

31 January 2025

DECEMBER 2024 QUARTERLY ACTIVITY REPORT AND APPENDIX 4C

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 2024.

Technical Update for the December Quarter

4DS made significant progress with the development of the Fifth and Sixth Platform Lots during the December quarter. The Fifth Platform Lot with 60nm memory cells was shipped from imec to 4DS's facilities in Fremont, USA on 10 October 2024 and analysis was undertaken.

The Fifth Platform Lot sought to optimise and repeat the unique characteristics of the results seen in the Fourth Platform Lot as announced on 23 August 2023, and optimise the construction process of memory cell arrays to de-risk the manufacturing of the first 4DS 20nm memory cell array incorporated in the Sixth Platform Lot.

On the 15 January 2025 the Company informed shareholders that it had successfully completed characterization and testing of the Fifth Platform Lot with key areas of optimisation identified and shared with the imec engineering team working on the Sixth Platform Lot 20nm memory cell array.

The key process learnings from the Fifth Platform Lot that are necessary for scaling of the memory cell array from 60nm cells to 20nm cells (9 times smaller in area) and that are now in the process of being implemented to the Sixth Platform Lot are:

- Memory cell array patterning and etching: new process tuning modifications for the construction of 20nm cells.
- Memory stack adjustment: the advanced memory stacks which are necessary for the construction of 20nm cells have shown functionality and which de-risks the Sixth Platform Lot with similar memory cell stack constructions.
- Memory array process integration: the best options of the post-patterning backend processes of the advanced memory cells were selected and implemented to the Sixth Platform Lot.

These new learnings and optimizations from the Fifth Platform Lot are critically important for the successful processing of 4DS's first 20nm memory cell array in the Sixth Platform Lot, expected to be manufactured and analysed in 1H 2025. If the Company is successful in scaling from a 60nm memory cell to 20nm memory cell array, then the Sixth Platform Lot will position 4DS' area-based Interface Switching ReRAM technology as a potential generational memory.

4DS continues its relationship with imec for manufacture of the Sixth Platform Lot and will maintain the relationship going forward, including all future activities associated with the new customised memory platform.

Infineon Design Agreement

On 17 December 2024 Infineon technologies LLC ("Infineon") (a USA based subsidiary of Infineon Technologies AG) and 4DS entered into a Design Agreement whereby Infineon will assign resources to design a custom ReRAM memory test chip for 4DS, based on 4DS requirements.

The initial scope of work under the Design Agreement will be over 15 months for a total of US\$4.5 million payable by 4DS with an upfront payment of US\$1.5 million and the balance payable monthly at varying monthly amounts. Either party may terminate the Design Agreement under standard terms and conditions in any termination clause and upon termination only Infineon resources completed to the point of termination are payable by 4DS.

To further advance the Company technology, to the path of commercialisation, 4DS needs a customised memory Platform vehicle which is specifically designed for its unique area-based Interface Switching ReRAM characteristics. The megabit Platform used for other Platform Lots was designed to characterise a wide range of emerging memory technologies and has been useful to develop and characterise 4DS's technology during 2023 and 2024, however 4DS has also uncovered some shortfalls of using this universal memory Platform vehicle and recognised that working on a customised memory Platform jointly designed by 4DS/Infineon is best path for successful outcomes going forward.

Investor Relations/Marketing

In the December quarter, Chief Strategic Officer Mr Peter Himes attended in person and presented at Semiconductor Australia 2024 in Sydney. The inaugural event brought together Australia's deep-tech entrepreneurs, industry experts, innovation policy makers and investor community to explore opportunities and chart the roadmap to secure Australia's semiconductor future.

Executive Chairman Mr David McAuliffe travelled to the USA in the second half of October 2024 for various internal strategy meetings some of which led to securing the Infineon Design Agreement.

Capital Raising - Post 31 December 2024

On 17 January 2025, 4DS announced it had received binding commitments from institutional and high net worth investors for a placement of \$6 million (**Placement**). The Placement attracted strong interest in excess of the shares available to allocate, and will be followed by a share purchase plan (**SPP**) of \$2 million.

The Placement comprises the issue of approximately 166.7 million ordinary shares in 4DS (**New Shares**), at an issue price of \$0.036 per New Share, representing a discount of 12.2% to the closing price as at 14 January 2025 and 24.4% to the 15 day volume weighted average price ("VWAP").

Each issued share under the Placement will have a 1:1 attaching unlisted option with an exercise price of \$0.036 and an expiry of 28 February 2028.

The New Shares and Placement Options will be issued pursuant to the Company's placement capacity under ASX Listing Rule 7.1 and 7.1A.

Bell Potter acted as sole lead manager for the Placement. In addition to a 6% capital raising fee, 4DS will issue Bell Potter 12 million advisor options on same terms as the Placement Options (**Broker Options**).

