



ALEXIUM

**QUARTERLY ACTIVITIES REPORT
FOR THE PERIOD ENDED**

30 September 2020

Q1 FY2021 Highlights:

- **Sales increase following initial impact of COVID-19**
 - Cash receipts of US\$ 1.7m
 - Key markets for Alexicool® products show continued consumer demand
- **Alexium Launches New Phonon™ Technology**
 - Phonon technology dramatically enhances the rate of cooling via a novel cooling mechanism
 - New thermal management technology complements the Company's established line of Alexicool® PCM products
- **Commercialization of Alexiflam NF for cotton FR socks**
 - Marketing of Alexiflam NF application is fully initiated
 - Company publishes a full-page ad in *Bed Times* detailing products value propositions
- **Margin improvements for key products**
 - Significant progress made in improvement of margins
 - Improvements are driven by optimisation of manufacturing process and integration of cost-effective raw materials
- **Non-Executive Director Dr Paul Stenson Visits Greer Site**
 - Dr. Stenson visit provided him with a detailed introduction to the technology portfolio and opportunity to review Company

Commenting on Q4 FY2020, Alexium CEO Dr Bob Brookins said:

"The transition from the Q4 FY2020 to Q1 FY2021 has been a dramatic shift as everyone adjusts to the new normals of COVID-19. While many markets have been heavily hit by the pandemic, the bedding industry has fared well which is evidenced by the recovery of Alexium cash receipts in this reporting period. This trend is attributed to everyone's increased time at home due to quarantining protocols and as a result, consumers are upgrading their homeware. All market information we have indicates that this trend is continuing for the foreseeable future.

"Where COVID-19 has had some impact is on new product development efforts. The supply chain for certain types of textiles and foam has been adversely impacted, and some planning work is hampered by restrictions related to the pandemic (i.e., travel). The staff are working diligently to support our partners with these issues to minimize delays. Any delays we have encountered are timing related and do not reflect material changes in the opportunities.

"Fortunately, our site in Greer, South Carolina has not had anyone infected with COVID-19 and the protocols for our region enable the staff to do their work. Progress on our initiatives and the commercialization of our new technologies such as Phonon and Alexiflam NF for FR socks continues in earnest and we all look forward to the Company's growth in FY2021."

Cash receipts for the quarter

Cash receipts totalled US\$1.7m which is up US\$0.5m from the prior quarter. Based on sales over this period, the projected cash receipts were US\$1.9M with the difference being received just after the quarter ended. Sales for the quarter were for major accounts in both mattress and top-of-bed markets. The strength of sales over this period reflects increased consumer demand in the bedding market since the onset of COVID-19. Looking forward, management expects consumer

demand to remain high in Q2 even though this quarter has been typically lower due to market seasonality.

Margin Improvement for Key Products

As part of an ongoing effort to improve efficiencies, significant progress has been made during the reporting period for the improvement of margins. These improvements have come through two efforts:

- Optimization of raw material usage and processing parameters in manufacturing
- Integration of more cost-effective raw materials for key components

Products recently sold will reflect the current margins which includes a mix of lower margin goods. The significant changes to margin will come in 2H FY2021 with the full introduction of these improvements. More about this work will be communicated in the coming months.

Alexium Announces Launch of New Phonon™ Technology

The Company announced the development of a new-to-the-world cooling technology for consumer products. The Phonon™ technology dramatically enhances the rate of cooling over current cooling products with a novel cooling mechanism that operates by continually pulling heat away from the consumer. This patent pending technology is targeted for thermal management applications in textile and foam products.

The total addressable market in the United States for cooling technologies in total mattress cooling systems (TMCS) is estimated at US\$60m, with an additional US\$25m for top-of-bed applications. Beyond bedding applications, this technology has comparable opportunities in other notable markets, including upholstery, medical products, sporting goods, and outdoor apparel/accessories. Given the Company's established position in bedding markets, these markets are the initial targets for commercial application of the new technology though research/evaluation of adjacent markets has been initiated.

Non-Executive Director Dr. Paul Stenson Visit to Alexium Greer Site

During this reporting period, non-executive director Dr. Paul Stenson visited the management team and staff at its site in Greer, South Carolina. The purpose of this visit was to meet the Alexium team, to receive a detailed introduction to the technology portfolio, and to review key segments of the Company related to his skill set including manufacturing and intellectual property. On this visit, Dr. Stenson stated, "Alexium has developed differentiated patented product lines for thermal management and fire retardant applications backed by an impressive R&D/Analytical and operational capability to deliver cost effective solutions to its customers."

