# HALF-YEAR FINANCIAL REPORT

For the Six Months Ended
31 DECEMBER 2018

ABN 91 064 820 408

ALEXIUM

# Contents

## INTRODUCTION

The development of innovative products to address key market gaps is fundamental to Alexium's business model. Alexium has developed three key technologies for which it owns the intellectual property. These technologies are in early stages of commercialization and have strong market differentiation over existing competitor products. These three technologies are briefly described in the table below:

| TECHNOLOGY | APPLICABLE MARKETS | MARKET DIFFERENTIATION |
|---|---|---|
| Alexiflam® FR | Military uniforms (nylon/cotton) | • Based on military & industry information, Alexium has the only commercially available flame-retardant treatment for nylon/cotton<br>• Significant cost reduction relative to aramid-based flame-retardant fabrics currently used for military programs. |
| Alexiflam® NF | Cotton and other cellulosic fabrics (apparel and mattresses), wood | • Essentially formaldehyde free<br>• Enables innovative fabric designs based on feedback from potential customers<br>• Flame retardancy is effective with high synthetic content |
| Alexicool® PCM | Mattress, top of bed, apparel, transportation | • Higher cooling capacity over competitive products<br>• Readily applied across a range of bedding components |

Alexium has implemented significant changes in the last 6 months to ensure that we maximize the opportunity in both the short and medium term. These changes include:

- **Strengthened the leadership team**: Over this period, the company has appointed Dr Bob Brookins as CEO, Mr Jason Lewis as CFO, and Mr Allen Reihman as Chief Commercial Office (CCO). This team brings significant experience in the specialty chemicals industry and chemical technology commercialization.

- **Greater engagement with customers**: The Company has improved customer engagement including:
  - The development of key analytical tools for demonstrating product differentiation to customers; and
  - Collaborative work with customers to ensure product developments meet their marketing goals

- **Improved cash management**: The Company has significantly cut operating expenses and reviewed operations to improve gross margins.

- **Strategic efforts** to increase our options for commercialization of Alexiflam® products.

# UPDATE ON CORNERSTONE INITIATIVES

## ALEXIFLAM® FR FOR FLAME RETARDATION OF MILITARY UNIFORMS

For decades, 50/50 nylon cotton blends (NyCo) have been the fabric of choice for military uniforms. While the strength and comfort of the fabric make it attractive for military applications, the flammability of NyCo limits its utility in some areas. The Company has developed a patent-protected flame-retardant treatment for NyCo, which based on information from significant market players, makes it the only commercially viable FR NyCo in the market.

The Company is focused on two directions for this initiative. The first targets a cost effective, easily applied flame retardant treatment to the existing standard issue nylon/cotton specification military uniforms used by the US armed forces. Alexium has now satisfied the key specifications in terms of both FR performance and fabric specifications. The Company is collaborating with a supply-chain partner to comply with their production requirements and then to produce uniforms for the military's evaluation in a wear field trial.

The second opportunity focuses on designs/specifications suitable for the FR-ACU program. 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 the specifications review.

Based on progress, the Company looks forward to providing a more comprehensive update shortly.

## ALEXIFLAM® NF FOR FLAME RETARDANT (FR) CELLULOSIC FABRICS

A key initiative for the Company has been the development of Alexiflam® NF, a proprietary flame-retardant product developed for the treatment of cotton, linen and other cellulosic textiles. Alexiflam® NF has advantages over incumbent FR treatments because it eliminates the use of potentially harmful chemistry, requires no specialty equipment for application of FR chemistry, and dramatically reduces waste water. This provides textile finishers a simple cost-effective alternative with durable FR performance characteristics.

Alexium has identified a range of high volume/high value applications where our technology is uniquely suited and where commercial traction will be rapid. Included in these are the following:

- FR fabrics for bedding;
- FR treatment for fleece; and
- FR fabrics for workwear and uniforms with innovative fabric designs

The Company's focus is now on driving these efforts and identifying the most appropriate corporate partners given that the current global market size for FR cotton fabrics is over 300 million square meters per annum.[1] Notably, this volume does not include the bedding and fleece markets described above. These efforts are progressing, and we look forward to providing news on these efforts during the current quarter.

[1] Market research from "Global Fire Resistant Cotton Industry 2015 Deep Market Research Report" from QYR Chemical & Material Research Center.

## PHASE CHANGE MATERIALS (PCMs) FOR BEDDING APPLICATIONS

Over the past two years, Alexium has developed a range of PCM-based products branded as Alexicool® PCM. Phase change materials (PCMs) are used in a wide range of industries as an effective means of thermal management and energy conservation. The global market for PCM is estimated to be US$613M in 2015 and growing at a compound annual growth rate of 23.5% from 2015 to 2025.[2] PCM applications to textiles is estimated to be US$33M in 2015 with projected sales of US$98M by 2020.[1] This rapid growth is driven by innovative applications and extension into a broader range of markets.

Sales of Alexicool® products have been the major source of revenue for the Company, principally in consumer bedding products. Alexicool® products are used to provide a cool-to-the-touch effect and thermal regulatory benefits. Initial sales were focused on simple textile applications on mattresses, but the range of end product applications has increased significantly:

- top-of-bed accessories (i.e., pillows)
- outer layer textiles for the mattress
- inter layer textiles for the mattress
- foam components

**New products being launched by Alexicool® customers**. In the first half of FY 2019, Alexium customers have commercialized over a dozen new products based on Alexicool® technology. For top-of-bed applications, Alexicool® products were recently chosen as the cooling technology for a pillow program with a major North American big-box retailer. This commercial program has begun, and the supply chain for this effort has been established with the pillow manufacturer. For mattress applications, the Alexicool® technology will be included in products covering a range of price points and will be incorporated in multiple components of the mattress. The continued rise of cooling technologies in the mattress industry was evident at the Las Vegas Market at the end of January. Since then, key customers have validated the level of their expected demand for Alexicool® products, with their bedding products going into retail stores now and over the coming months. The Company is observing that the rate at which these bedding products go into stores vary from product to product, and whilst the Company has seen an increase in sales for the pillow products, we have yet to see the ramp up increases from our major bedding customer. Nevertheless, we remain confident of the level of demand, as we have reconfirmed the supply forecasts from them for the coming year. We are positive that the Company’s strategies of data proven performance and collaborative work with customers is the Company’s path to profitability.

**Expansion of Alexicool® products to foam market.** In January 2019, Alexium leveraged its PCM technology with the launch of Alexicool® FM, a PCM-based cooling product designed specifically for foam-based bedding. PCM on foam is a major segment of the bedding market and as a premium, performance focused proposition has inherent characteristics which particularly lend it to Alexium cooling technology.

[2] Market research from Global Advanced Phase Change Material (PCM) Market Analysis & Trends by Accuray Research.

## CONCLUSION

Over the reporting period, the Company has made significant advances in each of the cornerstone initiatives.

- Key specifications for FR NyCo applications have been met with strategic partners moving to the next stage of commercialization;
- Alexicool® customers are launching a wide range of consumer products that are going into retail stores now and in the coming months; and
- Alexiflam® NF is being commercialized with target customers in parallel with establishing strategic corporate partners given the size of the market.

