



ALEXIUM

Annual General Meeting

Dr Bob Brookins, CEO

29 October 2019

FY19 – Building Foundation for Growth

Focus on establishing partnerships with leaders in key markets

- **Supply agreement with multi-billion dollar major North American mattress brand** wherein Alexicool[®] products are the phase change materials (PCMs) used in its mattresses
- **Development Agreement with Pine Belt Processing** for flame retardant applications for military uniforms
- **Memorandum of Understanding (MoU)** signed with **ICL** for the distribution of Alexiflam[®] NF for flame retardant cotton applications.

FY19 – Improved Financial Performance

IMPROVEMENT IN SALES

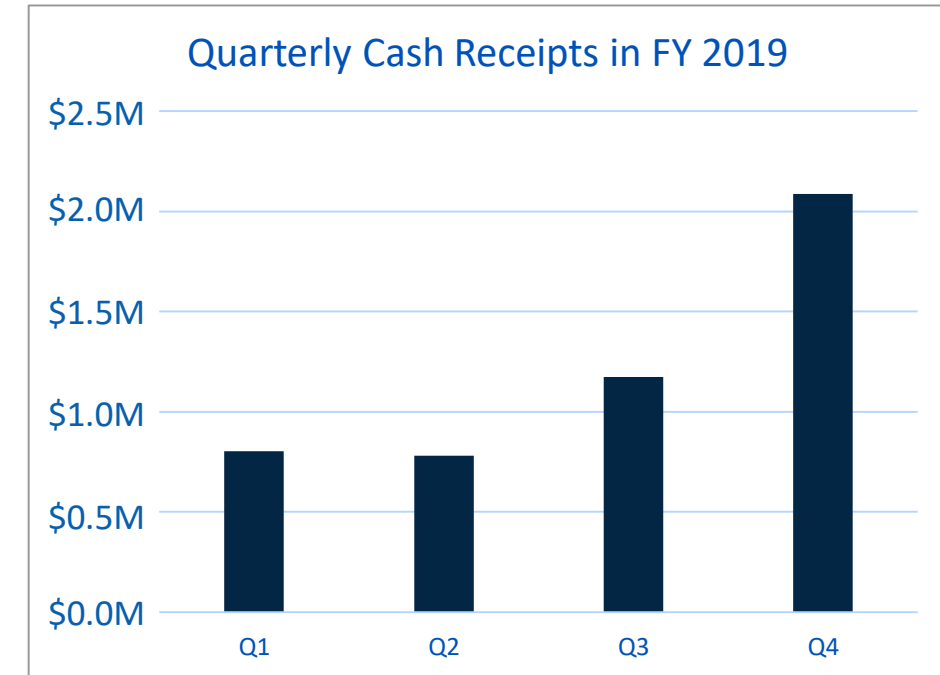
- 2H had significant improvement of sales including 2/3 of total cash receipts for the year
- Sales included mattress and top-of-bed applications
- Increased market penetration (35%) in textile applications to mattresses

IMPROVEMENT IN MARGINS

- Gross margins improved by 12% over FY18

IMPROVEMENT IN COST CONTROLS

- Operational expense reduction without impacting growth



All monetary numbers are reported in USD

FY19 – Technical Advances



FR NyCo

- Completed the development of FR NyCo product, satisfying the full range of specifications needed for military uniforms
- Initiated full scale production trials at Pine Belt Processing

Alexiflam NF

- 3rd party testing validating applications to FR socks for foam beds
- TSCA registration of Alexiflam NF

Alexicool® Technology

- Launch of Alexicool FM for foam applications
- Extensive analytics and thermal models



