Aurora Labs™

30 April 2019

ASX Announcement

CORPORATE DIRECTORY

Chairman
PAUL KRISTENSEN

Founder, Managing Director
DAVID BUDGE

Business Development and Marketing Director
NATHAN HENRY

Non-Executive Director
MEL ASHTON

Non-Executive Director and Company Secretary
MATHEW WHYTE

FAST FACTS

Issued Capital: 88.6m
Quoted Options: 3.7m
Unquoted Options: 2.8m
Market Cap: $32.0m
Cash: $4.8m
(As at 31 March 2019)

CONTACT DETAILS

U2/79 Bushland Ridge,
Bibra Lake, WA
AUSTRALIA 6163

enquiries@auroralabs3d.com
t. +61 (0)8 9434 1934
auroralabs3d.com

ASX CODE: A3D
ACN: 601 164 505

Aurora Labs Limited Quarterly Report and Appendix 4C for Q3 FY2019

Highlights:

- Rapid Manufacturing Printer (RMP1) proves scalability using Multilevel Concurrent Printing (MCP™) and achieves speed increase to 113kg per day or 55 times faster than Market Speed[1]
- Aurora showcases Multi-level Printing, used in Rapid Manufacturing Technology printers, at international tradeshow, AMUG in Chicago
- Joint Venture AdditiveNow™ starts operations
- Aurora Labs signs collaboration agreement with the University of Western Australia (UWA) and Royal Perth Hospital (RPH) to 3D print medical implants
- Successful first trial to print high density aluminium
- Successful placement raises $5 million from new high quality institutional and sophisticated investors

Aurora Labs Limited ("Aurora" or "the Company") (ASX:A3D), has today released its quarterly Appendix 4C for Q3 (FY) 2019 (refer attached).

Rapid Manufacturing Technology Enhancements

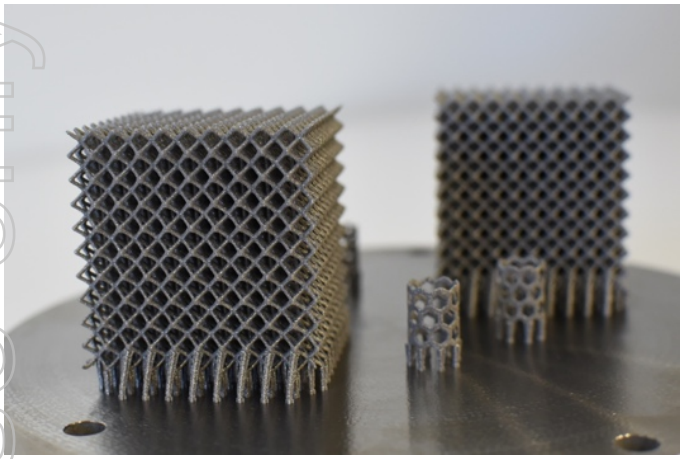
Aurora Labs achieved significant progress during the quarter with its unique 3D printing Rapid Manufacturing Technology (RMT), demonstrating the scalable nature of the technology and achieving remarkable print speeds of 113kg/day. This represents a speed of approximately 55 times Market Speed and demonstrates the potential of the technology to transform the metal manufacturing industry worldwide. This is an important step in validating Aurora's technology and marks another milestone in the Company's commercialisation process.

Revision of the MCP™ and RMT technology

How is MCP™ different to Traditional 3D Printing?

