



29 April 2021

## **ALTECH – COLLABORATION AGREEMENT WITH SGL CARBON, GERMANY**

### Highlights

- Collaboration agreement with leading German based graphite producer
- Alumina coated graphite for lithium-ion battery industry
- Applying Altech HPA and coating technology
- Altech now at forefront of graphite HPA coating technology
- Renewed MOU with SGL Carbon for engineering support for the design, production, and supply of HCl treatment systems

Altech Chemicals Limited (Altech/the Company) (ASX: ATC) (FRA: A3Y) is pleased to announce that together with its 75% owned German subsidiary, Altech Industries Germany GmbH, it has signed a collaboration agreement with SGL Carbon GmbH (SGL Carbon), a wholly-owned subsidiary of SGL Carbon SE of Germany. The agreement is to collaborate and support Altech's development of high purity alumina coated graphite materials specifically targeted for use by the lithium-ion battery industry. SGL Carbon SE is a world leader in the development and production of carbon-based solutions and reported sales of 919 million Euros in 2020.

Also, Altech and SGL Carbon have renewed their memorandum of understanding for engineering support covering design, production and supply of HCl treatment systems to be used in Altech's HPA project in Malaysia, and potentially in Germany.

On 22 December 2020, Altech announced the successful demonstration of its alumina coating technology – the coating of graphite particles typical of those used in anode applications within lithium-ion batteries (anode grade graphite) with a nano layer of high purity alumina (HPA). The demonstration showed that Altech's technology was able to deposit a uniform and consistent layer of alumina onto anode grade graphite particles. The uniformity and consistency of an alumina layer on anode grade graphite is expected to be important to improve lithium-ion battery performance. On 12 February 2021, Altech announced the commencement of a pre-feasibility study (PFS) by its 75% owned German subsidiary Altech Industries Germany GmbH, for the construction of a battery materials HPA coating plant in Saxony, Germany. The PFS will assume a phase 1 coating plant designed with the capacity to coat 10,000tpa (35tpd) of anode grade graphite. On 8 March 2021, the Company completed the first phase of battery performance testing of graphite particles coated with HPA. Results for the coated graphite anodes compared to the non-coated anodes were positive and encouraging.

*"I believe that Altech's coating technology can be successfully employed to coat SGL Carbon's various battery graphite powders with a uniform nano-layer of alumina. Under this collaboration agreement, Altech and SGL Carbon will test the application of Altech's technology to coat SGL Carbon's specifically designed graphite particles with high purity alumina (HPA). Both companies will fund the test work and retain their respective intellectual property",* said Altech's managing director, Mr Iggy Tan.

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*Wir sprechen Deutsch.*

**About Altech Chemicals (ASX:ATC) (FRA:A3Y)**

Altech Chemicals Limited (Altech/the Company) is aiming to become one of the world's leading suppliers of 99.99% (4N) high purity alumina (Al<sub>2</sub>O<sub>3</sub>) through the construction and operation of a 4,500tpa high purity alumina (HPA) processing plant at Johor, Malaysia. Feedstock for the plant will be sourced from the Company's 100%-owned kaolin deposit at Meckering, Western Australia and shipped to Malaysia.

HPA is a high-value, high margin and highly demanded product as it is the critical ingredient required for the production of synthetic sapphire. Synthetic sapphire is used in the manufacture of substrates for LED lights, semiconductor wafers used in the electronics industry, and scratch-resistant sapphire glass used for wristwatch faces, optical windows and smartphone components. Increasingly HPA is used by lithium-ion battery manufacturers as the coating on the battery's separator, which improves performance, longevity and safety of the battery. With global HPA demand approximately 19,000t (2018), it is estimated that this demand will grow at a compound annual growth rate (CAGR) of 30% (2018-2028); by 2028 HPA market demand is forecast to be approximately 272,000t, driven by the increasing adoption of LEDs worldwide as well as the demand for HPA by lithium-ion battery manufacturers to serve the surging electric vehicle market.



German engineering firm SMS group GmbH (SMS) is the appointed EPC contractor for construction of Altech's Malaysian HPA plant. SMS has provided a USD280 million fixed price turnkey contract and has proposed clear and concise guarantees to Altech for plant throughput and completion. Altech has executed an off-take sales arrangement with Mitsubishi Corporation's Australian subsidiary, Mitsubishi Australia Ltd (Mitsubishi) covering the first 10-years of HPA production from the plant.

Conservative (bank case) cash flow modelling of the project shows a pre-tax net present value of USD505.6million at a discount rate of 7.5%. The Project generates annual average net free cash of ~USD76million at full production (allowing for sustaining capital and before debt servicing and tax), with an attractive margin on HPA sales of ~63%. (Refer to ASX Announcement "Positive Final Investment Decision Study for 4,500TPA HPA project" dated 23 October 2017 for complete details. The Company confirms that as at the date of this announcement there are no material changes to the key assumptions adopted in the study).

The Company has been successful in securing senior project debt finance of USD190 million from German government owned KfW IPEX-Bank as senior lender. Altech has also mandated Macquarie Bank (Macquarie) as the preferred mezzanine lender for the project. The indicative and non-binding mezzanine debt term sheet (progressing through due diligence) is for a facility amount of up to USD90 million. To maintain project momentum during the period leading up to financial close, Altech has raised ~A\$39 million in the last 24 months to fund the commencement of Stage 1 and 2 of the plant's construction; Stage 1 construction commenced in February 2019 with Stage 2 early works completed at the end of June 2020.

**Forward-looking Statements**

This announcement contains forward-looking statements which are identified by words such as 'anticipates', 'forecasts', 'may', 'will', 'could', 'believes', 'estimates', 'targets', 'expects', 'plan' or 'intends' and other similar words that involve risks and uncertainties. Indications of, and guidelines or outlook on, future earnings, distributions or financial position or performance and targets, estimates and assumptions in respect of production, prices, operating costs, results, capital expenditures, reserves and resources are also forward-looking statements. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions and estimates regarding future events and actions that, while considered reasonable as at the date of this announcement and are expected to take place, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur and readers are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements are subject to various risk factors that could cause actual events or results to differ materially from the events or results estimated, expressed or anticipated in these statements.