

**QUARTERLY ACTIVITIES REPORT  
FOR THE PERIOD ENDED  
31 JANUARY 2019**



**ALEXIUM**

## HIGHLIGHTS FROM THE QUARTER

The second quarter of FY2019 has been very active for Alexium, and as advised to you at the AGM, we have achieved a number of important milestones in our pathway to profitability. The following are key highlights since 1 October:

- Increased commercial activity in January 2019 with orders received in January totaling US\$1.2M for imminent shipment.
- The Company anticipates reaching positive monthly EBITDA on an ongoing basis by Q4 CY 2019.
- Completion of Alexicool® FM product development for January 2019 launch of the Alexicool® product for high volume foam bedding applications, as presented at November's AGM.
- Key specifications met for both the FRACU program and the treatment of general military textiles, advancing the latter from laboratory testing towards pre-production trials with our commercial partner.
- Critical regulatory preconditions met in preparation for large volume production of Alexiflam® NF chemistry.
- Strengthened the leadership team with appointments of Jason Lewis as Chief Financial Officer and Allen Reihman as Chief Commercial Officer in October 2018.



## RAMP UP OF SALES

Alexium management have previously indicated that they expect 2019 will bring a significant increase in revenues as new launches for mattress and top-of-bed products convert into customer commitments and Alexicool® PCM sales. The new mattress products are being launched at the Las Vegas Market held in the last week of January 2019.

We are pleased to announce that orders for January total US\$1.2M as our customers prepare for large volume shipments. These increased sales further support the Company's assertion that the Alexicool® product line will provide the basis for the Company's initial profitability ahead of commercialization of our FR solutions.

As presented at the AGM, we anticipate that Alexium will reach positive monthly EBITDA on an ongoing basis by Q4 CY 2019. This is based on the following factors:

1. Forecasts and orders received to date by Alexicool® PCM customers and the new product lines launched by Alexicool® PCM textile customers;
2. The launch and sale of Alexicool® FM for foam applications; and
3. Improved margins through higher volume production and lower raw material procurement costs.



# UPDATES ON CORNERSTONE INITIATIVES

The following sections highlight progress made by the Company since 1 October 2018 on its three cornerstone initiatives:

## 1. Alexicool® Technology for Bedding Applications

This cornerstone is the initial commercial application of our chemistry and remains a core focus for the future as our market share increases. Over the past twelve months, we have addressed the challenges of introducing an innovative disruptive technology by changing the way we deal with our customers, including leveraging our analytical and technical expertise coupled with a more collaborative customer approach. We are seeing the benefit of this strategy as commitments turn into orders. Expansion into a wider range of bedding components from a larger customer base now provide the basis for a more reliable revenue stream and the platform for new products.

During this quarter, we have leveraged our technology with the launch in January of Alexicool® FM, a PCM-based cooling product designed specifically for foam-based bedding. Foam is the fastest growing segment of the bedding market and as a premium, performance focused proposition has inherent characteristics which particularly lend it to Alexium cooling technology.

## 2. Alexiflam® FR NyCo for Military Applications

Over the past six months, the Company has satisfied key technical milestones pertaining to flame retardant applications of nylon/cotton fabrics. As presented at the recent AGM, there are two opportunities from this initiative.

Our primary opportunity is to provide a cost effective, easily applied flame retardant treatment to the existing standard issue cotton/nylon specification military uniforms used by the US armed forces. Alexium has now satisfied the key specifications in terms of both FR performance and garment servicing, and we are currently working with our supply partner to comply with their production requirements and to prepare uniforms for the military's evaluation in a wear trial. We expect to be in a position to provide a more comprehensive update very shortly.

The second opportunity is the FR-ACU program which involves a total redesign of a specialist active combat uniform. As addressed in the previous 4C, prototype fabrics targeted for the FR-ACU specifications successfully passed the Pyroman® test, and Alexium is currently working with a third party on the data package to support specifications review.



## 3. Alexiflam® NF for Flame Resistant Cellulosic

Alexiflam® NF is a proprietary flame-retardant product developed by Alexium for the treatment of cotton, linen and other cellulosic textiles. Two key milestones have been achieved this quarter:

1. Ecological and toxicological tests to support TSCA registration; and
2. Filing of the pre-manufacturing notice (PMN).

We believe that Alexiflam® NF has advantages over incumbent FR treatments because it requires no specialist equipment, eliminates the use of potentially harmful chemistry, dramatically reduces waste water and offers textile finishers a simple cost effective alternative with excellent durable FR performance characteristics. As outlined at the AGM, Alexium has already identified volume/value applications where our technology is uniquely suited and where commercial traction will be most rapid. Our focus is on aligning our efforts with the most appropriate corporate partners. These efforts are progressing, and we look forward to providing a more detailed update during the current quarter.

## NEW ADDITIONS TO MANAGEMENT AND BOARD

New additions of key persons to the management team and board have significantly strengthened the Company over the past quarter.

Mr. Jason Lewis was appointed as the Chief Financial Officer in October 2018. Mr. Lewis brings over 20 years' experience specialty chemical industry with extensive knowledge in finance, accounting, and operations. Mr. Allen Reihman was appointed as the Chief Commercial Officer in October 2018. Mr. Reihman has many years of experience in business development in the chemical industry, particularly for taking innovative products to market.

At the recent AGM, Ms. Rosheen Garnon was formally ratified to the Board of Directors as an independent non-executive director. Ms. Garnon has had a distinguished career in the accounting profession as a senior partner with KPMG. With this, Ms. Garnon brings significant experience and knowledge to the Company.

The Company is excited about the quality of these appointments and recognizes the skills and experience that they bring to the Company.