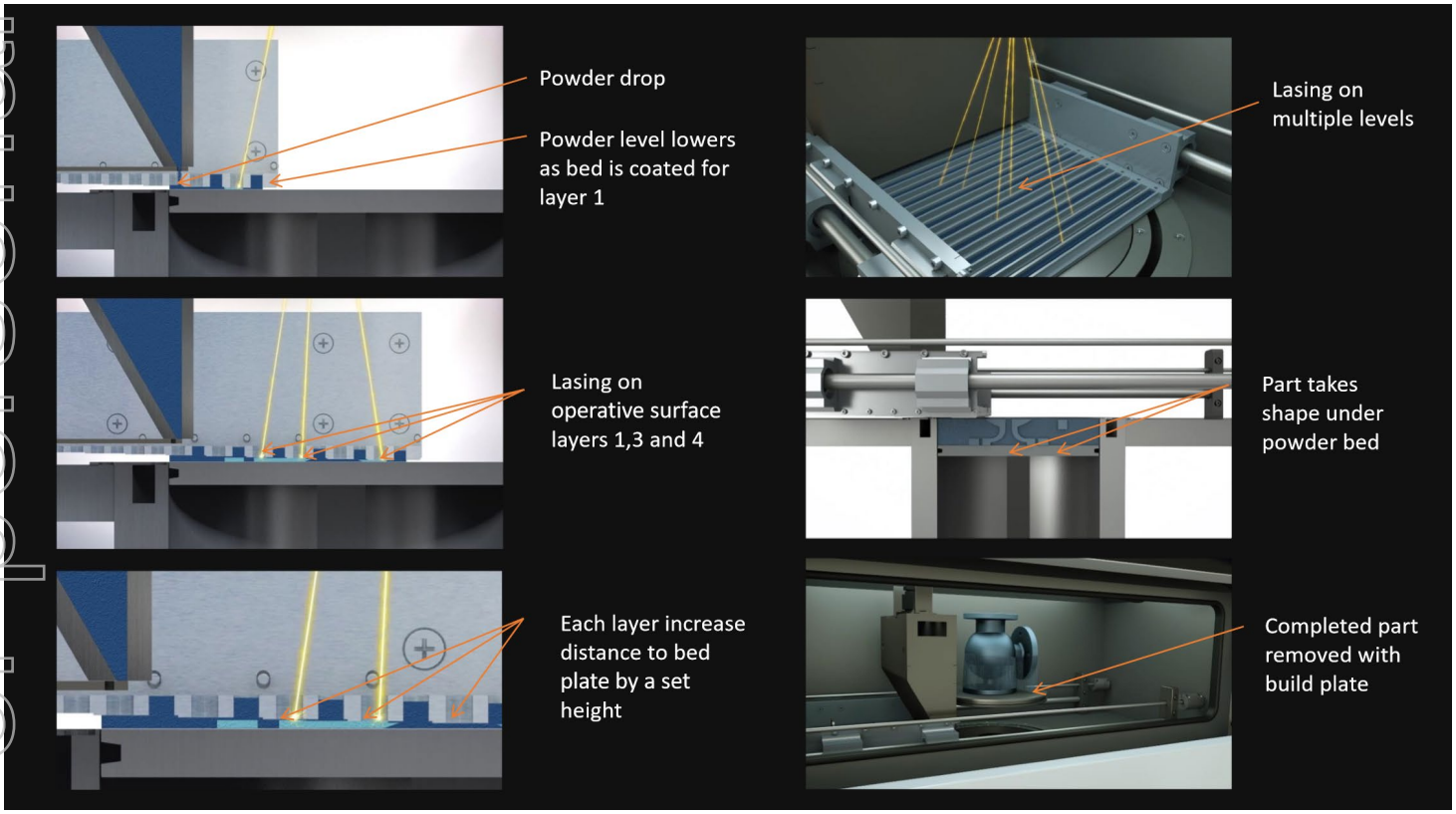
In traditional 3D printing, a digital part (3D model) is run through software which slices the digital part up into a series of very thin layers. The printer puts down a layer of powder on the print bed and then the first "slice" of the part is fed digitally to the printer and an energy beam (laser, e-beam or other) scans the surface of the powder bed, melting and fusing the powder in the exact shape and dimensions of the slice. This process is repeated and the next layer fuses to the previous one, forming a homogenous part. This process is repeated until all the slices have been printed. Once printed what is left is a complete replication of the digital part that has now been printed out of metal.

[1] Aurora Labs defines Market Speed as the speed at which a comparable machine can print Titanium (CP-Ti). Market research has shown this to be 81.7 g/hr or 1.96 kg per day.



