



ALEXIUM

**QUARTERLY ACTIVITIES REPORT
FOR THE PERIOD ENDED
31 December 2023**

Q2 FY2024 Update Contents:

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Introduction by CEO, Billy Blackburn

Since joining Alexium, I have made it our mission to focus the Company on a simple strategy: *Grow and Diversity Revenue*. This strategy ensures that we maintain our share in our core bedding market despite the market headwinds while growing revenue by commercialising our portfolio of technologies into new markets such as footwear, cold chain packaging, and globally into new geographies.

In FY23 we focused c70% of our effort on our core Bedding market and c30% of our effort on commercialising our technology portfolio into new markets (30%). As reported previously, in FY23 we made progress in all our focus areas.

Business & Product Development – FY23 & FY24 Focused Priorities

We will focus our business and product development teams, resources and time in the following percentage allocations:

Core Focus Areas (70%):

- PCM, DelCool™ & Eclipsys® applications:
- Innerspring Mattress
 - Foam Mattress
 - Low-cost/Hi-Volume Mattress Applications (“bed in a box”)
 - Top of Bed – Pillows and Mattress Toppers

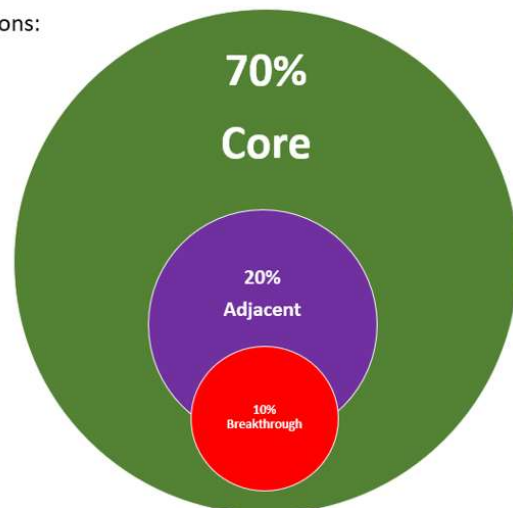
Adjacent Focus Areas (20%):

- Alexiflam® & Alexiguard™ Applications:
- FR NyCo – US Army
 - FR NyCo – US Marine Corp
 - Mattress

- Eclipsys® applications:
- Body Armor/Tactical Vests

Breakthrough Focus Areas (10%):

- Eclipsys® for Helmets (military, law enforcement, sports)
- Eclipsys® for Footwear
- Eclipsys® for Electronics
- Eclipsys® and/or PCM for Cold Chain Packaging
- Alexiflam® sold as a textile softener
- Alexiflam® for workwear and/or PPE



In FY24, we shifted our core : adjacent : breakthrough balance from 70:20:10 to 40:20:40, enabled by the progress we made in FY23. Our overall objective in FY24 is to diversify our revenue base, supported by the following objectives which we also communicated in our most recent AGM:

- **Team:** Build out direct sales and business development.
- **Culture:** Become more sales and marketing centric.
- **Diversify and Grow:**
 - Shift Core/Adjacent/Breakthrough focus priorities from 70:20:10 → 40:20:40.
 - Achieve year-on-year revenue growth in core bedding market with core product offerings (Alexicool®, BioCool®, DelCool™ and Eclipsys® products).
 - Progress FR Nyco for military.
 - Commercialise Eclipsys® fabric for tactical gear.
 - Commercialise PCM, Eclipsys® fabric, and FR into new markets (e.g. shoes, cold chain, workwear).
- **Operations:** Secure the Company's supply chain to ensure resiliency.
- **Financial:** Cash and commercial discipline. Cashflow positive.
- **Funding:** Adequate funding in place to execute the business plan.

The Company is making great progress on these initiatives, and I look forward to updating investors as key milestones are met.

Q2 Highlights and Focus Priorities

In Q2 FY24 we made significant progress against these FY24 objectives, including:

Achieving year-on-year revenue growth in our core/adjacent focus areas:

- ***PCM – Maintain and Grow North American share, Penetrate Global Markets***
 - Three new BioCool® product placements in OEM foam mattress production with starts intended for H2 FY24.
 - Two BioCool® product placements that started in Q1 FY24, stabilised in Q2.
 - Alexicool® and BioCool® products under review by an International Brand licensee targeting mattress lines sold in AUS/NZL, UK and Asia Pacific Markets.
- ***DelCool™ fabric sales growth in bedding***
 - Fabric: Version 2 (enhanced aesthetics) transition successful with production ramping.
 - Pillows: Orders continue and grow from the initial large department store placement.
 - Pillows: Commitments from an additional large department store and a television shopping network for H2 sales.
 - Mattress: Product development underway for inclusion in a luxury mattress launch by a major bedding brand (target launch in FY26).
 - Diversified Alexium technologies sold in the bedding market.
- ***New Eclipsys® fabric placements in bedding underway***

National Brand targeting placements of an Eclipsys® fabric for mattress and pillow lines in a large department store and “big box” discount retailer. Further diversify Alexium technologies sold in the bedding market.

