4DS Memory Limited

ACN 145 590 110

Annual Report - 30 June 2023

Corporate directory	2
Directors' report	3
Auditor's independence declaration	21
Consolidated statement of profit or loss and other comprehensive income	22
Consolidated statement of financial position	23
Consolidated statement of changes in equity	24
Consolidated statement of cash flows	25
Notes to the consolidated financial statements	26
Directors' declaration	52
Independent auditor's report to the members of 4DS Memory Limited	53
Shareholder information	57

General information

The financial statements cover 4DS Memory Limited as a Group consisting of 4DS Memory Limited and the entities it controlled at the end of, or during, the year. The financial statements are presented in Australian dollars, which is 4DS Memory Limited's functional and presentation currency.

4DS Memory Limited is a listed public company limited by shares, incorporated and domiciled in Australia. Its registered office and principal place of business are:

Registered office	Principal place of business
Level 2, 50 Kings Park Road West Perth WA 6005 AUSTRALIA	3155, Skyway Court, Fremont CA 94539 UNITED STATES

A description of the nature of the Group's operations and its principal activities are included in the Directors' report, which is not part of the financial statements.

The financial statements were authorised for issue, in accordance with a resolution of Directors, on 28 August 2023. The Directors have the power to amend and reissue the financial statements.

Directors	Mr. David McAuliffe Dr. Guido Arnout Mr. Howard Digby
Company secretary	Mr. Peter Webse
Registered and Principal Office	Level 2, 50 Kings Park Road, West Perth WA 6005 PO Box 271 West Perth WA 6872
Share register	Automic Registry Services Level 5 191 St Georges Terrace, Perth WA 6000 Phone: +61 8 9324 2099 Fax: +61 8 9321 2337 Email: info@automic.com.au Web: www.automic.com.au
Auditor	PKF Perth Level 4, 35 Havelock Street, West Perth WA 6005
Solicitors	Steinepreis Paganin Level 4, The Read Buildings 16 Milligan Street Perth WA 6000
Stock exchange listing	4DS Memory Limited shares are listed on the Australian Securities Exchange (ASX code: 4DS)
Website	www.4dsmemory.com

The Directors present their report together with the consolidated financial statements of the Group comprising of 4DS Memory Limited (the Company) and its subsidiaries for the year ended 30 June 2023 and the auditor's report thereon.

Directors

The following persons were Directors of 4DS Memory Limited during the whole of the financial year and up to the date of this report, unless otherwise stated:

Mr. David McAuliffe	Interim Executive Chairman effective from 14 February 2023 (Formerly Executive Director)
Dr. Guido Arnout	Non-Executive Director
Mr. Howard Digby	Non-Executive Director
Drs. Wilbert van den Hoek	Executive Chairman from 16 August 2022 to 13 February 2023 (Formerly Non-Executive Chairman)
Mr. Kenneth Hurley	Chief Executive Officer and Managing Director from 14 March 2022 to 15 August 2022

Principal activities

4DS Memory Limited **(ASX: 4DS)**, with facilities located in Silicon Valley, is a semiconductor company pioneering the development of a non-volatile memory technology known as Interface Switching ReRAM, for next-generation gigabyte Storage Class Memory. Established in 2007, 4DS owns a patented IP portfolio, comprising 34 USA patents granted which have 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 is now in its tenth year. 4DS also has a development agreement with Belgium-based imec – a world-leading research and innovation hub in nanoelectronics and digital technologies.

Dividends

No dividend has been declared or paid by the Company.

Review of operations

Financial Review

The loss for the Group after providing for income tax amounted to $5,794,241 (30 June 2022: $6,732,079).

Operating Review

On 4 August 2022, the Company announced that the Third Platform Lot had successfully arrived in Fremont, California. In addition, the Company stated it had adopted a new test system and that extensive internal testing had commenced.

On 16 August 2022, 4DS announced it had undertaken a memory stack etch mask change and further performed etch process optimization using a short loop, to seek to resolve the etch residue problem that had resulted in the partial failure of the Second Platform Lot as announced on 17 August 2021. On 29 April 2022, the Company informed shareholders that additional characterization of these short loop wafers confirmed the decision to undertake the modified etch process.

The Company communicated that final verification of the efficacy of these process changes required electrical testing, which could only be performed on the Third Platform Lot. This Third Platform Lot was designed with the purpose of enabling more precise measurements of endurance and retention at the higher currents that resulted from the process changes in the Third Non-Platform Lot.

4DS stated the testing to date had successfully demonstrated that the reference memory cells on the Third Platform Lot performed similarly to the identical reference structures on the Third Non-Platform Lot, indicating that the Lot had been manufactured properly. However, testing of the memory cells used in the imec megabit memory array showed unexpected problems with scaling the memory cell to small dimensions suitable for Storage Class Memory potential applications. These results suggested that the memory stack etch mask modification and further optimization of the etch process utilizing this new mask had created another problem, while having resolved the root cause of the electrical shorting of the memory devices in the Second Platform Lot.

The Company stated it was performing a Root Cause Corrective Action process which included further electrical testing, Transmission Electron Microscopy and material analysis to identify the reason for the difference in results between the Second Platform Lot and the Third Platform Lot.

Until this issue was resolved, endurance and retention testing of the memory cells with imec access transistors, the primary goal of this Third Platform Lot, could not be successfully completed.

The Company further stated it was likely that this analysis of the root cause of the problem would result in it having to perform further process modifications at imec. The Company intended to have extensive discussions with imec about 4DS Memory's on-going activities at their facilities, including transferring process improvements demonstrated at the Stanford Nanofabrication Facility.

Based on the analysis and its discussions with imec, the Company intended to create an updated strategic plan for the on-going development of the Interface Switching ReRAM to achieve its objectives. The Company believed that the results from the Third Platform Lot would likely cause a long-term delay in achieving its strategic goal of commercializing the Company's technology.

On 5 October 2022 the Company announced it had completed its analysis and had identified the modified etch process as the most likely cause of the poor electrical performance of the memory cells used in the imec megabit memory array. 4DS believes that the etch process had induced damage to the crystallinity of 4DS's PCMO layer resulting in the write voltage needed to program the cell exceeding the write voltage that the circuitry of the imec megabit memory array could provide. Since prior wafers had shown successful programming of cells of the same size as present in the megabit memory array, the focus was on further optimizing the etch process to ensure both residue free etching and no crystalline damage to 4DS's PCMO layer.

In line with the 2022 agreement with imec, the Company had started discussions with imec to plan the manufacturing of another megabit memory array Platform Lot. Prior to running this Lot, further optimization of the etch process was planned to use another short loop. However, it was important to realize, as previously stated, that successful resolution of the etch process could only be demonstrated by electrical tests performed on the Platform Lot after it had been successfully manufactured and delivered to 4DS facilities in Fremont, California. The goal of the next Platform Lot remained the demonstration of the cell operation in a megabit memory array environment and to explore optimized programming conditions to improve both the endurance and retention of 4DS Interface Switching ReRAM cells. Access to the write circuitry of the megabit memory array remained critical to achieve these goals.

Alternatives to the etch process were explored in parallel, as the probability of a successful optimization of the etch process was unknown. Additional improvements to the memory cell that were demonstrated on wafers processed at the Stanford Nanofabrication Facility were incorporated in this next Platform Lot, as well.

On 27 February 2023, the Company stated that since the ASX announcement on 5 October 2022, 4DS had undertaken a number of optimization changes which were being incorporated into the schedule for manufacturing of the Fourth Platform Lot at imec.

During the same period, the Company also significantly enhanced its test capabilities and re-tested the Third Platform Lot in preparation for the Fourth Platform Lot.

The Company reported that it had now achieved cell operation in the megabit memory array of the Third Platform Lot utilising the improved test capabilities. This allowed further exploration of optimized programming conditions with the access transistors and write circuitry of imec's megabit memory platform.

These results indicated that the 4DS Interface Switching ReRAM cells were potentially more likely to be compatible with imec's megabit memory platform which de-risked the testing of the Fourth Platform Lot.

Collaboration agreements

- On 7 December 2022, the Company entered into an amendment to continue collaboration on the project with imec until mid-2023.
- On 19 June 2023, the Company renewed the joint development agreement with Western Digital Corporation subsidiary HGST for the 10th consecutive year for another 12 months.

Patent portfolio

- 4DS Memory has a patented IP portfolio, comprising 34 USA patents granted, which have been developed in-house to create high-density Storage Class Memory. The granted patents are 100% owned by the Company. These patents are specifically related to the operation of the Company and are free from any royalty or licensing obligations. The 33rd patent was granted on 23 November 2022 and 34th patent was granted on 8 March 2023.

Corporate and Management Changes

- On 15 August 2022, Mr. Hurley resigned as Managing Director and CEO of the Company. On 16 August 2022, Drs. van den Hoek transitioned from Non-Executive Chairman to Executive Chairman.
- On 5 October 2022, Mr. Yen was appointed as Chief Technology Officer of the Company.
- On 13 February 2023, Drs. van den Hoek ceased to be Executive Chairman and a Director of the Company.
- On 14 February 2023, Mr. McAuliffe was appointed as Interim Executive Chairman whilst the Company undertakes a search for a USA based Chairman.

Placement and issue of securities

- On 8 July 2022, the Company issued 2,275,000 ordinary shares following the exercise of $0.042 unlisted options to raise $95,554.
- On 20 March 2023, the Company successfully completed a placement for $5.5 million by issuing 152,777,778 of the new shares at an issue price of $0.036 per share and 76,388,882 free attaching unlisted options exercisable at $0.055 and expiring 31 March 2026.
- The Company also issued 10,000,000 unlisted options exercisable at $0.055 and expiring 31 March 2026 to 180 Markets Pty Ltd in consideration for services provided as lead manager to the placement.

Sales bonus pool

On 15 March 2022, the Company announced that the Board had reached a successful outcome with respect to Mr. Hurley and Dr. Arnout's remuneration. The incentive 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. The members of 4DS' technical team, based in Silicon Valley, as well as Drs. van den Hoek, are eligible to participate in the Sale Bonus Pool.

Upon a liquidity event occurring, Mr. Hurley, Dr. Arnout, Drs. van den Hoek and US-based employees (**Eligible Participants)** will each be entitled to receive a proportion of the Sale Bonus Pool. Mr. Hurley will be entitled to receive 30%[1], Dr. Arnout will be entitled to receive 15%, Drs. van den Hoek will be entitled to receive 25%[2], and Mr. Yen will be entitled to receive 10% with the balance to be allocated to Eligible Participants at the discretion of the Board.

[1] Mr. Hurley resigned on 15 August 2022 and is no longer eligible to participate in the Sales Bonus Pool.
[2] Drs. van den Hoek resigned on 13 February 2023 and is no longer eligible to participate in the Sales Bonus Pool.

Incentive options

On 27 May 2022, 30,000,000 unlisted options were issued to Mr. Hurley pursuant to the terms of the Executive Services Agreement, as approved by the shareholders at the General Meeting held on the 26 May 2022. The options were lapsed upon his resignation on 15 August 2022.

On 31 May 2022, the Company issued 15,500,000 incentive options to the US employees. The options are exercisable at $0.10 each and expire on 31 May 2027 with 25% of options vesting after 6 months and the balance vesting quarterly over following 10 quarters. On 22 August 2022, 5,000,000 incentive options were cancelled following the termination of an employee.

On 27 October 2022, 500,000 incentive options exercisable at $0.042 expired.

On 19 December 2022, the Company issued 21,500,000 incentive options exercisable at $0.037 expiring 19 December 2027 to management and consultant.

On 14 February 2023, 6,000,000 unlisted options exercisable at $0.064 expiring 29 November 2025 issued to Drs. van den Hoek lapsed as the conditions incapable of being satisfied.

On 27 February 2023, the Company issued 7,000,000 unlisted options exercisable at $0.037 expiring 27 February 2028 issued to Mr. McAuliffe and Mr. Digby with 25% to vest following the completion of 6 months service to the Company and the remaining vesting quarterly over the following 10 quarters subject to the holder continuing to remain a Director.

Material business risks

There are a number of material risks that, either individually or in combination, may materially and adversely affect the future operating and financial performance and prospects of the Company and the value of its shares. Some of these risks may be mitigated by the Company's internal controls and processes but some are outside the control of the Company, its directors and management. The material risks identified by management are described below:

(a) Going concern

The Company's ability to continue as a going concern and meet its debts and future commitments as and when they fall due is dependent on the Company's ability to raise sufficient working capital to ensure the continued implementation of the Group's business plan.

(b) Development risk

The Company's technology is the subject of continuous development and need to be substantially developed further in order to gain and maintain competitive and technological advantage, and to improve the products' usability, scalability and accuracy. There are no guarantees that the Company will be able to undertake such development successfully. Failure to successfully undertake such research and development, anticipate technical problems, or estimate research and development costs or timeframes accurately will adversely affect the Company's results and viability.

