



BrainChip Holdings Ltd December 2018 Quarter Update

San Francisco, California – January 30, 2019 BrainChip Holdings Ltd. (“BrainChip” or the “Company”) (ASX: BRN), the leading neuromorphic computing company, today provides a market update for the quarter ending 31 December 2018 to accompany the Company’s 4C lodged with the ASX.

Business Update Q4 2018

The Company ended the December quarter with US\$7.5M in cash.

- Total cash outflows for the quarter were US\$2.7M compared to \$2.6M expected in the first quarter of 2019.
- Total cash receipts for quarter were US\$227,000 (approximately AU\$310,000). This amount does not include invoices issued in the quarter that will be paid at a future date.
- The Company retired approximately 39M stock options in 2018 due to forfeiture or expiration.
- The Company is implementing measures to control expenses.

The Company strengthened its Property protection in the December 2018 quarter with the filing of an omnibus provisional U.S. patent application with the United States Patent and Trademark Office (USPTO).

- A core strategy of the Company is to protect its intellectual property as success depends in large part on the ability to establish and maintain the proprietary nature of its foundational technology.
- The filing seeks to protect the many inventions embodied in the Akida Neuromorphic System-on-Chip (NSoC) including the overall NSoC system architecture and its state-of-the-art reconfigurable, low-latency, low-power feature set.

Sales engagements in the quarter included 26 active or pending trials with end-users and original equipment manufacturers (OEMs). Trials are a critical first step toward the ultimate goal of achieving design wins and generating revenue.

- During the quarter, the Company completed a successful trial of BrainChip Studio with a major US-based storage manufacturer and subsequently shipped a BrainChip Accelerator for further evaluation. This is a significant development for potential large-scale deployments.



- The Company has strengthened its sales and reseller presence in both Europe and North America.
 - ION Sales has been contracted to represent the Company in Texas and the surrounding states. ION will be responsible for potential major OEM engagements in this market including Dell/EMC and HP.
 - In Europe, the Company has added Telesikring in Denmark and Novo in Greece and Cyprus, which are leaders in their respective markets.
 - The Company intends to continue to build the reseller organization throughout Europe as well as the manufacturer's representative organization in North America. This is an important part of the Company's sales strategy as it provides significant leverage to the organization with a low cost of sales.

GPI product development reached several significant milestones in the quarter.

- The BrainChip vision system for Blackjack and Baccarat has been integrated into GPI's automated table solution (ATS™).
- Enhancements and added features are expected to continue throughout the first quarter of 2019.
- GPI is currently demonstrating ATS to major gaming operators in North America and Asia.
- GPI's board of directors agreed to be acquired by Angel Koda of Kyoto, Japan in the fourth quarter of 2018. The commercial agreement with GPI has been delayed during the acquisition's due diligence period. However, development and productizing efforts continue unabated.
- The Company will continue to update the market on significant developments regarding GPI.

The audit of SNTech books and records in the December 2018 quarter proved unsatisfactory with respect to disclosures.

- The Company filed a Freedom of Information Act (FOIA) request with the Lockport School District to secure detailed information regarding this transaction.
- Lockport responded to the FOIA on 9 January 2019 and indicated that they would provide information pertaining to the request.
- The Company will continue to update the market on significant developments regarding SNTech.



BC Studio/Accelerator OEM Customer Engagements

- Quantum Corporation continues to market BrainChip Studio to their customers in two primary vertical markets, which are Media and Entertainment (M&E) and Surveillance.
 - The Company will visit several major M&E production companies with Quantum during the first quarter of 2019.
 - In surveillance, the joint sales effort is currently pursuing a Smart City project in Asia.
- Veritone is completing the integration of BrainChip Studio and intends to make it available on their aiWare platform.
 - The aiWare platform is a cloud-based video storage product with video analytic tools, which will include BrainChip Studio among them.
 - The Company's pattern and object recognition product provide Veritone with the capability to search vast amounts of video content, create metadata and provide their customers a unique service to reduce cost and increase throughput.
 - The Company's arrangement with Veritone provides BrainChip with potential revenue resulting from the frequency and duration with which Veritone customers use the BrainChip Studio tool.
- Safran has completed a tender offer for a vision system applied to manufacturing inspection and an award is expected for broad deployment of this system. Should BrainChip be selected in this process, the Company would have the opportunity to earn revenue from licenses sold.
- Video Management System (VMS) engagements are continuing.
 - The Company previously announced an expected agreement with a major VMS provider by the end of 2018. This agreement is in progress and while not yet executed, the supplier is currently marketing BrainChip Studio in conjunction with their VMS for video analytics in surveillance systems in North America.
 - The Company recently entered into a partnership agreement with Milestone, one of the leading global VMS providers, to enable integration of BrainChip Studio with Milestone's VMS
 - VMS partners represent a unique point of leverage in the sales process for surveillance systems and provides BrainChip Studio and Accelerator potential large scale OEM



opportunities without the burden of individual sales engagements.

