ASX Announcement

Update for the June 2019 Quarter

- Introduction of Akida™ Intellectual Property for Licensing to ASIC Suppliers
- Introduction of a Neural Network Converter for CNN to SNN translation
- Execution of Definitive Agreement with Socionext for Akida Development and Manufacturing
- Convertible Note issued, to raise US$2.85M
- Entitlement Offering Raised A$10.7M

Sydney, Australia – 30 July 2019: BrainChip Holdings Ltd (ASX: BRN), the leading AI Edge company, today provides the following update for the quarter ending 30 June 2019, to accompany the Company's 4C lodged with the ASX.

The Company ended the March quarter with US$5.5M in cash. On 22 July 2019, the Company had US$12.5M in cash. Total cash outflows for the quarter were US$2.1M. For the September 2019 quarter forecast recurring operating expenses are US$2.2M, with a total cash outflow of US$3.1M including third party expenses associated with the Akida device development.

Total cash receipts for the June quarter were US$73,000 (approximately AU$106,000). This amount does not include invoices issued in the quarter that will be paid at a future date. The Company continues to control expenses, primarily employee headcount, while completing the Akida development.

On 26 May 2019, the Company announced the availability of the Akida intellectual property for licensing by companies seeking to incorporate a low-power, small, flexible and accurate neural network into their proprietary Application Specific Integrated Circuits (ASIC).

On 11 June 2019, the Company announced the availability of a powerful neural network converter which enables users to easily convert existing convolutional neural networks (CNNs) to an Akida compatible event-based spiking neural network (SNN). The converter is integrated with the Akida Development Environment (ADE) to provide network conversion and simulation.

On 16 June 2019, the Company executed a Definitive Agreement with Socionext Americas to collaborate on the development of the Akida NSoC and manufacture the device. Wafers will be produced on a 28nm digital process at Taiwan Semiconductor Manufacturing Corporation (TSMC). Socionext, formerly known as the Fujitsu Semiconductor business, is a global leader in Application Specific Integrated Circuits (ASIC) products.

On 25 June 2019, the Company entered into a convertible securities agreement with CST Capital Pty Ltd as trustee of the CST Investments Fund under which BrainChip was advanced US$2.85M. The principal amount may be converted into equity during the loan term, or repaid (if not converted by CST Capital at that time) in 12 months (or up to 30 months, at the Company's election). In addition, the Company issued CST Capital 30,000,000 'collateral shares' for no consideration, which must be returned to the Company at the end of the term (if not converted into equity on the same terms of the loan amount); together with 1,561,279 shares at $0.079/share in payment of the drawdown fee. CST Capital was also issued 21,868,976 options (with a three-year term, and a strike price of $0.117).

On 26 June 2019, the Company announced a 1 for 4 Accelerated Entitlement Offering. A total of approximately A$10.7 million was raised under the Entitlement Offer at a price of $0.06 per shares and net of fees. The retail component of the Entitlement Offer closed on 12 July 2019, and a retail book build was conducted on 16 July 2019 for the shortfall of entitlements not taken up. The institutional component of the entitlement offer closed on 26 June 2019 and raised approximately A$6.7M. The retail entitlement offer raised approximately A$2.8M and was well-supported by BrainChip's eligible retail shareholders. The balance of the raise, approximately A$1.2M, was taken by additional bids from institutions and sophisticated investors. Approximately 179 million new BrainChip shares were issued as a result of the entitlement offer.

The Company is pleased to provide some additional detail and background on the Company's activities below.

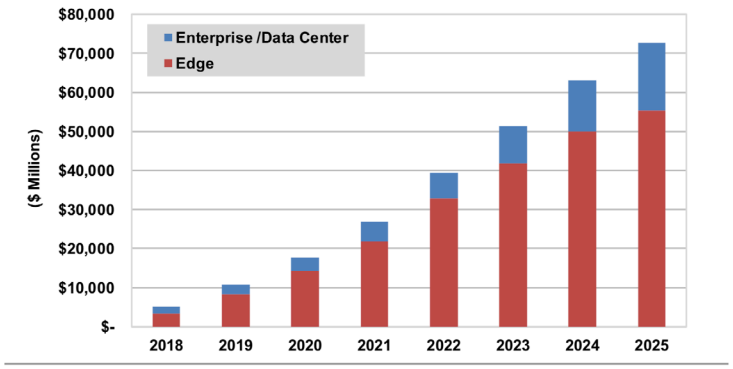
Akida Market Focus

The Company participates in multiple large and high-growth markets with a primary focus on "AI 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 datacenter or cloud for processing. By providing analytics and correlation at the edge an AI enabled edge device reduces system latency, free system bus bandwidth and system processor capacity.

