

27 July 2022

**QUARTERLY ACTIVITIES REPORT FOR THE PERIOD
ENDED 30 JUNE 2022**

Operational highlights:

- **Multiple collaboration agreements secured for the supply of fibre, yarn, and textile samples from initial pilot spin:**
 - **Agreement with leading sustainable denim manufacturer, Orta, to develop denim materials incorporating Nanollose's Nullarbor™ fibres**
 - **Agreement to develop next generation vegan leather from microbial cellulose with materials innovation company von Holzhausen**
 - **Agreement with Paradise Textiles, the materials science hub of the Alpine Group, for the development and manufacture of Nullarbor™ yarns and textiles**
- **Memorandum of Understanding signed with one of the world's largest fashion retailers, Industria de Diseño Textil, S.A. ('INDITEX') – owner of multiple world-renowned brands including Zara, Pull&Bear, Massimo Dutti, Bershka, Stradivarius, Oysho and Zara Home**
- **The first garment made from Nullarbor™ Tree-Free lyocell was designed by Australian fashion designer Lee Mathews and launched at the Copenhagen Global Fashion Summit - the foremost international forum for sustainability in fashion**
- **Nanollose receives R&D tax rebate of \$225,000**

Outlook and key objectives:

- **Collaboration agreements provide multiple reference points and catalysts for further uptake from global fashion brands – ongoing discussions with additional potential partners**
- **Work is ongoing towards the second pilot spin with Birla Cellulose at increased scale, which will provide further valuable technical information and additional material for projects with existing collaborators and new partners**
- **Nanollose actively working with collaboration partners towards development of denim, yarns and other textiles using the Company's Nullarbor fibres, and further refinement of the Company's fabric products to facilitate potential commercial supply**
- **Continue to progress alternatives to leather based on microbial cellulose in collaboration with von Holzhausen**

Nanollose Limited (ASX: NC6) ("Nanollose" or the "Company") a leading biomaterials company, focused on commercialising scalable technology to create fibres and fabrics with minimal environmental impact, is pleased to provide shareholders with an overview of its activities for the period ended 30 June 2022 ("quarter", "reporting period").

Management commentary:

Executive Chairman Dr Wayne Best said: *“Nanollose has made significant progress on its business development initiatives this quarter, capitalising on the strong momentum gained from the previous period resulting from the successful first pilot scale spin of Nullarbor-20 lyocell fibre. This quarter we have been in negotiation with and finalised collaborative agreements with several leaders in sustainable fashion to test and assess Nullarbor fibres for use in their production processes. These agreements are in line with our segment strategy, which will provide us with additional avenues for growth over the coming months.*”

“We have continued work with our strategic partner Birla Cellulose and unveiled the first garment to be made using 100% Tree-Free Nullarbor lyocell fibre at the leading international forum for sustainability in fashion, the Copenhagen Global Fashion Summit. As we continue to gain an increased level of interest and host discussions with additional potential partners, I look forward to providing updates to our shareholders moving into the next quarter.”

Operational overview:

The quarter included a number of major milestones for the Company such as multiple collaboration agreements, including with one of the world’s largest fashion retailers, as well as the very first fabric samples and garment launch at the widely respected global sustainability in fashion industry event, the Copenhagen Global Fashion Summit.

The Company’s Nullarbor™ lyocell fibres have continued to gain significant global traction with world-renowned fashion brands beginning to witness Nanollose’s innovative products and processes providing a significant potential solution to some of the critical environmental issues facing the industry.

Collaboration with one of the world’s largest fashion retailers, INDITEX:

In a major development, Nanollose entered into a binding memorandum of understanding (“MOU”) with one of the world’s largest fashion retailers, Industria de Diseño Textil, S.A. (“INDITEX”). The MOU will see the non-exclusive delivery by Nanollose to INDITEX of samples of the Company’s Tree-Free (and/or blended) Nullarbor lyocell.

Nanollose will work with INDITEX, supplying samples of various materials for testing and prototyping, with the view to Nanollose gaining valuable commercial feedback, whilst INDITEX are allowed early access to the Company’s materials to determine the potential for use in their various brands which include Zara, Pull&Bear, Massimo Dutti, Bershka, Stradivarius, Oysho and Zara Home.

