



ASX Announcement

BrainChip Holdings Ltd
Appendix 4C & Quarterly Activities Report
for the Period Ended 31 December 2023

- Cash Balance as of 31 December 2023 US\$14.3M
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Sydney – 25 January 2024 – [BrainChip Holdings Ltd](#) (ASX: **BRN**, OTCQX: **BRCHE, BCHPY**), the world's first commercial producer of neuromorphic artificial intelligence chips, today provides the Quarterly Activities Report in conjunction with its Appendix 4C lodged for the quarter ending 31 December 2023.

CEO STATEMENT

The December quarter was a significant period as BrainChip achieved a major innovation milestone by making its second-generation Akida 2.0 IP solution available to customers. The Akida 2.0 platform, which was developed with a significant amount of customer input, features important technical innovations such as Temporal Event-Based Neural Nets (TENNs) which can radically improve intelligent processing of multi-dimensional streaming data – a key enabler for growth in Edge AI.

In December, BrainChip executed a seamless transition in its technology leadership from founder, largest shareholder and former Chief Technology Officer (CTO), Peter van der Made, to the new CTO, Dr Anthony (Tony) Lewis. Dr. Lewis is the former VP and Global Head of the AI and Emerging Compute Lab at HP, Inc., where he played a pivotal role in AI integration into various product lines. He also made significant contributions at Qualcomm, Inc., where he led the Zeroth© Neuromorphic Engineering Project and contributed to projects in intelligent AI agents and robotics while collaborating closely with Qualcomm Ventures.

Dr. Lewis has served as a visiting or adjunct professor at the University of Arizona, the University of Illinois, Urbana-Champaign, and the University of Waterloo. His entrepreneurial experience is evident in his founding of a government funded R&D company specializing in neuromorphic computing and robotics. He has also made his mark as a startup advisor and investor, bringing his technical acumen to various innovative ventures.

With the appointment of Dr. Lewis, Mr. van der Made has now retired from full-time employment but remains actively involved as a company director and a member of the Scientific Advisory Board.

In addition, on 4 December, the Company announced the appointment of Mr Steve Thorne as Vice President of sales to help the Company fulfill its mission to make every device with a sensor AI-smart. Mr Thorne is a senior sales and marketing executive with nearly three decades of

experience in AI and data centre solutions. He comes to BrainChip from Habana Labs, an Intel company, where he served as Head of Sales for AI processors.

BrainChip further strengthened its patent portfolio with the granting of its 19th patent, US 11,853,862 “Method, Digital Electronic Circuit and System for Unsupervised Detection of Repeating Patterns in a Series of Events” on 26 December.

BrainChip announced key, strategic partnerships during Q4 2023 targeted at proliferating the Akida technology, growing the ecosystem and accelerating innovation in the market.

In October, BrainChip announced a strategic partnership with Circle8 Clean Technologies and AVID Group to develop “Smart Bins” that can automatically sort and recycle different types of waste through a combination of AI-powered sensors and robotics.

The collaboration leverages BrainChip’s neuromorphic processor technology and AVID Group’s engineering expertise to create intelligent waste receptacles that can sort materials such as plastic, metal, and glass to help reduce the environmental impact of disposal, especially reducing landfill and minimizing ocean pollution. The goal extends to increasing the recycling rates at the same time, lowering the costs of waste management and recycling. Additionally, the smart bins will provide valuable data and insights into waste generation and consumption patterns, which can be used to improve refuse reduction and identify mitigation strategies.

October also saw the BrainChip announcement of a collaborative agreement to develop data processing units for very demanding environments with EDGX, a Belgian space tech company focused on developing disruptive intelligent space systems.

Space infrastructure is increasingly becoming more important in our everyday lives. Satellite based services are fundamental to global navigation, weather forecasting, secure communications, climate monitoring, and for rapid response to natural disasters, just to name a few. As the space industry is trying to become a self-sustaining economy, satellite launches are booming. EDGX recognized the growing demand and opportunity for product-driven innovation within the space industry. This reiterates the benefits of Akida’s extreme efficiency in a very energy and thermally constrained space environment to reduce energy consumption, power dissipation and ultimately enable autonomous learning onboard next-generation satellites.

In December, BrainChip announced that the first neuromorphic Edge Box based on Akida technology, built in collaboration with VVDN Technologies, a premier electronics and manufacturing company, would be displayed at CES 2024, 9-12 January in Las Vegas. The Akida Edge Box powers AI applications in challenging environments where performance and efficiency are essential. This compact, yet powerful device enables cost-effective, scalable AI solutions at the Edge for applications like video analytics, facial recognition, and other vision related tasks, along with applications that integrate streams from various other sensors. The pre-sale of these Edge Boxes is expected to begin in Q1 2024 and while the sale of Akida Edge Box is not anticipated to generate significant initial revenue for BrainChip, it is an invaluable tool for developers of new concept products, AI applications and services in smaller volumes. This is expected to target retail, healthcare, industrial, manufacturing, security, and the surveillance markets.

BrainChip also announced a strategic partnership to deliver a new configuration of the recently released Unigen Cupcake Edge AI Server, a new compact and powerful solution based on BrainChip’s Akida neuromorphic processor.

The Cupcake Edge AI Server is a small form factor solution that can run complex AI applications at the Edge, close to the source of data, without relying on the cloud or internet connections. In leveraging Akida's unique data-processing capabilities, the device offers unparalleled efficiency, precision, and economy of energy in a wide array of use cases such as industrial, automotive, healthcare, robotics IoT and security-based applications.

Collaborations and ecosystem partnerships are essential elements of BrainChip's commercialisation strategy and are expected to eventually lead to commercial outcomes that have the potential to generate revenue for the Company.