Commercialization of Alexiflam NF for 100% Cotton FR Socks

With the successful UL testing of the NF-treated 100% cotton FR sock, the Company has initiated the commercialization of Alexiflam NF to FR sock manufacturers. As part of this marketing effort, a full page ad was published in the October edition of Bed Times. Key value propositions for the Alexiflam NF-treated socks are sustainability, durability of FR treatment, cost savings, and providing a fiberglass-free solution.

While product commercialization is still in early stages, production trials have already been scheduled with potential suppliers along with product testing. This progress keeps the Company on track to meet its growth targets in this market segment.

Introducing sustainable & fiberglass-free FR barriers.

Meet the growing consumer demand for a sustainable, natural cotton solution to replace fiberglass mattress barriers. Consider our new Alexiflam® NF (Natural Fiber) technology to transform cotton into an effective flame-retardant barrier that eliminates the risks of airborne fiberglass shards. You can rest assured knowing your customers will be comfortable with a safe and natural product in their homes.

To find out more, go to AlexiumInternational.com.

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Commercialization of Total Mattress Cooling Systems

As reported in recent investor presentations, the Company has been actively working on the commercialization of total mattress cooling systems (TMCSs) where Alexicool® textile and foam products are integrated throughout. The first TMCSs were slated for release in early C2021 with production initiated in Q2 FY2021. Due to market dynamics resulting from the COVID-19 pandemic, this product release has been delayed by 4-6 months. Two key factors driving this delay are 1) limited availability of polyols for the foams used in mattresses and 2) a company supplying fabrics for the TMCS has closed down requiring the end brand to restructure the supply chain. Alexium notes that these factors do not relate to the readiness of supply of Alexicool® products and that the Company is ready to initiate production once the issues listed above are resolved.

Updates on Other Major Initiatives

The following is an update on other major initiatives of interest to investors

- With finalization of the Supply and Evaluation Agreement with a major flame retardant company for the commercialization of Alexiflam NF in Q4 FY2020, the Company has initiated work on this effort for market opportunities in FR cotton applications. Coordination of materials and market information is underway and an initial production trial has been scheduled.
- Manufacturability of FR NyCo with the Company's partner Pine Belt has continued in the reporting period though the work has been further impacted by COVID-19. Closures in the month of September have delayed production work and product testing to address inconsistencies of application in production work.

Appendix 4C

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

Name of Entity	
ALEXIUM INTERNATIONAL GROUP LIMITED	
ABN	Quarter ended
91 064 820 408	30-September-2020

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (3 months) \$US'000
1. Cash flows from operating activities		
1.1 Receipts from customers	1,739	1,739
1.2 Payments for		
(a) research and development	(76)	(76)
(b) product manufacturing and operating costs	(930)	(930)
(c) advertising and marketing	(21)	(21)
(d) leased assets	(27)	(27)
(e) staff costs	(535)	(535)
(f) administration and corporate costs	(425)	(425)
1.3 Dividends received (see note 3)		
1.4 Interest received	1	1
1.5 Interest and other costs of finance paid	(82)	(82)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (GST received)	16	16
1.9 Net cash from / (used in) operating activities	(340)	(340)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment	(20)	(20)
(d) investments		
(e) intellectual property	(227)	(227)
(f) other non-current assets		

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

Consolidated statement of cash flows		Current quarter \$US'000	Year to date (3 months) \$US'000
2.2	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)		
2.6	Net cash from / (used in) investing activities	(247)	(247)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
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		
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings	(36)	(36)
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	(36)	(36)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	4,741	4,741
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(340)	(340)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(247)	(247)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(36)	(36)
4.5	Effect of movement in exchange rates on cash held	65	65
4.6	Cash and cash equivalents at end of quarter	4,183	4,183

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

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 \$US'000	Previous quarter \$US'000
5.1	Bank balances	2,896	3,502
5.2	Call deposits		
5.3	Bank overdrafts		
5.4	Other (provide details)	1,287	1,239
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	4,183	4,741

6.	Payments to related entities of the entity and their associates	Current quarter \$US'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

7.	Financing facilities	Total facility amount at quarter end \$US'000	Amount drawn at quarter end \$US'000
7.1	Loan facilities	3,697	3,697
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total Financing facilities	3,697	3,697
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.		
4-year 6% A\$5.15M secured convertible note 10 finance leases with a loan balance of \$0.16M @ an average rate of 9.6%			

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

8.	Estimated cash available for future operating activities	\$US'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(340)
8.2	Cash and cash equivalents at quarter end (item 4.6)	4,183
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	4,183
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	12
	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: N/A	
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: N/A	
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: N/A	
	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: 30 October 2020

Authorised by: The Board of Directors

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.