



ALEXIUM

**QUARTERLY ACTIVITIES REPORT
FOR THE PERIOD ENDED**

31 December 2021

Q2 FY2022 Highlights:

- **Continued Strong Sales & Cash Receipts for the Reporting Period**
 - Cash receipts of US\$2.8m and sales of US\$2.7m
 - Cash receipts are a 46% increase versus the same period in prior fiscal year
- **Letter of Intent Signed for \$3M/\$5M Line of Credit**
 - Alterna CS to provide working capital funding to support the growth of the company
 - Facility is a three-year US\$3.0M asset-based facility which can be increased to US\$5.0M as the Company grows
- **Awarded “Innovation Award” by Serta Simmons Bedding (SSB)**
 - “Innovation Award” given at SSB Supplier Summit for development and commercialization of thermal management products
 - SSB is a globally recognized mattress brand and a major manufacturer of mattresses and bedding products
- **Premier Body Armor Commercializes Eclipsys™-Based Products**
 - This highlight is the first sale of Eclipsys™ product
 - This is also the Company’s first commercialisation of thermal management products outside of the bedding market
- **FR NyCo Work Completed with Goods Moving to Military Testing**
 - Fabrics were manufactured on a roll goods basis in South Carolina
 - Fabrics were treated with the Alexiflam® and Alexiguard™ products developed by the Company

Introduction by CEO, Dr. Bob Brookins:

“Over the past six months, Alexium has completed the key milestones that were outlined in our October 2021 investor presentation. These milestones are integral to the continued growth of the company across multiple fronts. While all of these are significant contributors, I see the successful commercialization of the Eclipsys™ technology for body armor as the real standout as it broadens one’s perspective of what Alexium is and where it is headed.

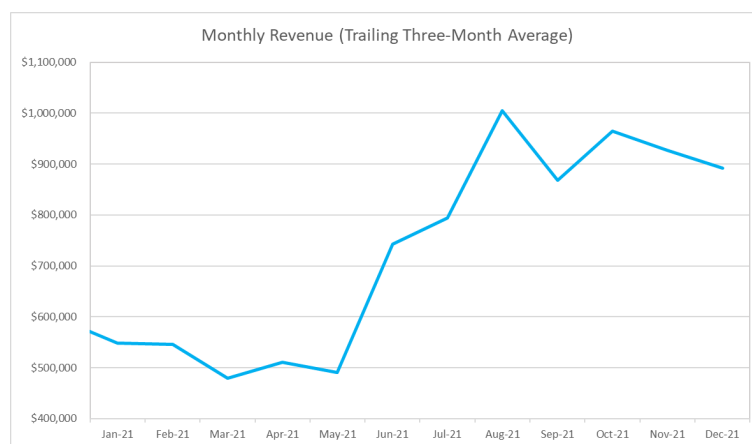
“While shareholders invest in Alexium for its growth potential as a materials innovator, I believe the attention can focus too narrowly on one of two areas: cooling technologies for bedding or flame retardant applications for military uniforms. Both technology applications are significant parts of the Company but understate the breadth of our technology portfolio and their potential applications and unique technologies. The successful commercialization of the Eclipsys™ technology for body armor demonstrates this point.”

Cash Receipts & Sales Summary for the Reporting Period

Cash receipts for the period totalled US\$2.8m, continuing the Company’s strong sales trend from the prior quarter. Cash receipts for 1H FY2022 total US\$5.7m which is a 46% increase in cash receipts versus the same period in the prior fiscal year. The two primary drivers for this growth are continued expansion of Biocool™ product sales and commercialization of Alexium products in support of the total mattress cooling system (TMCS). Sales for the period were \$2.7m. Consistent with prior year, sales decreased by ~25% in December relative to November.

Looking forward to 2H FY2022, the Company expects the 1H FY2022 positive trend for improving revenue and EBITDA to continue. This will be driven by new revenue streams which are beginning in 2H FY2022 as new customers adopt Biocool™ and Eclipsys™ products. The broader bedding market has softened beyond seasonality which is attributed to a number of factors including Omicron and supply chain issues. Orders from these new customers (that have commenced in January) mitigate this near-term impact. With the rate of new business acquisition coupled with our current capital structure, the Company is well positioned to continue delivering on its strategic goals.

To demonstrate the overall sales trend for the past 12 months, the graph below shows a trailing three-month average for monthly revenue.



Regarding operating activity outflows, (refer to Item 1.2 of the Appendix 4C), the outflows were predominantly comprised of raw material purchases, manufacturing costs, staffing costs, and corporate/administrative costs. While manufacturing costs and raw material purchases were higher due to increased sales, other costs are in line with our typical quarterly expenses.

Letter of Intent Signed for US\$3m/US\$5m Line of Credit

The Company has signed a letter of intent with Alterna CS to provide working capital funding to support the growth of the company. The currently contemplated facility is a three-year US\$3.0M asset-based facility which can be increased to US\$5.0M as the Company grows. The borrowing base consists of eligible accounts receivable and inventory. The initial fund usage interest rate is 8.25% and adjusts with upward changes in the Wall Street Journal Prime Rate. Regarding the line of credit, the Company's Chief Financial Officer Jason Lewis stated, "In the early stages of new product commercialization for products like Eclipsys™, the ramp-up phase can present working capital challenges, and this line of credit will help us manage those challenges. We look forward to finalizing the line of credit in February to support the Company's growth."

