



Energy Observer



## Communiqué de presse - Energy Observer at the heart of the challenges facing the maritime sector in France

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From September onwards, Energy Observer will be at the very heart of the challenges facing the maritime sector by participating in a host of events in the South of France: the UICN's World Conservation Congress in Marseille, the Cannes Yachting Festival, the French leg of the Sail Grand Prix in Saint-Tropez, an international sailing championship targeting a climate-positive impact and finally Les Assises de l'Économie de la Mer (Forum of the Economy of the Sea), which is hosted this year by the City of Nice.

A dense programme for a project with a sturdy DNA and a multidisciplinary team comprising blue water sailors, offshore racers, engineers and professionals involved in sustainable event management.

While Energy Observer is the name of the first hydrogen-powered vessel to circumnavigate the world entirely self-sufficiently and with zero emissions, it is also an organisation which groups together both expeditions and innovations, accelerating the energy transition and raising awareness about its work. As a result, its primary mission is to explore and develop solutions, which prove that another future energy is possible both at sea and on land.

With a view to championing this mission, Katia Nicolet, scientific advisor for Energy Observer, and Louis-Noël Viviès, managing director will be invited by the CMA CGM group, Energy Observer's strategic partner, to speak at the UICN's World Conservation Congress in Marseille on 7 September. Similarly, Chairman and CEO Rodolphe Saadé will take advantage the Assises de l'Économie de la Mer platform to confirm the global leader of maritime transport's desire to construct a multidisciplinary consortium for tomorrow's energies. It is a sure sign that the maritime sector must play a major role alongside other protagonists involved with heavy-duty vehicles in rolling out projects that are in line with the Paris Agreement, at a time when the latest report from the IPCC is encouraging us to really step things up a gear to make a drastic reduction in greenhouse gas emissions.

Energy Observer is working with these major industrial partners on cleaner shipping solutions using breakthrough technologies like liquid hydrogen : a project involving a cargo ship of the future will be announced in March 2022 at the France Pavilion's Challenges of the Oceans themed fortnight to round off the Dubai World Expo.

It's worth pointing out that maritime transport is responsible for 3% of the world's GHG.

With a series of ambitious projects emerging for lines of liquid hydrogen boats, especially those travelling between Australia and Japan where there is a need to supply the new terminal in Fukushima, a symbol of Japanese energy transition, we're witnessing an increasing number of investments in infrastructure across Asia. Indeed, plans for whole cities, like 'The Woven City', a living laboratory in the foothills of Mount Fuji, are being envisioned to develop ecosystems which are fully connected and powered by hydrogen.

It's a navigation zone in which the vessel Energy Observer, currently on stopover in New Caledonia, is due to make for in late 2021.

Clean, innovative and accessible maritime applications, made in France, will be presented in Cannes, St Tropez and Nice.

The Energy Observer team will be present in Marseille as well as Cannes thanks to the maritime solutions developed by its subsidiary EODev, with its first application being linked to the boat HYNova 40, equipped with REXH2®: a technology initially validated aboard the floating laboratory Energy Observer back in 2019 and now being deployed on a boat that is accessible to all.

It is a genuine revolution in the boating world. Indeed, the HYNova 40 is the world's first production model open boat approved for use as an electro-hydrogen pleasure craft using hydrogen stored aboard to propel it along silently with zero CO<sub>2</sub>, NO<sub>x</sub> or SO<sub>x</sub> emissions and no unburnt hydrocarbon.

A new approach to navigation...

The R&D carried out by the Energy Observer and Toyota teams has led to a system that is perfectly suited to the extreme conditions of the marine environment to reach power levels of 70 kW per unit, and up to 1MW when stacked. It is this flexibility of implementation that makes the REXH2® the perfect generator for tailor-made hydrogen solutions for propulsion and the supply of decarbonated energy at sea. In this way, it can kit out all types of boats, from passenger shuttles to barges, professional boats and small and large pleasure craft.

