

Aurora Labs (ASX: A3D)

New Technologies Can Take Time

20 March 2018

Alex Smith
asmith@pacpartners.com.au
+03 8633 9865

Key Points

- Aurora Labs (ASX: A3D) is an additive manufacturer, which designs and develops several types of 3D metal printers.
- Aurora Lab's made strong progress throughout the quarter signing several agreements and partnerships
- Their larger printer technology offers advantages over existing technologies such as faster speeds, larger build area, and finer precision.
- We value A3D at \$0.58/share, which is 17% below the current price. We will revise our valuation and recommendation as milestones for the Large Format Technology are achieved.

Overview

- **Activities:** Aurora Labs took several steps forward on their pathway to commercialisation over the quarter. A3D signed an agreement with WorleyParsons to establish a Solutions Centre, which will help supply their Large Format Technology and prototyped components to the industry. We expect industry partners to begin testing of pre-production models of the MFP in early-to-mid FY'19.
- A3D signed an agreement with the CSIRO, which will see A3D deliver an SFP and materials up to the value of \$100k, in return A3D will receive \$100k worth of research and technical analysis regarding the SFP. A3D also entered into a partnership with DNV GL, which will independently certify the technical performance of printed parts, further helping gain acceptance in the industry.
- **Board and Leadership:** Aurora Labs added two significant members to their board including Mr Paul Kristensen as Non-Executive Chairman and Mr Mel Ashton Non-Executive Director. This is a welcome change, and given Mr Kristensen's extensive experience in early stage technology development his appointment will help A3D refine its commercialisation pathway for the LFT.
- **Capital:** A3D successfully completed a capital raising of \$5m at \$0.80 per share, with a subsequent \$3m available to be raised under an SPP.
- **Financials Projections:** In our forecasts we expect growth in revenue to be driven by the sale of SFP from distributors in Europe and Asia, and in FY'19 predominantly through the sale of the MFP with industry partnerships. We have more than halved our SFP sales estimates from 50 to 20 in FY'19 and FY'18 from 20 to 10, given the most recent half year unit sales of ~2.
- **Risks:** Delays in the research and development of the MFP are likely, which would push back potential sale.

Recommendation

Sell

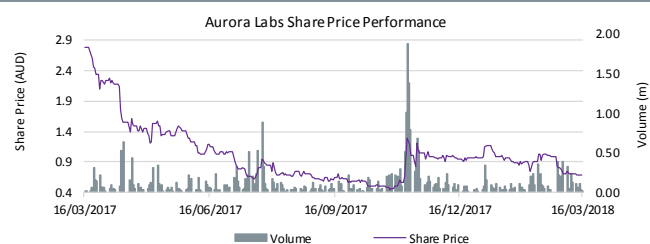
Previous Recommendation	Sell
Risk Rating	Very High
Current Share Price	\$0.69
12 Month Price Target	\$0.58
Price Target Methodology	Trading Multiples and Transactions
Total Return (Capital + Yield)	-17%
Relative Valuation	\$0.58
Market capitalisation (Diluted)	\$51m

Financial Forecasts

Y/e (\$'000)	FY'16A	FY'17A	FY'18F	FY'19F
Revenue	-	238	700	5,400
Gross Profit	-	84	140	1,860
EBITDA	-1,054	-2,338	-4,137	-2,406
EBIT	-1,119	-3,399	-4,308	-2,792
Tax Expense	-	-	-	-
Net Profit	-1,119	-3,399	-4,308	-2,792
Cash Balance	2,353	5,250	7,125	2,560

Source: PAC Partners estimates

Aurora Labs (A3D) Share Price Performance



Source: Capital IQ

Disclosure: PAC Partners will be paid a fee under the ASX Equity Research Scheme for this research. Please refer to the full disclaimer on page 6.

Peers

Data Used: We have plotted the data for listed global peers and acquisition transactions in the 3D metal printing space using companies that manufacture on an industrial scale.

Y-Axis: The vertical axis plots the most recent price in terms of market capitalisation over the company’s most recent historical sales – Price / Sales (x). As the additive manufacturing industry is relatively nascent, we decided against using EBITDA, EBIT, CFO or EV as the results were not meaningful.

