AML3D Limited
35 Woomera Avenue
Edinburgh SA 5111
AUSTRALIA

investor@aml3d.com
+61 8 8258 2658
www.aml3d.com

AML3D LIMITED (ASX: AL3)

DECEMBER 2021 QUARTERLY ACTIVITIES REPORT AND APPENDIX 4C

AML3D Limited (ASX: AL3) (**"AML3D"** or **"the Company"**), a leader in large scale 'Additive Metal Layering' 3D printing, is pleased to provide the Quarterly Activities Report and Appendix 4C for the quarter ended 31 December 2021 (Q2FY22).

KEY HIGHLIGHTS DURING THE QUARTER

Strongest Quarter Since Listing

AML3D has achieved its strongest trading quarter since listing with customer receipts of $614,000. The increase in receipts were principally driven by two initial deposits for the sale of Arcemy units. In addition AML3D received ongoing rental income from the Company's Singapore based Arcemy unit, and an increase in receipts from numerous print jobs from new and existing customers.

As previously announced, orders for two Arcemy units have been received from the University of Queensland and Royal Melbourne Institute of Technology. Both units are currently under construction with expected delivery during Q3FY22. When installed, these units will form part of the Universities' additive manufacturing curriculum, resulting in a significant number of students trained to use our technology, and understanding its potential uses.

A further rental payment was received from ST Engineering for our Singapore based Arcemy unit. ST Engineering have confirmed their intention to purchase the unit outright prior to the end of this financial year.

During the quarter, the company received ongoing revenue from print jobs undertaken for existing customers Lightforce and ThyssenKrupp and new customers comprising:

- North American aerospace – AML3D was specifically sought out to produce a bespoke prototype. The part was dispatched in early December 2021, and we currently await the results of the customer testing and validation.
- Defence aerospace – AML3D is producing a nozzle consisting of four segments with a combined length of just under two metres. Printing using Aluminum ER5183, the finished product will weigh approximately 500kg.
- Energy sector (oil and gas) – The order is for a pure titanium plunger, believed to be the first of its kind to be 3D printed, able to withstand a high pressure and corrosive environments.

Wire Feedstock Composition Projects

AML3D and Deakin University, in partnership with IFM Institute of Frontier Materials and IMCRC, have been investigating and trialing the effect of Scandium as a strengthening element for existing aluminium wire feedstock. Trials from the nine-month 'Optimising of Scandium Containing Aluminium Alloys Project' have been undertaken using AML3D's facilities to create high strength commercially viable aluminium-scandium compounds, which will remove the need for age hardening heat treatment.

Scandium is known to provide significant benefits when added to aluminium, however historical technological limitations have restricted its adoption in industrial applications. The new alloy composition developed as part of this Project along with AML3D's proprietary WAM® technology is expected to deliver high strength, corrosion resistant WAAM structures, with significant commercial potential.

As the project enters its final months, its success is expected to facilitate many new applications for WAM®, with the automotive, resources (mining, oil & gas) and broader transport industries (such as shipbuilding) showing strong interest in high strength aluminium products.

AML3D has also signed a further framework agreement with Deakin University's Institute for Frontier Materials (IFM) to complete a series of proof-of-concept projects exploring incorporating Boron Nitride Nanotubes (BNNTs) in AML3D's WAM® technology. IFM is recognised both nationally and internationally for developing advanced materials for commercial applications.

BNNT's are considered the world's strongest and most advanced fibre and have the potential to greatly enhance the properties of WAM® deposited alloys. Two feasibility studies are ready to commence and will explore new techniques for incorporating BNNTs produced using AML3D's WAM® technology with a view to fast-track commercialisation.

A successful conclusion to the proof-of-concept projects is expected to result in AML3D gaining a competitive advantage from access to new Australian owned intellectual property that has the potential to significantly enhance AML3D's WAM® technology and increase the revenue prospects for the company, over time, through increased opportunities in both printer sales and contract manufacturing services.

These projects will expose AML3D to new target industries and be rolled out in AML3D's current target markets of Asia Pacific (incl. Japan, South Korea), Europe (Germany, France & UK), and North America.

