



# QUARTERLY ACTIVITIES REPORT



FOR THE PERIOD ENDED  
30 JUNE 2025

## Q4 FY2025 Update Contents

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## Introduction by CEO, Billy Blackburn

FY25 continued to prove a difficult year for Alexium with respect to financial results with Q4 sales declining quarter on quarter as core mattress market volumes continued to decline, mattress and Tier One component manufacturers sort to cut costs by reducing product application amounts and sales cycles for new products remained protracted.

Frustratingly, the financial results have been disappointing despite significant advances in the Company's technology and a robust pipeline of new sales opportunities. Alexium was successful in launching many new products in our thermal regulation and flame-resistant technologies. Those product launches have led to significant opportunities with existing and new customers in the bedding and furniture markets in North America, Europe, Asia, and Australia but decision making within our target industries has slowed with customers waiting for a clear sign of bedding and furniture market before adopting new technology in their product lines. Mattress Industry statistics have consistently reported sharp declines in the post-pandemic era for the US mattress market:

US-Produced Mattresses by Shipments & Dollars (21 - 24)					
Year	Dollars		Units (000)		\$
	All Mattresses	% Diff	All Mattresses	% Diff	AVG \$ Per Unit
2024	8,123.9	-3.5	19,228.7	-4.2	\$ 422.49
2023	8,419.9	-6.6	20,062.2	-7.6	\$ 419.69
2022	9,014.9	-11.0	21,712.3	-17.3	\$ 415.20
2021	10,129.1	n/a	26,254.3	n/a	\$ 385.81

(Source: International Sleep Products Association – Historical Market Data Report)

Despite the demand contraction in the three-year historical market, Alexium has advanced its growth strategy through its various technology advances, positioning the business for growth once market conditions and customer sentiment change. In short, the Company has leveraged its advances in microencapsulated phase change materials and flame-resistant coatings to build a pipeline of near-term sales opportunities large enough to quadruple Alexium's FY25 sales volume in FY26.

For the first half of calendar year 2025, the sentiment of many industry participants has been cautious optimism. Based on current trends this initial optimism appears to have been premature but recent industry forums have reiterated the view that better times are ahead.

BedTimes Magazine cited statistics from a leading US Economic research forecast stating *“For 2025, the forecast predicts a 3% increase in the value of mattress shipments, while units shipped will increase by 1.5%. For 2026, the forecast anticipates a 6% increase in the value of mattress shipments and a 4% increase in unit shipments.”* For the year ahead, the Company will sharply focus on optimising our entire commercial operation, including sales, supply chain, distribution, and manufacturing. We will continue growing our niche thermal regulation products position in the sleep market and capitalise on the regulatory change and geopolitical (tariffs) pressures materially impacting the flame-resistant products market and affording Alexium significant *new business momentum*.

### **Commercial Focus: Technology → Products → Markets**

For Q4 FY25, we continued leveraging the breakthroughs in our flame retardant (FR) technology, including developing new coatings meeting performance standards **without the use of any banned or hazardous substances**, and improving the performance of our **microencapsulated phase change materials (“mPCM”)** and our manufacturing processes. The FR breakthroughs allow us new opportunities to sell the Company’s coatings to mattress manufacturers as upgrades to existing protective barriers and as coated textile components. The mPCM advancements not only increased performance and efficiency but also opened doors for expanded applications in foam products, such as mattresses and pillows, and international mattress and bedding markets.

The Company continued to diversify its **market presence, customer base, and product offerings** to unlock near-term value and build long-term resilience. These initiatives are designed to deliver measurable gains for all stakeholders and position Alexium for sustained growth.

**Strategic Growth Path** - During Q4, Alexium focused on:

- **Expanding our addressable market**
- **Shortening our sales cycle**
- **Enhancing global reach**
- **Increasing revenue per unit sold**

With a strong portfolio of unique, valuable technologies and a refined go-to-market strategy, we are positioned for long-term success. Despite the long sales cycles and difficult market conditions, Alexium remains focused on, and dedicated to, delivering results in the near term. Thank you to our partners, customers, and team members for being part of our journey.

