

# CHIEF EXECUTIVE OFFICER STRATEGY UPDATE

**Sparc Technologies Limited (ASX:SPN) (Sparc** or the **Company**) is pleased to provide the market with an update as a result of a strategic review of the Company's core business activities and market opportunities, led by the Company's Chief Executive Officer, Mr Mike Bartels.

Mr Bartels joined the Company as its new CEO on 1 March 2021. He has significant international product development, marketing, commercialisation and business development expertise over many years through his experience as a senior executive of multiple global coatings companies.

Having spent his time working through the pipeline of opportunities and workstreams since joining, Mr Bartels and the Company provide the following update to the market and the Company's shareholders.

The primary results of the review revolved around ensuring the activities of the business are focused on opportunities linked directly to near term market outcomes and deliverables. Given the unique properties of graphene and the breadth of the potential applications available for deployment of Sparc's unique and proprietary graphene technologies, the Company has established a matrix by which it will pursue a number of key opportunities across its core business lines, and advance those that are nearer term to market implementation and adoption in priority to others.

"Having identified a number of core market opportunities arising from the exceptional results established by our development activities, the Company is now progressing from the R&D phase to engaging with potential customers. Accordingly, we have now entered into a significant number of Non Disclosure Agreements with major industry players interested in potentially incorporating our graphene technology into their global products. As an example, Sparc is now working on twelve projects within the coatings enhancement work stream, which targets niche markets that we believe can be fast-tracked to commercialisation. Against this backdrop and as a result of our strategic review, it is important that we provide this operational clarity to the market." Mr Bartels said.

#### **Business Strategy**

Sparc's primary focus is on commercialising graphene technologies and products developed from conducting and investing in Research and Development (R&D) as it relates to the functionalising and optimising of Graphene based materials. R&D activities are being managed utilising in-house expertise and supplemented with support from external research institutes. Planned manufacturing capabilities will be tailored and engineered to produce material that advances research, development and commercialisation activities.

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#### Directors

Stephen Hunt - Executive Chairman Mike Bartels – Chief Executive Officer Tom Spurling – Non-Executive Director Daniel Eddington - Non-Executive Director



## Research and Development Program

To ensure future research and development activities are focused, the business will now be managed as three dedicated workstreams:



Environment -Industrial Materials -Product Enhancement



Sustainability & Remediation - Extraction



Health – 'Living a Better Life'

#### **Environment - Industrial Materials - Product Enhancement**

This workstream will be concerned with optimising the performance of materials through the addition of Graphene based products.

The technology platform being developed is concerned with the ability to disperse and stabilise Graphene based products allowing these to be incorporated into a range of materials. Employing in-house expertise, Sparc has established Know-How as it relates to the incorporation of Graphene based products into polymeric and building materials which can be deployed in global industrial markets.

Activities are currently focused on:

- Coatings 12 coatings projects underway
- Concrete Development of in-house expertise and targeting niche applications
- Composites applying proprietary graphene dispersion techniques to enhance composites



**Coatings** - Sparc expertise in Graphene based products for Coatings will eventually deliver products across a multitude of paint and coatings categories. As an update, 12 specific projects have been recognised within this business unit to date with commercialisation work now underway. Projects include anticorrosive, antifouling, fireproofing, corrosion under insulation (CUI) and antibacterial coating categories.

A number of specific programs relating to anticorrosive coatings, testing to relevant ISO standards, which are critical to global adoption. These programmes are now well advanced, and the Company is expecting comprehensive results from these programs in Q4 CY2021. Given positive results from earlier test programs, discussions regarding collaboration with both domestic and international Coatings companies have already commenced.

The Company has invested in the testing equipment required to conduct corrosion resistance testing in accordance with ISO 12944 and related industry standards and has developed significant internal expertise and IP in this area. Progress in the other areas will be achieved in cooperation with various industry and academic partners. Several NDAs associated with this work are also now in place.

