# ALEXIUM INTERNATIONAL GROUP LIMITED

HALF-YEAR REPORT
For the Six Months Ended 31 December 2019
PRESENTED IN US DOLLARS

ABN 91 064 820 408

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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 2019 to 31 December 2019 |
| Previous reporting period: | 01 July 2018 to 31 December 2018 |

| | | | | |
|---|---|---|---|---|
| Revenue from ordinary activities | Up | 105% | to | US$ 3,177,052 |
| Loss from ordinary activities after tax attributable to members | Up | 35% | to | US$ (4,379,145) |
| Net loss for the period attributable to members | Up | 35% | to | US$ (4,379,145) |

| 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*

Sales climbed year over year by 105% due to increased sales in the PCM product line. This is due to continued commercialization of the established products along with development of new products to meet customer needs. The effort also resulted in a ten-percentage point increase in gross margin.

The loss before finance costs of $1.5M improved 49% versus the comparative period due to an increase in sales and decrease in overall operating costs. The operating period costs reduction of $0.6M or 18% was the direct result of increased oversight of costs, headcount reductions along with management of services.

| Net Tangible Assets | 31-Dec-19 | 30-Jun-19 |
|---|---|---|
| Net Tangible Asset backing per ordinary shares[1] | US 0.08 cents | US (0.40) cents |

[1] Net Tangible Assets has been calculated excluding right of use assets in the amount of $848,226.

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 2019.

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 Rosheen Garnon
Brigadier General Stephen Cheney
Ms Claire Poll
Dr Bob Brookins
Mr Simon Moore (appointed 1 February 2020)

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 up significantly due to the implementation of the analytics to demonstrate the increased effectiveness of the Alexicool® product line to customers along with focus on the commercialization of our core technologies.

Operating expenses were down $603K which represent a 18% reduction over the six months ended 31 December 2018.

Reductions in operating expenses include: payroll and related expenses ($338K), professional fees ($180K) and travel ($82K). The Group experienced increases in insurances ($25K) and all other operating expenses were down ($28K).

Interest expense for the period increased $205K due to the increase in the effective interest rate amortization and final interest payment on the GPB loan facility. Cash interest decreased $49K due to the $1M principal payment made in Dec 2018. The Group realized a $1.5M loss on the extinguishment of the debt facility on 31 December 2019 along with a $0.2M gain on 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 $4.4M, which represents a $1.1M increase over the comparative period. The increase in loss was largely a result in the extinguishment of the debt facility and impacted by a large gain in the embedded derivative in the comparative period. The loss before financing costs improved 49% to $1.5M versus $2.9M in the comparative period due to increase in gross profit and reduction in operating expenses.

As at 31 December 2019, the cash position was $3,126,423 (30 June 2019: $3,843,343) and the Group had 538,973,209 ordinary shares on issue (30 June 2019: 345,443,598).

In December 2019 the Group secured A$22.3M in funding through a combination of capital raise and a convertible note. The capital raise included a A$8.3M non-renounceable entitlement offer and a placement of A8.8M. The convertible note for $A5.15M is for a four-year-term with 6% coupon interest paid quarterly with a $A0.075 conversion price. The funds were used to fully retire the existing 13.5% interest bearing debt facility on 31 December 2019 which was due in September 2020. The balance of the funds will be employed for working capital to support the growth of the Group.

SUBSEQUENT EVENTS

The Company issued shares in January 2020 related to a placement of 95,483,333 @ A$0.06 per share for a total of A$5.7M (before capital raising costs) related to the prospectus lodged in November 2019.

AUDITOR'S INDEPENDENCE DECLARATION

The auditor's independence declaration is included on the following page Dated this 27th day of February 2020.

Signed in accordance with a resolution of the Directors.