Along with these advances, the leadership team has been strengthened with new additions that bring with them the specialty chemicals skills and experience needed to realize these opportunities. All of these factors poise the Company for successful outcomes and for an exciting year ahead.

# RESULTS FOR ANNOUNCEMENT TO THE MARKET- APPENDIX 4D

**ALEXIUM INTERNATIONAL GROUP LIMITED**
ABN 91 064 820 408

This information is provided to the Australian Securities Exchange under ASX Listing Rule 4.2A (3). This information should be read in conjunction with the most recent annual financial report.

Current reporting period: 01 July 2018 to 31 December 2018
Previous reporting period: 01 July 2017 to 31 December 2017

| | | | | |
|---|---|---|---|---|
| Revenue from ordinary activities | Down | 77% | to | US$1,548,422 |
| Loss from ordinary activities after tax attributable to members | Up | 102% | to | (US$3,233,206) |
| Net loss for the period attributable to members | Up | 102% | to | (US$3,233,206) |

| **Dividends** | **Amount per security** | **Franked amount per security** |
|---|---|---|
| Interim dividend declared this period | Nil | Nil |
| Interim dividend declared and paid in previous corresponding period | Nil | Nil |
| Final dividend in 2018 | Nil | Nil |

*Revenue from ordinary activities*

As previously announced, the Group eliminated low margin and unprofitable product lines to focus on core growth of the PCM and FR market, which has much greater upside potential. This effort resulted in an overall five percentage point increase in gross profit margin.

The Group experienced a net loss for the period of $3.2M, up from $1.6M in the comparable period. The decline in revenue and gross profits detailed above were the primary drivers of this increase. Operating expenses were down by $0.4M, a reduction of 10% over the prior year.

| **Net Tangible Assets** | **31/12/18** | **31/12/17** |
|---|---|---|
| Net Tangible Asset backing per ordinary shares | 0.79 cents | 2.25 cents |

**Controlled entities acquired or disposed of**
There were no entities acquired or disposed of during the current reporting period.

**Additional dividend/distributions information**
Not applicable

**Dividend/distribution reinvestment plans**
None

**Associates and Joint Venture entities**
None

Your Directors submit their report for the half-year ended 31 December 2018.

The names of the Group's Directors in office during the half-year and until the date of this report are set out below. Directors were in office for this entire period unless otherwise stated.

Ms Sue Thomas
Brigadier General Stephen Cheney
Ms Claire Poll
Dr Bob Brookins - Appointed 13 July 2018
Ms Rosheen Garnon - Appointed 19 September 2018
Mr Craig Metz - Resigned 14 November 2018
Fmr Congresswoman Karen Thurman - Resigned 14 November 2018

## RESULTS AND REVIEW OF OPERATIONS

### Principal activities

The Group's revenue is generated from the development and sale of innovative and proprietary chemistry solutions to various partners in the textile industry. The Group's proprietary technologies, Alexicool® and Alexiflam®, serve the phase change material (PCM) and flame retardant (FR) market opportunities where Alexium' s product differentiation is clearly established. Revenue and gross profit were significantly down due to loss of a PCM customer due to product differentiation confusion. The Group has addressed this issue through the establishment of the analytical tools to differentiate PCM performance and has regained this customer recently.

Operating expenses were down $354K which represent a 10% reduction over the six months ended 31 December 2017.

Reductions in operating expenses include: professional fees ($88K), travel ($48K), administration ($80K) and compliance and external relations ($46K). The Group experienced increased employee expenses ($225K) related to realignment of the management team.

The capitalization of internal development efforts to create the next generation of commercialized products resulted in the reduction of research and development costs by $0.3M.

Interest expense for the period increased $262K which reflects the change in refinancing to a larger debt facility midway through the comparative period. Further, the Group realized a $1.0M gain on the change in the fair value of the embedded derivative related to long-term convertible notes.

The net loss attributable to members of the Group for the period under review was $3.2M, which represents a $1.6M increase over the six months ended 31 December 2017. The increase was largely a result in declines in gross profits which were down $1.2M. Further, a gain on debt extinguishment totaling $0.4M in the prior period was non-recurring.

Compared to 30 June 2018, net working capital (excluding cash) decreased $0.2M, while net assets decreased by $3.0M overall. Capitalised research and development of new proprietary intellectual property grew intangible assets by $0.5M. Finally, a term loan principal repayment of $1.0M contributed to the $1.4M total reduction in non-current liabilities.

As at 31 December 2018, the cash position was $6,015,442 (30 June 2018: $10,641,763) and the Group had 345,443,598 ordinary shares on issue (30 June 2018: 345,443,598).

**Significant changes in the state of affairs**

During the period under review, the Group made strategic hires in key management personnel and introduced Jason Lewis and Allen Reihman as Chief Financial Officer and Chief Commercial Officer respectively. Both have extensive leadership experience in the specialty chemical industry. These skill sets fit well with the planned growth and strategic vision of the company.

Changes in the board of directors included the departure of Craig Metz and Karen Thurman and saw the appointment of Rosheen Garnon, who will also serve as the chair of the audit and risk committee. Ms Garnon has had a distinguished career as a senior partner with KPMG and brings significant experience and knowledge to the company.

**SUBSEQUENT EVENTS**

No significant event has occurred since the end of the financial year that may have a significant impact on the financial position of the group.

**AUDITOR'S INDEPENDENCE DECLARATION**

The auditor's independence declaration is included on the following page

Dated this 28th day of February 2019.

Signed in accordance with a resolution of the Directors.

Dr. Bob Brookins
Chief Executive Officer

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# Auditor's Independence Declaration

## To the Directors of Alexium International Group Limited

In accordance with the requirements of section 307C of the *Corporations Act 2001*, as lead auditor for the review of Alexium International Group Limited for the half-year ended 31 December 2018. I declare that, to the best of my knowledge and belief, there have been:

a No contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the review; and

b No contraventions of any applicable code of professional conduct in relation to the review.

GRANT THORNTON AUDIT PTY LTD
Chartered Accountants

M J Hillgrove
Partner – Audit & Assurance

Perth, 28 February 2019

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

## FOR THE HALF-YEAR ENDED 31 DECEMBER 2018

| | Note | Consolidated 2018 US$ | Consolidated 2017 US$ |
|---|---|---|---|
| Revenue | 3 | 1,548,422 | 6,817,739 |
| Cost of sales | | (1,082,582) | (5,107,732) |
| **Gross Profit** | | 465,840 | 1,710,007 |
| Administrative expenses | | (2,075,027) | (1,945,112) |
| Sales and marketing expenses | | (533,259) | (557,904) |
| Research and development costs | | (184,484) | (529,933) |
| Occupancy expenses | | (304,823) | (265,756) |
| Other expenses | | (236,122) | (389,426) |
| Loss before finance costs | | (2,867,875) | (1,978,124) |
| Interest expense | | (1,392,990) | (1,131,127) |
| Gain / (Loss) on embedded derivative | 10 | 1,009,659 | 1,105,435 |
| Gain on debt extinguishment | | - | 396,592 |
| Interest received | | 18,000 | 4,030 |
| Total finance costs | | (365,331) | 374,930 |
| **Loss before tax** | | (3,233,206) | (1,603,194) |
| Tax expense | | - | - |
| **Loss for the year after tax** | | (3,233,206) | (1,603,194) |
| Other comprehensive income - Exchange differences on translation of foreign operations which will not be reclassified subsequently to profit or loss | | (29,174) | 250,090 |
| Total comprehensive loss for the year | | (3,262,380) | (1,353,104) |
| Loss for the year attributable to members of the group | | (3,233,206) | (1,603,194) |
| Total comprehensive loss for the year attributable to members of the group | | (3,262,380) | (1,353,104) |
| Basic loss per share (cents) | | (0.94) | (0.52) |
| Diluted loss per share (cents) | | (0.94) | (0.52) |

