

ALEXIUM

**ACTIVITIES REPORT FOR THE
QUARTER ENDED**

June 30, 2019

Q4 FY2019 Highlights:

- Substantial increase in quarterly cash inflows as growth strategy is rolled out with Q4 FY2019 cash inflow of US\$2.1million, up 78% on the previous quarter.
- Next phase of Alexicool®-based bedding products are prepared for market launch
- US EPA approved Alexium to manufacture and sell Alexiflam® NF into the lucrative US market
- MoU with ICL to form strategic partnership for the global distribution of Alexiflam® NF
- Pine Belt Processing development agreement progressing – establishing logistics and production protocols and confirming satisfaction of all required specifications
- Two-year supply agreement signed with Pegasus Home Fashions to supply Alexicool® for top of bed applications
- Analytical method developed to better demonstrate phase-change-material cooling performance

Commenting on Q4 FY2019, Alexium CEO Dr Bob Brookins said:

“This quarter we delivered several key achievements that clearly demonstrate the progress we are making on the growth strategy put in place by the new leadership team. The fourth quarter cash inflows of US\$2.1 million, up 78% on the previous quarter, is a clear indicator of this progress.

“Underpinning the strong quarterly financial performance has been our focus on operational execution. Several milestones were achieved over Q4 including finalization of an agreement with Pegasus Home Furnishings to supply Alexicool® technology for bedding products which was signed shortly after the end of Q4. This agreement is the culmination of substantial product development and commercialization with Pegasus and follows from the MoU previously signed. We are pleased to have this agreement in place for their commercial products.

“We also progressed our Development Agreement with Pine Belt for a flame retardant NyCo product for military use, and the MOU we signed with ICL to negotiate a license agreement for Alexiflam® NF positions us for future growth in global markets. To support the commercialization efforts of Alexiflam® NF, we were delighted to have received EPA approval to manufacture and sell Alexiflam® NF into the key US market.

“Alongside this work, we have been diligently increasing market penetration of our Alexicool® product line, that will see our customers launch a number of new bedding products based on Alexicool® products. This next wave of consumer products with Alexicool® technology is exciting to see and is expected to be a key area of revenue growth in the near term.

“Driving this growth are the analytical tools which have been an essential part of the commercialization of our Alexicool® products. In Q4, the technical team developed a new analytical tool for demonstrating the value proposition of Alexicool® products and their applications, allowing us to take multiple Alexicool®-based products, such as textile and foam components used in the mattress, and actually quantify how these all work together as a system. This new technique will drive the next phase of Alexicool® product development.

“Importantly, we remain on track to achieve positive monthly EBITDA by the fourth quarter of the 2019 calendar year and sustained profitable growth in the years ahead.

"We are at a very exciting juncture for the business as we deliver on all the key milestones the new leadership team has set out. With development agreements in place with the largest product manufacturers in our technology segments, and additional distribution and sales channels opening new markets, we are excited by the opportunities we see for Alexium, its shareholders, partners, and customers.

Continued Momentum in Cash Receipt Growth

Cash receipts of US\$2.1 million for the quarter ended 30 June 2019 (Q4 FY2019) were up 78% on the previous quarter (Q3 FY2019: US\$1.2 million) due to increased sales as the Company's growth strategy focused on commercializing its technologies through partnerships with the leading manufacturers in each market segment is successfully rolled out.

Product manufacturing and operating costs of US\$1.1 million include raw material purchases for current and anticipated orders that will be shipped and invoiced in Q1 FY2020. Staff costs and administration costs were in line with expectations and continue to stabilize.

Next Phase of Alexicool®-based Bedding Products Are Prepared for Market Launch

Demand for Phase Change Material (PCM) cooling technologies in the bedding industry continues to expand both in top-of-bed applications and in mattresses. Temperature management remains a key feature in the marketing of premium bedding brands, and technology is rapidly migrating into wider mattress and bedding applications. This presents new revenue opportunities for Alexium, which is rapidly developing its reputation as the innovative, technology driven, PCM-solutions provider.