The MOU is indicative of the significant interest and demand for sustainable solutions in the fashion and textile industry, and the willingness and commitment of industry leaders to seek out and support the sustainable innovations that Nanollose has to offer.

Additional details regarding the MOU agreement can be found in the Company’s ASX announcement dated 26 May 2022.

Collaboration agreement with leading denim manufacturer, Orta:

The Company’s agreement with Orta highlighted its maiden collaboration following the successful pilot spin of Nanollose’s lyocell fibre. Under the agreement, Nanollose and Orta will develop denim materials utilising Nanollose’s Tree-Free and Forest-Friendly Nullarbor fibres consisting in whole or in part of microbial cellulose.

Orta (www.ortaanadolu.com) is a Turkish based company that was established in 1953 as a specialist spinning and weaving company. Since 1985, the group has been operating as a sustainable denim manufacturer and has a total production of 40m metres of denim per annum. Orta supplies denim to a range of luxury brands including Alexander McQueen, Stella McCartney and Isabel Marant, as well as leading denim brands such as Levi's, Lee, Wrangler, Tommy Hilfiger, and Calvin Klein. The group also provides denim and materials to retail brands, with clients including GAP, Banana Republic and Madewell. Orta has over 1,500 employees and is a leader in sustainability. It aims to create a more robust denim ecosystem where design meets technology and ethics.

The agreement is in line with the Company's strategy to grant exclusivity within defined market segments. Under which, Nanollose and Orta have agreed to work exclusively together in the development of denim fabrics from fibres incorporating microbial cellulose. Nanollose has provided Orta an initial 50kg of Nullarbor-20 to commence the project, with additional samples of Nullarbor fibres from subsequent pilot spins to follow as required.

Additional details regarding the collaboration agreement can be found in the Company's ASX announcement dated 19 April 2022.

Agreement to develop next generation vegan leather products:

During the quarter, Nanollose entered into a collaboration agreement with innovative vegan leather and materials company, von Holzhausen.

von Holzhausen has a mission to make leather extinct through the development of next generation materials made from plants and recycled materials. The group's vegan leather products replicate the essence of leather but offer superior performance and a significantly lower carbon impact. von Holzhausen is based in California and has a factory in the US and Italy that utilises their alternative materials created from plants and recycled fibres. The group has earned a strong reputation for the sustainability and luxuriousness of their products, which has earned them coverage across some of the world's most renowned publications.

Under the agreement, Nanollose will provide von Holzhausen with samples of treated and processed microbial cellulose in various forms for testing as potential alternatives to leather or other materials either in their initial state or after further processing by von Holzhausen. As part of the collaboration agreement, each party will work closely together liaising regularly to exchange information and key specifications to advance the collaboration.

Following in-house research at Nanollose, the first set of vegan leather samples have now been delivered to von Holzhausen for assessment and feedback for ongoing work. The Company looks forward to updating the market on developments in this exciting opportunity.

The vegan leather project is independent of Nanollose's collaboration with Birla Cellulose as, unlike its Nullarbor technology, it does not require the production of fibre. Consequently, the project provides Nanollose with valuable technology and business diversity. It potentially provides the Company access to the vegan leather market which is witnessing strong growth and is expected to be valued at US\$89.6Bn by 2025ⁱ. The rapid rise of the vegan leather industry is attributed to the increasing awareness on the ethical and environmental concerns over the impact of traditional leather production among consumers, providing Nanollose with an exceptional opportunity.

Additional agreement details can be found in the Company's ASX announcement dated 5 May 2022.

Paradise Textiles and Nanollose to develop Nullarbor™ yarns and textiles:

Nanollose secured an additional collaboration agreement with Paradise Textiles Limited (“Paradise”), a technology first material science and innovation business which aims to reinvent the fabric of fashion. Under the agreement, both parties will work together to develop and manufacture yarns and textiles incorporating Nanollose’s Tree-Free and Forest-Friendly Nullarbor fibres. Nanollose has shipped an initial ~135kg of Nullarbor-20™ to Paradise, which Paradise will convert into a variety of yarns and textiles for provision to selected apparel makers and fashion brands with whom Nanollose is currently finalising agreements.