**The above statement should be read in conjunction with the accompanying notes to the financial statements.**

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

## AS AT 31 DECEMBER 2018

| | Note | Consolidated<br>31 December 2018<br>US$ | <br>30 June 2018<br>US$ |
|---|---|---|---|
| **Current Assets** | | | |
| Cash and cash equivalents | 4 | 6,015,442 | 10,641,763 |
| Trade and other receivables | | 527,148 | 487,352 |
| Inventories | | 1,293,041 | 1,516,548 |
| Other current assets | | 378,450 | 96,324 |
| **Total Current Assets** | | 8,214,081 | 12,741,987 |
| **Non-Current Assets** | | | |
| Other financial assets | | 20,788 | 20,788 |
| Property, plant and equipment | 8 | 1,836,392 | 1,955,519 |
| Intangible assets | 9 | 1,214,468 | 761,150 |
| **Total Non-Current Assets** | | 3,071,648 | 2,737,457 |
| **Total Assets** | | 11,285,729 | 15,479,444 |
| **Current Liabilities** | | | |
| Trade and other payables | | 320,094 | 263,611 |
| Borrowings | 10 | 227,381 | 243,667 |
| Other liabilities | | 425,209 | 175,182 |
| **Total Current Liabilities** | | 972,684 | 682,460 |
| **Non-Current Liabilities** | | | |
| Borrowings | 10 | 258,892 | 360,416 |
| Convertible Note | 10 | 5,844,233 | 6,820,549 |
| Derivative liability | 10 | 275,772 | 630,983 |
| **Total Non-Current Liabilities** | | 6,378,897 | 7,811,948 |
| **Total Liabilities** | | 7,351,581 | 8,494,408 |
| **NET ASSETS** | | 3,934,148 | 6,985,036 |
| **Equity** | | | |
| Contributed equity | 5 | 54,367,832 | 54,367,832 |
| Reserves | 6 | 4,910,353 | 6,423,821 |
| Accumulated losses | | (55,344,037) | (53,806,617) |
| **TOTAL EQUITY** | | 3,934,148 | 6,985,036 |

**The above statement should be read in conjunction with the accompanying notes to the financial statements.**

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

## FOR THE HALF-YEAR ENDED 31 DECEMBER 2018

| | Contributed equity<br>US$ | Option Reserve<br>US$ | Performance Right Reserve<br>US$ | Foreign Currency Reserve<br>US$ | Accumulated losses<br>US$ | Total<br>US$ |
|---|---|---|---|---|---|---|
| **Balance at 1 July 2018** | 54,367,832 | 5,634,968 | 652,423 | 136,430 | (53,806,617) | 6,985,036 |
| Loss for the period | - | - | - | - | (3,233,206) | (3,233,206) |
| Adjustment of foreign currency translation (Note 6) | - | - | - | (1,695,786) | 1,695,786 | - |
| Foreign currency translation | - | - | (2,675) | (26,499) | - | (29,174) |
| Total comprehensive income / (loss) | - | - | (2,675) | (1,722,285) | (1,537,420) | (3,262,380) |
| Transactions with owners in their capacity as owners: | | | | | | |
| Performance rights expense | - | - | 177,164 | - | - | 177,164 |
| Share-based payment in lieu of salary | - | - | 34,328 | - | - | 34,328 |
| **Balance at 31 December 2018** | 54,367,832 | 5,634,968 | 861,240 | (1,585,855) | (55,344,037) | 3,934,148 |
| | | | | | | |
| **Balance at 1 July 2017** | 45,833,450 | 5,856,738 | 619,640 | (2,287,525) | (49,853,653) | 168,650 |
| Loss for the period | - | - | - | - | (1,603,194) | (1,603,194) |
| Foreign currency translation | 1,106,958 | 95,489 | 11,083 | (946,478) | (16,962) | 250,090 |
| Total comprehensive income / (loss) | 1,106,958 | 95,489 | 11,083 | (946,478) | (1,620,156) | (1,353,104) |
| Transactions with owners in their capacity as owners: | | | | | | |
| Performance rights expense | - | - | 134,475 | - | - | 134,475 |
| Capital raise | 8,887,302 | - | - | - | - | 8,887,302 |
| Capital raising cost | (468,358) | - | - | - | - | (468,358) |
| Options exercised | 338,243 | - | - | - | - | 338,243 |
| Share-based payment | 52,728 | - | - | - | - | 52,728 |
| **Balance at 31 December 2017** | 55,750,323 | 5,952,227 | 765,198 | (3,234,003) | (51,473,809) | 7,759,936 |

**The above statement should be read in conjunction with the accompanying notes to the financial statements.**

# CONSOLIDATED STATEMENT OF CASH FLOWS

## FOR THE HALF-YEAR ENDED 31 DECEMBER 2018

| | Note | Consolidated 31 December 2018 US$ | Consolidated 31 December 2017 US$ |
|---|---|---|---|
| **Cash flows from operating activities** | | | |
| Cash receipts in the course of operations | | 1,583,636 | 7,157,332 |
| Cash payments to suppliers and employees | | (4,071,355) | (8,536,940) |
| Goods & Services tax received from ATO | | 41,731 | 27,793 |
| Interest and other costs of finance paid | | (581,676) | (429,515) |
| Interest received | | 17,999 | 4,030 |
| **Net cash flows used in operating activities** | | (3,009,665) | (1,777,300) |
| **Cash flows from investing activities** | | | |
| Increase in intangibles | | (349,351) | (268,094) |
| Purchase of property, plant and equipment | | (23,488) | (16,992) |
| Other non-current assets | | (50,000) | - |
| Proceeds from disposal of property, plant and equipment | | - | - |
| **Net cash flows used in investing activities** | | (422,839) | (285,086) |
| **Cash flows from financing activities** | | | |
| Proceeds from issue of ordinary shares | | - | 9,018,023 |
| Proceeds from exercise of share options | | - | 360,677 |
| Proceeds from borrowings | | - | 9,600,000 |
| Repayment of borrowings | | (1,136,625) | (5,083,029) |
| Transaction costs related to issues of shares | | - | (521,978) |
| Transaction costs related to loans and borrowings | | - | (453,979) |
| **Net cash flows provided by financing activities** | | (1,136,625) | 12,919,714 |
| **Net increase in cash and cash equivalents** | | (4,569,129) | 10,857,328 |
| Cash and cash equivalents at beginning of period | | 10,641,763 | 2,620,759 |
| Effect of exchange rate changes on cash and cash equivalents | | (57,192) | 3,452 |
| **Cash and cash equivalents at end of period** | 4 | 6,015,442 | 13,481,539 |

**The above statement should be read in conjunction with the accompanying notes to the financial statements.**

## 1. CORPORATE INFORMATION

The financial report of Alexium International Group Limited (the Company) for the half-year ended 31 December 2018 was authorised for issue in accordance with a resolution of the directors on 28 February 2019.