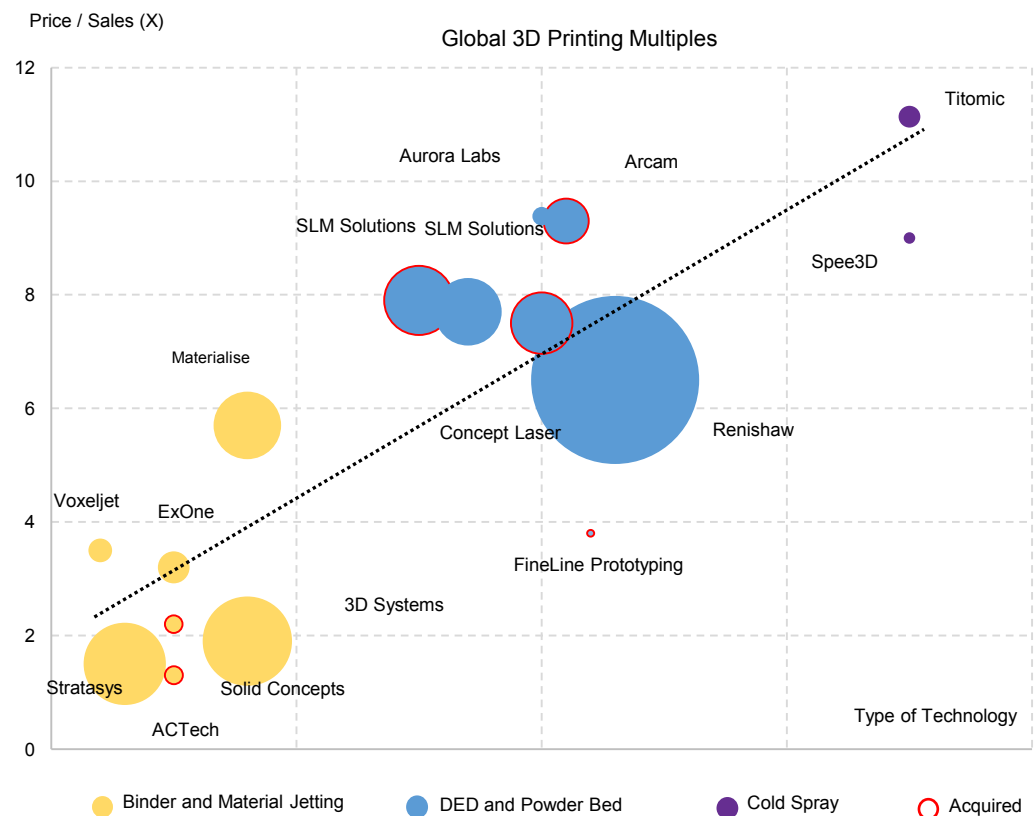
Bubble Size: The relative size of the bubble indicates a company’s market capitalisation, and the centre corresponds to the Price / Sales (x). A red outline indicates companies that were acquired, except in the case of SLM Solutions as the offer was withdrawn.

X-axis: The horizontal axis shows the indicative manufacturing process, and is broadly delineated into Binder and Material Jetting, DED & Powder Bed, and Cold Spraying. An explanation of the differences in processes can be found in the appendix. The horizontal axis is not interpreted as the date the company was founded.

Trend Line: The trend line shows the relationship between the type of technology and the associated valuation premium. The trend line is not to be interpreted to have an R² coefficient. Also note that data for A3D, Titomic and Spee3D uses projected FY’19 sales rather than historical sales, and that all data coordinates can be found in the appendix.

Excluded Data: Other Australian additive manufactures, such as Mach7, Robo3D and T3D were not included because their operations are not related to industrial metal 3D printing.

Exhibit 12: Listed Global Industrial 3D Printing Companies and Transactions



Source: PAC Partners Estimates, Capital IQ

Conclusion and Comments: From the graph, 3D printing manufacturers and solution providers which use Binder and Material Jetting processes tend to trade on Price / Sales (x) ratios in the region of 2 – 4 (x). Materialise commands a premium of 5.7x because 60% of its revenue is derived from high

margin software sales. Similarly, DED and Powder Bed processes such as Selective Laser Melting (SLM) and Electron Beam Melting (EBM) generally trade on Price / Sales (x) multiples of 7 – 9 times. Notably, Renishaw is by far the largest with a capitalisation of \$5.9Bn. General Electric (GE) has actively sought to acquire manufacturers in this space with the takeover of Concept Laser for \$788m and Arcam for \$418m, and the proposed acquisition of SLM Solutions for \$1Bn. A3D utilises DED and Powder Bed processes, therefore, it appears reasonable for A3D to trade on multiples within the 7 – 9 (x) times range.