# QUARTERLY RESULTS OVERVIEW

US\$ Thousands	Q2 2019	Q1 2019	\$ Variance	% Variance	
Receipts from customers	782	802	(20)	2%	↓
Research and Development	(131)	(123)	(8)	7%	↓
Product Manufacturing and Operating Costs	(508)	(449)	(59)	13%	↓
Advertising and Marketing	(46)	(58)	12	21%	↑
Leased Assets	(19)	(19)	-	0%	
Staff Cost	(837)	(660)	(177)	27%	↓
Administration and Corporate Costs	(516)	(676)	160	24%	↑
Interest and other costs of finance paid	(345)	(237)	(108)	46%	↓
Net Cash From (Used in) Operating Activities	(1,620)	(1,420)	(200)	14%	↓
Net cash From(Used in) Investing activities	(169)	(223)	54	24%	↑
Net cash From(Used in) Financing activities	(1,061)	(76)	(985)	1296%	↓
Effect of movement in exchange rates on cash held	(22)	(36)	14	39%	↑
Cash & Cash Equivalents	6,015	8,887	(2,872)	32%	↓

## Cash Receipts

Cash receipts were down slightly over prior quarter results at \$782K. Customer closures for the holiday season negatively impacted collections at year end. Delayed payments have since been collected.

## Product Manufacturing and Operating Costs

Manufacturing costs were up 13% over the prior quarter as raw materials purchases increased to service customer orders growth and prepare for ramp up of our customers development cycle.

## Staff Costs

Cash outflows for staff costs increased 27% over the prior period as a result of payroll cash timing differences along with costs related in the change in management. At the close of Q2, all costs associated with executive changes have been finalised.

## Administrative and Corporate Costs

Administrative and corporate costs were lower by 21%. The last of the executive recruitment fees occurred in this quarter.

## Cash Used in Investing Activities

The development of intellectual property continues to be a top priority for the Company. Investing cash flows were down 24% over the previous quarter as a result of continued cash flow management and improved efficiency of the development process, all while maintaining the culture of innovation which is critical to success.

## Cash Used in Financing Activities

The Company elected to make a \$1M principal payment toward the debt facility in order to reduce interest.



## Appendix 4C

### Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

**Name of entity**

ALEXIUM INTERNATIONAL GROUP LIMITED

**ABN**

91 064 820 408

**Quarter ended ("current quarter")**

31 Dec 2018

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$US'000</b>	<b>Year to date ( 6 months) \$US'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	782	1,584
1.2 Payments for		
(a) research and development	(131)	(254)
(b) product manufacturing and operating costs	(508)	(957)
(c) advertising and marketing	(46)	(104)
(d) leased assets	(19)	(38)
(e) staff costs	(837)	(1,497)
(f) administration and corporate costs	(547)	(1,252)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	8	18
1.5 Interest and other costs of finance paid	(345)	(582)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (GST received)	23	42
1.8 Other (FX Effect on Intercompany Transfer)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,620)</b>	<b>(3,040)</b>

Consolidated statement of cash flows	Current quarter \$US'000	Year to date ( 6 months) \$US'000
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(13)	(23)
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	(136)	(349)
(e) other non-current assets	(20)	(20)
2.2 Proceeds from disposal of:		
(a) property, plant and equipment	-	-
(b) businesses (see item 10)	-	-
(c) investments	-	-
(d) intellectual property	-	-
(e) 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 Net cash from / (used in) investing activities</b>	<b>(169)</b>	<b>(392)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	-	-
3.2 Proceeds from issue of convertible notes	-	-
3.3 Proceeds from exercise of share options	-	-
3.4 Transaction costs related to issues of shares, convertible notes or options	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	(1,061)	(1,137)
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
<b>3.10 Net cash from / (used in) financing activities</b>	<b>(1,061)</b>	<b>(1,137)</b>

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$US'000</b>	<b>Year to date ( 6 months) \$US'000</b>
<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of quarter/year to date	8,887	10,642
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(1,620)	(3,040)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(169)	(393)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	(1,061)	(1,137)
4.5 Effect of movement in exchange rates on cash held	(22)	(58)
<b>4.6 Cash and cash equivalents at end of quarter</b>	<b>6,015</b>	<b>6,015</b>

<b>5. Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$US'000</b>	<b>Previous quarter \$US'000</b>
5.1 Bank balances	146	178
5.2 Call deposits	5,870	8,709
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>6,015</b>	<b>8,887</b>

**6. Payments to directors of the entity and their associates**

6.1 Aggregate amount of payments to these parties included in item 1.2

6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

<b>Current quarter \$US'000</b>
131
-

Non-Executive Directors' Fees - \$51

Consulting Fees- \$25

Travel Reimbursement- \$20

Shares issued in lieu of salary - \$35

**7. Payments to related entities of the entity and their associates**

**Current quarter  
\$US'000**

7.1 Aggregate amount of payments to these parties included in item 1.2

180

7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3

-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

N/A

**8. Financing facilities available**

*Add notes as necessary for an understanding of the position*

**Total facility amount  
at quarter end  
\$US'000**

**Amount drawn at  
quarter end  
\$US'000**

8.1 Loan facilities

10,862

9,846

8.2 Credit standby arrangements

-

-

8.3 Other (please specify)

-

-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

Term loan with a balance of \$9.0M at 13.5% interest plus 16 capital leases with a loan balance of \$0.5M at an average rate of 9.8%

<b>9. Estimated cash outflows for next quarter</b>	<b>\$US'000</b>
9.1 Research and development	266
9.2 Product manufacturing and operating costs	1,168
9.3 Advertising and marketing	73
9.4 Leased assets	31
9.5 Staff costs	612
9.6 Administration and corporate costs	456
9.7 Other (provide details if material)	-
<b>9.8 Total estimated cash outflows</b>	<b>2,606</b>