Alexium International Group Limited is a company incorporated in Australia and limited by shares, which are publicly traded on the Australian Securities Exchange.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The consolidated half-year financial statement does not include all the notes of the type normally included within the annual financial report and therefore cannot be expected to provide as full an understanding of the financial performance, financial position and financing and investing activities of the consolidated entity as the full financial report.

The consolidated half-year financial statements should be read in conjunction with the annual financial report of Alexium International Group Limited as at 30 June 2018.

It is also recommended that the consolidated half-year financial statements be considered together with any public announcements made by Alexium International Group Limited and its controlled entities ("the Group") during the half-year ended 31 December 2018 in accordance with the continuous disclosure obligations arising under the *Corporations Act 2001*.

### (a) Basis of Preparation

The consolidated half-year financial statement is a general-purpose financial report, which has been prepared in accordance with the requirement of the *Corporations Act 2001*, applicable Accounting Standards, including AASB 134 "Interim Financial Reporting" and other mandatory professional reporting requirements. The consolidated half-year financial statement has been prepared on a historical cost basis, except where stated. For the purpose of preparing the consolidated half-year financial statements, the half-year has been treated as a discrete reporting period.

These financial statements and notes represent a change in presentation currency from the Australian Dollar to the US Dollar and as such is considered a change in accounting policy applied retrospectively. The change in reporting currency was initially implemented on the annual reports dated 30 June 2018. This change aligns the company's financial reporting with the nature of the business operations which primarily occur in the United States. This financial report, the comparative period within, and all future financial reports, will therefore be presented in US Dollars.

### (b) New and Revised Accounting Requirements Applicable to the Current Half-Year Reporting Period

In the half-year ended 31 December 2018, the Company has reviewed all new and revised Standards and Interpretations issued by the AASB that are relevant to its operations and effective for annual reporting periods beginning on or after 1 July 2018.

These accounting policies are consistent with Australian Accounting Standards and with International Financial Reporting Standards. Alexium International Group Limited has adopted all the new and revised Standards and Interpretations issued by the Australian Accounting Standards Board (the AASB) that are relevant to their operations and effective for the current half-year. The application of the new or revised Standards and Interpretations does not have a material impact on the accounting policies or disclosures.

**AASB 9 *Financial Instruments***

*AASB 9: Financial Instruments* replaces *AASB 139: Financial Instruments; Recognition and Measurement Requirements* introduces new requirements for the classification and measurement of financial assets and liabilities and includes a forward-looking 'expected loss' impairment model on credit losses. These requirements improve and simplify the approach for classification and measurement of financial assets compared with the requirements of AASB 139. The effective date is for annual reporting periods beginning on or after 1 January 2018.

AASB 9 introduces changes to classification and measurement of financial assets. Subsequent to initial recognition, financial assets are measured at:

- Amortised cost
- Fair value through profit or loss (FVPL)
- Fair value through other comprehensive income (FVOCI)

Under the new model, FVPL is a residual category. Financial assets are classified as FVPL if they do not meet the criteria of FVOCI or amortised cost.

| AASB 9 | AASB 139 | |
|---|---|---|
| **Classification and measurement** | **Classification** | **Resulting measurement** |
| **Amortised cost** | Loans and receivables | Amortised cost |
| **FVPL** | FVPL | FVPL |
| **FVOCI** | Available for sale | FVOCI |
| | Held to maturity | Amortised cost |

Further, AASB 9 introduces a new impairment model based on expected credit losses. This model makes use of more forward-looking information and applies to all financial instruments that are subject to impairment accounting. A 'simplified' model applies for trade receivables with maturities of less than 12 months, which make up the bulk of the Group's financial assets. Under the 'simplified' approach, short term trade receivables will recognise 'lifetime expected credit losses' from the first reporting period. These are the credit losses expected over the term of the receivable.

The Group makes use of a simplified approach in accounting for trade and other receivables as well as contract assets and records the loss allowance at the amount equal to the expected lifetime credit losses. In using this practical expedient, the Group uses its historical experience, external indicators and forward- looking information to calculate the expected credit losses using a provision matrix. At the reporting date expected lifetime credit losses are nil.

Under AASB 9, fair value changes of liabilities designated at FVPL are presented as follows (AASB 9.5.7.7):

- The fair value changes attributable to changes in the liability's credit risk are recognised in OCI
- The remaining changes in the fair value are recognised in profit or loss

As the accounting for financial liabilities remains largely unchanged from AASB 139, the Group's financial liabilities were not impacted by the adoption of AASB 9. The Group's financial liabilities include borrowings, trade and other payables and derivative financial instruments. Financial liabilities are initially measured at fair value, and, where applicable, adjusted for transaction costs unless the Group designated a financial liability at fair value through profit or loss.

Subsequently, financial liabilities are measured at amortised cost using the effective interest method except for derivatives and financial liabilities designated at FVPL, which are carried subsequently at fair value with gains or losses recognised in profit or loss

Financial Instruments held by the Group and Assessment of Impact:

| Financial Assets/Liabilities | Comparison and Impact | |
|---|---|---|
| | **AASB 139 (Current Standard)** | **AASB 9 (New Standard)** |
| **Loans and receivables**<br>- **Trade and other receivables** | Recognised and carried at original invoice amount less an allowance for any uncollectible amounts. An estimate for doubtful debts is made when collection of the full amount is no longer probable. Bad debts are written off when identified. | No change in initial recognition, impairment to be recognised using the 'simplified model'. An estimate of bad debts expenses must be provided in period of recognition of the receivable. |
| **FVPL**<br>- **Other financial assets** | Financial assets are recognised when the Group becomes a party to the contractual provisions of the financial instrument and are measured initially at fair value adjusted for transaction costs, except for those carried at fair value through profit or loss which are measured initially at fair value. | No change in initial recognition and subsequent measurement. |
| **Trade and other payables** | Trade payables and other payables are carried at amortised cost. | No change in initial recognition and subsequent measurement.. |
| **Borrowings and derivatives**<br>- **Convertible notes** | There is no difference in accounting for derivative liabilities and borrowings between AASB 139 and AASB 9. | There is no difference in accounting for derivative liabilities and borrowings between AASB 139 and AASB 9. |

The only expected impact on the Group from implementation of AASB 9 is the application of the 'simplified model' for impairment of trade and other receivables, most of which have maturities less than 12 months. Due to the short maturities of the trade and other receivables, we do not expect retrospective application to be necessary. The company has undertaken a detailed assessment of the standard and determined that there is no impact on the transactions and balances recognised in the financial statements.

