Background

- Three time Olympic medallist and double Olympic champion
- Veteran of four America's Cup challenges, Team Manager of Artemis Racing during the 2017 America's Cup in Bermuda.
- Founded Artemis Technologies in 2017, with a mission to see how our America's Cup technology could play a part in the decarbonisation of the maritime industry.

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Artemis Technologies

- A spin off from the successful Artemis Racing America's Cup team.
- Founded to commercialise the hydrofoil, computer simulation tools, and wing-sail intellectual property developed by the team over the last seven years.
- The company provides engineering services to high-performance and commercial clients, as well as developing unique products, like the world's most advanced maritime simulators.

Maritime in 2020

- The global maritime transport sector is a major source of greenhouse gas emissions. It accounts for 15% of nitrogen oxides (NOX), 13% of sulphur oxides (SOx), and 3% of carbon dioxide (CO2) emissions annually.
- Under new UN & Government regulation, the maritime sector must reduce its emissions by 50% by 2050 through embracing new disruptive technologies.
- However, most operators continue to use ageing and inefficient technology, due to no viable zero-emissions solution in the market, with only marginal environmental gains being achieved.

PLAY CONSORTIUM VIDEO - https://www.youtube.com/watch?v=l4cFXz3CAVQ&t=9s

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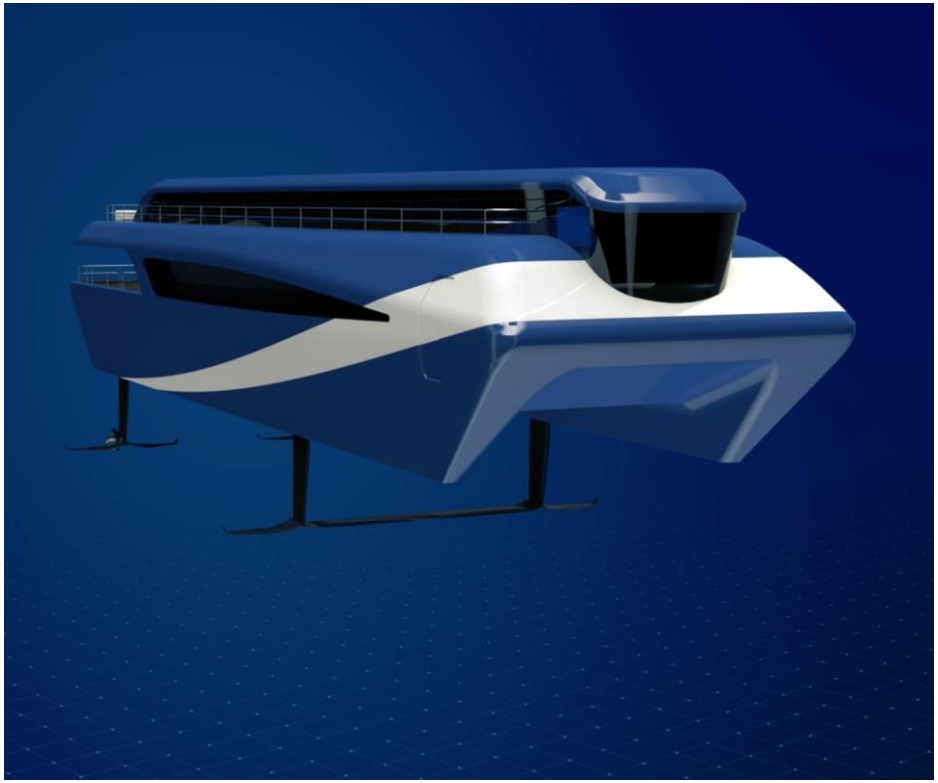
Speed vs Range



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eFoiler Propulsion System

- The integration of a high power density electric drivetrain into an autonomously controlled hydrofoil.
- A combination of America's Cup, aerospace, and motorsport technologies.
- Vessels fly over the water providing up to **90% fuel savings** compared to modern high speed vessels, through a combination of drag reduction and engine efficiency.

