

# ALEXIUM INTERNATIONAL GROUP LIMITED

Annual General Meeting  
20 November 2024



ABN 91 064 820 408

PRESENTED IN US DOLLARS

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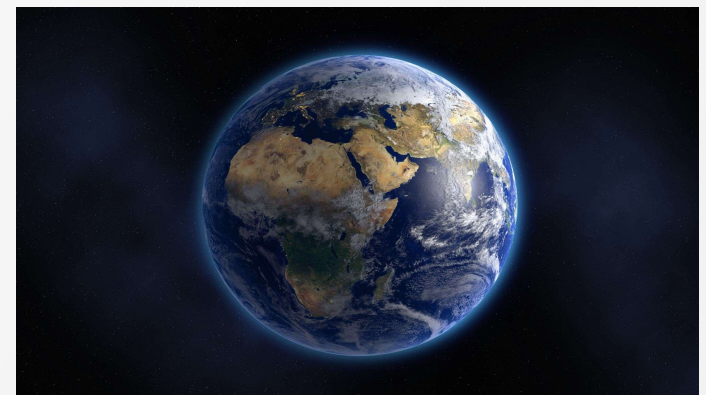
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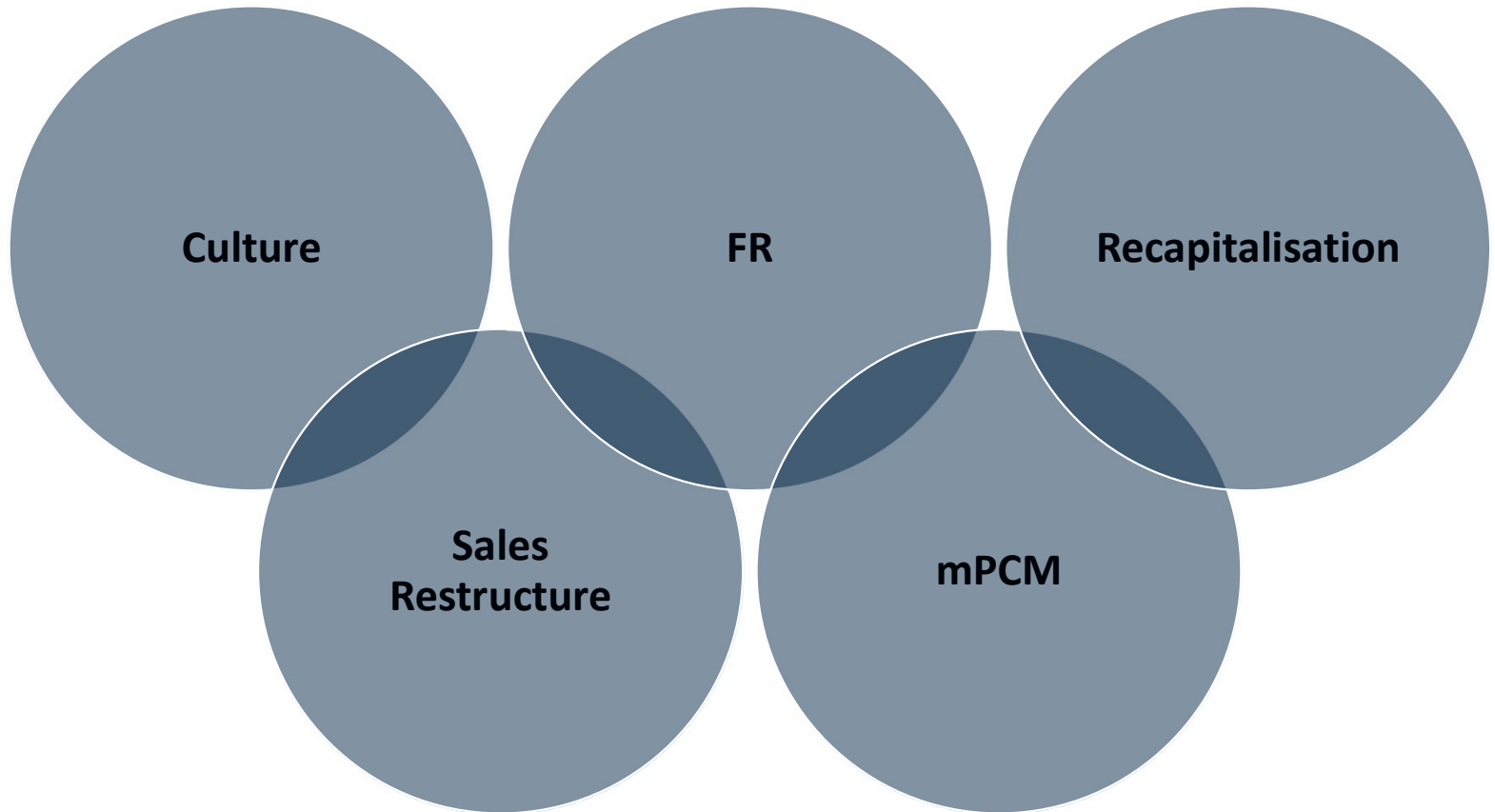
- A performance materials company leveraging proprietary technical innovations to deliver thermal regulation, dehumidification and flame-retardant solutions.
- A pioneer in microencapsulation specializing in phase change materials and innovative composites that offer adaptive thermal management through continuous heat reduction and dehumidification.
- Advanced research, product development and analytical laboratories.
- With 25 global patent applications in the thermal regulation and flame-retardant fields, Alexium delivers value-add innovations for bedding textiles, military fabrics, athletic gear, packaging, and flame-resistant fabrics.
- Alexium products are made in the US and distributed globally.