LDA CAPITAL

On 4 December 2023, the Company announced a new Capital Call Notice with LDA Capital to subscribe for 25 million shares. The additional funding provides an opportunity for BrainChip to build its capital reserves as it anticipates increased commercial engagements and the need to support new customer engagements and fulfil customer support expectations.

On 29 December, BrainChip entered into a third amendment to the previously announced Put Option Agreement with LDA Capital for a one-year period (see ASX announcement 3 January 2024). This amendment provides an option to extend the agreement for two additional years under the same terms upon mutual consent. Under the terms of the renewal, the company must fulfil its obligations under the Second Amendment to draw down the remaining \$2.7M (AUD) in addition to an amount no less than \$12M (AUD) by 31 December 2024.

FINANCIAL UPDATE

The Company ended the December Quarter with US\$14.3M in cash compared to US\$17.8M in the prior quarter.

BrainChip reported net operating cash outflows of US\$3.3M vs. US\$4.0M in the prior quarter.

Cash inflow from customers in the current quarter of US\$0.78M was higher than the prior quarter (US\$0.03M).

Total payments to suppliers and employees of US\$4.2M in the current quarter were lower than the prior quarter of US\$4.5M due to lower payments to third party R&D services providers and more favorable exchange rates translating non-USA operations.

Cash used for operating activities includes payments to BrainChip's Board of Directors totaling US\$290,645 as noted in item 6.1 of the accompanying Appendix 4C, comprising fees for Non-Executive Directors and salaries for Executive Directors. This amount includes the payment of unused employee leave benefits to Mr Peter van der Made upon his retirement on 31 December 2023.

Cash inflows from financing activities included US\$0.02M resulting from the exercise of Long-Term Incentive Plan ("LTIP") stock options.

BrainChip has entities in Perth, Australia; Laguna Hills, California (United States); Toulouse, France; and Hyderabad, India.

This announcement is authorised for release by the BRN Board of Directors.

About BrainChip Holdings Ltd (ASX: BRN)

BrainChip is the worldwide leader in edge AI on-chip processing and learning. The Company's first-to-market neuromorphic processor, Akida™, mimics the human brain to analyze only essential sensor inputs at the point of acquisition, processing data with unparalleled efficiency, precision, and economy of energy. Keeping machine learning local to the chip, independent of the cloud, also dramatically reduces latency while improving privacy and data security. In enabling effective edge compute to be universally deployable across real world applications such as connected cars, consumer electronics, and industrial IoT, BrainChip is proving that on-chip AI, close to the sensor, is the future for its customers' products as well as the planet. Explore the benefits of Essential AI at www.brainchip.com.

Additional information is available at:

<https://www.brainchipinc.com>

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Appendix 4C

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

Name of entity

BrainChip Holdings Ltd

ABN

64 151 159 812

Quarter ended ("current quarter")

31 December 2023

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (12 months) \$US'000
1. Cash flows from operating activities		
1.1 Receipts from customers	778	1,673
1.2 Payments for		
(a) research and development	(2,000)	(9,126)
(b) product manufacturing and operating costs	(13)	(559)
(c) advertising and marketing	(1,079)	(4,549)
(d) leased assets	-	-
(e) staff costs	(661)	(3,325)
(f) administration and corporate costs	(417)	(2,339)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	138	491
1.5 Interest and other costs of finance paid	(23)	(100)
1.6 Income taxes paid	(26)	(141)
1.7 Government grants and tax incentives	23	412
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(3,280)	(17,563)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(10)	(132)

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (12 months) \$US'000
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-
2.2 Proceeds from disposal of:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
2.6 Net cash from / (used in) investing activities	(10)	(132)

3. Cash flows from financing activities		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	-	8,211
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	19	1,029
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(9)	(57)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)		
- Reduction in leases	(107)	(342)
- Funds received from shareholders on exercise of options	(91)	30
3.10 Net cash from / (used in) financing activities	(188)	8,871

Consolidated statement of cash flows	Current quarter \$US'000	Year to date (12 months) \$US'000
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4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	17,816	23,165
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(3,280)	(17,563)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(10)	(132)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	(188)	8,871
4.5 Effect of movement in exchange rates on cash held	5	2
4.6 Cash and cash equivalents at end of period	14,343	14,343

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$US'000	Previous quarter \$US'000
5.1 Bank balances	14,301	17,776
5.2 Call deposits	42	40
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	14,343	17,816

6. Payments to related parties of the entity and their associates	Current quarter \$US'000
6.1 Aggregate amount of payments to related parties and their associates included in item 1	291
6.2 Aggregate amount of payments to related parties and their associates included in item 2	-

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

7. Financing facilities	Total facility amount at quarter end \$US'000	Amount drawn at quarter end \$US'000
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	687	-
7.3 Other (please specify)	-	-
7.4 Total financing facilities	687	-
7.5 Unused financing facilities available at quarter end		687
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
<p>BrainChip SAS has a secured overdraft facility with Credit Agricole, France, to the value of 20,000 Euros which incurs interest at 8.39%.</p> <p>BrainChip Inc has an Irrevocable Standby Letter of Credit to the value of US\$665,000 with First Republic Bank as security for the office lease. The Letter of Credit expires 31 May 2027 and incurs interest at 0.9%.</p>		

8. Estimated cash available for future operating activities	\$US'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(3,280)
8.2 Cash and cash equivalents at quarter end (item 4.6)	14,343
8.3 Unused finance facilities available at quarter end (item 7.5)	687
8.4 Total available funding (item 8.2 + item 8.3)	15,030
8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)	4.6
<i>Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.</i>	
8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:	
8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: n/a	
8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: n/a	

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

Answer: n/a

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

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

25 January 2024

Date:

Board of Directors

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

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.