(c) Intellectual Property risk

There can be no assurance that the Company's patent portfolio will afford the Company commercially significant protection of the Company's technology, or that competitors will not develop competing technologies that circumvents such intellectual property. Although the Company will implement all reasonable endeavours to protect its intellectual property, there can be no assurance that these measures will be sufficient.

(d) Competition

The semiconductor memory industry in which the Company operates is subject to competition. Current or future competitors may come up with new, better or cheaper products and solutions. The Company's competitors include both small and medium enterprises and large, established corporations or multinationals. Those may decide to enter the Company's target markets and be able to fund aggressive marketing strategies. They may also have stronger financial capabilities than the Company which may negatively affect the operating and financial performance of the business.

(e) Technology Risk

The Company's market involves rapidly evolving products and technological change. The Company cannot guarantee that it will be able to engage in research and development at the requisite levels. The Company cannot assure investors that it will successfully identify new technological opportunities and continue to have the needed financial resources to develop new products in a timely or cost-effective manner. At the same time, products, services and technologies developed by others may render the Company's products and services obsolete or non-competitive.

Significant Changes in the State of Affairs

There were no significant changes in the state of affairs of the Group during the financial year.

Matters subsequent to the end of financial year

On 3 July 2023, the Company announced that imec had successfully completed the manufacture of the Fourth Platform Lot and shipped the Lot to 4DS facilities in Fremont, California.

On 23 August 2023, the Company reported that after extensive analysis, the Fourth Platform Lot had been successful in showing, for the first time, a fully functioning megabit array with 60nm memory cells, access transistors and write circuitry.

- read and write speeds at 27 nanoseconds
- endurance well in excess of 2 billion cycles; and
- retention which is persistent and tuneable

The results seen are significant as they are on a known and well understood megabit array from imec. Upon achieving this Company milestone, further analysis and strategic planning will be conducted over the coming months.

On 25 August 2023, the Company issued 43,852,572 fully paid ordinary shares following the exercise of $0.055 unlisted options expiring on 31 March 2026 to raise $2,411,891.

No matter or circumstance has arisen since 30 June 2023 that has significantly affected, or may significantly affect the Group's operations, the results of those operations, or the Group's state of affairs in future financial years.

Likely developments and expected results of operations

Information on likely developments in the operations of the Group and the expected results of operations have not been included in this report because the Directors believe it would be likely to result in unreasonable prejudice to the Group.

Environmental regulation and performance

The Company is not subject to any significant environmental regulation under Australian Commonwealth or State law.

The Company aims to comply with the identified regulatory requirements in each jurisdiction in which it operates. There have been no known material breaches of the environmental regulations.

Information on Directors

Name:	***Mr. David McAuliffe***
Title:	Interim Executive Chairman (from 14 February 2023)
Appointed:	7 December 2015
Qualifications:	LLB (Hons), BPharm
Experience and expertise:	Mr. McAuliffe is an experienced Company Director and Entrepreneur who has had over 24 years' experience, mostly in the international biotechnology field. During that time, he was involved in numerous capital raisings and in licensing of technologies. He is a founder of several companies in Australia, France and the United Kingdom, many of which have become public companies. He is President of the Dyslexia-Speld Foundation WA (Inc).
Other current directorships:	Interim Non-Executive Chairman of Invex Therapeutics Limited (ASX: IXC)
Former directorships (last 3 years):	-
Interests in shares:	7,328,706 ordinary shares
Interests in options:	7,000,000 unlisted options exercisable at $0.052 each on or before 22 January 2024 6,000,000 unlisted options exercisable at $0.037 each on or before 27 February 2028

Name:	***Dr. Guido Arnout***
Title:	Non-Executive Director (from 14 March 2022)
Appointed:	7 December 2015
Qualifications:	PhD Electrical Engineering
Experience and expertise:	Dr. Arnout has specific expertise with over 30 years in commercialising electronics technology from concept to product. He was the founding President & CEO of PowerEscape, which introduced the first tools for the development of low-power software executing on multicore devices. He was also founding President & CEO of CoWare, which pioneered system-level design tools for hardware-software co-design and the time-based licensing business model. Dr. Arnout co-founded the Open SystemC Initiative (OSCI), an industry consortium to standardise a language for system level design, and as its President submitted the SystemC language to IEEE. He served as VP of Engineering and later senior VP of marketing of CrossCheck Technology. He co-founded and later became VP of Engineering of Silvar-Lisco, the first commercial EDA (electronic design automation) company.
Other current directorships:	-
Former directorships (last 3 years):	-
Interests in shares:	7,230,053 ordinary shares
Interests in options:	7,380,000 unlisted options exercisable at $0.052 each on or before 22 January 2024

Name:	***Mr. Howard Digby***
Title:	Non-Executive Director
Appointed:	7 December 2015
Qualifications:	BE (Mechanical, Hons)
Experience and expertise:	Mr. Digby started his career at IBM and spent over 25 years managing technology related businesses across the Asia Pacific region, of which 12 years were spent in Hong Kong. Prior to returning to Australia, he was with The Economist Group as Regional Managing Director. Before this he held senior management roles at Adobe and Gartner where his clients included major semiconductor players inclusive of Samsung, Hynix and TSMC. Upon returning to Perth, Howard served as Executive Editor of WA Business News and now spends his time as an advisor and investor, having played key roles in several M&A and reverse takeover transactions.
Other current directorships:	Non-Executive Directors of Elsight Limited (ASX: ELS) Non-Executive Director of Spenda Limited (ASX: SPX) Non-Executive Chairman of Singular Health Group Ltd (ASX: SHG)
Former directorships (last 3 years):	Non-Executive Chairman of Vortic Limited (ASX: VOR) (Resigned on 19 April 2021)
Interests in shares:	6,388,629 ordinary shares
Interests in options:	1,250,000 unlisted options exercisable at $0.052 each on or before 22 January 2024 1,000,000 unlisted options exercisable at $0.037 each on or before 27 February 2028

Name:	***Drs. Wilbert van den Hoek***
Title:	Executive Chairman from 15 August 2022
Appointment and resignation:	30 November 2020 (appointed as Non-Executive Chairman) 13 February 2023 (resigned)
Qualifications:	Drs. van den Hoek graduated Cum Laude from the Rijks Universiteit Utrecht, The Netherlands in December 1979 with a Doctorandus degree in Chemistry
Experience and expertise:	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 2020. 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, announced in December 2011. Drs. van den Hoek currently serves as Chairman of Jiaco Instruments BV, a member of the board of directors of Innovent Technologies, LLC and as an Advisory Board member of Kinetics Holding GMBH.
Other current directorships:	-
Former directorships (last 3 years):	-
Interests in shares:	Not applicable as no longer a director
Interests in options:	Not applicable as no longer a director

Name:	***Mr. Kenneth Hurley***
Title:	Chief Executive Officer and Managing Director
Appointment and resignation:	14 March 2022 (appointed) 15 August 2022 (resigned)
Qualifications:	BSC (Bachelor of Science in Commerce)
Experience and expertise:	Mr. Hurley is a 40+ year veteran of the semiconductor industry with key executive roles at Hitachi America Semiconductor and Nanya Technology Corporation Inc, a major Taiwanese maker of dynamic random-access memory (DRAM) chips. He was CEO of Genesis Semiconductor, a Semiconductor Design Company and President of Memoright USA, a manufacturer of Solid-State Drives and Controllers. During his time at Nanya Technology, Mr. Hurley negotiated strategic supply relationships with Dell, Hewlett Packard, Compaq, IBM, Apple, Google and other multi-national companies and established product design centers in Vermont and Texas.
Other current directorships:	-
Former directorships (last 3 years):	-
Interests in shares:	Not applicable as no longer a director
Interests in options:	Not applicable as no longer a director

Other current directorships quoted above are current directorships for listed entities only and excludes directorships of all other types of entities, unless otherwise stated.

Former directorships (last 3 years) quoted above are directorships held in the last 3 years for listed entities only and excludes directorships of all other types of entities, unless otherwise stated.

Company secretary

Mr. Peter Webse

Qualifications	B.Bus, FGIA, FCIS, FCPA
Experience	Mr. Webse has over 29 years company secretarial experience and is Director of Governance Corporate Pty Ltd, a company specialising in company secretarial, corporate governance and corporate advisory services.

Meetings of Directors

The number of directors meetings and the number of meetings attended by each of the directors of the Company during the financial year are:

	Number of eligible to attend	Number attended
Mr. David McAuliffe	13	12
Dr. Guido Arnout	13	13
Mr. Howard Digby	13	12
Drs. Wilbert van den Hoek	9	9
Mr. Kenneth Hurley	4	4

Remuneration Report (audited)

This Remuneration Report outlines the Director and Executive remuneration arrangements of the Company and the Group in accordance with the requirements of the *Corporations Act 2001* and its Regulations. For the purposes of this report Key Management Personnel **(KMP)** of the Group are defined as those persons having the authority and responsibility for planning, directing and controlling the major activities of the Company and the Group, directly or indirectly, including any Director (whether executive or otherwise) of the parent company.

Remuneration Policy
The Company has adopted a remuneration policy designed to align individual and team reward and encourage Executives to perform to their full capacity.

Remuneration packages may contain any or all of the following:

(a) Annual salary base with provision to recognise the value of the individuals' personal performance and their ability and experience;
(b) Rewards, bonuses, commissions, special payments and other measures available to reward individuals and teams following a particular outstanding business contribution;
(c) Share participation - the Company proposes to put in place an equity incentive plan; and
(d) Other benefits, such as holiday leave, sickness benefits, superannuation payments and long service benefits.

The Board will determine the appropriate level and structure of remuneration of the executive team and such consideration will occur each year on the recommendation of the Chairman.

Remuneration of Executives and Non-Executives will be reviewed annually by the Board.

Remuneration structure
In accordance with best practice corporate governance, the structure of Non-Executive Director and Executive remuneration is separate and distinct.

Non-Executive Director Remuneration

Objective
The Board seeks to set aggregate remuneration at a level which provides the Company with the ability to attract and retain Directors to the highest calibre, whilst incurring a cost which is acceptable to shareholders.

Structure
The Constitution and the ASX Listing Rules specify that the aggregate Directors' fees payable to Non-Executive Directors shall be determined from time to time by a general meeting. An amount not exceeding the amount determined is then divided between the Directors as agreed. Shareholders have approved aggregate Directors' fees payable of $300,000 per year.

The amount of aggregate Directors' fees sought to be approved by shareholders and the manner in which it is apportioned amongst Directors is reviewed annually. The Board may consider advice from external consultants as well as the fees paid to Non-Executive Directors of comparable companies when undertaking the annual review process.

Each Non-Executive Director receives a fee for being a Director of the Company. However, if a Director performs extra or special services beyond their role as a Director, the Board may resolve to provide additional remuneration for such services.

Fees for Directors are not linked to the performance of the Group however, to align all Directors' interests with shareholder interests, Directors are encouraged to hold shares in the Company and may receive options. This effectively links Directors' performance to the share price performance and therefore to the interests of shareholders. For this reason, there are no performance conditions prior to grant, but instead an incentive to increase the value to all shareholders.

Termination
The termination of a Director is effective on receipt of a resignation notice. Alternatively, shareholders have the power to remove the Directors by way of a Members Resolution.

Executive Remuneration

Objective
The Company aims to reward Executives with a level and mix of remuneration commensurate with their position and responsibilities within the Company and so as to:

- Reward Executives for Company performance;
- Align the interest of Executives with those of shareholders;
- Link reward with the strategic goals and performance of the Company; and
- Ensure total remuneration is competitive by market standards.

Structure
Executive remuneration may consist of both fixed and variable elements.

Fixed Remuneration

Objective
The level of fixed remuneration is set so as to provide a base level of remuneration which is both appropriate to the position and is competitive in the market.

Fixed remuneration is reviewed annually or upon renewal of fixed term contracts by the Board and the process consists of a review of Company and individual performance, relevant comparative remuneration in the market and internal policies and practices.

Executives are given the opportunity to receive their fixed remuneration in a variety of forms including cash and fringe benefits. It is intended that the manner of payment chosen will be optimal for the recipient without creating undue cost for the Company.

Variable Remuneration

Objective
Variable remuneration may be provided to reward Executives in a manner which aligns this element of remuneration with the creation of shareholder wealth.

Details of remuneration
Directors' and executive officers' remuneration
Details of the nature and amount of each major element of remuneration of key management personnel of the Group are set out in the following tables.