RMT – "Alpha 2" Ti6Al4V mesh prints, printed using MCP™ process and demonstrating increased size, accuracy and complexity

By comparison, in Aurora's unique MCP™ process, multiple layers of powder are laid down at the same time. During the powder laying process there is an area behind each individual powder gate where printing can take place (operative surface), meaning that printing can occur on these multiple operative surfaces simultaneously (Multilevel Concurrent Printing). By using a number of gates, MCP™ printing can be significantly faster than traditional 3D printing processes. The number of simultaneously printed layers indicate the speed gain factor achieved.



Watch Aurora Multilayer printing here https://auroralabs3d.com/video/20181116_01.mp4

Aurora Labs Ltd
U2/79 Bushland Ridge,
Bibra Lake, WA, AUSTRALIA 6163

t. +61 (0)8 9434 1934
e. enquiries@auroralabs3d.com

ACN: 601 164 505
ASX Code: A3D

auroralabs3d.com

Rapid Manufacture Technology (RMT) - Scalability the Key to Speed

Aurora has designed its MCP™ technology to be scaled from the very beginning. The Company's Alpha machine, which has carried out the majority of tests to date, has a single sub-unit. The machine has been modified to include the connection of two sub-units (Alpha 2) working together which has the effect of approximately doubling the speed capacity of the single unit configuration. This scaling process is expected to allow Aurora to scale to virtually any size and capacity with the large format unit expected to be printing up to a 1000kg/day with multiple sub-units contained within it.

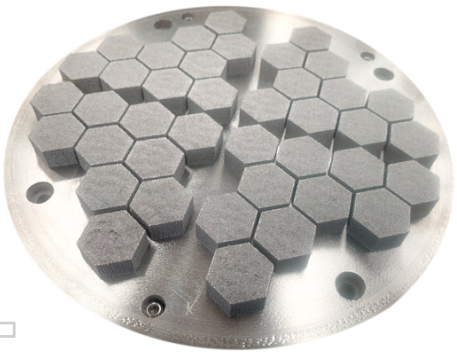
Both of these technologies combined (MCP™ and its ability to scale) are Aurora's RMT and demonstrate a possible pathway to very high-speed large format printing, providing major companies with a solution to their metal parts and manufacturing needs. This differentiates the Company from the traditional 3D printing market as there are significant limitations on speed using existing technologies.

RMT example

Aurora also successfully completed the rapid manufacture of a series of 10mm high, titanium hexagon parts, using its Multilevel Concurrent Printing (**MCP™**) technology.

The test production run, which was completed in 20 minutes on a 200mm plate, further demonstrates the capability of Aurora's unique MCP™ technology, which will feature in the company's RMP-1.

Managing Director, David Budge, said the test is another example of the technology's ability to manufacture complex shapes at high speeds.

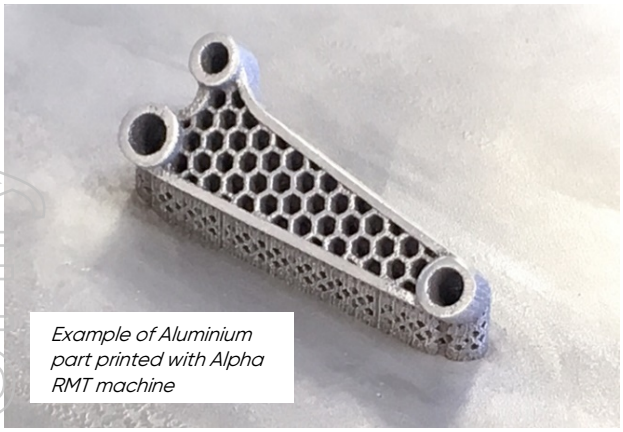


Titanium hexagonal shapes, printed in 20 minutes on Alpha 2, using the Multi-layer Concurrent Printing process.

"This as an exciting test for us, following on from our result in February that achieved 3D print speeds of 113 kilograms per day," Mr Budge said.

"This outcome will give our partners and future customers confidence that we have an additive manufacturing solution that can deliver the Holy Grail of rapid 3D printing, which is looking to revolutionise the production of parts in a whole range of applications."

Please view a video of the hexagonal parts being printed here (real time).



Example of Aluminium part printed with Alpha RMT machine

Successful printing of high-density aluminium

Aurora Labs has recently completed a successful print run of high-density aluminium. The first test run, using the Company's prototype Alpha RMT machine, manufactured an aluminium part at a density of around 99%.