Validation of Printed Pressure Vessel

AML3D has 3D printed the world's largest high-pressure Oil & Gas piping component to be successfully tested and verified by Lloyd's Register. This demonstrator component was printed as part of AML3D's internal development program and it showcases capabilities in the subsea oil and gas sector.

The 940kg monocoque "piping spool" component is the world's first to be metal 3D printed and independently pressure tested. At 850mm in length and 450mm in diameter, the 41mm thick high-pressure piping spool was printed according to the stringent and newly released American Petroleum Institute (API) Standard 20S and underwent industry standard high pressure and acceptance testing by Trushape Engineering, specialists in high pressure piping components testing. The testing was independently witnessed and verified by Lloyds Register, one of the world's leading marine verification authorities.

AML3D's WAM® technology allowed this high-pressure component to be printed as one piece, eliminating the need for using 3 separate components using traditional fabrication and welding methods. At the same time, the WAM® process has introduced improved material properties using a higher strength wire feedstock and optimised process parameters, while reducing the manufacturing time from months to just days.

AML3D believes this component demonstrates how WAM® technology has the potential to be a game-changer in the sustainable manufacture of medium to large scale parts for the US$2.1T Global Oil & Gas Exploration and Production Market.

Ongoing Investment in Technology

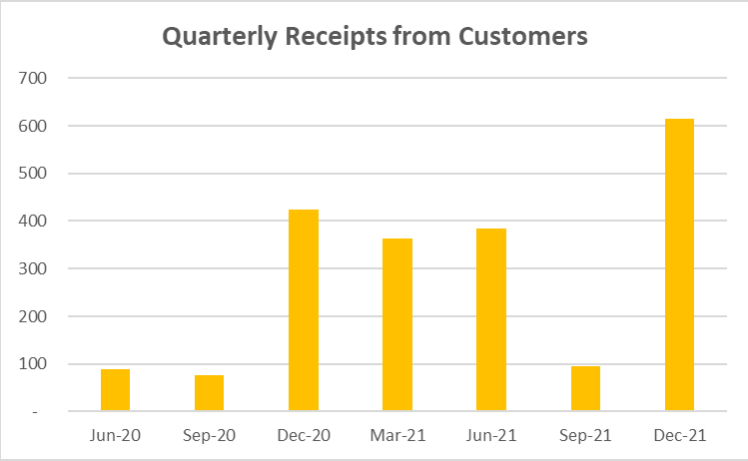
With continuing independent validation of the quality of our products, our focus is firmly on increasing deposition rates to reduce production lead times and improve the commercial applications of our process. Twin wire application and enhancements for our ARCEMY® units remain a key focus to achieving targeted deposition rates of 30 kgs per hour.

Financial

As noted above, Q2FY22 was the Company's strongest quarter since listing with receipts from customers of $614,000.

The increase in receipts reflected receipts of deposits in respect to the sales of two Arcemy units, which are expected to be delivered this financial year, rental payment for the company's Singapore based Arcemy unit, and ongoing contracted service revenue from new and existing clients.

Final receipts of approximately $385,000 from the sales of these two Arcemy units are expected to be received in this financial year following their expected delivery in during Q3FY22.



The Company's cost base is now better aligned to current and expected medium term demand. As a result, net operating cash out flow for the quarter was $1.4 million compared to the prior quarter of $1.8 million, with net cash used in operating activities of $784,000 (Q1FY22: $1.7 million).

Payments for research and development activities remained consistent with prior periods at $543,000 in accordance with the Company's ongoing investment in technology mandates.

Use of Funds

Pursuant to Listing Rule 4.7C2, the comparison of the Company's actual expenditure since listing on the ASX on 20 April 2020 against the Use of Funds as set out in its Prospectus is summarised as follows:

Use of Funds under Prospectus		Funds allocated under the Prospectus	Funds expended to 31 December 2021
Singapore Bureau establishment	1	4,270,000	865,947
Relocation and expansion of Adelaide facility	2	2,840,000	3,361,036
Development of integrated print/machining	3	400,000	53,923
IP protection	4	400,000	84,932
Unallocated working capital - Adelaide		950,000	950,000
Unallocated working capital - Singapore	1	1,100,000	-
Expenses of the offer		1,100,000	1,110,198
Total		**11,060,000**	**6,426,034**

