

DECEMBER 2020 QUARTERLY ACTIVITIES REPORT

HIGHLIGHTS

- ▶ **Sparc Technologies (ASX:SPN) commenced trading on the ASX on 23rd November 2020 following the successful completion of the acquisition of Graphene Technology Solutions and a capital raising of \$4m at \$0.20 per share**
- ▶ **Former ResMed Executive Mr Don Darkin appointed as Strategic Advisor, New Technologies**
- ▶ **New bio-medical project to develop non-invasive sensing devices for detection of diseases in both humans and animals via graphene based breath sensors**
- ▶ **Establishment of a new bio-medical division to be directed by Mr Ben Yerbury for broader biomedical applications**
- ▶ **Test work confirms a range of Sparc graphene additive formulae added to coatings significantly improves anti-corrosive performance**
- ▶ **\$4.87m cash at bank as at 31 December 2020**

Sparc Technologies Limited (**ASX: SPN**) (**Sparc** or the **Company**) is pleased to provide its December 2020 Quarterly Activities Report.

Resumption of Trading

Sparc recommenced trading on the Australian Securities Exchange (ASX) on 23 November 2020 following the successful completion of its acquisition via reverse takeover, of emerging South Australian graphene technology developer, Graphene Technology Solutions (GTS).

Sparc will now focus on near-term commercialisation of revolutionary graphene-based, environmentally focused technologies, to enhance and disrupt multi-billion-dollar industries.

The acquisition has seen Sparc's core business transition from coal and mineral exploration to the development and commercialisation of graphene-based products. From GTS, Sparc has inherited strong industry partnerships and government support via the Australian Research Council's Research Hub: Graphene Enabled Industry Transformation Hub in collaboration with the University of Adelaide (UA). One of the world's leading graphene research universities, UA is a cornerstone shareholder of Sparc.

Part of the acquisition process included a Prospectus offering 20 million shares at \$0.20 which was underwritten by Morgans Corporate Limited, to raise \$4 million. Discovery Capital Partners acted as corporate advisor to the transaction.

Following completion of the listing, Sparc will now leverage its exclusive Licensing, Strategic Partnership and Research Agreement with the University of Adelaide and collaboration agreement within the ARC Graphene

Enabled Industry Transformation Hub involving 5 Other Australian leading universities, to develop and commercialise graphene based products and technologies which all have significant environmental and economic benefits with industrial applications across many sectors. The Company has a strong pipeline of other potential graphene applications which it will seek to develop in due course.

Appointment of Strategic Advisor – Don Darkin

On 9 December 2020 Sparc announced the appointment of Mr Don Darkin to the role of Strategic Advisor – New Technologies.

Mr Darkin has a wealth of experience developing new technologies from early-stage research through to commercialisation and has a consistent track record of success. Don is identified as an inventor or co-inventor on 81 granted patents worldwide and has an outstanding track record of success. He was educated in the UK in mechanical engineering and has further professional management training at University of New South Wales and Massachusetts Institute of Technology.

Mr Darkin joined ResMed (NYSE: RMD, ASX: RMD) in August 1999 as vice president of Product Development and subsequently served as vice president of Business Divisions and senior vice president of Global Product Development. Don's most recent role at ResMed was President of Innovation and Operations, a position he held from 2014-2016. Don remained with ResMed until 2019 in an advisory capacity.

In Mr Darkin's time at ResMed, the Company grew from a market capitalisation of approximately US\$400m to in excess of US\$30bn¹ today, with revenues exceeding US\$3bn². In his roles as President of Innovation, Business Unit and Operations, Mr Darkin was instrumental in delivering a number of pioneering and innovative solutions and new technologies to market.

Graphene Bio-Medical Sensor Project

On 17 December Sparc announced the establishment of a new graphene bio-medical division within the Company to be directed by Mr. Ben Yerbury (Bio Medical Project). Sparc will advance the Project together with its cornerstone shareholder, strategic partner and leading Graphene research centre the University of Adelaide (UA) in order to seek to establish and develop non-invasive sensing devices for use in human and veterinarian applications in order to detect disease.

The focus of the Project will be on research into graphene-based sensing devices for the detection of a selection of volatile organic compounds (VOCs) present in exhaled breath that are understood to be indicators of disease. It is intended that the graphene based bio-medical sensors will be used via integration with existing diagnostic tools or other portable electronic devices such as smart phones to enable real time and portable disease detection.