**Concrete** - Graphene additive product developed by Sparc is currently being evaluated by a major concrete manufacturing company. In support of Know-How developed by Sparc Technologies, work with this industry partner is being conducted under a Non-Disclosure Agreement. In addition to this project, work has already commenced on recognising applications within the broader cementitious product portfolio where graphene enhanced concrete can benefit numerous niche products.

**Composites** - Testing is about to commence with work being undertaken by a significant industry partner under a Non-Disclosure Agreement. More details will be released around this program when they become available to the Company.





#### **Sustainability and Remediation - Extraction**

This workstream is concerned with developing products that will serve to both optimise, or where applicable, disrupt current industry practise regarding extraction, which currently mostly uses activated carbon. The technology platform being developed uses Graphene based products to optimise the extraction of targeted materials, some which are toxic and others that are valuable minerals. Utilising our exclusive licensing agreement with the University of Adelaide, Sparc has developed an understanding of how to functionalise Graphene for this purpose and in doing so, exploit the unique adsorbent characteristics inherent in this material.

Adsorbent materials can be used to extract precious materials and for remediation purposes. Sparc has active programs in each of these areas, namely:



PFAS



**Tailings** - Research undertaken by our strategic partners has indicated that Graphene can be functionalised to deliver above industry accepted extraction yields of precious metals (Ag, Au, Cu). Activities are now focused on confirming these results with an industry partner.

**PFAS** - Research undertaken by the University of Adelaide has indicated that Graphene can be functionalised to deliver exceptional results in the extraction of PFAS materials from aqueous solutions. Activities are now focused working with an industry partner to test the graphene technology in the field. Please refer to previous ASX announcements 11 February 2021 and 27 April 2021.

#### Health - 'Living a Better Life'



The company is also currently collaborating with several major industry partners in the biomedical and health space. Whilst considered an emerging market for Sparc Technologies, the company is working on two applications of graphene in medical technology. First, the company is developing technology for wearable graphene biosensors which will allow for remote, real-time monitoring of health. Second, the company is working on the enhancement of medical-grade materials through the deposition of graphene in order to enhance properties that are of interest to established players in this market.





#### **Summary**

In the emerging market that is Graphene, the Company is confident that it can add significant value to its chosen market sectors. With Graphene's potential to deliver benefits to so many industries it is important that activities are focused. Targeting Industrial Materials, Sustainability & Remediation and Health will see Sparc exploit current capabilities and maximise returns from our on-going commitment to research and development, and commercialisation activities.

As Graphene represents an emerging market, significant emphasis will be placed on collaboration, both domestically and internationally, with Research institutes, Industry Partners and Customers operating within our chosen markets.

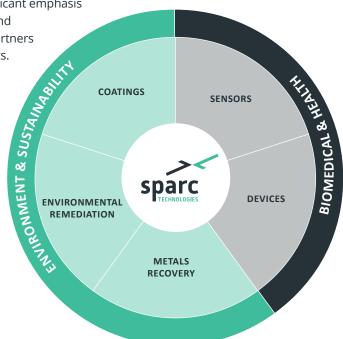
Sparc looks forward to providing further updates as it progresses this exciting research and development phase towards commercialisation.

Regards,

#### **Mike Bartels**

**CEO Sparc Technologies** 

- ENDS -



Authorised for release by: Stephen Hunt, Executive Chairman.

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#### **About Sparc Technologies**

Sparc Technologies Limited (ASX: SPN) is a South Australian based company that is focusing on the development of innovative technology solutions using the unique properties of graphene. Graphene, which can be extracted from graphite, is a 2-dimensional nano material made of carbon atoms arranged in a hexagonal pattern, giving it unique and powerful properties that, with the right technology, can be imparted on products to improve performance. Sparc Technologies has licenced graphene-based technologies from the University of Adelaide, a leading institution in the field of graphene research, and will focus on commercialising graphene-based technologies for large industrial markets for marine and protective coatings, environmental remediation and bio-medical applications.