Dr. Bob Brookins
Chief Executive Officer
Dated 27 February 2020

Grant Thornton

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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 period ended 31 December 2019, 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

Grant Thornton Audit Pty Ltd
Chartered Accountants

M R Leivesley
Partner – Audit & Assurance

Sydney, 27 February 2020

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE SIX MONTHS ENDED 31 DECEMBER 2019

| | Note | 31-Dec-19 US$ | 31-Dec-18 US$ |
|---|---|---|---|
| Revenue | 3 | **3,177,052** | 1,548,422 |
| Cost of sales | | **(1,910,495)** | (1,082,582) |
| **Gross Profit** | | **1,266,557** | 465,840 |
| | | | |
| Administrative expenses | | **(1,630,925)** | (2,075,027) |
| Sales and marketing expenses | | **(517,567)** | (533,259) |
| Occupancy expenses | | **(298,000)** | (304,823) |
| Research and development costs | | **(152,217)** | (184,484) |
| Other expenses | | **(131,809)** | (236,122) |
| **Operating expenses** | | **(2,730,518)** | (3,333,715) |
| | | | |
| **Loss before finance costs** | | **(1,463,961)** | (2,867,875) |
| | | | |
| Interest expense | | **(1,598,669)** | (1,392,990) |
| Loss on debt extinguishment | 5 | **(1,522,003)** | - |
| Gain on embedded derivative | 5 | **201,424** | 1,009,659 |
| Interest received | 3 | **4,064** | 18,000 |
| **Total finance costs** | | **(2,915,184)** | (365,331) |
| **Loss before tax** | | **(4,379,145)** | (3,233,206) |
| Tax expense | | **-** | - |
| **Loss for the year after tax** | | **(4,379,145)** | (3,233,206) |
| | | | |
| Other comprehensive income - Exchange differences on translation of foreign operations which may subsequently be reclassified to profit or loss | | **45,848** | (29,174) |
| **Total comprehensive loss for the year** | | **(4,333,297)** | (3,262,380) |
| | | | |
| Loss for the year attributable to members of the group | | **(4,379,145)** | (3,233,206) |
| Total comprehensive loss for the year attributable to members of the group | | **(4,333,297)** | (3,262,380) |
| | | | |
| Basic and diluted loss per share (cents) | | (1.23) | (0.94) |

This consolidated statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes to the financial statement

| | Note | 31-Dec-19<br>US$ | 30-Jun-19<br>US$ |
|---|---|---|---|
| **Current Assets** | | | |
| Cash and cash equivalents | | **3,126,423** | 3,843,343 |
| Trade and other receivables | | **548,648** | 962,023 |
| Inventories | | **1,382,239** | 1,153,453 |
| Other current assets | | **148,077** | 74,917 |
| **Total Current Assets** | | **5,205,387** | 6,033,736 |
| | | | |
| **Non-Current Assets** | | | |
| Other financial assets | | **17,907** | 17,982 |
| Property, plant and equipment | | **1,080,114** | 1,727,001 |
| Intangible assets | 4 | **2,209,978** | 1,778,484 |
| Leased Assets | 7 | **1,409,861** | - |
| **Total Non-Current Assets** | | **4,717,860** | 3,523,467 |
| **Total Assets** | | **9,923,247** | 9,557,203 |
| | | | |
| **Current Liabilities** | | | |
| Trade and other payables | | **1,754,279** | 1,558,500 |
| Lease liabilities | 7 | **138,171** | 170,974 |
| **Total Current Liabilities** | | **1,892,450** | 1,729,474 |
| | | | |
| **Non-Current Liabilities** | | | |
| Borrowings | 5 | **1,884,492** | 6,596,153 |
| Derivative liability | 5 | **1,613,496** | 658,141 |
| Lease liabilities | 7 | **1,020,637** | 190,439 |
| **Total Non-Current Liabilities** | | **4,518,625** | 7,444,733 |
| **Total Liabilities** | | **6,411,075** | 9,174,207 |
| **Net Assets** | | **3,512,172** | 382,996 |
| | | | |
| **Equity** | | | |
| Contributed equity | 6 | **62,177,096** | 54,367,832 |
| Reserves | | **(806,010)** | 5,078,244 |
| Accumulated losses | | **(57,858,914)** | (59,063,080) |
| **Total Equity** | | **3,512,172** | 382,996 |