**AASB 15 *Revenue from Contracts with Customers***

*AASB 15: Revenue from Contracts with Customers* replaces *AASB 118: Revenue, AASB 111: Construction Contracts* and several revenue-related Interpretations. The introduction of AASB 15 is intended to replace existing accounting guidance and introduce a comprehensive revenue recognition model aimed at enhancing comparability of revenue recognition practices across entities, industries, jurisdictions and capital markets. In summary, AASB 15:

- establishes a new revenue recognition model;
- changes the basis for deciding whether revenue is to be recognised over time at a point in time;
- provides a new and more detailed guidance on specific topics (e.g. multiple element arrangements, variable pricing, rights of return and warranties); and
- expands and improves disclosures about revenue.

*AASB 15* outlines the accounting requirements for when and how revenue is recognized using one core principle: "Recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services." This is accomplished by using a 5-step recognition process consisting of the following:

1.) *Identifying the contract with a customer* – The Group receives written communication from its customers in the form of purchase orders or emails from customers. Each party's rights are clearly defined including volumes, price, payment terms, and shipping date. Purchase orders from customers have a financial consideration that is based on the price per pound of product being sold at a given volume of chemistry requested by the customer. A sales order is not issued until it is probable the consideration is collectable. All customers are evaluated at inception, and at every purchase order to review outstanding balances and probability of payment.

2.) *Identifying the performance obligations* - Management has identified the sole performance obligation of these contracts to be the complete transfer of the goods to the customer. In accordance with AASB 15.24, there are no additional goods or services, warranties, repurchase agreements, or public return policies, or other limitations of the seller that would not allow its performance obligation to be considered complete at this time of transfer. The Group considers the transfer complete in line with "FOB Shipping Point" International Commercial Terms and recognizes the completion of this performance obligation when the chemicals are shipped.

3.) *Determining the transaction price* - Pursuant to AASB 15.47, the Group considers the transaction price to be the amount of consideration to which it expects to be entitled in exchange for transferring promised goods to a customer. As and when a performance obligation is satisfied an entity should recognize revenue to the extent of the transaction price allocated to that performance obligation taking into account the impact of constraints arising from variable consideration. While the transaction prices vary across customers, this does not constitute variable consideration. Discounts do occur in the normal course of business, but these considerations are not determined beyond inception of the purchase order nor are they promised or implied. They are also not retroactive in nature and would impact prices only on future purchases. With this in mind, and pursuant to AASB 15.20, these changes in price would constitute a separate contract as the performance obligations for the new price would be "distinct" and the new price would reflect appropriate adjustments to that price to reflect the circumstances of the particular contract.

4.) *Allocating the transaction price to the performance obligations* - Given that there is a single performance obligation to each contract, and the price is clearly identified in the contract, the Group allocates the full contract price to the transfer of goods discussed in Step 2.

5.) *Recognize revenue when/as performance obligation(s) are satisfied-* The final step is to determine when revenue should be recognized for the single performance obligation: whether over time or at a point in time. In accordance with the standard, at contract inception an entity must determine whether control of the goods transfer to the customer over time using the criteria outlined in AASB 15.35-37. The Group considered the criteria and concluded that that it is appropriate to recognize revenue at a point in time. For each contract, management must determine the specific point in time at which it is appropriate to recognize revenue for the contract.

AASB 15 states that an entity shall consider indicators of the transfer of control, which include, but are not limited to, the following:

- The entity has a present right to payment for the asset
- The customer has legal title to the asset
- The entity has transferred physical possession of the asset
- The customer has the significant risks and rewards of ownership of the asset
- The customer has accepted the asset

As described above, AASB 15 provides certain indicators of the transfer of control. The list is not compressive, nor must the conditions all be met for an entity to conclude that control of a good or service has been transferred. When assessing control, an entity should evaluate the point in time at which the customer has the ability to direct the use of, and obtain substantially all of the remaining benefits from, the asset. Management recognizes that the application of the control criteria requires judgment and there are various factors to consider. Accordingly, management believes that control is transferred in accordance with the shipping terms, as this is the point that the customer obtains legal title, when customer obtains the risk and rewards of ownership, and when the customer has an obligation to pay for the asset. Once this performance obligation is satisfied and control of the asset has been transferred revenue is recognized as earned.

The Group has evaluated adoption methods, and determined the modified retrospective is most appropriate. Under the modified retrospective method, the cumulative impact (if any) will be recognised at the date of initial application (1 July 2018).

While the approach under AASB 15 is significantly different than the previous literature, due to the nature of the Group's business, management has identified no impact to the timing of revenue recognition. Management recognizes that contracts / arrangements could change as the Company enters into new markets and expands its customer base and will continue to monitor any changes to ensure the accounting is in line with the context of AASB 15.

**(c) Impact of standards issued but not yet applied by the Group**

**AASB 16 *Leases***

This standard is applicable to annual reporting periods beginning on or after 1 January 2019. Under the new standard, a lessee is required to: (a) recognise all right of use assets and lease liabilities, with the exception of short-term (under 12 months) and low value leases, on the statement of financial position. The liability is initially measured at the present value of future lease payments for the lease term; (b) recognise depreciation of right of use assets and interest on lease liabilities in profit or loss over the lease term; and (c) separate the total amount of cash paid into a principal portion (presented within financing activities) and interest portion (which the Group presents in operating activities) in the statement of cash flows.

The new AASB 16:

- replaces AASB 117 Leases and some lease-related Interpretations
- requires all leases to be accounted for 'on-balance sheet' by lessees, other than short-term and low value asset leases
- provides new guidance on the application of the definition of lease and on sale and lease back accounting
- largely retains the existing lessor accounting requirements in AASB 117
- requires new and different disclosures about leases

The entity is yet to undertake a detailed assessment of the impact of AASB 16. However, based on the entity's preliminary assessment, the Standard is expected to have a material impact on the transactions and balances recognised in the financial statements when it is first adopted for the year ending 30 June 2020. The group has commitments for minimum lease payments totalling $756,947 over the next five years and expects the impact of the change in accounting standard to approximate that amount.

The directors have also reviewed all other new Standards and Interpretations that have been issued but are not yet effective for the half-year ended 31 December 2018. As a result of this review the directors have determined that there is no impact, material or otherwise, of the new and revised Standards and Interpretations on the Company and, therefore, no change is necessary to Company accounting policies. These accounting policies are consistent with Australian Accounting Standards and with International Reporting Standards.

**(c) Principles of Consolidation**

The consolidated half-year financial statements incorporate all assets, liabilities and results of the parent (Alexium International Group Limited) and all subsidiaries (including any structured entities). Subsidiaries are entities the parent controls. The parent controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and can affect those returns through its power over the entity.

The assets, liabilities and results of all subsidiaries are fully consolidated into the financial statements of the Group from the date on which control is obtained by the Group. The consolidation of a subsidiary is discontinued from the date that control ceases. Intercompany transactions, balances and unrealised gains or losses on transactions between Group entities are fully eliminated on consolidation. Accounting policies of subsidiaries have been changed and adjustments made where necessary to ensure uniformity of the accounting policies adopted by the Group.

Equity interests in a subsidiary not attributable, directly or indirectly, to the Group are presented as "non- controlling interests". The Group initially recognises non-controlling interests that are present ownership interests in subsidiaries and are entitled to a proportionate share of the subsidiary's net assets on liquidation at either fair value or at the non-controlling interests' proportionate share of the subsidiary's net assets. Subsequent to initial recognition, non-controlling interests are attributed their share of profit or loss and each component of other comprehensive income. Non-controlling interests are shown separately within the equity section of the statement of financial position and statement of comprehensive income.

