



ALEXIUM

ALEXIUM INTERNATIONAL GROUP LIMITED
2020 Full Year Results
28 August 2020

ABN 91 064 820 408

PRESENTED IN US DOLLARS

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Summary and Outlook

Progress made in FY2020

Solid year on year revenue and margin growth despite COVID-19

Significant progress on new product development activities

Successful capital raise to refinance expensive debt arrangements and fund commercialisation of new products

Strong industry capability and experience added to the Board with appointment of Dr Paul Stenson

Financial Snapshot

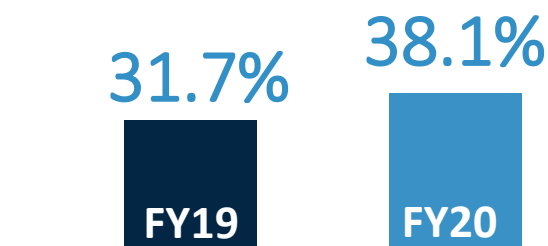
Improvements throughout the financial reporting sections versus FY2019

Revenue Growth



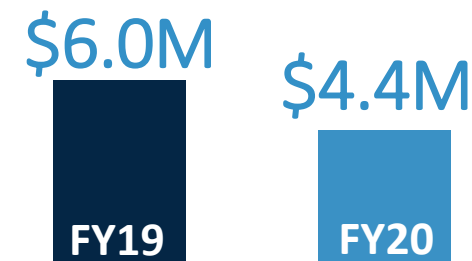
Revenue growth of 20.2% despite being negatively impacted by COVID-19 on existing sales and commercialisation timelines

Gross Margin



Improvement of 640 bps

Operating Expenses



Favorable Operating expenses – reduced by \$1.6M from \$6.0M to \$4.4M

Operating EBITDA



\$2.3M improvement in Operating EBITDA

Operating + Investing Cash Outflow



Reduced by \$1.1m to \$4.4m

Cash Interest



Cash interest down \$0.3M for the year with an expected annual rate of \$1.0M

Financial Snapshot (cont.)



Capital structure re-set eliminates high cost debt, provides funding required to realise the numerous near-term growth opportunities and introduces new cornerstone institutional investor

- ✓ \$15.1M successfully raised in December 2019 / January 2020 with proceeds used to retire GPB debt
 - Well regarded institutional investor Colinton Capital Partners became a cornerstone investor in Alexium
 - Simon Moore, Senior Partner of Colinton Capital Partners joined the Alexium Board in February 2020
- ✓ \$0.5M loan related to US CARES act stimulus. 2-year loan with 1% annual interest. This is expected to be forgiven based on submission of qualified expenses



Alexium at a Glance

Alexium has made tangible progress over the past 2 years to reposition the business for future growth



Experienced advanced materials sciences management team



Dr Bob Brookins appointed as CEO in July 2018
Jason Lewis appointed as CFO in October 2018
Allen Reihman appointed as CCO in October 2018



Re-engineered our product suite to innovative, high margin, customer centric products



Product suite is customer driven. Alexium's product development and marketing teams are now deeply integrated with key customers



Developed multiple (yet targeted) routes to market, grown customer numbers and built an attractive pipeline of near term revenue opportunities



Each key growth pillar has a clearly defined pathway to revenue, setting Alexium up for a important period of commercialisation over the coming 12-18 months



De-risked and strengthened the balance sheet, ensuring Alexium is fully funded to capture growth



Capital raising process reduced debt by \$5.5M and annual interest cost by c.\$1.0M. The resulting cash provides sufficient funding to realise the significant opportunities ahead



