



ALEXIUM

QUARTERLY ACTIVITIES REPORT



FOR THE PERIOD ENDED
30 SEPTEMBER 2024

Q1 FY2025 Update Contents:

- Introduction by CEO
- FY24 Highlights
- FY25 Plan Overview
- Product Strategy Highlights
- FY25 Q1 Results Summary
- Line of Credit Update
- FY25 Q1 Cash Flow Commentary

Introduction by CEO, Billy Blackburn

Prior to the start of FY25, the Alexium Board of Directors and Executive Team met to review and refine the Company's Strategy and Business Plan. The objective was to create the best possibility for near-term success this fiscal year, while positioning for sustained growth thereafter. The result was a balanced plan that placed more weight on the need for results this year without sacrificing longer-term potential. This agreed-upon plan required a few refinements to the *Grow and Diversify Strategy* from FY24.

First, the Company made breakthrough developments with its microencapsulated phase change materials (mPCM) and flame-retardant technologies in FY24, both of which will be leveraged for near-term results. Secondly, and thanks to these breakthroughs, the need to transition the Company's focus from its Core Markets to Adjacent Markets has changed. During the Market and Product diversification efforts in FY24, we discovered that the faster route to significant near-term growth resided in our Core Market of bedding. As a reminder, the original problems we sought to fix were that the Company was over-concentrated in the North American bedding market with a single product technology (PCM) and that most of its sales were tied to a single large customer. Through these diversification efforts, we learned that there were much larger revenue growth opportunities for multiple products, multiple new customers, and international sales to be realised near-term in the core bedding market, and the Strategic Plan was adjusted to focus to these opportunities in FY25.

FY24 Highlights

Background

In late 2023 after a two-year slump in revenues from a weak bedding market, Alexium had to pivot and alter its approaches to business and product development. These changes also stepped-up efforts to address the Company's over-concentration of PCM sales in the North American bedding market.

FY24 Recap

- Sales Team - recruited seasoned sales professionals to deepen the skills and bandwidth of the sales team. The level and quality of activity had already increased as of Q4 FY24.
- International Sales - executive management began making sales inquiries to international targets to diversify the business from its concentration in North America. The Company is

now actively pursuing new sales opportunities in Australasia, Asia, and Europe.

- **Advisors** - Alexium added an industry advisor to help steer the business into markets adjacent to bedding.
- **Directors** - The Board was restructured with the addition of two new directors in FY25 who both serve as strategic advisors to the business.
- **Enhanced Products** - the Company made significant advancements in its offerings for Flame Resistant (FR) technologies and Microencapsulated Phase Change Materials (mPCM).

FY25 Plan Overview

In FY25, Alexium has embarked on the next phase of executing our *Grow and Diversify Strategy* – a plan to aggressively grow revenues in its core and breakthrough markets. We have structured the team to focus on the following five critical focus areas:

- I. Maintaining the Company's key accounts and sales in the North American bedding market.
- II. Saturating the North American bedding market through diversification of product and customer mix.
- III. Breaking into new accounts abroad in the Asia Pacific, Latin America and European bedding markets.
- IV. Diversifying revenue growth through the sale of the Company's existing technologies into adjacent markets (Eclipsys®, DelCool™, AlexiFlam®, AlexiGuard® & AlexiShield).
- V. Forming strategic alliances with key supply chain partners to co-develop products to take to market which leverage the strengths of each partner's key value proposition.

