Global Interest for Hydrogen Soars as Hydrogen Council Grows to 90+ Members

Hydrogen Council Expands Membership With New Sectors and Geographies as Governments Rely on Hydrogen for COVID-19 Recovery

Brussels, 27 July 2020 – The Hydrogen Council, a global CEO-led coalition working to enable the global energy transition through hydrogen, has today announced 11 new members. The news comes at a pivotal moment for the world's sustainable economic recovery from the coronavirus pandemic and further bonds the industry's commitment to leverage hydrogen solutions to build a cleaner, more resilient economy post-COVID. It also comes on the back of several major government announcements regarding investment and policy action to support hydrogen over the last two weeks. The Hydrogen Council has grown from 13 founding companies in 2017 to 92 members in just three years.

The group of new joiners includes two steering members: **CMA CGM** and **Microsoft**; seven supporting members: **Baker Hughes**, **Clariant**, **MAHLE**, **NYK Line**, **Port of Rotterdam**, **TechnipFMC** and **Umicore**; and two investors: **Mubadala Investment Company** and **Providence Asset Group**. This group mirrors the wide range of geographical and sector interest in hydrogen - including companies headquartered in Europe, Asia, Australia, the United States and United Arab Emirates, as well as representing sectors such as chemicals (Clariant), automotive (MAHLE), energy and materials technology (Baker Hughes, TechnipFMC, Umicore), shipping (CMA CGM, NYK Line), industrial ports (Port of Rotterdam) and digital (Microsoft). The two investors - Mubadala Investment Company and Providence Asset Group - will be joining the Hydrogen Council's Investor Group, established in January 2020 to bridge the gap between the investor community and the hydrogen industry and facilitate investment of large-scale projects.

"As policymakers, businesses and investors across the globe are working to recover from the economic and social consequences of the pandemic, hydrogen is increasingly recognised as an indispensable piece of the puzzle. The recently announced EU, German and Korean plans on hydrogen are among prime examples of that momentum and we hope that other countries will join in soon", said **Benoît Potier, Chairman and CEO of Air Liquide and Co-chair of the Hydrogen Council**. "This crisis will define our energy production and consumption for at least a generation. The companies joining our group today acknowledge that this is a critical time to accelerate clean energy innovation to reach our climate goals and recognise that hydrogen can play a paramount role in doing so."

Takeshi Uchiyamada, Chairman of the Board of Toyota Motor Corporation and new Co-chair of the Hydrogen Council since July 2020 added: "On the cusp of a global energy transformation, we need long-term thinking and massive investments in systemic solutions like hydrogen. Hydrogen technologies can provide zero-emission energy and transport solutions, enable deep industrial decarbonisation and help renewables maximise their potential through storage."

-ENDS-

About the Hydrogen Council:

The Hydrogen Council is a CEO-led organisation that uses its global reach to promote collaboration between governments, industry and investors, and to provide guidance on accelerating the deployment of hydrogen solutions around the world. The Council acts as a business marketplace, building a comprehensive hydrogen economy and shifting the perception of hydrogen globally. In addition, the Hydrogen Council serves as a resource for safety standards and an interlocutor for the investment community, while identifying opportunities for regulatory advocacy in key geographies. The coalition of <u>92 members</u> including large multinationals, innovative SMEs and investors collectively represents total revenues of over €18.9 trillion and over 6.5 million jobs around the world. To find out more visit <u>www.hydrogencouncil.com</u> and follow us on Twitter <u>@HydrogenCouncil</u>.

Hydrogen Council Press Office:

Ciel Jolley, +32 2 289 09 30 – <u>Ciel.Jolley@fticonsulting.com</u> Evelyne Bauer, +32 477 56 26 15 – <u>Evelyne.Bauer@fticonsulting.com</u>

About our new members:

Steering Members

CMA CGM: Led by Rodolphe Saadé, the CMA CGM Group is a world leader in shipping and logistics. Its 489 vessels serve more than 420 ports on five continents around the world and carried nearly 22 million TEUs (twenty-foot equivalent units) in 2019. With CEVA Logistics, a world leader in logistics services, CMA CGM handles more than 500,000 tons of airfreight and 1.9 million tons of inland freight every year. CMA CGM is constantly innovating to offer customers new maritime, inland and logistics solutions. Present on every continent and in 160 countries through its network of 755 offices and 750 warehouses, the Group employs 110,000 people worldwide, of which 2,400 in Marseille where its head office is located. Press contact: media@cma-cgm.com

Microsoft: Microsoft has <u>committed</u> to become carbon negative in all operations by 2030 and remove all historical carbon from the atmosphere that the company has emitted since its founding, by 2050. Microsoft's global datacentre operations are a significant consumer of energy and we are currently experimenting with multiple carbon-free technologies for primary power, back-up power, and energy storage as well as investing in meaningful, measurable climate solutions that need capital to scale in the market through the Climate Innovation Fund. Our experimentation in power generation, storage, and transportation fuels could make significant cost reductions possible by 2030. In addition, deployment of hydrogen FCEVs in our global campus vehicle fleets can help us meet our electrification goals by 2030. The Climate Innovation Fund will accelerate technology development and new innovations by investing in project finance, debt, and equity capital.

