4DS Memory Limited | ABN 43 145 590 110

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ASX RELEASE

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28 October 2020

QUARTERLY ACTIVITY REPORT AND APPENDIX 4C

Highlights for the Quarter ended 30 September 2020:

- **Completion of $3.1m SPP, which, together with $4.5m Placement in June 2020, provides 4DS with the funding to meet its objectives in 2021**
- **Further strengthening of 4DS' 100% owned patent portfolio, which now comprises 26 granted patents**
- **Fabrication of the Company's next wafer lots have commenced on schedule**
- **4DS approaching its goal of fabricating a 4DS megabit memory chip on state-of-the-art (300mm) production fab equipment (same equipment as that used by industry players); and/or a corporate transaction**
- **Drs. Wilbert van den Hoek, previous Board member of Cypress Semiconductor and senior executive at Novellus Systems, agrees to join the 4DS Board as Chairman following the Company's AGM**
- **Establishment of a "Sale Bonus Pool" to incentivise Drs van den Hoek and eligible US based employees to achieve a corporate transaction**

4DS Memory Limited (ASX:4DS) (**4DS**) (the **Company**), is pleased to provide its Quarterly Activity Report and Appendix 4C for the quarter ended 30 September 2020.

Successful Completion of Share Purchase Plan (SPP)

Following the completion of a $4.5 million share placement on 29 June 2020 ("Placement"), the Company completed a Share Purchase Plan on 28 July 2020, which raised $3.1m.

The $7.6 million in gross proceeds from the Placement and SPP puts the Company in its strongest financial position since listing in late 2015, with sufficient funds to meet its development objectives until the end of 2021.

Directors, senior management, and service providers received no, or reduced, salaries from April to June 2020 resulting in a reduction in the quarterly cash outflows. A review of the financial circumstances of the Company following the successful capital raising, and the lifting of COVID restrictions allowing staff to return to the Fremont facilities, meant that salaries were returned to pre-April 2020 levels, as from 1 July 2020.

Intellectual Property Portfolio – Further Patents Granted

On 4 August 2020, 4DS announced the granting of three additional USA patents bringing the Company's portfolio of granted USA patents to twenty six (26), all of which are 100% owned by 4DS.

In addition to the granted patents, the Company has filed six (6) USA patent applications to protect its stream of innovations and to strengthen its intellectual property portfolio in the area of Interface Switching ReRAM for Storage Class Memory near to DRAM.

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imec Update

On the 10 August 2020, 4DS provided a detailed technical and financial Company Update and stated its intention to start fabrication of two sets of wafers at imec.

4DS is pleased to advise that imec has commenced the manufacture of twenty-three (23) Non-Platform Wafers (**Second Non-Platform Lot**) and one lot of twelve (12) Platform Wafers (**Second Platform Lot**).

The manufacture of these two lots of wafers is a priority for imec and 4DS. They are being fabricated with variations of the process conditions from the best wafer in the Additional Wafers Lot which were produced in Q2 of 2020 and which exhibited the biggest improvements in speed and endurance in the Company's history (see 4DS' announcement dated 24 June 2020).

As stated in 4DS' announcement dated 10 August 2020:

- the Second Non-Platform Lot wafers are less complex, faster to fabricate, and easier to test than Platform Wafers, yet can provide valuable input on which process conditions exhibit the biggest improvements in speed, endurance and retention; and
- following consultation with imec and Western Digital, the Second Platform Lot wafers are being fabricated so as to contain dense memory arrays with transistors that are able to select memory cells.

Based on the results from the above two wafer lots, 4DS and its partners will potentially progress to fabricate wafers with all the control logic necessary to read and write selected bits and bytes, and therefore be able to operate as a fully functional megabit memory.

Timing Remains on Track

Barring any unforeseen equipment problems or new COVID-19 government ordinances:

- the Second Non-Platform Lot wafers should be available for analysis in mid to late Q4 2020; and
- the Second Platform Lot wafers are expected to be available for testing in early Q1 2021.

