



ALEXIUM

**QUARTERLY ACTIVITIES REPORT
FOR THE PERIOD ENDED**

31 March 2022

Q3 FY2022 Highlights:

- **Sales & Cash Receipts for the Reporting Period**
 - Cash receipts for the period totalled US\$1.9m with sales of US\$1.7m.
 - While sales decreased by 36% versus the previous quarter, it represents a 19% increase over the same quarter in the previous fiscal year.
 - This quarter-on-quarter decrease reflects the weak bedding market which the Company has observed over the past four months.
- **Facility for US\$3M/\$5M Line of Credit Finalized with Alterna CS**
 - Company has entered an asset-based line of credit with Alterna CS to provide immediate working capital funding to support the growth of the company.
 - Facility allows the Company to avoid raising equity for the foreseeable future.
- **Commercial Progress of PCM Products in Target Markets**
 - Further adoption of Biocool™ products at a major new customer with outlets to both online and brick-and-mortar market channels.
 - Trials and evaluations are underway with 11 companies (current and prospective customers).
- **Commercial Progress of Eclipsys™ Products in Target Markets**
 - Strong response from body armor market this reporting period with three new customers.
 - For the bedding market, the Company has been approved by two manufacturers as designated supplier on agreed terms.

Introduction by CEO, Dr. Bob Brookins:

“With our strong revenue growth in the first half of the fiscal year, I have been encouraged by our team’s ability to win new customers and grow with existing customers. While the expansion of our customer base has continued into this reporting period, macroeconomic factors have been impactful in this quarter and led to a drop in cash receipts versus the prior quarter. As we describe below, there are a number of drivers behind this downturn all of which are ultimately driving reduced consumer confidence.

“Our focus now is in two key areas: 1) continue driving greater market penetration in Q4 FY2022 just as we have in the first nine months of the year, and 2) leverage the strengths of our milestone successes expanding our product portfolio into new opportunities.

“Investors will clearly see in this market update that despite the market downturn, we have made significant progress across our major milestones. With these successes, Alexium is well poised for another strong wave of revenue growth as these negative macroeconomic factors abate. Notably, this will come from new market segments and customers which positions the Company well for continued growth.”

Cash Receipts & Sales Summary for the Reporting Period

Cash receipts for the period totalled US\$1.9m with sales of US\$1.7m. While sales decreased by 36% versus the previous quarter, it represents a 19% increase over the same quarter in the

previous fiscal year. YTD sales are a 39% increase over the same period in the previous fiscal year continuing the Company's strong sales trend year over year. Gross margins were maintained at above 40%.

This quarter-on-quarter decrease in revenue reflects the weak bedding market which the Company has observed over the past four months. As noted in the prior 4C and communicated in our March Investor Presentation¹, the bedding market softening has been driven by the impact of continued COVID disruption and core customer inflation with these headwinds exacerbated in the second half of this reporting period by the impact of the Russian/Ukraine war on inflation and consumer confidence. While the Company saw new revenue streams as a likely offset to the softer core bedding market, the magnitude of the downturn impacted these programs. Importantly, customer retention remains high and new customer acquisition has continued over the quarter.

Operating activity outflows (refer to Appendix 4C Item 1.2) primarily consist of raw material purchases, manufacturing costs, staffing costs, and corporate/administrative costs. Raw material purchases and manufacturing costs were lower by US\$1.0m versus previous quarter due to the softening of the market but were higher than the same period last year by US\$0.2m due to increased sales year over year. Other cash outflows are in line with our typical quarterly expenses.

Facility for US\$3M/\$5M Line of Credit Finalized with Alterna CS

The Company has entered an asset-based line of credit with Alterna CS to provide immediate working capital funding to support the growth of the company, and in so doing avoids the need to raise equity for the foreseeable future. The facility provides a US\$3.0M line of credit that can increase to US\$5.0M as the business grows. The initial estimated credit available under the line is US\$1.1M. The facility borrowing base, which drives availability, is determined by a calculation of eligible accounts receivable and inventory items.² The facility is secured with working-capital related assets such as accounts receivable and inventory. The facility has a variable rate interest rate with an initial facility interest rate of 8.5% p.a. The three-year agreement can be terminated by the Company with notice and payment of a sliding scale fee that decreases annually.