30 June 2023	Short-term benefits Cash salary and fees $	Short-term benefits Bonus $	Post-employment benefits Superannuation $	Post-employment benefits Long Service Leave $	Share-based payments Equity-settled $	Total $
Executive Directors:						
Mr. D McAuliffe	203,349	50,000	26,250	22,010	70,266	371,875
Mr. K Hurley **[A]**	61,964	-	-	-	-	61,964
Drs. W van den Hoek **[B]**	37,054	-	-	-	-	37,054
Non-Executive Directors:						
Dr. G Arnout **[D]**	270,253	-	-	-	-	270,253
Mr. H Digby	30,000	-	-	-	11,711	41,711
Drs. W van den Hoek **[B]**	18,889	-	-	-	45,640	64,529
Other Key Management Personnel:						
Mr. T Yen **[C]**	310,841	-	-	-	593,090	903,931
	932,350	50,000	26,250	22,010	720,707	1,751,317

Notes in relation to Directors' and Executive officers' remuneration table FY 2023
[**A**] On 15 August 2022, Mr. Hurley resigned as the Company's Chief Executive Officer and Managing Director.

[B] Remuneration as NED from 1 July 2022 to 14 August 2022 and Executive Chairman from 15 August 2022 to 13 February 2023.

[C] On 5 October 2022, Mr. Yen appointed as Company's Chief Technology Officer.

[D] Included $240,253 of consultancy fees.

30 June 2022	Short-term benefits Cash salary and fees $	Post-employment benefits Superannuation $	Share-based payments Equity-settled $	Proportion of remuneration performance related $	Total $
Executive Directors:					
Mr. K Hurley **[A]**	124,769	-	429,995	-	554,764
Mr. D McAuliffe	194,167	18,205	726	-	213,098
Non-Executive Directors:					
Drs. W van den Hoek **[B]**	50,000	-	658,512	-	708,512
Dr. G Arnout **[C]**	176,841	-	765	-	177,606
Mr. H Digby	30,000	-	130	-	30,130
Other Key Management Personnel:					
Mr. M Van Buskirk **[D]**	224,086	-	480	-	224,566
Mr. S Desu **[E]**	28,640	-	2,750	-	31,390
	828,503	18,205	1,093,358	-	1,940,066

Notes in relation to Directors' and Executive officers' remuneration table FY 2022
[A] On 14 March 2022, Mr. Hurley was appointed as the Company's Chief Executive Officer and Managing Director and subsequently resigned on 15 August 2022.

[B] On 16 June 2022, 1,170,000 ordinary shares were issued following the exercise of $0.064 unlisted options. The amount to be paid on the exercised of options $74,880 was offset against accrued Director's fees outstanding for the period from December 2020 to May 2022. Of which, $45,833 related to 30 June 2022 financial year.

[C] On 14 March 2022, Dr. Arnout retired as the Company's Chief Executive Office and Managing Director. Dr. Arnout remains with the Company as a Non-Executive Director and will act on a part-time basis as an employee.

[D] On 30 April 2022, Mr. Buskirk resigned as the Company's Chief Engineering Officer.

[E] On 15 October 2021, Mr. Desu resigned as the Company's Chief Technology Officer.

Employment Contracts
Remuneration and other terms of employment for key management personnel are formalised in service agreements. Details of these agreements are as follows:

Name:	**Mr. David McAuliffe**
Title:	**Executive Director** (Now Interim Executive Chairman under the same terms)
Agreement commenced:	7 December 2015

Mr. McAuliffe is subject to an employment contract with the following conditions:
- Remuneration salary of $200,000 per annum plus statutory superannuation.
- An equity package to be determined by the Board (subject to shareholder approval).
- Performance bonuses (if any) as may be approved by the Board from time to time.
- Entitlement to be reimbursed for all reasonable out-of-pocket expenses necessarily incurred in the performance of his duties.
- Remuneration reviewed annually on each review date or at any other time as the Board may determine (in its absolute discretion).

Termination
Termination of employment can be provided by the Company with three months written notice or by the employee with three months written notice. The notice period can be waived if there is sufficient cause.

Name:	**Dr. Guido Arnout**
Title:	**Adviser of Executive Chairman**
Agreement commenced:	from 1 September 2022

Dr. Arnout is subject to an employment contract with the following conditions:
- handle the G&A function for 4DS Inc. for a total of 32 hours per month at a rate of US$125 per hour.
- collection of test data for an extraction of data from 4DS Inc. test data base for no more than 68 hours of work per month at a rate of US$125 per hour, unless more time is expressly authorised in writing by the Executive Chairman.

Title:	**Adviser to CEO**
Agreement commenced:	From 14 March 2022 to 31 August 2022

- Remuneration salary of US$4,000 for a day of service per week.
- Entitlement to be reimbursed for all reasonable out of pocket expenses necessarily incurred in the performance of his duties.

Incentive
Upon a liquidity event occurring, Dr. Arnout will be entitled to receive 15% of the Sale Bonus Pool if Dr. Arnout continuously provided the services through the time of the liquidity events.

The size of the Sale Bonus Pool shall be calculated as follows:

	Sale Bonus Pool
Sale Value of US$120m to US$350m	5% of the sale value
Sale Value of US$350m to US$550m	US$17.5m plus 6.25% of the excess above US$350m
Sale Value above US$550m	US$30m plus 7.5% of the excess above US$550m

Termination
14 days notice of termination is required for the role of adviser to CEO. Termination condition for Non-Executive Director role with immediate effect by written notice to the Company or the Company’s shareholders may resolve the removal by member’s resolution.

Name:	**Mr. Ting Yen**
Title:	**Chief Technology Officer**
Agreement commenced:	5 October 2022
Term of agreement:	VP contract terms continued with the appointment as Chief Technology Officer

Mr. Yen is subject to an employment contract with the following conditions:

- Remuneration salary of US$264,000 per annum subject to normal statutory deductions by the Company.
- Participation in any employee incentive scheme.
- Entitlement to be reimbursed for all reasonable out-of-pocket expenses necessarily incurred in the performance of his duties and,
- Remuneration reviewed annually on each review date or at any other time as the Board may determine (in its absolute discretion).

Incentive

Upon a liquidity event occurring, Mr. Yen will be entitled to receive 10% of the Sale Bonus Pool if Mr. yen continuously provided the services through the time of the liquidity events.

The size of the Sale Bonus Pool shall be calculated as follows:

	Sales Bonus Pool
Sale Value of US$120m to US$350m	5% of the sale value
Sale Value of US$350m to US$550m	US$17.5m plus 6.25% of the excess above US$350m
Sale Value above US$550m	US$30m plus 7.5% of the excess above US$550m

Termination

Termination of employment can be provided by the Company with three months written notice or by the employee with three months written notice. The notice period can be waived if there is sufficient cause.

[C] Shares granted as compensation

Issue of shares

There were no shares issued to Directors and other key management personnel as part of compensation during the year ended 30 June 2023.

[D] Options over equity instruments granted as compensation

Details on options over ordinary shares in the Company that were granted as compensation to each key management person during the reporting period and details on options that vested during the reporting periods are as follows:

Name	No. of options granted	Grant Date	No. of options vested	Expiry Date	Exercise Price	Fair value per option grant date
Mr. D McAuliffe	6,000,000	20/02/2023	-	27/02/2028	$0.037	$0.0334
Mr. H Digby	1,000,000	20/02/2023	-	27/02/2028	$0.037	$0.0334
Mr. T Yen	20,000,000	16/12/2022	5,000,000	19/02/2027	$0.037	$0.0237
	27,000,000		5,000,000			

All unvested options expire on termination of employment unless the Board makes a determination (in its absolute discretion) that the employee’s performance during the term and the circumstances of the termination of the employment are such that all unvested options on the date of termination will continue to vest according to the vesting schedule and only expire on the expiry date.

Values of options over ordinary shares granted, exercised and lapsed for Directors and other key management personnel as part of compensation during the year ended 30 June 2023 are set out below:

	Value of options granted and vested during the year $	Value of options exercised during the year $	Value of options lapsed during the year $	Remuneration consisting of options for the year %
Mr. D McAuliffe	70,266	-	-	19%
Mr. H Digby	11,711	-	-	28%
Dr. G Arnout	-	-	-	-
Mr. T. Yen	593,090	-	-	66%
Drs. W van den Hoek (resigned 13 February 2023)	45,640	-	(481,090)	71%
Mr. K Hurley (resigned 15 August 2022)	-	-	(429,995)	-

Key Management Personnel Transactions

Loans to KMP and their related parties

There are no loans between the Group and KMP.

Other transactions with KMP and their related parties

Purchases from and sales to KMP and their related parties are made on terms equivalent to those that prevail in arm's length transactions. The Group acquired the following services from entities that are controlled by members of the Group's KMP.

Transactions between related parties are on normal commercial terms and conditions no more favourable than those available to other parties unless otherwise stated.

Entity	Nature of transaction	KMP and their related parties	Total expense 30 June 2023	Payable balance 30 June 2023	Total expense 30 June 2022	Payable balance 30 June 2022
Bandra Consulting Pty Ltd	Director fee	Howard Digby	30,000	-	30,000	-
Dr Guido Arnout	Consultancy fee	Guido Arnout	240,253	-	25,184	-

Voting of shareholders at last year's annual general meeting

At the Company's last Annual General Meeting (AGM), 4.95% of votes cast at the meeting rejected the adoption of the remuneration report. The Company did not receive any specific feedback at the AGM or throughout the year and up to the date of this report on its remuneration practices.

This concludes the remuneration report, which has been audited.

Share options
Unissued ordinary shares of 4DS Memory Limited under option at the date of this report are as follows:

Grant Date	Expiry Date	Exercise Price	Number under option
03/12/2021	03/12/2023	$0.080	5,000,000
22/01/2019	22/01/2024	$0.052	8,900,000
06/05/2019	22/01/2024	$0.052	16,880,000
28/08/2019	28/08/2024	$0.052	1,300,000
30/11/2020	29/11/2025	$0.064	12,830,000
31/05/2022	31/05/2027	$0.100	10,500,000
19/12/2022	19/12/2027	$0.037	21,500,000
27/02/2023	27/02/2028	$0.037	7,000,000
20/03/2023	31/03/2026	$0.055	86,388,882
			170,298,882

All unissued shares are ordinary shares of the Company.

All unvested options expire on termination of employment unless the Board makes a determination (in its absolute discretion) that the employee's performance during the term and the circumstances of the termination of the employment are such that all unvested options on the date of termination will continue to vest according to the vesting schedule and only expire on the expiry date. Further details about share-based payments to directors and KMP are included in the remuneration report.

Option holders do not have any right, by virtue of the option, to participate in any share issue of the Company or any related body corporate.

Shares issued as a result of the exercise of options
During or since the end of the financial year, the Group issued ordinary shares of the Company as a result of the exercise of options as follows:

Number of shares	Amount paid on each share
2,275,000	$0.042

Equity Instruments

[A] Share holdings of Key Management Personnel

The number of shares in the Company held during the financial year by each Director and other members of key management personnel of the Group, including their personally related parties, is set out below:

30 June 2023	Balance at the of the year or at date of commencing as KMP	Granted as part of remuneration	On exercise of options	Net change other	Balance at the end of year or at date of ceasing as KMP
Executive Directors					
Mr. D McAuliffe	7,328,706	-	-	-	7,328,706
Mr. K Hurley (resigned 15 Aug 2022)	-	-	-	-	-
Non-Executive Directors					
Dr. G Arnout	7,230,053	-	-	-	7,230,053
Mr. H Digby	6,388,629	-	-	-	6,388,629
Drs. W van den Hoek (resigned 13 Feb 2023)	1,170,000	-		-	1,170,000
Other Key Management Personnel					
Mr. T Yen (appointed 5 October 2022)	-	-	-	-	-
	22,117,388	-	-	-	22,117,388

[B] Options holdings of Key Management Personnel

The movement during the reporting period, by number of options over ordinary shares in 4DS Memory Limited held, directly, indirectly or beneficially, by each key management person, including their parties, is as follows:

30 June 2023	Balance at the of the year or at date of commencing as KMP	Granted as part of remuneration	On exercise of options	Net change other	Balance at the end of year or at date of ceasing as KMP
Executive Director					
Mr. D McAuliffe	7,000,000	6,000,000	-	-	13,000,000
Mr. K Hurley (resigned 15 August 2022)	30,000,000	-	-	(30,000,000)	-
Non-Executive Director					
Dr. G Arnout	7,380,000	-	-	-	7,380,000
Mr. H Digby	1,250,000	1,000,000	-	-	2,250,000
Drs. W van den Hoek (resigned 13 Feb 2023)	18,830,000	-	-	(6,000,000)	12,830,000
Other key management personnel					
Mr. T Yen (appointed 22 October 2022)	10,500,000	20,000,000	-	-	30,500,000
	74,960,000	27,000,000	-	(36,000,000)	65,960,000

	Vested and exercisable	Unvested and unexercisable	Balance at the end of the year
Options over ordinary shares			
Mr. D McAuliffe	7,000,000	6,000,000	13,000,000
Dr. G Arnout	7,380,000	-	7,380,000
Mr. H Digby	1,250,000	1,000,000	2,250,000
Mr. T Yen	10,776,190	19,723,810	30,500,000
	26,406,190	26,723,810	53,130,000

Indemnification and insurance of Directors, Officers and Auditors

Indemnification

The Company indemnifies each of its Directors, Officers and Company Secretary. The Company indemnifies each Director or Officer to the maximum extent permitted by the Corporations Act 2001 from liability to third parties, except where the liability arises out of conduct involving lack of good faith, and in defending legal and administrative proceedings and applications for such proceedings.