Compared to petrol or diesel solutions, the REXH2® has obvious environmental benefits since only water is discharged from the system. Indeed, it releases no pollutants into the atmosphere or into the water (no CO<sub>2</sub>, NO<sub>x</sub>, GHG, unburnt hydrocarbons, etc.). Furthermore, the REXH2® runs silently, preventing noise pollution, which has been proven to be highly damaging to marine species and their ability to communicate.



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...For all types of boats of medium power

These technologies are especially interesting for pleasure craft and passenger vessels, as well as boats competing at sports events. In this way, through Energy Observer Foundation's donated capital, Energy Observer will be present alongside Sail GP France in Saint Tropez.

This championship has had to accept multiple challenges to become the first climate-positive mechanical sport. Sail GP is the first organisation to have obtained the international standard for carbon neutrality and three gold medals within the context of the United Nations' 'Climate Neutral Now' initiative.

Through its presence, Energy Observer is supporting the commitments of the France Sail GP Team as a partner to 'Race for the future'.



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Energy Observer's educational exhibition is open to the public on 11 and 12 September and is intended to raise awareness among both the championship's protagonists and the general public about the need to shift their focus to clean energies and decarbonated hydrogen.

Practical solutions like EODev's range extender hydrogen REXH2® could well be a solution in the design of tomorrow's chase boats. An electro-hydrogen generator, the GEH2® developed by EODev will be deployed to supply the event with clean energy.

It's worth noting that the electro-hydrogen generator has already been integrated by the Port of Toulon to provide silent and pollution-free power to the dockside ferries, and a whole raft of similar port projects are also being finalised.

#### Tools and actions to raise awareness about maritime energy transition

Energy Observer is putting on a travelling exhibition dedicated to energy and ecology-based transition, which is open to the general public on 11 and 12 September from 12:00 to 18:00 hours. It is designed to enable audience everywhere to discover the technologies aboard the laboratory vessel, together with their applications at sea and on land and also the solutions encountered right around the world through the prism of the UN's 17 Sustainable Development Goals by 2030, for which Energy Observer is France's primary ambassador. The aim of this exhibition is clear: to show that the development of renewable energies, green hydrogen in particular and smart IT systems, are a highly practical response to the climate emergency and the problems of maritime mobility.

This exhibition will also be presented within the scope of the Assises de l'Économie de la mer from 14 to 16 September at the Port of Nice and powered by clean energy using the GEH2® generator.

The boat HYNova 40 will also be on display close to Energy Observer's exhibition, giving participants the chance to trial a practical, working solution for a plethora of potential maritime applications.

In terms of reliability, sustainability and accessibility, the maritime sector naturally remains the primary area of excellence for the Energy Observer project, driven by sailors, yet its multiple applications are evidently universal.

### About Energy Observer

The Energy Observer project was born in 2013 from the commitment of Victorien Erussard, a master mariner. Aware that it is now vital to commit to the planet, he gathered around him a complementary team of sailors, scientists, engineers and reporters to create the first self-sufficient vessel capable of drawing its energy from nature whilst also preserving it.

The dream became a reality 4 years later, when the Energy Observer vessel was launched for the first time. Developed from a legendary multiple award-winning catamaran, Energy Observer is a laboratory for ecological transition designed to push back the limits of zero-emission technologies. Hydrogen, solar, wind and water power, all the solutions are experimented with, tested and optimised here with a view to making clean energies a practical reality that is accessible to all.

Criss-crossing the oceans in a bid to get out and meet those who are coming up with sustainable solutions for the planet every day, Energy Observer has become a movement, a round the world Odyssey, where every stopover is an opportunity to learn, to understand and to share the different energies.

Energy Observer has received the High Patronage of Mr. Emmanuel Macron, President of the French Republic. French ambassador for the UN's sustainable development goals, supported by the Ministry for Ecological Transition, UNESCO, the European Union, Irena and Ademe.