# Introduction



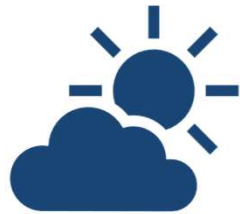
FY24 did not yield the targeted financial results, however it was a significant year of progress on many fronts.



# FY23/24 Review



# Background (Late 2023)



## Challenges

Two-year slump in revenues due to a weak bedding market.

Over-concentration of Phase Change Material (PCM) sales in the North American bedding market.



## Response

Pivoted business and product development strategies.

Expanded focus to diversify revenue streams and reduce market dependence.



## FY24 Recap Key Actions and Changes



### Sales Team Development

Recruited experienced professionals to strengthen the sales team  
Notable increase in sales activity by Q4 FY24

### International Expansion

Initiated sales efforts in new international markets (Australasia, Asia, and Europe)

### Advisor and Board Strengthening

Added an industry advisor to guide entry into new markets outside of bedding  
Board restructured, adding two new directors for FY25 as strategic advisors

### Product Enhancements

Advancements in Flame Retardant (FR) technologies and Microencapsulated Phase Change Materials (mPCM)

# FY24: Product Development Milestones





FY25





# FY25 Growth and Diversification Strategy



## Goal

Execute the "Grow and Diversify" strategy to aggressively increase revenues in core and breakthrough markets.

## Five Critical Focus Areas for FY25

### 1. **Maintain Key Accounts & Sales in North American Bedding**

Retain and grow existing customer base in the core market.

### 2. **Saturate the North American Bedding Market**

Diversify product offerings and customer mix within the bedding industry.

### 3. **Global Sales Growth**

Target new accounts in APAC, LATAM, and EU bedding markets.

### 4. **Adjacent Market Growth**

Expand revenues by introducing existing technologies (Eclipsys®, DelCool™, AlexiFlam®, AlexiGuard®, AlexiShield®) into adjacent markets.

### 5. **Strategic Alliances**

Develop alliances with key players in the supply chain to collaboratively develop and market new products.



# Sales Priorities



## Core Market (Bedding)

- Focus on deepening relationships and increasing sales to North American bedding customers.
- Diversify product offerings within the bedding sector (e.g., DelCool™, Eclipsys®, FR technologies).

## Global Expansion

Repeat multi-product strategy (PCM + new technologies) to new accounts in Latin America, Europe, Australasia and the Asian Pacific.

## Adjacent Markets

Sales team will focus a smaller percentage of effort on diversifying into adjacent markets using existing technologies.