Commercial Progress of PCM Products in Target Markets

Growth of the Company's revenue has been driven primarily by PCM products over the past twelve months. A key part of this growth has been the strong bedding market reception to our USDA Biopreferred certified Biocool™ product line. During the reporting period, this growth has continued with further adoption of Biocool™ products at a major new customer with outlets to both online and brick-and-mortar market channels. Additionally, trials and evaluations are underway with 11 companies (current and prospective customers); these companies represent OEM mattress manufacturing as well as component suppliers to mattress manufacturers and brands.

¹ Tempur Sealy market release (March 31, 2022) noted similar bedding market trends and drivers

² As the borrowing base grows, so to does the Company's access to the funding.

Commercial Progress of Eclipsys™ Products in Target Markets

Over the past twelve months, commercialisation of the Eclipsys technology has been a focal point of the Company's commercial activities. Bedding and body armor are target markets, and significant advances have been made in both markets during the reporting period.

Body Armor: As shown with the rapid commercialisation of Eclipsys with Premier Body Armor, Eclipsys products have proven clear benefits to their users as well as facile integration. These attributes have quickly expanded the Company's routes to market with an additional three new customers now having approved Eclipsys products for their product lines with each expected to commence purchases this calendar year. With a new business development manager commencing 1 January 2022, the Company's sales funnel has expanded with 28 companies (body armor and related products) across US, Canada and Australia now in various stages of product evaluation. While the war in Ukraine has slowed the rate of adoption for some customers, this progress has confirmed to the management team and directors, not only the size of the addressable market but also the level of customer interest in rapid adoption.

Mattress & Bedding Accessories: Given its established Alexicool® and Biocool™ brands in the bedding market, the initial target market for Eclipsys is mattresses and bedding accessories. The integration of the Eclipsys technology is necessarily a more collaborative engagement with the mattress brands and component manufacturers which in some cases extends the sales cycle. However, during the reporting period, the Company has been approved by two manufacturers as designated supplier on agreed terms and we are now finalizing supply chain arrangements prior to first revenue. These new opportunities are for new total mattress cooling system designs as well as the first application to pillows.

Commenting on progress in the commercialisation of the Eclipsys technology across both bedding and body armor, CEO Dr. Bob Brookins stated, "The Eclipsys technology stands out as one of the most highly differentiated products in our portfolio, and our progress in commercialisation of this technology affirms this view. Our focus now turns to supporting the scale up efforts and go-to-market efforts of our customers. Our investors will be provided with direct insight into this progress with customers integrating the Eclipsys brands into their marketing collateral."

Updates on Alexium's Flame Retardant (FR) Product Portfolio







In parallel with the Company's thermal management product portfolio, the FR products have also progressed well during the reporting period.

- The Company was excited to see the commercial launch of its FR Cotton Sock technology based on the Company's Alexiflam products at the International Sleep Products Association in Orlando, FL in March. Both Latexco and Earnhardt marketed their use of the Alexium's FR Cotton Sock solution as part of their offerings at the tradeshow which included a sustainable FR barrier solution to reduce the flammability of foam-based mattresses. The Company looks forward to supporting them in their commercial efforts this calendar year.
- Having achieved the long-sought production performance targets set by the US military, the focus of the Company's FR NyCo technology strategic initiative has turned to raising market awareness through engagement with key market participants and commencement of product evaluations by target decision makers in a multipronged effort to drive market awareness within the US military, the US military uniform supply chain, and associated product developers. As progress is

made in the military's evaluation of the FR NyCo products, the Company will provide updates.

Milestones Met for FY2022

As laid out in the Company's 2021 Annual Meeting, key milestones were identified as drivers for success in FY2022. The management team and board are pleased to report progress on these milestones which are nearly complete with the last milestone (Eclipsys in bedding market) to be completed in Q4. The graphic below reviews these accomplishments and looks forward to the coming year.