Detection of VOCs via the use of graphene sensors is a new frontier in rapid, sensitive, selective and non-invasive analysis and disease diagnoses of human and animal disease. If successful, it could have profound global consequences for the early detection and management of disease, especially transmissible acquired diseases, including those caused by bacteria, fungi and viruses, as well as longer term congenital or neoplastic diseases (i.e. cancer).

Graphene, due to its uniquely large surface area and physicochemical properties, enables VOCs to be detected in minute quantities. Sparc will use these properties with the aim of isolating and identifying a selection of specific compounds which are bio-markers for certain diseases.

The Project will involve research into graphene-based sensing materials for detection of selected VOCs. Subject to the findings of that work the project will include development/fabrication of lab-scale sensing devices and the initial evaluation of their sensing performances of those selected VOCs. A successful project will provide Sparc with important technology for commercialisation in medical markets.

Sparc was particularly pleased to announce the appointment of Mr Ben Yerbury, Technical Consultant – Biomedical Division to direct the Project on behalf of the Company. Mr Yerbury has over 20-years' experience in the global medical device industry with Fortune 500 organisations including ResMed, Baxter Healthcare, Boston Scientific and Zimmer Biomet. His experience spans a broad range of clinical specialties and technologies across the respiratory and cardiovascular fields to orthopaedics and general surgery, to infusion therapy and nephrology.

Mr Yerbury brings a wealth of experience across Australia and New Zealand, Asia Pacific and European markets and their respective reimbursement models and regulatory environments, which will be invaluable to Sparc's commercialisation and development strategies. Mr Yerbury has direct and wide expertise in launching new, disruptive, technologies and business models to accelerate business growth and build competitive advantages in the medical device industry.

The Project will be encompassed within the existing, exclusive Strategic Partnership Agreement with the University of Adelaide.

Performance Improvement in Graphene Based Coatings

On 14 January 2021 Sparc announced further positive results from its ongoing coatings test work performed with the University of Adelaide. These results delivered another milestone in the development of a range of graphene based additives for use in Marine and Protective Coatings.

Using standardised ISO testing methodology, Sparc evaluated the performance of a range of graphene based additives produced using variations of raw material sources, processing methods and graphene quantities. The current test work addressed adhesion[#] and scribe corrosion creep^{*^}.

The work highlighted the performance benefits of graphene additives in general, with a number of the additives generating significant improvement in adhesion and/or scribe creep results at very low graphene additive levels. Improvement in adhesion of up to 19% was observed in single coat systems and reduction in scribe creep of up to 73% in three coat systems.

In the context of Sparc's targeted customer industries, these results represent a potential for substantial cost efficiencies and performance improvements.

Figure 1 below illustrates scribe corrosion creep performance. A lower value indicates better performance. Tests performed on coatings that had a Sparc Graphene additive, showed up to 73% performance improvement in scribe corrosion creep (i.e. less corrosion), when compared to a control coating that did not have graphene.