This consolidated statement of financial position should be read in conjunction with the accompanying notes to the financial statement

| | Contributed equity $ | Options & Warrants Reserve $ | Performance Rights Reserve $ | Foreign Currency Translation Reserve $ | Consolidated Accumulated Losses $ | Total $ |
|---|---|---|---|---|---|---|
| **Balance at 1 July 2019** | **54,367,832** | **5,634,968** | **1,021,204** | **(1,577,928)** | **(59,063,080)** | **382,996** |
| Loss for the period | - | - | - | - | **(4,379,145)** | **(4,379,145)** |
| Foreign currency translation | | - | - | **45,848** | - | **45,848** |
| Total comprehensive income / (loss) | - | - | - | **45,848** | **(4,379,145)** | **(4,333,297)** |
| Transactions with owners in their capacity as owners: | | | | | | |
| Reclass to accumulated losses | - | **(4,992,832)** | **(590,479)** | - | **5,583,311** | - |
| Issued capital | **7,819,040** | - | - | - | - | **7,819,040** |
| Capital raising costs | **(454,069)** | - | - | - | - | **(454,069)** |
| Performance rights issued | - | - | - | - | - | - |
| Performance rights exercised | **444,293** | - | **(444,293)** | - | - | - |
| Share-based payment in lieu of salary | | - | **13,568** | - | - | **13,568** |
| Warrants outstanding | - | **83,934** | - | - | - | **83,934** |
| **Balance at 31 December 2019** | **62,177,096** | **726,070** | - | **(1,532,080)** | **(57,858,914)** | **3,512,172** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Balance at 1 July 2018** | 54,367,832 | 5,634,968 | 652,423 | (1,559,356) | (52,110,831) | 6,985,036 |
| Loss for the period | - | - | - | - | (3,233,206) | (3,233,206) |
| Foreign currency translation | - | - | (2,675) | (26,499) | - | (29,174) |
| Total comprehensive income / (loss) | - | - | (2,675) | (26,499) | (3,233,206) | (3,262,380) |
| Transactions with owners in their capacity as owners: | | | | | | |
| Issued capital | - | - | - | - | - | - |
| Capital raising costs | - | - | - | - | - | - |
| Performance rights expense | - | - | 177,164 | - | - | 177,164 |
| Options exercised | - | - | - | - | - | - |
| 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 |

This consolidated statement of changes in equity should be read in conjunction with the accompanying notes to the financial statement

| | Note | 31-Dec-19 US$ | 31-Dec-18 US$ |
|---|---|---|---|
| **Cash flow from operating activities** | | | |
| Receipts from customers and other income | | **3,819,989** | 1,583,636 |
| Payments to suppliers and employees | | **(5,047,554)** | (4,071,355) |
| Interest received | | **4,063** | 17,999 |
| Interest and other costs of finance paid | | **(737,125)** | (581,676) |
| Goods & services tax received from ATO | | **13,972** | 41,731 |
| **Net cash flows (used in) operating activities** | | **(1,946,655)** | (3,009,665) |
| | | | |
| **Cash flows from investing activities** | | | |
| Purchase of property, plant and equipment | | **(10,653)** | (23,488) |
| Purchase of other non-current assets | | **-** | (50,000) |
| Proceeds from disposal of property, plant and equipment | | **-** | - |
| Payments for development costs | | **(498,989)** | (349,351) |
| **Net cash flows (used in) investing activities** | | **(509,642)** | (422,839) |
| | | | |
| **Cash flows provided by financing activities** | | | |
| Proceeds from issue of ordinary shares | | **7,819,040** | - |
| Transaction costs related to issue of shares | | **(133,367)** | - |
| Proceeds from borrowings | | **3,611,566** | - |
| Transaction cost related to loans and borrowings | | **(118,402)** | - |
| Repayment of borrowings | | **(9,510,460)** | (1,136,625) |
| **Net cash flows from/ (used in) financing activities** | | **1,668,377** | (1,136,625) |
| **Net increase / (decrease) in cash and cash equivalents** | | **(787,920)** | (4,569,129) |
| Cash and cash equivalents at beginning of year | | **3,843,343** | 10,641,763 |
| Effect of exchange rate changes on cash and cash equivalents | | **71,000** | (57,192) |
| Cash and cash equivalents at end of year | | **3,126,423** | 6,015,442 |

This consolidated statement of cash flows should be read in conjunction with the accompanying notes to the financial statement

**1. CORPORATE INFORMATION**

The consolidated financial statements of Alexium International Group Limited and its subsidiaries (collectively, the Group) for the six-months ended 31 December 2019 were authorised for issue in accordance with a resolution of the directors on 27 February 2020. Alexium International Group Limited ('Company' or 'Parent') is a company limited by shares incorporated and domiciled in Australia, whose shares are publicly traded on the Australian Securities Exchange. These financial statements include the consolidated financial statements and notes of Alexium International Group Limited and its controlled entities ('Group').