"This is an early stage result and we are expecting to achieve further significant manufacturing improvements. Aluminium is in high demand for a range of high-value applications such as the Automotive, Aerospace and Heat Exchanger industries where consistent quality and meeting tight specifications is required," Mr Budge said.

Aurora Labs showcased technology at the Additive Manufacturing Users Group (AMUG)

The successful test runs at Aurora Labs' Bibra Lake facility coincided with the Company showcasing its technology at the AMUG Conference in Chicago at the end of March. AMUG is the premier forum for the developers and users of Additive Manufacturing to share information and learn from each other. Interest from potential customers was extremely high with numerous groups commenting on the speed and capability of the new machine.

Aurora Labs signs collaboration agreement with the University of Western Australia (UWA) and Royal Perth Hospital (RPH) to 3D print medical implants

Aurora Labs announced the signing of a binding term sheet with the University of Western Australia ("UWA") and Royal Perth Hospital ("RPH") in a collaboration agreement to develop 3D printing of titanium medical implants. This is a significant first step in the possible adaptation of Aurora's S-Titanium Pro printers as a fit for purpose solution for cranial implants that are by their nature of being specific to the individual, bespoke one offs. This process will give Aurora experience with partners that have been designing and producing implants for many years. The value of the industry is projected to be US $8.1billion by 2029.[2]

AdditiveNow™ joint venture starts operations

The AdditiveNow™ joint venture, which was established in December to service the energy and mining sectors, has now commenced its commercial operation.

To read more about AdditiveNow™, visit the website at https://additivenow.com/.

Industry Partner Program

Aurora's Industry Partner Program is an opportunity for major manufacturing and engineering companies to access Aurora's RMT and explore applications of additive manufacturing. The Company is building these programs, with initial partners including VEEM, DNV-GL, Advisian Digital and Fortescue Metals Group.

Financial and Cash Position

The Company completed a capital raising of $5 million (before costs of the issue) by way of a placement to new institutions and sophisticated investors. A total of 13,157,895 Shares were issued at $0.38 per share. Funds from the placement will primarily be applied to fast track the completion of development of RMT and working capital.

As at 31 March 2019, cash at bank and on deposit was approximately A$4.8 million.

[2] https://www.idtechex.com/research/articles/3d-printing-in-the-medical-industry-medicine-implants-models-more-00016754.asp?donotredirect=true

Aurora's monthly expenditure levels (before R&D refunds) have been consistent throughout the financial year to date. Expenditure in the March quarter focused on R&D expense on RMP1-alpha models that proved out MCP and scalability of the technology - which has resulted in significant increases on printing speeds.

Estimated expenditure for the June quarter will see reduced R & D costs with funds directed to constructing the soon to be completed RMP1 Beta printer for final testing and promotion of that printer for a potential sale or lease to an industry partner

Please refer to the Appendix 4C quarterly commitments report for the period ended 31 March 2019 for further information.

ABOUT AURORA LABS

Aurora Labs Limited ("the Company"), an industrial technology and innovation company that specialises in the development of 3D metal printers, powders, digital parts and their associated intellectual property.

Aurora Labs is listed on the Australian Securities Exchange (ASX: A3D).

ABOUT ADDITIVENOW™

AdditiveNow is an incorporated joint venture between A3D Holdings Pty Ltd (a member of the Aurora Labs group of companies) and WorleyParsons Services Pty Ltd (a member of the WorleyParsons group of companies). It is operated through AdditiveNow Pty Ltd (ACN 630 628 134) and AdditiveNow Holdings Pty Ltd (ACN 630 609 068). This document was prepared by Aurora Labs. None of AdditiveNow Pty Ltd, AdditiveNow Holdings Pty Ltd or WorleyParsons Services Pty Ltd takes any reasonability or liability for the statements contained in this document."

FORWARD LOOKING STATEMENTS

This announcement contains forward-looking statements which incorporate an element of uncertainty or risk, such as 'intends', 'may', 'could', 'believes', 'estimates', 'targets' or 'expects'. These statements are based on an evaluation of current economic and operating conditions, as well as assumptions regarding future events. These events are, as at the date of this announcement, expected to take place, but there cannot be any guarantee that such events will occur as anticipated or at all given that many of the events are outside Aurora's control.