**(d) Significant Accounting Policies**

*Share-based payments*

Employees (including senior executives) and suppliers of the Group receive remuneration in the form of share-based payments, whereby employees and suppliers render services as consideration for equity instruments (equity-settled transactions). The cost of equity-settled transactions is determined by the fair

value at the date when the grant is made using an appropriate valuation model, further details of which are given in Note 2(f).

That cost is recognised in employee benefits expense (for employees) and respective profit or loss accounts (for suppliers), together with a corresponding increase in equity, over the period in which the service and, where applicable, the performance conditions are fulfilled (the vesting period). The cumulative expense recognised for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The expense or credit in the statement of profit or loss for a period represents the movement in cumulative expense recognised as at the beginning and end of that period.

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

No expense is recognised for awards that do not ultimately vest because non-market performance and/or service conditions have not been met. Where awards include a market or non-vesting condition, the transactions are treated as vested irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

When the terms of an equity-settled award are modified, the minimum expense recognised is the grant date fair value of the unmodified award, provided the original terms of the award are met. An additional expense, measured as at the date of modification, is recognised for any modification that increases the total fair value of the share-based payment transaction or is otherwise beneficial to the employee. Where an award is cancelled by the entity or by the counterparty, any remaining element of the fair value of the award is expensed immediately through profit or loss.

**(e) Embedded Derivative**

The Group has issued liability classified embedded derivatives in connection with its convertible debt. An embedded derivative is a component of a hybrid instrument that also includes a non-derivative host contract with the effect that some of the cash flows of the combined instrument vary in a way similar to a standalone derivative.

The embedded derivative is separated from the host contract and accounted for as a derivative if the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract. The embedded derivative is measured at fair value with changes in value being recorded in profit or loss.

### (f) Foreign Currency Translation

The consolidated financial statements are presented in United States dollars ($USD). The functional currency of the parent company is Australian Dollar and the functional currencies of the Company's overseas subsidiaries are the Pound Sterling and the US Dollar.

Transactions in foreign currencies are initially recorded in the functional currency at the exchange rates ruling at the date of the transaction and exchange differences are recognised in profit or loss.

As at the reporting date the assets and liabilities of these overseas subsidiaries are translated into the presentation currency of the Group at the rate of exchange ruling at the balance sheet date. Long Term assets and Equity accounts are translated at historical rates. The statements of profit and loss is translated at the weighted average exchange rates for the year. All resulting exchange differences are recognised on other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the date of the initial transaction. All resulting exchange differences are recognised on other comprehensive income.

Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. All resulting exchange differences are recognised on other comprehensive income.

On disposal of a foreign entity, the cumulative exchange differences are reclassified to profit or loss as part of the gain or loss on sale.

### (g) Significant Accounting Judgements, Estimates and Assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below. The Group based its assumptions and estimates on parameters available when the condensed consolidated half-year financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

*Share-based payments*

Estimating fair value for share-based payment transactions requires determination of the most appropriate valuation model, which depends on the terms and conditions of the instrument. This estimate also requires determination of the most appropriate inputs to the valuation model including the expected life of the share option or appreciation right, probability of milestone, employee turnover and reasonable estimate assumptions. The Group measures the cost of cash-settled transactions with employees using the fair value at the date when the grant is made using an appropriate valuation model. For cash-settled share-based payment transactions, the liability needs to be remeasured at the end of each reporting period up to the date of settlement, with any changes in fair value recognised in the profit or loss. This requires a reassessment of the estimates used at the end of each reporting period. For the measurement of the fair value of equity-settled transactions with employees the Group applies milestone probabilities to the share price at issue date while employee options use the fair value at the grant date.

**(h) Segment Reporting**

For management purposes, the Group is organised into one main operating segment which involves the development, licensing and sale of its proprietary flame retardant (FR) and phase change material (PCM) chemistries. All of the Group's activities are interrelated and discrete financial information is reported to the Chief Executive Officer (Chief Operating Decision Maker) as a single segment. Accordingly, all significant operating decisions are based upon analysis of the Group as one segment. The financial results from this segment are equivalent to the financial statements of the Group as a whole.

**(i) Going Concern**

These financial statements have been prepared on the basis of going concern, which contemplates the continuity of normal business activities and the realisation of assets and settlement of liabilities in the ordinary course of business. During the six months ended 31 December 2018, the Group has generated a loss for the period of $3,233,206 and the Group has used cash in operations of $3,009,665. The company is currently negotiating preferred sales arrangements for a number of the company's products along with actively and methodically reducing selling, general and administrative expenses. The company is continuing to undertake the development of products for current and possible future customers.

The director's assessment is based on continued growth in revenue and commercial sales which the company expects to continue over the next twelve months and continued reduction in expenses. The directors are satisfied that there is sufficient working capital to support the committed research and commercialization activities over the next 12 months and the Group has the ability to realize its assets and pay its liabilities and commitments in the normal course of business. Accordingly, the directors have prepared the financial report on a going concern basis. Should the Group not be able to achieve its forecast sales, increased margins and or cost savings, the Group may be unable to continue as a going concern, in which case it may be required to realise its assets and or settle its liabilities other than in the ordinary course of business and at amounts different from those stated in the financial report. Therefore, a material uncertainty exists relating to the entity's ability to continue as a going concern.

## 3. REVENUE

| | Consolidated | |
|---|---|---|
| | **31 December 2018 US$** | **31 December 2017 US$** |
| Sale of goods | 1,548,422 | 6,817,739 |
| Interest income | 18,000 | 4,030 |
| | 1,566,422 | 6,821,769 |

## 4. CASH AND CASH EQUIVALENTS

For the purpose of the half-year cash flow statement, cash and cash equivalents are comprised of the following:

| | Consolidated | |
|---|---|---|
| | **31 December 2018 US$** | **30 June 2018 US$** |
| Cash at bank and in hand | 6,015,442 | 10,641,763 |
| | 6,015,442 | 10,641,763 |

## 5. CONTRIBUTED EQUITY

### (a) Shares Issued

The number of ordinary shares on issue at 31 December 2018 is 345,443,598 (30 June 2018: 345,443,598).

| **Movements in Share** | **31 December 2018** | |
|---|---|---|
| | **Number** | **$** |
| Balance of ordinary shares at beginning of period | 345,443,598 | 54,367,832 |
| Shares issued on conversion of options | - | - |
| Employee share plan | - | - |
| Capital raising | - | - |
| Capital raising costs | - | - |
| Balance of ordinary shares at end of period | 345,443,598 | 54,367,832 |

### (b) Share Options Issued

At 31 December 2018, Nil (30 June 2018: Nil) free attaching unlisted options were outstanding and 2,400,000 (30 June 2018: 2,400,000) share-based payment options outstanding. In the event of winding up of the Company, ordinary shareholders rank after all other shareholders and creditors and are fully entitled to any proceeds of liquidation.