- **Progressing FR Nyco for military and commercialising Eclipsys® fabric for tactical gear Flame Resistant (FR) Technologies:**
 - Alexiflam® chemistry – FR NyCo: After passing the *Pyroman* burn test at NC State University, product development work continued to enhance the aesthetics of the fabric targeting a large military uniform fabric supply opportunity starting in FY26.
 - Product development is collaborating with a leading international brand to perfect a FR NyCo application in mattresses designed to meet unique flame resistance criteria for the hospitality industry and public buildings.
 - New FR Chemistry to launch in H2 FY24 to meet the increasingly stringent environmental regulations being levied on FR chemicals in the US at the state and federal level.
- **Eclipsys® fabric for Tactical Gear:**
 - Successful testing of a new ballistic vest utilising Eclipsys® fabric with 3rd party support. This validation completed the product development work for an international vest producer to launch the vest at the SHOT Show in Las Vegas in January 2024. Sales volumes expected to ramp up thereafter.

Commercialising PCM, Eclipsys® fabric, and FR into new markets (e.g., shoes, cold chain, workwear):

- **Eclipsys® fabric for footwear**
 - Successful internal testing concluded on an athletic shoe application and the results were presented to a prospective industry-leading customer in late January.
- **Eclipsys® fabric and PCM for Cold Chain Packaging**
 - Product development is underway to extend the thermal regulation effectiveness of existing biomedical packaging.
- **Alexiflam® products for workwear**
 - Alexium is working on improvements to the wash durability of Alexiflam® chemistry incorporated into Nylon/Cotton blended fabric to meet the rigors of industrial laundering to ready it for applications in the FR work wear market.

Collectively, our technology is proving to be competitive for use in a wide array of end products and market applications with both new and existing customers.

Expansion of Commercial Strategies

Beginning in this reporting period, the Company has focused on two initiatives to further strengthen the Commercial team and strategy:

SUPPLY AGREEMENTS WITH MAJOR CUSTOMERS: An initiative within the Company is to enhance the predictable recurring nature of our revenue. We intend to move several of our larger customers from spot purchase or specific-program buying to long-term product supply agreements on pricing, supply capabilities and Alexium’s analytical support.

The first of these supply agreements has been entered with existing customer BekaertDeslee NV to provide Alexicool® and BioCool® phase change material (PCM) products for bedding systems across North America with an initial term of 3 years and a provision for automatic renewal. BekaertDeslee NV is the world’s leading specialist in the development and manufacturing of mattress textiles, mattress covers and on-trend sleep solutions with headquarters in Waregem, Belgium. BekaertDeslee NV employs 4000+ people in 27 business locations in 19 countries.

EXPANSION OF THE SALES TEAM: The Company began the search for two new sales/business development professionals to join the team. The first hire will start in late February, and we are actively interviewing for the second position which we plan to onboard by early March.

Alexium's business and product development pipeline is more robust than it has ever been. By bolstering our sales team with new, experienced professionals, and assigning them to active pipeline projects and qualified prospects, we are confident that Alexium will deliver on the past 3 years of hard work developing and commercialising its significant intellectual property and product portfolio.

Capital Raise, Refinancing and Bridging Loan

During the quarter, the Company announced its intentions to enter into a capital raise and refinancing transaction ("Transaction"), pending shareholder approval (see the ASX announcement on 27 December 2023). The capital raise will provide a minimum equity of A\$4 million via a fully underwritten entitlement offer and placement. In addition, the Company's existing A\$7 million convertible note and accrued interest thereon would be retired in exchange for shares. Related to the Transaction, Colinton Capital Partners (CCP) provided a bridging loan of A\$2 million (US\$1.3 million) to the Company to allow it to continue to pursue a number of significant near-term opportunities while the Company seeks the necessary shareholder approvals for the Transaction. This bridge loan matures on 23-Jun-2025 and carries an initial interest rate of 15%. If the capital raise transaction is approved, the bridge loan principal will be applied to meet Colinton Capital Partners' commitments with respect to the equity raise. If the Transaction is not approved, the interest rate on the bridging loan will increase to 20% effective 01-Jul-2024.