## Sales Team Growth

Once the current team achieves meaningful results, new hires will focus on expanding into adjacent markets.

# FY25 Operational Priorities



Contract Manufacturing - add new contract manufacturing partners for increased capabilities and capacities



Supplier Alliance Agreements – finalize agreements for co-development of finished components that utilize Alexium’s technologies, allowing for increased speed to market, and higher revenues per unit sold.



Supply Chain - continuous improvement of the Company’s supply chain and manufacturing processes to grow sales and margins for all Alexium products

# FY25 Operational Priorities – Product Focus



## Key product initiatives for manufacturing efficiencies and sales growth

**AlexiCool®** – new manufacturing process for new, higher solids slurries, dry mPCM, and plus derivatives

**BioCool®** - new manufacturing process for new, higher solids slurries, dry mPCM, and plus derivatives

**DelCool™** – qualification of international licensed manufacturing partners for global distribution. Pillow manufacturing for private label sales leading to improved speed to sales and higher revenue per unit

**AlexiShield** – ramp production and finalize development of AlexiShield FR socks and barriers for sales of textiles

**AlexiFlam®** – qualify a secondary contract chemical manufacturer and continue co-development of FR NyCo military uniform fabrics with textile partners for military contracts



# Key Objectives and Milestones



## Double FY24 Sales Volume

Increase from \$500K to \$1MM month-over-month (cash-positive threshold).

## Sustain \$1MM+ Monthly Sales

Establish a sustained monthly sales volume above \$1MM as a long-term revenue goal.

## Long-term Supply Agreements

Secure high-volume, long-term contracts to ensure steady revenue growth.

## Investor Communication

Regularly update the ASX on milestones and progress to strengthen shareholder confidence.

## Reinvestment for Growth

Use momentum and positive financial results to reinvest in the business, driving maximum earnings and valuation.



## FY25 Outlook



- **Q1 Performance:** The Company had a slow start in Q1 but expects to recover and meet its goals for the remainder of the fiscal year.
- **New Opportunities:** Several promising opportunities in the pipeline are expected to close in Q2 and early Q3. These will ramp up to full rates by the end of FY25.
- **Revenue & Growth Outlook:** The potential revenue from these opportunities is projected to help the Company meet or exceed its budget, achieve cash-positive results and set the stage for sustained profitable growth.
- **Strategy Refinement:** Adjustments to the strategy, with a focus on mPCM and FR sales, are key drivers behind this positive outlook.
- **Team Commitment:** The team remains dedicated to delivering meaningful, positive results for all stakeholders in the near term.

## FY25 Growth Drivers





# FY24 – 27 Strategic Pathway

## FY24 Diversify

- ✓ **Team:** Build out direct sales and BD
- ✓ **Culture:** Sales and marketing centric
- ✓ **Growth (40:20:40)**
  - ✓ Year-on-year revenue growth in core bedding market (AlexiCool®, BioCool®, DelCool™, Eclipsys®)
  - ✓ Progress FR Nyco for military.
  - X Commercialise Eclipsys® for tactical gear
  - X Commercialise Eclipsys® and FR in new markets (e.g., shoes, cold chain, workwear)
- ✓ **Operations:** Secure the company's supply chain to ensure resiliency
- X **Financial:** Cash and commercial discipline. Cashflow positive
- ✓ **Funding:** Adequate funding in place

