



## Helion Hydrogen Power granted AiP for marine hydrogen fuel cell technology

08 Aug 2022 by Riviera News

Bureau Veritas has granted an Approval in Principle (AiP) to hydrogen fuel cell manufacturer Helion Hydrogen Power, taking another step towards the full certification of its maritime hydrogen fuel cell system called FC-RACK



Bureau Veritas has certified Helion's FC-RACK hydrogen fuel cells to be in compliance with rules that correspond to the use of fuel cells on board ships. The fuel cells' suitability for use in a marine environment, known as "marinisation", will be ensured by a double envelope enclosure that enables the system to be fully sealed off if subjected to harsh, highly corrosive salt water conditions.

Additional safety measures on the Helion FC-RACK marine system include a thermal management system, a dedicated on-board control system, and a hydrogen safety system that enables the FC-RACK to be installed either inside or on the deck of the vessel.

Helion Hydrogen Power's President Vincent Maheo said he hoped this would lead to full approval and scaling the system for wider use.

"The substantive work that has been carried out along with our certifying partner confirms our belief that the product meets the requirements of the maritime sector. The latter also suggests that our FC-RACK Marine will quickly obtain final approval (Type Approval Certificate). This certificate will lead to the industrialisation of the FC-RACK Marine in order to provide a reliable and robust solution to our customers in the marine industry in their decarbonisation ambitions. The story does not end there since our fuel cell system has already been selected in marine projects in real-world conditions," Mr Maheo said.

The company's marine certified fuel cell is expected to be operational by the end of 2023 and will supply zero-emission power to a Piriou shipyard-built dredger operating in the Occitanie Region of France. Helion's own hybrid diesel-hydrogen dredger, the 200 kW FC-RACK will provide the energy required for onboard activities when the vessel is at berth and will partly supply the propulsion power during dredging activities.

BV Marine & Offshore's senior VP Technical & Operations, Laurent Leblanc said "Our role as a class society is to enable our customers to tackle the energy transition. Collaborating with Helion on the zero-emission hydrogen powered electric generator is very stimulating. We look forward to continuing the partnership and support the industry decarbonisation's journey."