Paradise is the innovation hub of award winning apparel manufacturer, Alpine Group. The Alpine Group was founded in 1981 in Taiwan and over the last 40 years has established global operations including in the US, Singapore, Egypt, Jordan, Dubai, Taiwan and China.

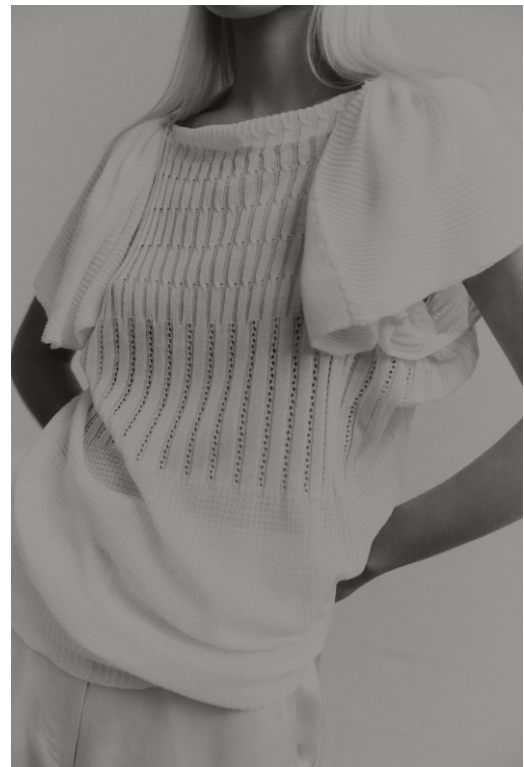
Alpine Group is also the first apparel manufacturing group to take on the Future Fit Benchmark (a science-based strategic management tool that aligns with the UN Sustainable Development Goals) and is a trusted partner to some of the biggest brand names in apparel, including: The North Face, Sweaty Betty, American Eagle Outfitters, Under Armour and Abercrombie and Fitch.

Additional details on the development can be found in the Company’s ASX announcement dated 17 May 2022.

Lee Mathews designed garment launch at the Copenhagen Global Fashion Summit:

The Company undertook its first lyocell garment launch during the quarter unveiling its world first garment made from 100% Tree-Free and Forest-Friendly Nullarbor lyocell fibre, designed by Australian fashion designer Lee Mathews. The garment was launched at the global fashion summit in Copenhagen on 7 and 8 June in collaboration with strategic partner and leading man-made cellulosic fibre manufacturer Birla Cellulose.

The 100% Tree-Free Nullarbor fibre was made at Birla Cellulose’s R&D facilities in India. The fibre was then spun into yarn by The Institute for Frontier Materials at Deakin University, Victoria, using standard industrial yarn making equipment. The resulting Nullarbor yarn was then provided to Victorian knitwear developer, Knovus, who made two copies of the Lee Mathews designed garment (and sample swatches) using the latest zero-waste 3D knitting technology. The process demonstrated that Nullarbor lyocell fibre integrates seamlessly with existing industrial equipment to produce high-quality garments.



Launching at a widely respected global industry event provided Nanollose with the opportunity to unveil the new garment and promote Nullarbor to a wide audience of industry professionals. The collaboration with Lee Mathews (www.leemathews.com.au) a leading Australian womenswear designer with an extensive Australian and global footprint, provides further credibility to the work Nanollose has been undertaking to advance sustainable fashion initiatives with leading global fashion brands.

The Global Fashion Summit in Copenhagen is the leading international forum for sustainability in fashion and fosters industry collaboration to drive positive impact. Attendees featured influential voices in the industry including commentators, visionaries, researchers, politicians, designers, environmentalists, and journalists.

Additional details regarding the production and launch of the garment can be found in the Company's ASX announcement dated 6 June 2022.