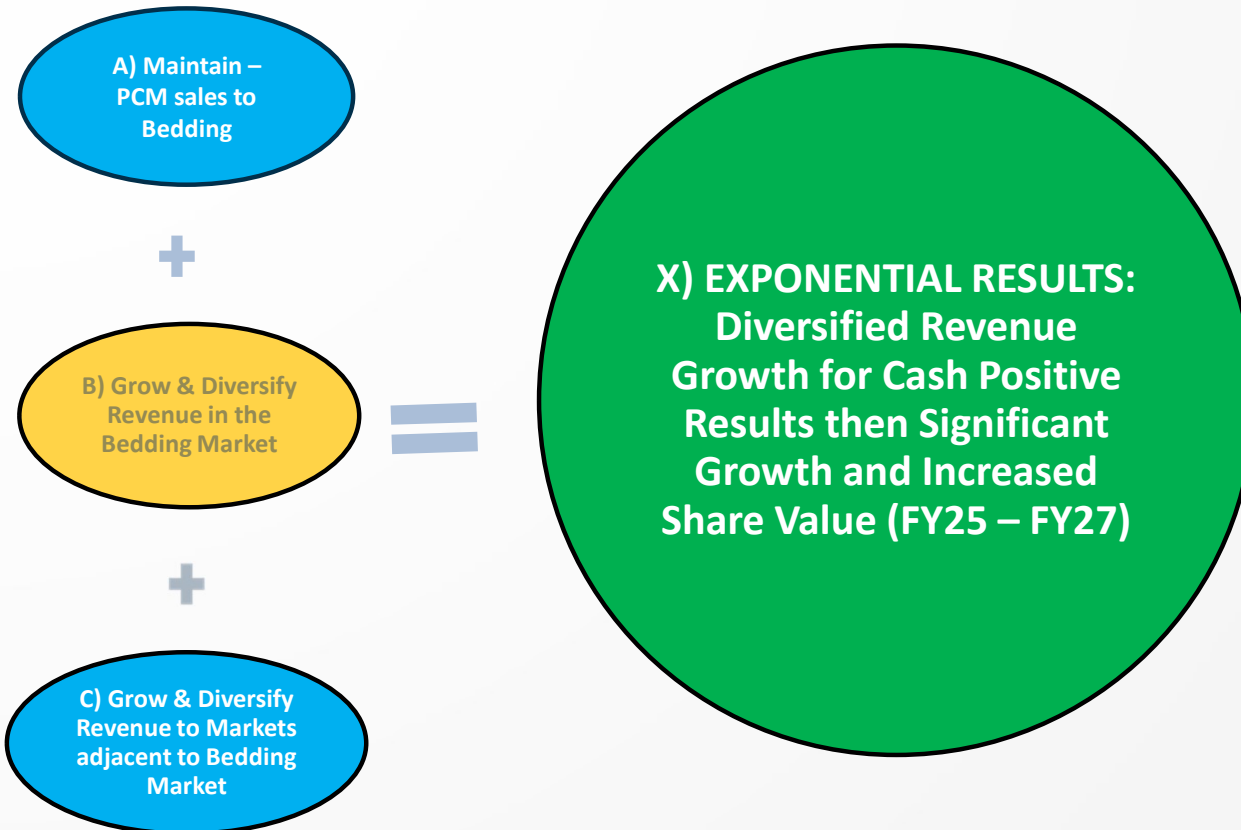
## FY25 Diversify

- **Team:** Develop sales and BD teams
- **Culture:** Sales and marketing centric
- **Growth (40:20:40)**
  - Year-on-year revenue growth in core bedding market (AlexiCool®, BioCool®, DelCool™, Eclipsys®)
  - Progress FR Nyco for military and FR barrier fabrics in bedding.
  - Commercialise Eclipsys® for tactical gear
  - Commercialise Eclipsys®, DelCool™ and FR in new markets (e.g., shoes, medical, cold chain, workwear)
- **Operations:** Secure the company's supply chain to ensure resiliency
- **Financial:** Cashflow positive

## FY26-27 Profitable Growth

- **Team:** Bolster operations team, mature sales execs
- **Culture:** One Team – Customer-centric, Success breeds success.
- **Growth (40:20:40)**
  - Capitalise on globally unique and patent-protected product range
  - Commercialise key product platforms in major international markets
  - Expand the product application range into large adjacent markets (e.g. outdoor apparel/gear, shoes, automotive, electronics)
- **Operations:** Realise benefits of increased scale
- **Financial:** Material growth in earnings, cashflow and share price

# FY 25 – 27 Strategic Plan - Growth Drivers



$$A + B + C = X!$$

**A)** Alexium must maintain its foundational PCM sales to existing customers in North America in its core market of bedding.

**B)** Sales growth through further saturation of that core market, then adding customers, then additional growth from the diversified products sold in the bedding market. In parallel, globally replicate this approach.