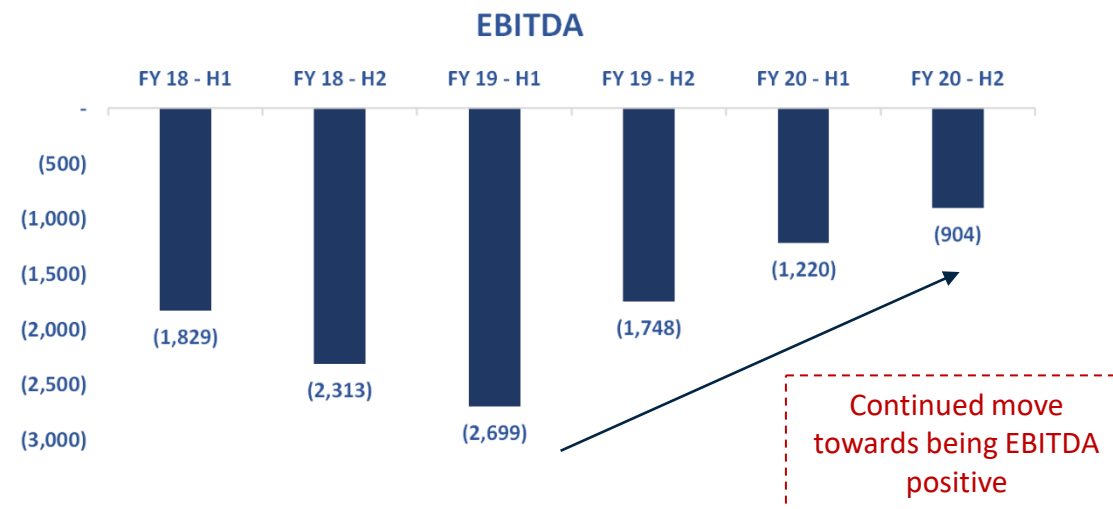
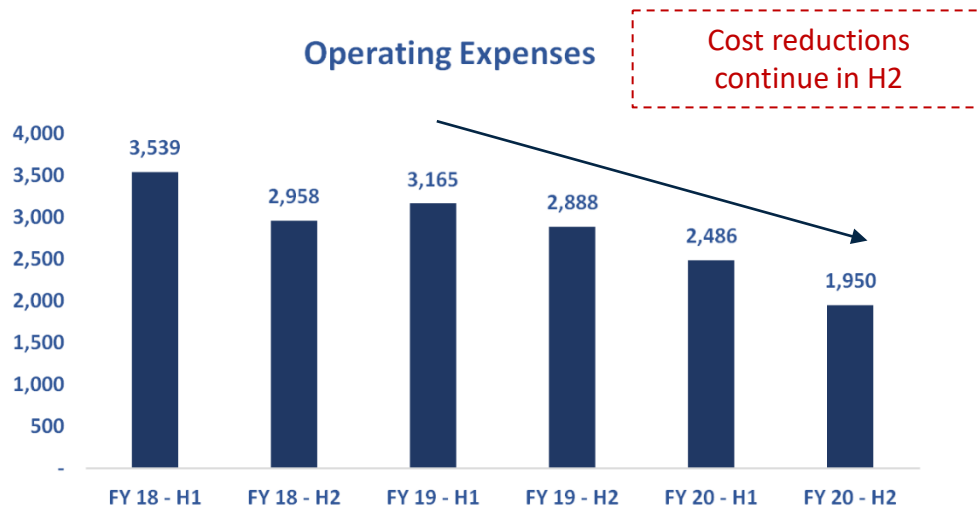
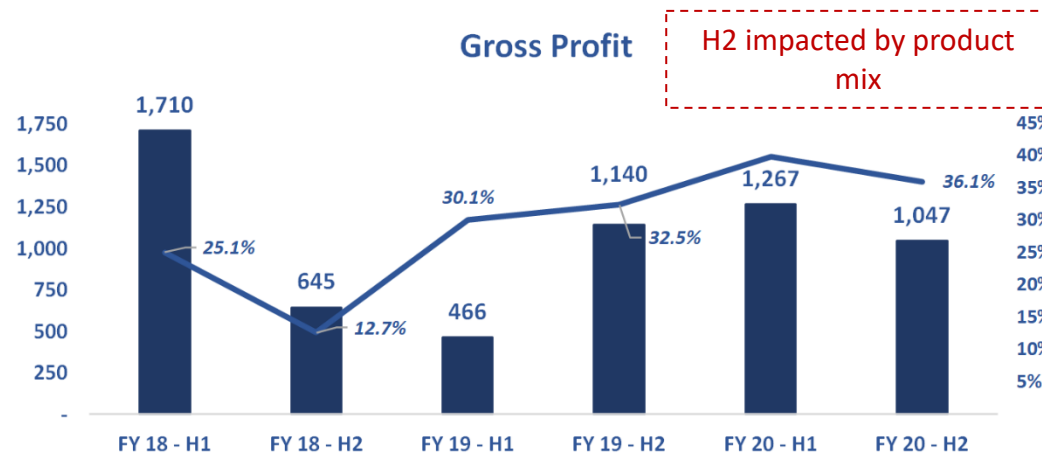
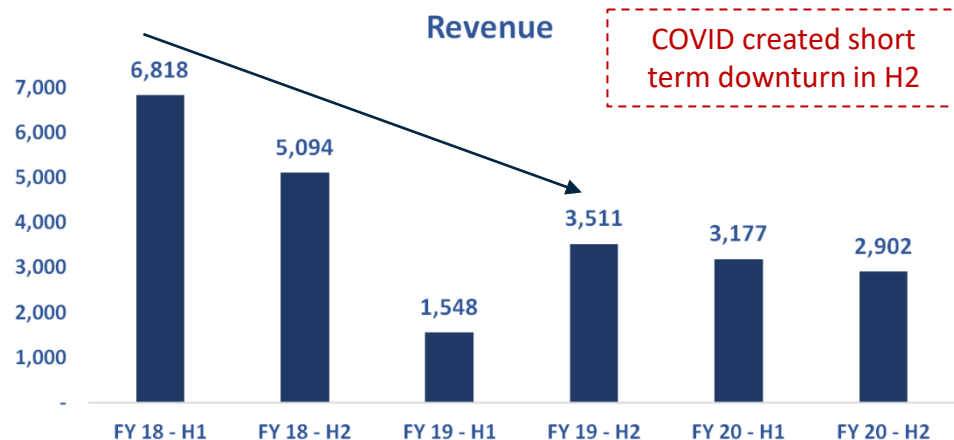
New cornerstone institutional investor



