



ASX Announcement

**BrainChip Holdings Ltd**  
**Appendix 4C & Quarterly Activities Report**  
**for the Period Ended 30 September 2023**

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- Cash Balance as of 30 September 2023 US\$17.8M
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**Sydney – 24 October 2023** – [BrainChip Holdings Ltd](#) (ASX: **BRN**, OTCQX: **BRCHF, BCHPY**), the world's first commercial producer of neuromorphic artificial intelligence IP, today provides the Quarterly Activities Report in conjunction with its Appendix 4C lodged for the quarter ending 30 September 2023.

**CEO STATEMENT**

The period from June to September 2023 saw continued progress in the execution of our commercial and corporate strategies focusing on the ongoing development and availability of the 2<sup>nd</sup> Generation Akida technology platform to lead customers. These goals were achieved in the final days of September after a significant and sustained effort by our entire team. I am pleased to see continued growth and expansion of our commercial ecosystem partnerships, especially with the Edge box seeding the market which will expand the adoption our technology. These achievements coupled with the traction we're seeing with IP licensing prospects, gives me confidence in our strategy and that over time our technology will proliferate across a wide range of industry applications and platforms.

On 19 July and on 25 August, the Company further strengthened the protection of its IP by announcing it had been granted strategic patents on Advanced Edge Learning Technology relating to its Akida 2<sup>nd</sup> Generation Technology platform. BrainChip's global patent portfolio now has 18 issued and granted patents.

On 28 August, the Company announced that it had received its first shipment of AKD1500 chips in silicon from GlobalFoundries, that uses their advanced 22nm fully depleted silicon-on-insulator (FD-SOI) 22FDX® technology. This enables BrainChip to now offer AKD1500 development boards to customers to build out its product portfolio and demonstrate the benefits of BrainChip's fully digital, ultra-low energy event-based AI computation for at-sensor or sensor-balanced solutions for industrial and consumer markets. The design also provides a reference to help customers accelerate their AI enablement strategies.

During the quarter, the Company announced several new commercial partnerships focused on expanding BrainChip's ecosystem and access to BrainChip technology across a wider range of industrial applications.

Such partnerships include GMAC Intelligence, which is building a drive-through automation solution for quick-service restaurants (QSRs). The application, QSRBot 247, revolutionizes the fast-food ordering experience by delivering a fully automated system using vision and voice that will accurately take orders in a more human and intuitive interface, as well as fulfill, deliver, and manage payment seamlessly and automatically. It enhances the experience by identifying loyal customers, learning their preferences to help personalization and satisfaction.

GMAC Intelligence's partnership with BrainChip includes validating the building blocks of efficient facial, vehicular and voice recognition for next-generation quick-service restaurant applications.

Another major partnership with Tata Elxsi, a leader in providing design and technology services across a multitude of global industries and markets, will be driving Akida™ technology into medical devices and industrial applications by leveraging BrainChip's first-to-market, fully digital, neuromorphic technology to provide intelligent, ultra-low power solutions to these demanding target markets.

Finally, to accelerate Akida technology into the market, Brainchip entered into a partnership with VVDN Technologies, an industry-leading device manufacturer and solutions provider that has extensive experience in developing and deploying vision-based solutions for various domains, such as automotive, industrial, security surveillance, enterprise, medical and others. VVDN will deliver the first Edge box based on neuromorphic technology.

The Edge box is a compact and powerful device that can run various AI applications at the Edge of the network, such as video analytics, face recognition, object detection and more on multiple streams of input at the same time. VVDN is a leading provider of Edge boxes and has selected BrainChip's Akida due to its performance, energy efficiency and cost-effectiveness that allows it to create more portable solutions and scale to larger markets. The Edge box will be available for pre-sale from VVDN and BrainChip later this year.

During the quarter, the Company participated in, and presented at major technology conferences and virtual events. On 8 August, CEO Sean Hehir presented to investors at the Oppenheimer & Co Inc.'s 26<sup>th</sup> Annual Technology, Internet & Communications Conference.

On 13 September, CMO Nandan Nayampally presented "*The Edge of Tomorrow: Intelligent Compute to scale AIoT*" at the AI Hardware & Edge AI Summit in Santa Clara, California. The combined AI Hardware & Edge AI Summit comprehensively covers the design and deployment of machine learning (ML) hardware and software infrastructure across the cloud-Edge continuum.

On 26 September CEO Sean Hehir presented at the Emerging Growth in AI, a "virtual fireside chat", sponsored by Maxim Group LLC, and discussed the role BrainChip's technology plays in shaping the future of in-situ intelligence on tiny devices.

On 24 August, BrainChip joined with Edge Impulse, another strategic ecosystem partner, to present a technical livestream webinar discussing their collaborative efforts in building an ecosystem for accelerated Edge AI products. The joint webinar aimed to shed light on how both companies aim to simplify the development, implementation and deployment of cutting-edge neuromorphic AI models and solutions, to drive innovation in Edge devices.

University of Virginia (UVA) joined the University of Oklahoma, Arizona State University, Carnegie Mellon University, and the Rochester Institute of Technology to become the latest member of the BrainChip University AI Accelerator Program.