Accordingly, Aurora and the directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur.

For further information, please contact:

enquiries@auroralabs3D.com

Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

Name of entity	
Aurora Labs Limited (ASX: A3D)	
ABN	**Quarter ended ("current quarter")**
44 601 164 505	**31 March 2019**

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date 9 months $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	189	585
1.2	Payments for		
	(a) research and development [1] (Medium and Large Format Printer (MFP and LFP)) Powder production unit (PPU)	(709)	(1,727)
	(b) product manufacturing and operating costs (Small Format Printer (SFP))	(169)	(496)
	(c) advertising and marketing	(72)	(238)
	(d) leased assets	-	-
	(e) staff costs	(972)	(2,932)
	(f) administration and corporate costs	(547)	(1,942)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	3	26
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	R & D grants received	40	1,424
1.8	Other (Net GST)	(9)	15
1.9	**Net cash from / (used in) operating activities**	**(2,246)**	**(5,285)**

1. Research and development is not inclusive of allocation for staff, administration and corporate costs.

Consolidated statement of cash flows		Current quarter $A'000	Year to date 9 months $A'000
2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(26)	(124)
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	(132)	(194)
	(e) other non-current assets	-	-
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	-	-
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(158)**	**(318)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	5,003	6,997
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(312)	(343)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**4,691**	**6,654**

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date 9 months $A'000**
4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of quarter/year to date	2,558	3,790
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,246)	(5,285)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(158)	(318)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	4,691	6,654
4.5	Effect of movement in exchange rates on cash held	(3)	1
4.6	**Cash and cash equivalents at end of quarter**	**4,842**	**4,842**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	842	2,558
5.2	Call deposits	4,000	-
5.3	Bank overdrafts	-	-
5.4	Other (Cash on Hand)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**4,842**	**2,558**

6.	**Payments to directors of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to these parties included in item 1.2	155
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Item 6.1 includes salaries and directors fees paid to directors.

7.	Payments to related entities of the entity and their associates	Current quarter $A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

8.	Financing facilities available *Add notes as necessary for an understanding of the position*	Total facility amount at quarter end $A'000	Amount drawn at quarter end $A'000
8.1	Loan facilities	Nil	Nil
8.2	Credit standby arrangements (Credit Card)	(10)	-
8.3	Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

9.	Estimated cash outflows for next quarter	$A'000
9.1	Research and development	(460)
9.2	Product manufacturing and operating costs	(101)
9.3	Advertising and marketing	(248)
9.4	Leased assets	-
9.5	Staff costs	(980)
9.6	Administration and corporate costs	(377)
9.7	Property, plant and equipment & Intellectual property	(159)
9.9	**Total estimated cash outflows**	**(2,325)**

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

Performance Shares

The Company provides the following information in relation to Performance Shares (ASX Code: A3DAJ):

1. Number of Performance Shares at the beginning of the current quarter was 7,612,500, comprising:
   - 7,612,500 Class C Performance Shares.
2. Each Performance Share will convert into a fully paid ordinary shares (**Shares**), on a one-for-one basis, upon the satisfaction of the following milestones (**Milestones**):
   - for Class C Performance Shares – upon achievement of Aurora (or an entity controlled by Aurora) having cumulative revenue of A$7,250,000 before 30 June 2019.
3. If the relevant Milestone for a class of Performance Share is not achieved by the required date, then each Performance Share in that class will be automatically redeemed and cancelled by Aurora for the sum of $0.00001 within 10 business days of non-satisfaction of that Milestone.
4. The Milestone for 7,087,500 Class B Performance Shares was not satisfied by the required dated (i.e. by 30 June 2018) and the Class B Performance Shares were automatically redeemed in accordance with their terms. To ensure the redemption was properly effected, Aurora obtained shareholder approval at its 2018 annual general meeting for a selective capital reduction in relation to the Class B Performance Shares.
5. No Milestones were met during the current quarter.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Sign here: ..... Date: 30 April 2019
Company Secretary

Print name: Mathew Whyte

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by

ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.