## FY25 Plan – Progress Update

During Q4, Alexium continued to execute our FY25 plan advancing the Company's *Grow and Diversify Strategy*, with an emphasis on delivering aggressive revenue growth within its Core Markets. The organisational structure was aligned to deliver across five strategic focus areas:

1. Retention of Key Accounts in North America

The Company successfully retained supply to the vast majority of its existing North American bedding customers. However, volumes remained under pressure due to ongoing market conditions. Though sales contracted with these customers in Q4, orders continued to flow, and new growth opportunities were introduced by many of Alexium's key customers.

2. Product and Customer Diversification in North America

Significant progress was made in diversifying both the product portfolio and customer base in the North American bedding market. Late-stage pipeline opportunities advanced for PCM+, the new AlexiCool®, DelCool™, and AlexiShield with existing and new customers.

The Company delivered full-scale manufacturing production of dry powdered mPCM, which has created immediate new sales opportunities.

An AlexiShield coated FR Sock was developed and delivered to key target customers in Q4. That FR Sock, which addresses a large market opportunity created by regulatory changes rendering illegal a large cross section of the current flame retardant solutions in the mattress market in large geographic regions of the United States, has now successfully passed the 16 CFR 1633 mattress burn test at an accredited 3<sup>rd</sup>-party laboratory and is creating immediate sales opportunities within the US mattress market.

3. International Expansion

Efforts to penetrate new bedding accounts in Asia Pacific, Latin America, and Europe have continued with good customer traction in the Australasian mattress manufacturing market, the primary source of mattresses for the local market and also the broader Southeast Asian and Chinese markets.

In Q4, the Company initiated new product qualification projects in Europe, Asia and Australia for mPCM, formulated PCM products (AlexiCool® and BioCool®+) and Eclipsys® materials.

4. Expansion into Adjacent Markets

Activities in adjacent market segments remained de-prioritised this quarter to focus on advancing late-stage opportunities in the United States bedding and military FR apparel sectors.

## 5. Strategic Alliances and Co-Development

Notable progress continued with key supply chain partners focusing on:

- mPCM manufacturing improvements:
  - ✓ High solids slurry mPCM was produced at full-scale in three separate campaigns with the production volumes shipped for qualification in a large-volume formulation with sales anticipated to commence in early FY26.
  - ✓ Dry powder mPCM was produced at full scale in two separate campaigns with production volumes shipped to multiple customers for running changes to their current supply of dry powder mPCM. This product is the foundation for a large portion of PCM formulations and makes up a significant percentage of the Company's near-term forecasted sales growth.
- AlexiShield for FR barrier solutions:
  - ✓ An FR Sock finished with an advanced AlexiShield FR coating was delivered to target customers in Q4. This FR Sock was added to the construction of a leading global mattress manufacturer brand mattress then burned in a 16 CFR 1633 mattress burn test. The FR Sock passed the test with ease thus evidencing this flame-resistant barrier is suitable for use in the mattresses of that global mattress manufacturer and for many other mattress manufacturers.
- AlexiFlam® for Nylon/Cotton (NyCo) military FR uniforms:
  - Alexium continued fabric and coating development efforts with a critical military fabric producer partner to deliver optimised protective fabric that meets stringent criteria including fire protection, breathability, comfort in hot weather, affordability, infrared reflectance and manufacturing readiness.
  - The United States military granted Alexium its second tranche of funding in two years for fabric finishing development and production, enabling further development and testing for potential approval and selection. The fabric produced from this campaign will be cut and sewn into uniforms for burn tests and aesthetic testing.

## Key Initiative Highlights

Continuing with the momentum created in FY24, the Company made noteworthy progress against our product diversification strategy throughout FY25. That progress created immediate opportunities for significant growth within our Core Market of sleep products. The advancements to our mPCM technology and manufacturing have paved the way for significant growth in FY26. Development efforts for FR military apparel fabric recommenced in earnest in Q4 as the new United States Executive Branch began aggressively spending to restore the United States' military supply chain. For Q4, we remained paused on efforts to introduce our thermal regulation technologies into 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 in the current core product offerings.

Finally, while the Trump Administration's trade negotiations continued to cause chaotic conditions across international import/export supply chains, they have had positive impacts on Alexium's business due to our United States-based supplier base and largely United States-based customer

base. Most of our key raw materials are sourced from within the United States and Alexium's customers appreciate that our strong domestic sourcing network has significantly reduced their exposure to global disruptions.

## **FY25 Q4 Results**

The Company recorded lower-than-anticipated revenues for Q4 and FY25. While substantial efforts have been made over recent quarters to diversify revenue beyond the North American bedding market and PCM products, the benefits of these initiatives have not yet been realised.