These financial statements are presented in US Dollars. This presentation 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, are presented in US Dollars.

The nature of the operations and principal activities of the Group are described in the Directors' Report.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**(a) Basis of preparation**

The consolidated half-year financial statements for the six-months ended 31 December 2019 are general-purpose financial reports, which have been prepared in accordance with the requirement of the Corporations Act 2001 and AASB 134 Interim Financial Reporting. The consolidated half-year financial statements have 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.

The interim financial report does not include full disclosures of the type normally included in an annual financial report. Accordingly, it is recommended that this interim financial report be read in conjunction with the annual financial report for the year ended 30 June 2019 and any public announcements made by the Group during the interim reporting period in accordance with the continuous disclosure requirements arising under the Corporations Act 2001.

The financial statements have been prepared on an accruals basis and are based on historical costs modified, where applicable by the measurement at fair value of selected non-current assets, financial assets and financial liabilities. The presentation is United States Dollars to correspond with the primary currency that influences sales price of goods, labour, materials, costs of providing goods for sale, and interest expense paid on the Company's debt.

**(b) New and amended standards adopted by the Group in this financial report**

New and revised accounting standards and amendments that are currently issued and adopted during the reporting periods that are relevant to the Group include:

**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, except for 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 standard:

- 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 Company implemented the new standard using the modified retrospective method also known as the cumulative catch-up approach. Under the modified retrospective method, the cumulative impact (if any) is recognized at the date of initial application (July 1, 2019). The modified retrospective approach permits the measurement of the right-of-use asset equal to the lease liability at adoption.

Under a modified retrospective approach, the Company

- Calculates lease assets and lease liabilities as at the beginning of the current period;
- Does not restate its prior-period financial information;
- Recognises an adjustment in equity at the beginning of the current period; and
- Carries forward all existing finance lease liabilities;
- Makes additional disclosures specified in the new standard and is exempt from certain of the disclosures usually required by AASB 108 para 28.

The Company undertook a detailed assessment of the impact of AASB 16 and determined the Standard to have a material impact on the transactions and balances recognised in the financial statements. At 30 June 2019, $628,964 was previously recorded as a finance lease and classified as property, plant and equipment. This balance was classified to the right of use asset at 1 July 2019 upon adoption of the Standard. Management has recorded the initial recognition of right of use asset and corresponding lease liability for operating leases at a book value of $902,952 at the implementation date. Total right of use assets at 31 December 2019 is $1,409,861 as detailed in Note 7.

Where a right to control an asset specified in a lease agreement exists, the Group recognises a right-of-use asset, representing its right to use the underlying leased asset, and a lease liability representing its obligation to make lease payments. Right-of-use assets are recognized similarly to other non-financial assets (such as property, plant and equipment) and lease liabilities similarly to financial liabilities. Therefore, a lessee recognises depreciation of the right-of-use asset and interest on the lease liability, and also classifies cash repayments of the lease liability into a principal portion and an interest portion and presents them as such in the statement of cash flows. Assets and liabilities arising from a lease are initially measured on a present value basis. The measurement includes non-variable lease payments expected to be incurred for the term of the lease. The term of the lease is determined by reference to non-cancellable periods and those periods subject to exercise of an option, where that option is considered reasonably certain to be exercised.

The Group has elected not to recognise a lease liability for short term leases (leases with an expected term of 12 months or less) or for leases of low value assets. Payments made under such leases are expensed as incurred on a straight-line basis. In addition, certain variable lease payments are not permitted to be recognised as lease liabilities and are expensed as incurred.

The Group has applied practical expedient and excluded initial direct costs from the measurement of the right-of-use asset at the date of initial application. The weighted average incremental borrowing rate applied to lease liabilities recognised in the statement of financial position at the date of initial application was 9.7%.