A SPP will be conducted and eligible shareholders on the Company's share register as at 5pm AEST on 16 January 2025 (**Record Date**) with a registered address in Australia or New Zealand can apply.

Eligible shareholders can acquire up to \$30,000 of New Shares and the offer will seek to raise \$2 million at \$0.036 per share, being the same price as the Placement.

Each issued share under the SPP will also have a 1:1 attaching unlisted option with an exercise price of \$0.036, expiring on 28 February 2028.

The Company will use funds raised for working capital requirements under the design and services agreement with Infineon, ongoing investment in development with imec, general working capital and offer costs.

Financial Review

The Annual General Meeting of Shareholders was held on 28 November 2024. The resolutions were voted in accordance with the Notice of Annual General Meeting previously advised to the ASX. Resolutions 1-8 were carried on a poll, with Resolution 7 (Approval of 7.1A Mandate) and Resolution 8 (Replacement of Constitution) being carried by a sufficient majority as special resolutions.

As of 31 December 2024, the Company held cash of \$4.625 million, compared to \$6.312 million at 30 September 2024. Net cash of \$1.647 million was used in operating activities during the December quarter, which included a contractual payment to imec, compared to \$1.538 million used in the September quarter.

Listing Rule 4.7.C

In item 6 of the Appendix 4C cash flow report for the quarter, payments to related parties of approximately \$145k represent salary and superannuation paid to the Executive Chairman and Director fees paid to the Non-Executive Directors, including advisory fees paid to the US based Non-Executive Director and payment to a related party Ignite Communications.

ENDS

Authorised for release by the Board.

4DS Interactive Investor Hub

If you have any questions on this announcement or any past 4DS announcements, check out our Investor Hub. Like, comment, ask a question and view video summaries on important announcements. Shareholders can link through to the Investor Hub via: announcements.4dsmemory.com

Contact information

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About 4DS

4DS Memory Limited (ASX: 4DS), with facilities located in Silicon Valley, is a semiconductor technology company bringing high bandwidth, high endurance, persistent non-volatile memory to advanced CMOS process nodes. Its technology, known as Interface Switching ReRAM, features tuneable persistence and low energy per bit for today's most challenging compute intensive and AI processor applications. Established in 2007, 4DS owns a patented IP portfolio, comprising 34 USA patents, and is the first company to develop PCMO ReRAM, on an advanced CMOS processing node. 4DS has three important industry relationships: a development agreement with Belgium based imec, a world leading research and innovation hub in nano electronics and digital technologies; a design agreement with Infineon Technologies AG, Germany's largest semiconductor manufacturer and one of the ten largest semiconductor manufacturers worldwide; and a joint development agreement with Western Digital subsidiary HGST, a global leader in storage solutions.

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

Name of entity

4DS MEMORY LIMITED (4DS)

ABN

43 145 590 110

Quarter ended ("current quarter")

31 December 2024

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	-	-
1.2 Payments for		
(a) research and development	(1,272)	(2,522)
(b) business development	(105)	(173)
(c) production	-	-
(d) staff and board remuneration	(76)	(147)
(e) administration and corporate costs	(266)	(519)
1.3 Dividends received (see note 3)	-	-
1.4 Interest and other items of a similar nature received	72	175
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other Income	-	-
1.9 Net cash from / (used in) operating activities	(1,647)	(3,185)
2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(9)	(9)
(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	(9)	(9)

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	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings (Refer 7.6)	-	-
3.6	Repayment of borrowings (Insurance Premium)	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other – lease payments	(36)	(71)
3.10	Net cash from / (used in) financing activities	(36)	(71)

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	6,312	7,884
4.2	Net cash (used in) operating activities (item 1.9 above)	(1,647)	(3,185)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(9)	(9)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.4	Net cash from financing activities (item 3.10 above)	(36)	(71)
4.5	Effect of movement in exchange rates on cash held	5	6
4.6	Cash and cash equivalents at end of period	4,625	4,625

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	305	342
5.2	Call deposits	20	20
5.3	Bank overdrafts	-	-
5.4	Other (term deposits)	4,300	5,950
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	4,625	6,312

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	145
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	- Aggregate amount paid to Executive Chairman (\$56k) including salary, and superannuation and (\$7k) to a related party Ignite Communication.	
	- Aggregate amount paid to Non-Executive Directors (\$82k) including advisory fees and directors' fees.	

7. Financing facilities	Total facility amounts at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>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.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (Insurance Premium Funding)	-	-
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.

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8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	1,647
8.2 Cash and cash equivalents at quarter end (item 4.6)	4,625
8.3 Unused finance facilities available at quarter end (item 7.5)	-
8.4 Total available funding (Item 8.2 + item 8.3)	4,625
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	2.81
<i>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.</i>	

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: 31 January 2025

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.