Colinton Capital Partners invested a total of A\$9.2M in Alexium shares and convertible note with Simon Moore, Senior Partner of Colinton joining the board of Alexium. Colinton is working with the board and management to realise the near term Alexium's potential

Financial Snapshot (cont.)

Deliberate and systematic changes throughout the company manifest conclusive results



COVID-19 Impact



- Impact on Fourth Quarter
 - Sales orders were impacted in April and May then rebounded in June
 - Continuous communication with customers on their operations
 - Closely monitored suppliers and inventory suppliers; contract manufacturers remained operational
- Employee related
 - Implemented a work-from-home policy for employees based on their role and responsibilities
 - Created a safe-distance work policy for the facility
 - Implemented temperature check and questionnaire when return to work was announced
 - Layoff and furloughs were not necessary as initiatives were continuing to move forward
 - Restricted travel and entrance by non-employees into the facility
- Financial assistance
 - Received \$0.5M in economic assistance from US CARES Act
 - In Australia, receiving credit on BAS filings based on “Boosting Cash Flow for Employers” program
- No expected impacts longer term
 - Manufacturing in the bedding industry shows continuing activity and momentum
 - We do not expect changes in the US military’s initiative for widening use of FR to service members
 - Although significant progress was made on initiatives, commercialization targets may be impacted up to six months

Summary of Achievements

FY11 – FY18 Invest in world leading R&D

- ✓ >\$25m invested over 7 years to develop unique portfolio of intellectual property
- ✓ Refinement of key products Alexiflam® & Alexicool®

FY19 Foundation for growth

- ✓ New management team
- ✓ Reset of product /market priorities
- ✓ Commercial advantage proposition for customers
- ✓ Elimination of low margin commodity product sales
- ✓ Supply agreement with major North American mattress brand for Alexicool® products
- ✓ Exclusive development agreement with Pine Belt Processing for Alexiflam® FR NyCo for US military uniforms