Q2 FY2024 Cash Flow Commentary

Alexium continues to apply a disciplined approach of prioritising short-term revenue opportunities while advancing secondary new business focus areas to ensure medium to long-term growth objectives are met. This approach will allow the business to meet the near-term objective of cash-positive operating results as we shift focus to longer-term significant revenue gains to meaningfully increase the profitability and, ultimately, the value of the Company.

Cash receipts for the period were US\$1.4 million with revenue of US\$1.3 million. Cash receipts are down from the previous quarter due to lower sales.

Sales for the quarter at US\$1.3 million were down US\$0.2 million versus the prior quarter. Overall, US mattress market conditions remained soft. The consumer confidence index continues to be low due to dynamics such as high US consumer inflation, high interest rates and geopolitical concerns with the Russian/Ukraine and Israel/Gaza wars. Importantly, Alexium's customer retention and engagement remains high.

Operating activity outflows (refer to Appendix 4C Item 1.2) primarily consist of raw material purchases, manufacturing costs, staffing costs, and corporate/administrative costs. The Company experienced a quarter-over-quarter decrease in raw material purchases and production-related costs of US\$0.4 million due to the timing of raw material purchases and lower sales. Q2 staff costs were up US\$0.1 million versus Q1 largely due to the payment of severance costs. Other cash outflows are in line with typical quarterly expenses. Total aggregate payments to related parties

for the quarter equal US\$197 thousand which include payments to non-executive directors and compensation for executive directors, William “Billy” Blackburn, CEO and Robert “Bob” Brookins, CTO.

Cash flows from financing activities include the proceeds from the bridging loan (A\$2 million) provided by CCP (see above discussion under the Capital Raise, Refinancing and Bridging Loan section).

The outstanding balance on the Line of Credit at the end of the period was US\$624 thousand on the total eligible borrowing base of US\$649 thousand leaving US\$26 thousand available for use. This line availability plus the cash on hand of US\$1,756 thousand gives the company total available funding of US\$1,782 thousand.

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-2023

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	1,367	3,257
1.2 Payments for		
(a) research and development	(109)	(220)
(b) product manufacturing and operating costs	(569)	(1,501)
(c) advertising and marketing	(3)	(3)
(d) leased assets	(20)	(43)
(e) staff costs	(640)	(1,213)
(f) administration and corporate costs	(344)	(658)
1.3 Dividends received (see note 3)		
1.4 Interest received	3	6
1.5 Interest and other costs of finance paid	(11)	(34)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (GST received)	28	37
1.9 Net cash from / (used in) operating activities	(298)	(372)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment		
(d) investments		
(e) intellectual property	(43)	(116)

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

(f) other non-current assets			
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	(43)	(116)

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	2,980	4,583
3.6	Repayment of borrowings	(1,272)	(2,852)
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	1,708	1,731

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	381	513
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(298)	(372)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(43)	(116)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,708	1,731
4.5	Effect of movement in exchange rates on cash held	8	(0)
4.6	Cash and cash equivalents at end of quarter	1,756	1,756

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	1,756	381
5.2	Call deposits		
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)	1,756	381

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	197
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
	6.1 Total payment of \$201K for non-Executive Directors fees and payroll for Mr Blackburn, Managing Director and Dr Brookins, Director	

7.	Financing facilities	Total facility amount at quarter end \$US'000	Amount drawn at quarter end \$US'000
7.1	Loan facilities	6,774	6,774
7.2	Credit standby arrangements	649	623
7.3	Other (please specify)	-	-
7.4	Total Financing facilities	7,423	7,397
7.5	Unused financing facilities available at quarter end		26
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.		
	7.1 - Colinton Capital Partners 3-year 10% A\$7.0M secured convertible note that matures on 27-Dec-26		
	7.2 - Alterna CS - Asset based loan secured with working capital accounts with \$251K drawn on a total availability \$842K as of the reporting date. Interest is variable based on Wall Street Journal published Prime Rate + 5% spread for a current rate 13.5%. Loan ends on 05-Apr-25.		
	7.3 - Colinton Capital Partners - Unsecured bridging loan of A\$2.0M due on 23-Jun-25 but will be offset in shares if pending capital raise transaction is approved by shareholders. Interest of 15% but will increase to 20% on 01-Jul-24 if proposed capital raise is not approved.		

8.	Estimated cash available for future operating activities	\$US'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(298)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,756
8.3	Unused finance facilities available at quarter end (item 7.5)	26
8.4	Total available funding (item 8.2 + item 8.3)	1,782
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	6.0
	<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 2024

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.