**(c) Significant accounting judgements, estimates and assumptions**

**Fair value of financial instruments**
When the fair values of financial assets and financial liabilities recorded in the statement of financial position cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques including the discounted cash flow (DCF) and Black-Scholes option pricing models. The inputs to these models are taken from observable markets where possible, but where this is not feasible, a degree of judgement is required in establishing fair values. Judgements include considerations of inputs such as liquidity risk, credit risk and volatility. The assessed fair values of the embedded derivatives were determined using a Black-Scholes option pricing model which approximates the results that would have been achieved by using a binomial lattice. The model takes into account the expected price volatility of the underlying instrument, expected dividend yield and the risk-free interest rate. A collection of comparable companies has been used as a proxy for the volatility determined. Changes in assumptions in relation to these factors could affect the reported fair value of financial instruments.

**Intangible Assets**
The Group assesses at initial recognition whether an internally developed asset has met the recognition requirements established in AASB 138 and measures the direct and indirect costs of development using several estimates and assumptions. After capitalisation, management monitors whether the recognition requirements continue to be met and whether there are any indicators that capitalised costs may be impaired. In assessing impairment, management estimates the recoverable amount of each asset or cash-generating unit based on expected future cash flows and uses an interest rate to discount them. Estimation uncertainty relates to assumptions about future operating results, the determination of a suitable discount rate, and the appropriate classification of cash generating units. In the six months ended 31 December 2019 no impairment was identified. See Note 4 for further disclosures.

**(d) 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. The director's assessment is based on forecasted growth in commercial sales, which the Company expects to continue over the next twelve months.

During the six-months ended 31 December 2019, the Group generated a loss of $4,379,145 (2018: $3,233,206) and used cash in operating and investing activities of $2,456,297 (2018: $3,432,504). As at 31 December 2019 the Group had net assets of $3,512,172 (2018: $382,996) and a cash balance of $3,126,423 (2018: $3,843,343). Subsequent to the period under review, the Company issued 95,483,333 shares @ A$0.06 per share for a total of A$5,729,000 related to the prospectus lodged in November 2019. The Directors are satisfied that the Group can successfully fund the business based on sufficient working capital on hand at year end and raised through subsequent share issuance to support the committed research and commercialisation activities over the next twelve months.

**3. REVENUE & OTHER INCOME**

| | **2019** | 2018 |
|---|---|---|
| Sale of goods | **3,377,376** | 1,548,422 |
| Rebates | **(200,324)** | - |
| | **3,177,052** | 1,548,422 |
| | | |
| Interest received | **4,064** | 18,000 |

**4. INTANGIBLE ASSETS**

| **Cost or valuation** | **Patents and Trademark** | **Capitalized Development Costs** | **Software** | **Total** |
|---|---|---|---|---|
| **Balance at 30 June 2019** | **40,522** | **1,686,291** | **75,377** | **1,802,190** |
| Additions | **-** | **498,989** | **-** | **498,989** |
| Disposals | **-** | **-** | **(40,000)** | **(40,000)** |
| Foreign exchange movements | **-** | **-** | **-** | **-** |
| **Balance at 31 Dec 2019** | **40,522** | **2,185,280** | **35,377** | **2,261,179** |
| | | | | |
| **Amortization and impairment** | | | | |
| **Balance at 30 June 2019** | **10,493** | **1,583** | **11,630** | **23,706** |
| Amortization | **10,809** | **7,279** | **9,407** | **27,495** |
| Disposals | **-** | **-** | **-** | **-** |
| Foreign exchange movements | **-** | **-** | **-** | **-** |
| **Balance at 31 Dec 2019** | **21,302** | **8,862** | **21,037** | **51,201** |
| | | | | |
| **Net book value** | | | | |
| At 30 June 2019 | 30,029 | 1,684,708 | 63,747 | 1,778,484 |
| **At 31 Dec 2019** | **19,220** | **2,176,417** | **14,340** | **2,209,978** |

Intangible assets have finite useful lives. The current amortisation charges for intangible assets are included as depreciation and amortisation expense in 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. In accordance with Note 2(c) on significant accounting policies, amortisation is calculated on a straight-line basis over the average useful life of the assets and begins once the asset is available for use.

**Capitalized development**

Costs that are directly attributable to a technology's development phase are recognised as intangible assets, provided they meet the following recognition requirements:

- the development costs can be measured reliably
- the project is technically and commercially feasible
- the Group intends to and has sufficient resources to complete the project
- the Group has the ability to use or sell the asset
- the asset will generate probable future economic benefits.