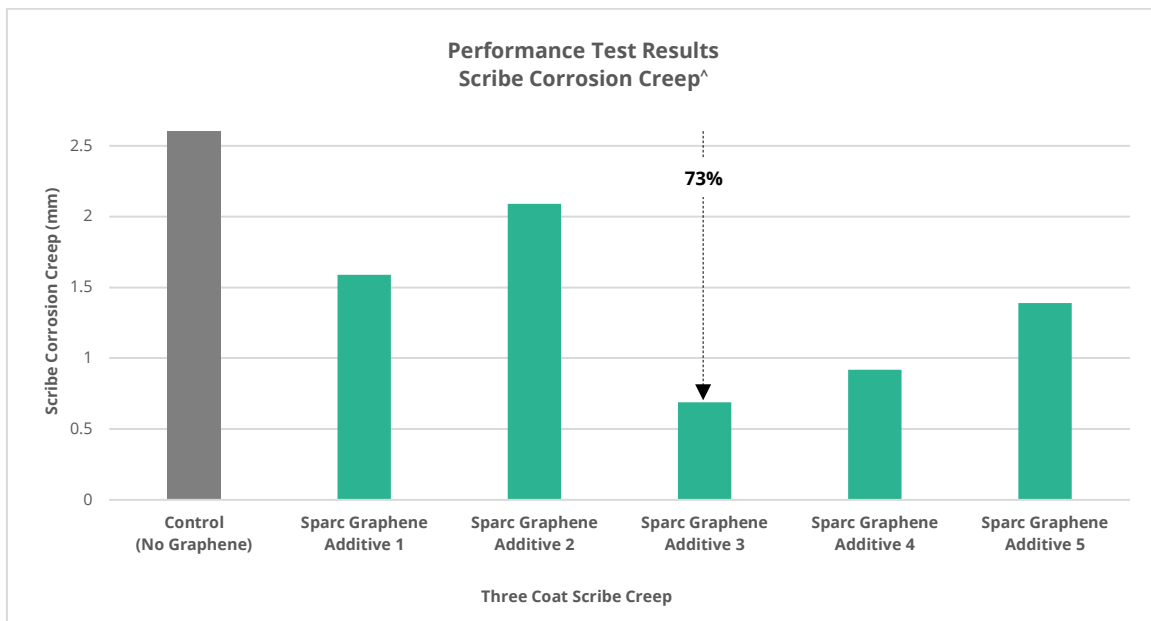


Figure 1: Test results showing anti-corrosion performance of coatings with a Sparc Graphene additive. Lower values demonstrate better performance

Figure 2 illustrates adhesion performance, where a higher value indicates better performance. Tests performed on coatings that had a Sparc Graphene additive, showed up to 19% performance improvement in adhesion, when compared to a control coating that did not have graphene.

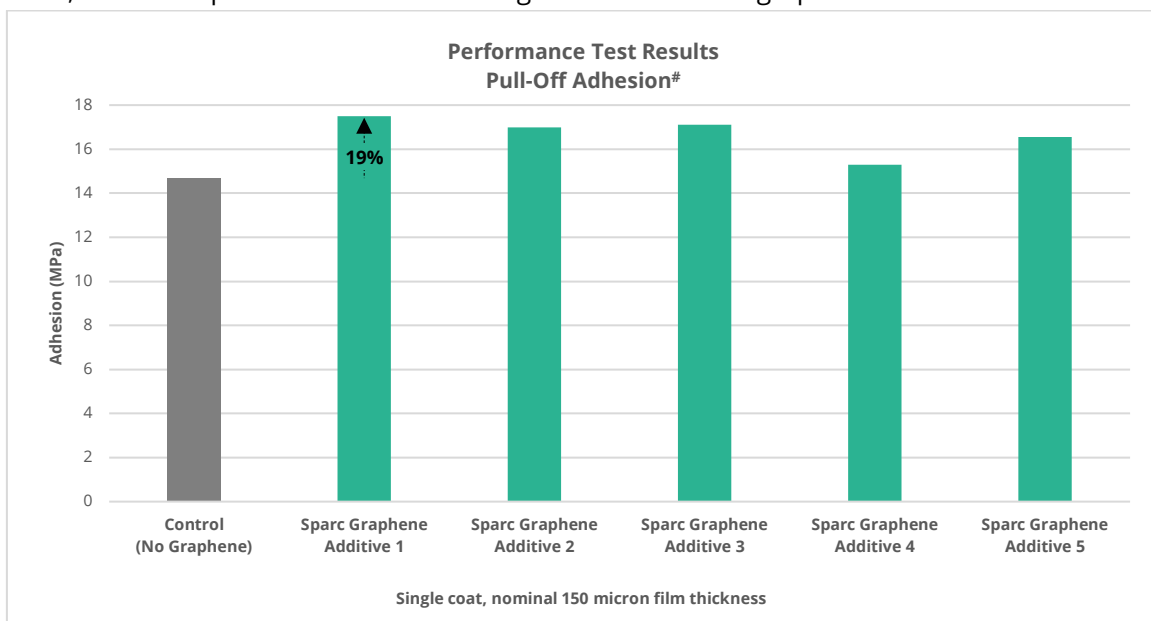


Figure 2: Test results showing adhesion performance of coatings with a Sparc Graphene additive. Higher values demonstrate better performance

Corporate

The former Acacia Coal Board, headed by Chairman, Mr Adam Santa Maria and including Mr Logan Robertson and Mr Brett Lawrence, retired to welcome a new Board of Directors to drive the Company forward, led by Executive Chairman, Mr Stephen Hunt; Managing Director, Mr Tom Spurling, a former CEO of medical device company, Ellex Medical Lasers Limited; and Non-Executive Director, Mr Daniel Eddington, a financial and equities market specialist.

The Company thanks Messer's Santa Maria, Robertson and Lawrence for their guidance during the acquisition of GTS.

Mr Ben Donovan ceased his role as Joint Company Secretary effective 7 January 2021. The Board would like to thank Mr Donovan for his services and wishes him well for the future. Mr Adrien Wing will remain as Sole Company Secretary.