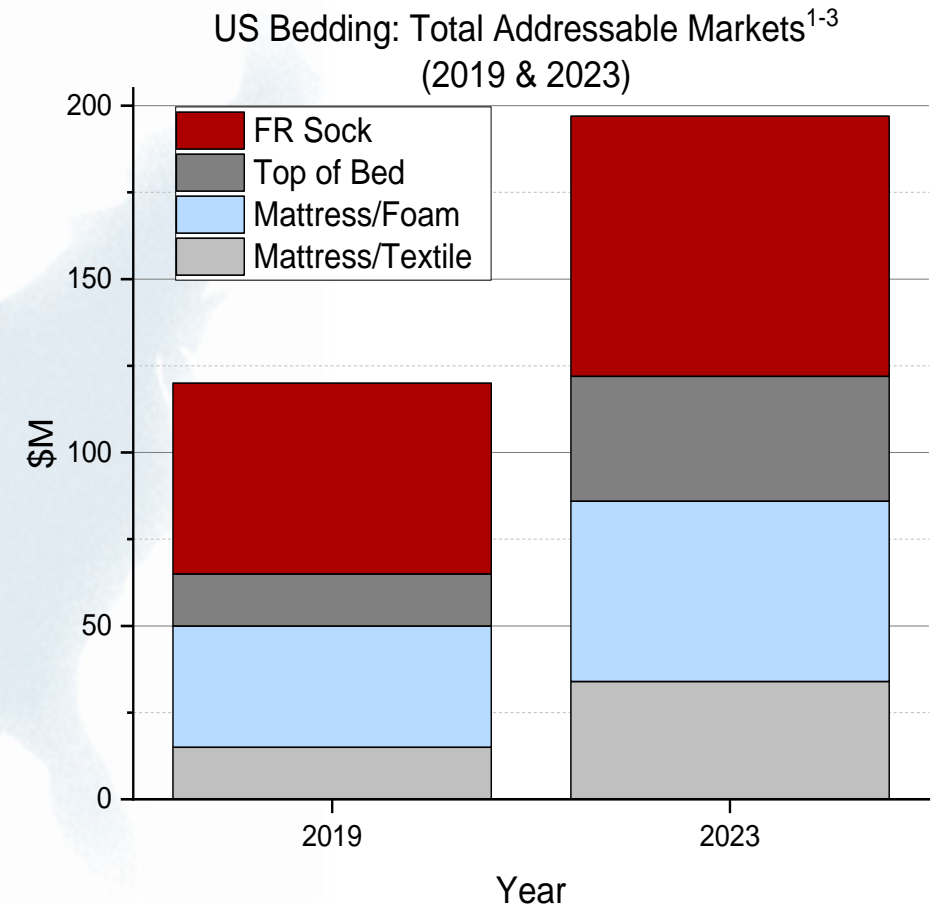
All monetary numbers are reported in USD

FY20 Outlook – Expansion in US Bedding Industry



OVERVIEW

- Sum of addressable markets in US Bedding is **\$120M (2019)**
- Current market share in mattress/textile: **35%**
 - Current market share in mattress/textile expected to grow further
 - Comparable growth is expected for other Alexicool® markets (Top of Bed and Mattress/Foam)
- Current pipeline of opportunities with Alexium’s commercial team represent **\$45M** per annum.
- Additional revenue growth drivers:
 - Growth of the mattress industry
 - Expansion in the range of products using cooling chemistries.



1 Technavio, [Global Mattress Report: 2019-2023](#)

2 Accuray Research, [Global Advanced Phase Change Material \(PCM\) Market Analysis and Trends: Industry Forecast to 2025](#)

3 BCC Research, [Flexible Foam: Global Markets \(May 2018\)](#)

All monetary numbers are reported in USD

FY20 Outlook – FR NyCo Uniforms for US Military



Growth Strategy

Two Elements to FR NyCo Strategy:

- 1) Alexium partnership with Pine Belt Processing, current supplier to US Military
- 2) Drive adoption by key segment(s) of the US military then drive further growth

Opportunity Details

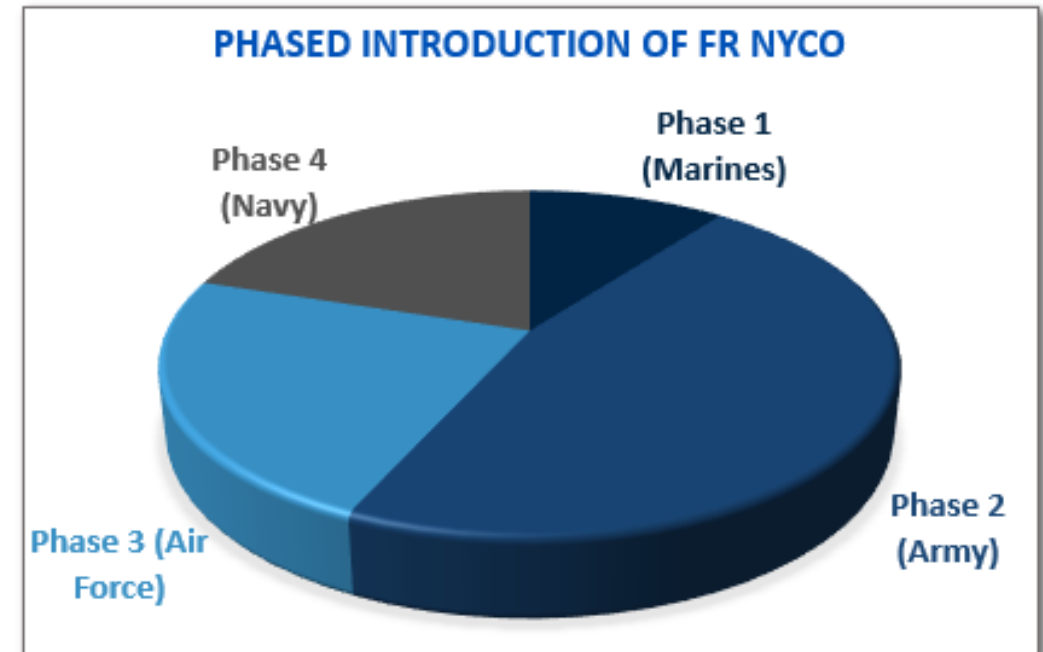
Total Addressable Market: \$90M per annum