Costs directly attributable to capitalized development include; employee expenses incurred on technology development, external testing fees, and product trial costs. Development costs not meeting these criteria for capitalisation are expensed as incurred. The ultimate recoupment of costs carried forward for capitalized development is dependent on the successful development and commercialization of the Group's technology. Any capitalised developed that is not yet complete is not amortised but is subject to impairment testing.

**Impairment testing for intangible assets**

An impairment loss is recognised for the amount by which the carrying amount of an asset (or cash-generating unit) exceeds its recoverable amount, which is the higher of fair value less costs of disposal and value-in-use.

Cash flow forecasting inputs are based on the Board approved budget for FY2020 along with forecasts from management for an additional four years. Management forecasts include an assessment of market size and the ability of the Group to penetrate the market. The forecasting methods also include identifiable and addressable markets for the Group along with consideration for customer adoption rates. These forecasts are also based on management's knowledge of the business and assessment of the likely current economic environment impacts, adjusted to account for an expected arm's length market participant's view of cash flow risks.

In particular, the discounted cash flow forecast for Alexiflam® technologies in relation to military uniforms is based on current supply chain information which has been accumulated during the development process including current production scale trials and evaluations taking place with the military. The directors note that whilst there is an exclusivity agreement in place regarding the development of this technology, no supply agreement has been entered as at the reporting date.

With the assistance of an independent third-party valuation firm, the Group estimated the recoverable amount of the Alexiflam® and Alexicool® CGUs as of 30 June 2019. This firm has significant experience in the US speciality chemical industry. The valuer used a combination of management provided cash flow projections and observable external market information to determine the key assumptions for their determination. The fair value measurement is categorized in its entirety as Level 3 in the fair value hierarchy designated in AASB 13. This categorization has several market observable factors including public companies deemed comparable to the Group, market royalty rates for comparable transactions and discount rate market factors for such items as risk free rate, beta, equity risk premium and size premium.

There are important assumptions used in the valuation including the enterprise value. Management forecasts include growth rates of 0.6% to 5.8% after a technology has been commercialized, risk adjusted discount rates averaging 17.5%, obsolescence factors and royalty rates ranging from 3.0% in the first quartile to a maximum of 8.0%. The valuation was subject to stress-testing by conducting sensitivity analysis with respect to the various key assumption inputs. Management do not believe that any reasonable possible change in these assumptions would result in an impairment of either CGU technologies.

No impairment loss has been recognised for Alexiflam® and Alexicool® technologies CGUs as of 31 December 2019 (2018: $nil).

**5. BORROWINGS**

**Convertible note**

On 24 December 2019 the Company entered a convertible note, secured by the Group's assets, with institutional lenders. The $3.5 million ($A5.15M) note carries a four-year term and 6.0% annual interest rate and is convertible into ordinary shares at the holder's discretion and with shareholder approval. The proceeds from the funding was used to pay down the loan facility originated on 30 September 2017, which carried a higher interest rate and was nearing expiration.

The Borrowings have been measured at amortised cost in accordance with AASB 9 and gain or loss is recognised in profit or loss through the amortisation process and when the borrowings are derecognised. The Company allocates interest payments over the term of the borrowings at a constant rate on the carrying value. The carrying balance over the remaining life of the facility will increase to the current principal balance of $3.5 million.

| | **31-Dec-19** | 30-Jun-19 |
|---|---|---|
| Loan facility carrying value | **1,884,492** | 6,596,153 |
| Remaining amortization of effective interest | **1,613,496** | 2,403,847 |
| Principal balance outstanding | **3,497,988** | 9,000,000 |

**Derivative liability**

The current and previous borrowings are considered hybrid instruments with host and derivative liability components. When initially recorded the derivative is measured at fair value and separated from the host liability. Subsequently changes in value are recorded in profit or loss upon revaluation. This has been valued using a Black-Scholes option pricing model which approximates a Monte Carlo binomial lattice simulation. Pricing model inputs of the current derivative include exercise price (A$0.075), risk-free rate (0.825%), remaining term (4 years) and volatility (83.65%).

| | **31-Dec-19** | 30-Jun-19 |
|---|---|---|
| Derivative liability | **1,613,496** | 658,141 |
| | **1,613,496** | 658,141 |
| Change in fair value of derivative liability recorded at profit or loss | **201,424** | 1,009,659 |
| | **201,424** | 1,009,659 |