UVA's computer engineering program gives students an opportunity to collaborate with top researchers in the country and participate in new research initiatives. The program is jointly administered by the Charles L. Brown Department of Electrical and Computer Engineering and Computer Science in the School of Engineering and Applied Science.

BrainChip's University AI Accelerator Program provides platforms, and guidance to students at higher education institutions with AI engineering programs training. Students participating in the program will have access to real-world, event-based technologies offering unparalleled performance and efficiency to advance their learning through graduation and beyond.

In August, the Company released its latest Quarterly Investor Podcast featuring an extensive two-part interview between BrainChip Chairman Antonio J. Viana and Director of Global Investor Relations Tony Dawe. The interview covered the more frequently asked questions asked by investors and addressed the matters arising from the AGM earlier in the year.

The next Quarterly Investor Podcast will feature BrainChip CEO Sean Hehir and will be released on the Company website and through social media channels in November.

In addition to the Quarterly Investor Podcast, the Company continues to deliver its series of "This is Our Mission" podcasts to address the broader thematic within the AI sector and gain the perspectives of leading figures across the technology sector.

## **FINANCIAL UPDATE**

The Company ended the June Quarter with US\$17.8M in cash compared to US\$21.8M in the prior quarter.

BrainChip reported net operating cash outflows of \$4.0M vs. \$4.1M in the prior quarter.

Cash inflow from customers in the current quarter of \$0.03M was lower than the prior quarter (US\$0.83M).

Total payments to suppliers and employees of \$4.0M in the current quarter was lower than the prior quarter (\$5.0M) due to the impact of merit increases to employees in the current quarter offset by payments to third party R&D services providers in the prior period.

Cash used for operating activities includes payments to BrainChip's Board of Directors totaling \$276,028 as noted in item 6.1 of the accompanying Appendix 4C, comprising fees for Non-Executive Directors and salaries for Executive Directors.

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.**

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## 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](http://www.brainchip.com).

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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")**

30 September 2023

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$US'000</b>	<b>Year to date (9 months) \$US'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	27	895
1.2 Payments for		
(a) research and development	(2,063)	(7,126)
(b) product manufacturing and operating costs	(7)	(546)
(c) advertising and marketing	(1,309)	(3,470)
(d) leased assets	-	-
(e) staff costs	(718)	(2,664)
(f) administration and corporate costs	(441)	(1,922)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	155	353
1.5 Interest and other costs of finance paid	(24)	(77)
1.6 Income taxes paid	(24)	(115)
1.7 Government grants and tax incentives	389	389
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(4,015)</b>	<b>(14,283)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	(46)	(122)

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$US'000</b>	<b>Year to date (9 months) \$US'000</b>
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-
<b>2.2 Proceeds from disposal of:</b>		
(a) entities	-	-
(b) businesses	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) intellectual property	-	-
(f) other non-current assets	-	-
<b>2.3 Cash flows from loans to other entities</b>	-	-
<b>2.4 Dividends received (see note 3)</b>	-	-
<b>2.5 Other (provide details if material)</b>	-	-
<b>2.6 Net cash from / (used in) investing activities</b>	<b>(46)</b>	<b>(122)</b>

<b>3. Cash flows from financing activities</b>		
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	53	1,010
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(15)	(48)
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	(101)	(235)
- Funds received from shareholders on exercise of options	121	121
<b>3.10 Net cash from / (used in) financing activities</b>	<b>58</b>	<b>9,059</b>

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$US'000</b>	<b>Year to date (9 months) \$US'000</b>
<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	21,825	23,165
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(4,015)	(14,283)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(46)	(122)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	58	9,059
4.5 Effect of movement in exchange rates on cash held	(6)	(3)
<b>4.6 Cash and cash equivalents at end of period</b>	<b>17,816</b>	<b>17,816</b>

<b>5. Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$US'000</b>	<b>Previous quarter \$US'000</b>
5.1 Bank balances	17,776	21,783
5.2 Call deposits	40	42
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
<b>5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>17,816</b>	<b>21,825</b>

<b>6. Payments to related parties of the entity and their associates</b>	<b>Current quarter \$US'000</b>
6.1 Aggregate amount of payments to related parties and their associates included in item 1	276
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.*

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$US'000</b>	<b>Amount drawn at quarter end \$US'000</b>
<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	686	-
7.3 Other (please specify)	-	-
<b>7.4 Total financing facilities</b>	<b>686</b>	<b>-</b>
<b>7.5 Unused financing facilities available at quarter end</b>		<b>686</b>
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>		

<b>8. Estimated cash available for future operating activities</b>	<b>\$US'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(4,015)
8.2 Cash and cash equivalents at quarter end (item 4.6)	17,816
8.3 Unused finance facilities available at quarter end (item 7.5)	686
8.4 Total available funding (item 8.2 + item 8.3)	18,502
<b>8.5 Estimated quarters of funding available (item 8.4 divided by item 8.1)</b>	<b>5</b>
<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.

24 October 2023

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.