The Akida device is a complete on-chip neural network that includes training and inference for AI Edge applications as well as Edge Learning; an innovation made possible with the Company's Spiking Neural Network (SNN) technology. Edge Learning allows users to continuously learn and add new classifiers to a previously trained network.

The AI Acceleration Chip Set Market is forecast to grow from roughly US$5B in 2018 to over US$70B in 2025[1]. This forecast includes Central Processing Unit Implementations (CPUs), Graphics Unit Processors (GPUs), Server Accelerators with Field Programmable Gate Array (FPGAs) and dedicated neuromorphic integrated circuits such as Akida.

Chart 5.8 Deep Learning Chipset Revenue by Market Sector, World Markets: 2018-2025



(Source: Tractica)

AI Edge applications dominate the forecast growth in AI chipsets, with revenue in 2025 of over US$50B. AI Edge applications include; vision systems for surveillance, robotics, drones and automotive, the industrial internet-of-things for acoustic analysis, temperature, pressure, vibration and other measurement and correlation analytics, as well as big data applications in cybersecurity, agricultural technology and financial technology.

Akida Product Roadmap

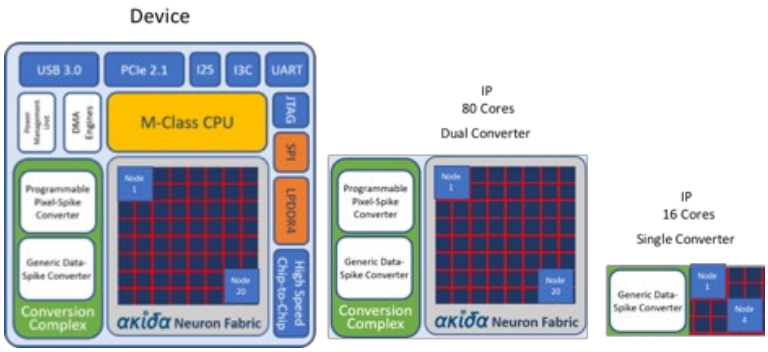
The Company intends to develop and market the Akida technology in multiple forms and evolve the technology over time.

- AKD1000IP User Re-Configurable AI Edge IP for ASIC Integration
- AKD1000 User Re-Configurable AI Edge Device for OEMs and Module Manufacturers
- AKD1000USB User Re-Configurable USB Dongle for Research and Development
- AKD500 Application Specific User Re-Configurable for Low Cost High Volume AI Edge Applications
- AKD2000IP User Re-Configurable Advanced Learning Rules for ASIC Integration
- AKD2000 User-Configurable Advanced Learning Rules Device for OEMs and Module Manufactures

Akida Device and Intellectual Property Licensing

The Akida neural fabric is node oriented and mesh-networked which provides complete scalability. The neural fabric has been developed on a standard 28nm CMOS logic process and is portable to virtually any geometry.

[1] Source Tractica 2018



Akida Engagement Plan and Early Discussions

- Vision sensor manufacturers, module suppliers and automobile manufacturers for Advanced Driver Assistance Systems (ADAS) and Autonomous Vehicles (AV).
- Industrial Internet-of-Things suppliers for preventive maintenance and various edge applications.
- Acoustic analysis for hearing assisted devices in “key word” spotting suppliers.
- Enterprise edge providers in video management and cybersecurity for threat detection.
- Laptop computers and cellphones manufacturers for voice and gesture recognition.

Outlook

The Company is proceeding with the Akida product development and engagements with early access manufacturers to bring a first-in-kind product to market. The Akida NSoC enables AI Edge solutions for high-growth, high-volume applications that have been difficult to achieve with existing AI architectures. The Company competes with other well-financed private companies and time-to-market and performance are paramount for success. The Akida device for AI Edge applications is a major technology advancement and the intellectual property is now available to license.

About BrainChip Holdings Ltd (ASX: BRN)

BrainChip Holdings Ltd is a 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 in a way which mimics the equivalent processes in the human brain. The proprietary technology is fast, completely digital and consumes very low power. The Company provides hardware focused solutions that address high-performance requirements in civil surveillance, gaming, financial technology, cybersecurity, ADAS, autonomous vehicles, and other advanced vision systems. www.brainchipinc.com

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