FY25 Plan – Sales Approach/Key Objectives

➤ **Sales Approach:**

- Sell the Company's products to its current core market (bedding) to further saturate its North American customer base.
- Diversify the product offering to the core market (bedding) by adding DelCool™, Eclipsys® and FR sales to its existing PCM sales.
- Break into new accounts globally (Asia Pacific, Europe, Latin America) and deliver the same multi-product offering to the new core market.
- Offer finished components that serve as carriers of Alexium technology, and thereby allow the Company to work more directly with its end customers leading to fewer intermediaries and the realisation of larger revenue from increased dollars per unit sold.
- In parallel, but to a lesser degree, Alexium will work on selling its existing technologies to adjacent markets (non-bedding).
- The Company will leverage the skillsets and relationships of all stakeholders to open doors for top-down sales initiatives in all product areas.
- Once the current sales team is up to speed and delivering meaningful results, the Company will hire additional sales professionals to increase activity and to further penetrate core and adjacent markets. It is likely these team members will focus solely on adjacent market development.

➤ **Key Objectives:**

- Double the month-over-month sales volume of FY24 from \$500K to \$1MM (cash-positive threshold) ASAP.
- Reach a sustained, minimum month-over-month contracted sales volume of >

- \$1MM (longer-term operating cash flow positive).
- Secure long-term, high-volume supply agreements to shore up sustained revenues.
- Update the ASX regularly on these successful milestones to reinforce progress with shareholders and market.
- Leverage this momentum and reinvest in the business to grow Alexium to maximum earnings and a valuation that supports a share price that rewards all stakeholders.

Product Strategy Highlights

In FY24, the Company made significant progress against our product diversification strategy. This led to new, immediate opportunities for growth within our Core Market focusing on bedding. We also made significant progress in FR military apparel fabric development. We paused development efforts for thermal regulation in athletic gear, cold chain packaging and FR work wear to concentrate the team's focus on the achievement of the Company's near-term growth objectives.

Flame Retardant (FR) Products

• *FR NyCo Treatment for Military Fabrics*

- During Q1, Alexium continued working with supply chain partners to implement the improved aesthetics of the FR NyCo requested by the Army. After these improvements are complete, the next steps in the development process will be an expanded round of testing followed by test uniform production for limited user evaluations. The general objective remains for the Military to have an option ready for implementation in FY26.

• *AlexiGuard® and AlexiShield: FR treatment for Mattress Barrier Fabrics*

- During FY24, the Company worked with several mattress market brands and suppliers to help them meet the mattress flammability test 16 CFR Part 1633. This initiative was driven by the adoption of new regulations minimising the use of a wide range of flame retardants, spurring the demand for non-ecotoxic options. To this end, Alexium has developed its AlexiGuard® and AlexiShield product lines to bolster the flame resistance of mattress components. This technology leverages IP developed during our FR NyCo effort to enhance the burn resistance of bedding products.
- AlexiGuard® and AlexiShield have both been manufactured successfully at a full-production scale in Q1 FY25.
- Product development efforts continue with multiple supply chain partners in the mattress market to integrate these FR treatments. The Company has held several successful trials on several different woven and non-woven substrates. Customer samples have been produced from these trials for approval of the aesthetics, and for burn testing in Q2. Alexium is offering the FR-treated fabrics to customers as finished components to be directly incorporated into mattress and foundation construction.
- Significant revenue for these FR products is forecast in FY25.