With this, Alexium customers are preparing to launch a number of new bedding products based on Alexicool® products. The new bedding products include both textile- and foam-based components treated with PCM and target top-of-bed and mattress markets. These product launches mirror the expansion of Alexicool®-treated products from mid-2018, but this phase of product launches includes significant number in the near term in support of the Las Vegas bedding show at the end of July 2019. This next phase is a key driver for the Company's growth and achieving positive monthly EBITDA by the end of CY 2019.

Alexiflam® NF granted EPA approval

On 24 April, the US Environmental Protection Agency (EPA) approved Alexium's flame-retardant product, enabling the manufacture and sale of Alexiflam® NF into the US. This EPA approval is a significant milestone as it elevates Alexium's position into the world's largest market for flame retardant cotton. It also offers Alexium the capacity to produce the volumes of Alexiflam® NF needed to support the Company's sales targets for military and industrial application in the US.

MoU with ICL for Alexiflam® NF

On 4 April, Alexium announced the signing of a Memorandum of Understanding (MoU) with global specialty minerals and chemical company ICL (TASE/NYSE: ICL), which produces and sells brominated and phosphorous flame retardants. The MoU establishes a framework for the potential commercialization of Alexiflam® NF with ICL, which would expand Alexium's global sales channels for its flame-retardant products.

Under the terms of the MOU, subject to the final commercial agreement, Alexium will grant ICL sole global marketing and sales rights for Alexiflam® NF other than defined markets currently under development by Alexium.

The MoU signed with ICL is progressing well and in line with our expectations. We remain confident that both sides continue to appreciate the potential synergies and are keen to progress to a formal commercial agreement. Given the commercial sensitivities of this effort, a more detailed public update cannot be provided at present, but we anticipate that finalization of the Licensing Agreement is likely to occur in early CY2020.

Progressing Development Agreement with Pine Belt Processing

Following the Signing of a Development Agreement with Pine Belt Processing in March to use Alexium's flame-retardant chemistry on US military uniforms, Alexium is encouraged by the engagement and momentum by all parties and is pleased to advise that this effort is proceeding well. Having successfully tested Alexium's flame retardant treatment, Alexium and Pine Belt Processing are focused on integrating the flame-retardant treatment within the full process and establishing the logistics and production protocols for manufacturing uniforms to satisfy all required specifications. At this stage, key segments of the military are actively engaged with this work and guiding the next steps in the process.

Agreement with Pegasus Home Fashions to supply Alexicool® products

On 24 July, Alexium entered into a supply agreement with Pegasus Home Furnishings, a New York based supplier of pillows to retail channels of distribution, including big box retailers in the US. This supply agreement establishes a long-term working relationship with a key supplier in the "top-of-bed" market.

Under the agreement, Alexium will provide its Alexicool® phase-change-material products for top of bed applications, with a focus on pillows. The Supply Agreement has a two-year term that may automatically renew for successive one-year terms. The agreement demonstrates the growing momentum for Alexium's Alexicool® technology, following the signing of a contract with a multi-billion-dollar mattress manufacturer in March.

ITS analytical method developed

The development of analytical tools has been key to demonstrating the value proposition for Alexicool® products and to driving the significant sales growth over the past year. The ultimate goal of these tools is to show how Alexicool® products can be used by the Company's customers to have a well-differentiated product in the market.

Over Q4 FY2019, Alexium's technical team has increased its capabilities with the development of the Integrated Thermal Sacrum (ITS) method. The ITS method shows how the cooling performance of multiple components work together to provide for overall product performance. As a specific example, the ITS method shows how the textile and foam layers of a mattress work in combination to provide a cooling effect for the consumer. This significantly expands the Company's capabilities over previous methods that analyzed the cooling capacity of a single component in isolation.