Looking ahead, the Company expects revenue to strengthen in FY26 as near-term opportunities in the sales pipeline begin to convert. Growth is anticipated to build steadily across the year, driven by mPCM and flame-retardant textile opportunities in the mattress industry. The Alexium team remains focused and committed to delivering these outcomes in FY26.

## **Funding Update**

The Company maintains an asset-based line of credit ("LOC") with Alterna Capital Solutions to support working capital requirements and facilitate growth initiatives. The facility provides \$3.0 million in funding, with the option to increase to \$5.0 million subject to lender approval. The LOC bears interest at a variable rate (10.5% at 30 June 2025; see Section 7.2 of Appendix 4C).

The borrowing base of the facility includes 90% of eligible accounts receivable and a calculated portion of eligible inventory, subject to several factors, one of which is a cap at 50% of eligible inventory cost. The LOC, as amended in August 2024, runs through February 2026 and automatically renews annually thereafter.

Prior to year-end, Alexium was advised that, following Alterna's acquisition by Paychex, Inc., the lender had revised its lending criteria and would no longer include inventory in the borrowing base. While the maximum facility limit remains unchanged, this revision has reduced the Company's practical access to funding under the LOC. This change took effect subsequent to year-end on 7 July 2025.

To mitigate the reduced availability under the LOC and to provide additional working capital, the Company secured two shareholder loans during FY25 with Colinton Capital Partners Pty Ltd and Wentworth Williamson Management Pty Limited. The total committed funding under these arrangements was \$1.67 million (A\$2.55 million), of which \$131,000 (A\$200,000) remained undrawn at 30 June 2025. Both loans mature on 1 September 2026.

## **FY25 Q4 Cash Flow Commentary**

Alexium continues to prioritise near-term revenue opportunities while advancing technology, product and customer initiatives that underpin medium- to long-term growth. The Company maintains a disciplined focus on expense management, raw material purchasing and optimisation of its cash conversion cycle.

Industry data from the International Sleep Products Association (ISPA) underscores a challenging market backdrop with decreases in mattress and foundation unit shipments for three consecutive years. ISPA forecasts a gradual recovery, with volumes expected to increase by approximately 1.5% in 2025 and 4.0% in 2026.

Ongoing United States tariff measures are expected to reduce the cost advantage of Chinese manufacturers in lower-cost mattress market segments. This shift is creating opportunities for Alexium's core U.S. customer base to capture market share, and for the Company to expand sales of FR components into higher-value mattress categories.

#### Quarterly Performance and Cash Flows

- Sales: US\$0.8 million, down 10% from the prior quarter, reflecting continued softness in the United States mattress market as weak consumer sentiment persists amid elevated interest rates, inflationary pressures, and global tariff uncertainty. While the FOMC reduced the official short term United States interest rate to 4.5% during H1 FY25, long-term mortgage rates remain high, delaying recovery in consumer discretionary spending – a key driver of mattress sales.
- Cash Receipts: US\$1.0 million, up US\$0.2 million from the prior quarter due to the timing of customer receipts.
- Operating Activity Outflows (Appendix 4C Item 1)
  - Outflows primarily consisted of raw material purchases, manufacturing, staffing and corporate/administrative costs.
  - Staffing expenses decreased by \$0.1 million over the previous quarter due primarily to the timing of bi-weekly pay periods.
  - Cash payments for product manufacturing and operating costs increased \$0.3 million from the prior quarter, reflecting the timing of raw material purchases and minimum order quantities.
  - Other cash outflows are in line with typical quarterly expenses.
- Related Party Payments: Aggregate payments to related parties for the quarter were US\$192 thousand, including 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).

#### Financing Activities and Liquidity

- Cash flows from financing activities for the quarter included proceeds of US\$557 thousand from the second shareholder loan (see Funding commentary) and routine activity on the Line of Credit (LOC).
- The LOC balance at the end of the period was US\$483 thousand against an eligible borrowing base of US\$467 thousand, reflecting a temporary allowable overdraw of US\$16 thousand due to the timing of customer receipts (see Section 7.2 of the Consolidated Statement of Cash Flows). This negative line availability is merely a timing matter. Total available funding of US\$777 thousand at 30 June 2025 consisted of US\$662 thousand of cash and US\$131 thousand of undrawn shareholder loan capacity, offset by the LOC overage of US\$16 thousand, providing approximately one quarter of coverage at current expenditure levels.