The Company must use its best endeavours to insure a Director or Officer against any liability, which does not arise out of conduct constituting a wilful breach of duty or a contravention of the Corporations Act 2001. The Company must also use its best endeavours to insure a Director or Officer against liability for costs and expenses incurred in defending proceedings whether civil or criminal.

The Company has not entered into any agreement with its current auditors indemnifying them against any claims by third parties arising from their report on the financial report.

Insurance premiums

During the year the Company paid insurance premiums to insure Directors and Officers against certain liabilities arising out of their conduct while acting as an Officer of the Group. Under the terms and conditions of the insurance contract, the nature of the liabilities insured against, and the premium paid cannot be disclosed.

Proceedings on behalf of Company

No person has applied for leave of Court under section 237 of the Corporations Act 2001 for leave to bring proceedings on behalf of the Company or to intervene in any proceedings to which the Company is a party for the purpose of taking responsibility on behalf of the Company for all or any part of those proceedings.

The Company was not a party to any such proceedings during the year.

Non-audit services

During the year, PKF Perth, the Group's auditor, has performed certain other services in addition to the audit and review of the financial statements.

The Board of Directors has considered the non-audit services provided during the year by the auditor and satisfied that the provision of non-audit services during the year is compatible with the general standard of independence for auditors imposed by the Corporations Act 2001. The Directors are satisfied that the services disclosed below did not compromise the external auditors’ independence for the following reasons:

- All non-audit services are reviewed and approved by the Directors prior to commencement to ensure they do not adversely affect the integrity and objectivity of the audit; and
- The nature of the services provided do not compromise the general principles relating to auditor independence in accordance with APES 110: Code of Ethics for Professional Accountants set by the Accounting Professional and Ethical Standards Board.

Details of the amounts paid to the auditor of the Group, PKF Perth and its network firms for non-audit services provided during the year are set out below:

Services other than audit and review of financial statements:	2023
Other services	
Taxation compliance	4,300
	4,300

Auditor's independence declaration

A copy of the auditor's independence declaration for the year ended 30 June 2023 as required under section 307C of the Corporations Act 2001 has been received and can be found after this directors' report.

This report is made in accordance with a resolution of Directors, pursuant to section 298(2)(a) of the Corporations Act 2001.

On behalf of the Directors

____
Mr. David McAuliffe
Interim Executive Chairman

28 August 2023

Advisory • Audit
Business Solutions

AUDITOR'S INDEPENDENCE DECLARATION

TO THE DIRECTORS OF 4DS MEMORY LIMITED

In relation to our audit of the financial report of 4DS Memory Limited for the year ended 30 June 2023, to the best of my knowledge and belief, there have been no contraventions of the auditor independence requirements of the *Corporations Act 2001* or any applicable code of professional conduct.

PKF PERTH

SIMON FERMANIS
SENIOR PARTNER

28 AUGUST 2023
WEST PERTH
WESTERN AUSTRALIA

4DS Memory Limited
Consolidated statement of profit or loss and other comprehensive income
For the year ended 30 June 2023

	Note	30 June 2023 $	30 June 2022 $
Other Income		-	23,646
Interest Income		41,037	4,457
Expenses			
Compliance and regulatory expenses		(139,703)	(144,823)
Consulting and professional Fees		(269,475)	(214,244)
Directors and employee benefit expenses	4	(417,552)	(301,122)
Depreciation and amortisation expense	4	(189,745)	(224,812)
Written off of asset	10	(7,292)	(48,605)
Research expenses	4	(3,487,056)	(4,155,124)
Share based payments	17	(849,034)	(1,276,268)
Interest expense		-	(6,158)
Unrealised / realised foreign exchange		(29,163)	(29,906)
Other expenses		(435,675)	(343,046)
Operating loss		(5,783,658)	(6,716,005)
Interest on lease liabilities		(10,583)	(16,074)
Loss before income tax expense		(5,794,241)	(6,732,079)
Income tax expense	6	-	-
Loss after income tax expense for the year attributable to the owners of 4DS Memory Limited		(5,794,241)	(6,732,079)
Other comprehensive income (loss)			
Items that may be reclassified subsequently to profit or loss			
Foreign currency translation	16	(36,673)	19,100
Other comprehensive income (loss) for the year, net of tax		(36,673)	19,100
Total comprehensive income loss for the year attributable to the owners of 4DS Memory Limited		(5,830,914)	(6,712,979)
		Cents	**Cents**
Basic loss per share	15	(0.38)	(0.48)
Diluted loss per share	15	(0.38)	(0.48)

The above consolidated statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes

	Note	30 June 2023 $	30 June 2022 $
Assets			
Current assets			
Cash and cash equivalents	7	5,599,537	5,234,447
Other assets		61,536	55,205
Total current assets		5,661,073	5,289,652
Non-current assets			
Right-of-use assets	9	39,894	151,646
Property, plant and equipment	10	151,782	257,001
Total non-current assets		191,676	408,647
Total assets		5,852,749	5,698,299
Liabilities			
Current liabilities			
Trade and other payables	11	81,809	84,945
Lease liabilities	12	53,964	120,313
Provisions	13	58,137	32,778
Total current liabilities		193,910	238,036
Non-current liabilities			
Lease liabilities	12	-	51,987
Total non-current liabilities		-	51,987
Total liabilities		193,910	290,023
Net assets		5,658,839	5,408,276
Equity			
Issued capital	14	59,853,160	54,826,216
Reserves	16	5,790,396	5,611,268
Accumulated losses		(59,984,717)	(55,029,208)
Total equity		5,658,839	5,408,276

The above consolidated statement of financial position should be read in conjunction with the accompanying notes

4DS Memory Limited
Consolidated statement of changes in equity
For the year ended 30 June 2023

	Issued capital $	Share Based Payment Reserve $	Foreign Exchange Reserve $	Accumulated losses $	Total equity $
Balance at 1 July 2021	47,925,285	4,339,238	(12,957)	(48,307,509)	3,944,057
Loss after income tax expense for the year	-	-	-	(6,732,079)	(6,732,079)
Other comprehensive income for the year, net of tax	-	-	19,100	-	19,100
Total comprehensive income (loss) for the year	-	-	19,100	(6,732,079)	(6,712,979)
Transactions with owners in their capacity as owners:					
Issue of share capital, net of transaction costs (note 14)	5,540,027	-	-	-	5,540,027
Share-based payments (note 17)	74,880	1,276,267	-	-	1,351,147
Issue of shares on exercised of options	1,286,024	-	-	-	1,286,024
Options lapsed	-	(10,381)	-	10,381	-
Balance at 30 June 2022	54,826,216	5,605,124	6,143	(55,029,207)	5,408,276

	Issued capital $	Share Based Payment Reserve $	Foreign Exchange Reserve $	Accumulated losses $	Total equity $
Balance at 1 July 2022	54,826,216	5,605,124	6,143	(55,029,207)	5,408,276
Loss after income tax expense for the year	-	-	-	(5,794,241)	(5,794,241)
Other comprehensive income loss for the year, net of tax	-	-	(36,673)	-	(36,673)
Total comprehensive income loss for the year	-	-	(36,673)	(5,794,241)	(5,830,914)
Transactions with owners in their capacity as owners:					
Contributions of equity, net of transaction costs (note 14)	5,136,889	-	-	-	5,136,889
Share-based payments (note 14)	(205,499)	1,054,533	-	-	849,034
Issue of shares on exercised of options (note 14)	95,554	-	-	-	95,554
Options lapsed (note 14)	-	(838,730)	-	838,730	-
Balance at 30 June 2023	59,853,160	5,820,927	(30,530)	(59,984,718)	5,658,839

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes

	Note	30 June 2023 $	30 June 2022 $
Cash flows from operating activities			
Payments to suppliers and employees		(1,233,817)	(840,317)
Payments for research and development		(3,502,173)	(4,564,702)
		(4,735,990)	(5,405,019)
Interest received		41,037	4,457
Interest paid		(10,583)	(16,074)
Other income		-	23,646
Net cash used in operating activities	8	(4,705,536)	(5,392,990)
Cash flows from investing activities			
Payments for property, plant and equipment		-	(248,660)
Net cash used in investing activities		-	(248,660)
Cash flows from financing activities			
Proceeds from issue of shares	14	5,500,000	5,985,930
Payment of capital raising costs		(377,139)	(428,849)
Issue of shares on exercise of options		95,554	1,286,024
Repayment of borrowings		-	(127,908)
Principal elements of lease payments		(133,742)	(120,509)
Net cash from financing activities		5,084,673	6,594,688
Net increase in cash and cash equivalents		379,137	953,038
Cash and cash equivalents at the beginning of the financial year		5,234,447	4,298,794
Effects of exchange rate changes on cash and cash equivalents		(14,047)	(17,385)
Cash and cash equivalents at the end of the financial year	7	5,599,537	5,234,447

Note 1. Reporting Entity

These are the consolidated financial statements and notes of the Company and controlled entities. 4DS Memory Limited and its subsidiaries together are referred to in these financial statements as the 'Group'. The Group is a company limited by shares, domiciled and incorporated in Australia.

The Group is a for-profit entity and is primarily involved in the semiconductor industry pioneering the development of a non-volatile memory technology known as Interface Switching ReRAM, for next-generation gigabyte Storage Class Memory.

Basis of accounting

The consolidated financial statements are general purpose financial statements and have been prepared in accordance with Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') and the Corporations Act 2001. These financial statements also comply with International Financial Reporting Standards as issued by the International Accounting Standards Board ('IASB'). They were authorised by the Board of Directors on 28 August 2023.

Reporting basis and conventions

The financial statements have been prepared on accrual basis under the historical cost convention, except for, where applicable, the revaluation of financial assets and liabilities at fair value through profit or loss, financial assets at fair value through other comprehensive income, investment properties, certain classes of property, plant and equipment and derivative financial instruments.

Parent entity information

In accordance with the Corporations Act 2001, these financial statements present the results of the Group only. Supplementary information about the parent entity is disclosed in note 21.

Principles of consolidation

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of the Group as at 30 June 2023 and the results of all subsidiaries for the year then ended.

Subsidiaries are all those entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between entities in the Group are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

The acquisition of subsidiaries is accounted for using the acquisition method of accounting. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Where the Group loses control over a subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative translation differences recognised in equity. The Group recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss in profit or loss.

Functional and presentation currency

The financial statements are presented in Australian dollars, which is 4DS Memory Limited's functional and presentation currency.

Note 1. Reporting Entity (continued)

Foreign currency transactions
Foreign currency transactions are translated into Australian dollars using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at financial year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

Foreign operations
The assets and liabilities of foreign operations are translated into Australian dollars using the exchange rates at the reporting date. The revenues and expenses of foreign operations are translated into Australian dollars using the average exchange rates, which approximate the rates at the dates of the transactions, for the period. All resulting foreign exchange differences are recognised in other comprehensive income through the foreign currency reserve in equity.

Investments and other financial assets
Investments and other financial assets are initially measured at fair value. Transaction costs are included as part of the initial measurement, except for financial assets at fair value through profit or loss. Such assets are subsequently measured at either amortised cost or fair value depending on their classification. Classification is determined based on both the business model within which such assets are held and the contractual cash flow characteristics of the financial asset unless an accounting mismatch is being avoided.

Financial assets are derecognised when the rights to receive cash flows have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership. When there is no reasonable expectation of recovering part or all of a financial asset, its carrying value is written off.

Financial assets at amortised cost
A financial asset is measured at amortised cost only if both of the following conditions are met: (i) it is held within a business model whose objective is to hold assets in order to collect contractual cash flows; and (ii) the contractual terms of the financial asset represent contractual cash flows that are solely payments of principal and interest.

Investments
Investments includes non-derivative financial assets with fixed or determinable payments and fixed maturities where the Group has the positive intention and ability to hold the financial asset to maturity. This category excludes financial assets that are held for an undefined period. Investments are carried at amortised cost using the effective interest rate method adjusted for any principal repayments. Gains and losses are recognised in profit or loss when the asset is derecognised or impaired.

Impairment of financial assets
The Group recognises a loss allowance for expected credit losses on financial assets which are either measured at amortised cost or fair value through other comprehensive income. The measurement of the loss allowance depends upon the Group's assessment at the end of each reporting period as to whether the financial instrument's credit risk has increased significantly since initial recognition, based on reasonable and supportable information that is available, without undue cost or effort to obtain.