FY20 Commercialise world leading technologies

- ✓ Commercialise and new revenue from foam application of Alexicool® products
- ✓ Finalised product development and commercialise Alexiflam® NF for FR Sock
- **On track** - Alexiflam® FR NyCo production scale trials for military testing and evaluation

Financial objectives

- **Missed**- Aim for 50% growth on FY19 total revenue, accomplished 20%
- ✓ Gross margin > 30%
- ✓ Continue tight control of overhead costs and cashflow
- ✓ Balance sheet restructure via capital raise

FY21 Accelerate revenue growth

- Grow Alexicool® sales through innovative product development
- Realise first revenues from Alexiflam® FR sock
- Initiate Testing and Evaluation of FR NyCo with US military
- Target international sales via distribution / licensing agreement or direct market entry

Financial objectives

- Accelerate revenue growth rate above FY20 (greater than 50%)
- Continued growth of gross margin
- Sustainable EBITDA and cash flow positive in fourth quarter

FY22 Deliver meaningful shareholder returns

- Capitalise on globally unique and patent protected product range
- Realise cost benefits of increased scale
- Deliver material growth in earnings & cashflow
- Realise first revenues from FR NyCo with US Military

Near Term Target Markets Expected to be Realised in FY21

Strong progress has been made over the last 6 months, with the next 12-18 months representing an important period of commercialisation



	Program	Current Status	Anticipated revenue realisation profile			
			1H-FY21	2H-FY21	1H-FY22	2H-FY22
1.	General Alexicool® Sales	<ul style="list-style-type: none"> Generating Revenue and increasing market penetration 				
2.	Alexicool® Total Mattress Cooling Systems	<ul style="list-style-type: none"> First customer agreement signed Currently negotiating larger sales agreement with existing key customer 				
3.	Alexiflam® NF Sock	<ul style="list-style-type: none"> Market opportunity validated with existing customer base Production scale work and finished product testing currently underway 				
4.	Alexiflam® NF global distribution partnership	<ul style="list-style-type: none"> Finalised key terms of licensing and market development agreement 				
5.	Alexiflam® FR NyCo	<ul style="list-style-type: none"> Adjustments and refinements to the FR NyCo manufacturing process have been successful with key metrics met Product will proceed to military testing once technical production testing completed 				

Today

Alexium's key growth pillars

Alexium has a defined set of near term growth pillars which when realised will create an attractive portfolio of patented products servicing large global markets