Shared Booth with Birla Cellulose - Première Vision in Paris:

Following the end of the quarter, Nanollose was invited to join Birla Cellulose at its exhibition booth at the Première Vision trade fair in Paris. Première Vision is a three-day event, which brings together all players in raw materials and services for the production of apparel, bags, shoes and fantasy jewellery, to effectively assist fashion professionals develop their collections. Nanollose's attendance alongside its strategic partner, Birla Cellulose, afforded the opportunity to jointly promote the revolutionary Nullarbor™ fibre, and demonstrated Birla's commitment to the project, whilst significantly increasing the fashion and textile community's awareness of Nanollose, and its unique, cutting-edge product. In addition to exhibiting the Lee Mathews designed Nullarbor garment at the event, Birla Cellulose produced several dyed fabric samples for Nanollose to exhibit, prepared from the first Nullarbor-20 pilot production in February.

Second pilot spin:

During the quarter, Nanollose continued to progress work towards undertaking the second pilot spin of Nullarbor fibre, with a focus on increasing the scale. The Company anticipates that this work will provide both important technical information and generate significantly more fibre to progress ongoing projects with existing collaborators and new partners in different segments and industries, further diversifying the Company's market opportunities.

Jelli Grow:

Nanollose continues to receive interest in its Jelli Grow™ seed germination medium. Some refinement of the product has recently been made for potential customers who have requested a dry form of the product to reduce shipping costs. During the quarter Nanollose received its second granted patent for Jelli Grow. The patent has now been granted in China and Japan, with it still pending in numerous other countries.

CelluAir Update:

To date, CelluAir in conjunction with researchers at QUT have successfully developed filter material using cellulose nanofibres with a low pressure drop suitable for use in surgical face masks and respirators. A recent key achievement from 8 years of research has been the successful testing to AS/NZS 1716:2012 with particle filtration efficiency of 96% to 99%. Ongoing research into fully biodegradable filter material is progressing and preliminary testing has been successful in terms of particle filtration efficiency and breathability.

Nanollose continues to work in close collaboration with CelluAir to develop alternate low-cost sources of cellulose nanofibres with appropriate properties to achieve both the filtration efficiency and low pressure drop required for good breathability. Several microbial cellulose samples supplied by Nanollose have been evaluated by CelluAir and refinement of material is ongoing.

The global market for face masks remains strong with high-volume manufacturers searching for biodegradable materials to reduce the impact of environmental pollution from disposal of masks. The market opportunity for filter media constructed from cellulose nanofibres remains positive and

CelluAir is actively engaging with manufacturers in providing filter samples on the path to commercialisation.

Outlook:

Following the execution of a number of collaboration agreements, which have demonstrated the significant demand for the Company's solution, Nanollose will continue to focus on the following objectives during the current quarter and beyond:

- working with collaboration partners towards development of vegan leather, denim, and other yarns and textiles using the Company's microbial cellulose-based materials and fibres;
- working with collaboration partners in product trials to further refine and perfect the Company's Nullarbor fibre and fabric products to facilitate potential commercial supply;
- ongoing work towards completion of the second pilot spin with Birla Cellulose at increased scale to provide additional technical information and produce more fibre for development projects with existing collaborators and to supply new partners in other segments, further expanding the Company's potential market;
- implementing refinements into microbial cellulose production and procuring material to support ongoing pilot production of fibre; and
- continue work to produce a viable microbial cellulose-based alternative to leather.

Appendix 4C Quarterly Cash Flow:

The Company's Appendix 4C Quarterly Cash Flow Report for the quarter ended 30 June 2022 accompanies this announcement, and highlights a strong cash balance of \$1.59m.

In accordance with Listing Rule 4.7C, as noted in its Appendix 4C, during the Quarter the Company continued to practise diligent cash management, expending a gross total of \$388,000 on the operations of the Company, and receiving a total of \$227,000. This was comprised of research and development (\$153,000), advertising and marketing (\$104,000), staff costs (\$26,000), administrative and corporate costs (\$105,000) and interest received (\$2,000) and an R&D rebate (\$225,000).

The payments included at section 6.1 of the attached Appendix 4C relate to Executive Directors' Salaries (\$62,000), Non-Executive Director Fees (\$28,000), and Company Secretary, Accounting and Office Fees (\$27,000).

[ENDS]

AUTHORITY AND CONTACT DETAILS

This announcement has been authorised by the Board of Directors of Nanollose.