 MILESTONE Optimization of FR NyCo manufacturing process and submission for military testing & evaluation	ACCOMPLISHMENT Completed product scale up and met 50x launderable flame retardancy	NEXT MILESTONE Successful testing and evaluation with military and establish path for its adoption
 MILESTONE Major customer has fully commercialized mattresses based on TMCS	ACCOMPLISHMENT Fully commercial TMCS in 1H FY2022 with ongoing sales	NEXT MILESTONE Further expansion of TMCS strategy in the bedding with new thermal management technologies (i.e., Eclipsys)
 MILESTONE Complete commercialisation of Eclipsys™ technology in body armor market	ACCOMPLISHMENT Fully commercial Eclipsys product in body armor with early adopter	NEXT MILESTONE Increase customer base in US and international market segment with regular ongoing sales.
 MILESTONE Broader market penetration of BioCool™ products in bedding market	ACCOMPLISHMENT This product line drove greater market penetration while improving margins and ESG posture	NEXT MILESTONE Full commercialisation of new customers won in the reporting period; >50% of PCM revenue is biobased
 MILESTONE Complete commercialisation of Alexiflam® for FR Sock products with supply chain partners	ACCOMPLISHMENT Full commercialisation of FR sock manufacturers with the Company's FR products	NEXT MILESTONE Full adoption of cotton-based FR socks driving regular ongoing sales.
 MILESTONE Complete commercialisation Eclipsys™ technology in bedding market	PROGRESS Agreement in principle for commercialisation of Eclipsys with major bedding brand	NEXT MILESTONE Full commercialisation of Eclipsys-based mattresses driving regular ongoing sales

Alexium Appoints New Vice President, Supply Chain and Operations

Alexium is pleased to announce that Mr Dan Miller has joined Alexium as the Vice President, Supply Chain & Operations. Mr Miller brings 35 years' experience working in a variety of capacities including as a Plant Manager in Malaysia, Mexico, Canada as well as throughout the US in various assignments with Cargill. He has served as a Manufacturing & Supply Chain Manager with Hexion Specialty Chemicals and in the oil & gas industry in Texas supplying the oilfield service sector. Mr Miller will bring a great combination of operational experience combined with deep sourcing expertise. He will lead sourcing and management of our global contract manufacturers and supply chain operations - particularly important as Alexium grows.

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-March-2022

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (9 months) \$US'000
1. Cash flows from operating activities		
1.1 Receipts from customers	1,890	7,615
1.2 Payments for		
(a) research and development	(159)	(524)
(b) product manufacturing and operating costs	(1,277)	(5,527)
(c) advertising and marketing	(6)	(15)
(d) leased assets	(20)	(60)
(e) staff costs	(501)	(1,519)
(f) administration and corporate costs	(423)	(1,224)
1.3 Dividends received (see note 3)		
1.4 Interest received	0	2
1.5 Interest and other costs of finance paid	(79)	(247)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (GST received)	13	23
1.9 Net cash from / (used in) operating activities	(562)	(1,476)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment	(3)	(52)
(d) investments		
(e) intellectual property	(46)	(112)
(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 (9 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	(49)	(164)
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	(8)	(50)
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	(8)	(50)
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,829	2,933
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(562)	(1,476)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(49)	(164)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(8)	(50)
4.5	Effect of movement in exchange rates on cash held	15	(18)
4.6	Cash and cash equivalents at end of quarter	1,225	1,225

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	1,225	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)	1,225	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	215
6.1 Total payment of \$215K include \$159K for Directors fees and payroll for Dr Brookins. Interest payment related to the term loan of \$56K was made to Colinton Capital Partners.	

7. Financing facilities	Total facility amount at quarter end \$US'000	Amount drawn at quarter end \$US'000
7.1 Loan facilities	2,849	2,849
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 Total Financing facilities	2,849	2,849
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 3 finance leases with a loan balance of \$0.02M that average 9.6% p.a interest rate		

8.	Estimated cash available for future operating activities	\$US'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(562)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,225
8.3	Unused finance facilities available at quarter end (item 7.5)	0
8.4	Total available funding (item 8.2 + item 8.3)	1,225
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	2.2
	<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: 29 April 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.