

## QUARTERLY ACTIVITIES REPORT & APPENDIX 4C FOR THE PERIOD ENDED 30 SEPTEMBER 2021

### Operational Highlights

- Completion of an initial multi-kilogram MC processing trial at Birla Cellulose.
- Larger pilot scale processing trial scheduled for the last week of October 2021.
- Pilot fibre spin expected to be undertaken by December 2021.
- Nanollose granted a patent in China for its Jelli Grow™ product, “Plant Growth Media and Method for Making Same”, representing the Company’s first granted patent.

*Commenting on the Quarter, Nanollose Executive Chairman, Wayne Best, said: “During the September 2021 Quarter, we completed the first multi-kilogram trial at Birla Cellulose, on the processing of microbial cellulose (MC), in preparation for the first pilot spin of our nullarbor fibre. This trial has provided valuable technical information which is critical to complete sufficient optimisation and planning prior to commencing the pilot spin. The trial has also demonstrated the first level of scalability in processing, as the Company progresses towards a larger pilot scale trial scheduled for the last week in October 2021, which will set the stage for the completion of the first pilot fibre spin by December 2021.”*

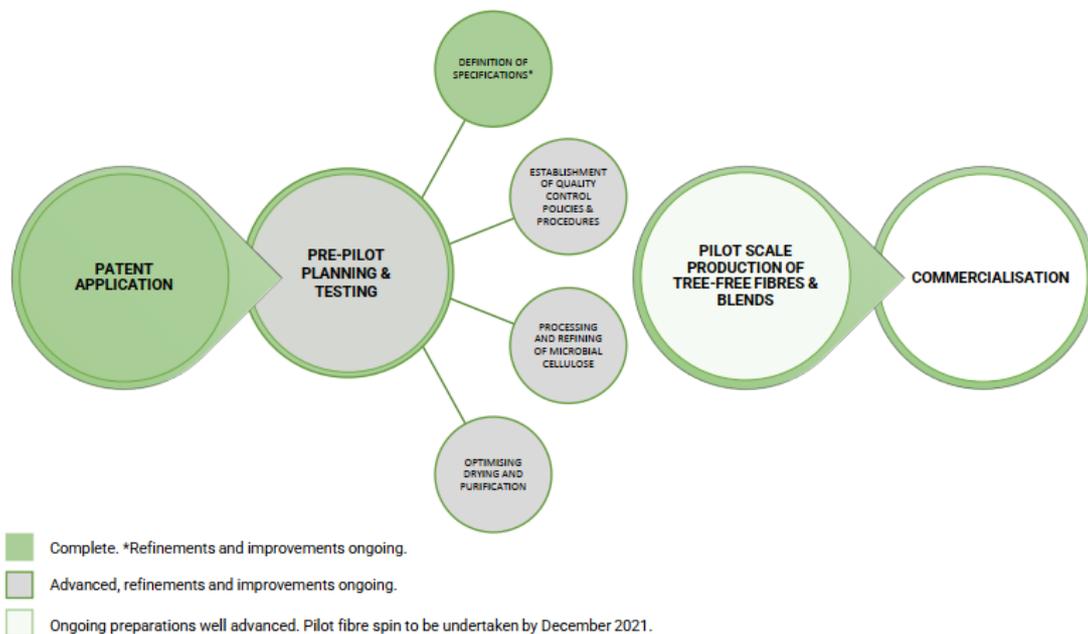
**Nanollose Limited (ASX:NC6)** (“Nanollose” or the “Company”) a leading biomaterials company commercialising scalable technology to create fibres and fabrics with minimal environmental impact, is pleased to provide shareholders and investors with an overview of activities to accompany the Appendix 4C, for the period ended 30 September 2021 (“Quarter”, “Reporting Period”).

### Operational

#### Pilot Production of Tree-Free Fibres

During the Reporting Period, the Company continued to work towards its first pilot fibre spin. Whilst Covid-19 related challenges have resulted in some delays, the Company is pleased to announce that it expects that the pilot spin will now be completed by December 2021.

During the Quarter, the Company and Birla Cellulose continued to progress the necessary preparatory work for the pilot spin, which included the following workstreams:



## Commercialisation process for Nanollose's Tree-Free Fibres

### 1 – Definition of Specifications

As announced previously, during the first quarter of 2021, the Company defined product specifications, to facilitate a smooth scaling process as it advances the commercialisation of its Tree-Free, high tenacity lyocell. These specifications have been further refined during the Reporting Period using the information gained from the first pilot processing trial.