**C)** To mitigate over-concentration in bedding, AJX must break into adjacent markets, including FR for military fabrics, workwear and other home goods as well as thermal regulation for athletic gear, footwear, headwear, medical applications, packaging, and electronics.

**When we execute “A + B + C”, Alexium will be cash positive, self-funding and have a higher share price with sustained year-over-year growth.**

# Product Portfolio – mPCM – Comfort Technology



## AlexiCool®

- Traditional microencapsulated phase change material (petroleum based)
- Effective on textiles and foam
- Premium PCM cooling for mattress and top of bed
- Absorbs heat while providing comfort and coolness
- Specifically formulated for application method
- Available in solution, slurry and dry powder
- Available in enhanced (+) derivatives

## BioCool®

- Biobased microencapsulated phase change material (plant derived)
- USDA Bio-Preferred Certified (mPCM) with 94% bio content Eco-Certified
- COSMOS Certified
- Effective on textiles and foam
- Premium PCM cooling for mattress and top of bed
- Absorbs heat while providing comfort and coolness
- Specifically formulated for application method
- Available in solution, slurry and dry powder
- Available in enhanced (+) derivatives



## Product Development Highlight

Improving and Leveraging  
Alexium's Legacy mPCM  
Technologies



### Historical Revenue Sources

AlexiCool® and BioCool® have historically been the primary revenue drivers. Product improvements have expanded near-term market opportunities for both.

### In-House Production

The strategy shift in late FY24 led to technological advancements for in-house production of petroleum-based microcapsules, complementing the Company's existing bio-based microcapsules. This move enhanced efficiency in costs, performance and quality.

### Market Expansion Opportunity

The shift to in-house production enabled the Company to offer microcapsules to other PCM formulators, effectively doubling its addressable market.

### BioCool+ Launch

The Company is launching BioCool+, the first derivative of its PCM+ product line. This enhanced mPCM formulation uses bio-based ingredients and provides superior cooling capacity compared to previous PCM products in the bedding market.

AlexiCool®

BioCool®

# Product Portfolio - Flame Retardant Technologies



## Alexi<sup>®</sup>Flam

- Customised solutions
- Designed for use in a variety of markets: FR suits (PPE), military fabrics, transportation, furniture, carpet
- Wash Durable
- Color Fastness

## Alexi<sup>®</sup>Guard

- Flame retardant emulsion for use on 100% polyester fabric
- Nontoxic aqueous based solution, free from halogens, antimony, formaldehyde, PFAS, fiberglass
- Effective on woven and non-woven textiles
- Formulated for various application methods

## Alexi<sup>®</sup>Shield

- Flame retardant emulsion for use on 100% synthetic and natural fibers and fabrics
- Nontoxic aqueous based solution, free from halogens, antimony, formaldehyde, PFAS, fiberglass, and organophosphorus
- Effective on woven and non-woven textiles
- Effective on foam
- Formulated for various application methods



## Product Development Highlight

### Introduction to AlexiShield



#### Product

AlexiShield is the Company's latest innovation in flame retardant (FR) coatings, featuring an advanced formulation free of currently banned substances, as well as substances with proposed bans targeting organophosphorus.

#### Regulatory Response

The development was fast-tracked to address the bans on organophosphorus proposed by California and New York. New York has since passed legislation banning these substances in FR products used in bedding and furniture.

#### Product Development

Building on the success of the Company's existing FR product AlexiGuard®, the team created AlexiShield—a new formulation that works effectively on cotton, rayon, polyester, and foam. Several production trials have successfully passed burn tests on these materials.

#### Market Applications & Expansion

The Company is working with its textile supply chain to offer AlexiShield-treated fabrics for use as FR barriers in bedding and furniture.

#### Pipeline & Future Plans

Several active projects for AlexiShield are in the Company's pipeline, expected to close in late FY25. Future plans include expansion into the transportation and home furnishings markets.