Where there has not been a significant increase in exposure to credit risk since initial recognition, a 12-month expected credit loss allowance is estimated. This represents a portion of the asset's lifetime expected credit losses that is attributable to a default event that is possible within the next 12 months. Where a financial asset has become credit impaired or where it is determined that credit risk has increased significantly, the loss allowance is based on the asset's lifetime expected credit losses. The amount of expected credit loss recognised is measured on the basis of the probability weighted present value of anticipated cash shortfalls over the life of the instrument discounted at the original effective interest rate.

For financial assets mandatorily measured at fair value through other comprehensive income, the loss allowance is recognised in other comprehensive income with a corresponding expense through profit or loss. In all other cases, the loss allowance reduces the asset's carrying value with a corresponding expense through profit or loss.

Note 1. Reporting Entity (continued)

New Accounting Standards and Interpretations not yet mandatory or early adopted
The Group has adopted all new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period. Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

Going Concern
The net assets of the Group totalled $5,658,839 (30 June 2022: $5,408,276). Cash on hand at 30 June 2023 totalled $5,599,537 (30 June 2022: $5,234,447) and net operating cash outflow was $4,705,536 (30 June 2022: $5,392,990) for the year ended 30 June 2023.

The Group's ability to continue as a going concern and meet its debts and future commitments as and when they fall due is dependent on the Company's ability to raise sufficient working capital to ensure the continued implementation of the Group's business plan.

The financial report has been prepared on a going concern basis. In arriving at this position, the Directors have had regard to the fact that the Company has, or in the Directors' opinion will have access to, sufficient cash to fund administrative and other committed expenditure for a period of not less than 12 months from the date of this report.

In the event that the Group does not achieve the above actions, there exists a material uncertainty as to whether the Group will be able to continue as a going concern and realise its assets and extinguish its liabilities in the normal course of business.

Note 2. Critical accounting judgements, estimates and assumptions

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts in the financial statements. Management continually evaluates its judgements and estimates in relation to assets, liabilities, contingent liabilities, revenue and expenses. Management bases its judgements, estimates and assumptions on historical experience and on other various factors, including expectations of future events, which management believes to be reasonable under the circumstances. The resulting accounting judgements and estimates will seldom equal the related actual results. The judgements, estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities (refer to the respective notes) within the next financial year are discussed below.

Share-based payment transactions
The grant date fair value of share-based payment is recognised as an expense with a corresponding increase in equity, over the period that the recipient unconditionally becomes entitled to the awards.

The Group measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. The fair value is determined by using either the Binomial or Black-Scholes model taking into account the terms and conditions upon which the instruments were granted. The accounting estimates and assumptions relating to equity-settled share-based payments would have no impact on the carrying amounts of assets and liabilities within the next annual reporting period but may impact profit or loss and equity.

The Company follows the guidelines of AASB 2 'Share-based payments' and takes into account all performance conditions and estimates the probability and expected timing of achieving these performance conditions. Accordingly, the expense recognised over the vesting period may vary based upon information available and estimates made at each reporting period, until the expiry of the vesting period.

Impairment of property, plant and equipment
The Group assesses impairment of property, plant and equipment at each reporting date by evaluating conditions specific to the Group and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

Note 2. Critical accounting judgements, estimates and assumptions (continued)

Incremental borrowing rate
Where the interest rate implicit in a lease cannot be readily determined, an incremental borrowing rate is estimated to discount future lease payments to measure the present value of the lease liability at the lease commencement date. Such a rate is based on what the Group estimates it would have to pay a third party to borrow the funds necessary to obtain an asset of a similar value to the right-of-use asset, with similar terms, security and economic environment.

Employee benefits provision
As discussed in note 1, the liability for employee benefits expected to be settled more than 12 months from the reporting date are recognised and measured at the present value of the estimated future cash flows to be made in respect of all employees at the reporting date. In determining the present value of the liability, estimates of attrition rates and pay increases through promotion and inflation have been taken into account.

Research costs
All research costs during the year have been expensed. The research costs have not been recognized as intangible assets as they did not meet the criteria as set out in policy.

Note 3. Operating segments

Operating segments are identified, and segment information disclosed on the basis of internal reports that are regularly provided to, or reviewed by, the Group’s chief operating decision maker which, for the Group, is the Board of Directors. In this regard, such information is provided using similar measures to those used in preparing the statement of profit or loss and other comprehensive income and statement of financial position.

The Company has identified its operating segments based on internal reports reviewed by the Board and management. There was only one operating segment being research and development of Interface Switching ReRAM technology for next generation storage in mobile and cloud.

Note 4. Expenses

	30 June 2023 $	30 June 2022 $
Loss before income tax includes the following specific expenses:		
Depreciation		
Plant and equipment	93,999	123,018
Buildings right-of-use assets	95,746	101,794
Total depreciation	189,745	224,812
Salary and wages (cash settled)	200,000	200,000
Bonus (cash settled)	50,000	-
Superannuation (cash settled)	26,250	18,205
Annual leaves	3,349	(5,833)
Long service leaves	22,010	-
Directors' fees (cash settled)	115,943	27,500
Directors' fees (accrued)	-	15,417
Director's fees (equity settled)	-	45,833
Total directors and employee benefits expense	**417,552**	**301,122**
Consultants	205,801	139,196
Salary and wages	1,483,921	1,759,939
R&D partner	1,484,756	1,958,349
Other research expenses	312,578	297,640
Total research expenses	**3,487,056**	**4,155,124**

Note 4. Expenses (continued)

Accounting policy for employee benefits expense

i. Wages, salaries and annual leave

Liabilities for wages, salaries and annual leave expected to be settled within one year of the reporting date are recognised in respect of employees' services up to the reporting date and are measured at the amounts expected to be paid when the liabilities are settled.

ii. Superannuation

Contributions are made by the Consolidated Entity to superannuation funds as stipulated by statutory requirements and are charged as expenses when incurred.

iii. Employee benefit on costs

Employee benefit on costs, including payroll tax, are recognised and included in employee benefits liabilities and costs when the employee benefits to which they relate are recognised as liabilities.

iv. Other long-term employee benefits

The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

v. Equity-settled Compensation

The Group operates equity-settled share-based payment employee share and option schemes. The fair value of the equity to which employees become entitled is measured at grant date and recognised as an expense over the vesting period, with a corresponding increase to an equity account. The fair value of shares is ascertained as the market bid price. The fair value of options is ascertained using a Black–Scholes pricing model which incorporates all market vesting conditions. The number of shares and options expected to vest is reviewed and adjusted at each reporting date such that the amount recognised for services received as consideration for the equity instruments granted shall be based on the number of equity instruments that eventually vest.

Accounting policy for research costs

Research costs are expensed as incurred. Development expenditures on an individual project are recognised as an intangible asset when the Group can demonstrate:

- The technical feasibility of completing the intangible asset so that the asset will be available for use or sale
- Its intention to complete and its ability to use or sell the asset
- How the asset will generate future economic benefits
- The availability of resources to complete the asset
- The ability to measure reliably the expenditure during development
- The ability to use the intangible asset generated

Following initial recognition of the development expenditure as an asset, the asset is carried at cost less any accumulated amortisation and accumulated impairment losses. Amortisation of the asset begins when development is complete, and the asset is available for use. It is amortised over the period of expected future benefit. During the period of development, the asset is tested for impairment annually.

Note 5. Remuneration of auditors

During the financial year the following fees were paid or payable for services provided by PKF Perth, the auditor of the Company:

	30 June 2023 $	30 June 2022 $
Audit services - PKF Perth		
Audit or review of the financial statements	37,700	34,500
Other services - PKF Perth		
Preparation of the tax return	4,300	3,500
	42,000	38,000

Note 6. Income tax

	30 June 2023 $	30 June 2022 $
Numerical reconciliation of income tax expense and tax at the statutory rate		
Loss before income tax expense	(5,794,241)	(6,732,079)
Tax at the statutory tax rate of 25%	(1,448,560)	(1,683,020)
Tax effect amounts which are not deductible/(taxable) in calculating taxable income:		
Other non-deductible amounts	259,296	318,938
	(1,189,264)	(1,364,082)
Deferred tax balances not recognised	1,189,264	1,364,082
Income tax expense	-	-

	30 June 2023 $	30 June 2022 $
Deferred tax assets not recognised		
Deferred tax assets not recognised comprises temporary differences attributable to:		
Transaction costs arising on shares issued	202,887	163,912
Carried forward revenue losses - Domestic	4,367,926	3,405,637
Other than	25,363	40,302
Deferred tax liabilities not recognised		
Prepayments	(9,576)	(8,683)
Total net deferred tax assets not recognised	4,586,600	3,601,168

The above potential tax benefit, which excludes tax losses, for deductible temporary differences has not been recognised in the statement of financial position as the recovery of this benefit is uncertain.

Accounting policy for income tax

The income tax expense or benefit for the period is the tax payable on that period's taxable income based on the applicable income tax rate for each jurisdiction, adjusted by the changes in deferred tax assets and liabilities attributable to temporary differences, unused tax losses and the adjustment recognised for prior periods, where applicable.

Note 6. Income tax (continued)

Deferred tax assets and liabilities are recognised for temporary differences at the tax rates expected to be applied when the assets are recovered or liabilities are settled, based on those tax rates that are enacted or substantively enacted, except for:

- When the deferred income tax asset or liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and that, at the time of the transaction, affects neither the accounting nor taxable profits; or
- When the taxable temporary difference is associated with interests in subsidiaries, associates or joint ventures, and the timing of the reversal can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognised for deductible temporary differences and unused tax losses only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

The carrying amount of recognised and unrecognised deferred tax assets are reviewed at each reporting date. Deferred tax assets recognised are reduced to the extent that it is no longer probable that future taxable profits will be available for the carrying amount to be recovered. Previously unrecognised deferred tax assets are recognised to the extent that it is probable that there are future taxable profits available to recover the asset.

Deferred tax assets and liabilities are offset only where there is a legally enforceable right to offset current tax assets against current tax liabilities and deferred tax assets against deferred tax liabilities; and they relate to the same taxable authority on either the same taxable entity or different taxable entities which intend to settle simultaneously.

Note 7. Cash and cash equivalents

	30 June 2023 $	30 June 2022 $
Current assets		
Cash and cash equivalents	5,599,537	5,234,447

Accounting policy for cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits held at call with financial institutions, other short-term with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

Note 8. Cash flow information

Reconciliation of loss after income tax to net cash used in operating activities

	30 June 2023 $	30 June 2022 $
Loss after income tax expense for the year	(5,794,241)	(6,732,079)
Adjustments for:		
Depreciation	189,745	224,813
Written off of asset	7,292	48,605
Share-based payments	849,034	1,276,268
Foreign exchange differences	(10,109)	55,498
Director fee - equity settled	-	74,880
Interest on lease liabilities	10,583	6,158
Reversal of impairment of asset	-	(23,332)
Change in operating assets and liabilities:		
Decrease in trade and other receivables	14,023	11,376
Increase in prepayments	(6,330)	(3,854)
Increase/(decrease) in trade and other payables	22,224	(451,832)
Increase in employee benefits	25,359	-
Increase in lease liabilities	(13,116)	120,509
Net cash used in operating activities	(4,705,536)	(5,392,990)

Non-cash investing and financing activities

	30 June 2023 $	30 June 2022 $
Shares issued under employee share plan	849,034	1,276,268
Shares issued in relation to director fees	-	74,880
	849,034	1,351,148

Note 9. Right-of-use assets

	30 June 2023 $	30 June 2022 $
Non-current assets		
Land and buildings - right-of-use	39,894	151,646
	39,894	151,646

Note 9. Right-of-use assets (continued)

Reconciliations
Reconciliations of the written down values at the beginning and end of the current and previous financial year are set out below:

	Total $
Balance at 1 July 2021	237,502
Exchange differences	15,841
Depreciation expense	(101,697)
Balance at 30 June 2022	151,646
Exchange differences	(16,006)
Depreciation expense	(95,746)
Balance at 30 June 2023	39,894

Accounting policy for right-of-use assets
A right-of-use asset is recognised at the commencement date of a lease. The right-of-use asset is measured at cost, which comprises the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and, except where included in the cost of inventories, an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Where the Group expects to obtain ownership of the leased asset at the end of the lease term, the depreciation is over its estimated useful life. Right-of use assets are subject to impairment or adjusted for any remeasurement of lease liabilities.

The Group has elected not to recognise a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

Note 10. Property, plant and equipment

	30 June 2023 $	30 June 2022 $
Non-current assets		
Plant and equipment	1,038,183	1,091,352
Accumulated depreciation	(886,401)	(834,351)
	151,782	257,001

Note 10. Property, plant and equipment (continued)

Reconciliations
Reconciliations of the written down values at the beginning and end of the current and previous financial year are set out below:

	Total $
Balance at 1 July 2021	377,851
Additions	23,482
Exchange differences	3,959
Reversal of impairment of asset	23,332
Write off of asset	(48,605)
Depreciation expense	(123,018)
Balance at 30 June 2022	257,001
Exchange differences	(3,928)
Write off of asset	(7,292)
Depreciation expense	(93,999)
Balance at 30 June 2023	151,782

Accounting policy for property, plant and equipment
Plant and equipment are stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Each class of property, plant and equipment is carried at cost or fair value as indicated less, where applicable, any accumulated depreciation and impairment losses.

Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset.

Plant and equipment are measured on the cost basis. The carrying amount of plant and equipment is reviewed annually by Directors to ensure it is not in excess of the recoverable amount from these assets. The recoverable amount is assessed on the basis of the expected net cash flows that will be received from the asset's employment and subsequent disposal. The expected net cash flows have been discounted to their present values in determining recoverable amounts.

The cost of fixed assets constructed within the Group includes the cost of materials, direct labour, borrowing costs and an appropriate proportion of fixed and variable overheads.

Depreciation is calculated on a straight-line basis to write off the net cost of each item of property, plant and equipment (excluding land) over their expected useful lives as follows:

Class of Assets	**Depreciation Rate**
Computer and equipment	33.33%
Plant and equipment	20%

The residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each reporting date.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

An item of property, plant and equipment is derecognised upon disposal or when there is no future economic benefit to the Group. Gains and losses between the carrying amount and the disposal proceeds are taken to profit or loss.

Note 11. Trade and other payables

	30 June 2023 $	30 June 2022 $
Current liabilities		
Trade payables	35,134	29,149
Other payables	46,675	55,796
	81,809	84,945

Accounting policy for trade and other payables

These amounts represent liabilities for goods and services provided to the Group prior to the end of the financial year and which are unpaid. Due to their short-term nature, they are measured at amortised cost and are not discounted. The amounts are unsecured and are usually paid within 30 days of recognition.

Accounting policy for goods and services tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the statement of financial position are shown inclusive of GST.

Cash flows are presented in the statement of cash flows on a gross basis, except for the GST component of investing and financing activities, which are disclosed as operating cash flows.

Note 12. Lease liabilities

	30 June 2023 $	30 June 2022 $
Current liabilities		
Lease liability	53,964	120,313
Non-current liabilities		
Lease liability	-	51,987
	53,964	172,300
Maturity analysis - contractual undiscounted cash flows	-	-
Less than one year	57,202	114,018
One to five years	-	55,106
More than five years	-	-
Total undiscounted lease payables	57,202	169,124
i. AASB 16 related amounts recognised in the statement of profit or loss		
Interest on lease liabilities	10,583	16,074
Depreciation charged related to right-of-use assets	95,746	101,697
	106,329	117,771
ii. AASB related amount recognised in the statement of cash flow		
Annual cash outflows for leases	133,742	120,509
Finance cost on lease liability	10,583	16,074

Refer to note 18 for further information on financial instruments.

Accounting policy for lease liabilities
A lease liability is recognised at the commencement date of a lease. The lease liability is initially recognised at the present value of the lease payments to be made over the term of the lease, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Lease payments comprise of fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be paid under residual value guarantees, exercise price of a purchase option when the exercise of the option is reasonably certain to occur, and any anticipated termination penalties. The variable lease payments that do not depend on an index or a rate are expensed in the period in which they are incurred.

Lease liabilities are measured at amortised cost using the effective interest method. The carrying amounts are remeasured if there is a change in the following: future lease payments arising from a change in an index, or a rate used; residual guarantee; lease term; certainty of a purchase option and termination penalties. When a lease liability is remeasured, an adjustment is made to the corresponding right-of use asset, or to profit or loss if the carrying amount of the right-of-use asset is fully written down.

The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement and requires an assessment of whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short term leases have a lease term of 12 months or less. Low-value assets comprise IT equipment and office furniture.

Note 12. Lease liabilities (continued)

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable
- Variable lease payments that are based on an index or a rate
- Amount expected to be payable by the lessee under residual value guarantees
- The exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- Payments of penalties for termination the lease, if the lease term reflects the lessee exercising that option.

Short-term leases and leases of low-value assets
The Group applies the low-value assets recognition exemption to leases of office equipment that are considered low value ($10,000 or less). Lease payments on short-term leases and leases of low-value assets are recognised as expenses on a straight-line basis over the lease term.

Note 13. Provisions

	30 June 2023 $	30 June 2022 $
Current liabilities		
Provisions for annual leaves	36,127	32,778
Long service leave	22,010	-
	58,137	32,778

Accounting policy for employee benefits
Short-term employee benefits
Liabilities for wages and salaries, including non-monetary benefits, annual leaves and long service leaves expected to be settled wholly within 12 months of the reporting date are measured at the amounts expected to be paid when the liabilities are settled.

Amounts not expected to be settled within the next 12 months
The current provision for employee benefits includes all unconditional entitlements where employees have completed the required period of service and also those where employees are entitled to pro-rata payments in certain circumstances. The entire amount is presented as current, since the Group does not have an unconditional right to defer settlement. However, based on past experience, the Group does not expect all employees to take the full amount of accrued leave or require payment within the next 12 months.

Other long-term employee benefits
The liability for annual leave and long service leave not expected to be settled within 12 months of the reporting date are measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date using the projected unit credit method. Consideration is given to expected future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on high quality corporate bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

Note 14. Issued capital

	30 June 2023 Shares	30 June 2022 Shares	30 June 2023 $	30 June 2022 $
Issued capital	1,632,543,220	1,477,490,442	63,288,928	57,679,319
Capital raising costs	-	-	(3,435,768)	(2,853,103)
	1,632,543,220	1,477,490,442	59,853,160	54,826,216

Movements in ordinary share capital

Details	Date	Shares	Issue price	$
Balance beginning of the year	1 July 2021	1,320,948,441		47,925,286
Placement Shares	2 Dec 2021	52,083,334	$0.048	2,500,000
Share Purchase Plan	20 Dec 2021	72,916,667	$0.048	3,485,944
Exercise of unlisted options	8 June 2022	1,040,000	$0.052	54,080
Exercised of unlisted options - in lieu of Director fees	16 June 2022	1,170,000	$0.064	74,880
Exercise of unlisted options	30 June 2022	29,332,000	$0.042	1,231,944
Capital raising cost	30 June 2022			(445,918)
Balance beginning of the year	30 June 2022	1,477,490,442		54,826,216
Placement Shares	20 March 2023	152,777,778	$0.036	5,500,000
Exercise of unlisted options	8 July 2022	2,275,000	$0.042	95,554
Capital raising cost	30 June 2023			(568,610)
Balance at the end of the year	30 June 2023	1,632,543,220		59,853,160

Movements in options

Details	Date	Options	$
Balance beginning of the year	1 July 2021	80,487,000	4,339,238
Options exercised, employee options		(31,542,000)	-
Options expired/forfeited		(260,000)	(10,381)
Share based payment, employee options		45,500,000	1,180,246
Share based payment, advisor options		5,000,000	96,021
Balance end of the year	30 June 2022	99,185,000	5,605,124
Options exercised, employee options		(2,275,000)	-
Options expired/forfeited		(41,500,000)	(838,730)
Options issued		76,388,882	-
Options issued in prior years vested		-	508,993
Share based payment, employee options		27,500,000	328,038
Share based payment, consultant options		1,000,000	12,003
Share based payment, broker options		10,000,000	205,499
Balance end of the year	30 June 2023	170,298,882	5,820,927

Note 14. Issued capital (continued)

Accounting policy for issued capital

Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Ordinary shares entitle the holder to participate in dividends and the proceeds on the winding up of the Company in proportion to the number of and amounts paid on the shares held. The fully paid ordinary shares have no par value and the Company does not have a limited amount of authorised capital.

On a show of hands every member present at a meeting in person or by proxy shall have one vote and upon a poll each share shall have one vote.

Share buy-back

There is no current on-market share buy-back.

Capital risk management

The Group's objectives when managing capital is to safeguard its ability to continue as a going concern, so that it can provide returns for shareholders and benefits for other stakeholders and to maintain an optimum capital structure to reduce the cost of capital.

Capital is regarded as total equity, as recognised in the statement of financial position, plus net debt. Net debt is calculated as total borrowings less cash and cash equivalents.

The capital risk management policy remains unchanged from the 30 June 2022 Annual Report.

Note 15. Earnings per share

	30 June 2023 $	30 June 2022 $
Loss after income tax attributable to the owners of 4DS Memory Limited	(5,794,241)	(6,732,079)
	Number	**Number**
Weighted average number of ordinary shares used in calculating basic earnings per share	1,522,409,643	1,391,855,583
Weighted average number of ordinary shares used in calculating diluted earnings per share	1,522,409,643	1,391,855,583
	Cents	**Cents**
Basic loss per share	(0.38)	(0.48)
Diluted loss per share	(0.38)	(0.48)

Accounting policy for earnings per share

Basic earnings per share

Basic earnings per share is calculated by dividing the profit attributable to the owners of 4DS Memory Limited, excluding any costs of servicing equity other than ordinary shares, by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the financial year.

Note 15. Earnings per share (continued)

Diluted earnings per share

Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares and the weighted average number of shares assumed to have been issued for no consideration in relation to dilutive potential ordinary shares.

Note 16. Reserves

	30 June 2023 $	30 June 2022 $
Foreign currency reserve	(30,530)	6,143
Share-based payments reserve	5,820,926	5,605,125
	5,790,396	5,611,268

Movements in foreign currency reserve

Movements in foreign currency translation reserve during the current and previous financial year are set out below:

	30 June 2023 $	30 June 2022 $
Balance at beginning of the year	6,143	(12,957)
Foreign exchange movement on translation of foreign operations	(36,673)	19,100
Balance at end of the year	(30,530)	6,143

Accounting Policy for foreign currency reserve

The reserve is used to recognise exchange differences arising from the translation of the financial statements of foreign operations to Australian dollars. It is also used to recognise gains and losses on hedges of the net investments in foreign operations.

Movements in share-based payment reserve

Movements in share-based payment reserve during the current and previous financial year are set out below:

	$
Balance at 1 July 2021	4,339,238
Options lapsed/cancelled during the year	(10,381)
Share-based payment	1,276,267
Balance at 30 June 2022	5,605,124
Options lapsed/cancelled during the year	(838,730)
Share-based payment	1,054,533
Balance at 30 June 2023	5,820,927

Accounting policy for share-based payments reserve

The reserve is used to recognise the value of equity benefits provided to employees and Directors as part of their remuneration, and other parties as part of their compensation for services.

Note 17. Share-based payments

A share option plan has been established by the Group and approved by shareholders at a general meeting, whereby the Group may grant options over ordinary shares in the Company to certain key management personnel of the Group. The options are issued for nil consideration and are granted in accordance with performance guidelines established by the Group.

Set out below are summaries of options granted under the plan:

	Number of options 30 June 2023	Weighted average exercise price 30 June 2023	Number of options 30 June 2022	Weighted average exercise price 30 June 2022
Outstanding at the beginning of the financial year	99,185,000	$0.066	80,487,000	$0.051
Granted	114,888,882	$0.051	50,500,000	$0.076
Forfeited	(41,000,000)	$0.068	-	$0.000
Exercised	(2,275,000)	$0.042	(31,542,000)	$0.043
Expired	(500,000)	$0.042	(260,000)	$0.040
Outstanding at the end of the financial year	170,298,882	$0.056	99,185,000	$0.066

Set out below are movement of options during the year:

30 June 2023

Grant date	Expiry date	Exercise price	Balance at the start of the year	Granted	Exercised	Expired/ forfeited/ other	Balance at the end of the year
30/10/2017	27/10/2022	$0.042	2,775,000	-	(2,275,000)	(500,000)	-
22/04/2019	28/02/2024	$0.052	1,300,000	-	-	-	1,300,000
24/04/2019	22/01/2024	$0.052	25,780,000	-	-	-	25,780,000
30/11/2020	29/11/2025	$0.064	18,830,000	-	-	(6,000,000)	12,830,000
03/12/2021	03/12/2023	$0.080	5,000,000	-	-	-	5,000,000
31/03/2022	31/05/2027	$0.100	15,500,000	-	-	(5,000,000)	10,500,000
16/12/2022	19/12/2027	$0.037	-	21,500,000	-	-	21,500,000
09/01/2023	27/02/2028	$0.037	-	7,000,000	-	-	7,000,000
20/03/2023	31/03/2026	$0.055	-	86,388,882	-	-	86,388,882
27/05/2022	14/03/2027	$0.063	30,000,000	-	-	(30,000,000)	-
			99,185,000	114,888,882	(2,275,000)	(41,500,000)	170,298,882
Weighted average exercise price			$0.066	$0.051	$0.042	$0.067	$0.061

The weighted average share price during the financial year was $0.039 (30 June 2022: $0.103).

The weighted average remaining contractual life of options outstanding at the end of the financial year was 2.1 years (30 June 2022: 4.45 years).

A. Description of share-based payment arrangements

The Group established share option programmes that entitle key management personnel and technical employees to purchase shares in the Company. Under these programmes, holders of vested options are entitled to purchase shares at the market price of the shares at grant date.