**Loss on debt extinguishment**

The previous loan of $9 million was paid in full on 31 December 2019 and was measured at the amortised cost using the effective interest method. The residual value was amortised to face value over the life of the note. On extinguishment, the liability was derecognised and the difference between the carrying amount of the extinguished liability and the consideration paid is recognised in profit or loss. The attached embedded derivative liability is also derecognised and netted against the residual value of the host liability and the consideration paid.

| | **2019** | 2018 |
|---|---|---|
| Gain/(Loss) on debt extinguishment | **(1,522,003)** | - |
| | **(1,522,003)** | - |

**6. CONTRIBUTED EQUITY**

| | **31-Dec-19 Shares** | 31-Dec-18 Shares | **31-Dec-19 $** | 31-Dec-18 $ |
|---|---|---|---|---|
| **(a) Issued capital** | | | | |
| Ordinary shares fully paid | **538,973,209** | 345,443,598 | **62,177,096** | 54,367,832 |
| | | | | |
| **(b) Movement in share capital** | | | | |
| Balance at 1 July | **345,443,598** | 345,443,598 | **54,367,832** | 54,367,832 |
| Capital raising | **190,244,277** | - | **7,819,040** | - |
| Costs of capital raising | **-** | - | **(454,069)** | - |
| Conversion of performance rights | **2,068,366** | - | **327,676** | - |
| Shares issued in lieu of director's fees | **1,061,968** | - | **101,999** | - |
| Shares issued - severance | **155,000** | - | **14,618** | - |
| Balance at 31 December | **538,973,209** | 345,443,598 | **62,177,096** | 54,367,832 |
| | | | | |
| **(c) Movements in performance rights** | | | | |
| Balance at 1 July | **4,960,938** | 1,324,000 | **1,021,204** | 652,423 |
| Rights forfeited during year | **(1,816,158)** | (755,200) | **(590,479)** | (226,371) |
| Rights issued in lieu of director's fees | **140,554** | 359,195 | **13,568** | 34,328 |
| Rights converted to shares during year | **(3,285,334)** | - | **(444,293)** | - |
| Performance rights issued | **-** | 668,980 | **-** | 400,860 |
| Balance at 31 December | **-** | 1,596,975 | **-** | 861,240 |

**(d) Share options issued**

At the 31 December 2019, there were Nil free attaching options outstanding (2018: Nil) and 1,500,000 share-based payment options outstanding (2018: 2,400,000). Warrants issued under the extinguished convertible note and previously recognized as a derivative liability were transferred to the option reserve account at the payoff date.

| **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 | 10/01/15 | $0.75 | 30/09/20 | 1,500,000 | - | - | - | **1,500,000** |
| Unlisted options | 11/04/16 | $0.75 | 04/11/19 | 300,000 | - | - | (300,000) | **-** |
| Unlisted options | 11/04/16 | $1.25 | 04/11/19 | 300,000 | - | - | (300,000) | **-** |
| Unlisted options | 11/04/16 | $1.75 | 04/11/19 | 300,000 | - | - | (300,000) | **-** |
| Warrants | 31/12/19 | $0.06 | 29/09/22 | - | 3,829,787 | - | - | **3,829,757** |
| | | | | **2,400,000** | **3,829,787** | **-** | **(900,000)** | **5,329,757** |

| **2018** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unlisted options | 10/01/15 | $0.75 | 30/09/20 | 1,500,000 | - | - | - | 1,500,000 |
| Unlisted options | 11/04/16 | $0.75 | 04/11/19 | 300,000 | - | - | - | 300,000 |
| Unlisted options | 11/04/16 | $1.25 | 04/11/19 | 300,000 | - | - | - | 300,000 |
| Unlisted options | 11/04/16 | $1.75 | 04/11/19 | 300,000 | - | - | - | 300,000 |
| | | | | 2,400,000 | - | - | - | 2,400,000 |

**(e) Terms and conditions of contributed equity**

Holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at shareholders' meetings.

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.