### 2 – Establishment of Quality Control Policies and Procedures

During the Reporting Period the Company appointed Boon Tan as Operations & Quality Manager. Mr Tan has a strong track record in implementing Quality Systems and laboratory testing procedures. As a result, Nanollose has made significant progress implementing Quality Control Policies and Procedures which are becoming more robust and fit for purpose as the specifications from item 1 above are becoming more rigorously defined.

### 3 – Processing and Refining of MC

During the Reporting Period, Nanollose and Birla Cellulose undertook an initial multi-kilogram trial at Birla Cellulose's facilities in India on the processing of microbial cellulose (MC), in preparation for production of nullarbor™ Tree-Free, high tenacity lyocell and blends thereof. This multi-kilogram trial has provided valuable technical information, which will be applied to a larger pilot scale trial scheduled for the last week in October 2021. The Company expects that the processed MC from this trial will then be used for the first pilot fibre spin. Work is also underway to incorporate the information gained from these initial pilot trials into improvements in MC production in order to streamline the overall waste to fibre process.

### 4 – Optimising Drying and Purification

Industrial drying has been successfully undertaken at pilot scale to produce around 200kg of dried MC. New knowledge gained from the initial pilot processing above has provided opportunities to incorporate improvements in the drying and purification procedures and these are currently being investigated and implemented.

Completion of the pilot fibre spin this Quarter will represent a significant step forward for the Company as it will produce fibre to generate samples for potential partners in the fashion and textiles industries, and will provide valuable technical information about the production process, which will be further refined as the Company increases production scale.

### **Potential Offtake Partners**

Working closely with the Company's fashion consultant, Carla Woidt, during the Quarter Nanollose continued to advance discussions with leading fashion and textile brands that have expressed an interest in obtaining material from the Company. Nanollose now aims to enter into agreements with a select group of multinational fashion brands, yarn spinners, and fabric manufacturers, which will trial Nanollose's fibre produced from the first pilot fibre spin. Nanollose expects the first agreements to be signed during the December 2021 quarter.

### **Chinese Patent for Jelli Grow™ and Commercial Enquiries**

Nanollose's Jelli Grow™ product is an alternative seed germination and plant growing material, which is edible, organic, biodegradable and made from the Company's Tree-Free Microbial Cellulose.

In October 2021, Nanollose was granted a patent in China for its Jelli Grow product, "Plant Growth Media and Method for Making Same", representing the Company's first granted patent.

Separately, the Company also received customer enquiries for Jelli Grow during the Reporting Period, with trial samples dispatched to the Middle East and South East Asia, and discussions continuing with these parties.

Jelli Grow™ has already proven to be an effective growing medium with high water retention properties, is easy to use, and is able to grow food and plants in a variety of environments by simply adding seeds to the material. Soilless substrates for seed germination and plant growth are becoming increasingly popular in horticulture due to their ability to control water, nutrient supply and suppress soil-borne diseases. Most available substrate options today are inedible, synthetic and/or non-biodegradable. For more information on Jelli Grow™ please see: <https://nanollose.com/products/jelli-grow/>.

The Company's primary focus remains the commercialisation of its fibre technology.

### **Improved Operational Efficiencies**

As announced previously, the Company recently appointed Operations & Quality Manager, Mr Boon Tan, who is proficient in (amongst other languages) Chinese and Indonesian.

Since his appointment, Mr Tan has assisted in managing the Company's procurement and processing of MC from its partners in China and Indonesia, and its delivery to Birla Cellulose for fibre production.

As a result of Mr Tan's appointment, during the Quarter, the Company was pleased to experience significant improvements in communications, processes and logistics with its Chinese and Indonesian partners, which has further streamlined the Company's supply chains and resulted in significantly improved operational efficiencies.

## **Appendix 4C – Quarterly Cash Flow**

The Company's Appendix 4C Quarterly Cash Flow Report for the quarter ended 30 September 2021 accompanies this announcement, and demonstrates a strong cash balance of \$2,515,000.

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 \$489,000 on the operations of the Company. This was comprised of research and development (\$290,000), advertising and marketing (\$41,000), staff costs (\$23,000), administrative and corporate costs (\$134,000) and finance costs (\$1,000). The Company also made payments for property plant and equipment (\$2,000).

The payments included at section 6.1 of the attached Appendix 4C relate to Executive Directors' Salaries (\$71,500), Non-Executive Director Fees (\$28,000), and Company Secretary, Accounting and Office Fees (\$20,500).