While the sales cycle is longer than earlier expected, End-User engagements for BrainChip Studio continue to grow in number.

- The Company currently has active or pending trials in Denmark, Spain, France and the UK, as well as North American law enforcement and federal agencies in California, New York and New England.
- Typical use cases being explored include law enforcement for “suspects of interest”, homeland security for anti-terrorism and border security, and investigation of child exploitation.

Akida™ Market Focus

- Akida is a Neuromorphic System-on-Chip (NSoC) that includes both Inference (Deep Learning) and Autonomous Learning in a single low-power, low-latency and low-cost integrated circuit. As a result, the Akida device provides competitive advantage in the advance of Artificial Intelligence for edge applications.
- Edge applications include use cases where data is acquired by a variety of transducers and a benefit is derived by processing the information at the transducer, rather than sending all data to an enterprise data center or cloud for processing.
- The primary applications for edge AI are in vision systems and the Internet-of-Things.
 - Advanced Driver Assisted Systems (ADAS),
 - Vision Guided Robotics
 - Drones
 - Surveillance cameras
 - Smart Transducers

Akida Customer Engagements

- The Company has established early engagements with vision sensor manufacturers, automobile manufacturers for ADAS and AV, as well as first-tier module suppliers to the automotive industry in Europe and North America.
- As the Akida Development Environment (ADE) and Akida learning rules mature, discussions are planned with major Smart Transducer and IoT manufacturers.



- The Company has on-going dialogue and potential use cases in laptop computers as well as cellphones that could procure intellectual property (IP) for integration into their own NSoCs. These transactions are important because they have the potential to provide revenue from Akida IP in advance of the NSoC release.

Akida Product Development Update

- The Akida architecture and development environment were announced in late 2018 and have received significant interest, with over 20 articles globally highlighting the innovation (refer to the Company's website to view recent publications).
- The ADE fully simulates Akida and allows customers to develop solutions in advance of product availability.
- The Akida NSoC is expected to be available in the second half of 2019.

Human Resources Update

- Headcount at December 2018 was 36.
- Approximately 80% of the Company's workforce is in engineering development and research.
- The Company's design center in California employs 16.
- The design center in Toulouse, France employs 14.
- The balance of the workforce is located in Silicon Valley or sales and marketing people in field locations.
- The Company has a priority on hiring a senior finance executive that will be responsible for financial planning & reporting, general accounting, treasury, tax, audit and investor relations.
- The Company is committed to filling the position of Non-Executive Chairman and the current interim Non-Executive director role. The Company is engaged in an active process with a goal to conclude before its AGM.

Regarding the organization and communication with investors, the Company is evaluating several significant changes including the separation of sales and marketing, the separation of applied and advanced research, a transition to partner relationships for end-user sales, an enhanced branding campaign for the Akida launch and an improved communication strategy for investor relations. Further, the Company is evaluating locations for an Akida Innovation Center.



In conclusion, BrainChip Studio revenue opportunities continue to grow and the Company will allocate resources to support closure on current engagements. The Akida development is moving through design and into production for second half 2019 and the Company is committed to the introduction of an Akida product that incorporates technology which benefits our customer with a high-performance, low-power NSoC for inference and autonomous learning in high-volume edge applications.



About BrainChip Holdings Ltd (ASX:BRN)

BrainChip Holdings Ltd. is the leading provider of neuromorphic computing solutions, a type of artificial intelligence that is inspired by the biology of the human neuron. The Company's revolutionary new spiking neural network technology can learn autonomously, evolve and associate information just like the human brain. The proprietary technology is fast, completely digital and consumes very low power. The Company provides software and hardware solutions that address the high-performance requirements in civil surveillance, gaming, financial technology, cybersecurity, ADAS, autonomous vehicles, and other advanced vision systems. www.brainchip.com

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