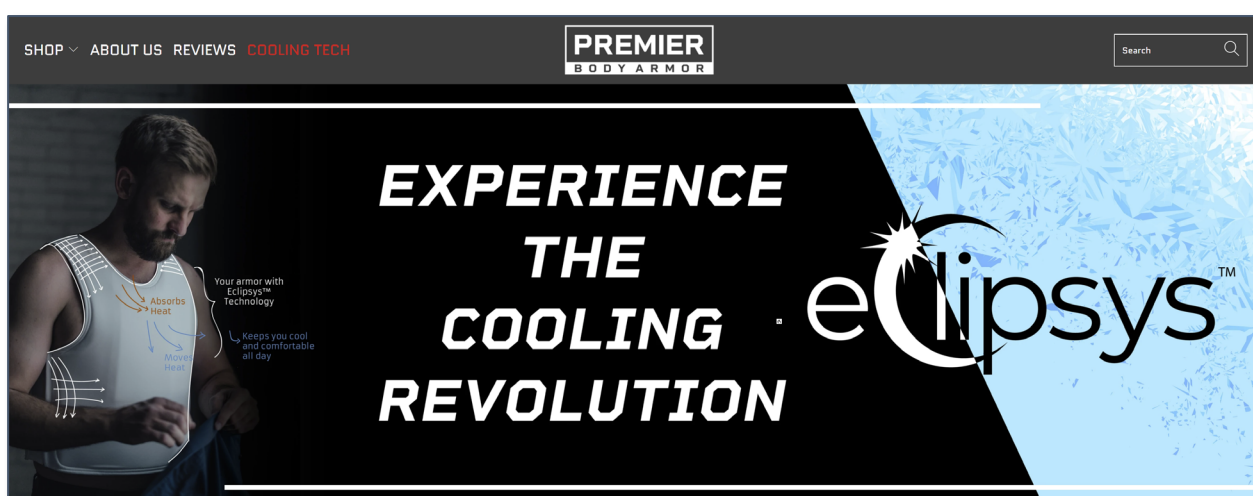
Alexium Awarded "Innovation Award" by Serta Simmons Bedding

At the recent Supplier Summit at Serta Simmons Bedding (SSB) in Atlanta, GA, Alexium was awarded the "Innovation Award" for development and commercialization of thermal management products. SSB is a globally recognized mattress brand and a major manufacturer of mattresses and bedding products in the US. Commenting on the award, Alexium Vice President of Sales and Marketing Chris Crawford said, "Alexium has built a strong relationship with SSB over the past five years based on technical problem solving and innovation to address market

needs. To be named SSB's Innovator of the Year is exciting while also being humbling. It is a culmination of the work and collaboration between the two companies to bring innovative ideas to market while capturing the consumer's voice in a commercial product. We look forward to years ahead with SSB in continuing that collaborative relationship while reaching new heights in the bedding market."

Premier Body Armor Commercializes Eclipsys™-Based Products

Alexium is pleased to announce the commercialization of Eclipsys™ based products in partnership with Premier Body Armor, a US-based manufacturer of body armor systems with a focus on protective apparel for first responders and individual protection. This represents the first sale of Eclipsys™ product by Alexium as well as the Company's first commercialisation of thermal management products outside of the bedding market. The image below shows the online marketing of Eclipsys™ products by Premier Body Armor:



Alexium is currently working with multiple segments of the body armor market as a focal point for commercialization of the Eclipsys™ technology in addition to various bedding applications.

FR NyCo Work Completed with Goods Moving to Military Testing

The Company has successfully completed all production work on flame retardant nylon/cotton fabrics (FR NyCo). The fabrics were manufactured on a roll goods basis and treated with the Alexiflam® and Alexiguard™ products developed by the Company. All work at this next stage will focus on supporting the testing and evaluation by military programs who have expressed interest in these products. Commenting on the successful completion of this work, Chief Executive Officer Dr. Bob Brookins stated, "The Alexium team has done a great job in bringing the FR NyCo effort to this point. All of the flame retardant, wash durability and comfort metrics we have targeted have been satisfied, and our focus now turns to supporting third-party testing evaluation. While this technology development effort has taken some time to get to this point, Alexium has been strengthened by the proprietary insights we have gained in the development process which positions us to better support subsequent stages of commercialization of this technology and its various potential applications."

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	31-December-2021

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (6 months) \$US'000
1. Cash flows from operating activities		
1.1 Receipts from customers	2,849	5,725
1.2 Payments for		
(a) research and development	(197)	(366)
(b) product manufacturing and operating costs	(2,245)	(4,250)
(c) advertising and marketing	(9)	(9)
(d) leased assets	(19)	(40)
(e) staff costs	(465)	(1,018)
(f) administration and corporate costs	(370)	(800)
1.3 Dividends received (see note 3)		
1.4 Interest received	1	2
1.5 Interest and other costs of finance paid	(87)	(168)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (GST received)	7	10
1.9 Net cash from / (used in) operating activities	(535)	(914)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment	(12)	(50)
(d) investments		
(e) intellectual property	(52)	(65)
(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 (6 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	(64)	(115)
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	(18)	(42)
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	(18)	(42)
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,439	2,933
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(535)	(914)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(64)	(115)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(18)	(42)
4.5	Effect of movement in exchange rates on cash held	7	(33)
4.6	Cash and cash equivalents at end of quarter	1,829	1,829

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	1,829	2,332
5.2 Call deposits		
5.3 Bank overdrafts		
5.4 Other (provide details)		601
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,829	2,933

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	3,652	3,652
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total Financing facilities	3,652	3,652
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 4 finance leases with a loan balance of \$0.03M @ an average rate of 9.6%		

8.	Estimated cash available for future operating activities	\$US'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(535)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,829
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	1,829
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	3
	<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: 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	
	<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: 31 January 2022

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.