The Company also advised on 7 January 2020 its registered office and principal place of business changed to:

- Registered Office: Level 2 480 Collins Street Melbourne Victoria 3000
- Principal Place of Business: 51 Rundle Street Kent Town South Australia 5067

Statement of Commitments

The current quarter is covered by the Statement of Commitments¹ outlined in the Prospectus dated 5 October 2020. A summary of expenditure to date is outlined below:

	Expenditure for the Qtr to 31 Dec 2020 (\$)	Expenditure described in Use of Funds in prospectus (\$)
Cost of offer	(253,000)	(470,000)
Corporate administration	(174,000)	(1,000,000)
Research and development	(497,000)	(1,300,000)
Graphene plant construction	(95,000)	(1,900,000)
Marketing and business development	(106,000)	(730,000)
Working capital	(32,000)	(900,000)
Total	(1,157,000)	(6,300,000)

¹ The above table is a statement of current intentions. Investors should note that the allocation of funds set out in the above table may change depending on a number of factors. In light of this the Board reserves the right to alter the way the funds are applied

Cash

As at 31 December 2020, the Company had a reported cash position of \$4.87m

Related Party Payments

In line with its obligations under ASX Listing Rule 5.3.5, Sparc Technologies Limited notes that the only payments to related parties of the Company, as advised in the Appendix 5B for the period ended 31 December 2020, pertain to payments to directors for reimbursement of arrears of Directors Fees and Travel Expenses totalling \$27,681.

* Scribe Creep describes the scribing of coated samples through the coating layer and into steel panels using a scribe tool and the resultant corrosion. The less corrosion creep on either side of the scribe, the higher the corrosion resistance performance.

^ ISO12944 test regime 2 involves a weekly cycle under hot UV, condensing moisture, neutral salt spray and freezing. The 10-week (1680 hour) cycle employed in this test program is intended as indicator of long term coating performance in highly corrosive environments (C4 and C5).

Adhesion Testing ISO4624:2016

Measures the force required to remove a "dolly" glued to the coating surface.

Calculation based on surface area of the dolly face gives a pressure result expressed as Megapascals (MPa).

Samples tested in a single coat of 150 microns thickness applied over abrasive blast cleaned steel. 6 mm thick panels required.

-ENDS-

Authorised for release by: Tom Spurling, Managing Director.

For more information:

Tom Spurling

Managing Director

+61 417 818 658

tom.spurling@sparctechnologies.com.au

Mark Flynn

Investor Relations

+61 416 068 733

mark.flynn@sparctechnologies.com.au

About Sparc Technologies

Sparc Technologies Limited (ASX: SPN) is a South Australian based company that is focussing 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.

Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity

Sparc Technologies Ltd

ABN

13 009 092 068

Quarter ended ("current quarter")

31 December 2020

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		
1.2 Payments for		
(a) research and development	(497)	(497)
(b) product manufacturing and operating costs		
(c) advertising and marketing	(16)	(16)
(d) leased assets		
(e) staff costs	(28)	(28)
(f) administration and corporate costs	(264)	(340)
(g) exploration and evaluation (if expensed)		(3)
1.3 Dividends received (see note 3)		
1.4 Interest received	3	10
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (provide details if material)	(35)	(35)
1.9 Net cash from / (used in) operating activities	(837)	(909)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	(77)	(201)
(b) businesses		
(c) property, plant and equipment	(15)	(15)
(d) investments		
(e) intellectual property		

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	(f) other non-current assets Proceeds from disposal of:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment		
	(d) investments		
	(e) intellectual property		
	(f) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)	(3)	(3)
2.6	Net cash from / (used in) investing activities	(95)	(219)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	4,000	4,000
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(253)	(253)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	Net cash from / (used in) financing activities	3,747	3,747

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,050	2,246
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(837)	(909)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(95)	(219)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3,747	3,747
4.5	Effect of movement in exchange rates on cash held		
4.6	Cash and cash equivalents at end of period	4,865	4,865

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	4,865	2,050
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	4,865	2,050

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	46
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

7. Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1 Loan facilities		
7.2 Credit standby arrangements		
7.3 Other (please specify)		
7.4 Total financing facilities		
7.5 Unused financing facilities available at quarter end		
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	-837
8.2 Cash and cash equivalents at quarter end (item 4.6)	4,865
8.3 Unused finance facilities available at quarter end (item 7.5)	
8.4 Total available funding (item 8.2 + item 8.3)	4,865
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	5.81
<i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i>	
8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer:	
8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer:	

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 January 2021.....



Authorised by: Tom Spurling – Managing Director.....

(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.