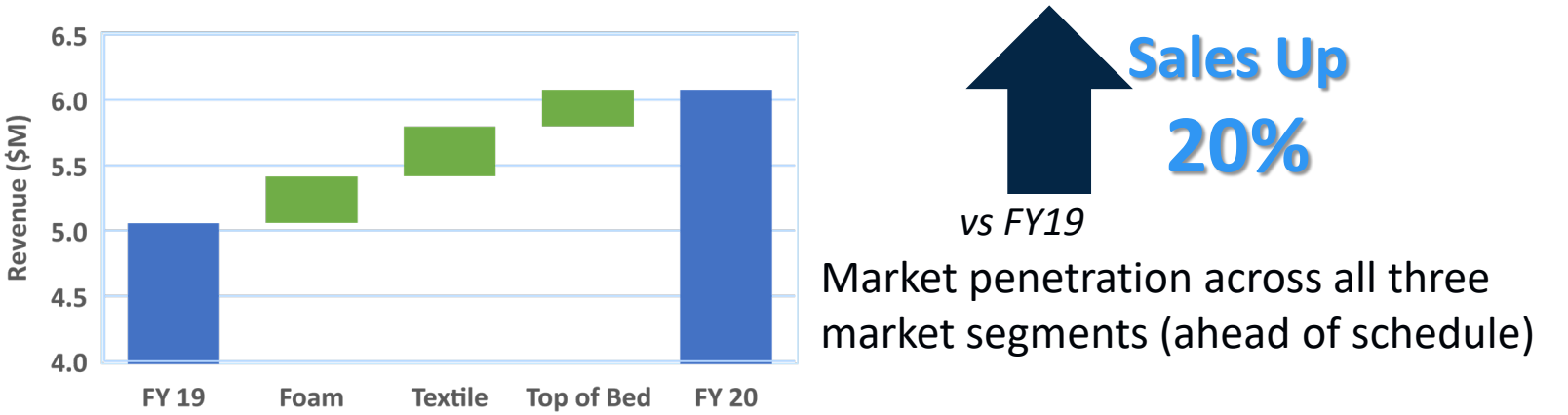
Product	Cooling			Fire Retardant	
Market	US Bedding			General	Military
Program	1. General Alexicool® Sales	2. Alexicool® Total Mattress Cooling System	3. Alexiflam® NF Sock	4. AlexiFlam® NF global distribution partnership	5. AlexiFlam® FR NyCo
Overview	<ul style="list-style-type: none"> Thermal management and “cool to the touch” technologies for improving the comfort of bedding products, including mattresses, pillows, etc. Alexium’s expertise in analytics supports the customers marketing claims and product development, giving the company a unique value proposition to our customers and differentiating us from competitors. 	<ul style="list-style-type: none"> Responding to customer needs, Alexium has developed an innovative systems approach to total mattress cooling that leverages its materials science expertise and analytical tools to enable leading edge unique products. 	<ul style="list-style-type: none"> Foam mattresses require a FR sock made from glass fibre which is expensive and has environmental and safety risks Alexium is currently leveraging Alexiflam® NF for application to a cotton/polyester blend sock Alexium product will be low-cost and safer than incumbent products 	<ul style="list-style-type: none"> Alexiflam® NF has a unique value proposition for FR cotton applications FR Cotton is a global market with applications in work wear, military uniforms, transportation, and other industries. Alexium is working with established FR providers to support the commercialisation of Alexiflam® NF into this global market 	<ul style="list-style-type: none"> Proprietary set of chemistry for wash durable flame retardation of nylon/cotton fabrics Commonly used for US military uniforms No current incumbent solution of nylon/cotton flame retardation Commercialisation of this product will solve a long standing problem for the U.S. and international militaries
Addressable Market	\$65m (US Market)		\$55m (US Market)	\$300m (Global Market)	\$90m (US Market)
Near Term Target Market ¹	\$10m	\$10m	\$15m	TBD	+\$10m
Alexium Product	Alexicool® products for textiles and foam	Alexicool® products for textiles and foam	Alexiflam® NF	Alexiflam® NF	Alexiflam® FR
Patent Status	Patent Pending	Patent Pending	Patent Pending	Patent Pending	Patent Granted

¹Near Term Target Market represents management’s estimate of the immediate revenue opportunity available to Alexium post an expected ramp up period following initial sales (potentially up to one year). Alexium’s ability to generate sales will require the satisfaction of the key milestones laid out in this presentation as well as entering into sales agreements with customers.

Initiatives Update

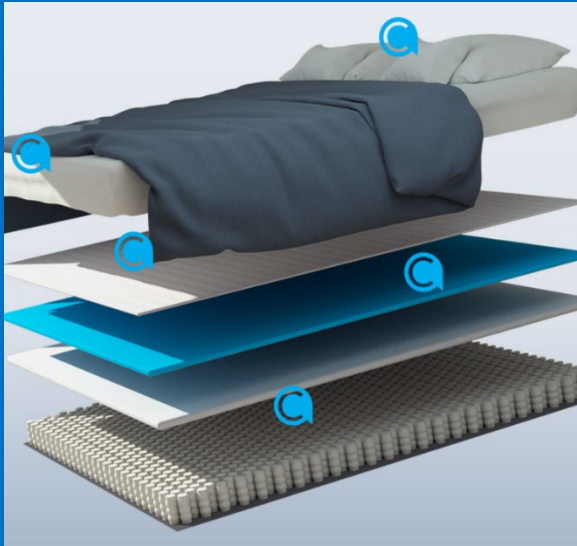
Expansion of Alexicool® Products in US Bedding Market

