

Hydrogen Council and Energy Observer Join Forces to Make Decarbonised Hydrogen Maritime Travel a Reality

Global council of industry CEOs and first zero-emission hydrogen-powered vessel join in common mission for energy transition as vessel arrives at 35th world-tour stopover

Amsterdam, 9 April 2019 – The Hydrogen Council, a global initiative of CEOs representing energy, transport, and financial institutions advocating for the accelerated deployment of hydrogen solutions, and Energy Observer, the first hydrogen vessel to travel around the world that emits no greenhouse gases, fine particles or noise, today announce their strategic partnership to advance hydrogen technologies. Together, the two groups are helping accelerate the energy transition by making wide-scale, decarbonised maritime transportation a reality – demonstrating that hydrogen is a viable, safe and sustainable option.

Maritime transport emits around 940 million tonnes of CO₂ annually and is responsible for about 2.5 percent of global greenhouse gas (GHG) emissions. This could increase by between 50 percent and 250 percent respectively by 2050, according to the [International Maritime Organisation](#) (IMO). Hydrogen Council members, many of whom are part of the mobility sector, realise the potential for hydrogen to decarbonise transport as part of the emerging clean energy revolution, and view the Energy Observer voyage as a significant step toward making hydrogen more visible to decision makers around the world.

“The Hydrogen Council is proud to partner with Energy Observer. We support and are inspired by their core mission of using hydrogen to decarbonise marine transport. This voyage proves to the world that long-distance travel using hydrogen is a real possibility. Our new partnership will create greater visibility of how hydrogen is being developed and deployed today, with the view of being widely scaled up tomorrow,” said Pierre-Etienne Franc, Co-Secretary of the Hydrogen Council and Vice President of Air Liquide’s Hydrogen Energy World Business Unit.

“Energy Observer is pleased to cooperate with the Hydrogen Council, as we share the same ambition for hydrogen to foster the energy transition. Hydrogen is a real key to propel our vessel of the future that works through a mix of renewable energies and a system that produces carbon-free hydrogen from seawater. This technological and scientific challenge aims to test cutting-edge technologies in extreme conditions, anticipating the energy networks of the future that could be used on land,” says Victorien Erussard, founder and captain of Energy Observer.

Hydrogen is the most abundant chemical element in the universe. Inexhaustible, it displays exceptional energy density: it releases up to 4 times more energy than coal, 3 times more than diesel and 2.5 times more than natural gas. Its combustion emits neither greenhouse gases nor fine particles. Hydrogen’s potential is, therefore, immense, and in terms of energy transition, it opens up a significant field of possibilities.

A recent Hydrogen Council report, [Hydrogen, Scaling Up](#), projects there could be thousands of passenger ships transporting people without carbon and local emissions by 2030. By mid-century, the Council also purports that hydrogen could power a quarter of passenger ships worldwide, contributing to roughly 20 percent of CO₂ abatement as required by the Paris Agreement. The Council joins a robust group of visionary partners had by Energy Observer including the French Association for Hydrogen and Fuel Cells (AFHYPC).

Energy Observer is currently embarked upon a six-year voyage consisting of 101 stopovers around the world. This joint announcement comes as the Energy Observer is docked in Amsterdam, on its 35th stopover, during which the Energy Observer team is also hosting the Energy Observer Village exhibition. Discover more about the [Energy Observer Odyssey](#) here.

About the Hydrogen Council:

Launched at the World Economic Forum in Davos in early 2017, the Hydrogen Council is a first-of-its-kind global CEO initiative to foster the role of hydrogen technologies in the global energy transition. Current members include 33 leading multinationals – 3M, Airbus, Air Liquide, Air Products, Alstom, Anglo American, Audi, BMW GROUP, China Energy, Cummins, Daimler, EDF, ENGIE, Equinor, Faurecia, General Motors, Great Wall Motor, Honda, Hyundai Motor, Iwatani, Johnson Matthey, JXTG Nippon Oil & Energy Corporation, Kawasaki, KOGAS, Plastic Omnium, Royal Dutch Shell, Sinopec, The Bosch Group, The Linde Group, thyssenkrupp, Total, Toyota and Weichai– as well as 20 dynamic players from across the value chain – AFC Energy, Ballard Power Systems, Faber Industries, First Element Fuel (True Zero), W. L. Gore, Hexagon Composites, Hydrogenics, Marubeni, McPhy, Mitsubishi Corporation, Mitsubishi Heavy Industries Ltd., Mitsui & Co, Nel Hydrogen, Plug Power, Re-Fire Technology, Royal Vopak, Southern California Gas, Sumitomo Mitsui Banking Corporation, Sumitomo Corporation and Toyota Tsusho. The coalition collectively represents total revenues of over €1.8 trillion and close to 3.8 million jobs around the world.¹

The Hydrogen Council has published three studies to date, [How hydrogen empowers the energy transition](#) (January 2017) exploring the role of hydrogen in the energy transition, including its potential, recent achievements, and challenges to its deployment; [Hydrogen, scaling up](#) (November 2017) presenting the first comprehensive vision of the long-term potential of hydrogen and a roadmap for deployment; and [Hydrogen Meets Digital](#) (September 2018) exploring how digitization and hydrogen could complement each other's impact during the energy transition. To find out more visit: www.hydrogencouncil.com.

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About Energy Observer:

Energy Observer is the first hydrogen vessel that emits no greenhouse gases or fine particles or noise. A veritable experimental platform for future energies. With a combination of three sources of renewable energies (sun, wind, hydro -kinetic) and two forms of storage (batteries and hydrogen), it is a symbol of an energetic revolution already moving ahead, adapted to all territories and all latitudes. The vessel's mission is to test these cutting-edge technologies in extreme conditions, to allow concrete feedback of experience on this intelligent energy system.

Energy Observer is currently conducting a worldwide tour called "Odyssey for the Future" that will last six years (2017-2022). During this time, it will visit 50 countries and call at 101 ports to raise public awareness about key aspects of the environmental transition, in particular: renewable energies, biodiversity, mobility, and the circular economy, through the stopovers made by this traveling village, on social media, and in a series of documentaries. This world tour is led by Victorien Erussard, founder and captain, and France's chief ambassador for the UN's 17 sustainable development goals, and Jérôme Delafosse, head of the expedition and director of the documentary series.

Energy Observer received the High Patronage of Mr. Emmanuel Macron, President of the French Republic, as well as the official support from the European Union, UNESCO and IRENA.

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¹ Company figures from financial year 2017.