Valuation and Sensitivity

Valuation: We value A3D at \$0.58 per share based on the peer analysis outlined in the above section. We used a Price to Sales multiple of 8x, which is the mid-point of the range suggested by industrial 3D printing manufacturers using the DED and Powder Bed printing process. We used A3D's expected revenue in FY'19 of \$5.4m to generate an implied capitalisation of \$43m and divided this by the diluted number of shares outstanding of 74m which includes 58.1m shares on issue and 9m in-the-money-options and our estimate from the up to \$8m equity raising. Our implied capitalisation of \$43m over the diluted shares of 74m generates a value per share of \$0.58.

Exhibit 13: Aurora Labs Peer Valuation Range, including Transaction Data Table

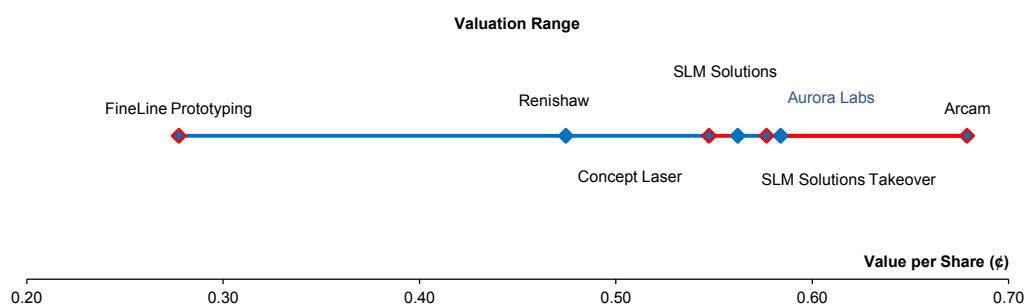
Company	Revenue FY'19 (m)	Implied Cap. (m)	Diluted Shares (m)
Aurora Labs	5.4m	43m	74m

Company	Price / Sales (x)	Market Cap. (m)	Value per Share (\$)
Powder Bed and DED:			
FineLine Prototyping	3.8x	21m	0.28
Renishaw	6.5x	35m	0.47
Concept Laser	7.5x	41m	0.55
SLM Solutions	7.7x	42m	0.56
SLM Solutions Takeover	7.9x	43m	0.58
Arcam	9.3x	50m	0.68

Source: PAC Partners Estimates

The range of values implied by the various multiples is presented below. Blue data indicates Powder Bed and DED processes, a red outline indicates transaction data.

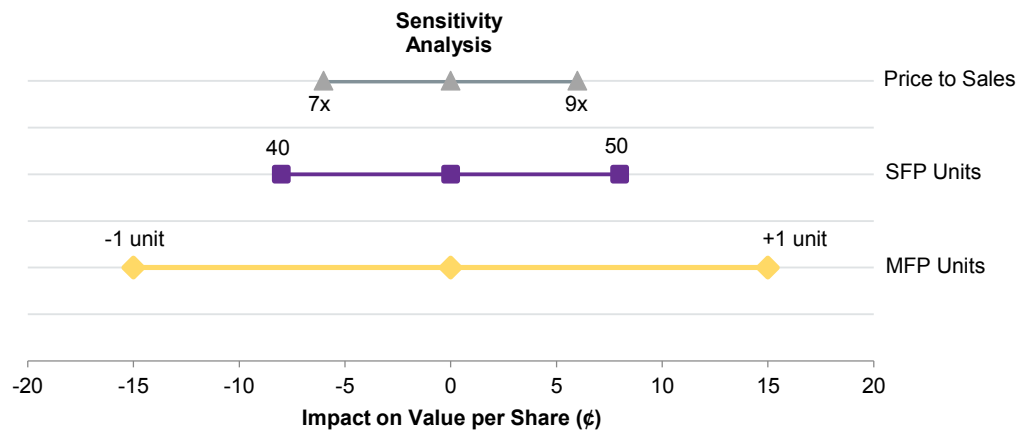
Exhibit 14: Aurora Labs Peer Valuation Range, including Transaction Data



Source: PAC Partners Estimates

Sensitivity: The main factors in our analysis are the Price to Sales multiple and A3D's FY'19 revenue, which is largely affected by the number of SFP and MFP machines sold. If the Price to Sales ratio changes by 1x then the impact on valuation is 8¢ per share. For each 10 unit change in the number of SFP units sold the impact on value per share is 10¢. If there is a change in the number of MFP units sold of 1 unit to either 2 units or 4 units sold then the change in value per share is 15¢.