FY 2020 Overview



12-Month Plan

- Over the past year, Alexium has leveraged its broad product portfolio and analytical tools to develop total mattress cooling systems (TMCS) where a suite of textile- and foam-based Alexicool® products are used.
- Alexium is now supporting the commercialization efforts of customers for taking TMCS products to market
- Alexium has also launched its new Phonon™ technology, a new-to-the-world approach for providing perpetual cooling to expand the range of consumer bedding products



Key Milestones Completed

Finalise testing of Total Mattress Cooling Systems (TMCS)	2H FY2020
Finalise agreement with Soft-Tex International for commercialisation of TMCS	2H FY2020

Future Milestones

Initial sales for TMCS	1H FY 2021
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Alexiflam® NF-treated Cotton Socks for Protection of Foam Mattresses

FY 2020 Overview

In FY2020 the drive for the Company was preparing Alexiflam® NF for application to cotton socks. All our work here has accomplished this:

- ✓ Cost & supply chain models established
- ✓ Completed production scale work on NF-based sock
- ✓ Passed flammability test for UL testing (16 CFR 1632)
- ✓ Initiated commercial talks with key customers

12-Month Plan

- Support key customers' evaluation and commercialization of NF-based socks.
- Broad commercial launch to the bedding market is planned to push the unique value proposition of the NF-based sock to potential customers.
- Integration/evaluation of NF-based socks of varying weights, designs, and technologies to suit a broad range of marketing claims and bed designs.



Key Milestones Completed

Completed production scale work on NF-based sock	2H FY2020
Completed mattress-scale burn test	2H FY2020
Key meetings with customers	2H FY2020

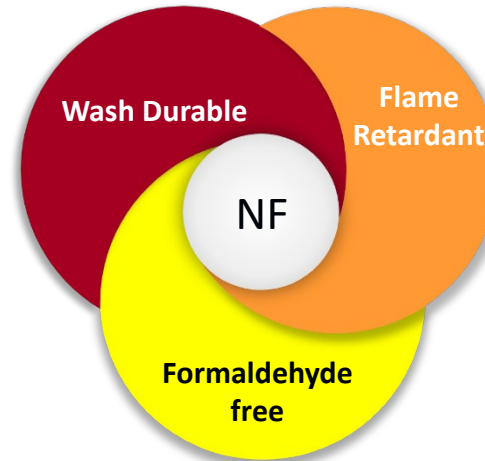
Future Milestones

Initial sales	FY 2021
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Expansion of Applicable Markets for Alexiflam® Products

FY 2020 Overview

- Supply & Evaluation Agreement signed with a major flame-retardant chemical company (“Business Partner) for the commercialisation of Alexiflam® NF in target markets
- Framework addresses scope & strategic goals (both near and long-term) for working together



12-Month Plan

- Support Business Partner commercial efforts with research, product development and manufacturing resources.
- In light of the COVID-19 pandemic, managing commercialization efforts for viable markets and regions is a focus.
- In parallel with these efforts, the Alexium commercial team continues work on established direct FR opportunities (domestic and international).



Key Milestones Completed

Finalised ICL licensing and market development agreement	2H FY2020
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Future Milestones

Launch commercial efforts with target customers	1H FY2021
Finalise production work with target customers	2H FY 2021

Flame Retardation of Nylon/Cotton (NyCo) Fabrics for Military Applications

FY 2020 Overview

- Alexiflam® products have been adjusted to conform to the Pine Belt manufacturing process and promote even chemical application
- Key technical insights have been gained to further improve product’s value proposition
- Onset of COVID-19 pandemic has led to delays given Pine Belt’s role as supplier to the US military; since then, work has been reinitiated
- Alexium Directors conducted a program review with Pine Belt leadership confirming that production scale testing is on track

