MARCH 2022 QUARTERLY ACTIVITIES REPORT

HIGHLIGHTS

Corporate

- **Stephanie Moroz appointed Non-Executive Director effective 2 March 2022**
- **Establishment of Sparc offices in USA and UK with the appointment of Mr. Ian Rowell and Mr. Aidan Mernin**
- **$ 3.37m cash at bank as at 31 March 2022**

Sparc Hydrogen Joint Venture

- **Binding agreements executed between Sparc Technologies (SPN), Fortescue Future Industries (FFI) and the University of Adelaide (UoA) forming the Sparc Hydrogen Joint Venture (Sparc Hydrogen)**
- **Research Agreement with Sparc Hydrogen and the University of Adelaide signed**
- **Project IP to be immediately licensed from UoA to Sparc Hydrogen and then assigned to Sparc Hydrogen at completion of project Stage 2**
- **To support the execution of these agreements, Sparc released an updated Investor presentation on the Sparc Green Hydrogen Project to the ASX and conducted a webinar for shareholders and interested parties**

Graphene Based Additives

- **Advanced discussions continued with several global paint companies**
- **Discussions are focused on securing formal collaborative technical agreement/s as the precursor to a commercial agreement/s**
- **Approach used in advancing Coatings activities is now being used to progress further opportunities within the Building Materials sector; the initial focus on, Composites and Concrete**
- **Testing continues on Antifouling Coatings technology – with the project well advanced in terms of the formal evaluation of a disruptive antifouling graphene product**

Sparc Technologies Limited (**ASX: SPN**) (**Sparc** or the **Company**) is pleased to provide its March 2022 Quarterly Activities Report.

Sparc Hydrogen Joint Venture

In early February, the Company announced that it had entered into binding Agreements with global green energy company Fortescue Future Industries (**FFI**) (100% subsidiary of Fortescue Metals Group, ASX: FMG) and the University of Adelaide, forming the Sparc Hydrogen Joint Venture. The transaction is the formalisation of the joint venture announced to the ASX on 27 October 2021 as a shareholder of Sparc Hydrogen Pty Ltd (**Sparc Hydrogen**) via a staged investment and was confirmed to be completed on 9 February 2022.

To support this important event, Sparc released an updated investor presentation on the Sparc Green Hydrogen Project to the ASX and conducted a webinar for shareholders and interested parties presented by Stephen Hunt Stephen Hunt, Executive Chairman and Nick O'Loughlin, Manager, Energy & Business Development.

Sparc Hydrogen is seeking to deliver a process aimed at producing commercially viable green hydrogen directly from water and sunlight via thermo-photocatalysis (**the Sparc Green Hydrogen Project**). The green hydrogen technology has been developed by the University of Adelaide (**UoA**) and Flinders University. FFI will now support this important research and development project as an emerging world leader in green hydrogen technology and production.

Following FFI's Stage 1 investment, the initial interest of the parties in respect of Sparc Hydrogen shall be Sparc 52%; UoA 28%; and FFI 20%, with Sparc moving to 36%; UoA 28% and FFI 36% at Stage 2 (refer to **Figure 1** below for further details).

