## Jolt Electrodes secures €6 Million in Series A Funding - Powering the green hydrogen revolution

Barcelona, Spain – Jolt has cutting-edge technology for the production of **next-generation activated electrodes for electrolyzers and fuel cells**. The company was founded by Leon Rizzi, a serial entrepreneur, together with manufacturing experts and a strong team of scientists from the Institute Catalá d'Investigació Química (ICIQ).



<u>Green hydrogen, a vital component in the transition to sustainable energy</u>, currently faces significant cost challenges, with prices per unit up to four times higher than those of fossil fuels. The global consumption and cost targets for green hydrogen are unattainable with existing electrode technologies, making the need for innovation and breakthrough solutions imperative.

The team from Jolt are quick to stress that the success or failure of **the green hydrogen sector hinges on advancements in electrochemistry and not just in engineering**. With its patented catalytic coating technology, Jolt is revolutionising electrode production and enabling a more cost- and energy efficient industrial process. Jolt's latest Alkaline and AEM electrodes demonstrate an unparalleled level of energy efficiency and an exceptional 10+ year durability, greatly out-performing all existing commercial electrodes available in the market. In 2024, Jolt will release new products based on activated diaphragms and membranes (CCM and CCD) for the AEM, PEM and water treatment markets.



Leon Rizzi emphasises "Electrodes serve as the beating heart of all electrolysers and fuel cells. The evolution of electrodes plays a pivotal role in determining the triumph of the Green Hydrogen industry, much like the revolutionary impact of microchip innovation in the Personal Computing era."

The company has secured **€6 million** in a Series A funding round led by <u>Climentum</u> <u>Capital</u>, an Article 9 Climate Tech fund investing in companies that can transform industries and cut megatons of CO2 emissions. <u>Ship2B Ventures</u>, a Spanish impact investment firm, has contributed as lead co-investor, followed by <u>Axon Partners Group</u>, as well as two Catalan family funds, who are joining seed investor <u>NET</u>. The funding will enable Jolt to establish its first electrode production plant in Barcelona, set to commence operations in early 2024, as well as a state-of-the-art laboratory.

"For us as Climate Tech investors, Jolt offers great commercial potential, but also a hugely reduced use of strategic materials and much lower Co2 emissions in the electrode production process with higher efficiency for the customers generating hydrogen - the total potential is several mega tons annually" explains Dörte Hirschberg, General Partner at Climentum Capital.

Several follow-on coating plants are being planned for 2024-25, each low-CAPEX line situated in or next to the manufacturing plants of Jolt's own customers being capable of producing an incredible 400,000 m2 of electrodes per annum. Current production methods are energy intense and complex, leading to long waiting lists of over one year. Current alkaline and AEM activated electrodes account, on average, for >up to 22% of the total cost of production of an electrolyzer (26% for PEM electrolysis). Jolt will push this cost down to 8%, and later to below 5%, allowing for a rapid scaling in the use of water electrolysis.

The market response to Jolt's groundbreaking electrodes has been truly electrifying (pun intended), with numerous customers already signing contracts to secure access to Jolt's cutting-edge technology.

HyDep, a well-known Italian company with decades of experience designing cutting-edge stacks and electrolysers, confirms the significance of its partnership with Jolt. Its CEO, Mario Dragoni, stated, "Aligning with Jolt's groundbreaking coating solution equates to investing in the very essence of the green hydrogen revolution. The activated **electrodes that Hydep** has been testing have boosted durability and efficiency, at much-reduced costs and with a significant increase in productivity compared to traditional electrode coating solutions."

With its low manufacturing CAPEX/OPEX, low prices and high performance electrodes, solution combustion is set to replace the traditional coating solutions used to make activated electrodes.

## About Jolt:

Jolt is a graduate of the Mobile World Capital "Collider" accelerator program and a spin-out of the Catalan Institute of Chemical Research and was founded by a team led by serial entrepreneur Leon Rizzi and including its COO, Arturo Vilavella, its CTO, Dr. Alberto Bucci and Chief Scientist, ICREA Professor Julio Lloret Fillol. Jolt specialises in the production of next-generation activated electrodes for enhanced electrolyzers and fuel cells as well as for water treatment, chlor-alkali and cathodic protection systems. With its innovative catalytic coating and commitment to sustainable and cost-effective solutions, Jolt is at the forefront of driving the green hydrogen revolution.