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ABOUT NANOLLOSE

Nanollose Limited (ASX: NC6) is a leading biomaterials Company commercialising scalable technology to create fibres with minimal environmental impact. Nanollose uses an eco-friendly fermentation process to grow fibres that could become a sustainable alternative to conventional plant-derived cellulose fibres.

The Company's process, which uses streams from various large-scale industries, including food and agriculture, has the ability to produce 'Tree-Free' Cellulose. Cellulose is the hidden polymer building block most consumers know nothing about, but forms a huge part of items used in their everyday life such as clothing, paper and hygiene products.

In January 2021, Nanollose filed a joint patent application with Birla Cellulose, for a high tenacity, Tree-Free lyocell made from microbial cellulose (High Tenacity Lyocell Fibres From Bacterial Cellulose and Method of Preparation Thereof). Using the lyocell process, a team of fibre experts at Grasim's Pulp and Fibre Innovation Centre produced Nullarbor fibre that is finer than silk and significantly stronger than conventional lyocell that is traditionally produced from wood pulp. Nanollose's primary focus is on commercialising this fibre technology.

ⁱ <https://www.researchandmarkets.com/reports/5005163/vegan-leather-market-global-industry-analysis>

Appendix 4C

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

Name of entity

Nanollose Limited

ABN

13 601 676 377

Quarter ended ("current quarter")

30 June 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	0	0
1.2 Payments for		
(a) research and development	(153)	(843)
(b) product manufacturing and operating costs	0	0
(c) advertising and marketing	(104)	(253)
(d) leased assets	0	0
(e) staff costs	(26)	(102)
(f) administration and corporate costs	(105)	(459)
1.3 Dividends received (see note 3)	0	0
1.4 Interest received	2	4
1.5 Interest and other costs of finance paid	0	(2)
1.6 Income taxes paid	0	0
1.7 Government grants and tax incentives (R&D Rebate)	225	225
1.8 Other	0	0
1.9 Net cash from / (used in) operating activities	(161)	(1,430)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	0	0
(b) businesses	0	0
(c) property, plant and equipment	0	(5)
(d) investments	0	0
(e) intellectual property	0	0

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
(f) other non-current assets	0	0
2.2 Proceeds from disposal of:		
(a) entities	0	0
(b) businesses	0	0
(c) property, plant and equipment	0	0
(d) investments	0	0
(e) intellectual property	0	0
(f) other non-current assets	0	0
2.3 Cash flows from loans to other entities	0	0
2.4 Dividends received (see note 3)	0	0
2.5 Other (provide details if material)	0	0
2.6 Net cash from / (used in) investing activities	0	(5)

3. Cash flows from financing activities		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	0	0
3.2 Proceeds from issue of convertible debt securities	0	0
3.3 Proceeds from exercise of options	0	20
3.4 Transaction costs related to issues of equity securities or convertible debt securities	0	0
3.5 Proceeds from borrowings	0	0
3.6 Repayment of borrowings	0	0
3.7 Transaction costs related to loans and borrowings	0	0
3.8 Dividends paid	0	0
3.9 Other (provide details if material)	0	0
3.10 Net cash from / (used in) financing activities	0	20

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	1,752	3,006
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(161)	(1,430)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	0	(5)

Appendix 4C
Quarterly cash flow report for entities subject to Listing Rule 4.7B

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	0	20
4.5	Effect of movement in exchange rates on cash held	0	0
4.6	Cash and cash equivalents at end of period	1,591	1,591

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	371	332
5.2	Call deposits	1,220	1,420
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)	1,591	1,752

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	117
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
	Payments at section 6.1 relate to Executive Directors' Salaries (\$62,000), Non-Executive Director Fees (\$28,000), Company Secretary, Accounting and Office Fees (\$27,000)	

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

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity.</i>		
<i>Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	0	0
7.2 Credit standby arrangements	0	0
7.3 Other (please specify)	0	0
7.4 Total financing facilities	0	0
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)	(161)
8.2 Cash and cash equivalents at quarter end (item 4.6)	1,591
8.3 Unused finance facilities available at quarter end (item 7.5)	0
8.4 Total available funding (item 8.2 + item 8.3)	1,591
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	9.88
<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:	
<i>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.</i>	

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: 27 July 2022
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Authorised by: The Board of Directors
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(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.