Note 17. Share-based payments (continued)

Grant date/Employees entitled	Number of options	Vesting conditions	Contractual life of options
Options granted to Directors			
On 9 January 2023/Mr. David McAuliffe	6,000,000	25% of the options will vest after 6 months of continuous employment and the balance vest equally over the next 10 quarters.	5 years
On 9 January 2023/Mr. Howard Digby	1,000,000	25% of the options will vest after 6 months of continuous employment and the balance vest equally over the next 10 quarters.	5 years
Options granted to technical employees/consultant			
On 16 December 2022/USA employees and company secretary	21,500,000	25% of the options will vest after 6 months of continuous employment and the balance vest equally over the next 10 quarters	5 years
Total share options granted during the year	28,500,000		

B. Measurement of fair values - equity settled share-based payment arrangements

The fair value of the employee share options has been measured using the Black-Scholes formula. Service and non-market performance conditions attached to the arrangements were not taken into account in measuring the fair value.

For the options granted during the current financial year, the valuation model inputs used to determine the fair value at the grant date, are as follows:

Grant Date	No. of options granted	Expiry Date	Share price at grant date	Exercise price	Expected volatility %	Risk free interest rate %	Fair value at grant date
16/12/2022	21,500,000	19/12/2027	$0.033	$0.037	95%	3.08%	$0.0237
09/01/2023	7,000,000	27/02/2028	$0.030	$0.037	95%	3.23%	$0.0334
20/03/2023	10,000,000	31/03/2026	$0.037	$0.055	100%	2.95%	$0.0205

On 16 December 2022, the Company granted 21,500,000 incentive options exercisable at $0.037 expiring 19 December 2027 to management and consultant.

On 9 January 2023, the Company granted 7,000,000 unlisted options exercisable at $0.037 expiring 27 February 2028 issued to Mr. McAuliffe and Mr. Digby with 25% vest following the completion of 6 months service to the Company and the remaining vesting quarterly over the following 10 quarters subject to the holder continuing to remain a Director.

On 20 March 2023, the Company granted 10,000,000 unlisted options exercisable at $0.055 expiring on 31 March 2026 to consultants in relation to the equity raising undertaken during the year valued at $205,499.

Expected volatility has been based on evaluation of the historical volatility of the Company's share price, particularly over the historical period commensurate with the expected term. The expected term of the instruments has been based on historical experience and general option holder behaviour.

Note 17. Share-based payments (continued)

Accounting policy for share-based payments

Equity-settled and cash-settled share-based compensation benefits are provided to employees.

Equity-settled transactions are awards of shares, or options over shares, that are provided to employees in exchange for the rendering of services. Cash-settled transactions are awards of cash for the exchange of services, where the amount of cash is determined by reference to the share price.

The cost of equity-settled transactions are measured at fair value on grant date. Fair value is independently determined using either the Binomial or Black-Scholes option pricing model that takes into account the exercise price, the term of the option, the impact of dilution, the share price at grant date and expected price volatility of the underlying share, the expected dividend yield and the risk free interest rate for the term of the option, together with non-vesting conditions that do not determine whether the Group receives the services that entitle the employees to receive payment. No account is taken of any other vesting conditions.

The cost of equity-settled transactions is recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period. The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

The cost of cash-settled transactions is initially, and at each reporting date until vested, determined by applying either the Binomial or Black-Scholes option pricing model, taking into consideration the terms and conditions on which the award was granted. The cumulative charge to profit or loss until settlement of the liability is calculated as follows:

- during the vesting period, the liability at each reporting date is the fair value of the award at that date multiplied by the expired portion of the vesting period.
- from the end of the vesting period until settlement of the award, the liability is the full fair value of the liability at the reporting date.

All changes in the liability are recognised in profit or loss. The ultimate cost of cash-settled transactions is the cash paid to settle the liability.

Market conditions are taken into consideration in determining fair value. Therefore any awards subject to market conditions are considered to vest irrespective of whether or not that market condition has been met, provided all other conditions are satisfied.

If equity-settled awards are modified, as a minimum an expense is recognised as if the modification has not been made. An additional expense is recognised, over the remaining vesting period, for any modification that increases the total fair value of the share-based compensation benefit as at the date of modification.

If the non-vesting condition is within the control of the Group or employee, the failure to satisfy the condition is treated as a cancellation. If the condition is not within the control of the Group or employee and is not satisfied during the vesting period, any remaining expense for the award is recognised over the remaining vesting period, unless the award is forfeited.

If equity-settled awards are cancelled, it is treated as if it has vested on the date of cancellation, and any remaining expense is recognised immediately. If a new replacement award is substituted for the cancelled award, the cancelled and new award is treated as if they were a modification.

Note 18. Financial instruments

Financial Risk Management Policies

The Group's activities expose it to a variety of financial risks: market risk (including foreign currency risk and interest rate risk), credit risk and liquidity risk. The Group's financial instruments consist mainly of deposits with banks, trade and other receivables, trade and other payables and lease liabilities.

The main purpose of non-derivative financial instruments is to raise finance for the Group's operations. The Group does not speculate in the trading of derivative instruments.

Risk management is carried out by senior finance executives ('finance') under policies approved by the Board of Directors ('the Board'). These policies include identification and analysis of the risk exposure of the Group and appropriate procedures, controls and risk limits. Finance identifies, evaluates and hedges financial risks within the Group's operating units. Finance reports to the Board on a monthly basis.

Specific Financial Risk Exposures and Management

The main risks the Group is exposed to through its financial instruments are market risk (including fair value and interest rate risk) and cash flow interest rate risk, credit risk, liquidity risk and foreign currency risk. The Group has determined that its exposure to commodity price risk would not have a material impact on its operating results.

Market risk

Foreign currency risk

The Group undertakes certain transactions denominated in foreign currency and is exposed to foreign currency risk through foreign exchange rate fluctuations.

Foreign exchange risk arises from future commercial transactions and recognised financial assets and financial liabilities denominated in a currency that is not the entity's functional currency. The risk is measured using sensitivity analysis and cash flow forecasting.

With instruments being held by overseas operations, fluctuations in foreign currencies may impact on the Group's financial results. The Group's exposure to foreign exchange risk is monitored by the Board. The majority of the Group’s funds are held in Australian and United States dollars.

The carrying amount of the Group's foreign currency denominated financial assets and financial liabilities at the reporting date were as follows:

	Assets		Liabilities	
	30 June 2023 $	30 June 2022 $	30 June 2023 $	30 June 2022 $
US dollars	53,426	258,519	63,549	172,300
Euros	18,036	16,717	-	-
	71,462	275,236	63,549	172,300

The Group had net assets denominated in foreign currencies of $7,913 (assets of $71,462 less liabilities of $63,549) as of 30 June 2023 (30 June 2022: $102,936 (assets of $275,236 less liabilities of $172,300)). Based on this exposure, had the Australian dollars strengthened by 5% (30 June 2022: strengthened by 5%) against these foreign currencies with all other variables held constant, the Group's profit before tax for the year would have been $396 higher (30 June 2022: $5,147 higher) and equity would have been $396 higher (30 June 2022: $5,147 higher). The percentage change is the expected overall volatility of the significant currencies, which is based on management's assessment of reasonable possible fluctuations taking into consideration movements over the last 12 months each year and the spot rate at each reporting date. The actual foreign exchange gain for the year ended 30 June 2023 was $ 15,117 (30 June 2022: gain of $16,419).

Note 18. Financial instruments (continued)

Price risk
Price risk relates to the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. The Group is exposed to securities price risk on investments classified as available for sale. The investment in listed equities has been valued at the market price prevailing at reporting date. Management of this investment's price risk is by ongoing monitoring of the value with respect to any impairment. The Group is not exposed to any significant price risk.

Interest rate risk
Exposure to interest rate risk arises on financial assets and liabilities recognised at the end of the reporting period whereby a future change in interest rates will affect future cash flows or the fair value of fixed rate financial instruments. The Group is also exposed to earnings volatility on floating rate instruments.

Interest rate risk is not material to the Group as no interest-bearing debt arrangements have been entered into.

As at the reporting date, the Group had the following variable rate interest rate:

	30 June 2023		30 June 2022	
	Weighted average interest rate %	Balance $	Weighted average interest rate %	Balance $
Cash and cash equivalents	0.76%	5,599,537	0.09%	5,234,447
Trade and other payables	-	(81,809)	-	(84,825)
Lease liabilities	6.00%	(53,964)	6.00%	(172,300)
Net exposure to cash flow interest rate risk		5,463,764		4,977,322

An analysis by remaining contractual maturities in shown in 'liquidity and interest rate risk management' below.

Credit risk
Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group. The Group has a strict code of credit, including obtaining agency credit information, confirming references and setting appropriate credit limits. The Group obtains guarantees where appropriate to mitigate credit risk.

Although revenue from operations is minimal, the Group trades only with creditworthy third parties. In addition, receivable balances are monitored on an ongoing basis with the result that the Group's exposure to bad debts is insignificant. The maximum exposure to credit risk at the reporting date to recognised financial assets is the carrying amount, net of any provisions for impairment of those assets, as disclosed in the statement of financial position and notes to the financial statements. The Group does not hold any collateral.

The credit quality of the financial assets was high during the year. The table below details the credit quality of the financial assets at the end of the year:

	30 June 2023 $	30 June 2022 $
Cash and cash equivalents held with financial institutions	5,599,567	5,234,446
Other receivables and deposits	4,979	4,866
	5,604,546	5,239,312

Note 18. Financial instruments (continued)

Liquidity risk

Vigilant liquidity risk management requires the Group to maintain sufficient liquid assets (mainly cash and cash equivalents) and available borrowing facilities to be able to pay debts as and when they become due and payable.

The Group manages liquidity risk by maintaining adequate cash reserves and available borrowing facilities by continuously monitoring actual and forecast cash flows and matching the maturity profiles of financial assets and liabilities.

Remaining contractual maturities

The following tables detail the Group's remaining contractual maturity for its financial instrument liabilities. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the financial liabilities are required to be paid. The tables include both interest and principal cash flows disclosed as remaining contractual maturities and therefore these totals may differ from their carrying amount in the statement of financial position.

30 June 2023	Weighted average interest rate %	1 year or less $	Between 1 and 2 years $	Between 2 and 5 years $	Over 5 years $	Remaining contractual maturities $
Non-derivatives						
Non-interest bearing						
Trade payables	-	81,809	-	-	-	81,809
Interest-bearing - variable						
Lease liability	6.00%	53,964	-	-	-	53,964
Total non-derivatives		135,773	-	-	-	135,773

30 June 2022	Weighted average interest rate %	1 year or less $	Between 1 and 2 years $	Between 2 and 5 years $	Over 5 years $	Remaining contractual maturities $
Non-derivatives						
Non-interest bearing						
Trade payables	-	84,945	-	-	-	84,945
Interest-bearing - variable						
Lease liability	6.00%	120,313	51,987	-	-	172,300
Total non-derivatives		205,258	51,987	-	-	257,245

The cash flows in the maturity analysis above are not expected to occur significantly earlier than contractually disclosed above.

Fair value of financial instruments

When an asset or liability, financial or non-financial, is measured at fair value for recognition or disclosure purposes, the fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date; and assumes that the transaction will take place either: in the principal market; or in the absence of a principal market, in the most advantageous market.

Fair value is measured using the assumptions that market participants would use when pricing the asset or liability, assuming they act in their economic best interests. Unless otherwise stated, the carrying amounts of financial instruments reflect their fair value.

Note 19. Key management personnel disclosures

Compensation
The aggregate compensation made to Directors and other members of key management personnel of the Group is set out below:

	30 June 2023 $	30 June 2022 $
Short-term employee benefits	932,350	828,503
Post-employment benefits	26,250	18,205
Long-term benefits	22,010	-
Share-based payments	720,707	1,093,358
Bonus payments	50,000	-
	1,751,317	1,940,066

Note 20. Related party transactions

Parent entity
4DS Memory Limited is the parent entity.

Subsidiaries
Interests in subsidiaries are set out in note 22.

Key management personnel
Disclosures relating to key management personnel are set out in note 19 and the remuneration report included in the Directors' report.

Transactions with related parties
Purchases from and sales to KMP and their related parties are made on terms equivalent to those that prevail in arm's length transactions. The Group acquired the following services from entities that are controlled by members of the Group's KMP.

Transactions between related parties are on normal commercial terms and conditions no more favourable than those available to other parties unless otherwise stated.

The following transactions occurred with related parties:

Entity	Nature of transaction	KMP and their related parties	Total expense 30 June 2023	Payable balance 30 June 2023	Total expense 30 June 2022	Payable balance 30 June 2022
Bandra Consulting Pty Ltd	Director fee	Howard Digby	30,000	-	30,000	-
Dr Guido Arnout	Consultancy fee	Guido Arnout	240,253	-	25,184	-

Receivable from and payable to related parties
There were no trade receivables from or trade payables to related parties at the current and previous reporting date.