1. **Singapore Bureau Establishment:** Singapore revenue opportunities are increasing with the employment of an additional person to bolster business development. The company is also establishing its own facility in that market this financial year.
2. **Relocation and Expansion of Adelaide Facility:** The relocation and expansion of the Adelaide facility was completed during Q1FY22 with a portion of funds under the Prospectus for the Singapore Bureau establishment reallocated to expand the Adelaide facility to provide greater local capacity.
3. **Development of Integrated Print/Machining**: Whilst initial research, planning, and concept design has been undertaken, our current focus has been on improvements and enhancements to our existing Arcemy unit.
4. **IP Protection:** AML3D has secured an Australian Patent 2019251514 for its WAM® process, along with patent in South Korea and New Zealand. Securing of patents in other key markets, including Europe, the UK and the USA is progressing.

Related Party Payments

Pursuant to Listing Rule 4.7C3, the Company confirms the following related party payments made during the quarter:

- The Company engaged the services of a company controlled by AML3D Managing Director, Mr Andrew Sales' sister to provide IT services. These services were conducted on standard commercial terms. Payments for these services during the quarter totaled $2,184.

Outlook

Cash receipts are expected to increase in the second half of the financial year, as the Company completes and delivers its two Arcemy units currently under construction, along with the expected sale of its Singapore base Arcemy unit to its current lessee.

With the current order book, our facility will be operating at high capacity over the coming months. As a result of this a key focus for AML3D will be the completion of current orders in a timely manner to maintain capacity to meet ongoing customer demand.

AML3D's successful production of a 940kg high-pressure Oil and Gas "piping spool" component alongside the recent release of the global API 20S Standard for Additively Manufactured Metallic Components for the Oil and Gas industry is prompting significant interest from this sector. We expect the Oil and Gas sector will emerge as a key market for our business going forward.

This announcement has been authorised for release by the Board of AML3D.

For further information, please contact:

Andrew Sales
Managing Director
AML3D Limited
T: +61 8 8258 2658
E: investor@aml3d.com

Hamish McEwin
Chief Financial Officer
AML3D Limited
T: +61 8 8258 2658
E: investor@aml3d.com

About AML3D Limited

AML3D Limited, a publicly listed technology company founded in 2014, utilises new technologies to pioneer and lead metal additive manufacturing globally. Disrupting the traditional manufacturing space, AML3D has developed and patented a Wire Additive Manufacturing (WAM®) process that metal 3D prints commercial, large-scale parts for Aerospace, Defence, Maritime, Manufacturing, Mining and Oil & Gas. AML3D provides parts contract manufacturing, from its Technology Centre in Adelaide Australia, and is the OEM of ARCEMY®, an industrial metal 3D printing system that combines IIoT and Industry 4.0 to enable manufacturers to become globally competitive.

Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity	
AML3D Limited	
ABN	**Quarter ended ("current quarter")**
55 602 857 983	31 December 2021

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (6 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	614	709
1.2	Payments for		
	(a) research and development	(543)	(1,066)
	(b) product manufacturing and operating costs	(151)	(461)
	(c) advertising and marketing	(47)	(100)
	(d) leased assets	-	-
	(e) staff costs	(398)	(928)
	(f) administration and corporate costs	(268)	(619)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	3
1.5	Interest and other costs of finance paid	(6)	(13)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	15	15
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(783)**	**(2,467)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(38)	(139)
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) 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**	**(38)**	**(139)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	10
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(44)	(88)
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**	**(44)**	**(78)**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	5,382	7,201
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(783)	(2,467)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(38)	(139)

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(44)	(78)
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**4,516**	**4,516**

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	4,516	4,516
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**4,516**	**4,516**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	2
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	**Total financing facilities**	-	-

7.5	**Unused financing facilities available at quarter end**	-

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

N/A

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(783)
8.2	Cash and cash equivalents at quarter end (item 4.6)	4,516
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	4,516
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	6

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.6.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

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.

Date: 28 January 2022

Authorised by: the Board
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow 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 cash flow 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.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.