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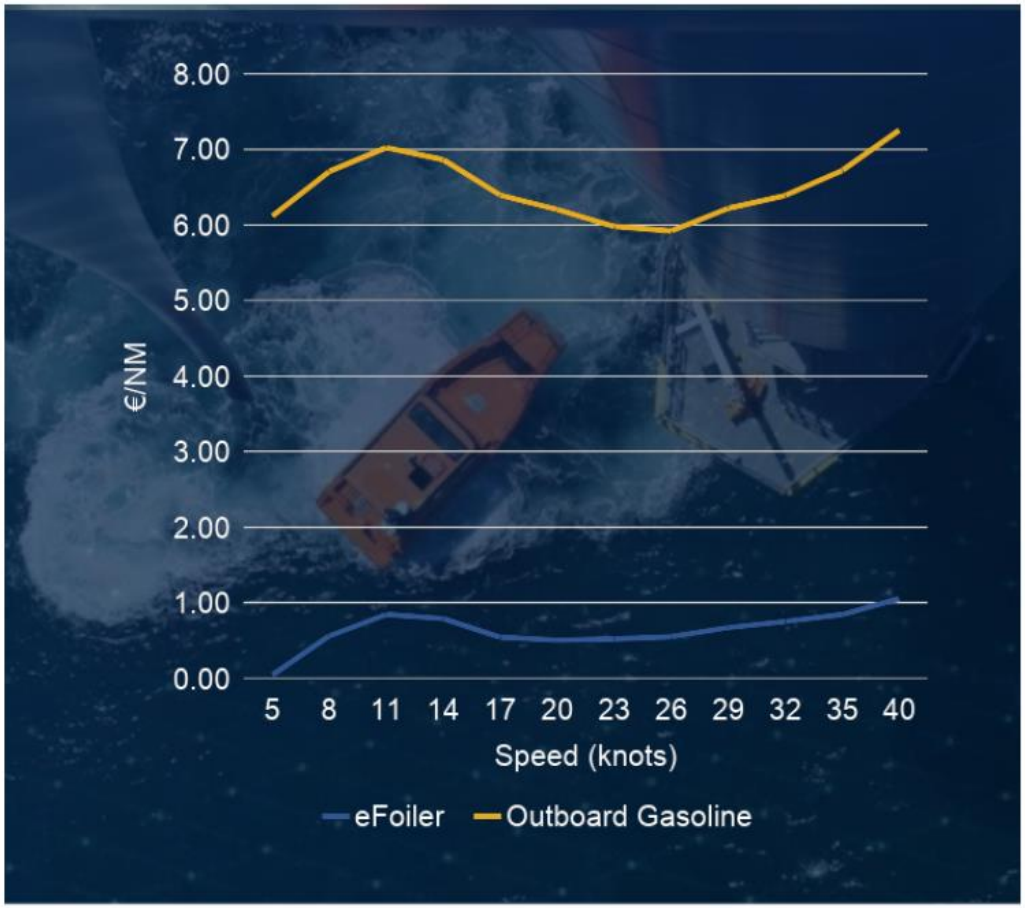
Fuel Efficiency Case Study

- Standard fuel costs provided by Tuco Marine Group, and the eFoiler data generated from the Artemis Technologies eSim Tool Chain.



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New Builds & Retrofits

- Our eSim capability makes the eFoiler a modular system, from propeller to user interface, that can be installed on new build vessels or retrofitted onto operational vessels.

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Use Cases

- Security
- Passenger Ferry & Water Taxi
- Workboat
- Leisure

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Hydrogen Extended Range

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Hydrogen Marine Projects

- Golden Gate Zero Emission Marine Hydrogen Ferry
- Zeff Hydrofoiling Hydrogen Ferry Concept
- Norled Hydrogen Ferry

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Waterways in major cities are a source of untapped potential.