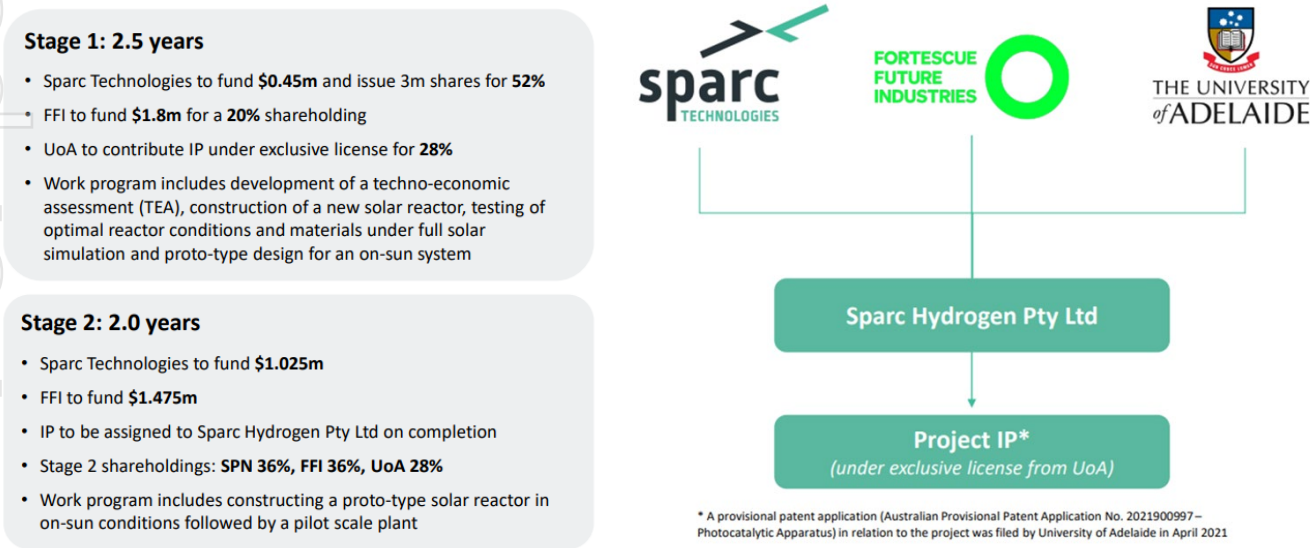

Figure 1: Sparc Hydrogen Joint Venture Summary

Sparc Green Hydrogen Project

The Sparc Green Hydrogen Project will seek to develop a process known as Thermo-Photocatalysis, which employs the suns radiation and heat to convert water into hydrogen and oxygen. (Refer to **Figure 2** for Advantages.) Adopting this process to produce green hydrogen means that renewable energy from wind farms and/or photovoltaic solar panels and electrolysers is not needed. As such, capital and operating expenditure is anticipated to be lower than other proposed forms of green hydrogen production. This technology can also potentially be adopted for remote, onsite use, reducing the reliance on long distance hydrogen transportation and/or electricity transmission.

	Sparc Green H_2	Green H_2	Blue H_2	Grey H_2
Description	Photocatalysis	Electrolysis via renewable electricity	Using SMR with CCUS*	Steam methane reforming (SMR)
Feedstock	✓ Water	✓ Water	✗ Natural gas, Water	✗ Natural gas, Water
By-product	✓ Pure O_2	✓ Pure O_2	• Emissions sequestered	✗ CO_2, NO_x, SO_x, PM
Carbon emissions from process[1]	✓ Nil	✓ Nil	✗ 0.76kg CO_2 / 1kg H_2	✗ 8.5kg CO_2 / 1kg H_2
Location restrictions	✓ Solar resource	✗ Solar +/- wind resource & electrical infrastructure	✗ Gas source and suitable storage	✗ Gas source
Requisite scale	✓ Scalable	✗ Very large	✗ Very large	✗ Large

* Carbon capture, use and storage

Figure 2: Sparc Green Hydrogen - Advantages

Project to date

The technology developed was initially supported by ASTRI (Australian Solar Thermal Research Institute), with contributions totalling A$2.5m over a 4.5-year period from the University of Adelaide and Flinders University. Current research is focused on increasing the STH (Solar to Hydrogen) percentage with laboratory results demonstrating a significant increase in hydrogen production under optimised conditions. A provisional patent application (Australian Provisional Patent Application No. 2021900997 – Photocatalytic Apparatus) was filed by University of Adelaide in April 2021 in relation to this matter.

Research Agreement

The joint venture company, Sparc Hydrogen has entered into a Research Agreement with the University of Adelaide in respect of Stage 1, triggering an initial payment of $962,000 from SPN to Sparc Hydrogen and then to UoA which goes towards SPN's Stage 1 funding commitment (Initial Funding Contribution).

Approximately $512,000 was reimbursed to SPN from the initial funding contributed made by FFI for Stage 1.

Licence Agreement

The technology (including all IP) under development is being provided by the University of Adelaide to Sparc Hydrogen under an exclusive licence. The licenced technology will be assigned to Sparc Hydrogen subject to all of the staged financial commitments being met. No royalties are payable by Sparc Hydrogen throughout the Sparc Green Hydrogen Project.