12-Month Plan

- Support Pine Belt in finalising and optimising production scale processes
- Complete technical production testing on lowest weight add-on with FR NyCo process
- Deliver FR NyCo fabrics to USMC for testing and evaluation (T&E)
- Support Pine Belt and USMC efforts



Future Milestones

Finalise production optimisation in Pine Belt's facility	1H FY2021
Testing and Evaluation by military initiated	2H FY2021
Complete operational timetable and logistics to supply Pine Belt and military	2H FY 2021
First commercial sale	1H FY 2022



Financial Results

Profit & Loss Statement

- Revenue growth from new customers of Alexicool® products in the three categories of Foam, Top of Bed and Textile along with increased revenue from current customers
- Continued gross margin growth with pricing, cost and manufacturing directives
- Decrease in operating expenses by 26.7% with continued cost management controls. Reduction in earned bonus by c.\$0.3M. Other saving were related to headcount reductions and employee benefits along with external consultants. The company set a COVID-19 related travel policy in H2 which also contributed to the reduction in expenses
- AASB 16 – Lease standard implementation increased net loss by \$117K. Broken down, operating expenses were decreased for rental expense (\$79K) offset with increases in depreciation expense (\$109K) and interest expense (\$87K) compared to FY19
- Operating EBITDA improved by \$2.3m versus FY19
- Finance costs were unfavorable due to the repayment of the GPB term loan which stemmed from a loss on the debt extinguishment

	FY20 (USD)	FY19 (USD)	Change	% Change
Sales Revenue	6,079	5,059	1,020	20.2%
Cost of Goods Sold	3,766	3,453	(312)	(9.0%)
Gross Profit	2,313	1,606	707	44.1%
Gross Margin	38.1%	31.7%	6.3%	
Operating expenses	4,437	6,053	1,616	26.7%
Operating EBITDA ⁽¹⁾	(2,124)	(4,448)	2,324	52.3%
Depreciation & Amortisation	589	356	(233)	(65.5%)
EBIT	(2,712)	(4,803)	2,091	(43.5%)
Interest & Amortisation of Convertible Notes	1,882	2,794	911	32.6%
(Gain)/ Loss on Debt Extinguishment	1,522	-	(1,522)	
(Gain)/ Loss Change in FV of Derivative	28	(630)	(657)	104.4%
Finance income	(19)	(28)	(9)	32.4%
Finance Costs Total	3,413	2,136	(1,277)	(59.8%)
Net loss	(6,125)	(6,940)	814	11.7%

(1) Operating EBITDA is a non-GAAP financial measure see appendix for reconciliation of Operating EBITDA to statutory net profit/(loss) after tax.

Cash Flow Statement

- Operating Activities
 - Cash collections increased with increased revenue, no collection issues
 - Payments for raw materials and manufacturing increased \$1.1M with increased sales and timing of payments
 - Operating cost cash outlays decreased \$0.6M with improved cost controls
 - Interest expense will decrease by \$1.0M with the refinancing of the debt
- Investment Activities
 - Intangible assets increases from intellectual property development efforts
- Financing Activities
 - Repayment of GPB Capital \$9.0M term loan on 31-Dec-2019
 - Colinton Capital A\$5.15M four-year 6% convertible note on 24-Dec-2019
 - Cash interest expense will decrease approximately \$85k per month
 - Net proceeds from rights issue and placements netted \$11.1M
 - US CARES Act PPP loan for \$0.5M received in May. Expected to be 100% refundable with qualified expense submission.