# Product Portfolio – Thermal Regulation Materials



## DeiCool™

- Textile composite based on a patent pending, first-in-class technology
- Made from comfortable, multi-stretch textiles
- Easily integrated into mattresses, pillows and toppers
- Comfort from dehumidification
- Regulates heat index
- Adaptive technology that improves comfort all night long
- Long-lasting, 8+ hours
- Regenerates after each night of sleep
- Works for those that sleep hot, and those that do not

## Eclipsys®

- Textile composite for adaptive thermal regulation
- Easily integrated into several end-product applications
- Perpetual heat dissipation
- Adaptive comfort for bedding, furniture, footwear, headwear, and protective gear
- Improves heat flux in microclimates
- Regulates over-heating in batteries and electronics
- Regulates temperature in circular packaging



## Product Development Highlight

### Private Label Products



- **Luxury Pillow Development:** Initially conceived as a marketing tool to showcase Alexium's DelCool™ and AlexiCool® technologies, the luxury pillow has evolved into a commercial product.
- **Supply Chain Leverage:** Alexium can produce a high-quality product at a competitive cost by utilizing its supply chain.
- **Commercial Strategy:** Offering a private-label pillow allows Alexium to realize more value from its technologies by moving closer to end customers and cutting out middlemen.
- **Product Features & Testing:** Testing shows that pillows produced with Alexium's technology (with both foam cores and fiber-fill) are up to 19 degrees cooler than similar products.
- **Market Response:** Feedback from bedding brands has been very positive, with one brand already working on a branding and merchandising plan for a 2025 launch.

DelCool™  
AlexiCool®

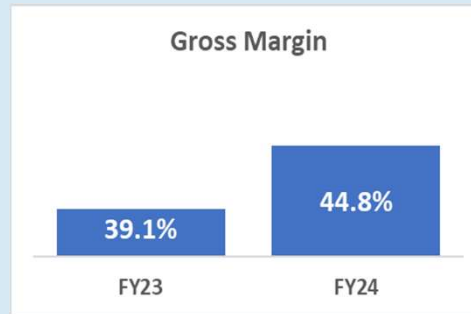
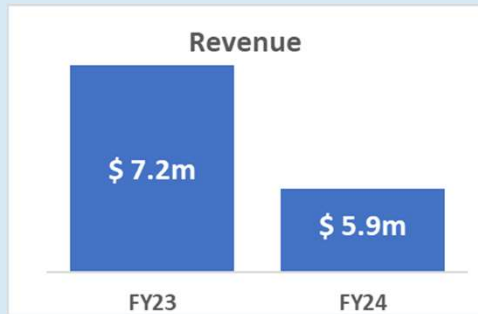




# FINANCIAL RESULTS FY 2024



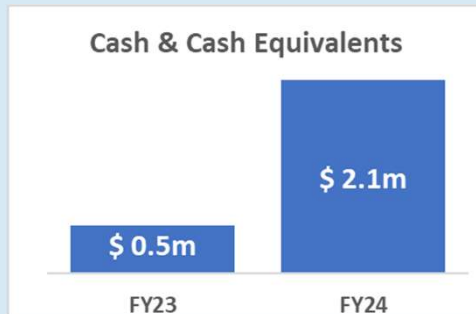
# FY24 Financial Snapshot



- Revenue – decrease of \$1.3 million (18%) due to continued softening of the bedding market and a loss of market share by our largest customer
- Gross Margin – very strong at 44.8%; increased 5.7 percentage points due to reduced manufacturing costs and customer & product mix
- Operating Expenses – operating expenses (excluding depreciation, amortization and intangibles impairment) decreased by \$0.1 million
- Interest Costs – will be significantly reduced going forward from the \$1.1 million in FY24 due to the Capital Raise and Refinancing Transaction in FY24

(1) Operating EBITDA is a non-GAAP financial measure  
 Note: All values in USD

## FY24 Financial Snapshot (cont.)



- Capital Raise & Refinancing Transaction Results
  - Increased cash
  - Elimination of Debt
  - Positive Equity
- Line of Credit (LOC)
  - Availability - the availability on the Alterna asset-based line of credit (\$0.4m at YE) remains strong and will help fund our growth in the future
  - Amendment - subsequent to year-end, amended the LOC agreement to reduce the interest rate and fixed costs
- Cash - optimisation of cash and cash management remain key focuses for management

Note: All values in USD