Exhibit 15: Aurora Labs Sensitivity: Impact on Valuation per Share



Source: PAC Partners Estimates

Financial Projections

Income Statement (\$'000)				
Year Ending June	FY'2016A	FY'2017A	FY'2018F	FY'2019F
Operating Revenue	-	238	700	5,400
Gross Profit	-	84	140	1,860
Operating Expense (Exc. D&A)	-1,054	-2,422	-4,277	-4,266
EBITDA	-1,054	-4,137	-4,137	-2,406
Depreciation & Amortisation	-2	-28	-172	-385
EBIT	-1,113	-4,308	-4,308	-2,792
Net Interest Income	-5	52	0	0
EBT	-1,119	-4,308	-4,308	-2,792
Tax Expense	-	-	0	0
Net Profit	-1,119	-4,308	-4,308	-2,792

Balance Sheet (\$'000)				
Year Ending June	FY'2016A	FY'2017A	FY'2018F	FY'2019F
Cash and Equivalents	2,353	5,250	7,125	2,560
Working Capital, Net	-262	943	-70	1,620
PPE, Net	13	357	686	771
Intangibles	60	226	226	226
Total Assets	246	6,776	7,967	5,176
Other	2,109	-	-	-
Working Capital Facility, Debt	-	-	-	-
Total Liabilities	2,109	-	-	-
Issued Capital	1,366	10,346	15,846	15,846
Retained Earnings	-1,368	-4,767	-9,076	-11,867
Other	58	1,197	1,197	1,197
Equity	55	6,776	7,967	5,176

Cash Flow Statement (\$'000s)				
Year Ending June	FY'2016A	FY'2017A	FY'2018F	FY'2019F
EBITDA	-1,054	-2,338	-4,137	-2,406
Net Interest Received	-5	52	-	-
Income Tax Paid	-	-	-	-
Working Capital, Net Movement	86	-1,205	1,013	-1,690
Other	3	-162	-	-
Cash Flow from Operations	-970	-3,653	-3,123	-4,096
Capital Expenditure	-71	-507	-501	-469
Cash Flow from Investing	-71	-507	-501	-469
Share Issue, Net Proceeds	3,345	7,057	5,500	-
Debt Issue, Net Proceeds	-	-	-	-
Financing Cash Flow	3,345	7,057	-	-
Net Cash Flow	2,305	2,896	1,876	-4,566

Contact Information

CORPORATE FINANCE	RESEARCH	DEALING
CRAIG STRANGER Managing Director <i>cstranger@pacpartners.com.au</i> 03 8633 9832	PAUL JENSZ Executive Director, Research <i>pjensz@pacpartners.com.au</i> 03 8633 9864	JAMES WILSON Executive Director, Institutional Sales, – Sydney <i>jwilson@pacpartners.com.au</i> 02 9994 5557
SEAN KENNEDY Corporate Finance <i>skennedy@pacpartners.com.au</i> 03 8633 9836	ANDREW SHEARER Senior Analyst <i>ashearer@pacpartners.com.au</i> 03 8633 9862	PHIL CAWOOD Institutional Sales – Sydney <i>pcawood@pacpartners.com.au</i> 02 9994 5552
ANTHONY STANI Corporate Finance <i>astani@pacpartners.com.au</i> 03 9618 8251	ERWIN TAN Analyst <i>etan@pacpartners.com.au</i> 02 9994 5559	MARK PASHLEY Head of Sale Trading – Sydney <i>mpashley@pacpartners.com.au</i> 02 9994 5558
BROOKE PICKEN COO <i>bpicken@pacpartners.com.au</i> 03 8633 9831	ALEX SMITH Analyst <i>asmith@pacpartners.com.au</i> 03 8633 9865	SEBASTIAN JURD Senior advisor – Sydney <i>sjurd@pacpartners.com.au</i> 02 9994 5553
ROGER CHEN Analyst <i>rchen@pacpartners.com.au</i> +852 2543 8600	LAWRENCE GRECH Analyst <i>lgrech@pacpartners.com.au</i> 0404 052 913	RYAN GALE Advisor – Melbourne <i>rgale@pacpartners.com.au</i> 03 8633 9833
		TOM FAIRCHILD Corporate Sales – Melbourne <i>tfairchild@pacpartners.com.au</i> 03 8633 9867
SYDNEY Kyle House, 27 – 31 Macquarie Place, Sydney +61 2 9233 9600		IAN LEETE Corporate Sales – Sydney <i>ileete@pacpartners.com.au</i> 02 9994 5551
MELBOURNE (Head Office) Level 10, 330 Collins Street, Melbourne +61 3 8633 9831		DANIEL GADALLA Desk Assistance – Melbourne <i>dgadalla@pacpartners.com.au</i> 03 8633 9834
Hong Kong Upper Ground Floor, 148 Queens Road Central +0011 852 041169 7866		SOL JONES Operator – Sydney <i>sjones@pacpartners.com.au</i> 02 9994 5554