Loans to/from related parties
There were no loans to or from related parties at the current and previous reporting date.

Note 21. Parent entity information

Set out below is the supplementary information about the parent entity.

Statement of profit or loss and other comprehensive income

	30 June 2023 $	30 June 2022 $
Loss after income tax	(5,626,122)	(6,848,621)
Total comprehensive income loss	(5,626,122)	(6,848,621)

Statement of financial position

	30 June 2023 $	30 June 2022 $
Total current assets	5,587,502	5,056,414
Total assets	5,721,030	5,265,451
Total current liabilities	130,362	111,862
Total liabilities	130,362	111,862
Equity		
Issued capital	66,440,133	61,413,188
Foreign currency reserve	(11,626)	6,553
Share-based payments reserve	5,820,927	5,605,124
Accumulated losses	(66,658,765)	(61,871,277)
Total equity	5,590,669	5,153,588

Guarantees entered into by the parent entity in relation to the debts of its subsidiaries
The parent entity had no guarantees in relation to the debts of its subsidiaries as at 30 June 2022 and 30 June 2023.

Contingent liabilities
The parent entity had no contingent liabilities as at 30 June 2022 and 30 June 2023.

Note 22. Interests in subsidiaries

The consolidated financial statements incorporate the assets, liabilities and results of the following subsidiaries in accordance with the accounting policy described in note 1:

		Ownership interest	
Name	Principal place of business / Country of incorporation	30 June 2023 %	30 June 2022 %
4DS Inc.	United States of America	100.00%	100.00%
4D-S Pty Limited (Dormant)	Australia	100.00%	100.00%
Fitzroy Copper Pty Limited (Dormant)	Australia	100.00%	100.00%
Fitzroy Employee Share Plan Pty Limited (Dormant)	Australia	100.00%	100.00%

Note 23. Commitments and Contingent

Sales Bonus Pool Commitments
The incentive 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 takeover of the Company or a sale of the Company's intellectual property. The members of 4DS' technical team, based in Silicon Valley, including Dr. Guido Arnout, will be participating in the Sale Bonus Pool.

Upon a liquidity event occurring, Dr. Guido Arnout, and US based employees (Eligible Participants) will each be entitled to receive a proportion of the Sale Bonus Pool. Dr. Arnout 15% and Mr. Yen 10%, with the balance to be allocated to Eligible Participants at the discretion of the Board.

The size of the Sales Bonus Pool shall be calculated as follows:

	Sale Bonus Pool
Sale Value of US$120m to US$350m	5% of the sale value
Sale Value of US$350m to US$550m	US$17.5m plus 6.25% of the excess above US$350m
Sale Value above US$550m	US$30m plus 7.5% of the excess above US$550m

There have been no other significant changes in commitments since the last reporting date other than reported above.

The Group has no contingent liabilities as at 30 June 2023 and 30 June 2022

Note 24. Events after the reporting period

On 3 July 2023, the Company announced that imec had successfully completed the manufacture of the Fourth Platform Lot and shipped the Lot to 4DS facilities in Fremont, California.

On 23 August 2023, the Company reported that after extensive analysis, the Fourth Platform Lot had been successful in showing, for the first time, a fully functioning megabit array with 60nm memory cells, access transistors and write circuitry.

- read and write speeds at 27 nanoseconds
- endurance well in excess of 2 billion cycles; and
- retention which is persistent and tuneable

The results seen are significant as they are on a known and well understood megabit array from imec. Upon achieving this Company milestone, further analysis and strategic planning will be conducted over the coming months.

On 25 August 2023, the Company issued 43,852,572 fully paid ordinary shares following the exercise of $0.055 unlisted options expiring on 31 March 2026 to raise $2,411,891.

No matter or circumstance has arisen since 30 June 2023 that has significantly affected, or may significantly affect the Group's operations, the results of those operations, or the Group's state of affairs in future financial years.

In the Directors' opinion:

- the attached financial statements and notes comply with the Corporations Act 2001, the Accounting Standards, the Corporations Regulations 2001 and other mandatory professional reporting requirements;

- the attached financial statements and notes comply with International Financial Reporting Standards as issued by the International Accounting Standards Board as described in note 1 to the financial statements;

- the attached financial statements and notes give a true and fair view of the Group's financial position as at 30 June 2023 and of its performance for the financial year ended on that date; and

- there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

The Directors have been given the declarations required by section 295A of the Corporations Act 2001.

Signed in accordance with a resolution of Directors made pursuant to section 295(5)(a) of the Corporations Act 2001.

On behalf of the Directors

David McAuliffe

____
Mr. David McAuliffe
Interim Executive Chairman

28 August 2023

INDEPENDENT AUDITOR'S REPORT

TO THE MEMBERS OF 4DS MEMORY LIMITED

Report on the Financial Report

Opinion

We have audited the accompanying financial report of 4DS Memory Limited (the company) and its subsidiaries (consolidated entity), which comprises the consolidated statement of financial position as at 30 June 2023, the consolidated statement of profit or loss and other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration of the company and the consolidated entity comprising the company and the entities it controlled at the year's end or from time to time during the financial year.

In our opinion the financial report of 4DS Memory Limited is in accordance with the *Corporations Act 2001*, including:

i) Giving a true and fair view of the consolidated entity's financial position as at 30 June 2023 and of its performance for the year ended on that date; and

ii) Complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

Basis for Opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Report section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the consolidated entity in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's *APES 110 Code of Ethics for Professional Accountants* (including independence requirements) (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

Key Audit Matter

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current year. This matter was addressed in the context of our audit of the financial report, and in forming our opinion thereon, and we do not provide a separate opinion on this matter. For the matter below, our description of how our audit addressed each matter is provided in that context.

Value of Share Based Payments

Why significant	How our audit addressed the key audit matter

For the year ended 30 June 2023 the value of share based payments totalled $1,054,533, as disclosed in Note 14, 16 and 17. A total of $849,034 has been expensed to the profit or loss statement, and $205,499 has been recognised as a cost associated with the capital raising.
 	
The consolidated entity's accounting judgement and estimates in respect of share-based payments is outlined in Note 17. We consider this to be a key audit matter due to significant judgement required in relation to:
 	
• The valuation method used in the model; and
 	
• The assumptions and inputs used within the model.
	Our work included, but was not limited to, the following procedures:
	
	• Reviewed the independent expert's valuations of options issued, including:
	  ○ ensuring the independence of the independent expert;
	  ○ assessing the credentials of the independent expert;
	  ○ assessing the appropriateness of the valuation method used; and
	  ○ assessing the reasonableness of the assumptions and inputs used within the valuation model.
	
	• Reviewed Board meeting minutes and ASX announcements as well as enquired of relevant personnel to ensure all share-based payments had been recognised;
	
	• Assessed the allocation and recognition to ensure reasonable; and
	
	• Assessed the appropriateness of the related disclosures in Note 14, 16 and 17.

Other Information

Those charged with governance are responsible for the other information. The other information comprises the information included in the consolidated entity's annual report for the year ended 30 June 2023 but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon, with the exception of the Remuneration Report.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Directors' for the Financial Report

The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Directors are responsible for assessing the consolidated entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using a going concern basis of accounting unless the Directors either intend to liquidate the consolidated entity or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individual or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

As part of an audit in accordance with Australian Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:-

- Identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the consolidated entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.

- Conclude on the appropriateness of the Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the consolidated entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the consolidated entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the consolidated entity to express an opinion on the group financial report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
We also provide the Directors with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Directors, we determine those matters that were of most significance in the audit of the financial report of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on the Remuneration Report

Opinion

We have audited the Remuneration Report included in the directors' report for the year ended 30 June 2023.

In our opinion, the Remuneration Report of 4DS Memory Limited for the year ended 30 June 2023, complies with section 300A of the *Corporations Act 2001*.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

PKF PERTH

SIMON FERMANIS
SENIOR PARTNER

28 AUGUST 2023
WEST PERTH
WESTERN AUSTRALIA

The shareholder information set out below was applicable as at 25 August 2023.

There were 7,968 holders of Ordinary Fully Paid Shares

VOTING RIGHTS

The voting rights of the ordinary shares are as follows:

Subject to any rights or restrictions for the time being attached to any shares or class of shares of the Company, each member of the Company is entitled to receive notice of, attend and vote at a general meeting. Resolutions of members will be decided by a show of hands unless a poll is demanded. On a show of hands each eligible voter present has one vote. However, where a person present at a general meeting represents personally or by proxy, attorney or representation more than one member, on a show of hands the person is entitled to one vote only despite the number of members the person represents.

On a poll each eligible member has one vote for each fully paid share held.

There are no voting rights attached to any of the options that the Company currently has on issue. Upon exercise of these options, the shares issued will have the same voting rights as existing ordinary shares.

Equity security holders

TWENTY LARGEST SHAREHOLDERS

The names of the twenty largest security holders of quoted equity securities are listed below:

	Ordinary shares	
	Number held	% of total shares issued
Citicorp Nominees Pty Limited	95,667,667	5.71
James Dorrian	45,286,004	2.70
Mr John Clement Cowie Love (The JCC Love Family A/C)	30,691,397	1.83
Morsec Nominees Pty Ltd <Accumulation Account>	24,800,778	1.48
Mr Kelland Munro MacCulloch	21,063,494	1.26
BNP Paribas Nominees Pty Ltd (LB AU Noms Retail client DRP)	17,391,520	1.04
Mr Sam Huu Hai Nguyen	15,742,873	0.94
Comsec Nominees Pty Limited	14,869,320	0.89
Vicex Holdings Proprietary Limited (Vicex Super A/C)	14,000,000	0.84
HSBC Custody Nominees (Australia) Limited	13,973,771	0.83
Mr John Love	12,295,657	0.73
Mr Richard Stanley De Ravin	10,400,000	0.62
Mat Consulting Pty Ltd	10,335,746	0.62
Mr Peter Allan Learmont	9,300,027	0.55
Mr Kevin Martin McGuire	9,209,312	0.55
Dr Rohan Vanden Driesen	8,883,631	0.53
KZ 6 Pty Ltd (KZ 5 A/C)	8,848,854	0.53
Mr Brenton Charles Speechly & Mrs Margaret Mary (Speechly Brenthill Super Fund A/C)	8,473,382	0.51
Southam Investments 2003 Pty Ltd (Warwickshire Investment A/C)	7,994,883	0.48
JP Morgan Nominees Australia Pty Limited	7,479,605	0.45
Total Top 20	386,707,921	23.09

SUBSTANTIAL HOLDERS

The Company has no substantial shareholders.

DISTRIBUTION OF EQUITY SECURITIES

Analysis of number of equitable security holders by size of holding:

Ordinary Fully Paid Shares	Number of holders	Total units	% Issued shares capital
1 to 1,000	145	22,801	-
1,001 to 5,000	822	2,970,596	0.18
5,001 to 10,000	1,263	10,257,926	0.61
10,001 to 100,000	3,886	152,443,992	9.09
100,001 and over	1,852	1,510,695,725	90.12
	7,968	1,676,395,792	100.00
Number of shareholders holding less than a marketable parcel	579	-	-

UNQUOTED SECURITIES

The following unquoted securities are on issue:

UMARKETABLE PARCELS

The number of shareholders holding less than a marketable parcel is 579.

	Number on issue	Number of holders
Options expiring 3/12/2023 @ $0.08	5,000,000	7

The following person(s) holds 20% or more of unquoted equity securities:

5,000,000 Options expiring 3/12/2023 @ $0.08 - 7 Holders

Holder Name	Holding	%
Bobarino Pty Ltd	1,900,000	38.00%
Lobster Pot Investments Pte Ltd	1,500,000	30.00%

25,780,000 Options expiring 22/01/2024 @ $0.052 - 9 Holders

Holder Name	Holding	%
Guido Arnout	7,380,000	28.63%
Margaret Elizabeth Livingston	7,000,000	27.15%

1,300,000 Options expiring 28/08/2024 @ $0.052

Holder Name	Holding	%
Ting Yen	1,300,000	100.00%

12,830,000 Options expiring 29/11/2025 @ $0.064 - 1 Holder

Holder Name	Holding	%
Willibrordus Gerardus Maria van den Hoek	12,830,000	100.00%

42,536,310 Options expiring 31/03/2026 @ $0.055 – 20 Holders
No Holders with more than 20%

15,500,000 Options expiring 31/05/2027 @ $0.10 - 3 Holders

Holder Name	Holding	%
Ting Yen	8,000,000	51.61%
Joseph Tzou	5,000,000	32.26%

21,500,000 Options expiring 19/12/2027 @ $0.037 - 3 Holders

Holder Name	Holding	%
Ting Yen	20,000,000	93.02%

7,000,000 Options expiring 27/02/2028 @ $0.037 – 2 Holders

Holder Name	Holding	%
Margaret Elizabeth Livingston	6,000,000	85.71%

On Market Buy Back
There is currently no on-market buyback program.