

NEWS RELEASE

NANOFILM MAKES STRATEGIC MOVE INTO HYDROGEN ENERGY ECONOMY THROUGH PROPOSED JOINT VENTURE WITH TEMASEK

- To apply Nanofilm's advanced materials surface solutions to critical components in fuel cell and electrolyser systems
- To potentially bring about a tipping point in the proprietary technology's mass commercial adoption and fast-track the commercialisation path of a wide range of fuel cell applications
- To tap on the opportunity to play an important role in the sustainable green energy industry, in line with Nanofilm's sustainability goals

SINGAPORE, 19 April 2021 – Mainboard-listed Nanofilm Technologies International Limited ("**Nanofilm**" or the "**Group**") has today announced it has entered into a non-binding term sheet for a joint venture with Temasek. The Group intends to jointly invest in Sydrogen Energy Pte Ltd. ("**Sydrogen**") to tap on opportunities in the hydrogen economy, using Nanofilm's unique vacuum coating technologies.

Marking Nanofilm's strategic entry into the hydrogen energy economy, all related hydrogen energy business of the Group will be carried out through the proposed joint venture. **Sydrogen** is expected to play an important role in the new sustainable green energy industry. Through the application of Nanofilm's advanced materials surface solutions to critical components in fuel cell and electrolyser systems, **Sydrogen** is poised to potentially bring about a tipping point in the mass and widespread commercial adoption of these technologies. Leveraging the strengths of both shareholders, **Sydrogen** aims to drive the growth and development of the hydrogen energy economy through new technologies, advanced fundamental research, continuous engineering and mass production capabilities.

Dr Shi Xu (史旭), Executive Chairman of the Company, said, "As a deep tech company with a successful track record in commercialising our technologies, we are pleased to explore the opportunity to partner Temasek to further the application of Nanofilm's proprietary nanotechnology solutions in the hydrogen economy. The proposed partnership will feature heavily in our sustainability commitment, as we entrench our role as a critical supply chain player



in the hydrogen economy, contribute to carbon neutrality and offer a sustainable energy source for the global economy."

As a global citizen, where Nanofilm's nanotechnology is proliferated worldwide, the Company pledges to uphold a robust Environmental, Social, and Corporate Governance ("**ESG**") framework, that creates stakeholder value in a sustainable and responsible manner.

Added Dr Shi, "Nanofilm's contribution to the world's sustainability is often underplayed. Our green-labelled mission critical applications adopted by global supply chains reach endconsumers globally, which amplifies the impact of our solutions on society and the environment exponentially. ESG is and will continue to be a key emphasis of Nanofilm's solution offerings as we incorporate sustainability and societal impact as key considerations in our technology and applications. Our goal is to achieve betterment of our society at large through our technologies."

With the global effort to reduce carbon emissions, hydrogen is expected to play a critical role as an energy carrier and fuel source. Hydrogen, the most abundant element in the world, offers a sustainable energy source at zero carbon emission output. Hydrogen can be sustainably produced by electrolysis of water with renewable energy and then converted via fuel cells to generate electricity that is cleaner and more efficient. Emitting only water, hydrogen fuel cells eliminate the emissions of carbon dioxide and other harmful pollutants to the environment. Fuel cells and electrolysers are important technologies within the hydrogen supply chain for future demand. There is much potential to further enhance the efficiency and cost efficacy of fuel cells and electrolysers for the future hydrogen economy. With the underlying characteristics and positive demand-supply balance, the hydrogen economy is expected to develop at a rapid pace.

Mr Lee Liang Huang (李良煌), Chief Executive Officer of the Company, said, "Compared to conventional technologies, Nanofilm's coating technologies and production processes are greener solutions and are executed in an environmentally sustainable manner. Our advanced materials optimise the world's natural resources by replacing limited precious base materials, extending the useful life of materials and changing the characteristics of materials. Fuel cells and electrolysers are important technologies in developing the hydrogen economy, but they have been plagued by cost and durability issues. Leveraging on our coating capabilities in this new

application, we believe that it will fast-track the commercialisation path of a wide range of fuel cell and electrolyser applications, with vast growth potential and cost reductions once scaled."