The results from both wafer lots will define the Company's 2021 strategic development plan to achieve its goal of fabrication of a megabit chip and/or a corporate transaction.

COVID-19 Update

Currently, there are no COVID related restrictions affecting the Company's operations.

Summary of Cash Flows

As at 30 September 2020, the Company held cash of $7.2 million, compared with $2.5 million as at 30 June 2020. Net cash of $2.1 million was used in operating activities during the quarter, compared to $847k in the June quarter. The main variances when compared to the previous quarter were an increase in research and development expenditure by $1.54 million (due mainly to the payment of three imec quarterly invoices, the first two quarters have been deferred to manage the budget due to COVID-19 circumstances), an increase in staff costs by $96k (due mainly to reduced salaries having been paid in the June quarter) and an increase in administration and corporate costs $63k (due to the payment of listing and audit fees). The Company received $7.2 million in cash flows during the quarter, which related to the proceeds from a share placement and share purchase plan of $7.2 million.

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Listing Rule 4.7.C

In item 6 of the Appendix 4C cash flow report for the quarter, payments to related parties of approximately $130k represents salaries paid to the CEO and the Executive Director. No fees were paid to Non-Executive Directors during the quarter.

2021 Outlook

In line with 4DS' 2021 strategic development goal of fabricating a megabit chip on state of the art (300mm) industry fab equipment, and/or a corporate transaction, on 7 October 2020 the Board announced its intention to appoint Drs. Wilbert van den Hoek as Chairman following the 30 November 2020 Annual General Meeting, with Mr Jim Dorrian remaining on the Board as a Non-Executive Director.

Drs. van den Hoek was on the Board of Cypress Semiconductor Corporation ("**Cypress**") from 2011 to 2017. Cypress was a leader in advanced embedded solutions for the world's most innovative automotive, industrial, smart home appliances, consumer electronics and medical products. Cypress was acquired by Infineon Technologies AG at an enterprise value of approximately US$10 billion in a transaction that was announced in June 2019 and completed in April this year.

Drs. van den Hoek also spent 17 years of his career at Novellus Systems, Inc. ("**Novellus**"). Novellus was a leading provider of advanced process equipment for the world's semiconductor industry. From 1999 until 2005, he served as Novellus' Chief Technical Officer and Executive Vice President, Integration and Advanced Development. From 2005 until 2008, he was President and CEO of Novellus Development Company, LLC, the venture arm of Novellus. Novellus was acquired by Lam Research Corp in a transaction valued at approximately US$3.3 billion and announced in December 2011.

Drs. van den Hoek currently serves as Executive Chairman of Neocera LLC, as Chairman of Jiaco Instruments BV, and as a member of the board of directors of Innovent Technologies, LLC. Drs. van den Hoek graduated Cum Laude from the Rijks Universiteit Utrecht, The Netherlands in December 1979 with a Doctorandus degree in Chemistry. He is the author of more than 30 technical papers and holds 24 US patents.

Subject to shareholder approval at the 30 November 2020 AGM, Drs. van den Hoek will be issued with 20 million options in 4DS.

The Board also established a Sale Bonus Pool. This provides an incentive in the form of participation in a cash bonus pool, the size of which will be determined by the value received by shareholders upon a liquidity event, such as a takeover of the Company or a sale of the Company's intellectual property.

Details of the proposed option issue to Drs. van den Hoek and the Sale Bonus Pool are set out in the Company's announcement dated 7 October 2020.

ENDS

Authorised for release by the Board.

Contact information

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About 4DS

4DS Memory Limited (ASX: 4DS), with facilities located in Silicon Valley, is a semiconductor development company of non-volatile memory technology, pioneering Interface Switching ReRAM for next generation gigabyte storage in mobile and cloud. Established in 2007, 4DS owns a patented IP portfolio, comprising 26 USA patents granted and 6 patent applications pending and or filed, which has been developed in-house to create high-density Storage Class Memory. 4DS has a joint development agreement with Western Digital subsidiary HGST, a global storage leader, which accelerates the evolution of 4DS' technology. 4DS also collaborates with imec, a world-leading research and innovation hub in nanoelectronics and digital technologies. The combination of imec's widely acclaimed leadership in microchip technology and profound software and information and communication technology expertise makes them unique.