RECOMMENDATION CRITERIA

Investment View

PAC Partners Investment View is based on an absolute 1-year total return equal to capital appreciation plus yield.

A Speculative recommendation is when a company has limited experience from which to derive a fundamental investment view.

Buy	Hold	Sell
>20%	20% – 5%	<5%

Risk Rating

PAC Partners has a four tier Risk Rating System consisting of: Very High, High, Medium and Low. The Risk Rating is a subjective rating based on: Management Track Record, Forecasting Risk, Industry Risk and Financial Risk including cash flow analysis.

Disclosure of Economic Interests

The views expressed in this research report accurately reflect the personal views of Alex Smith about the subject issuer and its securities. No part of the analyst's compensation was, is or will be directly or indirectly related to any recommendation or view expressed in this report.

The following person(s) do hold an economic interest in the securities covered in this report or other securities issued by the subject issuer which may influence this report:

- the author of this report
- a member of the immediate family of the author of this report

Disclaimer

PAC Partners Pty Ltd. ("PAC Partners" or "PAC") is a Corporate Authorised Representative of PAC Asset Management Pty Ltd holder of an Australian Financial Services Licence (AFSL No. 335 374).

The information contained in this report is provided by PAC Partners to Wholesale Investors only. Retail investor and third party recipients should not rely, directly or indirectly, on this report. Users of this research report should not act on any content or recommendation without first seeking professional advice. Whilst the report has been prepared with all reasonable care from sources which we believe are reliable, no responsibility or liability is accepted by PAC Partners, for any errors or omissions or misstatements however caused. Any opinions, forecasts or recommendations reflect our judgement and assumptions at the date of publication or broadcast and may change without notice. This report is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. This publication contains general securities advice. In preparing our Content it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual user. Access of this report does not create a client relationship between PAC Partners and the user. Before making an investment decision on the basis of this advice, you need to consider, with or without the assistance of a securities adviser, whether the advice in this publication is appropriate in light of your particular investment needs, objectives and financial situation. PAC and its associates within the meaning of the Corporations Act may hold securities in the companies referred to in this publication. PAC believes that the advice and information herein is accurate and reliable, but no warranties of accuracy, reliability or completeness are given (except insofar as liability under any statute cannot be excluded). No responsibility for any errors or omissions or any negligence is accepted by PAC or any of its directors, employees or agents. Any content is not for public circulation or reproduction, whether in whole or in part and is not to be disclosed to any person other than the intended user, without the prior written consent of PAC Partners.

This report was prepared solely by PAC Partners Pty Ltd. ASX did not prepare any part of the report and has not contributed in any way to its content. The role of ASX in relation to the preparation of research reports is limited to funding their preparation, by PAC Partners Pty Ltd in accordance with the ASX Equity Research Scheme. ASX does not provide financial product advice. The views expressed in this research report may not necessarily reflect the views of the ASX. To the maximum extent permitted by law, no representation, warrant or undertaking, express or implied, is made and no responsibility or liability is accepted by ASX as to the adequacy, accuracy, completeness or reasonableness of the research reports.

Disclosure of Corporate Involvement

PAC Partners has not in the previous 12 months carried out work on behalf of the Company described in this report and received fees on commercial terms for its services. PAC Partners and/or their associates may own securities of the Company described in this report. PAC Partners does and seeks to do business with companies covered in the research. PAC may receive commissions from dealing in securities. As a result, investors should be aware that PAC Partners may have a conflict of interest that could affect the objectivity of this report.

For more information about PAC Partners please visit www.pacpartners.com.au