

ASX RELEASE

20 January 2021

## QUARTERLY ACTIVITY REPORT AND APPENDIX 4C

Highlights for the Quarter ended 31 December 2020:

- **Second Non-Platform Lot wafers successfully manufactured, with analysis underway at 4DS' facilities in Silicon Valley**
- **Results of analysis of Second Non-Platform Lot, and timing of production of Second Platform Lot, expected to be announced prior to end of January 2021**
- **Terms of extension to collaboration agreement with imec being finalised**
- **Drs. Wilbert van den Hoek, previous Board member of Cypress Semiconductor and senior executive at Novellus Systems, formally appointed to the 4DS Board as Chairman**
- **Establishment of a "Sale Bonus Pool" to incentivise eligible US based employees when a corporate transaction is achieved**
- **Further strengthening of 4DS' 100% owned patent portfolio, which now comprises 29 granted patents**
- **No significant impact on 4DS' operations due to COVID-19**

4DS Memory Limited (ASX:4DS) (**4DS**) (the **Company**), is pleased to provide its Quarterly Activity Report and Appendix 4C for the Quarter ended 31 December 2020.

### Wafer Production and Analysis

The Second Non-Platform Lot wafers were successfully manufactured by imec and 4DS received these wafers in late December 2020. 4DS' technical team has been gathering and reviewing the data from these wafers and expects to complete its analysis before the end of January 2021.

Further to the Company Update on 10 December 2020, 4DS and imec have agreed on the refinements to the process conditions for the Second Platform Lot wafers, which are expected to mitigate risks at various stages in the fabrication process. imec has confirmed that the production of the Second Platform Lot Wafers will commence by mid Q1 2021, and 4DS and imec are currently in discussions regarding available time slots and the precise start date.

4DS expects to announce the results of the analysis of the Second Non-Platform Lot, and confirm the commencement date for the production of the Second Platform Lot, in a further update to the market prior to the end of January 2021.

The results of the analysis of the Second Non-Platform Lot and Second Platform Lot will pave the way for 4DS and its partners to pursue their strategic objective to fabricate wafers which operate as a fully functional megabit memory.

### **imec 2021 collaboration**

4DS and imec are in the process of finalising the terms of the extension to their collaboration agreement for 2021. The Company will update the market once the extension has been finalised.

### **New Chairman**

Drs. Wilbert van den Hoek was formally appointed as Chairman of the Board on 30 November 2020, following the Company's AGM, with Mr Jim Dorrian remaining on the Board as a non-executive director.

Drs. van den Hoek is a semiconductor industry veteran, who among others was a member of the Board of Cypress Semiconductor Corporation ("**Cypress**"). Cypress was acquired by Infineon Technologies AG at an enterprise value of approximately US\$10 billion in a transaction that was completed in April 2020. Drs. van den Hoek also spent 18 years of his career at Novellus Systems, Inc. ("**Novellus**"), where he served as Novellus' Chief Technical Officer and Executive Vice President, Integration and Advanced Development. He also served as President and CEO of Novellus Development Company, LLC, the venture arm of Novellus for a number of years. Further information on Drs van den Hoek's background is contained in the Company's ASX announcement dated 7 October 2020.

### **Sale Incentive**

The Sale Incentive put in place by the Board in October 2020 is in the form of participation in a cash bonus pool ("**Sale 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. Drs van den Hoek and the members of 4DS' technical team, based in Silicon Valley, will participate in the Sale Bonus Pool. A summary of the key terms was announced to the ASX on 7 October 2020.

### **Intellectual Property Portfolio – Further Patents Granted**

During the quarter 4DS announced the granting of three additional USA patents bringing the Company's portfolio of granted USA patents to twenty-nine (29), all of which are 100% owned by 4DS.

