

# **News Release**

# NANOFILM & EVERWIN FORM CHINA JV TO ADDRESS COATING NEEDS OF ADVANCED BATTERY COMPONENTS FOR ELECTRIC VEHICLES

- Through the JV vehicle, ApexTech, the Group seeks to apply its sustainable, environmentally friendly, and cost competitive advanced materials coating solutions to replace electroplating
- Initial production is targeted to commence in the first half of 2023 in China, Sichuan with plans to reach industrial-scale mass production by 2024
- ApexTech is expected to sustainably address the coating needs of advanced battery components for electric vehicles, which is projected to reach above 48 million units<sup>1</sup> per year globally by 2030
- ApexTech is expected to capture opportunities in the China market; JV partners will have good faith discussions on the structure and strategy for the international market

SINGAPORE, 28 September 2022 – Mainboard-listed Nanofilm Technologies International Limited (the "Company" and together with its subsidiaries, "Nanofilm" or the "Group"), a leading provider of nanotechnology solutions, would like to announce that its wholly-owned subsidiary, Nanofilm Vacuum Coating (Shanghai) Co., Ltd (纳峰真空镀膜(上海)有限公司) has entered into a joint venture contract to set up a 60:30:10 Joint Venture ("JV") in Zigong in the Sichuan province of the People's Republic of China ("PRC"), with Shenzhen Everwin Precision Technology Co., Ltd (深圳市长盈精密技术股份有限公司)(SZSE: 300115) ("Everwin") and Shanghai Hongshi Enterprise Management Partnership (Limited Partnership (上海鸿石企业管理合伙企业(有限合伙))("Hongshi",).

The JV is to be named Sichuan Apex Technologies Co., Ltd (四川峰盈新能源科技有限公司)("ApexTech") and will have an initial registered capital of RMB50 million. ApexTech will develop and provide proprietary advanced materials vacuum coating solutions for battery components and systems in electric vehicles and new energy storage applications in China ("Advanced Battery Business").

<sup>&</sup>lt;sup>1</sup> Source: International Energy Agency (IEA)



Backed by the resources and support from the JV partners, ApexTech will be a full-fledged coating solutions company with technical, production and sales capabilities. To maximise production and customer synergies with Everwin, ApexTech will set up its production facilities close to Everwin's facility in Zigong, Sichuan. With set-up preparations underway, ApexTech is targeting initial production in the first half of 2023 with pilot lines designed and built in-house by the Group, and has plans to reach industrial scale mass production in 2024. ApexTech will leverage on Nanofilm's capabilities through the provision of proprietary equipment and technologies for coating development and mass production.

Mr Gary Ho ("何福荣"), Group CEO of Nanofilm, commented: "The JV highlights our growth strategy in two strategic areas — the first is entering new segments with capability and product expansion, and the second is JVs and M&As. The JV exemplifies how we can work with a strategic partner like Everwin to derive synergistic benefits in terms of technology development and market access into the growing electric vehicle and energy storage market. Nanofilm's advanced coating solutions have already been validated by Everwin, and the JV's operations will undergo qualifications by different customers."

## **Industry Overview**

The total addressable market ("**TAM**") of advanced batteries for electric vehicles in China is estimated to be above 6.5 million units, amounting to US\$79 billion in 2023 and is growing at a compounded annual growth rate of 10% to reach US\$156 billion in 2030<sup>2</sup>. In a study commissioned by the IEA, electric vehicle penetration in China is expected to reach 42% in 2030, up from 14% as of end-2021.

The shift towards new energy vehicles is driven by a focus on environmental, social, and corporate governance ("ESG") factors and is supported by governments' efforts to accelerate their decarbonisation plans. These ESG factors are increasingly at the forefront of consumer purchases and corporate investment decisions. ApexTech, utilising Nanofilm's advanced vacuum coating solutions combined with Everwin's manufacturing capabilities, creates a strategic partnership for exploiting the opportunity in the commercialisation of vacuum coating technologies for metal components in electric vehicle battery packs

<sup>&</sup>lt;sup>2</sup> Sources: IEA and internal company estimates. Note that battery cost includes the anode, cathode, electrolyte, separator, stamped metal components, *et cetera* 



and energy storage systems. ApexTech will also be well-positioned to penetrate more industries and applications outside of electric vehicles and energy storage systems, potentially replacing electroplating in other domains over the longer term.

#### **Key Value Proposition**

Electroplating is the process of coating of a metal object with another metal using an electrical current passed through a chemical solution, mostly to prevent corrosion of metal or for decorative purposes. Electroplating operations involve the use of toxic and corrosive chemicals and can produce emissions of hazardous air pollutants, including heavy metals and cyanide, and volatile organic compounds, all of which contribute to health concerns of workers and the larger community. As such, the electroplating industry comes under very stringent environmental-protection laws and regulations in China and in many other countries. Due to its extremely pollutive nature, the approval of governmental licensing to conduct electroplating operations is thus very difficult if not impossible to obtain in many jurisdictions, which create production and capacity constraints.

With these critical challenges created by the pollutive electroplating process and with today's more environmentally conscious world, there is a strong demand for more environmentally friendly coating solutions for anti-corrosion and protection in the Advanced Battery Business. The JV partners have recognised this business opportunity and the potential of Nanofilm's vacuum coating technology and solutions to replace traditional electroplating with a sustainable, scalable, cost-competitive and more environmentally friendly solution. Currently, metallic components used in battery packs for electric vehicles and new energy storage solutions are electroplated, and ApexTech has the potential to replace them with its coating solution.

While ApexTech will focus on penetrating the China market, the JV partners will separately have good faith discussions on the structure and go-to-market strategy for the international market at the appropriate time.



"Our solutions have vast potential applications with the capability to replace the current environmentally damaging electroplating process. ApexTech will allow certain advanced battery components that were previously electroplated, to now be coated with our advanced materials at cost competitive levels. It will be a new showcase of our commitment to develop solutions for sustainability issues and the application of our coating technology in a new domain.", Mr Ho added.

END.

Note: This news release is to be read in conjunction with the SGXNet announcement released on the same day.

### About Nanofilm Technologies International Limited (MZH / NANO.SI)

Listed on the Mainboard of Singapore Exchange Securities Trading Limited ("SGX-ST") on 30 October 2020, Nanofilm Technologies International Limited ("Nanofilm") is a leading provider of nanotechnology solutions in Asia, leveraging its proprietary technologies, core competencies in R&D, engineering and production, to provide technology-based solutions across a wide range of industries. 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. Nanofilm is a constituent of the FTSE ST All-Share Index, FTSE ST China Index, FTSE ST Large & Mid Cap Index, FTSE ST Mid Cap Index, MSCI ACWI Small Cap Index, MSCI Singapore Small Cap Index, and the MSCI World Small Cap Index.

#### About Shenzhen Everwin Precision Technology Co., Ltd (SZSE: 300115)

Everwin (<a href="http://en.ewpt.com/">http://en.ewpt.com/</a>) is primarily engaged in the development, design, production, and distribution of electronic parts and components. Its main products include precision components for consumer electronics, electric vehicle components, and manufacturing robots. Everwin currently supplies various stamped metal components, such as busbars and connectors, to leading advanced battery manufacturers. Leveraging Everwin's existing supply chain and established leading customer base, ApexTech's launch applications are intended to replace these metal components, currently coated by electroplating, with its cost-effective advanced material coating solutions.



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