Phase 1

- \$10M per annum
- Alexium aims for completion of this development work in FY20
- Rollout commencing FY21

Phase 2

- \$45M per annum
- This phase runs parallel to Phase 1
- Alexium/Pine Belt strategy is to leverage Phase 1 successes to drive Phase 2



Size represents number of military personnel per branch¹

¹ Wikipedia, [United States Armed Forces](#). (Accessed October 11, 2019)

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FY20 Outlook -- Alexiflam[®] NF Licensee

Alexium is working with ICL as a potential licensee of Alexiflam[®] NF.

ALEXIFLAM[®] NF ADDRESSABLE MARKETS

- Total addressable market: \$300M per annum
- Target addressable market: \$110M per annum

BACKGROUND ON ICL

- Global specialty minerals and specialty chemicals company
- Industry leader in phosphorus- and bromine-based flame retardants
- \$5.6B revenue (2018)
- 11,000 employees worldwide

SOURCES OF REVENUE FROM LICENSING MODEL

- Revenue from Royalties¹
- Customer technical service
- Applications development
- Materials development



All monetary numbers are reported in USD

¹ KPMG Profitability and Royalty Rates Across Industries: Some Preliminary Evidence (2012)

Alexium Vision for Growth



FY19

STRATEGY 1: US Bedding

- Supply agreements signed for Alexicool® products with major bedding manufacturer
- Supply agreements signed for Alexicool® products with Pegasus Home Fashions

STRATEGY 2: US Military Applications

- Agreements with Pine Belt Processing for military
- Complete development of commercialized product

STRATEGY 3 & 4: Growth of Target Markets

- MoU signed with ICL and received EPA approval

FY20

STRATEGY 1: US Bedding

- Further expansion of sales in three key markets (**\$45M sales pipeline**)
- Launch of Alexiflam® NF to FR sock market (**\$55M addressable market**)

STRATEGY 2: US Military Applications

- Complete T&E for Phase 1
- Prepare for rollout for Phase 1 (**\$10M - \$55M addressable market**)

STRATEGY 3 & 4: Growth of Target Markets

- Finalize licensing agreement and launch into EMEA workwear market (**\$60M addressable market**)
- Establish commercial/technical support for Alexicool® products in China

FY21+

STRATEGY 1: US Bedding

- Maximize position in US bedding market (**\$195M addressable market – 2023**)

STRATEGY 2: US Military Applications

- Broad adoption by US military (**\$90M addressable market**)

STRATEGY 3 & 4: Growth of Target Markets

- Broad expansion of Alexiflam® NF to global markets (including fleece) (**\$300M addressable market**)
- Expansion of Alexicool® products to international markets (**\$65M addressable market**)
- Expansion of Alexicool® product line to adjacent markets (**+\$100M addressable market**)

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Improving Our Capital Structure

- The Company's current capital structure, with US\$9M debt, does not support its long term growth
- Board and Management have reviewed a range of options to reduce debt and strengthen the Company's capital structure
- Based on this review, the Company today announced a Rights Issue at A\$0.06 per share to raise up to approx. A\$15.6 million (gross) on the basis of 3 new shares for every 4 existing shares
- Board, Management, and related parties to contribute a minimum of A\$600,000 (subject to shareholder approval)
- Proceeds from the Rights Issue to fully retire debt and provide working capital to support long-term growth

Conclusion – Positioning the Company for Continued Growth

FR NyCo Commercialisation for Military Uniforms	
MILESTONE	STATUS
Development agreement with Pine Belt Processing for military uniforms	✓
Completed development of FR NyCo product	✓
Alexiflam® NF	
MILESTONE	STATUS
Memorandum of Understanding with ICL for distribution of Alexiflam® NF	✓
TSCA registration of Alexiflam® NF	✓

Alexicool® Tech Expansion in US Bedding Market	
MILESTONE	STATUS
Supply agreement with multi-billion dollar mattress manufacturer	✓
Significant market penetration (35%) in textile applications for mattresses	✓
Commercialisation of Alexicool® FM products for foam applications	✓



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