## **Q4-CY2021 to Q1-CY2022 Objectives – Commercialisation of Next Generation Lyocell**

As Nanollose continues to progress towards the commercialisation of its next generation, Tree-Free fibres, there are several key milestones that the Company aims to achieve by the end of Q1 CY2022.

### **Q4-2021**

- Scale-up the initial pilot processing of MC at Birla Cellulose's Pilot facility to produce material for the pilot fibre spin (scheduled for the last week of October 2021).
- Undertake the first pilot spin of Nanollose's nullarbor lyocell fibre (scheduled for by December 2021).
- Sign initial agreements and provide initial quantities of fibre from the pilot spin to selected partners.
- Continue implementing refinements into MC production and procure material to support ongoing pilot production of fibre.

### **Q1-2022**

- Supply initial quantities of fibre, yarns, and textiles from pilot spin to additional selected partners.
- Commence product trials with leading global brands in the fashion and apparel industry.
- Commence product trials in nonwoven sector as the Company seeks to commercialise nufolium™ for nonwoven fibre applications.
- Undertake second and subsequent pilot processing and spin at increased scale.

**[ENDS]**

## AUTHORITY AND CONTACT DETAILS

This announcement has been authorised for release by the Board of Nanollose Limited.

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## ABOUT NANOLLOSE

Nanollose Limited (ASX: NC6) is a leading biotechnology 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.

## ABOUT BIRLA CELLULOSE AND GRASIM INDUSTRIES LIMITED

Birla Cellulose, a business unit of Grasim Industries Limited, part of Aditya Birla Group (ABG), is a leading sustainability focused man made cellulosic fibre producer, with its nature based fibres being produced from renewable wood sourced from sustainably managed forests. Grasim Industries Limited, a flagship company of the ABG, ranks amongst the top publicly listed companies in India and operates pulp and fibre business in India.

Grasim Industries operates its pulp and fibre business, which applies closed loop processes and environmentally efficient technologies, that recycle raw materials and conserve natural resources. Grasim's five global advanced research centres are equipped with state of the art facilities and pilot plants, with new generation innovative products including Livaeco™, Liva Reviva, Birla Excel (lyocell), in addition to Liva Antimicrobial and Birla Spunshades, which are designed with superior sustainable credentials.

With an aim to create bigger and broader impact, Grasim collaborates actively with its value chain partners and works closely with organizations including, Canopy Planet, Sustainable Apparel Coalition (SAC), Zero Discharge of Hazardous Chemicals (ZDHC), Changing Markets Foundation, Textile Exchange, WBSCD, Fashion for Good amongst others to continually learn and apply the best practices within its global operations and across its value chain.

## 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 September 2021

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	0	0
1.2 Payments for		
(a) research and development	(290)	(290)
(b) product manufacturing and operating costs	0	0
(c) advertising and marketing	(41)	(41)
(d) leased assets	0	0
(e) staff costs	(23)	(23)
(f) administration and corporate costs	(134)	(134)
1.3 Dividends received (see note 3)	0	0
1.4 Interest received	0	0
1.5 Interest and other costs of finance paid	(1)	(1)
1.6 Income taxes paid	0	0
1.7 Government grants and tax incentives (R&D Rebate)	0	0
1.8 Other (Covid 19 Cash Flow Boost)	0	0
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(489)</b>	<b>(489)</b>

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

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (3 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
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(2)</b>	<b>(2)</b>

<b>3. Cash flows from financing activities</b>		
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	0
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
<b>3.10 Net cash from / (used in) financing activities</b>	<b>0</b>	<b>0</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	3,006	3,006
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(489)	(489)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(2)	(2)

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
4.4	Net cash from / (used in) financing activities (item 3.10 above)		
4.5	Effect of movement in exchange rates on cash held		
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>2,515</b>	<b>2,515</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	495	2,986
5.2	Call deposits	2,020	20
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,515</b>	<b>3,006</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	120
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 (\$71,500), Non-Executive Director Fees (\$28,000), Company Secretary, Accounting and Office Fees (\$20,500)	

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

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<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 <b>Total financing facilities</b>	0	0
7.5 <b>Unused financing facilities available at quarter end</b>		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.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(489)
8.2 Cash and cash equivalents at quarter end (item 4.6)	2,515
8.3 Unused finance facilities available at quarter end (item 7.5)	0
8.4 Total available funding (item 8.2 + item 8.3)	2,515
8.5 <b>Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	5.14
<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: 26 October 2021  
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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.