**Movements in Share Options**

| Year 2019 | Grant date | Exercise Price | Expiry date | Balance at beginning of year Number | Granted during the year Number | Exercised during the year Number | Expired during the year Number | Balance at end of year Number |
|---|---|---|---|---|---|---|---|---|
| Unlisted options | 01/10/15 | A$0.75 | 30/09/20 | 1,500,000 | - | - | - | 1,500,000 |
| Unlisted options | 04/11/16 | A$0.75 | 04/11/19 | 300,000 | - | - | - | 300,000 |
| Unlisted options | 04/11/16 | A$1.25 | 04/11/19 | 300,000 | - | - | - | 300,000 |
| Unlisted options | 04/11/16 | A$1.75 | 04/11/19 | 300,000 | - | - | - | 300,000 |
| | | | | 2,400,000 | - | - | - | 2,400,000 |

## 5. CONTRIBUTED EQUITY (Cont)

### (b) Performance Rights Issued

The number of performance rights on issue at 31 December 2018 is 1,237,780 (30 June 2018: 1,324,000).

**Movements in Performance Rights**

| | **31 December 2018** Number | **31 December 2018** US$ |
|---|---|---|
| Balance of performing rights at 1 July 2018 | 1,324,000 | 54,272 |
| Performance rights forfeited | (755,200) | (223,697) |
| Performance rights granted | 668,980 | 57,710 |
| Change in fair value of performance rights | - | 345,826 |
| Foreign currency translation differences | - | (2,675) |
| Balance of performance rights at 31 December 2018 | 1,237,780 | 231,436 |

At the start of the reporting period there were 1,324,000 performance rights outstanding. As at 31 December 2018, forfeitures totaled 755,200 and additional grants totaling 668,980. All rights were fully vested and fully expensed in the six months ended 31 December 2018.

The granted performance rights were valued using a Black-Scholes option pricing model with a determined grant date value of A$0.12 per right. Performance rights issued as part of the performance rights balance at 1 July 2018 that were not forfeited were determined to have a fair value of A$0.42 per right at grant date.

The value of the combined plans is $231,436, of which $54,272 was previously recognized. The six- month period ending 31 December 2018 has a performance rights expense of $177,164.

## 6. RESERVES

| | **Option premium reserve US$** | **Performance rights reserve US$** | **Foreign currency translation reserve US$** | **Total Reserve US$** |
|---|---|---|---|---|
| Balance at 30 June 2018 | 5,634,968 | 652,423 | 136,430 | 6,423,821 |
| Adjustment of foreign currency translation[1] | - | - | (1,695,786) | (1,695,786) |
| Performance rights expense | - | 177,164 | - | 177,164 |
| Shares in lieu of director fees | - | 34,328 | - | 34,328 |
| Foreign currency translation differences arising during the year | - | (2,675) | (26,499) | (29,174) |
| Balance at 31 December 2018 | 5,634,968 | 861,240 | (1,585,855) | 4,910,353 |

1.) Accumulated Losses and Foreign Currency Reserve balances at 1 July 2018 were adjusted from the 30 June 2018 balances reported in the FY 2018 Annual Report to reflect a reallocation of $1,695,786 between the two accounts.

## 7. SHARE-BASED PAYMENTS

### (a) Recognised share-based payment expenses – performance rights

Performance rights were issued as part of employee incentives to operational and management staff under the Company's Performance Rights Plan approved by Shareholders on 21 November 2016. The value of the combined plans is $231,436, of which $54,272 was previously recognized. The six-month period ending 31 December 2018 has a performance rights expense of $177,164.

Based on the assumptions set out below, the performance rights issued during the period were ascribed to the following value:

| | Beginning Balance | Forfeitures | Granted | Change in FV | Total |
|---|---|---|---|---|---|
| (No.) of rights issued | 1,324,000 | (755,000) | 668,980 | - | 1,237,980 |
| Grant date | 16 November 2017 | 16 November 2017 | 3 December 2018 | 3 December 2018 | |
| Probability discount | Nil | Nil | Nil | Nil | |
| Vesting date | 12/31/2018 | 12/31/2018 | 12/31/2018 | 12/31/2018 | |
| Market Price (AUD) | 0.42 | 0.42 | 0.12 | 0.12 | |
| Exercise price | Nil | Nil | Nil | Nil | |
| Fair Value | $54,272 | ($223,697) | $57,710 | $343,151 | $231,436 |

| Performance rights expense | 31 December 2018 US$ |
|---|---|
| Change in FV or performance rights on issue at 30 June 2018 | 343,151 |
| Performance rights granted | 57,710 |
| Forfeitures | (223,697) |
| Total performance rights expense | $177,164 |

### (b) Shares in lieu of directors' fees

At the reporting date there is a current liability of $34,328 for 359,195 shares to be issued to directors in lieu of director remuneration. The salary sacrifice plan was approved at the 2018 AGM (Resolutions 4-6) and the share allocations will be issued in equal portions on 31 March 2019 and 30 September 2019. The approved share issuance is for the twelve-month period 1 October 2018 through 30 September 2019 and valued using the 14-day VWAP of the company's shares to 14 September 2018 and the USD/AUD exchange rate on the same day.

## 8. PROPERTY, PLANT AND EQUIPMENT

| Cost or valuation | Furniture & Equipment US$ | Leased Assets US$ | Construction In Progress US$ | Total US$ |
|---|---|---|---|---|
| Balance at 30 June 2018 | 1,669,961 | 1,006,817 | - | 2,676,778 |
| Additions | 26,297 | - | 16,577 | 42,874 |
| Disposals | - | - | - | - |
| Foreign exchange movements | - | - | - | - |
| **Balance at 31 December 2018** | 1,696,258 | 1,006,817 | 16,577 | 2,719,652 |
| | | | | |
| **Depreciation and impairment** | | | | |
| Balance at 30 June 2018 | 477,906 | 243,353 | - | 721,259 |
| Depreciation | 94,842 | 67,170 | - | 162,012 |
| Disposals | - | - | - | - |
| Foreign exchange movements | (11) | - | - | (11) |
| **Balance at 31 December 2018** | 572,737 | 310,523 | - | 883,260 |
| | | | | |
| **Net book value** | | | | |
| At 30 June 2018 | 1,192,055 | 763,464 | - | 1,955,519 |
| At 31 December 2018 | 1,123,521 | 696,294 | 16,577 | 1,836,392 |

## 9. INTANGIBLE ASSETS

| Cost or valuation | Patents and Intellectual Property US$ | Capitalized Development Costs US$ | Software US$ | Total US$ |
|---|---|---|---|---|
| Balance at 30 June 2018 | 202,339 | 662,717 | 15,377 | 880,433 |
| Additions | - | 460,158 | - | 460,158 |
| Disposals | - | - | - | - |
| Foreign exchange movements | - | - | - | - |
| **Balance at 31 December 2018** | 202,339 | 1,122,875 | 15,377 | 1,340,591 |
| | | | | |
| **Depreciation and impairment** | | | | |
| Balance at 30 June 2018 | 113,645 | - | 5,638 | 119,283 |
| Amortization | 4,875 | - | 1,954 | 6,829 |
| Disposals | - | - | - | - |
| Foreign exchange movements | 11 | - | - | 11 |
| **Balance at 31 December 2018** | 118,531 | - | 7,592 | 126,123 |
| | | | | |
| **Net book value** | | | | |
| At 30 June 2018 | 88,694 | 662,717 | 9,739 | 761,150 |
| At 31 December 2018 | 83,808 | 1,122,875 | 7,785 | 1,214,468 |

## 9. INTANGIBLE ASSETS (Cont)

Intangible assets have finite useful lives. The current amortisation charges for intangible assets are included under depreciation and amortisation expense per the consolidated statement of profit or loss and other comprehensive income. The ultimate recoupment of costs carried forward for intellectual property is dependent on the successful development and commercial exploitation of the Group's technology. Amortisation will be calculated on a straight-line basis over the average useful life of the assets and begins once the asset is placed in service.