Cooling and Thermal Management Products

- ***PCM – Maintain and Grow North American share, Penetrate Global Markets***
 - In late FY24, the Company made a breakthrough in improving the performance of its microencapsulated phase change materials (mPCM). This breakthrough resulted in an mPCM that has superior cooling capacity (up to 3X in certain cases) compared to other competitive products in the bedding market. This development has led to new opportunities for near-term placements, with production anticipated to commence in H2 FY25.
 - Additionally, the Company achieved improvements in its mPCM formulations to increase the solids percentages to allow for slurry and wet cake offerings, as well as improvements to significantly increase the thermal stability so the mPCM can be dried for new placements as dry powder. These developments have opened several new pipeline opportunities for significant revenue growth in H2 FY25.
 - Alexium’s work with international bedding market participants in Europe and Australasia has increased with the Alexium team supporting product development efforts by these parties. The Company is working on two new placements in Asia, and three in the Australasia region.
- ***DelCool™ fabric sales growth in bedding***
 - Mattresses: Product development continues for a DelCool™- based luxury mattress with a major bedding brand. This development effort is proceeding very well and has the potential to deliver a significant revenue stream for FY26.
 - Pillows: Development of a high-tech pillow utilising Alexium’s DelCool™ and mPCM technologies has progressed well. The product is being offered to brands under a private label arrangement. The Company has presented finished prototypes to several brands and product reviews are commencing. The initial feedback on the product, the technology, the market, and the pricing have all been favourable. Note that this initiative is a paradigm shift from selling the Company’s technologies through textile and foam producers who then sell the finished goods to the brands. Alexium will hire textile and foam producers to incorporate its technology, then sell the finished goods to the brand via private label licenses. This approach will lead to a significant increase in revenue per unit sold and a greater control of the end customer relationship.
- ***New Eclipsys® fabric placements in bedding underway***
 - For mattresses as well as top-of-bed applications, numerous US and international brands are evaluating the Eclipsys® fabric for additional product lines. These new opportunities have been driven by greater market awareness of the Eclipsys® technology and increased sales activity by the Alexium team.
 - The Company has three active opportunities in the pipeline for possible mattress launches in CY25.

FY25 Q1 Results

Q1 FY25 marked a slow start to the fiscal year. The Company experienced lower revenues than anticipated. While significant efforts were made over the last several quarters to diversify revenues from the over-concentrations in North America, the bedding market, and PCM; the results have not yet materialised. The International Sleep Products Association (ISPA) reported in its 2024 Q2 Bedding Market Report that the total market for mattresses (U.S. produced and imports) had decreased by (3.8%) in revenue (USD\$) and decreased by (12.8%) in units sold YTD 2024. This was on the heels of a two-year bedding market slump in North America that started in early 2022. The Company fell short of budgeted revenues by 32% and earnings by 15%. Revenues for Q1 were 99% from mPCM sales in the bedding market.

With the number and size of near-term opportunities in the Company's pipeline, it remains that the low revenues of Q1 can be regained in H2. This will be driven by the mPCM and FR textile opportunities detailed in this report. The team at Alexium remains focused and committed to delivering these results in FY25.

Renegotiation and Extension of Line of Credit

The Company has an outstanding asset-based line of credit (LOC) with Alterna Capital Solutions (ACS). The LOC has a stated maximum funding of \$3.0 million which can be increased to \$5.0 million with the approval of the lender. The borrowing base of the LOC consists of 90% of eligible accounts receivable plus a calculated portion of inventory which, among other factors, will not exceed 50% of eligible inventory.

Effective 1 August 2024, the Company renegotiated and extended the terms of the LOC. The interest rate spread above the US Prime Rate was reduced by 2 percentage points (from 5% above Prime to 3% above Prime), the term of the agreement was extended to 28 February 2026 (from the original term which was due to expire 4 April 2025) and the monthly and annual fixed fees were all reduced. There was no change to the maximum funding amount available under the agreement or the collateral on which it is based.

FY25 Q1 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. The Company has been applying the same level of discipline to managing expenses, timing of raw material purchases and the entire cash conversion cycle. In addition, the Company has been successful in negotiating cost reductions in several raw material products used in both current and future sales opportunities.

Sales for the quarter at US\$1.1 million were down US\$0.4 million versus the prior quarter (FY24 Q4). Overall, US mattress market conditions remained soft amid inflationary concerns, high interest rates and geopolitical concerns. However, the US Federal Open Market Committee (FOMC) has reduced the US prime interest rate effective 18 September 2024 by 50 basis points. This is the first reduction in the rate since March 2020 and has ended a period of unprecedented interest rate increases in the US. From March 2022 – July 2023, there were 11 increases in the

prime rate (total of 525 basis points) at which time the prime interest rate reached 8.5% (the highest rate since 2006) and remained there until September 2024.