For more information, please visit www.4dsmemory.com.

Disclaimer

This release contains certain forward looking statements that are based on the Company's management's beliefs, assumptions and expectations and on information currently available to management. Such forward looking statements involve known and unknown risks, uncertainties, and other factors which may cause the actual results or performance of 4DS to be materially different from the results or performance expressed or implied by such forward looking statements. Such forward looking statements are based on numerous assumptions regarding the Company's present and future business strategies and the political and economic environment in which 4DS will operate in the future, which are subject to change without notice. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward looking statements or other forecast. To the full extent permitted by law, 4DS and its directors, officers, employees, advisers, agents and intermediaries disclaim any obligation or undertaking to release any updates or revisions to information to reflect any change in any of the information contained in this release (including, but not limited to, any assumptions or expectations set out in the release).

You should not place undue reliance on these forward- looking statements. Except as required by law or regulation (including the ASX Listing Rules) we undertake no obligation to update these forward- looking statements.

Appendix 4C

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

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Name of entity

4DS MEMORY LIMITED (4DS)

ABN	**Quarter ended ("current quarter")**
43 145 590 100	30 Sep 2020

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (3 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers		
1.2	Payments for		
	(a) research and development	(1,864)	(1,864)
	(b) business development	-	-
	(c) production	-	-
	(d) staff costs	(96)	(96)
	(e) administration and corporate costs	(170)	(170)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	2	2
1.5	Interest and other costs of finance paid	(7)	(7)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	25	25
1.8	Other (Insurance Claim)	-	-
1.9	**Net cash from / (used in) operating activities**	**(2,110)**	**(2,110)**

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

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Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 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**		

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	7,612	7,612
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(363)	(363)
3.5	Proceeds from borrowings (Refer 7.6)	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other – principal elements of lease payments[(i)]	(23)	(23)
3.10	**Net cash from / (used in) financing activities**	7,226	7,226

(i) The Group adopted new Accounting Standard AASB 16 *Leases* with effect from 1 July 2019. in accordance with the requirements of AASB 16, cash payments for the principal portion of the Group's lease liabilities are presented within financing activities. Cash payments for the interest portion are presented within interest and other costs of finance paid.

Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	2,510	2,510
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,110)	(2,110)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4	Net cash from / (used in) financing activities (item 3.10 above)	7,226	7,226
4.5	Effect of movement in exchange rates on cash held	(41)	(41)
4.6	**Cash and cash equivalents at end of period**	**7,585**	**7,585**

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	7,585	2,512
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)**	**7,585**	**2,512**

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	130
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.

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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)	185	-
7.4	**Total financing facilities**	185	-

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.

Subsidiary 4DS Inc received US Small Business Administration Paycheck Protection Program (PPP) Loan of US$131,542 on 11 May 2020. Maturity date is 2 years from the date of disbursement with a fixed interest rate of 1% per annum. The loan was enacted by US Congress under the Coronavirus Aid, Relief and Economic Security Act (the "Act"). The Act provides that the loan is subject to conditional loan forgiveness provided the loan proceeds are used in accordance with the Act and the Borrower (4DS Inc) provides all documentation to support the application for loan forgiveness. The Company believes that its use of the proceeds will meet the conditions for full forgiveness of the loan.

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	2,110
8.2	Cash and cash equivalents at quarter end (item 4.6)	7,585
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (Item 8.2 + item 8.3)	7,585
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)** **Note: 3.59 estimated quarters of funding in not reflective of the Company's future expenditure, with current budget showing in excess of 5 quarters of cash. The reason for the lower future expenditure estimate is that the September quarter included payment of three imec invoices, when usually one would be paid. Refer to the Activities Report for further detail.	3.59**
	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

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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 October 2020

Authorised by: The Board of 4DS Memory Limited

(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.

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