FFI

FFI subscribed for shares in Sparc Hydrogen under a subscription agreement (Subscription Agreement). The material conditions precedent to the Subscription Agreement are:

- SPN making the Initial Funding Contribution under the Research Agreement, which has been satisfied; and
- SPN issuing 3,000,000 Shares to UoA (via Innovation and Commercial Partners Pty Ltd) and Flinders University (Flinders Partners Pty Ltd) (comprising 2,721,000 and 279,000 Shares respectively) (SPN Share Issue), which was completed using SPN's existing Listing Rule 7.1 placement capacity.

A shareholders' agreement pertaining to Sparc Hydrogen (the joint venture entity) has been executed between SPN, FFI and UoA (via Innovation and Commercial Partners Pty Ltd) (Shareholders Agreement) and contains customary provisions for an agreement of this nature including governance, and funding provisions.

The Shareholders Agreement together with the Research Agreement, Licence Agreement and Subscription Agreement contain the key terms and provisions which underpin the operation of the Sparc Hydrogen joint venture.

Key Project Milestones

Stage 1 – Key milestones over the first 2.5 years of the Project include (refer to **Figure 3**):

- Develop a Techno Economic Assessment (TEA) for the Project;
- Optimise thermo-photocatalytic reactor conditions;
- Construct and commission a new thermo-photocatalytic reactor for solar simulation;
- Test existing and new photocatalysts in the thermo-photocatalytic reactor using simulated solar; including determination of photocatalyst longevity and durability; and,
- Design a proto-type scale photo-thermal reactor for on-sun operation.

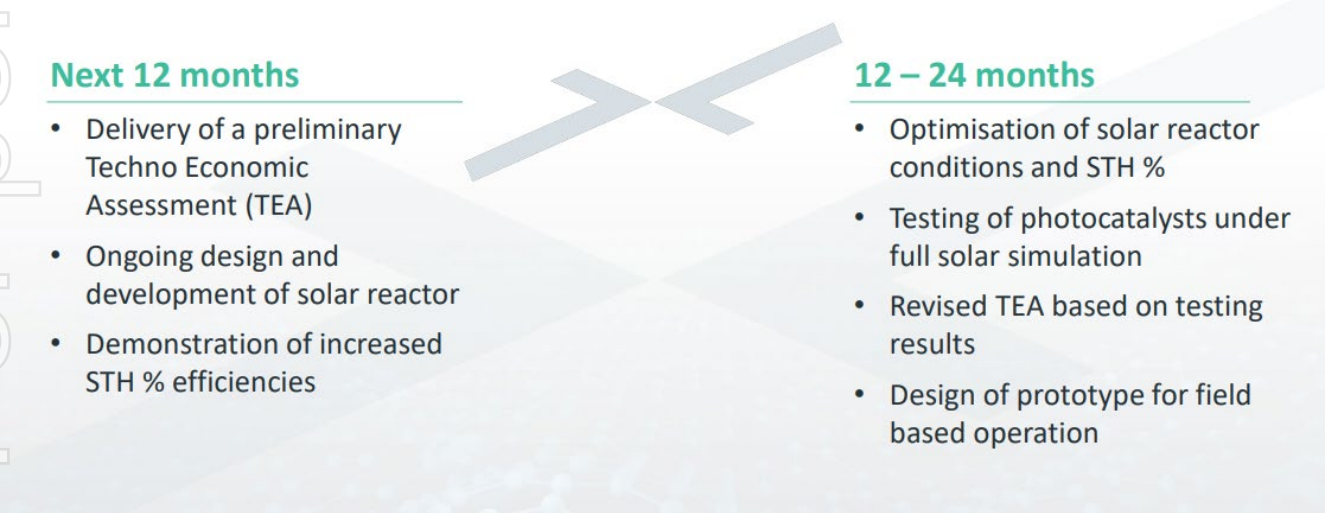

Figure 3: Key Project Milestones – Stage 1

Stage 2 – Key milestones over the following 2 years of the Project include:

- Installation and commissioning of proto-type thermo-photocatalytic reactor with on-sun operation; and
- Pre-commercial pilot scale system design, procurement, installation, commissioning, and operation of thermo-photocatalytic reactor.
-

Graphene Based Additives

Sparc Research & Development program has supported the developed of significant expertise in graphene and established the following capabilities:

- Inherent understanding of graphene materials (i.e., ability to differentiate based on characteristics)
- Know-How regards formulating graphene based products
- Know-How regards the manufacture and scale-up of graphene based products
- Research and Development facility in support of pursuing further opportunities

Sparc is currently focused on enhancing and disrupting products within the Building Materials sector. This is an established, global multi-billion-dollar sector offering significant commercial opportunities. Customers within this segment invariably have ESG objectives that can benefit courtesy of product enhancement or substitution delivered by the adoption of a graphene-based material.

Within this sector, Sparc is focused on the formulation and adoption of *Graphene Based Additives* within the Coatings, Composites (engineered plastics) and Concrete (cementitious materials) markets.

The Company has an active program with regards to the patenting of products within the Coatings market.

Based on comprehensive testing to applicable industry standards, Sparc has demonstrated the ability to deliver significant product enhancement in Coatings. Performance improvements of up to 40% in commercially available anti-corrosive coating products has been achieved and confirmed. (Refer to ASX Announcement 23 December 2021).

The global Coatings market represents the first opportunity for Sparc to enter into a commercial agreement. Importantly, the Company has unparalleled Coatings' expertise and access to Customers and is currently in discussions with several global paint companies.

Technology will be monetised via either the supply of Graphene Based Additives or by the transfer of Know-How and licensing.

In support of the commercialisation of graphene-based additives, Sparc Technologies' products intended for the Protective & Marine Coatings market will carry "ecosparc Graphene Enhanced" branding.

Testing continues of Sparc's Antifouling Coatings technology – this technology is well advanced in terms of testing and will represent a disruptive technology platform.

Outlook for Next Quarter – Sparc Graphene

- Progress discussions with Coatings companies with the aim of securing formal collaborative agreements
- Continued evaluation of antifouling product
- Progress with the filing of a number of patents as relates to Coatings projects
- Continued refinement of Graphene Based Additive products for Coatings
- Acceleration of R&D programs for Concrete and Composites
- Continue development plans for the local manufacturing of Sparc's *Graphene Based Additives*

Outlook for the next Quarter – Sparc Hydrogen

- Continue with the production of the TEA for the green hydrogen project

Corporate

Appointment of Stephanie Moroz as Non-Executive Director

The Company announced the appointment of Stephanie Moroz as a Non-Executive Director effective 2 March 2022. (ASX Announcement 3 March 2022) Stephanie holds a Bachelor of Applied Science in Engineering Physics, a Graduate Diploma in Energy and Carbon Studies and a Master of Business. Stephanie has over 25 years' experience and global industry expertise in hydrogen, batteries, nano-materials and combustion engines (petrol, diesel, biofuels, synthetic fuels). Following an international corporate career in automotive manufacturing, Stephanie led two materials technology companies through high growth periods, including multi-million-dollar capital raises.

Stephanie's current primary role is Innovation Manager at global energy company EDL, based in Brisbane, Queensland. Within this role Stephanie leads the Technology Team in evaluating new technologies and business models for potential applications including energy storage, remote power generation, renewable fuels and decarbonisation.

Resignation of Tom Spurling as Non-Execute Director

Also in early March, Tom Spurling resigned as a Non-Executive Director. Tom made a tremendous contribution in his previous role as Managing Director and more recently as a Non-Executive Director. The Company thanked Tom for his professionalism and commitment and wished him the very best in his future endeavours.

European and Nth America Representation

In support of commercial activities, Sparc has secured the services of Coatings experts in Ian Rowell and Aidan Mernin. Ian has held numerous global Sales & Marketing roles over a 40 year career with AkzoNobel. Aidan has also worked with AkzoNobel where his last role was that of WW Technical Director.