The ITS method enables our customers to quantify and to demonstrate the cooling functionality during the design of each bedding line. Bedding companies that can manage this process most effectively will gain a significant market advantage particularly as the cooling functionality broadens from a "premium" to an "expected" feature with customers and is incorporated in a wider range of beds.

Customer response to the new tool has been positive and immediate, and the commercial implications to Alexium of this initiative are obvious. This new method allows for a systems-based approach, which enables greater advances in product performance. ITS improves the product development capabilities of not only Alexium but also those of the customers. Alexium sees ITS as a key analytical tool for driving increased product innovation and consequently revenues, as a wide range of new products are

released throughout the second half of CY 2019.

Quarterly Update Conference Call

CEO Dr Bob Brookins and CFO Jason Lewis will host a conference call and live audio webcast at 10:30am AEST (Tuesday, 30 July 2019) to present the Company's quarterly operational update.

For those wishing to dial into the call, please register for the call through the following link:

<https://s1.c-conf.com/diamondpass/alexium-10001480-invite.html>

Alternatively, at the time of the call, dial your respective local number below and provide the **conference ID 10001480** to the operator.

Australia Toll Free:	1 800 558 698
Australia Local:	+61 2 9007 3187
United States:	855 881 1339

The live webcast will be accessible by using the link below. Questions will need to be submitted electronically through this webcast interface. For those wishing to access the webcast please register by clicking on the following link:

<https://services.choruscall.com.au/webcast/alexium-190730.html>

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")

30 June 2019

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (12 months) \$US'000
1. Cash flows from operating activities		
1.1 Receipts from customers	2,087	4,845
1.2 Payments for		
(a) research and development	(81)	(431)
(b) product manufacturing and operating costs	(1,072)	(3,004)
(c) advertising and marketing	(23)	(153)
(d) leased assets	(34)	(106)
(e) staff costs	(768)	(2,852)
(f) administration and corporate costs	(298)	(1,822)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	5	28
1.5 Interest and other costs of finance paid	(320)	(1,219)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (GST received)	7	58
1.8 Other (FX Effect on Intercompany Transfer)	-	-
1.9 Net cash from / (used in) operating activities	(497)	(4,656)

Consolidated statement of cash flows		Current quarter \$US'000	Year to date (12 months) \$US'000
2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(10)	(65)
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	(213)	(728)
	(e) other non-current assets	-	(30)
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)	-	-
2.6	Net cash from / (used in) investing activities	(223)	(823)

3.	Cash flows from financing activities		
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	(61)	(1,259)
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	(61)	(1,259)

Consolidated statement of cash flows		Current quarter \$US'000	Year to date (12 months) \$US'000
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of quarter/year to date	4,634	10,642
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(497)	(4,656)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(223)	(823)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(61)	(1,259)
4.5	Effect of movement in exchange rates on cash held	(10)	(61)
4.6	Cash and cash equivalents at end of quarter	3,843	3,843

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		
5.1	Bank balances	705	348
5.2	Call deposits	3,148	4,287
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	3,843	4,634

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

Current quarter \$US'000

61

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Director's Fees' - \$48

Shares issued in lieu of salary - \$13
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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	317
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 <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$US'000	Amount drawn at quarter end \$US'000
8.1 Loan facilities	10,862	9,362
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 @ 13.5% interest plus 16 capital leases with a loan balance of \$0.4M @ an average rate of 9.4%

9. Estimated cash outflows for next quarter	\$US'000
9.1 Research and development	148
9.2 Product manufacturing and operating costs	1,745
9.3 Advertising and marketing	26
9.4 Leased assets	33
9.5 Staff costs	743
9.6 Administration and corporate costs	566
9.7 Other (provide details if material)	-
9.8 Total estimated cash outflows	3,261

10. Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)	Acquisitions	Disposals
10.1 Name of entity		
10.2 Place of incorporation or registration		
10.3 Consideration for acquisition or disposal		
10.4 Total net assets		
10.5 Nature of business		

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.



Sign here:
(Company Secretary)

Date: 30 July 2019

Print name: Maja McGuire

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly 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 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.