By leveraging on Nanofilm's advanced materials, **Sydrogen** will first focus on commercialising the adoption of these advanced materials coating process for the key components of the protonexchange membrane fuel cell ("**PEMFC**") stack systems. Nanofilm's advanced materials coatings are enabling catalysts in pivoting towards adoption of metal Biopolar Plates ("**BPP**"), which are technically more superior than competing plate materials and are wider in application usages. As production scales up over time, large cost components in PEMFC stack systems will gain production cost efficiency, contributing to further acceleration in PEMFC adoption.

Mr Lars Ralf Rainer Lieberwirth, Chief Technology Officer of the Company added, "Nanofilm's advanced materials solutions are able to confer special material properties such as corrosion resistance, low resistivity, ion-leaching prevention, and high conductivity onto the substrate's surface, effectively overcoming existing scientific challenges and limitations presented by metal BPPs used in PEMFC as a result of the harsh electrochemical process. Through our solutions, we will be able to utilise materials which are relatively more cost-efficient and abundant for use in the BPP of PEMFC stack systems, allowing for simpler system designs to be adopted and extending the product's useful life and performance in terms of power density and heat control. We are optimistic that the overall cost effectiveness will bring about a tipping point in the mass adoption of PEMFC technology and we are excited to be a part of this movement."

Nanofilm will make further announcements, in compliance with the requirements of the Listing Rules, as and when there are material developments in respect of the matters contemplated by the proposed joint venture.

- ENDS -

ABOUT NANOFILM TECHNOLOGIES INTERNATIONAL LIMITED

Nanofilm Technologies International Limited ("**Nanofilm**") is a leading provider of unique vacuum coating technologies in Asia, leveraging its proprietary technologies, core competencies in R&D, engineering and production, to provide technology-based solutions and products across a wide range of industries including precision equipment, consumer electronics and automotive industry. Nanofilm's solutions serve as key catalysts in enabling its customers to achieve high value-add advancements in their end-products in an environmentally sustainable manner.

ABOUT TEMASEK

Temasek is an investment company with a net portfolio value of S\$306 billion (US\$214 billion) as at 31 March 2020. Its three roles as an Investor, Institution and Steward, as defined in the Temasek Charter, shape Temasek's ethos to do well, do right and do good. Temasek actively seeks sustainable solutions to address present and future challenges, through investment and other opportunities that help to bring about a better, smarter and more sustainable world. For more information on Temasek, please visit <u>www.temasek.com.sg</u>

This media release is issued on behalf of Nanofilm Technologies International Limited by Citigate Dewe Rogerson. For media queries, please contact:

Nanofilm Technologies International Limited

Kay Lim / Duane Tan

E ir@nanofilm.com.sg

Citigate Dewe Rogerson Singapore Pte Ltd

Chia Hui Kheng / Dolores Phua / Justin Teh

- T +65 6534-5122 (Office Hours)
- E <u>NanofilmSG@citigatedewerogerson.com</u>



Important Notice:

Credit Suisse (Singapore) Limited and Oversea-Chinese Banking Corporation Limited are the Joint Issue Managers for the initial public offering of shares in, and listing of, the Company on the Mainboard of the SGX-ST on 30 October 2020 ("Offering"). Citigroup Global Markets Singapore Pte. Ltd., Credit Suisse (Singapore) Limited and Oversea-Chinese Banking Corporation Limited are the Joint Global Coordinators for the Offering. Citigroup Global Markets Singapore Pte. Ltd., Credit Suisse (Singapore) Limited and Oversea-Chinese Banking Corporation Limited are the Joint Global Coordinators for the Offering. Citigroup Global Markets Singapore Pte. Ltd., CLSA Singapore Pte Ltd, Credit Suisse (Singapore) Limited and Oversea-Chinese Banking Corporation Limited are the Joint Bookrunners and Underwriters for the Offering.