27<sup>th</sup> Patent – Resistive Memory Device Having A Conductive Barrier Layer – Patent No 10,833,262

28<sup>th</sup> Patent – Resistive Memory Device Having A Template Layer – Patent No 10,847,717

29<sup>th</sup> Patent – Resistive Memory Device Having A Template Layer – Patent No 10,862,028

In addition to the granted patents, the Company has filed three (3) 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.

### **COVID-19 Update**

Currently, there are no COVID related restrictions significantly affecting the Company's operations. However, for the safety of all employees the Board has implemented a policy whereby only a limited number of employees can be at the Fremont facilities at any time. Productivity has been maintained by scheduling on-site tasks over longer days including weekends and holidays.

## **Financial Review**

As at 31 December, the Company held cash of \$6.5 million, compared with \$7.6 million as at 30 September 2020. Net cash of \$1.18 million was used in operating activities during the quarter, compared to \$3.29 million in the September quarter. The main variances when compared to the previous quarter were a decrease in research and development expenditure by \$845k (due mainly to the payment of one imec invoice during the quarter when compared to the three payments in the previous quarter) and a reduction in administration and corporate costs of \$62k (due to the payment of audit and listing fees in the previous quarter). The Company received \$252k in cash flows during the quarter, which related to the proceeds of the exercise of options.

## **Listing Rule 4.7.C**

In item 6 of the Appendix 4C cash flow report for the quarter, payments to related parties of approximately \$68k represents salaries paid to the CEO and the Executive Director. No fees were paid to Non-Executive Directors during the quarter.

## **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 29 USA patents granted and 3 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](http://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

**Name of entity**

4DS MEMORY LIMITED (4DS)

**ABN**

43 145 590 100

**Quarter ended ("current quarter")**

31 December 2020

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) research and development	(1,019)	(2,884)
(b) business development	(1)	(1)
(c) production	-	-
(d) staff costs	(34)	(130)
(e) administration and corporate costs	(121)	(291)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	2	4
1.5 Interest and other costs of finance paid	(6)	(13)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	26
1.8 Other (Insurance Claim)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,179)</b>	<b>(3,289)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(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)	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>-</b>	<b>-</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	-	7,612
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	252	252
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(8)	(371)
3.5 Proceeds from borrowings (Refer 7.6)	-	-
3.6 Repayment of borrowings (Insurance Premium)	(39)	(39)
3.7 Transaction costs related to loans and borrowings	(2)	(2)
3.8 Dividends paid	-	-
3.9 Other – principal elements of lease payments <sup>(i)</sup>	(29)	(52)
<b>3.10 Net cash from / (used in) financing activities</b>	<b>174</b>	<b>7,400</b>

(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.

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	7,585	2,510
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,179)	(3,289)
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)	174	7,400
4.5	Effect of movement in exchange rates on cash held	(53)	(94)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>6,527</b>	<b>6,527</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	6,527	7,585
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>6,527</b>	<b>7,585</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

<b>Current quarter \$A'000</b>
68
-

Salary paid to Managing Director and David McAuliffe for the quarter

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

**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 (PPP Loan and Insurance Premium funding)	229	229
<b>7.4 Total financing facilities</b>	<b>229</b>	<b>229</b>

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.

**7.3****PPP Loan**

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, HSBC has submitted the loan forgiveness application to the SBA on 26 October 2020 and it will take 90 days to review the application for the verdict.

**Insurance Premium Funding**

4DS Memory has accepted the premium finance facility offered by Attvest Finance Pty Ltd to use the facility to pay insurance premium in 10 instalments according to the agreement. Total amount financed was \$97,448.50 entered on 13 October 2020 with an interest of 5.05% to be repaid over 10 instalments.

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	1,179
8.2 Cash and cash equivalents at quarter end (item 4.6)	6,527
8.3 Unused finance facilities available at quarter end (item 7.5)	-
8.4 Total available funding (Item 8.2 + item 8.3)	6,527
8.5 <b>Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	5.54

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: 20 January 2021

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.