**(f) Capital management**

The Company's objectives in managing capital are to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns to shareholders and benefits for the stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

**7. LEASES**

The Group is lessee in multiple lease agreements including office space, office equipment, lab equipment and furniture. All leases except the Company headquarters and those identified as low value and short-term are classified as finance leases. Depreciation expense is recognized over the useful life of the asset.

| | Right-of-Use Assets | | |
|---|---|---|---|
| **Cost or valuation** | **Equipment** | **Building** | **Total** |
| **Balance at 30 June 2019** | - | - | - |
| Initial application of AASB 16 | **1,006,818[1]** | **902,952** | **1,909,770** |
| Additions | - | - | - |
| Disposals | - | - | - |
| **Balance at 31 Dec 2019** | **1,006,818** | **902,952** | **1,909,770** |
| | | | |
| **Depreciation and impairment** | | | |
| **Balance at 30 June 2019** | - | - | - |
| Initial application of AASB 16 | **377,854[1]** | - | **377,854** |
| Depreciation | **67,329** | **54,726** | **122,055** |
| Disposals | - | - | - |
| **Balance at 31 Dec 2019** | **445,183** | **54,726** | **499,909** |
| | | | |
| **Net book value** | | | |
| At 30 June 2019 | - | - | - |
| **At 31 Dec 2019** | **561,635** | **848,226** | **1,409,861** |

[1] Equipment has been reclassified from property, plant and equipment upon adoption of AASB 16 at 1 July 2019.

Lease liabilities are initially recorded at the present value of the remaining lease payments. The Group's leases expire in various years through 2027, with terms ranging from 3 to 10 years.

| **Lease liabilities** | **31-Dec-19** | 30-Jun-19 |
|---|---|---|
| Current leases payable | **138,171** | **170,974** |
| Non-current leases payable | **1,020,637** | **190,439** |
| | **1,158,808** | **361,413** |

**8. COMMITMENTS AND CONTINGENCIES**

**(a) Commitments**

There have been no material changes to the commitments as disclosed in the annual report to 30 June 2019

**(b) Contingencies**

There have been no material changes to the contingencies as disclosed in the annual report to 30 June 2019

**9. SUBSEQUENT EVENTS**

Other than the items listed below, there has not arisen any item, transaction or event of a material and unusual nature; which in the opinion of the Directors of the Company, is likely to significantly affect the operations of the Group, the results of those operations, or the state of affairs of the Group, in future financial years.

The Company issued shares in January 2020 related to a placement of 95,483,333 @ A$0.06 per share for a total of A$5.7M (before capital raising costs) related to the prospectus lodged in November 2019.

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

The Directors of the Company declare that:

1. The financial statements, comprising the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of financial position, consolidated statement of cash flows, consolidated statement of changes in equity and accompanying notes, are in accordance with the Corporations Act 2001 and:

    a. give a true and fair view of the Group's financial position as at 31 December 2019 and of its performance for the half- year ended on that date; and

    b. comply with Accounting Standard AASB 134 Interim Financial Reporting and Corporations Regulations 2001;

2. In the Directors' opinion, there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors and is signed for and on behalf of the directors by:

*Rosheen Garnon*
Chair
Dated 27 February 2020

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# Independent Auditor's Review Report

## To the Members of Alexium International Group Limited

### Report on the half year financial report

#### Qualified 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 condensed statement of financial position as at 31 December 2019, and the consolidated condensed statement of profit or loss and other comprehensive income, consolidated condensed statement of changes in equity and consolidated condensed 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.

Except for the potential effects of the matter described below in the Basis for Qualified Conclusion, 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 2019, 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*.

#### Basis for Qualified Conclusion

The audit report for the year ended 30 June 2019 was qualified with respect to the carrying value of capitalized development costs. Capitalized development costs are recorded in the consolidated statement of financial position at 30 June 2019 at $1,684,708 and 31 December 2019 at $2,176,417. In issuing our opinion on the 30 June 2019 financial report we were unable to obtain sufficient appropriate audit evidence to support the Directors' assessment that the carrying value of the capitalized development costs did not exceed their recoverable amount. There has not been any notable change in the availability of sufficient appropriate audit evidence identified during our review that would support the removal of this qualification. This therefore forms the basis of our qualified conclusion above.

#### 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.

Grant Thornton

### 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 2019 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 Leivesley

M R Leivesley
Partner – Audit & Assurance

Sydney, 27 February 2020