Supporting Members

Baker Hughes: Baker Hughes is an energy technology company that provides solutions to energy and industrial customers worldwide. Built on a century of experience and with operations in over 120 countries, our innovative technologies and services are taking energy forward – making it safer, cleaner and more efficient for people and the planet. Visit us at <u>bakerhughes.com</u>

Clariant: Clariant is a focused, sustainable and innovative specialty chemical company based in Muttenz, near Basel/Switzerland. The company's Catalysts business unit, headquartered in Munich/Germany, is a leading global developer and producer of catalysts for industrial processes with a total of 14 production sites and 10 R&D and technical centers worldwide. Aimed at delivering sustainable value to customers, Clariant's catalysts and adsorbents are designed to increase production throughput, lower energy consumption, and reduce hazardous emissions from industrial processes. Thanks to decades of experience in the hydrogen field, Clariant Catalysts has earned a reputation for developing highly active, performance enhancing and reliable hydrogen catalysts and adsorbents to maximise productivity and efficiency in every stage of hydrogen production.

MAHLE: MAHLE is a leading international development partner and supplier to the automotive industry. The Technology Group, based in Stuttgart, Germany, is committed to making transportation more efficient, more environmentally friendly, and more comfortable by continuously optimising the combustion engine, driving forward the use of alternative fuels, and laying the foundation for the worldwide introduction of e-mobility and hydrogen-based mobility. Today MAHLE products are fitted in at least every second vehicle worldwide. Components and systems from MAHLE are also used for stationary applications, for mobile machinery, rail transport, as well as marine applications. In 2019, the Group generated sales of approximately EUR 12.0 billion with more than 77,000 employees and is represented in more than 30 countries with 160 production locations, including 16 major research and development centres.

NYK Line: NYK Line was founded in 1885 and is one of the world's leading transportation companies. At the end of March 2020, the NYK Group was operating 784 major ocean vessels, as well as fleets of planes and trucks. The NYK Group is based in Tokyo, employs about 35,000 people worldwide, and has regional headquarters in London, New York / New Jersey, Singapore, and Shanghai. In accordance with its medium-term management plan "Staying Ahead 2022 with Digitalisation and Green", the company is promoting digitalisation and green initiatives in an effort to optimise the overall supply chain and create new value in the environmental field — thus realising the company's basic philosophy of "bringing value to life" and contributing to the betterment of societies.

Port of Rotterdam: Rotterdam is Europe's largest energy hub, importing large volumes of crude oil, mineral oil products and coal. The Port of Rotterdam Authority has the ambition to be frontrunner, fieldlab and flagship of the energy transition. The Port of Rotterdam is therefore, amongst others, working with various partners towards the realisation of several electrolysis plants for the production of green hydrogen as well as the introduction of a large-scale hydrogen network across the port complex, making Rotterdam an international hub for hydrogen production, import, application and transport to other countries in Northwest Europe.

TechnipFMC: TechnipFMC is a global leader in the energy industry; delivering projects, products, technologies and services. With our proprietary technologies and production systems, integrated expertise, and comprehensive solutions, we are transforming our customers' project economics. Our 60+ years of experience in hydrogen processing began with pioneering the steam reforming process. Today, through our Technip Energies segment, our deep experience across the hydrogen value chain includes more than 270 plants worldwide, including some of the world's largest steam reformers. In terms of blue hydrogen, we have over 50 references for CO2 removal. We offer as well decarbonisation advisory services through our Genesis brand. Driven by our historical track record in grey and blue hydrogen projects, we are now also involved in various green hydrogen initiatives.

Umicore: Umicore is a global materials technology and recycling group, which focuses on application areas where its expertise in materials science, chemistry and metallurgy makes a real difference to the planet. In the field of hydrogen technologies, the company has developed since the end of the 1980s a complete portfolio of PEM (proton exchange membrane) fuel cell catalysts and continues to improve, through product development, the robustness of the fuel cell under critical operating conditions to achieve performance requirements for vehicle applications. In order to close the loop, Umicore is developing recycling solutions for end-of-life fuel cells and for production waste.

Investor Group

Mubadala Investment Company: Mubadala Investment Company is a sovereign investor managing a global portfolio, aimed at generating sustainable financial returns for its shareholder, the Government of Abu Dhabi. Mubadala's US \$229 billion portfolio spans five continents with interests in multiple sectors including aerospace, ICT, semiconductors, metals and mining, renewable energy, oil and gas, petrochemicals, utilities, healthcare, real estate, pharmaceuticals and medical technology, agribusiness and a global portfolio of financial holdings across all asset classes. Mubadala has offices in Rio de Janeiro, Moscow, New York and San Francisco, with a joint venture in Hong Kong. Mubadala is a trusted partner, an engaged shareholder and a responsible global company that is committed to world-class standards of governance. For more information about Mubadala, please visit: www.mubadala.com

Providence Asset Group: Providence Asset Group (PAG) is Australia's leading ESG investment firm, financing, developing, and managing multiple assets in renewable energy generation, storage, and technology. The group's daughter company H2Store specialises in the development of a Hydrogen Energy Storage System (HESS) that can be utilised for large scale commercial and portable solutions. LAVO is a newly established company sponsored by Providence's dedicated early stage clean tech venture capital fund to develop world first kind hydrogen residential storage unit for households. The LAVO brand was created to honour Antoine Lavoisier, the father of modern chemistry who recognised and named hydrogen. LAVO vision is to be first to market with safe, non-toxic, cost effective storage of hydrogen. PAG and Australia's leading research organisation University of New South Wales (UNSW Sydney) have jointly established the Hydrogen Energy Research Centre (HERC), creating Australia's first dedicated precinct for hydrogen innovation and industry-led research. For further information about PAG: https://providences.com.au/