## 10. BORROWINGS

**Convertible note** - On 29 September 2017 the Company entered a convertible note, secured by the company's assets, with institutional lenders to refinance the Group's previous debt. The USD$10 million note carries a thirty-six-month term and 13.5% annual interest rate and is convertible into ordinary shares upon a change of control. The Borrowings have been measured at amortised cost, a gain or loss is recognised in profit or loss when the borrowings are derecognised or impaired, and through the amortisation process. The Company allocates interest payments over the term of the borrowings at a constant rate on the carrying value. $5 million of the proceeds from the funding was used to pay down the loan facility originated on 30 December 2016, which carried a shorter term, higher interest rate, and greater warrant coverage.

**Capital leases** - The Group leases certain equipment under financing leases expiring in various years through 2023, with terms ranging from 3 to 5 years. The assets and liabilities under financing leases are initially recorded at the lower of the present value of the minimum lease payments or the fair value of the asset.

| | 31 December 2018 US$ | 30 June 2018 US$ |
|---|---|---|
| Current capital leases payable | 227,381 | 243,667 |
| Total Current Borrowings | 227,381 | 243,667 |
| | | |
| Loan facility | 5,844,233 | 6,820,549 |
| Non-current leases payable | 258,892 | 360,416 |
| Total Non-Current Borrowings | 6,103,125 | 7,180,965 |
| | | |
| Total Borrowings | 6,330,506 | 7,424,632 |

## 10. BORROWINGS (Cont)

*Derivative liability*

Under the agreement, warrants will be issued up to 20% of the borrowings, with 47 cents (adjusted to 35 cents as being the price under the December 2017 placement) exercise price, for a period of five years. The borrowing is a hybrid instrument with liability and derivative liability components. The warrants and convertible note option include an embedded derivative relating to the exercise price that needs to be measured at fair value and separated with changes in value being recorded in profit or loss. Derivative liability has been valued using a Black-Scholes option pricing model which approximates the results that would have been achieved by using a binomial lattice Monte Carlo simulation. Pricing model inputs include; exercise price (0.35), risk-free rate (2.050%), remaining term (convertible note – 1.75 years, warrants – 3.75 years) and volatility (71.85%).

| | 31 December 2018 US$ | 30 June 2018 US$ |
|---|---|---|
| Derivative liability | 275,772 | 630,983 |
| Total derivative liability | 275,772 | 630,983 |

| | 31 December 2018 US$ | 31 December 2017 US$ |
|---|---|---|
| Change in fair value of derivative liability recorded at profit or loss | 1,009,659 | 1,105,435 |
| Total Change in fair value of derivative liability | 1,009,659 | 1,105,435 |

*Gain on debt extinguishment*

The previous loan facility of $5 million, which, was paid down at the origination of the current facility included 4,166,667 attached warrants. The warrants included an embedded derivative relating to the exercise price that was measured at fair value and separated with changes in value being recorded in profit or loss. At the time of extinguishment, the derivative liability had a carrying value of $396,591, the disposal of which is recognised on the consolidated profit and loss statement.

| | 31 December 2018 US$ | 31 December 2017 US$ |
|---|---|---|
| Gain on debt extinguishment | - | 396,592 |
| | - | 396,592 |

## 11. DIVIDENDS

No dividend has been declared or paid during the half-year or the previous corresponding period.

The Company does not have any franking credits available for current or future years, as it is not in a tax paying position.

## 12. SUBSEQUENT EVENTS

No event has occurred since the end of the financial year that may have a significant impact on the financial position of the Group.

## 13. COMMITMENTS AND CONTINGENCIES

**(a) Commitments**
There have been no material changes to the commitments as disclosed in the annual report to 30 June 2018.

**(b) Contingencies**
There have been no material changes to the contingencies as disclosed in the annual report to 30 June 2018.

# DIRECTORS' DECLARATION

In accordance with a resolution of the Directors of Alexium International Group Limited, I state

that: In the opinion of the directors:

(a) the financial statements and notes of the Group are in accordance with the *Corporations Act 2001*, including:

(i) giving a true and fair view of the financial position as at 31 December 2018 and the performance for the half-year ended on that date of the Consolidated entity; and

(ii) complying with Accounting Standard AASB 134 *Interim Financial Reporting* and Corporations Regulations 2001;

(iii) there are reasonable grounds to believe that the Group will be able to pay its debts as and when they become due and payable.

On behalf of the Board

Dr. Bob Brookins
Director, Chief Executive Officer
28 February 2019

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# Independent Auditor's Review Report

## To the Members of Alexium International Group Limited

### Report on the review of the half-year financial report

**Conclusion**

We have reviewed the accompanying half-year financial report of Alexium International Group Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 31 December 2018, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the half-year ended on that date, a description of accounting policies, other selected explanatory notes, and the directors' declaration.

Based on our review, which is not an audit, nothing has come to our attention that causes us to believe that the half-year financial report of Alexium International Group Limited does not give a true and fair view of the financial position of the Group as at 31 December 2018, and of its financial performance and its cash flows for the half-year ended on that date, in accordance with the *Corporations Act 2001*, including complying with Accounting Standard AASB 134 *Interim Financial Reporting*.

**Material uncertainty related to going concern**

We draw attention to Note 2(i) in the financial report, which indicates that the Group incurred a net loss of $3,233,206 during the half-year ended 31 December 2018 and, as of that date, the Group had net operating cash outflows of $3,009,665. As stated in Note 2(i), these events or conditions, along with other matters as set forth in Note 2(i), indicate that a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern. Our conclusion is not modified in respect of this matter.

**Directors' responsibility for the half-year financial report**

The Directors of the Company are responsible for the preparation of the half-year financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the Directors determine is necessary to enable the preparation of the half-year financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

## Auditor's responsibility

Our responsibility is to express a conclusion on the half-year financial report based on our review. We conducted our review in accordance with Auditing Standard on Review Engagements ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity*, in order to state whether, on the basis of the procedures described, we have become aware of any matter that makes us believe that the half-year financial report is not in accordance with the *Corporations Act 2001* including giving a true and fair view of the Group's financial position as at 31 December 2018 and its performance for the half-year ended on that date, and complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*. As the auditor of Alexium International Group Limited, ASRE 2410 requires that we comply with the ethical requirements relevant to the audit of the annual financial report.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

## Independence

In conducting our review, we have complied with the independence requirements of the *Corporations Act 2001.*

Grant Thornton

GRANT THORNTON AUDIT PTY LTD
Chartered Accountants

M J Hillgrove
Partner – Audit & Assurance

Perth, 28 February 2019