Cash receipts for the period were US\$1.2 million with revenue of US\$1.1 million. Compared to the previous quarter (FY24 Q4), cash receipts decreased by US\$0.2 million due to the lower sales in the quarter.

Operating activity outflows (refer to Appendix 4C Item 1) primarily consist of raw material purchases, manufacturing costs, staffing costs, and corporate/administrative costs. The Company experienced a quarter-over-quarter decrease in interest expenses of US\$0.1 million due to the settlement of the Bridging Loan as part of the capital raise and refinancing transaction early in the prior quarter. Staffing expenses increased by \$0.2 million over the previous quarter due to headcount changes, payment of year-end incentives and the timing of bi-weekly pay periods. Other cash outflows are in line with typical quarterly expenses.

Total aggregate payments to related parties for the quarter equal US\$244 thousand which include payments to non-executive directors (directors fees and consulting fees) and compensation for executive directors William "Billy" Blackburn, CEO and Managing Director, and Robert "Bob" Brookins, CTO and Director.

Cash flows from financing activities for the quarter primarily consist of the normal activity on the Line of Credit. The outstanding balance on the Line of Credit at the end of the period was US\$551 thousand on the total eligible borrowing base of US\$722 thousand leaving US\$171 thousand available for use. This line availability plus the cash on hand of US\$1.428 million gives the Company total available funding of US\$1.599 million.

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-2024

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	1,226	1,226
1.2 Payments for		
(a) research and development	(128)	(128)
(b) product manufacturing and operating costs	(788)	(788)
(c) advertising and marketing	(5)	(5)
(d) leased assets	(21)	(21)
(e) staff costs	(689)	(689)
(f) administration and corporate costs	(423)	(423)
1.3 Dividends received (see note 3)		
1.4 Interest received	13	13
1.5 Interest and other costs of finance paid	(4)	(4)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (GST received)	21	21
1.9 Net cash from / (used in) operating activities	(799)	(799)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	(2)	(2)
(b) businesses		
(c) property, plant and equipment		
(d) investments	(16)	(16)
(e) intellectual property		
(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	(18)	(18)

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	(5)	(5)
3.5	Proceeds from borrowings	1,024	1,024
3.6	Repayment of borrowings	(894)	(894)
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	125	125

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,053	2,053
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(799)	(799)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(18)	(18)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	125	125
4.5	Effect of movement in exchange rates on cash held	67	67
4.6	Cash and cash equivalents at end of quarter	1,428	1,428

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	238	2,053
5.2	Call deposits	27	
5.3	Bank overdrafts		
5.4	Other (provide details)	1,164	
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,428	2,053

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	244
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
	6.1 Total payment of \$244K for non-Executive Directors fees, payroll for Mr Blackburn, CEO & Managing Director and Dr Brookins, CTO & Director and consulting fees for Mr Lane	

7.	Financing facilities	Total facility amount at quarter end \$US'000	Amount drawn at quarter end \$US'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	722	551
7.3	Other (please specify) - Bridging Loan	-	-
7.4	Total Financing facilities	722	551
7.5	Unused financing facilities available at quarter end		171
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.		
	7.2 - Alterna CS - Asset based loan secured with working capital accounts with \$551K drawn on a total availability of \$722K as of the reporting date. Interest is variable based on the Wall Street Journal published Prime Rate + 5% spread until 1 Aug 2024 when the spread was changed to 3% above prime. The total rate at 30 September was 11.0%. Loan ends on 28 Feb 2026 but is auto-renewable for 1-year periods		

8.	Estimated cash available for future operating activities	\$US'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(799)
8.2	Cash and cash equivalents at quarter end (item 4.6)	1,428
8.3	Unused finance facilities available at quarter end (item 7.5)	171
8.4	Total available funding (item 8.2 + item 8.3)	1,599
8.5	Estimated quarters of funding available (item 8.4 divided by item 8.1)	2.0
	<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 October 2024

Authorised by: The Board of Directors
(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.