

Zero-emission ship: PONANT selects the Syroco EfficientShip digital twin platform



21st November 2023 - Committed to the development of a new generation of zero-emission ships, PONANT has selected the Syroco EfficientShip platform to support the design and digital modelling of the innovative Swap2Zero project. A digital twin based on physics and artificial intelligence will make it possible to simulate the behaviour of the different components of the ship to evaluate her energy consumption and minimise her emissions.

Swap2Zero is the first transoceanic ship concept that aims for carbon neutrality when sailing, manoeuvring, in port or at anchor. Her carbon footprint will be reduced throughout her life cycle. This sailing ship, which will be ready by 2030, will combine renewable energy provided by wind and sun, fuel cells and carbon capture devices. It will be a catalyst for new energy solutions with a high replicability potential.

PONANT has selected Syroco EfficientShip, a solution provided by the Climate Tech startup which supports the energy transition of maritime transportation, to help with the design of the Swap2Zero project. Through simulations, the digital tool contributes to the selection of technologies that will optimise the energy efficiency of the future ship and validate propulsion and carbon reduction goals. The Syroco EfficientShip platform builds a digital twin of the ship by combining physics and artificial intelligence. The twin is used to model her efficiency and performance in a variety of configurations, based on design parameters (propulsion, hull, etc.), operational parameters (speed, trim, etc.) and environmental parameters (wind, swell, etc.), in order to minimise energy consumption and emissions.

Mathieu Petiteau, Newbuilding and R&D Director at PONANT, explained: *“During our studies around the design of our future ship, Syroco EfficientShip helps us define the best possible technical configuration. This platform also enables us to model precisely the behaviour of our future ship and her energy efficiency in different configurations, depending on routes sailed and weather*

conditions encountered. The digital twin technology is clearly part of our strategy to accelerate the decarbonisation of the maritime industry.”

“We are proud to work with PONANT, a company at the forefront of maritime innovation and committed to decarbonised navigation. Only through the deployment of cutting-edge technological solutions will the maritime industry be able to accelerate its energy transition,” added Alex Caizergues, CEO and Co-founder of Syroco.

ABOUT SYROCO

Syroco is a Climate Tech startup that supports the energy transition of maritime transportation by providing fleet owners and operators with a platform to evaluate and improve the efficiency and impact of ships. Using pioneering challenges as a driver for innovation, the startup was born from the complementary expertise of its founders in the scaling of hypergrowth startups, data and artificial intelligence, naval architecture and racing boat design, extreme sports and offshore racing. Visit Syroco on <https://syro.co>

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ABOUT PONANT

Explore to inspire : explorer pour mieux comprendre, apprendre, partager et protéger. PONANT s’engage depuis 35 ans pour un tourisme plus responsable et des voyages d’exploration porteurs de sens. La flotte sous pavillon français est composée de 13 navires de petite capacité, dotée d’équipements environnementaux dernière génération. Avec PONANT, l’exploration est raffinée, authentique et source d’inspiration. Plus d’informations sur www.ponant.com

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