The Company continues to receive strong support from its lenders and major shareholders and is well positioned to benefit from anticipated near-term sales growth. The Board and management maintain regular oversight of funding requirements and available financing options.

<b>Name of Entity</b>	
ALEXIUM INTERNATIONAL GROUP LIMITED	
<b>ABN</b>	<b>Quarter ended</b>
91 064 820 408	30-June-2025

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$US'000</b>	<b>Year to date (12 months) \$US'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	986	4,448
1.2 Payments for		
(a) research and development	(117)	(462)
(b) product manufacturing and operating costs	(833)	(2,887)
(c) advertising and marketing	(2)	(19)
(d) leased assets	(11)	(59)
(e) staff costs	(495)	(2,290)
(f) administration and corporate costs	(291)	(1,311)
1.3 Dividends received (see note 3)		
1.4 Interest received	5	41
1.5 Interest and other costs of finance paid	(22)	(105)
1.6 Income taxes paid		
1.7 Government grants and tax incentives		
1.8 Other (GST received)	16	66
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(764)</b>	<b>(2,578)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities		
(b) businesses		
(c) property, plant and equipment	(4)	(10)
(d) investments		
(e) intellectual property	(51)	(208)
(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 (12 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)		
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(55)</b>	<b>(218)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
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)
3.5	Proceeds from borrowings	1,170	4,977
3.6	Repayment of borrowings	(944)	(3,550)
3.7	Transaction costs related to loans and borrowings		(1)
3.8	Dividends paid		
3.9	Other (provide details if material)		
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>226</b>	<b>1,421</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	1,232	2,053
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(764)	(2,578)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(55)	(218)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	226	1,421
4.5	Effect of movement in exchange rates on cash held	23	(16)
<b>4.6</b>	<b>Cash and cash equivalents at end of quarter</b>	<b>662</b>	<b>662</b>

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

<b>5.</b>	<b>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</b>	<b>Current quarter \$US'000</b>	<b>Previous quarter \$US'000</b>
5.1	Bank balances	636	1,206
5.2	Call deposits	26	26
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>662</b>	<b>1,232</b>

<b>6.</b>	<b>Payments to related entities of the entity and their associates</b>	<b>Current quarter \$US'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	192
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
	6.1 Total payment of \$192K for non-Executive Directors fees, payroll for Mr Blackburn, CEO & Managing Director, 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	1,750	1,619
7.2	Credit standby arrangements	467	483
7.3	Other (please specify)	-	-
7.4	<b>Total Financing facilities</b>	<b>2,217</b>	<b>2,102</b>
7.5	<b>Unused financing facilities available at quarter end</b>		115
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 - Shareholder unsecured term loan from Colinton Capital and Wentworth Williamson with an interest rate of 15% maturing on 1 September 2026. The total represents an increase in the face amount of the loan from the prior quarter of \$728K.			
7.2 - Alterna CS - Asset based loan secured with working capital accounts with \$483K drawn on a total availability of \$467K as of the reporting date. Interest is variable based on the Wall Street Journal published Prime Rate + 3% spread. The total rate at 30 June was 10.5%. Loan ends on 28 Feb 2026 but is auto-renewable for 1-year periods.			

<b>8.</b>	<b>Estimated cash available for future operating activities</b>	<b>\$US'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(764)
8.2	Cash and cash equivalents at quarter end (item 4.6)	662
8.3	Unused finance facilities available at quarter end (item 7.5)	115
8.4	Total available funding (item 8.2 + item 8.3)	777
<b>8.5</b>	<b>Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	<b>1.0</b>
	<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: Yes. The company has strong support from its substantial shareholders and has multiple new business opportunities it is pursuing that will generate increased cash flow.	
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: Yes. In addition to the likelihood of increased sales from near-term business opportunities, the Company has strong support from its existing lender and major shareholders. The Board and management regularly review the funding needs of the business, both amount and timing, and potential sources.	
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: Yes. The company has strong support from its substantial shareholders and has multiple new business opportunities it is pursuing that are expected to generate increased cash flow in the near term.	
	<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.

31 July 2025

Date: .....

The Board of Directors

Authorised by: .....

**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.