	FY 20 USD	FY 19 USD
Cash flow from operating activities		
Receipts from customers and other income	6,422	4,845
Payments to suppliers and employees	(8,762)	(8,052)
Interest received	19	28
Interest and other costs of finance paid	(906)	(1,219)
Goods & services tax received from ATO	52	58
Net cash flows (used in) operating activities	(3,175)	(4,342)
Cash flows from investing activities		
Purchase of property, plant and equipment	(102)	(91)
Purchase of other non-current assets		(60)
Payments for development costs	(1,098)	(987)
Net cash flows (used in) investing activities	(1,200)	(1,138)
Cash flows provided by financing activities		
Proceeds from issue of ordinary shares	11,769	-
Proceeds from borrowings	4,072	-
Share issuance transaction costs	(635)	-
Convertible note issuance transaction costs	(112)	-
Repayment of borrowings	(9,588)	(1,259)
Net cash flows from/(used in) financing activities	5,506	(1,259)
Net increase / (decrease) in cash and cash equivalents	1,131	(6,738)
Cash and cash equivalents at beginning of year	3,843	10,642
Effect of exchange rate changes on cash	(233)	(60)
Cash and cash equivalents at end of year	4,741	3,843

Balance Sheet

- Working Capital
 - Tight controls on working capital resulted in the ability to respond quickly in Q4 and maintain appropriate levels
- Non-Current Assets
 - Right of Use Assets - implementation of new standard AASB 16 - Leases affected a reclass of capital leases from PP&E along with the capitalisation of our long-term rental building
 - intellectual property asset development efforts increase intangible assets
- Non-Current Liabilities
 - Repayment of the GPB Capital \$9.0M term loan plus fees
 - Addition of the Colinton Capital A\$5.15m four-year 6% convertible note. Cash interest payments decreased by approximately \$85k per month
 - AASB 16 Lease accounting implementation increased Lease Liabilities by \$0.9m with annual increase to interest expense approximating \$0.1M
- Equity
 - Completed rights issue and placements netting \$11.1m

	FY20 USD	FY19 USD
Current Assets		
Cash and cash equivalents	4,741	3,843
Trade and other receivables	980	962
Inventories	922	1,153
Other current assets	42	75
Total Current Assets	6,684	6,034
Non-Current Assets		
Other financial assets	18	18
Property, plant and equipment	1,096	1,727
Intangible assets	2,679	1,778
Right of use asset	1,194	-
Total Non-Current Assets	4,986	3,523
Total Assets	11,670	9,557
Current Liabilities		
Trade and other payables	906	1,559
Lease liabilities	137	171
Total Current Liabilities	1,042	1,729
Non-Current Liabilities		
Borrowings	2,440	6,787
Derivative liability	1,810	658
Lease liabilities	950	-
Total Non-Current Liabilities	5,201	7,445
Total Liabilities	6,243	9,174
Net Assets	5,428	383
Equity		
Contributed equity	65,944	54,368
Reserves	(927)	5,078
Accumulated losses	(59,589)	(59,063)
Total Equity	5,428	383



Appendices

Non-GAAP Financial Measure Reconciliation

Reconciliation of Operating EBITDA (non-GAAP financial measure) to statutory Net Profit/(Loss)

	FY20 (USD)	FY19 (USD)
Net Loss for the period	(6,125)	(6,940)
Add		
(+) Depreciation	431	336
(+) Amortization	158	19
(+) Interest expense	1,882	2,794
(+/-) Gain/(Loss) in FV of derivative liability	28	(630)
(+) Loss on debt extinguishment	1,522	-
	4,020	2,520
Less		
(-) Interest Income	19	28
(+) Other expenses	9	-
	28	28
Operating EBITDA	(2,133)	(4,448)

The consolidated financial statements of the Group are general purpose financial statements which have been prepared in accordance with the Australian Accounting Standards Board (AASB) and the Corporations Act 2001. The consolidated financial statements comply with International Financial Reporting Standards Board (IASB).

This presentation includes a non-GAAP financial measure which is not prepared in accordance with IFRS being:

Operating EBITDA: calculated by adding back (or deducting) finance expense/(income), depreciation, amortisation, gain/(loss) in FV of derivative liability, and loss on debt extinguishment to net profit/(loss) after tax.

The Group uses this measure internally and believes this non-GAAP financial measure provides useful information to readers to assist in position or returns, but that they should not be viewed in isolation, nor considered as a substitute for measures reported in accordance with IFRS.

Non-GAAP financial measures may not be comparable to similarly titled amounts reported by other companies.