Statement of Commitments

The current expenditure is covered by the Statement of Commitments[1] outlined in the Prospectus dated 5 October 2020. A summary of expenditure to date is outlined below:

	Expenditure since listing to 31 March 2022 ($000)	Expenditure described in Use of Funds in prospectus ($000)
Cost of offer	(406)	(470)
Corporate administration	(1,859)	(1,000)
Research and development[2]	(3,638)	(1,300)
Graphene plant construction	(531)	(1,900)
Marketing and business development	(198)	(730)
Working capital	(61)	(900)
Total	**(6,692)**	**(6,300)**

[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.

[2] Research and Development Expenditure remains in line with expenditure identified in the prospectus however includes the addition of the Stage 1 investment in the Sparc Hydrogen JV and costs associated with an acceleration in the R&D program (as opposed to investment in manufacturing). This expenditure is not nett of R&D Tax Rebate/s.

Cash

As at 31 March 2022, the Company had a reported cash position of $3.37m.

Related Party Payments

In line with its obligations under ASX Listing Rule 4.7C.3, Sparc Technologies Limited notes that the only payments to related parties of the Company, as advised in the Appendix 4C for the period ended 31 March 2022, pertain to payments to directors for reimbursement of arrears of Directors Fees and Travel Expenses totalling $144,000.

-ENDS-

Authorised for release by: Mike Bartels, Managing Director.

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About Sparc Technologies

Sparc Technologies Limited (ASX: SPN) is a South Australian based company focused on the development and commercialisation of innovative technology that deliver sustainable outcomes.

Graphene, which is a major focus for Sparc, is a 2-dimensional nano material made of carbon atoms arranged in a hexagonal pattern. It has an array of unique and powerful properties that can be exploited to either enhance existing product performance or provide the basis for disruptive technologies. Sparc is currently seeking to commercialise a number of graphene-based products within the Building Materials sector.

Sparc is also focussed on developing thermo-photocatalytic green hydrogen technology. This technology will deliver a process for commercially viable hydrogen that does not require solar and/or wind farms, nor electrolysis as is the norm with conventional green hydrogen.

Appendix 4C

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

Name of entity

Sparc Technologies Limited

ABN	**Quarter ended ("current quarter")**
13 009 092 068	31 March 2022

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (9 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	1	6
1.2	Payments for		
	(a) research and development	(237)	(1,673)
	(b) product manufacturing and operating costs		
	(c) advertising and marketing	0	(38)
	(d) leased assets	(28)	(96)
	(e) staff costs	(406)	(1,225)
	(f) administration and corporate costs	(130)	(652)
	(g) exploration and evaluation (if expensed)		
1.3	Dividends received (see note 3)		
1.4	Interest received		
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Government grants and tax incentives		200
1.8	Other (provide details if material)		
1.9	**Net cash from / (used in) operating activities**	**(799)**	**(3,478)**

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities		
	(b) businesses		
	(c) property, plant and equipment	(48)	(126)
	(d) investments		
	(e) intellectual property	(2)	(2)
	(f) other non-current assets		
2.2	Proceeds from disposal of:		
	(g) entities		
	(h) businesses		
	(i) property, plant and equipment		
	(j) investments		
	(k) intellectual property		
	(l) other non-current assets		
2.3	Cash flows from loans to other entities	512	512
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	**Net cash from / (used in) investing activities**	**462**	**384**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		2,801
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options	333	971
3.4	Transaction costs related to issues of equity securities or convertible debt securities		(240)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings		

Consolidated statement of cash flows		Current quarter $A'000	Year to date (9 months) $A'000
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**	**333**	**3,532**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	3,375	2,933
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(799)	(3,478)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	462	384
4.4	**Net cash from / (used in) financing activities (item 3.10 above)**	**333**	**3,532**
4.5	Effect of movement in exchange rates on cash held		
4.6	**Cash and cash equivalents at end of period**	**3,371**	**3,371**

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	3,371	3,375
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)**	**3,371**	**3,375**

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	144
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

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.

7.	Financing facilities *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.*	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**	0
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)	(799)
8.2	Cash and cash equivalents at quarter end (item 4.6)	3,371
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	3,371
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	4.22

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.

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: .....28 April 2022.....

Authorised by: .....Board of Directors.....

(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.